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Report No: PAD5265

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A  
PROPOSED CREDIT  
IN THE AMOUNT OF SDR 15.3 MILLION  
(US\$20.0 MILLION EQUIVALENT)

AND A  
PROPOSED CREDIT  
IN THE AMOUNT OF SDR 15.3 MILLION  
(US\$20.0 MILLION EQUIVALENT)  
FROM SCALE-UP WINDOW - SHORTER MATURITY LOAN

TO THE  
REPUBLIC OF CABO VERDE  
FOR AN  
IMPROVING CONNECTIVITY AND URBAN INFRASTRUCTURE IN CABO VERDE PROJECT

OCTOBER 31, 2023

Transport Global Practice  
Western And Central Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2023)

Currency Unit = SDR

SDR 0.760 = US\$1

## FISCAL YEAR

January 1 - December 31

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## ABBREVIATIONS AND ACRONYMS

AAL	Average Annual Loss
AC	Adaptation Contribution
AM	Accountability Mechanism
ASA	Advisory Services and Analytics
CERC	Contingent Emergency Response Component
CO <sub>2</sub>	Carbon Dioxide
CPF	Country Partnership Framework
DNP	Directorate of National Planning ( <i>Direcção de Planeamento Nacional</i> )
ECV	Road Agency of Cabo Verde ( <i>Estradas de Cabo Verde</i> )
EIRR	Economic Internal Rate of Return
ESCP	Environmental and Social Commitment Plan
E&S	Environmental and Social (E&S)
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESRS	Environmental and Social Review Summary
FM	Financial Management
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GoCV	Government of Cabo Verde
GRID	Green, Resilient and Inclusive Development
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
IBRD	International Bank for Reconstruction and Development
ICR	Implementation Completion and Results Report
ICV	Infrastructures of Cabo Verde ( <i>Infraestruturas de Cabo Verde</i> )
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Un-audited Financial Reports
INGT	National Institute for Territorial Management ( <i>Instituto Nacional de Gestão do Território</i> )
IPF	Investment Project Financing
LMP	Labor Management Procedures
M&E	Monitoring and Evaluation
MC	Mitigation Contribution
MIOTH	Ministry of Infrastructure, Territorial Planning and Housing ( <i>Ministério das Infraestruturas, Ordenamento do Território e Habitação</i> )
MIRR	Modified Internal Rate of Return
MTR	Mid Term Review
NAP	National Adaptation Plan
NBS	Nature-Based Solutions
NDC	Nationally Determined Contribution

NPP	National Procurement Procedures
NPV	Net Present Value
PAD	Project Appraisal Document
PDO	Project Development Objective
PEDS	Strategic Plan for Sustainable Development ( <i>Plano Estratégico de Desenvolvimento Sustentável</i> )
PforR	Program for Results (World Bank financing instrument)
POM	Project Operations Manual
PPA	Project Preparation Advance
PPP	Purchasing Power Parity
PPSD	Project Procurement Strategy for Development
PRRA	Rehabilitation and Accessibility Program ( <i>Programa de Requalificação, Reabilitação e Acessibilidade</i> )
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
RSSAT	Road Safety Screening and Appraisal Tool
SEA	Sexual Exploitation and Abuse
SEMAC-EN	Road Maintenance Services of ECV ( <i>Serviços de Manutenção Corrente em Estradas Nacionais</i> )
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SIDS	Small Island Developing State
SOE	State-Owned Enterprise
SPC	Shadow Price of Carbon
STEP	Systematic Tracking of Exchanges in Procurement
SUW - SML	Scale-Up Window – Shorter Maturity Loan
TA	Technical Assistance
ToR	Terms of Reference
TSRP	Transport Sector Reform Project
UA	Universally Aligned
UGPE	Special Projects Management Unit ( <i>Unidade de Gestão de Projetos Especiais</i> )



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**DATASHEET****BASIC INFORMATION**

Project Beneficiary(ies)	Operation Name		
Cabo Verde	Improving Connectivity and Urban Infrastructure in Cabo Verde		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P178644	Investment Project Financing (IPF)	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 checked="" 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"/> Alternative Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
21-Nov-2023	31-Dec-2028
Bank/IFC Collaboration	
No	

**Proposed Development Objective(s)**

To improve access to climate-resilient transport and urban infrastructure for selected project areas in the Recipient's territory.

**Components**



Component Name	Cost (US\$)
Enhancing Resilient Urban and Community Infrastructure	12,000,000.00
Enhancing Transport Connectivity and Resilience	21,000,000.00
Technical Assistance	5,300,000.00
Project Management	1,700,000.00
Contingent Emergency Response Component (CERC)	0.00

### Organizations

Borrower:	Republic of Cabo Verde
Implementing Agency:	Ministry of Finance, Ministry of Infrastructures, Territorial Planning, and Housing (MIOTH), Special Projects management Unit (Unidade de Gestão de Projetos Especiais, UGPE)

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

#### Maximizing Finance for Development

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

### SUMMARY

Total Operation Cost	40.00
Total Financing	40.00
of which IBRD/IDA	40.00
Financing Gap	0.00

### DETAILS

#### World Bank Group Financing

International Development Association (IDA)	40.00
IDA Credit	20.00
IDA Shorter Maturity Loan (SML)	20.00

**IDA Resources (US\$, Millions)**

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
National Performance-Based Allocations (PBA)	20.00	0.00	0.00	0.00	20.00
Scale-Up Window (SUW)	0.00	0.00	20.00	0.00	20.00
<b>Total</b>	<b>20.00</b>	<b>0.00</b>	<b>20.00</b>	<b>0.00</b>	<b>40.00</b>

**Expected Disbursements (US\$, Millions)**

WB Fiscal Year	2024	2025	2026	2027	2028	2029
Annual	1.30	6.00	11.00	10.00	8.00	3.70
Cumulative	1.30	7.30	18.30	28.30	36.30	40.00

**PRACTICE AREA(S)****Practice Area (Lead)**

Transport

**Contributing Practice Areas**

Urban, Resilience and Land

**CLIMATE****Climate Change and Disaster Screening**

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

**SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)**

Risk Category	Rating
---------------	--------





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

## POLICY COMPLIANCE

### Policy

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

☐ Yes ☒ No

Does the project require any waivers of Bank policies?

☐ Yes ☒ No

## ENVIRONMENTAL AND SOCIAL

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

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant
ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant



ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

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

## LEGAL

### Legal Covenants

#### Sections and Description

Financing Agreement Schedule 2 Section I A 3 Project Steering Committee: The Recipient, through MFFE shall establish no later than one month after the Effective Date and thereafter maintain throughout the implementation of the Project, the Project Steering Committee in charge of the overall strategy for the Project including the approval of the Annual Work Plans, to be led by MFFE, through DNP, with quarterly meetings and with representatives from MIOTH, UGPE, UASE, ICV, ECV and INGT, with adequate mandate, facilities, staffing and other resources satisfactory to the Association, as further detailed in the Project Operations Manual.

Financing Agreement Schedule 2 Section I C 1: Without limitation to the obligations set forth in Section I.B above, the Recipient shall carry out the Project in accordance with Annual Work Plans to be prepared and furnished to the Association no later than November 30 of each calendar year during the implementation of the Project (the first such Annual Work Plan being due one month after the Effective Date), and containing all activities proposed for inclusion in the Project for the next calendar year, including: (a) detailed timetables for the sequencing and implementation of proposed Project activities; (b) types of expenditures required for such activities and a proposed financing plan and sources of funding for such expenditures; and (c) any Operating Costs or Training that may be required under the Project.

Financing Agreement Schedule 2 Section I D 1. To facilitate the carrying out of Parts 1 and 2 of the Project, the Recipient through MIOTH shall, no later than three (3) months after the Effective Date, enter into Cooperation Agreements with ICV and ECV, and thereafter maintain said Cooperation Agreements during the implementation of the Project, on terms and conditions acceptable to the Association, including, inter alia: (a) ICV's and ECV's obligation to hire or appoint a focal point and a procurement specialist for each institution; and (b) the Recipient's obligation to make parts of the proceeds of the Financing allocated to Category (1) available to ICV and ECV in order to assist the Recipient in the carrying out Parts 1 and 2 of the Project in accordance with the Anti-Corruption Guidelines, the Procurement Regulations, the ESCP and the Project Operations Manual.

Financing Agreement Schedule 2 Section IV A. The Recipient has hired an internal auditor for the Project not later than three (3) months after the Effective Date and an external auditor for the Project not later than six (6) months after the Effective Date.



Financing Agreement Schedule 2 Section IV B. The Recipient, through UGPE, has hired not later than three (3) months after the Effective Date, a social risk management specialist with terms of reference, capacity and qualifications acceptable to the Association for the UGPE.

Financing Agreement Schedule 2 Section IV C. The Recipient, through MIOH, has hired or appointed not later than six (6) months after the Effective Date, a social risk management specialist and an environmental risk management specialist for the Implementation Team with terms of reference, capacity and qualifications acceptable to the Association, as further detailed in the POM.

Financing Agreement Schedule 2 Section IV D. MIOH and UGPE have signed a memorandum of understanding to cover, inter alia, the support on the social and environmental risk management aspects under the Project, not later than three (3) months after the Effective Date.

Financing Agreement Section I E 8 of Schedule 2: 8. The Recipient shall prepare, consult upon, adopt no later than two months after Effective Date, and thereafter maintain an action plan against sexual exploitation and abuse/sexual harassment, in form and substance satisfactory to the Association.

#### Conditions

Type	Citation	Description	Financing Source
Effectiveness	Section 4.01 (a) of the Legal Agreement (Conditions of Effectiveness)	The Recipient has adopted the Project Operations Manual in form and substance satisfactory to the Association.	IBRD/IDA
Effectiveness	Section 4.01 (b) of the Legal Agreement (Conditions of Effectiveness)	The Implementation Team has been established with adequate mandate, facilities, and key staff (Project manager and procurement specialist); all in a manner acceptable to the Association.	IBRD/IDA
Effectiveness	Section 4.01 (c) of the Legal Agreement (Conditions of Effectiveness)	The UGPE has been given an adequate mandate with facilities and key staff (Project focal point, procurement specialist, and financial management specialist); all in a manner acceptable to the Association.	IBRD/IDA
Effectiveness	Section 4.01 (d) of the Legal Agreement (Conditions of Effectiveness)	The Recipient has adapted its national procurement documents to include specific mandatory clauses	IBRD/IDA



		on the ESSs and the Anti-Corruption Guidelines, in form and substance satisfactory to the Association.	
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## I. STRATEGIC CONTEXT

### A. Country Context

- 1. Cabo Verde's stable political and macroeconomic environment allowed for significant economic and social development in the last decades.** Cabo Verde is an archipelago of ten islands (nine of which are inhabited) located approximately 500 kms off the west coast of Africa. The country's estimated population is 491,233<sup>1</sup>; 74 percent of which live in urban areas. Only about 10 percent of the territory is classified as arable with limited mineral resources. However, despite the arid climate, mountainous terrain, vulnerabilities to climate change, rising sea levels, and natural disasters (including an active volcano on Fogo Island), the country has developed rapidly, with a positive track record that led the country to graduate to lower middle-income status by 2008<sup>2</sup>. Largely due to the growth of the tourism sector, gross domestic product (GDP) per capita increased between 2015 and 2022 from US\$3,169 to US\$3,902<sup>3</sup>. Poverty rate, measured by the US\$1.9 a day poverty line, went from 22.6 percent in 2015 to 11.1 percent in 2022, despite the COVID-19 pandemic<sup>4</sup>.
- 2. Cabo Verde has made substantial economic progress since the COVID-19 crisis, with a 17.7 percent real GDP growth in 2022, surpassing pre-pandemic per capita income levels<sup>5</sup>.** The growth was driven primarily by accommodation, transport, commerce, exports (mainly tourism), and private consumption<sup>6</sup>. However, the reduction in poverty was only modest, decreasing by 0.8 percentage points<sup>7</sup>, due to post-pandemic inflation and food insecurity caused by five years of drought and low agricultural production<sup>8</sup>. In December 2022, headline inflation reached 7.9 percent. The country's economy is expected to grow by 4.8 percent in 2023, with private consumption, investment in tourism and the blue economy as key drivers, while the need to expand the agriculture sector is emphasized, given that 75 percent of food is imported, making the country vulnerable to external economic shocks like global inflation and geopolitical events such as Russia's invasion of Ukraine.
- 3. Cabo Verde is frequently impacted by natural hazards and climate change poses unprecedented threats to the archipelago.** Due to its geography and topography, the country is particularly exposed to a wide range of natural hazards, including land desertification and persistent droughts, occasional but severe rainfall events and flash floods, landslides and rock-falls, coastal erosion, and inundation due to high storm surge and sea level rise. Although Cabo Verde is a volcanic island, the risk of volcano eruption and of earthquakes is rated as low and very low, respectively. Similarly, the risk of cyclones is considered low with one category I hurricane since 1892.<sup>9</sup> Factors such as rapid rural-urban and inter-island migration, continuous land degradation, persistent poverty (especially among the rural population), and high indebtedness further exacerbate the country's vulnerability to such climate and natural threats. For instance, the country's low-lying coastlines, vital for the local tourism industry and home to approximately 80 percent of the population, are highly prone to coastal flooding and erosion from storm surge and rising sea levels.<sup>10</sup>

<sup>1</sup> INE Census 2021.

<sup>2</sup> World Bank. 2019. *Cabo Verde Public Expenditure Review: Revisiting the Efficiency of Public Spending to Reduce Debt and Improve Education and Health Outcomes*. Washington, DC: World Bank.

<sup>3</sup> [World Bank Data](#), as of October 30, 2023

<sup>4</sup> National Institute of Statistics (*Instituto Nacional de Estatísticas* [INE](#)) 2015-2022 data.

<sup>5</sup> World Bank, May 2023. Cabo Verde: Country Economic Update.

<sup>6</sup> World Bank, May 2023. Cabo Verde: Country Economic Update.

<sup>7</sup> Poverty rate fell from 20.1 percent in 2021 to 19.3 percent in 2022 (using US\$3.65 per-day-2017 PPP), reaching the poverty levels of 2015.

<sup>8</sup> World Bank, May 2023. Cabo Verde: Country Economic Update.

<sup>9</sup> Disaster Risk Profile: Cabo Verde; GFDRR, World Bank Group; 2019. URL: <https://documents1.worldbank.org/curated/en/523961573390033686/pdf/Disaster-Risk-Profile-Cabo-Verde.pdf>

<sup>10</sup> Government of Cabo Verde. 2021. *2020 Update to the first Nationally Determined Contribution (NDC)*. Praia, Cabo Verde. Available at: [https://www.greengrowthknowledge.org/sites/default/files/downloads/policy-database//Cabo%20Verde\\_NDC%20Update%202021.pdf](https://www.greengrowthknowledge.org/sites/default/files/downloads/policy-database//Cabo%20Verde_NDC%20Update%202021.pdf)



Nearly 30 percent of the country's population is exposed to flash floods that result in landslides throughout the islands,<sup>11</sup> and on average, about US\$2 million of agricultural income is expected to be lost annually due to drought.<sup>12</sup> Over the long term, climate change could erode the archipelago's natural capital, road and urban infrastructure, and further impact access to jobs, markets, and basic services like health and education, impact agriculture and food security, the tourism and blue economy sectors.

4. **Cabo Verde has made commendable progress towards achieving gender equality. Nonetheless, there is still more work to be done to ensure that women have equal access to resources, opportunities, and decision-making power in all spheres of life.** The country ranks 84th out of 170 countries on the 2021 Gender Inequality Index, mainly based on its indicators on education, health, and political representation.<sup>13</sup> However, there are still gender gaps in terms of access to economic opportunities and participation in decision-making. As of 2022 data, female labor force participation rate stands at 49.9 percent, while male participation is at 62.6 percent, compared to a regional average of 60.9 percent and 72.7 percent, respectively. A study conducted in 2015 showed that Cabo Verdean households are increasingly headed by women (48 percent in 2015 compared to 40 percent in 2000), albeit also highlighting the high poverty levels in such households.<sup>14</sup>

## B. Sectoral and Institutional Context

5. **Cabo Verde's lack of resilient transport and urban infrastructure makes its population and economy highly vulnerable to natural hazards and climate change impacts.**<sup>15</sup> In Cabo Verde, Annual Average Losses (AAL) resulting from natural hazards and climate change related events have been estimated at almost 1 percent of the country's GDP (US\$18.2 million). In urban settlements, losses are mainly the result<sup>16</sup> of the combined effects of urban expansion in flood-prone areas and the increase in frequency of extreme events such as heavy rainfall, high storm surge and sea level rise, to which poor households living in precarious neighborhoods are particularly vulnerable. The absence of sufficient rainwater drainage is contributing to increased flood risk on the one hand, and significant freshwater losses in periods of water scarcity. Climate models indicate that such hazards are very likely to be exacerbated by climate change-related disruptions in the next decades.<sup>17</sup> Critical transport infrastructure such as roads and bridges are increasingly exposed to higher temperatures, longer drought periods, and heavy rainfall events and storms that can result in floods, landslides, and rock falls. These events cause major damage and losses of road assets, road closures and loss of connectivity that in turn cause travel delays and disrupt economic activities (businesses logistics) and leave communities stranded. It also results in increased infrastructure maintenance and rehabilitation costs, along with higher overall transport expenses.<sup>18</sup>

11 <https://blogs.agu.org/landslideblog/2009/09/22/rainfall-disaster-in-the-cape-verde-islands/>

12 World Bank (2019). Cabo Verde Disaster Risk Profile.

13 UNDP Human Development Reports. "Gender Inequality Index (GII)." <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII> <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII> <https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII> and Cabo Verde: Perfil de Genero do Pais: <https://www.afdb.org/fr/documents/cabo-verde-perfil-de-genero-do-pais-janeiro-2018>

14 UN Women. (2018). Cabo Verde: Gender Country Profile: <https://www.unwomen.org/en/digital-library/publications/2018/1/country-gender-profile-cabo-verde>

15 World Risk Report 2022; Ruhr Universität Bochum. URL: [WorldRiskReport-2022\\_Online.pdf](https://www.wri.org/publications/2022/01/world-risk-report-2022-online) (weltrisikobericht.de) [WorldRiskReport-2022\\_Online.pdf](https://www.wri.org/publications/2022/01/world-risk-report-2022-online) (weltrisikobericht.de)

16 World Bank, May 2023. Cabo Verde: Country Economic Update.

17 National Adaptation Plan of Cabo Verde; July 2021 (English). [https://unfccc.int/sites/default/files/resource/NAP\\_Cabo%20Verde\\_EN.pdf](https://unfccc.int/sites/default/files/resource/NAP_Cabo%20Verde_EN.pdf)

18 Consultancy Services for Climate Change and Natural Hazard Vulnerability and Risk Assessment, Climate Resilience and Adaptation Strategy for Cabo Verde Road Network: Volume 1; August 2020; Finish Overseas Consultants Ltd.



6. **With 67 percent of the population living in urban areas,<sup>19</sup> Cabo Verde is one of the most urbanized countries in Africa. However, this urbanization has taken place without adequate spatial planning and sufficient access to basic infrastructure and services.** Urbanization has been a constant trend in Cabo Verde since 1950, while accelerating in the 1980s. By 1998, the share of the population living in urban areas surpassed that of rural areas.<sup>20</sup> Migration from rural areas to cities has been mainly driven by droughts and the recent tourism boom, particularly on islands like Sal and Boa Vista. While there is notable variation in urbanization rates across municipalities, urban populations on all islands (except Brava and Fogo) currently exceed rural populations.<sup>21</sup> Over the next decade, the rate of urban population growth is expected to be almost twice the national population growth rate (1.97 against 1.15 percent per year) resulting in over 74,000 new urban dwellers. However, the rapid horizontal expansion of cities and the emergence of peripheral neighborhoods in most islands has been accompanied by an unequal expansion of urban infrastructure, with half of urban households still lacking access to basic services.<sup>22</sup> For instance, in the capital Praia, nearly a quarter of the population lives in informal settlements, located near unpaved streets, and lacking access to public spaces and infrastructure, such as street lighting and drainage. Within the urban environment, inequality is particularly significant in the most touristic cities in which revenue generated in the tourist centers is not ‘cascading’ to the people living in the outskirts of the city and working for the tourist industry.
7. **Poor and costly connectivity within islands hinders territorial development.** The fragmented islands territory in Cabo Verde requires the duplication of major infrastructure, such as backbone road network, ports, and airports, increasing the investment and maintenance costs burden on national budget. In addition, the unique topography, characterized by steep slopes and unstable terrain prone to landslides and rock falls, combined with vulnerabilities to climate change and natural hazards result in high construction (higher per km density of bridges, hydraulic structures, retaining walls, etc.), and maintenance costs. Intra-island connectivity relies primarily on the road network, which spans approximately 1,650 km, of which two thirds are national roads and one third municipal roads.<sup>23</sup> Road surface varies significantly, ranging from earth and gravel, cobblestone, to asphalt, with one-quarter of the road network being unpaved.
8. **Poor inter-island connectivity is another constraint to territorial development.** Inter-island connectivity is very critical to the integration of fragmented markets. Inter-island freight represents a large share of the national cargo (recorded inter-island cabotage represents 38 percent of national cargo throughput of around one million tons yearly). The World Bank 2023 Country Economic Memorandum for Cabo Verde states that inter-island logistics service delivery remains suboptimal. Shipping services could offer better value for money, maritime infrastructure (ports, shipyard) could be more efficient and the enabling environment should be revised (tariffs, regulatory bodies)<sup>24</sup> to support inter-island connectivity and trade for greater territorial development.
9. **Inter-island connectivity is currently mainly provided by State-Owned Enterprises (SOE) or through Public Private Partnership (PPP) contracts.** The Transport Sector Reform Project (TSRP, P156859) provided the groundwork for SOE reform, including (i) the privatization of the national airline company, even if it was renationalized during COVID-19

<sup>19</sup> World Development Indicators (2021). Variable: Urban Population (% of total, SP.URB.TOTL.IN.ZS).

<sup>20</sup> Census 2021 & United Nations Cabo Verde.

<sup>21</sup> Urbanization has not happened evenly throughout the country. Islands such as Santo Antão, São Nicolau, and Brava endured a population decline between 1992 and 2016, while Sal (96 percent urban), São Vicente (94 percent urban), and Boa Vista (86 percent urban) experienced an increase of more than 300 percent caused by a concentration of economic growth fostered by tourism.

<sup>22</sup> As per the SDG indicator 1.4.1 measuring the share of households with access to all basic services, including drinking water, sanitation, hygiene, energy, mobility, waste collection, health care, education, and information technologies.

<sup>23</sup> The road network is divided into three road classes and rural roads, with 1st class roads making up 34 percent of the network, 2nd class roads 3 percent, 3rd class roads 56 percent and rural roads 7 percent.

<sup>24</sup> See recommendations of the 2023 Country Economic Memorandum, in particular chapters 3 and 5.





pandemic period; and (ii) the concessioning of Cabo Verde Inter-ilhas for maritime inter-island connectivity. The SOE Related Fiscal Management Project (P160796) was supporting these until September 30, 2023.

10. **Poor connectivity and lack of adequate urban and territorial infrastructure is affecting tourism as a key economic and job creating sector.** Tourism is the second major economic sector in Cabo Verde after fishery, accounting for 25 percent of the GDP and driving about 40 percent of the overall economic activity and employing more than 93,000 people. However, the sector's growth has been constrained by inefficient connectivity, such as the lack of reliable inter-island ferry services, poor road access to remote tourist sites, and lack of adequate urban infrastructure in historic centers. The challenges posed by poor, costly, and unreliable connectivity services not only hinder tourism diversification beyond the two main islands (Sal and Boa Vista) but also prevent the development of local supply chains that are crucial for catering to the tourism market (including the development of the fisheries sector). Improving connectivity is essential for developing local opportunities and providing access to markets for local businesses. The 2019 Global Competitiveness Index (GCI) report published by the World Economic Forum ranked Cabo Verde 97th out of 141 economies in terms of infrastructure,<sup>25</sup> potentially limiting private sector investment returns. While the tourism industry is increasing the need for sustainable infrastructure development, it also presents an opportunity for economic growth and for improving the livelihoods of the local population.
11. **Poor connectivity of the rural settlements hinders the modernization of agriculture as the rural population's main source of employment and income and their access to vital social services for human capital development.** The lack of access of rural settlements to climate-resilient transport infrastructure, such as all-seasons roads, is a major impediment to the attraction of investment in the modernization of agriculture as the populations' main employment and source of income. The unreliability of transport often results in increased costs of inputs as well as the loss of perishable products before reaching markets.
12. **In Cabo Verde, women's representation has improved since the adoption of the Parity Lay of 2019, however there are still areas of opportunity at the municipal level and challenges to address in terms of gender disparity.** It is estimated that expanded and accessible transport infrastructure is a key need for half of poor Cabo Verdean women to decrease their time spent on unpaid care work and improve their mobility to pursue productive work.<sup>26</sup> In Praia, for instance, walking conditions vary across neighborhoods with different income levels and urbanization.<sup>27</sup> Low-income neighborhoods in lowest urbanized areas have the lowest provision of pedestrian infrastructure, and lowest accessibility to jobs.<sup>28</sup> There exist new informal/ clandestine settlements that remain off the bus grid and some areas are several kilometers away from the nearest bus stop.<sup>29</sup> The Parity Law prescribes a minimum representation of 40 percent for both sexes. Currently out of 72 seat, 40 percent are women, and in the direct Public Administration, the presence of women is higher than that of men (54.6 percent against 45.4 percent).<sup>30</sup> However, at the municipal level, only 1 and 9 out of 22 presidents of the City Councils and Municipal Assemblies, respectively, are women.<sup>31</sup> This seems to be due to men having more political capital and dominating local structures of power, as well as other elements related to gender norms and time poverty.<sup>32</sup> Finally, there is low level of higher education of employees in

<sup>25</sup> This ranking considers several factors, such as the quality of roads, ports, and airports, the availability of electricity and other basic services, and the extent of mobile phone and internet use.

<sup>26</sup> African Development Bank Group, 2018. Cabo Verde Country Gender Profile. <https://www.afdb.org/en/documents/cabo-verde-country-gender-profile-2018>

<sup>27</sup> Paulo Rui Ancaes, Judite Nascimento, Salif Silva, 2017. <https://doi.org/10.1016/j.cities.2017.04.008>

<sup>28</sup> Ibidem.

<sup>29</sup> Paulo Rui Ancaes, Judite Nascimento, Salif Silva, 2017. <https://doi.org/10.1016/j.cities.2017.04.008>

<sup>30</sup> Ministerio da Familia, Inclusao e Desenvolvimento Social. (2022). *Estudo sobre perfil de genero na administracao publica em Cebo Verde*.

<sup>31</sup> Data provided by Organização das Mulheres de Cabo Verde.

<sup>32</sup> Ministerio da Familia, Inclusao e Desenvolvimento Social. (2022). *Op. Cit.*





Local Administration, especially women, which limits the possibilities of aspiring to important positions in management<sup>33</sup> or political leadership at the municipal level.

13. **In 2017, the Government of Cabo Verde initiated the Regeneration, Rehabilitation and Accessibility Program (PRRA)** with a US\$110 million budget to address territorial inequalities by enhancing urban and rural infrastructure and services, promoting inclusive economic growth, improving the quality of life, and bolstering sustainability and resilience, aligned with Sustainable Development Goal 11. Despite the challenges of the COVID-19 pandemic, the first phase of PRRA produced positive results, including the restoration of 15 cultural facilities, redevelopment of over 60 hectares of urban and rural areas, upgrading 100 km of rural roads, and rehabilitating nearly 2,000 houses by 2022, leading the government to prioritize the program as a key means to bridge local and regional disparities. As PRRA nears its conclusion, the government is working on the National Infrastructure Plan 2030 (Plan 2030) to identify new priority infrastructure investments, spanning urban and transport sectors, that support the nation's resilient development. The plan involves assessing existing infrastructure gaps on each island and consulting with municipalities to address the needs of vulnerable communities, guiding medium and long-term infrastructure investments in coordination with territorial development plans. The government also aims to continue addressing territorial inequalities by implementing short-term transport and urban infrastructure investments in a proposed project, drawing from a long list of new investments prioritized from both mature PRRA projects disrupted during the pandemic and new interventions designed to unlock and accelerate local and national economic growth, with a focus on resilience to natural hazards and climate change impacts. The proposed project would also continue the efforts made under the recently closed TSRP (P126516), including the need for more road resilience infrastructure.

### C. Relevance to Higher Level Objectives

14. The project is aligned with PRRA discussed above, which was framed within the Government's Strategic Plan for Sustainable Development (*Plano Estratégico de Desenvolvimento Sustentável*, PEDS 2017-2021, and is aligned with the current PEDS 2022-2026.<sup>34</sup> The PRRA is also contributing to the achievement of Sustainable Development Goal 11 (Sustainable Cities and Communities).<sup>35</sup>
15. **The proposed project is aligned with the Country Partnership Framework (CPF) for Cabo Verde (FY20–25).**<sup>36</sup> It supports the priorities of the CPF's objectives: (i) enabling social and productive inclusion, which seeks to create opportunities, particularly vulnerable populations, to participate in the economy and reduce informality; and (ii) improving the foundations for private sector growth, which seeks to improve the availability of key infrastructure and services—including transport and urban infrastructure — to support and attract private investments. Geographical diversification and complementarity of investments between urban and transport sectors constitute a key pivot point to unlock more positive spillovers for development across and within the islands.
16. **The project design leverages the strong partnership between the World Bank and the GoCV in the transport and urban development sectors, and will build on the existing portfolio and Advisory Services and Analytics (ASA), as well as seek synergies with pipeline projects, to enhance its development impacts.** These include: (i) the TSRP (P126516), approved in 2013, which focused on rural road works and laid the foundation for transport sector SOE

<sup>33</sup> Ibidem.

<sup>34</sup> For more details, see: <https://www.mf.gov.cv/web/mf/-/governo-apresenta-plano-estrategico-do-desenvolvimento-sustentavel-peds-2022-2026>

<sup>35</sup> Through the following intermediate objectives: (i) encourage the rehabilitation of the urban fabric; (ii) improve the quality and attractiveness of cities and towns; (iii) create economic and social value through urban regeneration, rehabilitation and rehabilitation; (iv) create centralities in cities as vital centers for boosting the local economy; (v) improve the quality of life of families and communities; (vi) energize local economies (of the municipalities and islands); and (vii) streamline the civil construction activity and create jobs during the phase of interventions and employment opportunities after the works.

<sup>36</sup> Report number 127164-CV



reform<sup>37</sup> (ii) the Resilient Tourism and Blue Economy Development in Cabo Verde Project (P176981), which finances interventions to boost the tourism potential of selected destinations; (iii) the SOEs Related Fiscal Management Project (P160796), which has promoted investment and reforms in the housing sector; (iv) the Cabo Verde Human Capital Project (P175828), framed within the PRRA, which finances interventions in urban areas of Praia to improve access to basic services for poor and vulnerable households; (v) the Resilient Tourism and Blue Economy Development in Cabo Verde Project (P176981) that benefits from PROBLUE<sup>38</sup> funding and which is contributing with analytical work on markets, digital and circular economy; and (viii) the Cabo Verde Disaster Risk Management Development Policy Financing with Catastrophe Deferred Drawdown Option (Cat DDO) (P160628), which supported the strengthening of the Territorial Planning legal framework.

17. **The project is consistent with the country's Nationally Determined Contributions (NDC)<sup>39</sup> and National Adaptation Plan (NAP).**<sup>40</sup> Through its NDC, the country has pledged to achieve substantial outcomes through five mitigation contributions (MC) and nine adaptation contributions (AC), in the transport and urban infrastructure sectors by. (i) shifting towards responsible tourism and circular economy through the restoration of cultural heritage, and reduction of the need for high-carbon mobility through integrated urban and transport planning and the promotion of cycling and pedestrian lanes (MC4); (ii) using spatial planning as an ally in climate change mitigation and adaptation through urban upgrading of precarious neighborhoods, rehabilitation of historic centers, and rehabilitation of waterfront areas (AC7); and (iii) mitigating climate-related disaster risks by integrating climate resilience considerations into the rehabilitation of rural roads and urban planning/development projects (AC8). The project also contributes to the NAP's pillar "Resilience of the Most Vulnerable" by strengthening coastal protection, prioritizing maintenance works for adaptation of urban areas and transport infrastructure, as well as by promoting nature-based solutions (NBS).
18. **The project includes an IDA credit of SDR 15.3 million as a Scale-Up Window Shorter Maturity Loan (SUW-SML) and is in direct alignment with two of the four pillars of the World Bank COVID-19 framework.**<sup>41</sup> The Republic of Cabo Verde is eligible to receive SUW-SML financing in FY23. The country has successfully implemented its Project Preparation Advance (PPA) in FY22 and the NCB ceiling has not been breached in FY23.
19. **The project also contributes to the objectives of the 2020 New Generation Africa Climate Business Plan (NG-ACBP)<sup>42</sup>, the World Bank's Western and Central Africa Region Priorities 2021-2025 (ACT) and the Green, Resilient and Inclusive Development (GRID) approach.** The project will deliver on the "Resilient Cities and Green Mobility" NG-ACBP strategic direction through the incorporation of climate considerations into infrastructure planning, prioritization, and design to support low-carbon, climate-resilient outcomes, including the development of multisectoral climate-smart urban and transport plans and securing maintenance of climate-resilient African roads. In line with ACT, this project will strengthen human capital and empower women by improving living conditions in selected neighborhoods and prioritizing households headed by women, as well as providing better transport access to health and education for the vulnerable communities, particularly the landlocked rural ones. It will also contribute to rebuilding trust between citizens and the State, by delivering public services to areas that were marginalized and ensuring an effective, equitable and inclusive service delivery. In line with GRID, this project will systemically and simultaneously address the challenges of urban poverty and climate change through targeted investments in urban

<sup>37</sup> The World Bank has been supporting the transport sector in Cabo Verde since July 1993. Before TSRR, the Infrastructure and Transport Project (TIP) was signed in 1993 (Credits IDA-24660 and IDA-24661) and the Road Sector Support Project (Credit Nos. IDA-4064, IDA-4488, IDA-4904, a total of SDR 19.4 million, or US\$29.4 million) in 2005.

<sup>38</sup> Umbrella multi-donor trust fund, administered by the World Bank.

<sup>39</sup> [Cabo Verde 2020 Update to the first Nationally Determined Contribution \(NDC\)](#); February 2021 (English). URL:

<sup>40</sup> [National Adaptation Plan of Cabo Verde; July 2021 \(English\)](#).

<sup>41</sup> [COVID-19 Crisis Response Approach Paper](#), June 2020.

<sup>42</sup> World Bank 2020 Next Generation Africa Climate Business Plan. URL: <https://www.worldbank.org/en/programs/africa-climate-business-plan/reports>



and territorial upgrading, public space enhancement and connectivity to increase the quality of life of the most vulnerable urban residents. In particular, the project will help drive transitions towards low-carbon, sustainable urban development, through green and resilient investments to prevent and prepare for climate change.

## II. PROJECT DESCRIPTION

### A. Project Development Objective

#### PDO Statement

To improve access to climate-resilient transport and urban infrastructure for selected project areas in the Recipient's territory

#### PDO Level Indicators

- Additional people with access to climate-resilient transport infrastructure (percentage)
- Additional people with access to climate-resilient urban (economic and social) infrastructure (percentage)
- Extent of urban areas with enhanced resilience to flooding (square kilometers)
- Additional businesses with access to climate-resilient transport and urban (economic and social) infrastructure (percentage)
- Beneficiary Feedback (satisfactory), of which women (as a sub-indicator) – (percentage)

### B. Project Components

20. **The project is designed as a first phase of a broader collaboration between the GoCV and the World Bank.** The project, and the broader engagement, aim to enhance access to climate-resilient transport and urban infrastructure and services in urban areas and surrounding rural communities. As such, the goal of the project is to build a long-term partnership between the World Bank and the GoCV to comprehensively plan and finance investment in the transport and urban sectors to: (i) strengthen sustainability and resilience to climate change impacts; and (ii) foster inclusive economic growth and improve the quality of life.

21. **While most of the project investments will be selected through the prioritization framework described in the next paragraph, a few investments remaining from the original 2017-2021 PRRA list of mature projects have been selected for implementation as “First Movers”, as well as two road sector investments.**<sup>43</sup> Both the “First Movers” as well as the sub-projects to be prioritized during project implementation have been selected due to their role to reduce climate vulnerability and improve resilience towards more access to basic services and better socioeconomic opportunities. These first movers come either from (i) the short list of remaining PRRA projects that were stalled during the pandemic (for Component 1); or (ii) the long list of new investment needs identified by the government during the preparation of the National Infrastructure Plan 2030 (for Component 2). The first movers are listed in the following table:

**Table 1. First Movers**

ID	Projects	Estimated cost (US\$)	Level of readiness
1	Urban upgrading of Rincão	852,548	Technical studies financed by PPA. Terms of Reference (ToR) prepared
2	Rehabilitation of the urban center of Achada Igreja	905,832	

<sup>43</sup> The project has benefitted from a project preparation advance (PPA) that allows the ESF to be ready and some technical studies to be done to complement / update the existing studies for the First Movers, to explore feasibility of some possible investments under this project, and to start mobilizing the required staff and consultants.



3	Waterfront upgrading of Queimada Guincho	1,278,822	Preliminary designs ready and technical studies to be prepared as soon as the project is effective.
4	Waterfront upgrading of Praia Baixo	745,979	
5	Urban and environmental rehabilitation of Fernando Pó	905,832	
6	Urban and environmental rehabilitation of Covada de Bruxa	799,264	
7	Waterfront upgrading of Tarrafal de São Nicolau	1,278,822	
8	Rehabilitation of the Historical Center of Ribeira Brava	745,979	Infrastructures of Cabo Verde ( <i>Infraestruturas de Cabo Verde</i> , ICV) preparing technical studies ToR.
9	Rehabilitation of the Urban Center of João Teves	852,548	
<b>Sub-total for Component 1</b>		<b>~8.4 million</b>	
10	Road rehabilitation / upgrading Pingo Chuva - Saltos/Arribada	4,553,381	Technical designs ready.
11	Road rehabilitation / upgrading Fundura / Ribeira Barca	3,061,422	
<b>Sub-total for Component 2</b>		<b>~7.6 million</b>	
<b>Total</b>		<b>~16 million</b>	

22. **The remaining investments under Components 1 and 2 will be selected from a long list of investments (some of the investments have already been identified and some will be added as part of the preparation of the National Infrastructure Plan).** The 64 investments identified by the government aim at achieving two main goals: i) reducing climate vulnerability mainly to coastal erosion and inundation due to high storm surges and sea-level rise, flash floods, extreme heat, and climate-induced landslides and rock-falls, extreme heat; and (ii) providing socioeconomic opportunities for communities and vulnerable population. For this initial operation, US\$16.2 million (out of the US\$33 million of Components 1 and 2 after deducting the amounts for the First Movers and for the National Infrastructure Plan), will finance the priority investments within the long list of 64 investments, using the prioritization framework developed jointly between the World Bank and the GoCV. The proposed investments will be individually screened and measured against specific criteria and indicators aimed at measuring their relevance to the achievement of the project development objective (PDO). The Prioritization Framework consists of 20 criteria that are organized into four dimensions aligned with the objectives of the PEDS 2022-2026<sup>44</sup> and the project PDO. These four dimensions are: (i) Social Impact; (ii) Territorial Impact; (iii) Economic Development Impact; and (iv) Resilience Impact. The screening framework (detailed in Annex 3) will be applied to rank the 64 investments (with a total amount of US\$175 million) to prioritize the most critical ones for implementation under this project, in addition to the First Movers. The non selected investments from the long list will be potentially rolled over under the pipeline for future sub-project(s) and under programs directly funded by the government or with support from other development partners.

23. **Recognizing the importance of leveraging synergies among interventions to maximize their impact, the project will also prioritize investments that are spatially integrated and that mutually support resilience to climate vulnerabilities, not only within this project but also with other World Bank financed projects currently under implementation,** such as the Resilient Tourism and Blue Economy Development in Cabo Verde Project (P176981), the Cabo Verde Human Capital Project (P175828), and the PROBLUE Project on Sustainable and Resilient Tourism in Small Islands and Coastal Destinations. In addition, as part of the criteria for social impact, through the creation of women led communitarian Committees, investments that support women's priorities will have favorable weight in the selection of investments.

#### **Component 1: Enhancing Resilient Urban and Community Infrastructure (US\$12.00 million equivalent)**

24. **The aim of this component is to rehabilitate public spaces and upgrade key public assets to maximize climate change adaptation and low-carbon economic development.** Works under this component will utilize building materials that are resilient to floods and other hazards (e.g., concrete, rubber, treated lumber, and metal) and follow

<sup>44</sup> PEDS 2022-2026 objectives: (i) strengthening climate change resilience; (ii) economic growth and synergy among sectors; (iii) poverty reduction and gender; and (iv) territorial cohesion and integrated planning.



international climate-resilient design and building standards. The prioritization of investments and the design of enhanced infrastructure will follow a participatory approach through the creation of community committees, of which a percentage will be formed and led by women, in addition to complementary interventions as community dialogue to ensure that women have a voice in decision making.

**25. This component will first finance interventions under two categories, for a total of US\$11.20 million:**

- (i) **Climate-resilient urban upgrading in urban centers and precarious neighborhoods.** Investments under this category will focus on the requalification and greening of public spaces by improving physical infrastructure in selected urban centers and precarious neighborhoods that are vulnerable to climate change impacts. This will include, inter alia, the provision of shaded playgrounds for children with equitable provision of spaces for girls and boys, energy-efficient LED lighting powered by solar energy, non-motorized urban mobility infrastructure (e.g., sidewalks and pedestrian pathways), urban drainage, paving of streets and other civil works under the concept of “integrated urban transport corridors”. The goal is to improve urban climate resilience and the quality of life of beneficiaries. Participatory processes involving women-led committees will contribute to inform the design features of interventions and to identify additional investments that the project could finance.
- (ii) **Rehabilitation of historic centers, requalification of waterfront areas, and urban infrastructure interventions with tourism potential.** Investments under this category will support the revitalization of historic city centers and waterfront areas through the improvement of physical open infrastructure such as plazas, boardwalks, and promenades. This shall include, inter alia, the provision of urban drainage, energy-efficient LED lighting powered by solar energy, green areas, protection against erosion and inundation from high storm surge and sea-level rise. The primary objective is to promote cultural heritage and waterfront tourism and stimulate economic growth, while promoting climate resilience by reducing the urban heat-island effect in the targeted areas, and promoting non-motorized transport (NMT, e.g., walkability). The project will prioritize participatory processes with a gender perspective to inform the design features of interventions and identify additional ones that can be financed.

**26. Technical assistance (US\$500,000):** This component will finance studies, designs, technical support to the National Infrastructure Plan 2023-2030 (and its nexus with the country’s NDC and NAP), and analytical work on (i) the barriers that women face to participate in the planning and design of urban infrastructure. This will include the ToRs and definition of implementation arrangements of communitarian committees that be women led (long term leadership positions) to define and inform the identification and designs of urban investments; and (ii) difference in mobility patterns between women and men and the creation of mobility plans with a gender perspective to inform the prioritization of the upcoming infrastructure considering the specific challenge that women face.

**27.** This component will also finance (US\$300,000) the establishment of said women-led community-based committees, which will serve as organizational bodies that operate, maintain, and facilitate the flow of information between women in the communities about climate events, preparedness, and response. These committees will be long term structures created in collaboration with the Municipalities through Memorandums of Understanding. Agreements will be established with the communities where responsibilities and quota for women will be established. The committee will also have a key role in climate mitigation and adaptation.

**Component 2: Enhancing Transport Connectivity and Resilience (US\$21.00 million equivalent)**

**28. This component will finance climate-informed rehabilitation and upgrading of inter-city and rural roads, with the objective of ensuring reliable all-season connectivity and access to transport services and reduce transport costs in project areas in Cabo Verde.** All roads identified in the government long-list investments frequently experience





climate change and natural hazards impacts (e.g., flash floods, landslides and rockfalls, rising temperatures). The rehabilitation of roads is solely driven by the need to address projected climate change impacts and as such will prioritize interventions that improve the climate resilience of assets and of the road network. The rehabilitated climate-resilient roads will contribute to road safety and support the expansion of public transport services to communities and neighborhoods that currently lack access due to poor road conditions. (Bus owners often refuse to increase their service level due to narrow and poorly maintained access roads, as these often cause damage to vehicles, crowding and delays).

29. **The interventions planned under this component are strategically designed to improve climate resilience of roads and therefore ensure a year-round connectivity, generating several social and economic benefits.** First, the improved connectivity will facilitate supply of production inputs, and transport of agricultural products to markets year-round, thereby mitigating climate-change induced food insecurity. The more reliable roads will reduce commuting times for workers who regularly travel between communities, improve access to schools and medical facilities, and stimulate tourism. Additionally, by improving access to jobs, the improved connectivity is expected to generate more income opportunities for communities.

#### **Component 3: Technical Assistance (US\$5.30 million equivalent)**

30. **This component will provide support for capacity building and technical assistance activities for improved, climate-resilient low-carbon integrated urban and transport planning, intermodal connectivity, and transport asset management.** To complement and enhance the urban and roads investments prioritized in Components 1 and 2, this component will provide technical assistance to the GoCV in two areas, namely: (i) the development of its capacity in the areas of integrated urban and transport planning as well as transport assets management; (ii) reforming its SOEs and planning design and structuring of public-private partnership schemes in some transport sectors, as well as the reform (tariffs and regulations) of selected transport services. The aim is to contribute to the analytical foundations to address the connectivity challenges of the country (intra-island, inter-island and international connectivity, with a focus on the maritime dimension through Cabnave, Cabo Verde Inter-ilhas and ENAPOR).
31. The **technical** assistance for urban planning, under activity (i) above, shall include, inter alia: (i) providing support for the development of geo-referenced climate risks mapping to support informed territorial planning, and specific investments design to support streamlining the climate resilience requirements in all future government plans and investments; (ii) providing support for the development and implementation of a Housing Information System, launched under the SOE related Fiscal Management Project (P160796). This system is expected to provide geo-referenced information on the social, economic, legal and urban dimensions, with the objective of reducing the gap between demand and supply of housing in Cabo Verde.
32. **Additionally**, this component includes the generation and implementation of knowledge, such as the development of related surveys, studies, and systems that can better inform relevant institutions on transport, mobility, and urban needs in the face of climate change. It will take a broader connectivity approach that investigates both intra- and inter-island connectivity, leveraging an ongoing analytical work on how connectivity can be enhanced to better support tourism, funded by the grant "Internationalization of Businesses Fund" (*Fondo para la Internacionalización de la Empresa FIEM*) from the Spanish Ministry of Industry, Trade and Tourism, and in collaboration with World Bank.

#### **Component 4: Project Management (US\$1.70 million equivalent)**

33. **This component will provide support for the management and implementation of the proposed project.** It is divided into two sub-components. Sub-component 4.1 (US\$1.08 million) will finance the strengthening of the capacity of the Ministry of Infrastructure, Territorial Planning and Housing (*Ministério das Infraestruturas*,



*Ordenamento do Território e Habitação*, MIOTh) for (i) overall coordination of the project, including, consolidation of financial and progress reports; and (ii) management, coordination, implementation, monitoring and evaluation (M&E) of all civil works aspects and studies, including financial management (FM), procurement, and safeguards monitoring under Components 1 and 2 (for instance, as part of the M&E system, equipment will be bought to establish a baseline for road traffic and evaluate it once the projects are selected according to the prioritization criteria). Sub-component 4.2 (US\$620,000) will finance UGPE's capacity with regard to management, coordination, implementation, and M&E of the technical assistance aspects of the project under Component 3, including FM and procurement. Component 4 will also finance the project communication strategy and outreach efforts, which will inform all components, including engagement with citizens, and ensuring broad stakeholder awareness on project interventions. This component will also cover office equipment, operating costs, and independent audits.

#### **Component 5: Contingent Emergency Response Component (CERC) (US\$0 million)**

34. This component will provide an immediate response to an eligible crisis or emergency, as needed, by financing the implementation of emergency infrastructure rehabilitation and reconstruction. Resources will be allocated to this component as needed during implementation. A CERC Operations Manual will be prepared by the GoCV and will provide detailed guidelines and instructions on how to trigger the CERC and use funds (including activation criteria, eligible expenditures, and specific implementation arrangements as well as required staffing for the Coordinating Authority).

#### **C. Project Beneficiaries**

35. **The primary beneficiaries of the project are the population living in the targeted areas for investment, and particularly the most vulnerable communities.** Project beneficiaries will benefit from increased access to urban infrastructure, basic services, and improved connectivity and access. It is estimated that urban and transportation investments will benefit approximately 190,000 residents.<sup>45</sup> Expected benefits include improved livability, climate resilience, and overall well-being of the population in the project areas, thereby fostering social cohesion. The project is also expected to improve beneficiary access to job markets and create economic opportunities geared primarily towards young men and women. The participating municipalities will also derive benefits through strengthened capacity in municipal urban planning, including support in developing land-use plans. At national level, the project will contribute to enhanced resilience, improved economic performance, and enhanced quality of life.
36. **Communities.** The residents of the areas targeted for investments in public infrastructure will enjoy a range of benefits, including enhanced mobility and increased accessibility to their areas of residence and work. Additionally, the investments will create more employment opportunities in the tourism industry, as more visitors are attracted to the upgraded waterfront and historic centers. Furthermore, the improved connectivity will allow locals and tourists to have easier access to tourist sites and urban centers.
37. **Private sector.** Investments in enhanced urban, transport, and seafont infrastructure are crucial in optimizing supply chains, facilitating access to sourcing materials or services, and decreasing transaction costs. It can also stimulate demand from individual or wholesale clients, making it easier for businesses to reach their target markets. Additionally, the tourism and hospitality sector will also benefit from the enhanced infrastructure, attracting a

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<sup>45</sup> Calculation made considering the number of inhabitants living in the areas that will be influenced by the urban and road interventions of the project. The interventions considered for this calculation are the eleven first movers' interventions, as well as four additional road interventions that were proposed based on the prioritization framework ranking (see Annex 3). Data was obtained from the National Census conducted by INE in 2021.

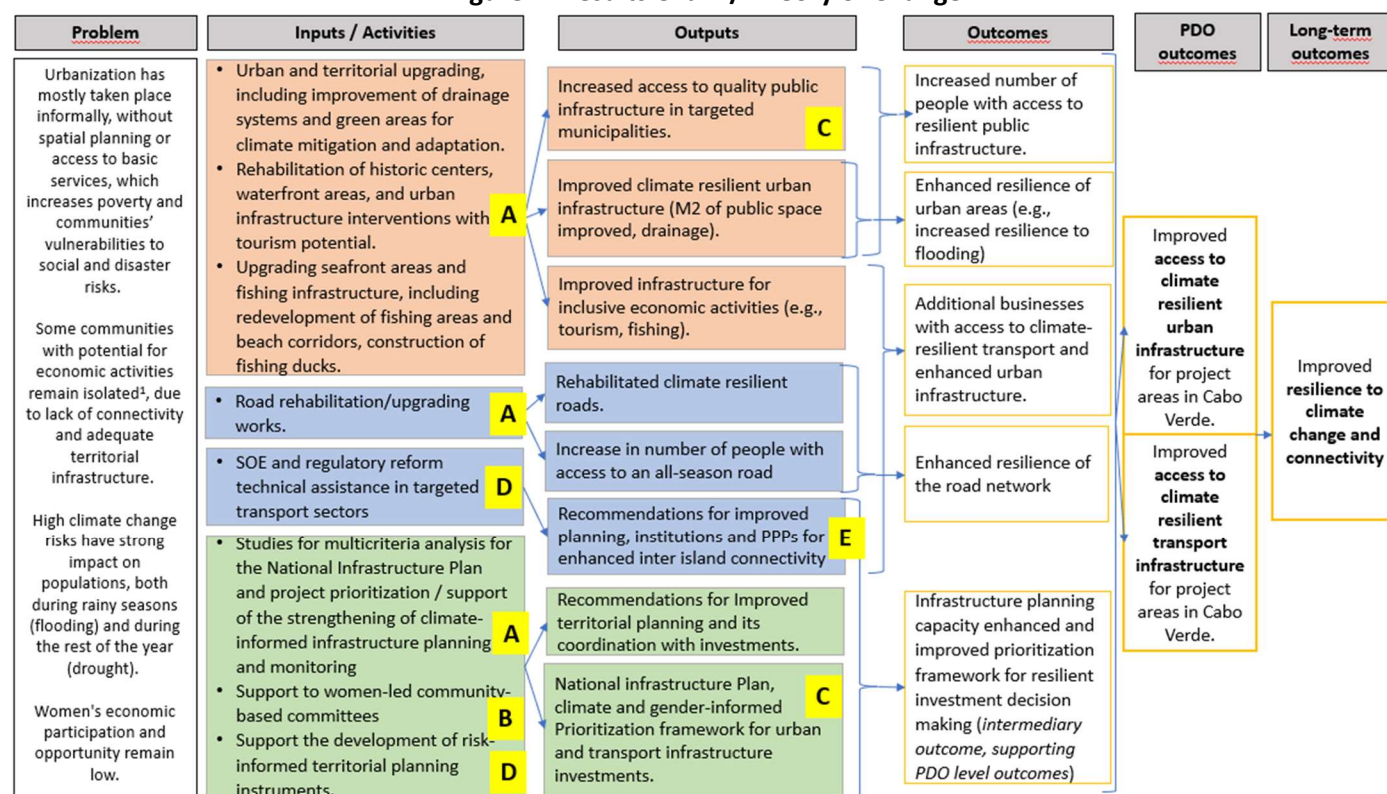


greater number of visitors to upgraded tourist sites and consequently increasing leisure expenditure. In short, the infrastructure upgrades proposed by the project can have far-reaching positive effects on various industries and stakeholders. It is estimated that around 4,500 existing companies located in the areas earmarked for investment will benefit from the project.<sup>46</sup>

**38. Public sector.** The public sector stands to gain significantly from the upgrade of climate-resilient infrastructure, resulting in reduced costs for mitigating and responding to natural hazards. Moreover, investments in tourism-related infrastructure will attract more foreign and domestic direct investments and generate higher tax revenue for the country. Finally, the improvements in connectivity are likely to boost the country's economy and enhance its overall performance.

## D. Results Chain

Figure 1. Results Chain / Theory of Change



### Critical assumptions:

- MIOH has adequate project management and technical capacity to manage the technical design and implementation of multisector urban and transport infrastructure investments.
- Targeted municipalities are committed to undertaking their responsibilities to support the linkage with territorial planning instruments.
- National government entities and the participating municipalities are committed to the implementation of the planned interventions and achieving institutional development objectives.
- Coordination between MIOH and UGPE is seamless, to ensure design, implementation, and monitoring of investments happens on time and with expected outcomes.
- Inter-ministerial and intermodal coordination is ensured regarding inter-island connectivity, gearing towards holistic and sustainable solutions.

<sup>1</sup> Low levels of access to markets and reduced access to essential services.

**39. Gender.** The project will seek to reduce gender gaps in decision making at the community level to enhance women's voice and agency. The project will enable women's participation in community level groups to ensure that their mobility and urban priorities are accounted into the first-movers, future investments and definition of technical

<sup>46</sup> Calculation made considering the number of businesses located in the municipalities in which the investments in which the investments are expected to be made (based on the "economic scenario", see Annex 3). Data was obtained from the Business Survey conducted by INE in 2021.





design features. This will be done through the creation of community level committees led by women, community dialogue, capacity building for women on leadership and negotiation, and technical assistance to the Ministry of infrastructure (MIOH) for the conformation of said Committees. These Committees will be institutionalized through collaboration agreements (or Memorandums of Understanding) between the municipalities and the community level groups where at least 50 percent of leadership positions will be held by women. Among the interventions that will potentially be prioritized by women to enable their mobility are the upgrading in walking infrastructure (sidewalks, pedestrian pathways, energy efficient street lighting, location of bus stops), prioritization of routes based on women and men travel differences, seeking to reduce distance between neighborhoods and the nearest bus stations, and upgrade urban centers with provision of playgrounds with equitable space for girls and boys, seating areas, and appropriate lighting to improve personal safety. The Committees will also support the definition of technical design features for the interventions. The creation of these Committees will be complemented through the integration of consultations and analytics on mobility with a gender perspective to identify the challenges that women face in their mobility and support the identification of interventions. An additional mandate of these Committees of women / women led dialogue will be to serve as organizational bodies that operate, maintain early warning systems, and facilitate the flow of information between women in the communities and assistance providers by advocating on their behalf in the event of natural hazards.

#### **E. Rationale for World Bank Involvement and Role of Partners**

40. **The World Bank has been a leading partner in the thematic areas of transport and urban resilience over the past 20 years.** The World Bank is well-placed to lead the territorial resilience dialogue due to its extensive global experience and knowledge on transport, urban resilience, and territorial development. In the region, the World Bank is perceived to provide development that can be leveraged and scaled up. In addition, the World Bank can leverage global experience on urban resilience through global programs (including communities of practice on NBS, building regulations for resilience, hydromet<sup>47</sup> and Early Warning Systems (EWS), among others) to inform the design and implementation of this project.
41. **The World Bank has deep experience supporting transport and urban projects around the world with relevant specific experience in Cabo Verde and with integrated approaches globally.** The value added of World Bank's support includes: (i) sharing implementation experience from similar World Bank financed projects; (ii) understanding of integrated approaches to sustainable development that combines infrastructure improvements with urban development; (iii) support the GoCV in ensuring that its investments yield the maximum benefits for climate resilience and mitigation, women, and vulnerable populations, including resilient urban and transport development in a Small Island Developing State (SIDS) context; and (iv) ability to convene national agencies, implementing agencies, development partners and private sector in demonstrating a model for engagement in the pursuit of sustainable tourism development.

#### **F. Lessons Learned and Reflected in the Project Design**

42. **Strong collaboration between World Bank Global Practices (GP) brings a unique added value in maximizing the impact on territorial development.** The project is co-led by the Transport GP and the Urban, Disaster Risk Management, Resilience and Land GP to ensure strong collaboration on sustainable urban development, urban mobility, and other urbanization issues in Cabo Verde. While Component 1 is mainly focused on urban and community infrastructure, Component 2 is focused on road connectivity improvement. Both components will

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<sup>47</sup> Hydrological and meteorological (or "hydromet") hazards.



support resilience in Cabo Verde and complementarity between urban and transport infrastructure will be one of the selection criteria (see Annex 3). Component 3 will strengthen the capacity of transport and land use planning institutions, such as the State Business Sector Monitoring Unit (*Unidade de Acompanhamento do Setor Empresarial do Estado*, UASE) or the National Institute for Territorial Management (*Instituto Nacional de Gestão do Território*, INGT), in adopting an integrated and coordinated approach to territorial development.

43. **The project can leverage lessons learned from the previous TSRP (P126516) under the MIOTH, and the other projects under implementation and/or previously implemented in Cabo Verde** (as mentioned in paragraph 16). Drawing from the experience of the previous Transport project, and despite some limitations in terms of staff capacity in environmental and social (E&S) management, the MIOTH was able to implement a project (while other ministries have relied on a Special Projects management Unit (*Unidade de Gestão de Projetos Especiais*, UGPE) in the Ministry of Economy and Finance). It has also shown a strong commitment to implementing the project's E&S instruments and addressing recommendations provided by the World Bank's E&S specialists to overcome some shortfalls in the implementation. Thus far, E&S performance of ongoing projects under the UGPE has been rated as Satisfactory and Moderately Satisfactory, generally because Environmental and Social Framework (ESF) studies were late, or project monitoring was too limited.
44. **The TSRP delivered a report on climate resilience that has helped inform the selection of the project's transport interventions and provided a deep-dive input on performance-based maintenance contracts** that is informing Cabo Verde Roads Company (*Estradas de Cabo Verde*, ECV) to ensure road resilience through maintenance. TSRP Implementation Completion and Results Report (ICR) identified as a lesson learned: "Performance-Based Management Contract contracts show solid effectiveness and efficiency and translate into a strong weight of roads in the national network in good or reasonable condition."

### III. IMPLEMENTATION ARRANGEMENTS

#### A. Institutional and Implementation Arrangements

45. **The MIOTH will be responsible for the overall project implementation, coordination, and reporting, including the consolidation of fiduciary, and E&S reports.** Activities under Component 1 and 2 will be carried out by the ICV and the ECV under the supervision of MIOTH. These activities include technical, procurement, FM, and safeguards functions. FM (existing MIOTH staff), M&E and safeguards officers will report to the project manager, part of the MIOTH Minister's office (reporting directly to the Minister). Activities under Component 3, relating to overall capacity building and planning which span the responsibilities of several ministries, and SOE technical assistance, will be implemented by the Ministry of Finance through the UGPE, including procurement and FM. Technical inputs from the INGT, the UASE, the Ministry of Tourism and Transport, the Ministry of the Sea, the Ministry of Internal Affairs will also be collected by UGPE. Component 4 (Project Management) will be subject to a two-part treatment, in which all project management costs related to Components 1 and 2 will be dealt with by MIOTH and all project management costs related to Component 3 will be dealt with by UGPE. MIOTH will be responsible for overseeing safeguards and implementing M&E, with technical assistance from UGPE in the early stages of implementation (six first months). MIOTH and UGPE will utilize existing technical, procurement, and FM capacities required for project implementation. MIOTH will recruit a project coordinator, an M&E specialist, a social safeguards specialist and an environmental safeguards specialist.



## B. Results Monitoring and Evaluation Arrangements

46. **MIOTH will be responsible for the overall M&E of the project and for reporting results (disaggregated by gender whenever possible), progress<sup>48</sup> as well as grievances<sup>49</sup> from project activities on a bi-annual basis.** UGPE will be responsible for Component 3 M&E and reporting. MIOTH will be responsible for Components 1 and 2 M&E and in charge of the consolidation of the project's overall M&E reporting. Given that there is currently an established grievance redress mechanism (GRM) managed by UGPE for the entire World Bank portfolio, the project's specific GRM (see section V below) will rely on UGPE's existing mechanism. The monitoring process will help track progress and improve the quality of project implementation. MIOTH will develop a Project Operations Manual (POM) with reporting formats and will appoint an M&E officer who will collect and present data in a standardized reporting format in conjunction with the World Bank's implementation support missions. It will submit semiannual progress reports (a mid-year progress report and an annual progress report) to the World Bank within two months following the end of each six-month period. A Mid Term Review (MTR) will be conducted within 30 months of project implementation to assess progress and make any necessary adjustments for effective project implementation. Monitoring will include community participation and comprise periodic, independent monitoring of project performance, including municipalities, beneficiary feedback and satisfaction surveys. The project will provide respective training at the local level, including data collection, data quality control, and reporting. All project data should be generated and accessible on an open data platform to allow free and easy usage by the government and the World Bank. Financing for M&E arrangements will be provided through Component 4 (Project Management).

## C. Sustainability

47. The proposed project would support the MIOTH's efforts to enhance resilience in intra-island connectivity and urban infrastructure, through a programmatic engagement, starting with this project, and exploring for next engagements the possibility for a future Program for Results (PforR) financing. The framework and prioritization approach that was agreed between the World Bank and the government, and partially used for the prioritization of the investments under this project, will instate a sustainable and transparent approach to investments planning in the country, in line with the government's development priorities. The framework will serve as the basis for the prioritization of future investments under this programmatic engagement. In addition, the sustainability of the assets built through the project will benefit from the mechanism that was put in place in the TSRP, for road maintenance services of ECV (through the SEMAC-EN contracts, "*Serviços de Manutenção Corrente em Estradas Nacionais*"). For the urban investments, capacity for the Recipient municipalities in maintenance planning and budgeting will also be strengthened under this project.
48. **Road Safety.** The Road Safety Screening and Appraisal Tool (RSSAT), a World Bank and Global Road Safety Facility (GRSF) tool, will be applied to this project as well as the requirements from the Road Safety Good Practice Note.<sup>50</sup>

## IV. PROJECT APPRAISAL SUMMARY

### A. Technical and Economic Analysis

#### Technical Analysis:

<sup>48</sup> Including procurement, safeguards, and progress in the activities.

<sup>49</sup> The grievance report should indicate (a) date that the grievance is received; (b) contents of complaint; (c) type/nature of complaint; (d) progress, such as the dates the grievance was discussed/resolved; and (e) whether the aggrieved party opted for an appeal to the next level.

<sup>50</sup> Environment & Social Framework for IPF Operations, Good Practice Note, Road Safety, First Edition Published October 2019, The World Bank.



49. All urban and transport investments under the project's Components 1 and 2, will be designed for resilience to climate change and natural hazards related risks. The designs will factor in the changes in the frequency and severity of rainfalls, winds, storms, hurricanes, extreme temperature, and sea level rise. Both ECV and ICV have highly experienced technical teams to procure and supervise the design and implementation of the infrastructure components of the project. Most of the 11 First Mover investments have already preliminary technical designs dating back to pre-2017 when the PRRA program started. These technical designs are currently being updated under funding from a combination of PPA and government's own funds. The biggest technical contribution of the project is the design of an investment prioritization framework, which key features are described in Annex 3 along four dimensions, and which implementation will be finalized under the POM of the project and will serve to identify the list of projects to be approved by the Council of Ministers.

### **Paris Alignment**

50. **The operation is aligned with the goals of the Paris Agreement on both mitigation and adaptation.** The following paragraphs summarize overall assessments and reduction of mitigation and adaptation risks with selective examples. Annex 4 provides details on additional mitigation and adaptation risk reduction measures.

51. **Assessment and reduction of mitigation risks:** The project design is incorporating the Avoid-Shift-Improve strategies, which include support for a holistic and integrated urban and transport vision in Cabo Verde. The activities financed by this project are aligned with mitigation efforts by being either Universally Aligned (UA) or posing a low risk to the country's transition towards low-carbon development pathways. As such, almost all activities were assessed as UA, including construction and rehabilitation of urban drainage (which does not expand or promote expansion into areas of high-carbon stocks or high biodiversity areas, lead to significant conversion of natural habitat, nor involves land use change that is likely to reduce carbon stocks), and the rehabilitation of inter-city or urban roads which do not lead to capacity expansion for private motor vehicles, including investments with minor enhancement of capacity for resilience, road safety, emergency services and accessibility purposes. Other activities are considered low risk, such as (i) capacity building and technical assistance activities in climate risk assessment, emergency preparedness and response, and in identification and deployment of climate resilience and mitigation measures; and (ii) the development of strategic planning documents in transport and urban development, which will also help enshrine climate commitments of Cabo Verde in its official policies. Technical assistance, management and implementation of the overall project, and other such activities also do not hinder mitigation pathways of the country. The World Bank project team will ensure that all eligible activities included in the CERC Manual are aligned with the Paris Agreement. The CERC Manual provides the overall financing framework and types of activities to be financed under CERC. This would then be ensured for the specific activities to be financed and included in the Emergency Action Plan, based on the information available at the time of activation of CERC. Immediate emergency preparedness and response activities that are temporary and timebound (such as debris removal, emergency evacuation, structural stabilization, restoration of essential services, construction of temporary shelters, procurement of medicines, food security and cash transfers) are considered low risk.

52. **Assessment and reduction of adaptation risks:** The main climate and disaster screening captured in the background section and Annex 4 provide details on climate risks likely to affect the project investments. The project design takes into consideration the coastal erosion and inundation, heavy rainfall events and flash floods, high temperatures, as well as climate-induced landslides and rockfalls risks that threaten the outcomes of the project through targeted adaptation measures such as: (i) the design and construction of the stormwater drainage infrastructure under Components 1 and 2 will be informed by current climate conditions and multi-decade rainfall projections under different climate scenarios; (ii) the use of climate-resilient standards<sup>51</sup> and materials for road rehabilitation and

<sup>51</sup> Climate-resilient standards address current and projected extreme heat and changing rainfall patterns while promoting energy efficiency and renewable energy



upgrading; and (iii) the development of plans and trainings to improve emergency preparedness and response to strengthen transport network redundancy. In the longer-term, the capacity building and institutional strengthening activities related to climate and disaster risk management will further enhance institutional capacities to manage the urban and transport, thereby complementing climate resilience and adaptation goals of the project limiting the exposure to an acceptable (i.e., low) level of residual risk.

### Economic Analysis:

53. **An economic analysis was conducted for Components 1 and 2.** The economic analysis assessed the expected benefits and costs of both components, using a discount rate of 12 percent<sup>52</sup>. Since some of the investments are yet to be selected, generic costs and benefits are applied to enable a preliminary evaluation to be performed. Once the final selection of urban interventions and roads has been determined, the preliminary evaluation results will facilitate their assessment. Annex 2 details the methodology, assumptions applied, and results, as well as the sensitivity analysis.

54. **Component 1 results indicate that the urban and community interventions will generate economic value and positive net benefits.** Under the assumptions and estimates analyzed, the Net Present Value (NPV) of the project's urban component reached US\$50.6 million, considering a 20-year period. The economic internal rate of return (EIRR) is estimated at 30.6 percent, and the NPV of the project becomes positive as of year 11 (2034).

**Table 2. Economic analysis results of the Component 1**

NPV	US\$50.3 million
EIRR	30.6%
Investment recovery period	10 years

55. **Component 2 results show that only two investments achieve an EIRR above the threshold discount rate of 12 percent.** As illustrated in Table 3 below, the results indicate that when traffic levels are very low, investments will not generate sufficient benefits to justify the expenditure on the improvement, but wider economic benefits analysis could justify them.

**Table 3. Economic assessment of typical road improvements and upgrades**

MIRR results (%)	Current surface					
	Earth			Cobblestone		Asphalt Concrete
	Activity					
Traffic (vehicles per day)	Improve condition to good	Upgrade to Cobblestone	Upgrade to Asphalt Concrete	Improve condition to good	Upgrade to asphalt concrete	Improve condition to good
10	-0.051	-0.075	-0.086	-0.12	-0.053	0.012
20	2.10%	-2.40%	-4.60%	-6.50%	-0.20%	7.70%
50	10.20%	3.60%	3.60%	0.10%	6.20%	16.60%
100	18.50%	8.70%	5.00%	4.80%	12.00%	23.40%
150	24.40%	12.20%	7.90%	7.90%	15.70%	29.20%

solutions (where possible), including the use of NBS, soft measures, and innovative technology for (i) systems planning; (ii) engineering and design; (iii) operations and maintenance; (iv) contingency programming; and (v) institutional capacity and cooperation.

<sup>52</sup> The discount rate was calculated based on the risk-adjusted opportunity cost of capital. This discount rate value was also used in the economic analysis for the "Resilient Tourism and Blue Economy Development in Cabo Verde Project (P176981)", approved in 2022.



56. **Public sector financing is still justified as the project is investing in the upgrading and resilience of public and municipal infrastructure and assets, and in the provision of public goods that are important for local communities at the neighborhood level.** The public sector support will target low-income areas for territorial resilience that are not usually attractive for private sector investment.

#### **GHG Accounting and Shadow Price of Carbon**

57. A greenhouse gas (GHG) emissions assessment estimated that the project's baseline emissions is 6,216 tCO<sub>2</sub>, and the project gross emissions is 6,357 tCO<sub>2</sub>, resulting in total net emissions of 141 tCO<sub>2</sub> during the economic life of the project, and 7 tCO<sub>2</sub> annual net emissions. Although the project's improvement in vehicle speeds and the existence of diverted traffic reduce CO<sub>2</sub> emissions, this reduction is outweighed by the increase in emissions from the estimated generated traffic, resulting in an overall increase in emissions annually and during the economic life of the project. The economic analysis considered the impact of the project on GHG emissions by incorporating a low and a high shadow price of carbon (SPC). The SPC is adopted based on the low and high scenarios derived from the 2017 World Bank guidance note on the SPC in economic analysis and adjusted to the 2023 Consumer Price Index (CPI). The economic analysis was conducted for two "first mover" roads since the remaining roads to be rehabilitated and upgraded under Component 2 have not been specified yet. The NPV and MIRR for the two "first mover" roads, without consideration of the SPC, is US\$0.5 million and 2.9 percent, respectively. With the low-SPC, the NPV of the two 'first mover' road projects is US\$0.4 million and the MIRR is 2.8 percent, while in the high-SPC scenario the corresponding figures are US\$0.3 million and 3.2 percent, respectively.

### **B. Fiduciary**

#### **(i) Financial Management**

58. An FM assessment of the MIOTH was undertaken in September 2023; and an assessment of UGPE capacity to manage a designated account was undertaken as well. The objective of the assessment was to determine whether the FM arrangements in place are acceptable. The assessment complied with the Financial Management Manual for World Bank-Financed Investment Operations, that became effective on March 1, 2010, and as last revised in September 2021. These arrangements would ensure that MIOTH: (i) uses project funds only for the intended purposes in an efficient and economical way; (ii) prepares accurate and reliable accounts as well as timely periodic financial reports; (iii) safeguards assets of the project; and (iv) has acceptable auditing arrangements.
59. The FM arrangements will rely on FM dispositive set up by the MIOTH and UGPE. The dispositive in MIOTH includes (i) an adequate FM team which comprises a financial and administrative officer and an accountant: The FM officer has World Bank funded projects experience and served as FM officer of the TSRP from 2013 to 2022. The accountant has adequate profile; however, no experience of IDA procedures or the procedures of other donors and (ii) an existing multi project accounting software which can easily integrate the new project. The proposed FM dispositive have the following constraints: (i) a lack of an internal auditor who will be responsible for ex-post review of project's transaction and review of compliance with project's procedures; (ii) a lack of administrative and financial manual of procedures which take in account project specificities, the role and responsibilities of all stakeholders of the project.
60. The FM dispositive for UGPE to manage a designated account is adequate. In fact, the FM performance of most of the projects managed by UGPE is satisfactory. The FM dispositive in place include: (i) the UGPE FM team, who is familiar with the World Bank FM requirements; (ii) the interim un-audited financial reports (IFRs) for the ongoing projects are also submitted on time, and acceptable to IDA; (iii) the external auditors issued an unqualified opinion





on the 2022 Financial Statements of active projects, (iv) an internal auditor in place who is covering all World Bank financed projects; and (v) project implementation manuals which include financial and administrative procedures are in place under the active projects managed by UGPE.

61. Given the above listed constraints of MIOTH, a new financial and administrative procedures will be elaborated to consider the specificities of this new project, clear distribution of responsibilities of Designated Account management.
62. To strengthen the FM arrangements of the project, the following measures were already taken and should be taken no later:
- By negotiation – Already completed.
  - (i) Prepare the TOR of the external auditor.
  - (ii) Agreed of a model of IFR which consolidates all accounting records of the project.
  - By effectiveness
  - (iii) Elaborate a new financial and administrative procedures.
    - No later than three months after effectiveness: Recruit the external auditor.
    - No later than four months after effectiveness
  - (iv) Organize a training for the accountant in MIOTH in project's accounting and needed IDA procedures.
  - (v) Customize the existing accounting software to include the segregate bookkeeping of the project.
    - No later than six months after effectiveness: Hire a part time internal auditor.
63. The conclusion of the assessment is that the FM arrangements in place at MIOTH are not yet ready and would need to be strengthened to meet the World Bank's minimum requirements under World Bank Policy and Directive on IPF effective in 2017. As a result, the MIOTH will be reinforced according to the action plan mentioned above. **The FM risk is Substantial.**

#### **(ii) Procurement**

64. **Procurement Regulations.** Procurement activities for the proposed project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" dated September 2023 under the "New Procurement Framework", the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" dated October 15, 2006, and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements.
65. **Procurement Assessment.** UGPE will be responsible for procurement, except works-related activities. UGPE is implementing almost all projects in the Cabo Verde portfolio and has extensive experience dealing with World Bank Procurement Regulations and, globally, good performance, including good command of the Systematic Tracking of Exchanges in Procurement (STEP) system. For activities under Components 1 and 2, the MIOTH will be the implementing entity through its two entities: (i) ECV for construction/rehabilitation of roads; and (ii) ICV for the urban investments. An implementing entity will be created in STEP under MIOTH, with users from ICV and ECV. As part of the assessment, the World Bank has reviewed procurement processes managed by ECV and ICV for the implementation of the PRRA and it has found that the procedures, using the national procurement system, were globally compliant with the procurement principles and that the entities had adequate experience. MIOTH will use national standard bidding documents when using national procurement procedures (NPP), subject to include clauses related to (i) World Bank right to review and audit; (ii) anticorruption guidelines; and (iii) E&S safeguards clauses acceptable by the World Bank. A training in STEP will be provided to MIOTH staff assigned to the project. The overall procurement risk is **Substantial**.



66. **Project Procurement Strategy for Development and Procurement Plan.** The Recipient (UGPE, ICV and ECV) has prepared the Project Procurement Strategy for Development (PPSD), which describes how procurement activities will support project operations for the achievement of the PDO and deliver value for money. For works-related activities, the PPCSD demonstrated the good level of competition at national level. Hence, all works contracts will be implemented using a competitive procedure, mainly the request for bids, open competition at national level (qualified international bidders shall be allowed to participate). National competitive bidding will use NPP. For contracts falling within the international threshold competition, World Bank procurement procedures shall apply. The PPCSD also shows that there is a competitive market for consulting services related to works (design, supervision). A Procurement Plan for the first 18 months was also prepared and agreed upon, along with the PPCSD.

### C. Legal Operational Policies

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

### D. Environmental and Social

67. **The project's overall E&S Risk is rated as Substantial.** Overall, the project is expected to have positive E&S impacts by improving the access to resilient transport and urban infrastructure. It is also expected to result in an increase in economic opportunities for local communities due to community-led or local enterprise projects/plans developed and implemented. Nevertheless, some adverse environmental impacts such as soil loss, impact on modified habitats, noise, solid waste, and hazardous material management, impacts on occupational and community health and safety, visual impact, etc., may be generated by project activities. Construction of small-scale facilities could also pose some environmental risks such as wastewater, solid wastes, and sediment discharges to water bodies. Some adverse social impacts during civil works such as an instance of sexual exploitation and abuse / sexual harassment (SEA/SH) perpetrated by project workers or contractors represent a risk to communities. Key E&S risks and impacts are associated with Components 1 and 2. These physical, biological, and socioeconomic impacts are expected to be site-specific and of moderate severity and can be avoided or minimized through the application of good practices including compliance with World Bank Environmental, Health, and Safety Guidelines (EHSGs). As specified in the Environmental and Social Management Framework (ESMF), protected areas and habitats critical for biodiversity were completely excluded from the project activity areas. Other measures could be included in the project design to avoid (i.e., through project-level and site-specific screening) or mitigate them.

68. **The project environmental risk rating is Substantial.** The potential risks and impacts can be addressed through conventional mitigation and management measures. The negative impacts may largely arise related to sewer and water connections, drainage systems and street paving in urban areas (Component 1) as well as road reconstruction and rehabilitation (Component 2). Although these activities are not likely to have significant adverse risk or impacts on human populations and/or the environment, the following risks must be considered: (i) generation of dust, noise, vibration and gas emissions due to the operation and movement of construction vehicles and machinery; (ii) improper disposal of construction waste (including asphalt, oils, fuel) and asbestos (if present) or operational or





accidental spills of fuel and lubricants from the construction machinery; (iii) occupational health and safety (OHS) and community health and safety risks, including accidents, injuries, and exposure to chemicals and pathogens associated with the connections to water and sewage systems; (iv) traffic congestion and emission during the excavation and installation of the pipe network and the new road surface; (v) loss of vegetation cover, land degradation, brief disturbance to biotope, and soil erosion at the project site due to physical disturbance associated with site clearing, and earth and road construction works; and (vi) loss of productive lands. Off-site activities include quarry and asphalt plant operations, which if not managed properly, may also cause localized adverse impacts. During operation phase, the risks concern only the activities of Component 1, and they include: (i) pollution and health risk due to inadequate management of grey water and sludge in case of increased water supply in urban areas; (ii) urban flooding from solid waste blocking the sewerage system. Resource efficiency will be considered and developed in the investment-specific feasibility studies and ESF instruments, particularly for Component 2, as road rehabilitation involves pavement reconstruction due to severe road deterioration.

69. **The social risk rating of the project is Substantial.** The proposed project activities are expected to result in positive socio-economic impacts for the beneficiary communities, but they also might generate some temporary and/or permanent risks and impacts. At project appraisal, key risks and impacts are mostly related to the civil works that will be financed under Components 1 and 2 and these include, inter alia, some limited physical or economic displacement impacts (both temporary during construction and long term/permanent), social exclusion and some limited risks relating to possible labor influx including SEA/SH. While the scale and scope of each of the subprojects is expected to be relatively small, the cumulative impact of the large number, dispersed nature and many varied locations may be significant and adequate screening and mitigation of these impacts will be challenging. Risks and impacts relating to labor influx may be relevant for more isolated communities where an external workforce (i.e., workers from other islands and/or larger communities) may be required for civil works. This may include SEA/SH risks as well as other social impacts including intracommunity conflict, price inflation, and changes in housing demand. Such impacts shall be managed in accordance with the applicable environmental and social standards (ESSs), and specific measures are outlined in the ESMF and its annexes.
70. **Relevant ESF documents were prepared by project appraisal to assess and propose mitigation measures for the above potential E&S risks and impacts in accordance with applicable ESSs.** These framework documents include: an Environmental and Social Commitment Plan (ESCP)<sup>53</sup>; a Stakeholder Engagement Plan (SEP)<sup>54</sup>; a Resettlement Policy Framework (RPF)<sup>55</sup>; and an ESMF<sup>56</sup>, which contains: a Rapid Cumulative Impact Assessment and a CERC and Guidance/Template on Environmental and Social Impact Assessments and Management Plans<sup>57</sup>; a Labor Management Procedures (LMP), and a SEA/SH Prevention and Response Action Plan; Community Health and Safety Management Plan; OHS Procedures; and Change-Find Procedures. Site-specific Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) as well as Resettlement Action Plans (RAPs) will be prepared for specific project investments once sufficient information is available on the design of such projects. The ESF documents were disclosed by the Recipient and the World Bank on September 22, 2023<sup>58</sup>.
71. **The project will ensure that its implementation units have adequate capacity in ESF implementation, monitoring, and reporting.** MIOTH will oversee the overall project implementation, coordination, and reporting. Activities under

<sup>53</sup> ESCP disclosed on 22/09/2023 [ESCP\\_P178644\\_Connectivity-and-Urban-Infrastructure-rev5.pdf \(gov.cv\)](#)

<sup>54</sup> SEP disclosed on 22/08/2023. [P178644\\_PEPI\\_Rev3a\\_21092023\\_clean-1.pdf \(gov.cv\)](#)

<sup>55</sup> RPF disclosed on 22/08/2023. [P178644\\_QPR\\_rev4a\\_21092023\\_clean.pdf \(gov.cv\)](#)

<sup>56</sup> ESMF disclosed on 22/08/2023. [P178644\\_QGAS-e-anexos.pdf \(gov.cv\)](#)

<sup>57</sup> The SEA/SH Prevention and Response Action Plan is a dated covenant due two months after project's effectiveness.

<sup>58</sup> [Projecto de Melhoria da Conectividade e Infraestruturas Urbanas em Cabo Verde - UGPE \(gov.cv\)](#)



Component 1 and 2 will be carried out by the ICV and the ECV under the supervision of MIOTH. Activities under Component 3 related to SOE assistance will be implemented by the Ministry of Finance through the UGPE. Component 4 (Project Management) will be subject to a two-part treatment, in which all project management costs related to MIOTH will be dealt with by MIOTH and all project management costs related to UGPE will be dealt with by UGPE. The bulk of the ESF implementation requirements are under Components 1 and 2, under the responsibility of MIOTH. It follows that MIOTH will establish and maintain an E&S team with suitably qualified and experienced personnel to support the management of E&S risks and impacts of the project, including the following full-time positions: one Environmental Specialist and one Social Specialist. The Environmental Specialist and the Social Specialist must have experience and qualifications in accordance with ToR acceptable to the World Bank and be hired or appointed based on those ToRs. An outline of the ESF, a capacity development work plan is provided in the ESMF. In addition, UGPE will recruit a Social Risk Management Specialist within three months of project effectiveness and shall maintain that position throughout project implementation. Within three months of project effectiveness, MIOTH and UGPE will sign a memorandum of understanding to cover, inter alia, the support on the social and environmental risk management aspects under the project.

72. **Grievance Redress Mechanism. A project specific GRM will be established to allow affected stakeholders to raise grievances and seek redress if and when they perceive that a negative impact has arisen from the project interventions.** GRM procedures will be formulated in consultation with relevant government and civil society stakeholders to handle complaints and issues related to project interventions. The project GRM will be designed to collect, review and address stakeholders' concerns, complaints, and grievances. This process will be carried out using dedicated communication materials, which will be developed to help stakeholders become familiar with the grievance uptake channels and procedures. The GRM will be accessible to all stakeholders throughout the project implementation and will also be applicable to any contractor that will provide services during the operations phase. SEA/SH related grievances will be addressed through specific survivor-centered procedures and referred to gender-based violence (GBV)/SEA/SH service providers.

## **V. GRIEVANCE REDRESS SERVICES**

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



## VI. KEY RISKS

74. **The overall risk for the operation is assessed as Moderate.** While the E&S and the fiduciary risks have been rated Substantial, the overall risk rating reflects the risk levels of other risk categories, including technical design risk, and institutional capacity for implementation and sustainability risk.
75. **Environmental and social risk is rated Substantial.** At this stage, the environmental risk rating is considered substantial, and the social risk rating is substantial. Mitigation measures are put in place as detailed in the previous section.
76. **Fiduciary risk is rated Substantial.** Procurement of works will mainly use NPP. While MIOth have experience in using national procedures, the procurement under the project will integrate some requirements not usually considered like the E&S aspects and the use of the STEP system, including its contract management module. It is the first time the NPP are used in projects in Cabo Verde, and this will require close monitoring. To mitigate the risks, MIOth has designated focal points (one for ICV and one for ECV) who will receive training in the STEP system, the standard national bidding documents will be adapted to consider E&S requirements and a procedures manual will be prepared. The conclusion of the assessment is that the FM arrangements in place at MIOth are not yet ready and would need to be strengthened to meet the minimum requirements under World Bank requirements. Mitigation measures include capacity strengthening of the MIOth according to the action plan mentioned above.



## VII. RESULTS FRAMEWORK AND MONITORING

PDO: To improve access to climate-resilient transport and urban infrastructure for selected project areas in the Recipient's territory.

*Note: For the indicators measured as percentages, the unit of measure will be transformed to absolute values, once the investment locations are known after the prioritization is confirmed. Intermediate targets will also be considered at that stage.*

### PDO Indicators by PDO Outcomes

Baseline	Period 1	Closing Period
<b>Improved access to climate-resilient transport infrastructure in selected project areas</b>		
<b>Additional people with access to climate-resilient transport infrastructure (Percentage)</b>		
Aug/2023	Dec/2026	Dec/2028
0	7%	15%
<b>Additional businesses with access to climate-resilient transport and enhanced urban (economic and social) infrastructure (Percentage)</b>		
Aug/2023	Dec/2026	Dec/2028
0	7%	15%
<b>Beneficiary Feedback (satisfactory) (Percentage)</b>		
Aug/2023		Dec/2028
0		70%
<b>➤Of which Women (Percentage)</b>		
Aug/2023		Dec/2028
0		80%
<b>Improve access to climate-resilient urban infrastructure in selected project areas</b>		
<b>Additional people with access to resilient urban (economic and social) infrastructure (Percentage) (Percentage)</b>		
Aug/2023		Dec/2028
0		20
<b>Extent of urban areas with enhanced resilience to flooding (Square kilometer(km2)) (Kilometers)</b>		
Aug/2023		Dec/2028
0		30



## Intermediate Indicators by Components

Baseline	Period 1	Period 2	Closing Period
<b>Enhancing Resilient Urban and Community Infrastructure</b>			
<b>Public space built or rehabilitated with climate/disaster resilience design standards (Square Meter(m2))</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	200	300	600
<b>Green parks created or rehabilitated (Square Meter(m2))</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	150	200	400
<b>Support in the elaboration of the National Infrastructure Plan delivered (Yes/No)</b>			
Jul/2023			Dec/2028
No			Yes
<b>Drainage infrastructure built or upgraded with climate/disaster resilience design standards (Kilometers)</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	2	3	5
<b>Enhancing Transport Connectivity and Resilience</b>			
<b>Pedestrian walkways built or rehabilitated with climate/disaster resilience design standards (Kilometers)</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	2	3	5
<b>Roads built or rehabilitated with climate/disaster resilience design standards (Kilometers)</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	10	20	40
<b>Intersections improved in selected corridors (Number)</b>			
Jul/2023	Dec/2026	Dec/2027	Dec/2028
0	1	2	4
<b>Technical Assistance</b>			
<b>Additional climate risk-informed territorial planning instruments (Number)</b>			
Jul/2023	Dec/2027		Dec/2028
0	5		10
<b>Final set of technical assistance recommendations delivered for SOE reform in the transport sector (Yes/No)</b>			
Jul/2023			Dec/2028
No			Yes



Project Management			
Percentage of subproject investments resulting from citizen engagement and public sector consultations. (Percentage)			
Jul/2023			Dec/2028
0			100%
Percentage of women in leadership positions in communitarian committees (Percentage)			
Jul/2023	Dec/2026		Dec/2028
0	20%		50%
Grievances registered related to delivery of project benefits addressed within the stipulated resolution timeframe (Percentage)			
Jul/2023	Dec/2026		Dec/2028
0	75%		90%
Contingent Emergency Response Component (CERC)			



## Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

<b>Improved access to climate-resilient transport and urban infrastructure in project areas.</b>	
<b>Additional people with access to climate-resilient transport infrastructure (Percentage)</b>	
Description	Number of people living or working in areas benefitting from climate-resilient transport infrastructure built or rehabilitated under the Project
Frequency	Biannual
Data source	Census and spatial data from the National Statistical Institute and/or INGT, surveys
Methodology for Data Collection	M&E team in the MIOTH will develop specific methodologies to collect beneficiary data (e.g., by assessing the population of residents or workers within a defined buffer zone along intervened corridors, through surveys, etc.)
Responsibility for Data Collection	MIOTH
<b>Additional people with access to resilient urban (economic and social) infrastructure (Percentage)</b>	
Description	Number of people living or working in areas benefitting from climate-resilient urban (economic and social) infrastructure built or rehabilitated under the Project
Frequency	Biannual
Data source	Census and spatial data from the National Statistical Institute and/or INGT, surveys
Methodology for Data Collection	M&E team in the MIOTH will develop specific methodologies to collect beneficiary data (e.g., by assessing the population of residents or workers within a specific walking distance from intervened urban infrastructure, through surveys, etc.)
Responsibility for Data Collection	MIOTH
<b>Extent of urban areas with enhanced resilience to flooding (Square kilometer(km2))</b>	
Description	Number of reported flood events in urban areas with built or rehabilitated transport and urban infrastructure under the Project
Frequency	Biannual
Data source	Disaster occurrence reports
Methodology for Data Collection	Based on disaster occurrence reports (i.e., from the National Civil Protection Service)
Responsibility for Data Collection	MIOTH
<b>Additional businesses with access to climate-resilient transport and enhanced urban (economic and social) infrastructure (Percentage)</b>	
Description	Number of businesses located in areas benefitting from climate-resilient transport and enhanced urban infrastructure under the Project
Frequency	Biannual
Data source	Census and spatial data from the National Statistical Institute and/or INGT, surveys
Methodology for Data Collection	M&E team in the MIOTH will develop specific methodologies to collect beneficiary data (e.g., by assessing the population of residents or workers within a specific walking distance from intervened urban infrastructure, through surveys, etc.)
Responsibility for Data Collection	MIOTH
<b>Beneficiary Feedback (satisfactory) (Percentage)</b>	
Description	For each investment under the project, beneficiaries satisfaction will be assessment through a feedback check
Frequency	Annual
Data source	Progress Reports/ Surveys
Methodology for Data Collection	M&E team in the MIOTH will develop specific methodologies to collect beneficiary data (e.g., by assessing the population of residents or workers within a specific walking distance from intervened urban infrastructure, through surveys, etc.) and to measure their level of satisfaction



Responsibility for Data Collection	MIOTH
<b>Of which Women (Percentage)</b>	
Description	For each investment under the project, women beneficiaries satisfaction will be assessment through a feedback check
Frequency	Annual
Data source	Progress Reports / Surveys
Methodology for Data Collection	M&E team in the MIOTH will develop specific methodologies to collect beneficiary data (e.g., by assessing the population of residents or workers within a specific walking distance from intervened urban infrastructure, through surveys, etc.) and to measure their level of satisfaction
Responsibility for Data Collection	MIOTH

### Monitoring & Evaluation Plan: Intermediate Results Indicators by Components

<b>Resilient Urban and Community Infrastructure</b>	
<b>Public space built or rehabilitated with climate/disaster resilience design standards (Square Meter(m2))</b>	
Description	Cumulative square meters of public space built or rehabilitated with climate/disaster resilience design standards in targeted areas under the Project
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	Based on project progress reports
Responsibility for Data Collection	MIOTH
<b>Green parks created or rehabilitated (Square Meter(m2))</b>	
Description	Cumulative square meters of green areas created or rehabilitated in targeted areas under the Project
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	Based on project progress reports
Responsibility for Data Collection	MIOTH
<b>Support in the elaboration of the National Infrastructure Plan delivered (Yes/No)</b>	
Description	Satisfactory delivery of the National Infrastructure Plan that ICV is elaborating
Frequency	Annual
Data source	Based on official publications on institutional or regulatory measures adopted
Methodology for Data Collection	Based on publicly available information
Responsibility for Data Collection	MIOTH
<b>Drainage infrastructure built or upgraded with climate/disaster resilience design standards (Kilometers)</b>	
Description	Cumulative kilometers of drainage infrastructure built or upgraded under the Project, using climate/disaster resilience design standards
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	Based on project progress reports





Responsibility for Data Collection	MIOTH
<b>Enhancing Transport Connectivity and Resilience</b>	
<b>Pedestrian walkways built or rehabilitated with climate/disaster resilience design standards (Kilometers)</b>	
Description	Cumulative kilometers of pedestrian walkways/NMT built or rehabilitated under the Project
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	Based on project progress reports
Responsibility for Data Collection	MIOTH
<b>Roads built or rehabilitated with climate/disaster resilience design standards (Kilometers)</b>	
Description	Cumulative kilometers of roads built or rehabilitated under the Project, using climate/resilience design standards
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	The length of roads rehabilitated will be computed based on the civil works progress on the different road sections
Responsibility for Data Collection	MIOTH
<b>Intersections improved in selected corridors (Number)</b>	
Description	Cumulative number of intersections in the selected corridors that have been improved with traffic safety design standards
Frequency	Biannual
Data source	Progress reports
Methodology for Data Collection	Based on the civil works progress on the different road sections
Responsibility for Data Collection	MIOTH
<b>Technical Assistance</b>	
<b>Additional climate risk-informed territorial planning instruments (Number)</b>	
Description	Number of satisfactory deliverables addressing climate-risk-informed territorial planning instruments
Frequency	Annual
Data source	Progress reports
Methodology for Data Collection	Based on project progress reports
Responsibility for Data Collection	MIOTH
<b>Final set of technical assistance recommendations delivered for SOE reform in the transport sector (Yes/No)</b>	
Description	Set of recommendations delivered regarding measures (tariffs, regulatory body, civil aviation code, PPP contract or privatization) in inter-island / international connectivity, that allows for a better enabling environment for private sector participation
Frequency	Annual
Data source	Based on official publications on institutional or regulatory measures adopted
Methodology for Data Collection	Based on publicly available information on port /maritime, air / airport sectors
Responsibility for Data Collection	UGPE
<b>Project Management</b>	
<b>Percentage of subproject investments that have citizen engagement and public consultations (Percentage)</b>	
Description	Proportion of total investments carried out under the project for which citizen engagements and public consultations



	have been carried out
Frequency	Annual
Data source	Progress reports
Methodology for Data Collection	Based on records from citizen engagements and public consultations
Responsibility for Data Collection	MIOTH
<b>Percentage of women in leadership positions in communitarian committees (Percentage)</b>	
Description	Proportion of women in permanent decision-making positions within communitarian committees created under the project. These committees will be permanent in nature in collaboration with the municipalities and as part of their competence will be to support the identification of investments and their design. In addition, as part of their mandate, they will act as organizational bodies that operate, maintain early warning systems, and facilitate the flow of information between women in the communities and assistance providers by advocating on their behalf in the event of natural hazards.
Frequency	Annual
Data source	Progress reports
Methodology for Data Collection	Based on records of communitarian committees
Responsibility for Data Collection	MIOTH
<b>Grievances registered related to delivery of project benefits addressed (Percentage)</b>	
Description	Proportion of grievances received by the project that are addressed in accordance with the project grievance redress mechanism
Frequency	Annual
Data source	Reports on grievance redress
Methodology for Data Collection	Based on records from the grievance redress systems
Responsibility for Data Collection	MIOTH



## ANNEX 1: Implementation Arrangements and Support Plan

1. The MIOTH will oversee overall project implementation, coordination, and reporting, including the consolidation of fiduciary, and E&S reports. Activities under Components 1 and 2 will be carried out by the ICV and ECV under the supervision of MIOTH. These activities include technical, procurement, FM, and ESS functions. Activities under Component 3 related to SOE assistance will be implemented by the Ministry of Finance through the UGPE, including procurement and FM. Technical inputs from the INGT, and the Ministry of Tourism and Transport will also be collected by UGPE. MIOTH will be responsible for overseeing safeguards and implementing M&E, with technical assistance from UGPE in the early stages of implementation. MIOTH and UGPE will use existing technical, procurement, and FM capacities required for project implementation. MIOTH will recruit a project coordinator, an M&E specialist, a social specialist, and an environmental specialist.

### Financial Management Arrangements

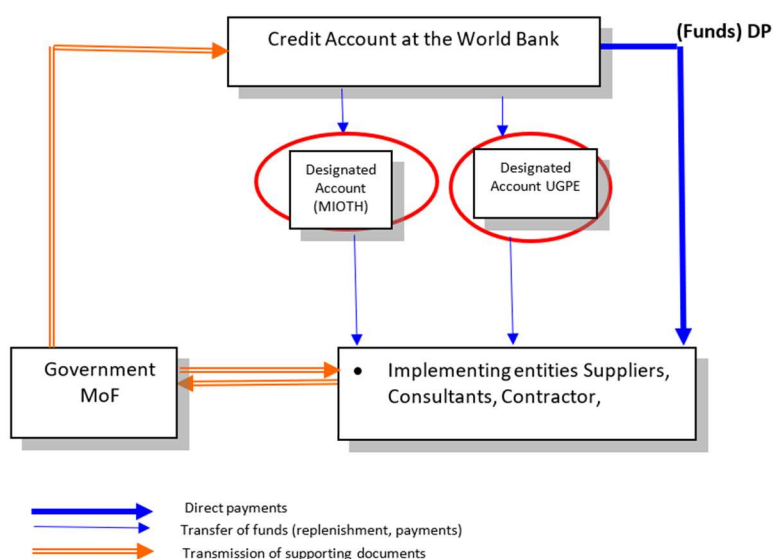
2. **Budgeting:** The project budgeting process will be described in the Administrative, Financial Procedure. Annual draft budgets would be submitted to IDA's non-objection no later than November 30<sup>th</sup> (the first such Annual Work Plan being due one month after the Effectiveness Date before adoption and implementation. The execution will be monitored on a quarterly basis and reports of budget monitoring and variance analysis will be prepared and included in the IFR.
3. **Accounting:** MIOTH will consolidate the project's account and will prepare the project financial statements by using the National Accounting Standards and Financial Reporting (SNCRF) used for all on-going World Bank-financed project in Cabo Verde and will use the cash basis to maintain the project's accounts. The project accounting will be managed through the existing accounting software which has multi-project and multi-donor features, it will be customized to segregate the accounting of the new project. All accounting procedures are documented in the Administrative and Financial Procedures.
4. **Internal Control:** (i) Manual of Procedures: The Administrative and Accounting Procedures Manual will be set up to provide a division of roles and responsibilities between implementing entities, a clear description of expected documentation for transactions, as well as the approval and authorization processes in respect of the rule of segregation of duties; (ii) Internal Audit: An internal auditor will be hired and will carry out ex-post reviews and elaborate a risk mapping of the project.
5. **Financial Reporting Arrangements.** MIOTH will produce on a quarterly basis a consolidated unaudited IFRs during project implementation encompassing activities for all components. The IFRs are to be submitted to the World Bank within 45 days after the end of the quarter. MIOTH will prepare and agree with the World Bank on the format of the IFRs. MIOTH will also produce the consolidated projects Financial Statements and these statements will comply with the Cabo Verde generally accepted accounting principles and World Bank requirements.
6. **Auditing Arrangements.** The Disbursement and Financial Information letter (DFIL) will require the submission of Audited Financial Statements for the project to IDA within six months after end of every accounting period. An external auditor with qualification and experience satisfactory to the World Bank will be appointed to conduct a yearly audit of the project's financial statements. In accordance with World Bank Policy on Access to Information, the Recipient is required to make its audited financial statements publicly available in a manner acceptable to the Association; following the World Bank's formal receipt of these statements from the Recipient, the World Bank also makes them available to the public.



## Funds Flow and Disbursement Arrangements

7. **Disbursement Methods:** The following disbursement methods may be used under the project: reimbursement, advance, direct payment and special commitment as specified in the DFIL and in accordance with the Disbursement Guidelines for IPF, dated February 2017. Disbursements would be report based whereby withdrawal applications will be supported with Statement of Expenditures. The DFIL provides details of the disbursement methods, required documentation, DAs ceiling and minimum application size. These were discussed and agreed during project negotiations of the Financing Agreement.
8. **Designated Account:** Two designated accounts will be opened at the Central Bank of Cabo Verde for MIOTH and UGPE. The designated accounts will be replenished through the submission of withdrawal applications. Requests for reimbursement and reporting on the use of advances will be accompanied by a Statement of Expenditure providing information on payments for eligible expenditures and records required by the World Bank. All supporting documentation will be retained at MIOTH and UGPE and must be made available for periodic review by the World Bank's missions.

*Figure 1.1: Funds flow diagram*



9. **FM Action Plan:** The following actions need to be taken to enhance the FM arrangements for the project.

*Table 1.1. FM Actions Tracking Table*

No	Action	Due Date	Responsible
1	Develop the external audit ToR Agreed a model of IFR with consolidate all accounting records of the project	Done	MIOTH/UGPE
2	Set up a financial and administrative manual to provide a division of roles and responsibilities between implementing entities, a clear description of expected documentation for transactions, as well as the approval and authorization processes in respect of the rule of segregation of duties	Done	UGPE/MIOTH
3	The UGPE has been given an adequate mandate with facilities and key staff (Project focal point, procurement specialist, and financial management specialist); all in a manner acceptable to the Association.	By effectiveness	UGPE



No	Action	Due Date	Responsible
4	a. Customize the existing accounting software to include segregated bookkeeping of the project. b. Recruit a part time internal auditor. c. Recruit an external auditor.	No later than three months for (b), four for (a) and six for (c), after effectiveness	UGPE/MIOTH  MIOTH

10. **Implementation Support Plan:** Based on the outcome of the FM risk assessment, the following implementation support plan is proposed. The objective of the implementation support plan is to ensure the project maintains a satisfactory FM system throughout the project's life.

*Table 1.2: FM Implementation Support Plan – Summary*

FM Activity	Frequency
<b>Desk reviews</b>	
Interim financial reports review	Quarterly
Audit report review of the project	Yearly
Review of other relevant information such as interim internal control systems reports.	Continuous as they become available
<b>On site visits</b>	
Review of overall operation of the FM system	Annually (Implementation Support Mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit and other reports	As needed
Transaction reviews (if needed)	As needed
<b>Capacity building support</b>	
FM training sessions	As and when needed.

## Procurement

11. **Procurement guidelines.** Procurement activities for the proposed project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" dated September 2023 under the "New Procurement Framework", the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants" dated October 15, 2006 and revised in January 2011 and as of July 1, 2016, and other provisions stipulated in the Financing Agreements, other provisions stipulated in the Financing Agreements. All procuring entities as well as bidders, and service providers, i.e., suppliers, contractors and consultants shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project in accordance with paragraph 3.32 and Annex IV of the Procurement Regulations.
12. **Institutional and Implementation Arrangements for Procurement.** The MIOTH is responsible for overall project implementation. MIOTH will implement Components 1 and 2, and UGPE will implement Component 3, both performing FM functions for their respective components.
13. **Project Procurement Strategy for Development.** The Recipient (UGPE, ICV and ECV) have prepared the PPSD, which describes how procurement activities will support project operations for the achievement of the PDO and deliver value for money. For works-related activities, the PPSD demonstrated the good level of competition at national level. Hence, all works contracts will be implemented using a competitive procedure, mainly the request for bids, open competition at national level (qualified international bidders shall be allowed to participate). National competitive bidding will use NPP. For contracts falling within the international threshold competition, World Bank procurement procedures shall apply. The PPSD also shows that there is a competitive market for consulting services related to works (design, supervision).
14. **Procurement Plan.** The GoCV had prepared an 18-month procurement plan that will be updated in agreement with



the World Bank annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. General Procurement Notice, Specific Procurement Notices, Requests for Expression of Interest, and results of the evaluation and contracts award should be published in accordance with advertising provisions in the Procurement Regulations. For request for bids and request for proposals that involve international bidders/consultants, the contract awards shall be published in the United Nations Development Business in line with the provisions of the Procurement Regulations.

15. **Frequency of Procurement Implementation Support.** In addition to the prior review implementation support which will be carried out by the World Bank, semiannual implementation support missions are recommended. Annual World Bank procurement post review will be conducted. The sample size will be based on the procurement risk rating for the implementing agencies in each country. The prior review procurements will be reviewed and cleared in STEP by the World Bank.
16. **Training, Workshops, Study Tours, and Conferences.** Training activities would comprise workshops and training, based on individual needs, as well as group requirements, on-the-job training, and hiring consultants for developing training materials and conducting training. Selection of consultants for training services follows the requirements for selection of consultants above. All training and workshop activities (other than consulting services) would be carried out on the basis of approved Annual Work Plans / Training Plans that would identify the general framework of training activities for the year, including: (i) the type of training or workshop; (ii) the personnel to be trained; (iii) the institutions which would conduct the training and reason for selection of this particular institution; (iv) the justification for the training, how it would lead to effective performance and implementation of the project and or sector; (v) the duration of the proposed training; and (vi) the cost estimate of the training. Report by the trainee(s), including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinator and will be kept as parts of the records, and will be shared with the World Bank if required. A detailed training and workshops' plan giving nature of training/workshop, number of trainees/participants, duration, staff months, timing and estimated cost will be submitted to IDA for review and approval prior to initiating the process. The selection methods will derive from the activity requirement, schedule and circumstance. After the training, the beneficiaries will be requested to submit a brief report indicating what skills have been acquired and how these skills will contribute to enhance their performance and contribute to the attainment of the project objective. The POM will detail procedures for these activities.
17. **Operational Costs** financed by the project would be incremental expenses, including office supplies, vehicles operating cost, maintenance of equipment, communication costs, rental expenses, utilities expenses, consumables, transport and accommodation, per diem, supervision costs, and salaries of locally contracted support staff. Such services' needs will be procured using the procurement procedures specified in the POM accepted and approved by the World Bank.
18. **Procurement Manual:** Procurement arrangements, roles and responsibilities, methods and requirements for carrying out procurement shall be elaborated in detail in the Procurement Manual which may be a section of the POM. The POM shall be prepared and adopted by the Borrowers and agreed with the World Bank not later than seven days after effectiveness.
19. **Procurement Methods:** The Recipient will use the procurement methods and market approach in accordance with the Procurement Regulations. Open National Market Approach is a competitive bidding procedure normally used for public procurement in the country of the Recipient and may be used to procure goods, works, or non-consultant services provided it meets the requirements of paragraphs 5.3 to 5.6 of the Procurement Regulations.
20. **Procurement Prior Review.** The procurement risk is rated Substantial. Table 1.3. summarizes the procurement prior review thresholds for Substantial risk. These prior review thresholds can evolve according to the variation in



procurement risk during the life of the project.

*Table 1.3: Procurement Prior Review Thresholds (US\$, million) for Substantial Risk*

Works	US\$5 million
Goods, information technology, and non-consulting services	US\$1.5 million
Consulting firms	US\$500,000
Individual consultants	US\$300,000

21. **Procurement Capacity Assessment:** UGPE will be responsible for procurement, except works-related activities. UGPE is implementing almost all projects in the Cabo Verde portfolio with World Bank and has extensive experience dealing with World Bank Procurement Regulations and, globally, good performance, including good command of the STEP system. For activities under Components 1 and 2, the MIOTH will be the implementing entity through its two entities: (i) ECV for construction/rehabilitation of roads; and (ii) ICV for the urban investments. An implementing entity will be created in STEP under MIOTH, with users from ICV and ECV. As part of the assessment, the World Bank has reviewed procurement processes managed by ECV and ICV for the implementation of the PRRA and it has found that the procedures, using the national procurement system, were globally compliant with the procurement principles and that the entities had adequate experience. MIOTH will use national standard bidding documents when using NPP, subject to include clauses related to (i) World Bank right to review and audit; (ii) anticorruption guidelines; and (iii) environmental and social safeguards clauses acceptable by the World Bank. A training in STEP will be provided to MIOTH staff assigned to the project.

*Table 1.4: Procurement mitigation measures*

Procurement mitigation measure to be taken by the MIOTH and UGPE	By when
MIOTH to appoint procurement focal points	Done
Adapt the national procurement documents with World Bank mandatory clauses (E&S, anti-corruption guidelines)	Project effectiveness
World Bank to provide STEP training to MIOTH focal points	Done
Prepare the POM, including the Procurement section	Project effectiveness
UGPE to recruit a Procurement Officer and a Procurement Assistant in order to manage the increased workload	Project effectiveness

22. **Contract Management and Administration.** For all prior review contracts, contract management plans (in line with the provisions of the Procurement Regulations Annex XI) will be developed during contract creation and completed at the time contracts are signed. All contracts will require the use of the contract management module in STEP.

#### **Environmental and Social Risk Management.**

23. **MIOTH will be responsible for overseeing safeguards, with technical assistance from UGPE in the early stages of implementation.** MIOTH will be staffed with at least two suitably qualified and experienced specialists - one Environmental Specialist and one Social Specialist - to cover the ESF aspects of the first two project components. However, at UGPE there are currently only two full-time dedicated environmental specialists (with qualifications and prior experience in environmental management) and they have been covering both E&S aspects. MIOTH will:
- Ensure that the Recipient fully implements all obligations, as spelt out in the ESCP, and the accompanying instruments;





- Ensure that contractors and all project workers respect the E&S obligations laid out in the E&S instruments by including relevant clauses in the contract documents;
- Notify the World Bank of any breach of commitment to E&S obligations as spelt out in the Financing Agreement;
- Inform project affected people and civil society of their rights and obligations regarding project implementation;
- Ensure that the project GRM is operational at all levels, is accessible nationwide, and that project-related grievances are registered and properly treated, respecting all relevant protocols;
- Monitor and manage issues related to labor, community health and safety;
- Provide regular reports on E&S risk management implementation at all levels.
- Ensure that UGPE recruits a Social Risk Management Specialist within three months of project effectiveness and shall maintain that position throughout project implementation.
- Within three months of Project Effectiveness, MIOth and UGPE will sign a memorandum of understanding to cover, inter alia, the support on the social and environmental risk management aspects under the project.

**24. World Bank Implementation Support.** The World Bank's E&S staff will support the MIOth remotely and through missions to project sites at least twice a year (public health circumstances permitting). Implementation support to the MIOth will include capacity building on ESF requirements for the MIOth E&S staff, technical assistance in carrying out due diligence for the bidding and contract documents for construction works and the implementation of the E&S management plans such as the SEP, LMP, ESMPs and Resettlement Action Plans (RAP) for the investments funded by the project. Thus, the World Bank, will:

- Ensure that the MIOth takes ownership of the implementation of the E&S management measures outlined in the various instruments for all proposed project activities;
- Regularly visit project intervention sites to ensure that contractors and supervising engineers effectively implement all social and environmental measures throughout the works cycle;
- Ensure that the infrastructure designed and built by the project is universally accessible to every user, particularly for people living with disability;
- Intervene urgently in any incident or accident that requires verification and monitoring and ensure reporting;
- Take note of any breaches of commitment to E&S management and advise the MIOth on necessary corrective measures;
- Support ESF capacity building and training for the MIOth and national stakeholders, as outlined in the ESCP.

**25. Monitoring and Evaluation.** Adequate support to M&E activities will need World Bank-staffed missions at least twice a year. MIOth will be responsible for the overall coordination of M&E activities, their consolidation, and preparation of periodic fiduciary and M&E reporting, including impact and output indicators as well as annual audit of project's financial statements. Under the M&E plan, units of measurement, baseline values, targets, frequency, data source/ methodology and responsibility for data collection will be defined for each outcome indicator and each intermediate level indicator. For the PDO indicators measured as percentages, the unit of measure will be transformed to absolute values, once the investment locations are known after the prioritization is confirmed. The data is expected to inform the World Bank's semi-annual implementation support missions to track project progress in terms of outcomes in the Implementation Support and Results Reports (ISR) reports, and for the final project evaluation in the ICR. Reporting and use of M&E data as well as assessment of capacity will be described and rated in the ISRs and will be reviewed at MTR. Any changes required will be made promptly through restructuring, as needed. M&E expertise within MIOth will need to be recruited. M&E capacity support under the project will include technology, equipment, training on data collection, content management, information updates and basic system troubleshooting and maintenance. Efforts will be made to fully empower national institutions in the M&E of the project outcomes, ensuring that it is strongly linked to the national M&E system. The MIOth will be responsible for producing timely and pertinent



information that will become a key management tool for decision makers.

26. **Overall Project Management.** The World Bank project team, which includes staff based in the Country Office, will provide regular implementation support of all operational aspects, as well as coordination with the Recipient and among the World Bank team members, through a minimum of two implementation support missions per year. The project will undertake mid-term independent audits. The Implementation Arrangements and Support Plan will be reviewed during each mission (semi-annually) to ensure that it continues to meet the implementation support needs of the project.

**Table 1.5: Summary of Support Plan and Skill Mix**

Time	Focus	Skills Needed	Partner Role
First 12 months	1. Work plans for Components 1, 2, 3, 4	1. Task Team Leaders (TTL)	Implementation Support
	2. Communication and awareness raising of project	2. TTLs	
	3. Implementation start of Component 1, 2, 3	3. Civil Engineer, Transport Specialist, Urban Specialist	
		4. Environment Expert	
		5. FM Expert	
		6. Procurement Expert	
		7. Environment Experts	
		8. Social Expert	
		9. M&E	
12-48 months	1. Implementation of all components' activities	Same as above	Implementation Support
	2. Technical quality control		
	3. Collection of M&E data		
	4. Adherence to fiduciary and safeguards policies and procedures		
	5. Policy dialogue with GoCV		
	6. Information sharing and coordination with other donors and agencies		
48-60 months	1. Finalization of component activities	Same as above	Implementation Support
	2. Collection of end-line M&E data		
	3. Final technical audit		

**Table 1.6: Skills Mix Required**

Skills Needed	Number of Staff Weeks
TTLs	5
Civil Engineer	5
Transport Specialist	6
Urban Specialist	4
Procurement Specialist	6
FM Specialist	4
Environmental Safeguards Specialist	8
Social Inclusion Specialist	8
M&E Specialist	4



## ANNEX 2: Economic Analysis

1. **As part of project preparation, an economic analysis was conducted for Components 1 and 2.** To evaluate the urban interventions for the Component 1, a cost-benefit analysis methodology was employed, assessing the nine “first movers” interventions. For the Component 2, a generic version of the Roads Economic Decision (RED) Model was used, considering thirty-three roads that could potentially be improved or rehabilitated. Once the final selection of urban interventions and roads has been determined, the preliminary evaluation results will facilitate their final assessment.

### Economic Analysis for Component 1: Enhancing Resilient Urban and Community Infrastructure

2. **Using the cost-benefit analysis, the results of the Component 1 analysis indicate that urban and community interventions could generate economic value and positive net benefits.** The cost-benefit approach evaluates the expected benefits and costs associated with urban interventions, comparing a situation with and without the project. Given the project will implement many urban interventions across various municipalities, each with similar purposes, interventions were grouped considering their objectives and location to estimate their collective impact. The interventions were classified into two categories: (i) climate-resilient urban upgrading in urban centers and precarious neighborhoods; and (ii) rehabilitation of historic centers and waterfront areas with tourism potential. The analysis was conducted considering a 20-year period, and a discount rate of 12 percent<sup>59</sup>.
3. **Estimation of benefits.** Under the first category, six interventions across five different municipalities were analyzed. These interventions include the upgrading of precarious neighborhoods and rehabilitation of urban centers. They also aim at enhancing resilience by constructing drainage systems to prevent flooding in areas. Three potential benefits have been calculated for these interventions: benefits from (i) increased property value; (ii) increase on economic activity; and (iii) reducing costs of flooding. For the second category, three interventions were assessed. They include the rehabilitation of a historic center, and the requalification of two waterfront areas. By generating incentives to attract more tourists and increase their average expenditure, these interventions are expected to yield benefits. To quantify these benefits, we compared the annual tourism spending (US\$) in the intervention area considering a scenario with and without the project. Refer to Table 1 for the parameters and assumptions for each benefit.

*Table 2.1. Parameters and assumptions to estimate benefits of category 1*

Potential benefits	Parameters and assumptions
<b>Category 1: Climate-resilient urban upgrading in urban centers and precarious neighborhoods</b>	
B1. Increase in property value	<p><b>Current property value (US\$)</b> = # of dwellings in the intervention areas x average dwelling size (m2) x average property value (US\$/m2)</p> <p><b>Benefit (US\$)</b> = Current property value x property value appreciation rate (%)</p> <p><b>Assumptions:</b></p> <p><b>Number of dwellings in intervention areas:</b> Considering the number of urban dwellings in precarious situations. Data from INE 2021. Census.</p> <p><b>Average dwelling size:</b> Considering the national average dwelling size (45 m2) for all interventions. Data from the Center for Affordable Housing Africa (2021).</p> <p><b>Average property value:</b> Using the price per square meter to buy an apartment outside of the center in Mindelo for all interventions (US\$645 per m2). Data from Numbeo (2023).</p> <p><b>Property value growth:</b> A 5.5 percent rate was considered based on the application of the hedonic pricing model in a project that aimed to recover the Coastal Front of the Paraná River in Rosario, Argentina.</p>
B2. Increase on economic activity	<p><b>Annual production value (US\$)</b> = Annual total businesses sales (US\$) per municipality x 20 percent</p> <p><b>Benefit (US\$)</b> = Annual production value (US\$) x Growth production value (%)</p> <p><b>Assumptions:</b></p>

<sup>59</sup> The discount rate was calculated based on the risk-adjusted opportunity cost of capital.



Potential benefits	Parameters and assumptions
	<p><b>Annual total business sales (US\$):</b> Considering the value at a municipal level found in the Business Survey (2020) conducted by INE.</p> <p><b>Annual production value (US\$):</b> It is estimated at 20 percent of the total sales.</p> <p><b>Growth production value (%):</b> Estimated as 2 percent due to the project.</p>
B3. Reducing costs of flooding	<p><b>Flooding costs that will be avoided per year (US\$)</b></p> <p><b>Assumptions:</b> Cabo Verde loss due to flooding between 2012 and 2016 = US\$10 million. Estimated annual cost = US\$2.5 million. Data from Pacific Disaster Center (2021).</p>
<b>Category 2: Rehabilitation of historic centers and waterfront areas with tourism potential</b>	
B1. Increase on economic activity related to the tourism sector by municipality	<p><b>Total tourism spending (US\$) = # of tourists arrivals per year x average length of stay (days) x average tourist spending per day (US\$)</b> <i>Comparing a situation with and without project</i></p> <p><b>Assumptions:</b></p> <p><b>Avg length of stay:</b> Using the average length of stay at the national level (6 days). Based on the Resilient Tourism and Blue Economy Development in Cabo Verde Project (P176981) data.</p> <p><b>Avg tourist spending per day:</b> Average spending per day in Cabo Verde (2021). Data from INE, Inquerito aos gastos e satisfacao dos turistas (2021).</p> <p><b>Growth rate in arrivals:</b> 9 percent, calculated based on pre-pandemic values with data from INE.</p> <p><b>Growth rate in average tourist spending per day:</b> 10 percent, calculated based on pre-pandemic values with data from INE, Procura Turística.</p> <p><b>Additional growth rate in arrivals due to project:</b> 3 percent from year 6. Based on calculations made in P176981.</p> <p><b>Additional growth rate in tourist spending per day:</b> 5 percent from year 6. Based on calculations made in P176981.</p>

4. **Estimation of costs.** The estimation of the project's costs encompassed various components, including investment expenses, project management costs, and operation and maintenance costs. The investment amount allocated to the two urban interventions categories was estimated at US\$14 million<sup>60</sup>, while the project management costs were calculated to be US\$2 million. As for the operation and maintenance costs, they were determined as 0.8 percent<sup>61</sup> of the total investments made up until the previous year during the disbursement years. Starting from 2029, which marks the project's sixth year, the operation and maintenance costs remain at a fixed value representing 0.8 percent of the total investment costs.
5. **Results.** The economic analysis results indicate that the urban component's interventions will generate economic value and positive net benefits. Under the assumptions and estimates analyzed above, the NPV of the project's urban component reached US\$50.6 million, considering a 20-year period and a discount rate of 12 percent, while the economic rate of return (EIRR) is estimated at 30.6 percent.
6. **Sensitivity analysis.** The sensitivity analysis evaluated the economic viability of the project by examining the potential impact of variations in key variables or assumptions - the project maintains its profitability under all scenarios. The scenarios assessed were the following: (i) changing the discount rate to 6 percent, that is estimated based on the long-term growth prospects of the country<sup>62</sup>; (ii) assuming that the property value growth in a scenario with project will amount to 11 percent and to 17 percent<sup>63</sup>; and (iii) assuming that the growth rates in arrivals and in

<sup>60</sup> The total cost of urban interventions amounts to US\$14 million. We are assuming that the interventions that will be added could be grouped in the proposed categories and will have similar objectives to the interventions analyzed.

<sup>61</sup> Rate based in other World Bank urban infrastructure projects.

<sup>62</sup> A 6 percent discount rate was estimated based on the long-term growth prospects of the country and using the Ramsey formula. According to the International Monetary Fund (IMF) (2023), the economic growth in Cabo Verde is expected to continue growing but at a slower pace compared to the growth after the COVID-19 pandemic. Thus, per capita growth rate is expected to be around 3 percent.

<sup>63</sup> An Inter-American Development Bank (IDB) study, that applied the hedonic pricing technique, found that in Rosario, Argentina, green spaces contributed to an 11 percent increase in property value within a 5-block radius. The application of the hedonic pricing technique in the Kinshasa Multisector Development and Urban Resilience Project (P171141) found that access to improved piped water, sanitation, excreta disposal, solid waste management, flood risk reduction, and electricity interventions in densely populated slums were associated with a 17 to 22 percent increase in rents.



tourist spending per day due to project increase by 2 percent and decrease by 2 percent.

## Economic analysis for Component 2: Enhancing Transport Connectivity and Resilience

7. **The Component 2 economic evaluation was conducted using a generic version of the Roads Economic Decision (RED) Model.** The overall analysis will be based on a MCA and will include inputs based on results of the RED model. The road sections from a long list of 39 potential projects with a total length of about 320 kms and a total cost of almost US\$124 million was analyzed. From the 39 projects, four would be new roads (two with an asphalt surface and two with a cobblestone surface)<sup>64</sup>. Sixteen projects would involve the upgrading of existing earth or cobblestone roads to have an asphalt surface<sup>65</sup>, and a further nineteen projects would involve either the improvement of an existing cobblestone road or the upgrading of an existing earth road to a cobblestone surface<sup>66</sup>. For evaluation purposes, the improvement or upgrading of each road component is treated as a separate sub-project. The evaluation of each project is computed as a weighted sum of the individual sub-projects evaluations. This approach allows for a comprehensive assessment of the overall impact and effectiveness of each road project, considering the specific improvements made in different segments of the road network.
8. **Estimation of benefits. The RED model estimates the direct benefits that proposed road improvements will have on road users.** These benefits include the reduction of vehicle operating and maintenance costs, the drop on users' travel times, lower accident rates, and decreased vehicle emissions. To estimate the vehicles' operating costs and vehicles' speed, the IRI<sup>67</sup> was used, calculated from data related to the roads' conditions. The RED parameters were adjusted for surface deterioration, economic life<sup>68</sup>, vehicle speeds and accident rates for gravel roads to apply to roads with cobblestone surfaces. The road users' time were derived based on World Bank values for per capita income in Cabo Verde and standard values for the number of hours worked per year. Lastly, the costs of accidents were estimated using external data from West Africa. The model also estimates how much new traffic would be created and how much traffic would be diverted from other roads. Given the geographic layout of the islands and that most of the projects are in isolated valleys, the standard RED methods for estimating the volume and benefits of generated and diverted traffic need adjustments to reflect these conditions. Full implementation of these adjustments will depend on additional data<sup>69</sup>. Without this data, it has not been possible to apply the RED to the four proposed new road projects, as the benefits of these derive only from diverted and generated traffic.
9. **The only benefits that the RED estimates are those to existing road users, but the principal objectives of the proposed projects are much broader than these.** They include increasing agricultural and fishing output, creating new employment opportunities, and providing greater connectivity of isolated communities to health, education and commercial facilities and market opportunities. The extent to which these Wider Economic Benefits (WEBs) would be achieved will be assessed as inputs to an MCA<sup>70</sup>.
10. **Estimation of costs. To estimate the cost of each project, a regression analysis was conducted considering the characteristics of each subproject.** The dependent variable was the total project cost, while the independent variables were based on the length of each sub-project, determined by the length of the current surface type. By analyzing these variables, the evaluation yielded estimated costs for each sub-project type, as shown in Table 2.2. However, due

<sup>64</sup> The new roads would have a total length of about 49 km and cost about US\$26.4 million or about US\$0.54 million per km.

<sup>65</sup> These 16 projects amount a total length of 176 km and a cost of US\$69.5 million or US\$0.39 million per km.

<sup>66</sup> These projects would have a total length of about 95 km and a cost of US\$27.8 million potential, equivalent to an average cost of US\$0.40 million per km.

<sup>67</sup> International Roughness Index.

<sup>68</sup> Economic life is defined here as the period until which a major reconstruction is necessary if annual maintenance is undertaken.

<sup>69</sup> For the essential data on total traffic volumes, assessments were made by Cabo Verdean Road engineers based on their experience.

<sup>70</sup> An MCA is a more developed form of Cost-Effective Analysis which was previously considered for this purpose.



to the limited number of projects, it was not feasible to include more dependent variables in the regression analysis, which could have resulted in statistically significant results. This limitation led to some anomalies in the unit costs per kilometer of roads, which might have been eliminated if the conditions of the existing road surfaces could have been included in the regression (on average, 57 percent of the roads are currently in bad condition and only 13 percent are in good condition).<sup>71</sup>

*Table 2.2. Regression results of the costs of road activities<sup>72</sup>*

	Activity	U\$ per km
i	Upgrade an earth-surfaced road to cobblestone	230,000
ii	Improve a cobblestone-surfaced road to good condition	325,000
iii	Upgrade an earth-surfaced road to asphalt	460,000
iv	Upgrade a cobblestone-surfaced to asphalt	350,000
v	Improve an asphalt-surfaced road to good condition	25,000

11. **Results. Using the RED Model, the Modified Internal Rate of Return (MIRR)<sup>73</sup> was estimated, as well as the net present value for each project that involve either the improvement or upgrading of a road<sup>74</sup>.** Due to the large impact of traffic volume, the economic evaluation was repeated for a wide range of low traffic levels, ranging from 10 to 150 vehicles per day. The outputs of the model were adjusted to exclude the benefits of diverted and induced traffic. Table 3 provides indicative outcomes for each type of roads, considering the traffic levels. The results indicate that from the thirty-three projects evaluated only two have MIRRs above the thresholds of 6 percent or 12 percent. As all the projects that require a cobblestone surface (Columns 2 and 5) have a traffic volume of 20 vehicles per day or less, this result in negative MIRRs and negative NPVs. Similarly, the average rates of return for roads being upgraded to asphalt concrete pavements are negative (-8.0 percent). Only the two projects that have estimated traffic levels of 100 vehicles per day present MIRRs above the thresholds of 6 percent of 12 percent (discount rates). These are the Estrada Volta Monte-Ribeira da Barca and Ribeirão Chiqueiro - Fontes Almeida, both of which are currently cobblestone roads that are proposed to be upgraded to asphaltic concrete. As this analysis is only considering the direct user benefits, the inclusion of wider economic benefits could result in acceptable MIRRs and NPVs.

*Table 2.3. Economic assessment of typical road improvements and upgrades<sup>75</sup>*

MIRR results - %	Current surface					
	Earth			Cobblestone		Asphalt
	Activity					
	Improve condition to good	Upgrade to Cobblestone	Upgrade to Asphalt Concrete	Improve condition to good	Upgrade to asphalt concrete	Improve condition to good
Traffic (vehicles per day)	MIRR	MIRR	MIRR	MIRR	MIRR	MIRR
10	-5.10%	-7.50%	-8.60%	-12.00%	-5.30%	-1.10%
20	2.10%	-2.40%	-4.60%	-6.50%	-0.20%	5.70%
50	10.20%	3.60%	3.60%	0.10%	6.20%	14.20%
100	18.50%	8.70%	5.00%	4.80%	12.00%	21.10%
150	24.40%	12.20%	7.90%	7.90%	15.70%	26.10%

<sup>71</sup> The available data shows the current length of each surface type for each project and the length in poor, regular, and good condition, but not a cross tabulation of condition by surface type.

<sup>72</sup> The costs resulting from the regression analysis will be checked against actual unit costs to be provided by MIOH, ECV, and/or ICV.

<sup>73</sup> For each project, the MIRRs were estimated for the subsections of each activity, and a weighted average was calculated based on the subproject's length. A benchmark MIRR was used, based on a discount rate of 12 percent.

<sup>74</sup> The five new road projects have not yet been evaluated. Their evaluation will be very speculative as it will not be possible to reasonably assess the 'without project' costs to derive a cost saving to which elasticity values can be applied to estimate the generated traffic. Diverted and generated traffic has been excluded from all the evaluations as this would involve double counting of benefits if the CBA results are to be included in the Multi-Criteria Assessment which also includes the benefits of increased GDP.

<sup>75</sup> Excluding benefits to diverted and induced traffic and excluding value of carbon emissions.





### ANNEX 3: Prioritization Framework and Indicators

1. **The Prioritization Framework is a tool that will help to evaluate and rank numerous investments from a long list, determining which ones will have the greatest impact and should be prioritized for implementation.** The GoCV provided a list of sixty-four investments, totaling US\$175 million, to be considered as part of the project. Due to the constrained budget, it was proposed to develop a Prioritization Framework to rank the 64 investments and select the most critical ones to be implemented (as a first phase of the project), in addition to the first movers. The Prioritization Framework was designed in conjunction with key institutions of the GoCV. The process involved numerous meetings and workshops with key governments' institutions<sup>76</sup> to define the main aspects of the methodology, review and achieve a consensus about the criteria and indicators, and to gather essential data for constructing the indicators and georeferenced maps.

#### Methodology

2. **The Prioritization Framework comprises a comprehensive set of criteria and indicators, which are organized into four dimensions.** The Prioritization Framework consists of 20 criteria that are organized into four dimensions aligned with the objectives of the PEDS 2022-2026 and the project. These four dimensions are: (i) Social Impact; (ii) Territorial Impact; (iii) Economic Development Impact; and (iv) Resilience Impact. To quantitatively measure the criteria, a list of 22 indicators has been provided, serving as measurable variables that capture relevant information for the prioritization exercise's goals and objectives<sup>77</sup>. To calculate final scores for each intervention and obtain a ranking, distinct weights will be allocated to both indicators and dimensions, reflecting the priority and emphasis placed on each of them. Considering that investments in roads and urban interventions possess unique and distinct attributes, certain indicators and criteria were tailored to reflect these differences. As a result, the interventions will be compared exclusively with other interventions within the same category, allowing for more meaningful and relevant evaluations.
3. **The Prioritization Framework was applied to a long list of investments, which included a georeferencing exercise.** After defining the criteria and indicators, the framework was applied to the 64 interventions from the long list to test and fine-tune the parameters. The pilot phase also involved a georeferencing exercise, in which the spatial locations of the 64 interventions were mapped out and aligned with the framework's indicators. This exercise served to spatially identify the interventions, assess some of the indicators, and ensure accurate spatial representation.

#### Criteria and indicators

4. **The first dimension, known as "Social Impact," evaluates the potential interventions based on their ability to reduce poverty and promote social cohesion.** This dimension aligns with the objectives of the PEDS and the project, aiming to decrease poverty, prioritize the most vulnerable communities, and enhance social development, including gender equality. This dimension consists of four criteria and indicators. The first criterion focuses on prioritizing areas with a higher proportion of people in poverty or extreme poverty. The second prioritizes interventions that impact a larger population, addressing challenges due to Cabo Verde's low population density, which leads to higher costs for providing essential services. The third criterion emphasizes gender equality, giving higher scores to areas with a higher representation of households led by women<sup>78</sup>. Finally, the fourth criterion aims to prioritize areas engaged in agricultural, fishing, and tourism activities, which align with the expected impact of the project's interventions. Refer to Figure 3.1 for criteria and indicators' details.

<sup>76</sup> The institutions that were part of this process were the National Planning Directorate (*Direção Nacional do Planeamento*, DNP) of the Ministry of Finance, the National Institute of Territorial Management (*Instituto Nacional de Gestão do Território* INGT, ECV, ICV of the MIOH, and the INE.

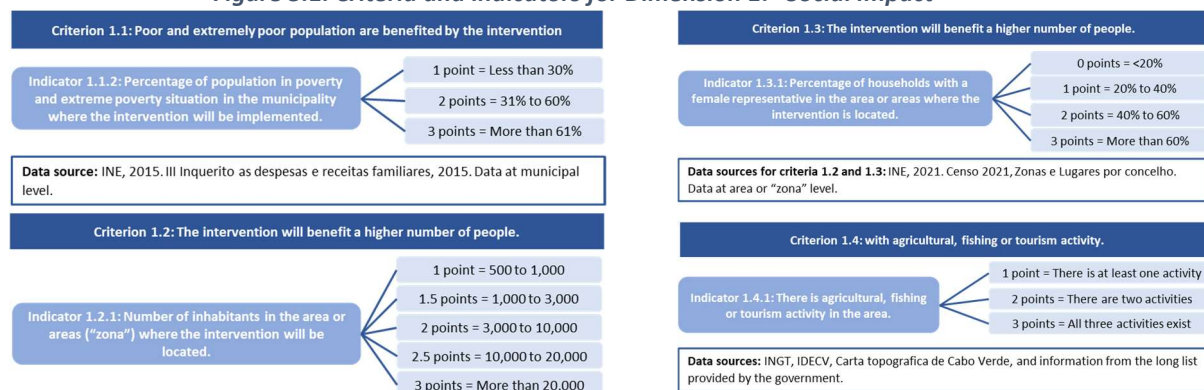
<sup>77</sup> The final criteria and indicators were defined based on data availability.

<sup>78</sup> Studies suggest that urban and road interventions can particularly benefit women by increasing safety and access to basic services.





Figure 3.1. Criteria and indicators for Dimension 1: “Social impact”



- The second dimension evaluates the Territorial Impact of the potential interventions.** This dimension assesses the strategic location of the potential roads to be intervened, considering their impact on increasing access to basic services and enhancing connectivity. It also recognizes the importance of leveraging synergies among interventions to maximize their effectiveness, ensuring alignment with national and local planning strategies. This dimension comprises eight criteria, six of which are specific to road interventions. Four criteria focus on prioritizing roads that improve access for remote communities to basic services and markets. This includes the connection of towns with cities, linking two cities, connecting communities to national roads, and providing access to health and educational facilities. The other two criteria evaluate road characteristics, giving preference to roads with a higher percentage of kilometers in poor condition and those experiencing higher traffic levels. The remaining two criteria, applicable to both roads and urban interventions, emphasize the prioritization of spatial integration. This involves alignment within this project and with other World Bank and government initiatives. Additionally, the criteria ensure that interventions are situated in or directly related to strategic areas identified by national or local planning instruments. Refer to Figure 3.2 for criteria and indicators’ details.
- The third dimension assesses the impact of interventions on economic development, with a strong focus on tourism, the blue economy, and agriculture value chains.** Both the PEDS and the project share the goal of promoting inclusive economic growth. Therefore, the criteria provide indicators to identify interventions with a strong potential to positively affect the tourism, fishing, and agriculture sectors. These criteria are organized into four subcategories. The first subcategory, “Economic Activity”, prioritizes areas where the interventions could stimulate the economy by creating economic opportunities and boosting local business activities. The second subcategory, “Tourism Platform”, aims to identify areas where the interventions could unlock tourism potential. For urban interventions, two indicators assess the tourism’s demand, prioritizing municipalities with low or medium levels of tourists, and areas that are accessible to tourists. For road interventions, a criterion prioritizes roads that provide access to areas with tourism potential. The “Blue Economy” subcategory prioritizes interventions in areas with higher fishing activity to enhance both the overall quality of life and stimulate economic growth within the fishing sector. Lastly, the “Agricultural Transformation” subcategory assesses if roads that connect agricultural communities to markets are prioritized, as they help guarantee access and production flow to arable areas. Refer to Figure 3.3 for criteria and indicators’ details.
- The final dimension, “Resilience Impact,” helps in identifying whether the interventions will be implemented in areas susceptible to natural risks.** Since all the project’s interventions will adopt a climate-resilient approach, priority will be given to areas more vulnerable to climate-related risks. Due to data limitations, the World Bank and GoCV chose to concentrate the criteria on the risks of flooding and landslides. The proposed indicators use yes/no assessments, and will rely on information from georeferenced data. Refer to Figure 3.4 for details.



Figure 3.2. Criteria and indicators for Dimension 2: “Territorial impact”

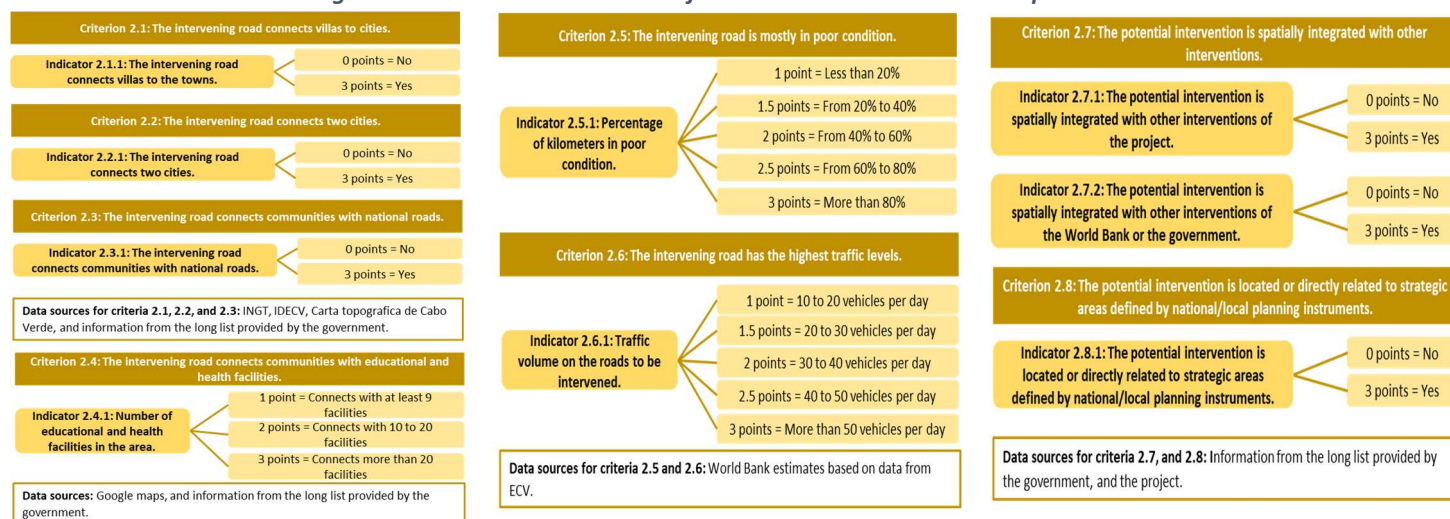


Figure 3.3. Criteria and indicators for Dimension 3: “Economic Development Impact”

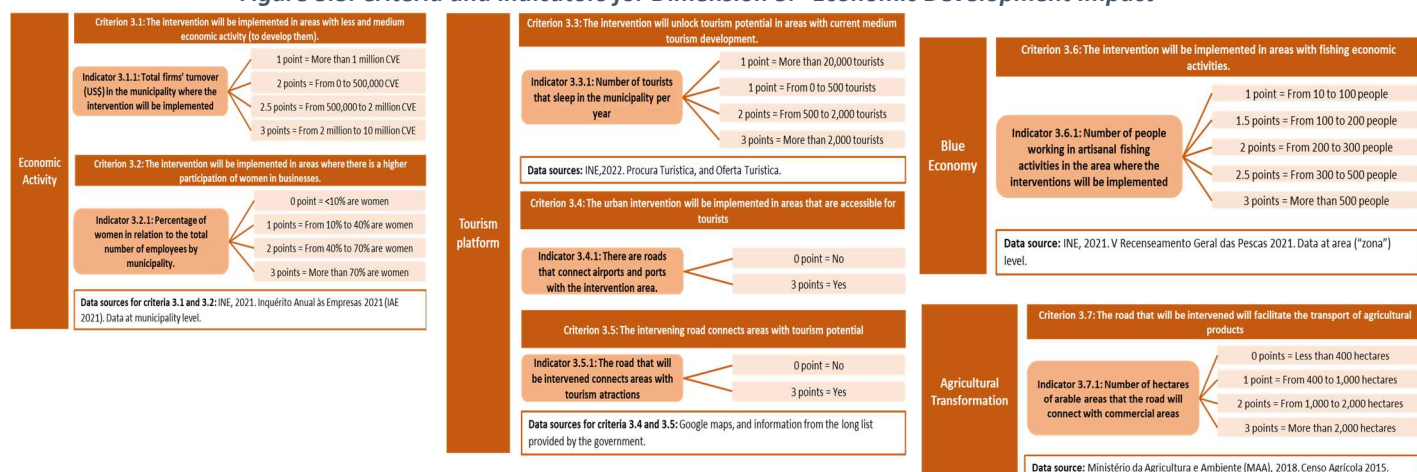
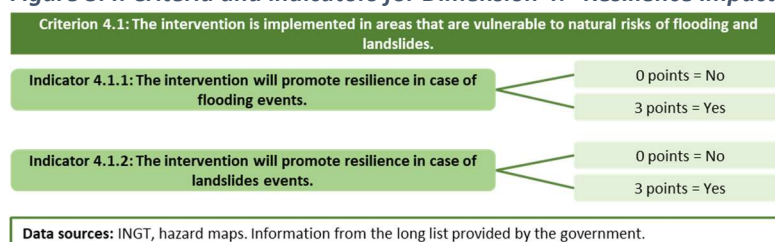


Figure 3.4. Criteria and indicators for Dimension 4: “Resilience Impact”



8. **Road investments.** Based on the above methodology applied to the long list of road sector investments, a series of scenarios were tested by the GoCV and the World Bank. The GoCV indicated that the “economic” scenario was preferred (scenario based on a weight of 40 percent of the indicators related to the economic dimension and 20 percent for each of the other: social, resilience, territorial). In addition to the first movers, the ranking resulting from this scenario identified the following candidates for Component 2: Ribeira Fria - Ribeira dos Bodes, Igreja São Miguel - Entroncamento Cutelo Gomes, Circular de Cidade Velha, access road for Ribeira Caibros, Carriçal – Juncalinho, rehabilitation of Ribeirão Chiqueiro-Fontes Almeida – Trindade road.



## ANNEX 4: Climate Change Adaptation and Mitigation

### Climate Risks and Statement of Intent to Enhance Climate Resilience

1. As a SIDS, Cabo Verde's geomorphological characteristics define a set of landscapes, such as lowlands along the coast; hence, resulting in high vulnerability to coastal flooding and erosion from sea level rise and storm surges. Cabo Verde also experiences climate-induced extreme heat, flash floods, sea level rise, coastal erosion, landslides, and rock-falls. Climate risks identified in the climate risk screening are presented in the "Country Context" and "Sectoral and Institutional Context" sections of the Project Appraisal Document (PAD).
2. The Climate and Disaster Risk Screening rated the exposure to climate and geophysical hazards as high considering increasing temperatures and a reduction in precipitation with climate change, resulting in the increasing risk of droughts, concentration of heavy localized rains in short periods of time, causing high water discharge and run-off, increasing the risk of flash floods, high exposure to localized landslides, and the increasing risk of coastal erosion and inundation with high storm surges and sea-level rise. The overall climate and disaster risk rating for the proposed project is estimated to be low as the proposed project aims to enhance the climate resilience of urban spaces, urban mobility infrastructure, inter-city, and rural roads, ensuring alignment with strategic climate documents outlined in the "Relevance to Higher Level Objectives" section of the PAD.

### Project Climate Adaptation and Mitigation Interventions

3. All interventions to be financed by the proposed project were identified based on their potential to enhance the resilience of transport and urban infrastructure, road network and urban areas to the impacts of climate change and natural hazards (i.e., flash floods, coastal erosion and inundation from high storm surge and sea level rise, extreme heat, landslides and rockfalls). The proposed project has two groups of sub-projects or interventions: (i) the "First Movers," which are ready to be implemented upon approval of the proposed project; and (ii) a selection from a long list identified needs by the government, to be prioritized based on the methodology outlined in Annex 3, with 100 percent of projects to be selected based on their relative contributions to climate resilience.
4. Furthermore, the proposed Project applied the Avoid–Shift–Improve + Resilience (ASI+R) framework to identify suitable measures for integration in the project design to mitigate greenhouse gas (GHG) emissions and support climate resilience. These measures are summarized below, together with information on how the proposed Project contributes to climate adaptation and mitigation.

### Component 1: Enhancing Resilient Urban and Community Infrastructure (US\$ 12 million equivalent)

5. Percentages of financing have been estimated for each type of activity under Component 1. As such, US\$11.2 million will go to sub-activities 1.a and 1.b, as follows: 10 percent will go towards the upgrading of urban roads; 25 percent towards the rehabilitation and modernization of drainage systems; 25 percent towards greening of public spaces and shaded playgrounds with energy-efficient LED lighting; 20 percent towards protection against rising sea levels and storm surges in riverside areas; 15 percent towards non-motorized urban mobility infrastructures (e.g., pavements and paths); 5 percent as contingency to be allocated among these categories. The remaining US\$0.8 million is allocated to the technical assistance and capacity building activities under Component 1.c and 1.d, as specified below.
6. **Adaptation.** This component will finance climate-resilient upgrading of urban centers, urban roads, historic centers, precarious neighborhoods, waterfront areas and infrastructure with tourism potential. All the projects to be financed have been selected due to their potential to protect urban areas from sea level rise and high storm surge, flash floods, coastal erosion and flooding, landslides, and rock-falls. The rehabilitation and upgrading of urban roads include the



paving of dirt roads and dilapidated paved roads, elevation of road sections where needed, deeper and wider road drains, pipes and culverts, and other civil works under the concept of “integrated urban transport corridors” to enhance the movement of people and high-value services safely, reliably, and efficiently. Works under this component will be designed following climate-resilient standards (e.g., designs and construction informed by current conditions and rainfall projections under different climate scenarios; and use of climate-proof, low-carbon, locally sourced building materials). Investments under this component include the rehabilitation and upgrading of bridges and drainage systems that have been impacted by climate induced flooding (i.e., climate induced flooding is driving this investment; if climate shocks were not a concern, the investment in this sub-component will not happen); and NBS to enhance climate resilience, for example, green spaces, balancing ponds to store water (with appropriate safety precautions); shaded playgrounds to reduce the climate change induced urban heat island effect; and sea-level rise and storm surge protection in waterfront areas.

7. This component also supports the National Infrastructure Plan 2023-2030 (and its nexus with the country’s NDC and NAP) through a technical assistance (US\$0.8 million) aimed at the development of gender-informed climate risk assessments and climate-resilient integrated urban and transport planning. The Technical Assistance will identify and evaluate climate-resilient measures, promote intermodal connectivity to ensure modal complementarity and improve redundancy, and establish a climate and disaster risks informed transport asset management system and practices. Examples of climate-resilient measures to be considered in integrated urban and transport planning include the provision of climate-informed drainage systems to reduce climate induced or exacerbated flood risks, the deployment of NBS to reduce the urban heat island effect and extreme temperatures, updating of the institutional framework for urban planning and land use management to include climate and natural hazard risks-oriented designs and considerations in urban development plans. To support the consultation required for the above-mentioned activities, this component will establish women-led community-based committees, which will serve as organizational bodies that operate, maintain, and facilitate the flow of information between women in the communities about climate events, preparedness, and response. This component includes communication campaigns and training for women on preparedness and the safest routes in case of climate shocks. Increasing awareness in communities and capacitation of community associations around hazard affected areas can help provide early detection of problems and inefficiencies as well as increase local ownership of the operations and maintenance of the transport infrastructure. Communities can be taught early warning signs of infrastructure deterioration and natural hazard risks, and infrastructure development is more successful and sustainable when built and maintained using community labor-based methods. The engagement of communities and local associations can also enable the protection of the most vulnerable population like the elderly, women with children, the infirm or people with disabilities that require more advance notice and time to evacuate during emergencies.
8. **Mitigation.** Investments from the US\$11.2 under this component include the greening of public spaces (e.g., tree planting) with potential for carbon capture and sequestration; the construction of playgrounds with energy efficient LED lighting powered by solar energy; the deployment of non-motorized urban mobility infrastructure (e.g., sidewalks and pathways). Under activity 1.c (US\$0.5 million), this component will also support capacity building and technical assistance activities to deliver on the NDCs of the country as it relates to enabling the deployment of low carbon, integrated urban and transport planning, and intermodal connectivity in the National Infrastructure Plan 2023-2030.

## **Component 2: Enhancing Transport Connectivity and Resilience (US\$21 million equivalent)**

9. **Adaptation.** This component will finance the climate resilience informed rehabilitation and upgrading of inter-city and rural roads, with the objective of ensuring the resilience and all-season connectivity of communities served by these roads and is not intended to support business-as-usual maintenance efforts. The road rehabilitation and upgrading is solely driven by the need to address climate change and natural hazards impacts, that render the roads impassable





and affect connectivity and access to jobs and markets, affecting tourism and other economic activities. For instance, Figure 4.1 illustrates one of the two “First Movers” road projects to be rehabilitated by this project (Fundura / Ribeira Barca road), which frequently suffers from the impacts of climate-induced landslides and rock falls. As a result, this road is typically blocked for days depending on the time taken to clear debris.

*Figure 4.1: Climate-induced landslides and rock-falls impacts on “First Mover” under the project.*



10. The improved connectivity will facilitate transport of agricultural products to markets year-round, thereby mitigating climate-change induced food insecurity. All roads and road sections were identified and prioritized based on their high exposure and vulnerability to climate change, included hazards like coastal and flash flooding, coastal erosion, landslides, and rock falling. The selection process considers climate risks and vulnerability not only at the asset level but also at the transport network and systems level.
11. The rehabilitation and upgrading of inter-city and rural roads will follow climate-resilient standards and use low-carbon and climate-adaptive materials in pavement construction. Measures to be implemented include a combination of engineering, NBS, and hybrid hard interventions (e.g., the deployment of slope protection to avoid landslides and rock-falls; the construction of channels, reservoirs and basins to direct and capture water run-off), along with soft measures such as the establishment of a climate-resilient road asset management system that incorporates preventive and climate-informed road and drainage maintenance practices.
12. Special focus will be made on areas with major risks of coastal erosion and inundation due to storm surges and sea-level rise, flash floods and climate-induced landslides/rockfalls that might damage roads and disrupt operations. Essential elements to be considered are the road levels, pavement design, cross drainage, and slope and erosion protection, as follows:
  - i. Road drainage structures. The design and construction of road drainages structures will use drainage design specifications for recurrent weather events and considering climate change projections. The use of climate-resilient design may call for additional cross and side drainage, adjustment in the vertical alignment of the road, and higher hydraulic clearances for culverts.



- ii. Pavement design. Climate change impacts due to extreme temperatures may include deformation of the asphalt surface, cracking, accelerated aging of binder, rutting of asphalt, and bleeding or flushing of seals. The countermeasure entails the use of appropriate weather-resistant pavement surfacing materials based on robust asphalt mix designs and revised pavement thicknesses which consider future temperatures.
  - iii. Water balancing ponds under a Roads for Water concept. This design approach will protect road assets and can be used to store rainwater (which can be available for irrigation during the dry season). This will protect vulnerable livelihoods from adverse effects of climate change such as prolonged droughts. Care will be taken to ensure that the water balancing ponds present no safety risks for animals and people, including children.
  - iv. Tree and grass planting for roadway reserve protection and cooling. To protect roads and drainage systems from erosion, retaining walls and gabions will be installed as necessary. Trees will be planted along the corridors to provide shade and cooling at bus stops, along NMT routes, and in parking areas.
13. Furthermore, this component will establish climate-informed road asset management practices and systems connected to an early warning system, putting in place provisions for the deployment of routine and periodic maintenance that account for climate stress and strengthening emergency preparedness and response.
14. **Mitigation.** To the extent possible, the selection of roads will consider the objective of reducing motorized distances travelled, by integrating transport and land use development planning. The upgrading of inter-city and rural roads will use the integrated road concept which include facilities for public transport, like shaded bus stations with LED lighting power by solar energy, and facilities for non-motorized transport, like sidewalks and pedestrian crossings, traffic calming devices, where needed. Road safety measures will target the most vulnerable road users (cyclists, pedestrians) and in this way promote modal shift from private vehicles to NMT.

### **Component 3: Technical Assistance (US\$5.30 million equivalent)**

15. **Adaptation.** This component will finance US\$1.50 million towards Technical Assistance activities aimed at strengthening the planning and structuring of SoE and public-private partnerships to address climate vulnerabilities and their impact on the transport sector, including the implementation of climate-resilient strategic actions developed under the Technical Assistance that informs the National Infrastructure Plan 2023-2030 (and its nexus with the country's NDC and NAP) under Component 1.
16. Similarly, this component will finance US\$1.65 million towards Technical Assistance for municipal planning to support for the development of geo-referenced climate risks mapping to support informed territorial planning, and specific investments design to support streamlining the climate resilience requirements in all future government plans and investments.
17. Lastly, this component will finance US\$0.1 million towards knowledge materials development and their implementation solely to better inform relevant institutions on transport, mobility, and urban needs in the face of climate change. The development of these materials will ensure climate-resilient integrated urban and transport planning with identification and evaluation of climate resilience measures, the promotion of intermodal connectivity to ensure modal complementarity and improve redundancy, and to establish a climate and disaster risks informed transport asset management system and practices. Examples of climate-resilient measures to be considered in integrated urban and transport planning include the provision of climate-informed drainage systems to reduce flood risks induced or exacerbated by climate change, the deployment of NBS to reduce the urban heat island effect and extreme temperatures, updating of the institutional framework for urban planning and land use management to include climate and natural hazard risks-oriented designs and considerations in urban development plans.