THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP

FOR OFFICIAL USE ONLY

Report No: PAD4560

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT AND
INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON

A PROPOSED IBRD CREDIT

IN THE AMOUNT OF EUR 191.50 MILLION
(US$202.30 MILLION EQUIVALENT)

AND

A PROPOSED IDA CREDIT

IN THE AMOUNT OF EUR 206.10 MILLION
(US$217.70 MILLION EQUIVALENT)

TO THE

REPUBLIC OF CAMEROON

FOR A

DOUALA URBAN MOBILITY PROJECT

May 11, 2022

Transport Global Practice
Western and Central Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2022)

Currency Unit =	CFA Franc (XAF) Euro
CFA 621 =	US$1.00
Euro 0.94652 =	US$1.00

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Ousmane Diagana
Country Director:	Abdoulaye Seck
Regional Director:	Ashish Khanna
Practice Manager:	Ibou Diouf
Task Team Leaders:	Franck Taillandier, Anastasia Touati

ABBREVIATIONS AND ACRONYMS

AFCS	Automatic Fare Collection System
AFD	*Agence Française de Développement* (French Development Agency)
AMO	*Assistance à Maitrise d'Ouvrage* (Project Management Firm)
AWPB	Annual Work Plan and Budget
BRT	Bus Rapid Transit
CAA	*Caisse Autonome d'Amortissement* (Autonomous Sinking Funds)
CARPA	*Conseil d'Appui à la Réalisation des Contrats de Partenariat* (Support Council for the Implementation of Partnership Contracts)
CBD	Central Business District
CCE	*Certificat de Conformité Environnementale* (Certificate of Environmental Compliance)
CDS	Corridor Development Strategy
CEMAC	*Communauté Economique et Monétaire de l'Afrique Centrale* (Central African Economic and Monetary Community)
CERC	Contingent Emergency Response Component
CO	Carbon Monoxide
CO_2	Carbon Dioxide
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
CPIA	Country Policy and Institution Assessment
CPF	Country Partnership Framework
CRP	City Resilience Program
CSO	Civil Society Organization
CUD	*Communauté Urbaine de Douala* (Douala City Council)
DA	Designated Account
DFIL	Disbursement and Financial Information Letter
E&S	Environmental and Social
EIRR	Economic Internal Rate of Return
EMD	*Enquêtes Ménages Déplacements* (Household Travel Surveys)
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESSA	Environmental and Social Standards Advisor
FCV	Fragility, Conflict and Violence
FM	Financial Management
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GNI	Gross National Income
GHG	Greenhouse Gas
GNI	Gross National Income
GoC	Government of Cameroon
GRID	Green, Resilient, and Inclusive Development
GRM	Grievance Redress Mechanism
IBRD	International Bank for Reconstruction and Development

IDA	International Development Association
IDP	Internally Displaced People
IFC	International Finance Corporation
IFR	Interim Financial Report
IPF	Investment Project Financing
ITS	Intelligent Transport Systems
JET	Jobs and Economic Transformation
M&E	Monitoring and Evaluation
MIGA	Multilateral Investment Guarantee Agency
MINEPAT	*Ministère de l'Economie, du Plan et de l'Aménagement du Territoire* (Ministry of Economy, Planning, and Regional Development)
MINEPDED	*Ministère de l'Environnement, de la Protection de la Nature et Développement Durable* (Ministry of Environment, Nature Protection and Sustainable Development)
MINFI	*Ministère des Finances* (Ministry of Finance)
MINHDU	*Ministère de l'Habitat et du Développement Urbain (*Ministry of Housing and Urban Development)
MINMAP	*Ministère des Marchés Publics* (Ministry of Public Procurement)
MINT	*Ministère des Transports* (Ministry of Transport)
MINTP	*Ministère des Travaux Publics* (Ministry of Public Works)
ND-GAIN	Notre Dame Global Adaptation Initiative
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NMT	Non-motorized Transport
NOx	Nitrogen Oxides
NPF	New Procurement Framework
NPV	Net Present Value
OHS	Occupational Health and Safety
PAP	Project Affected Person
PCM	Private Capital Mobilization
PDO	Project Development Objective
PDU	*Plan Directeur d'Urbanisme* (Urban Master Plan)
PDUT	*Plan de Déplacement Urbain et des Transports* (Urban Transport Plan)
PDVIR	*Projet de Développement des Villes Inclusives et Résilientes* (Cameroon Inclusive and Resilient Cities Development Project)
PHPD	Per Hour in the Peak Direction
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PM	Particulate Matter
PMUS	*Plan de Mobilité Urbaine Soutenable* (Sustainable Urban Mobility Plan)
PSC	Project Steering Committee
PP	Procurement Plan
PPA	Project Preparation Advance
PPP	Public-Private Partnership
PPSD	Project Procurement Strategy for Development
PRA	Prevention and Resilience Allocation

RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SDG	Sustainable Development Goals
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SEP	Stakeholder Engagement Plan
SND	S*tratégie Nationale de Développement* (National Development Strategy)
SOCATUR	*Société Camerounaise de Transports Urbains* (Privately Owned Bus Compnay)
SPC	Shadow Price of Carbon
STD	Sexually Transmitted Disease
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
TOD	Transit-Oriented Development
ToR	Terms of Reference
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNHCR	United Nations High Commissioner for Refugees
US$	United States Dollar
VOC	Vehicle Operating Costs
WB	World Bank
WBG	World Bank Group
XAF	CFA Franc (CFA)

TABLE OF CONTENTS

DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Cameroon	Douala Urban Mobility Project	
Project ID	Financing Instrument	Environmental Assessment Category
P167795	Investment Project Financing	A-Full Assessment

Financing & Implementation Modalities

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

Expected Approval Date	Expected Closing Date
02-Jun-2022	16-Jun-2028
Bank/IFC Collaboration	Joint Level
Yes	Complementary or Interdependent project requiring active coordination

Proposed Development Objective(s)

The Project Development Objective is to improve urban mobility and support inclusive urban and economic development along selected Bus Rapid Transit corridors and its feeder lines in Douala.

Components

Component Name	Cost (US$, millions)
Support to institutional strengthening and professionalization of existing public transport operators	11.00
BRT infrastructure facilities, systems, and rolling stock	470.00
Transit-oriented development around the BRT system	42.00
Project management and capacity building	17.00
Contingent Emergency Response	0.00

Organizations

Borrower:	Republic of Cameroon
Implementing Agency:	Communaute Urbaine de Douala (Douala City Council)

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	540.00
Total Financing	540.00
of which IBRD/IDA	420.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	202.30
International Development Association (IDA)	217.70
IDA Credit	217.70

Non-World Bank Group Financing

Counterpart Funding	20.00

Local Govts. (Prov., District, City) of Borrowing Country	20.00
Commercial Financing	100.00
Unguaranteed Commercial Financing	100.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Cameroon	217.70	0.00	0.00	217.70
National PBA	217.70	0.00	0.00	217.70
Total	**217.70**	**0.00**	**0.00**	**217.70**

INSTITUTIONAL DATA

Practice Area (Lead)

Transport

Contributing Practice Areas

Urban, Resilience and Land

Climate Change and Disaster Screening

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

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

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

9. Other	Substantial
10. Overall	High

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

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

Legal Covenants

Sections and Description

Section I.A.1 (a) of Schedule 2 of the LA/FA and in the PA: The Borrower/Recipient shall establish by no later than one (1) month after the Effective Date, and thereafter maintain at all times during the implementation of the Project, a Project Steering Committee with terms of reference, composition, powers, functions, staffing, facilities and other resources satisfactory to the Bank/Association, to be responsible for inter alia, overseeing overall Project performance, approving Annual Work Plans and Budgets, providing strategic oversight and guidance, and supporting the mobilization of counterpart funds for the Project.

Sections and Description

Section I.A.2 (d) (i) of Schedule 2 of the LA/FA and in the PA : Without limitation to the provisions of paragraph (a), (b), and (c) above, the Borrower/Recipient shall cause the Project Implementing Entity to no later than three (3) months after Effective Date, recruit and appoint: (1) the monitoring and evaluation specialist, (2) the communication officer, (3) the social and environmental supervisor, (4) the RAP expert, (5) the GBV and gender specialist, (6) the Health, Safety and Environment (HSE) expert, and (7) the assistant to the procurement specialist;

Sections and Description

Section I.A.2 (d) (ii) of Schedule 2 of the LA/FA and in the PA: Without limitation to the provisions of paragraph (a), (b), and (c) above, the Borrower/Recipient shall cause the Project Implementing Entity to not later than six (6) months after the Effective Date, recruit, and thereafter retain, an external auditor with qualification and experience satisfactory to the Bank/Association.

Sections and Description

Section I.A.3 of Schedule 2 of the LA/FA and in the PA: The Borrower/Recipient shall not later than one (1) month after Effective Date, establish and operationalize a special tender board for the Project in line with the Borrower's procurement regulations, to be responsible for overseeing the review of procurement documentation related to the Project in a manner acceptable to the Bank. Without limitation to the foregoing, until such time that the special tender board referred to in this paragraph shall have been established and become operational, the Borrower/Recipient shall vest the functions of the special board onto the Project Implementing Entity's internal tender board, all in a manner satisfactory to the Bank/Association.

Sections and Description

Section I.B.1 (b) of Schedule 2 of the LA/FA and in the PA: The Borrower/Recipient, through the Project Implementing Entity, shall, by no later than two (2) months after the Effective Date prepare and adopt a Project procedures manual, containing detailed guidelines and procedures for administrative, financial management, and disbursement, and other fiduciary matters under the Project, in form and substance acceptable to the Bank/Association (the "Project Procedures Manual").

Sections and Description

Section I.B.2 (b) of Schedule 2 of the LA/FA and in the PA : the Borrower/Recipient shall cause the Project Implementing Entity to not later than November 30 of each year, furnish the draft annual work plan and budget for the following year to the Bank/Association for its review, and promptly thereafter finalize the draft annual work plan and budget, taking into account the Bank or Association's comments thereon; provided, that for the first year of Project implementation, the Borrower/Recipient shall furnish the draft annual work plan and budget by no later than one (1) month after the Effective Date.

Sections and Description

Section I.C.1 of Schedule 2 of the LA/FA: For purpose of carrying out Part 1of the Project the Borrower shall cause the Project Implementing Entity to enter into, not later than six (6) months after the Effective Date, and thereafter maintain throughout the period of Project implementation, a service agreement with CODATU, under terms and conditions approved by the Bank/Association (the "Service Agreement"), whereby the Borrower shall: (a) hire the services of CODATU to implement the above referred Component activities in accordance with the provisions of the PIM.

Sections and Description

Section IV.A of Schedule 2 of the FA/LA and in the PA: To facilitate the implementation of Part 2 (c) of the Project, and prior to rolling stock acquisition, the Borrower/Recipient shall cause the Project Implementing Entity to take all necessary steps to put in place and maintain an overall legal, financial and institutional framework acceptable to the Bank/Association for the operational performance and maintenance of the BRT, and to this end shall, without limitation to the foregoing, unless otherwise agreed with the Bank/Association, enter into a contract (PPP Agreement) in a manner satisfactory to the Bank/Association, no later than twelve (12) months after the Effective Date (or such later date acceptable to the Bank/Association), with an operator with qualifications and experience acceptable to the Bank/Association (the "Private Operator") on terms and conditions satisfactory to the Bank/Association, selected through a transparent international competitive bidding process, which shall include, inter alia, the obligation of the Private Operator to acquire, operate and maintain a BRT bus fleet in accordance with the terms of the PPP Agreement.

Sections and Description

Section I.F(a) of Schedule 2 of the LA/FA and in the PA: The Borrower shall cause the Project Implementing Entity to adopt, not later than three (3) months after the Effective Date, the Stakeholder Engagement Plan in form and substance satisfactory to the Bank/Association; (ii) thereafter, carry out, and cause the Project Implementing Entity to carry out, the Stakeholder Engagement Plan with due diligence and efficiency and communicate the Stakeholder Engagement Plan to the Project stakeholders: (A) to achieve their participation and support of the Project all along the period of Project implementation; and (B) to ensure its measures and recommendations are implemented throughout Project implementation, in particular with a focus on the security of women, children and other vulnerable groups, taking the necessary measures to help prevent and, as necessary, respond appropriately to the risks and incidences of sexual exploitation and abuse and sexual harassment against women, children and other vulnerable groups. Except as Bank/Association shall otherwise agree, the Borrower shall ensure, and cause the Project Implementing Entity to ensure, that the Stakeholder Engagement Plan is not amended, suspended or waived. In case of any inconsistencies between the provisions of the Stakeholder Engagement Plan and the provisions of this Agreement, the provisions of this Agreement shall prevail.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	LA/FA; Article V, Section 5.01(a): The Subsidiary Agreement has been executed on behalf of the Borrower/Recipient and the Project Implementing Entity in accordance with the provisions of Section I.D of Schedule 2 to this Agreement.
Effectiveness	IBRD/IDA	LA/FA; Article V, Section 5.01(b): The Project Implementing Entity has adopted the Project Implementation Manual in accordance with the provisions of Section I.B of Schedule 2 to this Agreement and Section I.B.2 of the Schedule 1 to the Project Agreement.

Type	Financing source	Description
Effectiveness	IBRD/IDA	LA/FA; Article V, Section 5.01(c): The Borrower/Recipient, through the Project Implementing Entity shall have established the CUD-PIU, with functions and a composition satisfactory to the Association, through the recruitment and appointment of a Project coordinator, a financial management specialist, a procurement specialist, an accountant, an internal auditor, an environmental specialist, a social specialist, an infrastructure and urban development specialist, all of them under terms of reference and with qualifications and experience satisfactory to the Bank/Association;
Type	Financing source	Description
Effectiveness	IBRD/IDA	Loan Agreement; Article V, Section 5.01(d): The Financing Agreement has been executed and delivered and all conditions precedent to the effectiveness of said agreements (other than the execution and effectiveness of this Agreement) have been fulfilled.
Type	Financing source	Description
Effectiveness	IBRD/IDA	Financing Agreement; Article V, Section 5.01(d): The Loan Agreement has been executed and delivered and all conditions precedent to the effectiveness of said agreements (other than the execution and effectiveness of this Agreement) have been fulfilled.

I. STRATEGIC CONTEXT

A. Country Context

1. **A lower-middle-income country located in Sub-Saharan Africa, Cameroon has experienced an economic downturn since 2016 but can capitalize on several opportunities to foster economic growth.** The country spreads over 475,000 square kilometers (km), with 600 km of coast along the Atlantic Ocean in the Gulf of Guinea. It shares borders with six countries[1], of which two, Chad and the Central African Republic are landlocked. With a Gross Domestic Product (GDP) of US$39.1 billion in 2019 and Gross National Income (GNI) per capita of US$3,730 in 2019, Cameroon is the largest economy of the Central African Economic and Monetary Community (*Communauté Economique et Monétaire de l'Afrique Centrale,* CEMAC), producing 45 percent of the community's nominal GDP in 2020. Despite a decrease in its economic growth rate from 5.6 percent in 2015 to 3.7 percent in 2019 due to slower growth in oil production, and the shock of the Coronavirus disease (COVID-19) pandemic resulting in the deceleration of GDP growth to 0.5 percent in 2020, the country can capitalize on its position as a key regional transport hub, but also on its rapidly developing urban economies, which hold great potential.

2. **The fast-paced population growth in Cameroon has allowed for a notable urbanization rate that stands out among its Sub-Saharan peers.** Cameroon is home to almost 26.5 million inhabitants, with a population growth of 2.6 percent per year over the last decade.[2] The country has one of the highest rates of urbanization in the Sub-Saharan region, with 58 percent of its population living in urban areas, compared to 41 percent in Sub-Saharan Africa.[3] As urban population growth is expected to continue at an annual rate of 4 percent, large urban centers like Douala and Yaoundé are set to grow at a steady pace in the coming decades. United Nations Department of Economic and Social Affairs (UNDESA) estimates that 70 percent of Cameroonians will live in urban areas by 2050.[4] This accelerated pace of urbanization offers significant opportunities for the country, as cities in Cameroon are at least 1.8 times more productive than rural areas.[5] However, this trend places increased demand on the government and cities to deliver urban services, as limited access to decent housing, jobs, electricity, poor sanitation, and lack of clean water are leading to increased vulnerability.

3. **High centralization and inefficient governance have led the economy to perform far below its potential.** Inadequate service delivery, limited transparency, and accountability, a fragmented bureaucracy, and inertia in decision-making limit the scope for economic growth and poverty reduction. Cameroon experiences high levels of corruption, with the country ranking 149th out of 180 countries in the 2020 Transparency International corruption perceptions index.[6] In addition, economic growth is hampered by the complexity of tax, customs, and regulatory enforcement and excessive state involvement in most major tradeable industries. Based on the Country Policy and Institution Assessment (CPIA) Business Regulatory Environment rating, which assesses the extent to which a country's legal, regulatory, and policy environment help or hinder private businesses in investing, creating jobs, and becoming more productive, Cameroon ranked 14th out of 38 among its African peers in 2018.[7]

4. **Cameroon is a country affected by Fragility, Violence and Conflict (FCV) situations classified at the medium-intensity conflict level.** The country is still afflicted by internal and regional violence and its sociopolitical outlook

[1] Nigeria, Chad, Central African Republic, Republic of Congo, Gabon, and Equatorial Guinea.
[2] World Bank Population data for 2020.
[3] World Bank data, 2020.
[4] United Nations Urbanization prospects, 2018.
[5] Cameroon City Competitiveness Diagnostic, World Bank, 2018.
[6] Transparency International, Corruption perceptions index 2020: https://www.transparency.org/en/cpi/2020/index/
[7] CPIA Africa: Assessing Africa's Policies and Institutions, World Bank, August 2020.

remains critical. The ongoing conflicts in some parts of Cameroon and in neighboring countries have exacerbated pressures on urban centers. Although the political situation has seen improvements following 2008's violent riot crisis (*Émeutes de la Faim*), the looming presence of and attacks perpetrated by terrorist groups (notably Boko Haram) near the northern and northeastern borders with Nigeria and Chad continue to destabilize the country and region. In the southwestern and northwestern regions, a secessionist insurgency has been raging over the past four years and displaced more than 700,000 people towards municipalities in the neighboring regions, including the Littoral region which hosts over 80,000 Internally Displaced People (IDP).[8] IDP are in all regions although the majority is concentrated in the northwestern and southwestern, Littoral and West regions. Cameroon is also a haven for around 480,000 refugees and just under 7,000 asylum seekers from neighboring conflict-afflicted countries, mostly from Nigeria and the Central African Republic. Close to 8,000 refugees and 4,000 asylum seekers are settled in Douala alone.[9]

5. **Levels of poverty in Cameroon remain high, with the COVID-19 pandemic threatening to reverse much of the modest progress in poverty reduction achieved in recent years.** At the national level, 24 percent of the population is living in extreme poverty, with less than US$1.90 per day,[10] suggesting that the good economic performance over the recent years (4.6 percent GDP increase in 2014-2019) has not translated into a substantial poverty reduction. According to World Bank estimates, the pandemic has wiped out recent modest gains in poverty reduction, with poverty incidence reverting to its 2015 level, while the absolute number of poor has continued to increase. Indeed, for the first time in more than a decade, it is estimated that the international poverty rate increased by 0.82 percentage points between 2019 and 2020 due to COVID-19. Although poverty in Cameroon remains a mostly rural phenomenon, poverty incidence in urban areas has nearly doubled between 2014 and 2018, from 9 percent to 17 percent, and economic disparities between regions have continued to widen. The northern regions have traditionally been the poorest and have had lower access to basic social services. Progress in poverty reduction has been slow due to different poverty trends across regions, with significant deterioration in welfare levels in the northwestern and southwestern regions. The conflict in these regions is increasing internal displacement, putting pressure on jobs, and increasing vulnerability.

6. **The impacts of poverty are exacerbated by high rates of inequalities.** Income distribution in Cameroon is highly unequal, as reflected by a Gini ratio of 0.47. According to the United Nations (UN), 13 percent of the national income is shared by the poorest 40 percent, while 35 percent of the same income is shared by the richest 10 percent.[11] These economic disparities are heightened by significant gender inequalities. Women and girls (50 percent of the population in 2016) are more likely than men and boys to live in poverty in part due to the lack of education, and to the customs of early marriage. In Cameroon, 31.7 percent of adult women have reached at least a secondary level of education compared to 37.9 percent of their male counterparts, while female participation in the labor market is 71.0 percent compared to 81.1 for men. Adolescent marriage remains common, with 35 percent of girls married before the age of 18.

7. **There are clear gender gaps in employment in Cameroon.** Women's labor force participation is relatively high in Cameroon, with corresponding levels of education, however, the structure of employment differs significantly when compared to that of men, as women are mainly employed in the agriculture sector while men are also involved in the tertiary sector of face-to-face services like transportation.[12] Unemployment rates are significantly higher for women reaching 25 percent and appear to sharply increase with education. Sectoral employment

[8] United Nations High Commissioner for Refugees (UNHCR) Cameroon MCO, July 2021 factsheet.
[9] UNHCR operational data portal, October 2021.
[10] Human Development Report, United Nations Development Programme (UNDP), 2020.
11 ibid.
[12] UN Women (2017) Gender Analysis of Labour Market Outcomes in Sub Saharan Africa – Recent evidence from Cameroon and Mali.

patterns show that women are more likely to work in entrepreneurial and informal sectors where job security and skills development are limited. Furthermore, men appear to earn significantly more than women. There are multiple reasons for these gender gaps in both formal and informal employment as women bear disproportionate household responsibilities.

8. **Sexual, gender-based, and intimate partner violence remains a critical issue throughout Cameroon.** Nationally, 44.4 percent of married women reported experiencing spousal violence in 2018. Acceptance of the use of violence by husbands/partners is also high in the country, underlining the widespread acceptance of gender inequality. According to the Demographic and Health Survey (DHS) in 2018, more than one in every four women and men still feel that it is acceptable for a man to beat his partner. A penal code review in 2016 added some laws that are in favor of women's rights (equal rights in divorce, reproductive rights, law against child marriage or sexual harassment (SH)) but many types of Gender-Based Violence (GBV) have not been sufficiently addressed (marital rape, domestic violence) and significant challenges remain in dissemination and enforcement. The lack of services for survivors severely weakens any legislative framework that does exist in Cameroon.

9. **Climate change increases the frequency of hydrometeorological disasters like river, urban and coastal flooding, landslides, extreme heat, and water scarcity in Cameroon.**[13] The country is already experiencing climate change: mean annual temperatures have increased 0.7°C since the 1960s, with the north of the country experiencing the most rapid temperature increase.[14] The sea level in Cameroon has risen by 75 mm between 1995 and 2015 and is expected to continue to rise by 3 mm every year. Based on projections, temperatures are expected to rise between 1.0-2.9°C in the 2060s and 1.5-4.7°C by 2100 depending on CMIP6 scenarios. Model projections for average annual projections show a wide range of changes over Cameroon, with some projecting an increase in average annual rainfall and others a decrease. Despite this uncertainty for precipitation averages, projections indicate an increase in the frequency and intensity of extreme rainfall events. In particular, coastal areas will be increasingly vulnerable to floods, erosion, landslides, and violent winds, as oceans warm and the sea level continues to rise.

10. **Cameroon's vulnerability and unreadiness to face the consequences of climate change are exacerbating the widening socio-economic gaps in the country.** When it comes to climate risks, Cameroon is one of the most vulnerable countries in the world: it ranked 143rd out of 182 countries in 2019 on the Notre Dame Global Adaptation Initiative (ND-GAIN) country vulnerability index, which measures a country's exposure, sensitivity, and ability to adapt to the negative impact of climate change.[15] The country is the 16th least ready in the world to face climate change, despite having twice the exposure of its sub-Saharan peers to weather variability. Increased temperatures and higher rainfall variability are leading to greater risks of droughts and floods. This threatens the agricultural sector which employs about 70 percent of the Cameroonians, water supply, and the livelihood of the population. The country's poor are particularly vulnerable, as their livelihood often depends on climate-sensitive sectors, and they are the hardest hit when extreme weather events occur.

11. **As the economic capital of Cameroon, Douala hosts one of the largest ports in Central Africa and is home to nearly 15 percent of the country's population.** Douala is a regional powerhouse and transport hub, handling most of the trade with surrounding countries, particularly those in the CEMAC region. The city accounted for 21 percent of the national GDP in 2016[16] and the city's port processes 95 percent of the country's external trade.[17] In 2020,

[13] Think Hazard, consulted on 17 February 2021. URL: https://thinkhazard.org/en/report/45-cameroon
[14] WBG Climate Change Knowledge Portal, consulted on January, 17 2022, URL: climateknowledgeportal.worldbank.org/country/cameroon/climate-data-historical
[15] Notre Dame Global Adaptation Initiative, Country vulnerability index 2019: https://gain-new.crc.nd.edu/country/cameroon
[16] Euromonitor International (2017). Douala City Review. https://www.euromonitor.com/douala-city-review/report
[17] World Bank, Cameroon City Competitive Diagnostic, 2018.

the city hosted an estimated 3.7 million people,[18] and its population is expected to reach 5.1 million by 2030, growing at a rate of 3.5 percent per year. Douala is well-positioned to take advantage of its high population density and competitive edge amongst Cameroonian cities to attract tradable industries, with employment in 31 different industries and services more concentrated there relative to the national average. Nevertheless, the city has not played its role in structural transformation over the past decade, with per capita income falling by -1.1 percent between 2008 and 2012.[19] Among the key constraints hindering the city's competitiveness are basic infrastructure deficits and high transport costs.

12. **Douala is rapidly growing both in terms of population and spatial footprint**. The multi-nodal nature of economic development, combined with a lack of urban planning and associated land use regulation enforcement, has contributed to the city's uncontrolled urban sprawl, often limiting access to services, jobs, and economic activities. The city's rapid growth is particularly pronounced on the outskirts where access to formal public transport is low or non-existent. In addition to demographic growth, the lack of coordination (articulation and harmonization) between land use planning and transport planning are likely to further increase pressure on public transport services, thereby inundating limited-service provision. Nonetheless, given the relatively high population density compared to its Sub-Saharan peers,[20] strengthening and organizing Douala's public transport systems present an opportunity to lower overall transport costs and structure rapid urban development.[21]

B. Sectoral and Institutional Context

13. **Transport and accessibility are Douala's most pressing challenges hindering socioeconomic development, exerting aggravated effects on road safety, climate change, and pollution-induced ailments**. Rampant motorization, primarily of 2-wheel vehicles, has increasingly impacted traffic patterns thus worsening congestion to excruciating levels with commuting times lasting up to three hours during peak periods.[22] Congestion is expected to worsen, with average speeds slowing to 9.5 km/h by 2025, compared to 12 km/h in 2018.[23] The proliferation of motorcycles, both as a private and pseudo-collective alternative, is explained by the combined effects of a neglected, inaccessible, subpar road network, and an inefficient, agonizing public transport network. In 2002, only 50 percent of the city's households were accessible by a road, paved or unpaved; this statistic has seen little concrete improvements nearly two decades later, with access to jobs, markets, and health services still restrained and/or unaffordable.

14. **Douala's transport and accessibility challenges are exacerbated by the prevailing land use patterns in the city.** The indiscriminate concentration of diverse and conflicting land use patterns (port activities, industrial, warehousing and freight transport, commercial, crowded private bus stations for inter-city travels, street vendors occupying the right-of-way, etc.) in the city inner core (Akwa and Deido) significantly disrupts the urban landscape and limits mobility. While the city has been developing endogenously in a multi-nodal manner, there are yet to be concerted efforts by public authorities to foster job creation in the peripheral nodes. Only recently has the Douala City Council (*Communauté Urbaine de Douala,* CUD) started to develop sectoral development strategies for some of these nodes. Douala also faces contrasting realities between the urbanization along the primary road corridors

[18] WorldPop statistics.
[19] Cameroon City Competitive Diagnostic, World Bank, 2018.
[20] Douala has a density of 175 inhabitants per hectare (ha) according to the Urban Master Plan (*Plan Directeur d'Urbanisme,* PDU). This is significantly higher than the population density in other African cities such as Abidjan (62 people per ha), Accra (81 per ha) or Lagos (42 per ha).
[21] Diagnostic study on the needs for multimodal transport and on the political economy of the transport sector in Douala, World Bank, CUD - by Transitec, 2018.
[22] Cameroon City Competitiveness Diagnostic, World Bank Group, June, 2018.
[23] World Bank, Accessibility study for the Douala Urban Mobility Project, 2020.

and the areas directly behind these corridors. The latter are often characterized by isolated, inaccessible neighborhoods with insufficient secondary and tertiary roads and/or infrastructures for crossing open-air drains, channels, and waterways. Long detours are often a norm to commute between adjacent neighborhoods.

15. **Walking remains the main transport mode in Douala with a share of well above 50 percent of trips under 2 km and remains the main affordable option for women.**[24] Walking has historically been the dominant transport mode with 63 percent of the daily trips in the city in 2000, yet this share has since been overtaken by motorized modes. Two decades later, this figure has declined to 33 percent equivalent to 1.65 million daily trips[25] according to the 2018 household travel survey (*Enquêtes Ménages Déplacements,* EMD) carried out as part of 2018's Sustainable Urban Mobility Plan for Douala *(Plan de Mobilité Urbaine Soutenable,* PMUS). Despite this sharp decline, walking is still women's main mode of transport where 36.3 percent of daily trips happen by foot, compared to 29.8 percent for men. Moreover, men access motorized modes at a higher rate (69 percent) than women (61 percent), leading to women traveling at lower speeds impacting directly their accessibility.[26] Encroachment of sidewalks by vendors and stationed vehicles, neglect/mismanagement of non-motorized transport (NMT) facilities, and traffic saturation of the city's thoroughfares make it increasingly difficult, inefficient, and unsafe for pedestrians to walk. This disproportionately affects low-income groups and women, whose mobility patterns are more complex, as they normally travel accompanied and/or with packages. The constraints to NMT have therefore encouraged the resurgence of mototaxis (2-wheeler semiprivate vehicles colloquially known as Okadas transporting two and sometimes three passengers) as the preferred mode for 2 to 4 km trips.[27] However, women are often reluctant to use mototaxis as they are subject to harassment by fellow riders, making walking the only viable option for women who cannot afford private transportation, restricting their access to better economic opportunities.

16. **Douala's citizens are in urgent need of safe, reliable, efficient, equitable, and affordable means of transport to counter the worrying trend of atomization of unregulated transport services provision**. Every day, 3.35 million trips are made using motorized modes of which 61 percent are made by mototaxis, 19 percent by taxi, 7 percent by car, 6 percent by motorcycle, and a mere 0.3 percent (9,300 trips per day) are served by SOCATUR's[28] formal public transport routes.[29] These bus services are offered on thirty approved routes, of which only six are operational, with an aging fleet of 100 vehicles dispatched at increasingly low frequencies. Ridership has been in decline as patrons progressively turned toward more agile and door-to-door informal alternatives provided: taxis and mototaxis, further impacting operational performance, reducing the system's competitiveness in a well-known public transport productivity vicious cycle. Moreover, poor road conditions further discourage service provision by buses and cars due to loss of time and increased maintenance costs.

17. **Dependence on mototaxis and its continued uncontrolled expansion as the city's primary transport mode could contribute to an eventual gridlock of Douala's road network and a chokehold to the citizens' wellbeing**. Following the trends evidenced in other comparable emerging economies, the Douala mototaxi industry has become a booming business fostered by rising underserved passenger demand, vehicle's low acquisition cost, weak governance oversight, and outdated, inappropriate regulatory frameworks governing the sector. Despite an artisanal organization of mototaxis comprised of 158 syndicates for 18,000 motorcycles, pricing practices are not

[24] PMUS, Systra, 2018.
[25] PMUS estimated 5 million trips are made daily in Douala.
[26] Household Travel Survey, PMUS, Systra, 2018.
[27] PMUS, Systra, 2018.
[28] *Société Camerounaise des Transports Urbains,* SOCATUR, privately-owned bus company.
[29] PMUS, Systra, 2018.

regulated and fluctuate depending on the demand.[30] The attractiveness of its offering relies on the biased premises of ease of access – circulation on unpaved urban roads and into underserved districts, and commute fluidity on heavily congested roads; this despite verifiable externalities in terms of road un-safety and higher impact on air pollution. Currently, public opinion polls cite road-related crashes (72 percent) and violation of traffic rules (52 percent) as the leading urban mobility issues in Douala. Furthermore, congestion, noise, and air pollution have contributed to degraded quality of life: Douala was listed among the ten least livable cities in the world in 2019 according to the Economist Intelligence Unit.

18. **Congestion and the increasing use of motorized transport modes are causing serious air pollution problems and contributing to rising greenhouse gas (GHG) emissions.** In 2018, transport in Douala emitted close to 1,600 tons of CO2eq every day. Annually, this corresponds to each person in Douala emitting on average 169 kg/CO2eq for their trips.[31] Mototaxis are accountable for 40 percent of the city's total transport GHG emissions and represent the biggest emitter of local air pollutants such as Nitrogen Oxides (NOx) and Particulate Matter (PM). Although they have a combined modal share of 20 percent in vehicle-km, personal vehicles and taxis account for 53 percent of the city's transport GHG emissions. Projected increases in motorization will only worsen GHG emissions levels in the transport sector. In addition, as in most cities in sub-Saharan Africa, air pollution is aggravated by the use of aging and poorly maintained vehicles.[32] According to World Bank calculations, carbon monoxide (CO) levels have increased 18-fold between 2015 and 2022, largely due to traffic growth.

19. **The city's lack of coordinated and reliable public transport has a significant impact on urban mobility and quality of life which adversely impacts the distribution of opportunities.** A World Bank accessibility study, carried out for the preparation of the proposed project, reflects a spatial mismatch with a high concentration of opportunities (especially jobs) in the Central Business District (CBD) (eccentrically located on the Wouri river's east bank around the Akwa I district) but less concentrated low-skilled jobs and health services in the city's more residential outskirts (Douala III, IV, and V).[33] Access to jobs is predicted to decline between 2021 and 2025 because of congestion, assuming no improvements in public transport systems. A projected increase in travel demand in the coming years highlights the need for an efficient public transport system, connecting people to markets, jobs, and firms to reap the benefits of agglomeration. Congestion is a constraint beyond the major thoroughfares, further complicated by a high and unorganized presence of informal vendors and street traders around key transit nodes. Public transport through the provision of Bus Rapid Transit (BRT) could improve access to key opportunities (jobs, schools, health facilities, markets) by as much as 138 percent with projected time savings of up to 31 minutes in the poorest peripheral areas.

20. **Poorer peripheral areas are more adversely impacted by the dysfunctions of transport systems and travel in Douala.** Inhabitants of poor and densely populated neighborhoods can only access a limited share of jobs within reasonable commuting time. Although public transport is appreciated for its low cost, isolated areas with poor quality roads are poorly serviced by public transport. The poor walk an average of 16 minutes to get to transit stops compared to the non-poor (6 minutes on average).[34] The cost of public transport is still high in relation to the resources available to poor households who spend 23 percent of their income on transportation. The PMUS' household survey shows that, in 84 percent of the cases, market trips are made by women (of which 39 percent

[30] Ibid
[31] PMUS, Systra, 2018.
[32] Transport Decarbonization Series, Motorization and the Trade of used vehicles (Discussion paper), World Bank - World Resources Institute - Government of Netherlands, June 2021.
[33] Hospitals are concentrated in central parts of Douala, however, education appears to be predominant in the city. World Bank, Accessibility study for the Douala Urban Mobility Project, 2020.
[34] World Bank, Poverty and Urban Mobility in Douala, 2004.

are done by walking and 50 percent by mototaxi),[35] household tasks also account for a majority of travel reasons amongst the poor (39 percent). The difficulties associated with walking, and by extension public transport use, include poorly maintained sidewalks (seldomly available) and frequently obstructed and poor drainage, high road traffic crash risk, as well as poor lighting with associated safety and security risks. Accessibility problems (in terms of distance and transport availability) appear overall as the second-largest obstacle to school enrollment. Worsening constraints to access are significant considering the country's low human capital index which has remained fairly constant over the past 10 years.[36]

21. **Women will benefit from increased accessibility gains from improving the urban mobility conditions in Douala through the supply of fast and reliable public transport services.**[37] Douala women's mobility is significantly constrained when compared to their male peers due to key factors such as limited access to household vehicles when available, need to transport cumbersome loads, and/or travel with children (often for retail, education, and/or health purposes), and insecurity/discomfort faced as mototaxi users. Based on the accessibility analysis completed for Douala, under the premise of the implementation of a BRT corridor,[38] city dwellers would expect an increase in accessibility of (i) 60 percent (69 percent for low-income) to semiskilled jobs on which women are predominantly employed; (ii) 43 percent to health centers tackling PMUS' third major constraint to access to healthcare for women aged 15 to 49; and (iii) 31 percent to one additional market thus easing trips for women often in charge of retail and grocery shopping.

22. **National and local authorities have made significant efforts to improve urban and transport planning in Douala in the last two decades**. While less than half of the cities in the country have an approved and updated urban planning document, the city has an Urban Master Plan (*Plan Directeur d'Urbanisme,* PDU) covering the period 2015-2025 complemented by a Priority Investment Program, a Land Use Plan covering its six districts (Communes), and seven sector plans covering specific areas to be upgraded (Carrefour Ndokoti, Bonassama, Ngwele, Logbaba, Yassa, Bonamoussadi, and PK 14/University of Douala). Efforts have also been made at the institutional level, in particular to create and equip not only municipal technical services, but also semi-public agencies to support urban development, namely the Douala Urban Studies Corporation (*Société d'Etudes de Douala,* SEDO), the Douala Metropolitan Investment Corporation (*Société Métropolitaine d'Investissement de Douala,* SMID), and the Douala Urban Planning Corporation (*Société d'Aménagement de Douala,* SAD). In parallel, major investments have been made over the last two decades in terms of infrastructure, notably through the Douala Infrastructure Project, the Debt Reduction-Development Contract (*Contrat de Désendettement et de Développement,* C2D) Phase 1, the Rainwater Drainage Project financed by the French Development Agency (*Agence Française de Développement,* AFD), the construction of Douala's East and West Access Roads, and the construction of the second bridge over the Wouri River. The ongoing Inclusive and Resilient Cities Development Project (*Projet de Développement des Villes Inclusives et Résilientes,* PDVIR) (P156210) will finance, among other activities, the rehabilitation of certain urban trunk roads and the construction of drainage systems, particularly in Douala III and V. In addition, to promote public transport services, the CUD has increased its shares in the SOCATUR capital, notably with the aim of expanding the number of buses and routes offered. However, analysis of urban and transport planning in Douala indicates that in practice, initiatives during the past two decades were too often planned in silo, with redundant studies and standalone investments.[39]

23. **The urban development and urban transport sectors in Cameroon are restricted by conflicting institutional**

[35] World Bank, Accessibility study for the Douala Urban Mobility Project, 2020.
[36] World Bank Data, Human Capital Index – 2010 – 0.38, 2020 – 0.39.
[37] World Bank, Accessibility study for the Douala Urban Mobility Project, 2020.
[38] Values for a BRT corridor only, higher gains are expected when considering a BRT and feeder networks as planned in the project.
[39] PMUS, Systra, 2018.

arrangements with responsibilities spread across a multitude of ministries, local and national institutions. The 2004 Decentralization Framework Law was replaced by the 2019 December 24 Law on the General Code for Decentralized Local Authorities (*Loi du 24 Décembre 2019 portant Code Général des Collectivités Territoriales Décentralisées*). The law includes a new regime for local taxes and intergovernmental fiscal transfers and transfers substantial responsibilities and power to local governments positioning them as key actors for urban development. It therefore confers responsibility to the CUD for urban planning/zoning, and the organization of public transport, urban infrastructure development and maintenance.[40] Despite its specificity and the election of the City Mayor in 2020, the CUD is also governed by the new General Code as are the other municipalities in the country. The CUD therefore benefits from the same transfers of competences from the standpoint of urban and transport planning and management. The decentralization process is still incomplete, and these functions continue to be exercised with direct support and subsidies from the Ministry of Housing and Urban Development (*Ministère de l'Habitat et du Développement Urbain,* MINHDU) and the Ministry of Transport (*Ministère des Transports,* MINT), particularly for urban roads, solid waste management, and urban transport. According to the Cameroon City Competitiveness Diagnostic,[41] the weakness of the decentralization framework can be seen in three dimensions: (i) the competences transferred to local governments are more akin to deconcentration of service delivery than to a true devolution of responsibilities; (ii) a principle of concurrent competencies is maintained by successive decentralization laws, meaning that the competences transferred to local governments are not exclusive as the central government maintains the right to continue to exercise the same competencies through deconcentrated services (departmental and regional delegations); and (iii) local governments have little capacity to generate resources, as the most important taxes are collected by the deconcentrated services of the Ministry of Finance (*Ministère des Finances*, MINFI) and are not always retroceded on time, regularly, or in full.

24. **Cameroon national strategies highlight the need for more integrated urban transport development to support urban growth as a driver of economic development in Douala, and by extension the national economy.** The Vision 2035 plan highlights the urban and regional development as a key focus, notably on urban planning, access and mobility, environmental protection and impacts of climate change. The Douala City Development Strategy[42] adopted in 2014 and the 2020 National Development Strategy (S*tratégie Nationale de Développement*, SND) demonstrate the commitment to better manage urban growth and competitiveness by improving urban living conditions and reinforcing the economic role of towns through urban infrastructure upgrading. In 2009, the CUD adopted an urban transport plan (*Plan de Déplacement Urbain et des Transports de la Ville de Douala, PDUT*) to address some of the challenges that the sector faces. In particular, the plan highlighted the need to improve the road network conditions and develop 42 km of segregated lanes for buses on 6 corridors. The World Bank completed the Cameroon City Competitiveness Diagnostic and an analysis of multimodal transport in Douala and its political economy in 2018.[43] These studies have informed the work undertaken to develop the 2018's PMUS,[44] with financing from AFD. The PMUS underlines important issues and potentialities, such as improvement of the business model developed for each mode of transport.

[40] The CUD is currently responsible for: (i) zoning and urban planning, including earmarking spaces for industrial activities, housing and tourism site development; (ii) organizing public transport; (iii) urban road construction and maintenance; (iv) urban renewal: e.g. city beautification, development of parks, greenspaces and sidewalks etc.
[41] Cameroon City Competitiveness Diagnostic, World Bank 2018.
[42] The City Development Strategy was developed under the Urban Development and poverty Reduction Strategy: City of Douala and its Greater Urban Area led by Cities Alliance.
[43] *Diagnostic des besoins en Transport multimodal et de l'économie politique du secteur transport de la Ville de Douala.* (Assessment of multimodal transport needs and of the political economy of the transport sector in the City of the Douala), World Bank Group-CUD, Transitec, April 2018.
[44] PMUS, Systra, 2018.

25. **The 2018 PMUS diagnosed mobility conditions and outlined a roadmap to respond to the mobility problems identified and to address the challenges of sustainable urbanization.** Structured around an "integrated network project," this CUD-approved 10-year plan (see Figure 1), developed following a thorough consultative process, recommends: (i) the reclassification and overhaul of major links of the urban road network; (ii) the development of a public transport network comprising of 49 km of BRT corridors, 6 km of cable car services, a network of over 100 km restructured bus lines ensuring the provision of feeder and local services, a control center to manage real-time traffic operations prioritizing public transport flows, and multimodal transfer hubs; (iii) a NMT plan to boost, protect, and improve mobility conditions for pedestrians and cyclists; (iv) the development of a Freight and Logistics plan to fluidify and decongest the port access, optimize and rationalize the movement of goods within the city, address the parking of heavy vehicles, strengthen river-sea links and railway traffic, and revitalize the river-city interface; (v) the development of efficient cooperation schemes with artisanal transport actors framed by the respect and protection of the right-of-way and NMT facilities; and (vi) the implementation of planned and financed related projects: MaNoKa pier, redevelopment of the Boulevard de la République, Eastern entrance phase II, and Douala sustainable city project.

26. **The 2010 City Development Strategy aims to leverage key infrastructure investments to counter informal and unstructured urban settlements, foster livability, and economic development**. The Strategy identified ten strategic axes for priority actions to improve economic competitiveness within the metropolitan area and boost the dynamics of economic activities. One of these axes concerns the need to reinforce existing transport infrastructures, to create new major infrastructures, and to develop new logistic/industrial zones on the one hand. On the other hand, the goal is to promote public-private partnerships (PPP) for the creation of an urban center of international standing allowing the city's tertiary functions to be revived. These strategic axes served as a framework for the elaboration of the Douala PDU for the period 2015-2025. The Plan recommends the development of a major grid of primary and secondary roads to ensure efficient access between the different neighborhoods, facilitate access to urban facilities and services, structure the spatial development of the city, and relieve congestion on existing main roads. The Plan identifies major structuring roads to be created, primary and secondary roads, railway extensions, as well as dedicated public transport corridors.

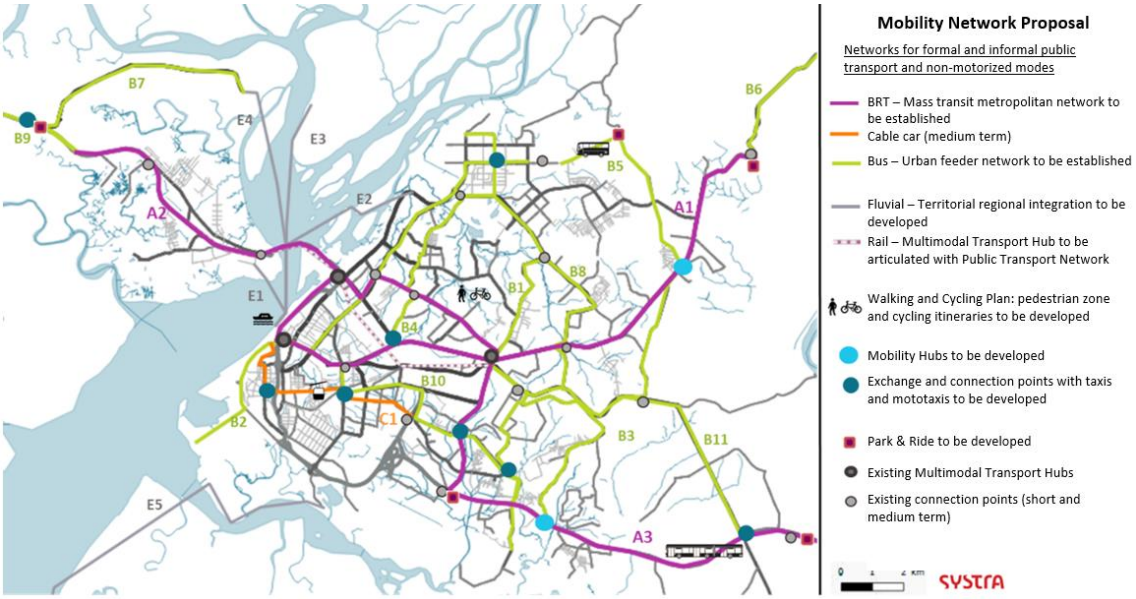


Figure 1: PMUS 10-year multimodal network. Source: PMUS, 2018.

27. **Due to its coastal location in the Littoral Region, Douala is increasingly exposed to extreme hydro-meteorological events.** High-impact flood events have hit the city in recent years, due to heavy rain rainstorms that are increasing in intensity and frequency, with major flood events occurring almost on an annual basis since 2015. While central parts of the city and their eastern extensions have comparatively higher elevations ranging from 20 to 40 m (Bonanjo, Akwa, sections of Deido, Bassa, and Nyalla) making them comparatively safer from floods, the flat and low-lying site of Douala, together with its proximity to the sea, favors the presence of high moisture content in its soils. Increasingly, the role played by soil moisture content in the generation of floods is being more fully realized. Douala's exposure to flooding is also related to its location in an estuary of many rivers. With an average elevation of about 13 m above sea level, much of the city is subject to flooding generated by rising tides and rainfall, or a combination of both. The concurrence of rainwater and river flooding can aggravate their (individual) potential damages. Thus, an estimated 60 km of major roads, 26 percent of the total number of schools, and 8 percent of the total number of hospitals are exposed in Douala. For example, the August 2020 flooding event resulted from a combination of heavy rainfall and a 2.6 m tide of the Wouri River. It caused important material and infrastructure damage, widespread traffic disruptions, displacements, and led to significant economic losses.

28. **The city's rapid and uncontrolled spatial development is likely to exacerbate these climate-related risks, in addition to global warming, soil sealing, and inadequate urban sanitation management.** In particular, the potential of hydrological channels moving water from the city is hampered by the construction in habitable areas close to streams and riverbanks, and the use of hydrological structures as dumpsites for households and other wastes. In Douala, the amount of built-up area located in a river flood risk zone increased, on average, at an annual rate of 12.8 percent between 1975 and 2014.[45] Studies currently carried out under a World Bank-executed trust fund will provide an in-depth assessment of the vulnerability of BRT assets and operations to climate change-induced flood risks and will also identify and prioritize flood risk mitigation solutions for the BRT and Transit-Oriented Development (TOD) components.[46]

29. **The transport sector has been severely impacted by the COVID-19 health crisis and the contingency measures implemented by the Government of Cameroon (GoC) to contain its spread but has now come back to the pre-pandemic situation**. Seven out of the 13 measures issued in March 2020 directly targeted the transport sector, particularly the urban, peri-urban public transport services through mobility constraints, enforcement of vehicle occupation rate limitations, and adoption of strict hygiene protocols.[47] The rollout of measures focused solely on guidance and control with little accompaniment in terms of logistical and financial support. As a consequence, arbitrary and illegal fare increases were witnessed to compensate the revenue loss caused by the restrictions and health protocols, despite coercive guidance to prevent these practices. Following the promulgation of these measures and the perceived unresponsiveness to concerns and complaints raised by the community and various economic sectors, a call for a general strike was issued by national unions in April 2020, forcing the revision and softening of measures. The softening trend has continued, and supply/demand has stabilized to pre-pandemic levels with virtually no restrictions in place and/or enforced at this time.

30. **The transport sector could benefit from employing more women while contributing to closing the gender gap**.

[45] Global Facility for Disaster Reduction and Recovery (GFDRR), 2014, Douala City Scan – City Resilience Program (CRP).
[46] World Bank, 2021, ''*Cartographie de l'impact des inondations à Douala en août 2020 et de ses conséquences sur l'urbanisme et les investissements urbains*" (Mapping the impact of flooding in Douala in August 2020 and its consequences on urban planning and investment) executed by the consortium SOGEFI CREALP (2020-2021) under ACP-EU/World Bank funding.
[47] *Comment la crise du COVID-19 peut-elle jouer un rôle catalyseur pour le développement durable des transports routiers au Cameroun*? (In what ways can the COVID-19 crisis play a catalyzing role in the sustainable development of road transport in Cameroon?). Tene Mbimi, J. Olinga. 2021.

Based on data from the International Labor Organization, of the people employed in the transport and communication sector, 11.1 percent are women. Barriers to employment in the transport sector relate to entry (difficulties to transition from school to work, perceptions of transport sector jobs as masculine, recruitment practices that are not gender-sensitive), retention (lack of adequate benefits such as maternity leave, childcare services, and flexible schedules), and promotion (lack of mentors, training and career advice) which, together with stereotypes and gender norms, make it more difficult for women to look for jobs in this field. Besides the clear benefits of bringing more women into the transport sector in terms of gender equality, there are clear financial and social benefits of bringing women into the workforce, especially in medium and high-level positions.[48] Moreover, anecdotical evidence from other countries regarding bus transport and evidence from ride-hailing services in different cities, also showcases that women feel safer when traveling in modes where drivers are female.

C. Relevance to Higher Level Objectives

31. **The project will support the World Bank's twin goals of reducing poverty and increasing shared prosperity**. It will promote inclusive economic growth by improving mobility and providing faster, more reliable, and safer transport modes in Douala. With the proposed project, it is expected that an additional 200,000 jobs will be accessible to the average Douala inhabitant. The project will increase access to economic opportunities for low- and middle-income users who are increasingly concentrated in peripheral areas along the planned BRT routes. While the bulk of urban residents cannot afford private transport and instead rely on NMT modes, the project will provide affordable public transport services and improve infrastructure for pedestrians. The project will also provide support to inclusive economic and urban planning through pilot interventions around BRT corridors, all in support of and contributing to the World Bank's Jobs and Economic Transformation (JET) agenda.

32. **The project is also aligned with several Sustainable Development Goals (SDGs)**. Proposed activities will contribute to making cities and human settlements inclusive, safe, and resilient through sustainable transport (SDG 11). They will strengthen the resilience of infrastructure (SDG 9) and scale up climate action in Cameroon by reducing transport emissions and building climate adaptation capacity (SDG 13). The project will also contribute to poverty eradication (SDG 1) by expanding access to basic services for the poor and vulnerable and reducing their exposure to climate shocks (Targets 1.4 and 1.5). Expected accessibility gains will help improve access to health and education services (SDG 3 and 4), while the decrease in congestion will reduce deaths and injuries from traffic accidents (Target 3.6).

33. **The proposed project is consistent with the Country Partnership Framework (CPF) for the period FY17-22,[49] whose main objective is to share prosperity more widely amongst all Cameroonians**. More specifically, the proposed project is fully aligned with CPF Focus Area Two on "Fostering Infrastructure and Private Sector Development." Road transport and urban mobility remain important bottlenecks to economic growth and competitiveness. The proposed project will directly support CPF Objective 5 which aims to improve transport services and access to local infrastructure, especially for poor and underserved communities, by increasing the length of urban roads rehabilitated, with positive knock-on effects on access to health, education, jobs, and other basic social services. A new CPF for Cameroon is under preparation, with delivery anticipated in FY23. The proposed project will remain relevant in the Bank's country partnership framework with Cameroon.

[48] https://documents1.worldbank.org/curated/en/274741594828495898/pdf/Summary-Note-Entry-Points-for-World-Bank-Project-Teams.pdf

[49] Country Partnership Framework for Cameroon for FY17-22 (Report No. 107896; March 28, 2017, extended to cover FY22).

Box 1: Bus Rapid Transit (BRT) – A Solution for African Cities

There is an urgent need to tackle urban mobility challenges in African cities as these are crowded, disconnected and costly. They lack reliable transportation limiting workers' job opportunities while preventing firms from reaping scale and agglomeration benefits. This issue might worsen as urban areas in Africa will increase by more than 450 million people over the next 25 years. This trend will put deeper strain on existing public transport systems, exacerbating congestion, pollution and economic externalities.

The global shift from urban sprawl to inclusive Transit Oriented Development (TOD) can be applied to improve urban mobility in African cities. The principle creates dense networks of rapid transit lines with supporting last mile connectivity and inclusive climate resilient infrastructure, bringing compact, mixed use development within walking distance of high-capacity rapid transit. TOD also features vibrant streetscapes, pedestrian-oriented built forms, and land use characteristics that make it convenient and safe to walk, cycle and use public transport (Institute for Transportation & Development Policy, 2017).

Among mass transit solutions, BRT represent reliable, cost-effective high-capacity solutions. While rail train and subway transit systems can provide reliable, comfortable, and safe transport services, they are expensive and generally beyond the fiscal means of central or local governments in Africa. BRTs, on the other hand, can provide a high-performance, high capacity (up to 40,000 max riders per direction per hour), high-quality and cost-effective solution to urban dwellers. They offer a flexible and affordable solution to populations' transport needs (using existing roadways). Their limited environmental and social negative externalities and relatively short construction timeline make them ideal for high-risk environments.

Examples of successful BRTs around the world and their impact

Reduction in travel time

- In Guangzhou, China, the introduction of the BRT in 2010 reduced travel times by 29 percent for bus riders and 20 percent for private car commuters;
- In Bogota, Colombia, BRT first phase reduced travel time by 15 minutes per passenger day;
- BRT users in Istanbul, Turkey, can save 28 days' worth of commuting a year;
- In Johannesburg, South Africa, the BRT reduced travel times by 13 minutes each way;
- In Lagos, Nigeria, commuting time fell by an average of 25 minutes along a 22-km corridor and wait time was reduced from 45 to 10 minutes.

Environmental benefits – Reduction in pollution and improved road safety

- Bogota's BRT (TransMilenio) along with new regulations on fuel quality reduced CO2 emissions by an estimated 1 million tons a year. After BRT implementation, SO2 emissions declined by 43 percent, NOx by 18 percent, and PM by 12 percent;
- Still in Bogota, car crashes and injuries fell in two of the system's main corridors;
- Lagos' BRT Project reduced CO2 emissions by 13 percent and GHG emissions by 20 percent.

BRTs are well suited to African cities thanks to their cost-effectiveness, high-capacity and potential impact. This is evidenced by operational BRT systems in the region (Lagos and Dar es Salam). Other regional peers such as Dakar, Abidjan are in the process of implementing their first BRT systems. In addition, BRT can be influential in inducing sound urban redevelopment trends and initiatives, as well as shaping urban growth when integrated with TOD.

34. **The project also endorses Cameroon's aspiration to become an emerging economy by 2035**. The project will support the SND30[50] to implement the country's long-term development strategy Vision 2035.[51] Replacing the

[50] SND, November 2020. The SND30 is the second phase of the 'Vision 2035' strategy, and follows the DSCE. It articulates the country's development strategy for the 2020-2030 period.

[51] 'Vision 2035' was adopted in 2009. It aims at transforming Cameroon into "an emerging and democratic country that is united in its diversity by 2035".

Growth and Employment Strategy Paper (*Document de Stratégie pour la Croissance et l'Emploi,* DSCE),[52] the SND30 aims at placing greater emphasis on (i) the promotion of employment and economic integration; (ii) the structural transformation of the national economy; (iii) the development of Human Capital and wellbeing; and (iv) governance, decentralization and strategic management of the State. In the urban transport sector, the SND30 priority is to develop mass mobility systems to improve urban connectivity, inclusiveness, and resilience, and strengthen urban planning. The proposed project will contribute to the objectives of this new strategy for the 2020-2030 period, by improving access to basic socioeconomic services and strengthening climate adaptation and mitigation through sustainable and climate-smart mass transport. By mobilizing private sector capital, the project is also aligned with Cameroon's objective to strengthen PPPs for large projects, as articulated in the SND30.

35. **The project will support regional growth and transformation strategies by removing the bottlenecks that prevent firms from creating more and better jobs.**[53] It will leverage Private Capital Mobilization (PCM) for the BRT system and the fleet renewal scheme and will contribute to creating a conducive business environment through a TOD strategy, thus contributing to the World Bank's Maximizing Financing for Development agenda. The CUD has engaged International Finance Corporation (IFC) as a transaction advisor to attract private sector solutions and to leverage private sector financing through PPP for the construction and operation of the BRT by a private concessionaire. A private sector capital participation of a minimum of US$100 million is expected for the rolling stock. This would constitute the first PPP for mass transit in Cameroon and the CEMAC region, which represents an ambitious and transformative catalyst for the sector's modernization. If successful, the Douala BRT system's PPP will increase confidence for the private sector to engage in challenging environments like Cameroon and other regional peers. By improving the feeder network and promoting a Corridor Development Strategy (CDS), the project will also foster inclusive development in the informal sector and create investment opportunities around the corridor.

36. **The project is also fully in line with the World Bank Group's (WBG) 2021-2025 Climate Action Plan.** It will contribute to integrating development and climate objectives by addressing key challenges in Douala's urban transport sector. The project will support the plan's 'Mobility and Access' pillar through the provision of a high-quality public transit alternative to individual means of transport. By improving urban mobility and reducing congestion, the modal shift induced by the proposed BRT system will help drive down urban transport GHG emissions. Through activities centered around a TOD approach, the project will promote active mobility through non-motorized modes and support more sustainable and inclusive urban planning. Resilience to climate change and extreme events is also a key part of the project, as it includes upstream transport planning and adaptation measures informed by climate risk and vulnerability assessments.

37. **The project is in line with the WBG FCV Strategy and its first pillar of engagement to "prevent violent conflict and interpersonal violence".** In February 2022, Cameroon gained access to the IDA19 Prevention and Resilience Allocation (PRA)[54] which aims to support the Government's efforts to reduce conflict risks and strengthen the country's resilience to FCV. The PRA will benefit all regions affected by FCV challenges by targeting the four key drivers of conflict and violence that Cameroon's PRA eligibility note identified. The project places a heavy emphasis on job creation, equal access and inclusion, climate change resilience, and institutional strengthening, all relevant strategic objectives outlined in the PRA Eligibility Note. In particular, the project activities will contribute to several

[52] Document de Stratégie pour la Croissance et l'Emploi, 2009. The DSCE articulated the 'Vision 2035' strategy during the 2010-2019 period.
[53] World Bank, Supporting a Resilient Recovery – The World Bank's Western and Central Africa Region Priorities, 2021-2025.
[54] PRA eligibility includes 1) experiencing medium-intensity conflict as measured by the 1588 conflict-related fatalities or 6.14 fatalities per 100,000 people in 2020; and 2) GoC producing a strategy describing steps that the country plans to take to reduce the risks of conflict and violence.

of the PRA's objectives, including (i) building a more inclusive society through improved service delivery and access to opportunities; (ii) empowering women and youth in conflict-affected areas with income-generating capacity training; (iii) strengthening connectivity in conflict-affected areas, and (but not limited to); and (iv) setting frameworks to reduce climate change-related conflicts.

38. **Finally, the project will support Cameroon in achieving its Nationally Determined Contribution (NDC) and contribute to efforts of climate change mitigation and adaptation.** In the latest NDC submitted to the United Nations Framework Convention on Climate Change (UNFCCC),[55] Cameroon commits to reduce by 35 percent its GHG emissions by 2030[56] with 23 percent of this commitment conditioned on the support of the international community. Among the key mitigation actions identified in the 2021 NDC is the promotion of low emission transport through the development of BRT services, to which the proposed project will greatly contribute. By integrating transport and urban development through the TOD approach, the project will also reduce the energy intensity of urban activities, thereby enabling the transition to low-carbon cities in Cameroon, which is also among the investment priorities identified in the NDC. Regarding climate adaptation, ensuring the resilience of urban transport is among the key objectives of the adaptation strategy outlined in the NDC.[57] Based on an assessment of Douala's vulnerability to floods, the project's design will also integrate climate adaptation measures and strengthen urban resilience to climate risks.

II. PROJECT DESCRIPTION

A. Project Development Objective (PDO)

PDO Statement

The PDO is to improve urban mobility and support inclusive urban and economic development along selected Bus Rapid Transit (BRT) corridors and its feeder lines in Douala.

PDO Level Indicators

39. Achievement of the PDO is expected to be evaluated using the following key result indicators:

Improved urban mobility along the BRT corridors in Douala

(a) Average weekday passenger ridership using the BRT routes (number), disaggregated by gender (percentage);
(b) Average rush hour in-vehicle travel time on BRT routes (minutes);
(c) Satisfaction rating by public transport users of the BRT, disaggregated by gender (percentage).

Improved inclusive urban and economic development along the BRT corridors in Douala

(d) Beneficiaries of the project with improved working and/or living conditions around TOD investments, broken down into sub-indicators targeting women and street vendors (number);
(e) Population of Douala able to access the city center within a 60 minute commuting period by using public transport (percentage);
(f) Population of Douala able to access at least one additional health facility within 45 minutes using public transport (percentage).

[55] Cameroon NDC updated version was submitted to the UNFCCC in October 2021.
[56] 35% reduction of GHG emissions based on 2010 emission levels.
[57] Annex 8 of Cameroon's revised NDC (2021).

B. Project Components

40. **Overall project concept.** The proposed project will support a holistic and integrated urban and transport planning vision in Douala sustained by a multimodal public transport network and TOD interventions grounded on the recommendations of the PMUS:

    (a) The transport network financed under the proposed project will have a 28 km long BRT system as a backbone and allow feeders and optimized informal/artisanal transport service providers to complement and leverage the BRT's high-speed and high-quality services throughout the city. The proposed BRT system is expected to be developed and operated through PPP arrangements and will incorporate the provision of safe, convenient, secure access and crossings for pedestrians and other vulnerable road users as well as improved street lighting. Transport operators will benefit from professionalization activities.

    (b) To strengthen the integration of the transport system within its urban environment, a CDS will be implemented based on TOD principles[58] and engage a diverse group of public, private, and civil society stakeholders. The Strategy will establish a common and spatialized high-level vision for future urban growth along the mass transport corridor aiming to encourage suitable land-use mixes and higher densities of residential and commercial developments and to promote the creation of attractive and livable places around BRT stations. The project will also finance the implementation of selected TOD pilot projects in the areas surrounding selected BRT stations identified as part of the CDS and will include support for better street trader management at transport hubs, which is a major challenge for the city of Douala.

41. **The project is structured around five components**: (i) support to the institutional strengthening and professionalization of existing public transport operators; (ii) development of urban road infrastructure and BRT facilities and systems, rolling stock procurement, and related involuntary resettlement compensations; (iii) rollout of TOD program around the BRT system; (iv) project management and capacity building; and (v) a Contingent Emergency Response Component (CERC).

Component 1: Support to institutional strengthening and professionalization of existing public transport operators (US$11 million equivalent financed by IBRD).

42. The professionalization and training of operators are embedded in a comprehensive approach that builds on (i) the PMUS adopted by Douala in 2019; (ii) the 2018 World Bank-financed analysis of multimodal transport in Douala and its political economy including several consultations held by the CUD with local operators; (iii) subsequent action plans prepared by the CUD to professionalize moto-taxis and taxis. These elements have provided: (a) an in-depth diagnosis of the characteristics, socioeconomic drivers, and challenges of the informal and formal public transport sector in Douala; and (b) a comprehensive strategy to professionalize it and improve its efficiency through the public transport network restructuring, regulatory framework strengthening, a pilot fleet renewal scheme, digital platform, construction of various facilities and various technical assistances (TA). Subsequently, the CUD with the support of the CODATU[59] has designed a detailed list of activities to reach these objectives and formally requested CODATU's continued support to be financed under the proposed project throughout its implementation.

[58] TOD is a multi-disciplinary planning and design strategy. It promotes sustainable urban development that creates incentives for people to take public transit, walk or cycle rather than travel by car. TOD is achieved by concentrating urban services, communities and activities within walking distance from mass rapid transit stations, developing quality urban space with a diverse mix of land uses, and enhancing universal accessibility. Source: G. P. Ollivier et G. Basat, TOD for Sustainable cities (Transport Global Practice Snapshots), World Bank. For more details on TOD principles see: TOD Standards, Institute for Transportation and Development Policy (ITDP).

[59] CODATU is a non-profit association (https://www.codatu.org/statuts/) whose objective is to promote sustainable urban mobility policies in cities in developing countries with a renowned expertise in capacity building and artisanal transport sector professionalization.

43. This component will therefore finance associated works, services, and goods for the following activities in support of institutional reform and regulatory strengthening, professionalization of formal and informal operators including:

    (a) Technical support and capacity building activities to CUD for sector institutional strengthening: This sub-component will finance: (i) technical support to CUD from CODATU throughout the component's implementation; (ii) TA to CUD to set up the appropriate sector management institution including regulatory framework, PPP contract management, and BRT system operations supervision; (iii) TA to CUD to design the mechanism for SH prevention and response, to be permanently embedded within the BRT system's operational manual and professional practice, including delivery of communication and awareness campaigns and code of conduct for BRT operator(s); and (iv) capacity building activities (including gender sensitization) to the public bus transport operator SOCATUR, CUD, and other sector institutions through workshops and/or professional training.

    (b) Improvement of regulatory framework and reorganization of the public transport network: This sub-component will finance: (i) TA to strengthen the regulatory and management frameworks of the urban mobility sector including, but not limited to, vehicle/route licensing, taxation, fines and violations, permits issuance; (ii) TA for the professionalization of transport operators, including the design of a reporting mechanism for cases of SH and capacity building and awareness raising for the implementation of measures that prevent and respond to SH; (iii) awareness and communication campaigns to ensure project stakeholders' buy-in; (iv) TA to reorganize the SOCATUR bus network, improve feeder connections to the mass public transport network, improve traffic and parking management, and implement fare integration;[60] (v) support to the design and implementation of a digital platform to connect public transport users and transport operators; and (vi) TA to understand the recruitment and retention barriers that women face to be employed in the transport sector.

    (c) Tactical urbanism activities and facilities for the informal transport operators: This sub-component will finance: (i) the development and construction of small-scale loading/unloading, parking areas for the informal transport operators, taking into account aesthetic resignification to increase the perception of safety for women; (ii) the preparation and implementation of traffic and parking management plans; and (iii) the construction of a facility for vehicle maintenance and training for public transport vehicle drivers or the consolidation of existing maintenance and driver training centers.[61]

    (d) Fleet renewal scheme: This sub-component will finance TA for the design and first phase implementation of a pilot scheme for the renewal of active urban transport fleet based on a leasing mechanism similar to best practices in other countries. The scheme will identify both the type of eligible fleet (taxis or minibuses)[62] and the suitable mechanism.

44. Incumbent operators (SOCATUR and informal) are expected to be an integral part of the transport system, with the potential of becoming operators of the BRT system's complementary services (feeder and public transport routes), as proposed in the World Bank-financed study on multimodal transport and political economy.[63] This incumbent's integration process will be complemented by identifying the barriers faced by women to access and retain the transport sector's employment opportunities resulting in the promotion of women's participation in the sector. All operators' representatives are and will continue to be regularly consulted by the CUD through a

[60] This TA will be developed building on the existing demand forecasting model in preparation/use during the BRT feasibility and detail design study and multimodal network integration premises validated for the BRT system.
[61] Energy saving approaches will be considered for the construction of a new facility or the rehabilitation of an existing one.
[62] The internal layout's design and technical specifications for the renewed vehicles shall be informed by data and recommendations derived from focus groups conducted with women and other groups in a situation of vulnerability.
[63] Analyse multimodale et diagnostic de la politique économique, World Bank 2018.

dialog platform that was set up to inform them during project preparation. As set forth in the Stakeholder Engagement Plan (SEP) to be completed and adopted not later than three months after project effectiveness, this close dialog will continue throughout project implementation, notably to identify, design, and implement all activities of this component, fostering continuous support and buy-in on all stakeholders.

45. The TA that will support the Borrower in designing the fleet renewal mechanism will: (i) explore different PPP structures; (ii) build on lessons learned from the options and mechanisms in place or under implementation in different countries such as Burkina Faso or Senegal; and (iii) look into options for local banks to provide the loans for a more comprehensive approach.

46. Coupled with a stronger framework for urban transport regulation and management, the reorganization of public transport and the professionalization of informal and artisanal transport operators will help reap the efficiency gains of the BRT system. These institutional strengthening and professionalization activities, alongside the development of tactical urban facilities, will be key to enabling an effective reduction of congestion and inducing a modal shift to low-emitting transport modes, which will, in turn, contribute to climate change mitigation. Likewise, the improvement of vehicle maintenance practices will reduce vehicle GHG emissions, as will the fleet renewal scheme by enabling transport operators to shift to less emitting vehicles. Through the enhancement of public transport management, this component will also build the CUD's capacity to strengthen the operational resilience of the public transport network to climate risks through emergency response and contingency planning for extreme climate events.

Component 2: BRT infrastructure facilities, systems, and rolling stock (US$470 million equivalent, of which US$355 million equivalent financed by IBRD and IDA, US$15 million financed by counterpart funds, and US$100 million by the private sector).

47. The BRT corridor financed under the proposed project will consist of 28 km fully segregated BRT lanes, 44 stations, four terminals, and depots. All stations will be median-aligned,[64] closed, with an off-board fare collection system and level boarding to enable faster passenger boarding and alighting movements. The ongoing feasibility and detailed design studies, financed under the Project Preparation Advance (PPA) and to be completed by June 2022, will provide the detailed engineering design for the BRT infrastructure, stations, depots, associated infrastructure, and facilities, as well as the bidding documents to launch the tendering process for civil works construction. The design will: (i) conform to the Universal Access Guidelines to ensure seamless system-wide access for persons with disabilities; and (ii) take into account climate and disaster resilience aspects, observing the World Bank's COVID-19 response guidelines, and ensuring a post-COVID-19 Green, Resilient, and Inclusive Development (GRID) Recovery.

48. The BRT will include the provision of 251 modern articulated buses. The above-mentioned study will assess and identify the low-emission bus technology most suited to Douala's context. The BRT fleet shall be financed, procured, maintained, and operated by a competitively selected private sector entity. PCM of a minimum of US$100 million is expected to be leveraged for the acquisition of the BRT fleet. Moreover, the type of contract and optimal bundling arrangement for the provision of all BRT assets and services (e.g. fleet, Intelligent Transport Systems (ITS), vehicle operations, corridor, and facilities maintenance) shall be determined during the definition of the BRT system's preferred business plan. IFC Advisory has been selected as a transaction advisor by the CUD to provide support throughout the business plan definition and procurement process until reaching financial closing. IFC Advisory has completed the legal due diligence and is about to launch the PPP structuring in view of

[64] The corridor insertion for the N3 alignment (from Mandela to Yassa Junction) would be lateral due to the Ministry of Public Works (*Ministère des Travaux Publics*, MINTP) request to minimize interference between BRT operations and cargo vehicles accessing Douala's port.

market sounding, prequalification, and qualification steps.

49. The BRT system implementation, supported by an optimal operational plan, will drastically improve Douala's public transport provision landscape by promoting a modal shift to sustainable, low-emission, collective modes. In addition, climate resilience and climate change adaptation have been key considerations carefully observed during project design given the city's propensity to a substantial risk of flooding and other catastrophic climate shocks. Climate change risks and vulnerability to floods will be managed and mitigated through targeted adaptation measures along the BRT corridor, by combining structural, nature-based, and soft adaptation solutions which could include re-sizing crossing structures and drainage systems, bioswales, stormwater retention vegetation, identifying traffic diversion routes, among other things (Annex 2). The resulting infrastructure will be consistent with the relevant framework instruments being developed under the ongoing Transport Sector Development Project (TSDP).[65]

50. This component will finance associated works, services, and goods for the following activities:

(a) BRT infrastructure: Design, construction, and supervision of an integrated transport corridor featuring roadways, drainage, sewer/water supply, lighting, traffic management systems, NMT facilities, landscaping, as well as constructing and equipping BRT facilities (bus lanes, interchanges, stations, terminals, depots),[66] etc.;
(b) BRT ITS system: Provision of ITS deemed necessary for the BRT system's correct operation and response to emergencies, contingencies, notably an Automatic Fare Collection System (AFCS) and Automatic Vehicle Location System (AVLS) (hardware and software) which will enable a centralized control, communication of/with bus operations and fare management, and a User Information and Security System (UISS) to enhance BRT user experience and strengthen the surveillance and monitoring of the BRT system's operational conditions;[67]
(c) BRT fleet: Provision of rolling stock that shall be financed, procured, and maintained by a competitively recruited private sector operator under a PPP arrangement;
(d) Safeguard mitigation measures: implementation of safeguard and social mitigation measures including: (i) carrying out of GBV prevention programs and related social aspects through the hiring of Non-Governmental Organizations (NGO) or consultants for Grievance Redress Mechanism (GRM) supervision as needed, delivery of communication and awareness campaigns on GBV, and related activities during project implementation; (ii) financing of involuntary resettlement compensations associated with the project;[68] and (iii) implementation of relevant COVID-19 and other health-related protocols validated and approved for Cameroon/Douala's context and aligned with the World Bank's COVID-19 response.

Component 3: Transit-Oriented Development around the BRT system (US$42 million equivalent financed by IBRD).

51. The component will finance the following activities under two sub-components:

[65] The ongoing Transport Sector Development Project (P150999) funded by IBRD is financing two strategic studies related to climate change / resilience: (i) Strategic Environmental and Social Assessment of Transport Sector, and (ii) National Climate Change Adaptation and Resiliency Strategy for Transportation Infrastructure. These two studies, which are expected to be completed by no later than June 2023, will help define the framework instruments for planning, design, construction and maintenance of climate change resilient and adaptive transport infrastructure in Cameroon.
[66] Design premises to include GBV prevention environmental design features such as openness, lighting, and visibility.
[67] The UISS shall enable direct communication channels with the BRT's control center supporting the establishment of a fast, reliable, and confidential mechanism to report cases of violence occurred within the BRT system.
[68] The World Bank management has approved that IDA proceeds be used to finance the resettlement costs related to economic displacement while the counterpart financing will finance other resettlement costs.

Sub-component 3.1: Road and non-motorized infrastructure improvements along feeder roads (US$25 million).

52. This sub-component aims to improve the transport and mobility infrastructure network along the BRT system's feeder roads, approximately 100 km in length. Objectives include: (i) increase public transport's level of service along the identified BRT system's feeder network; (ii) improve multimodal integration by promoting low-carbon modes use (public transport and NMT); and (iii) reduce transport-related GHG emissions.

53. The ongoing study, financed under the PPA, will identify sites where strategic design improvements are needed to facilitate road operations along the BRT System's feeder network. These include but are not limited to: (i) roadway reconstruction/rehabilitation; (ii) NMT facilities construction/rehabilitation including, but not limited to sidewalks, crosswalks, and pathways; and (iii) specific infrastructure to fluidify and optimize formal and informal public transport operations (taxi, minibus, bus, and mototaxis) including, but not limited to parking and maintenance areas, loading/unloading facilities, and urban furniture. A priority program will then be determined in consultation with relevant stakeholders and based on a thorough multicriteria socioeconomic cost-benefit assessment, to identify among others: (i) the benefits for the population, public transport users, and the environment; (ii) the existing Right of Way; and (iii) potential resettlement issues or technical readiness. The infrastructure design and works will be consistent with the relevant framework instruments being developed under ongoing TSDP with specific attention to safety, livability, accessibility, and enjoyability.

54. The detailed diagnostic has been completed as of January 2022. The design and cost estimates of the selected improvements are expected no later than June 2022. The detailed engineering design and bidding documents for related activities shall be completed no later than August 2022.

55. This sub-component will finance associated works, goods, and services for the following activities:

    (a) Urban infrastructure: Construction, supervision of urban infrastructure improvements throughout the feeder roads network: (i) road infrastructure reconstruction/rehabilitation featuring roadways, drainage, sewer/water supply, lighting, traffic management systems, utilities relocation; (ii) NMT facilities construction/rehabilitation including, but not limited to, sidewalks, crosswalks, and pathways; and (iii) specific infrastructure to fluidify and optimize formal and informal public transport operations (taxi, minibus, bus, and mototaxis) including, but not limited to, parking and maintenance areas, loading/unloading facilities, and associated urban furniture.
    (b) Safeguard mitigation measures: Implementation of safeguard and social mitigation measures relevant to the sub-component including (i) carrying out of GBV prevention programs and related social aspects, through the hiring of NGO or consultants for GRM supervision as needed, delivery of awareness campaigns, and related activities; (ii) financing of involuntary resettlement compensations associated with the project; and (iii) implementation of relevant COVID-19 and other health-related protocols validated and approved for Cameroon/Douala's context, and aligned with the World Bank's COVID-19 response.

56. Infrastructure improvements along the feeder roads will not only reduce urban vulnerability to flooding through better drainage but will also strengthen transport network redundancy, thereby enhancing the resilience of transport systems in the event of climate-related shocks. Reductions of GHG emissions can also be expected as a result of these activities, as NMT infrastructure will enable a shift towards non-emitting mobility, and traffic management systems will improve the efficiency of transport and reduce congestion across the network.

Sub-component 3.2: Corridor Development Strategy and public space improvements around BRT stations (US$17 million financed by IBRD).

57. The BRT system financed under the proposed project will be developed as part of an integrated urban and economic development vision based on TOD principles. The ongoing study, financed under the PPA to be

completed by December 2022, will develop the CDS along with urban development scenarios and will provide detailed urban design, marketing study, and financing schemes for selected pilot projects. It will also provide the bidding documents to launch a tendering process for civil works. The overall design will consider climate and disaster resilience aspects and ensure a post-COVID-19 GRID Recovery.

58. This sub-component will support the development of the integrated vision along the BRT corridor and the creation of economically vibrant, inclusive, and attractive public spaces around selected BRT stations using TOD, inclusive economic planning, and accessibility design principles (station-area planning). It will focus on wider urban and economic development planning covering an area of 5-to-10-minutes (0.5-1km) walking distance on both sides of the axis of the BRT corridor resulting in a total "TOD area" of about 30 to 35 square km. The rollout of this activity will contribute to the development of a more sustainable and accessible city by concentrating key economic, social, and professional activities within a smaller area, consequently encouraging a modal shift to walking and cycling and further reducing GHG emissions.

59. This sub-component will finance associated works, services, and goods for the following activities in support of the CDS implementation including:

(a) Preparation of a CDS for the TOD area with an emphasis on BRT station areas. It will engage a diverse group of stakeholders from the public, private, and civil society spheres to establish a harmonized, consistent, and spatialized vision for medium to long-term urban growth along the BRT corridor, with a strong focus on women. This vision would support higher residential and employment densities, more compact, mixed-use land development, affordable housing, walkability, cyclability, and vibrant streetscapes. The CDS will also identify and outline priority project packages for key development nodes along the BRT corridor. The CDS will include an overall financing strategy that will, among others, consider opportunities for land value capture in the context of station areas development, contemplating how the city could raise additional financing from tax, fee or development-based land value capture (exploring the feasibility of using various tools such as Tax increment financing, Special Economic Zones, Business Improvement District, PPPs, etc.), tailored to Cameroon's institutional context and Douala's urban environment. Collaboration with other agencies such as the Ministry of Labor and Social Security will be contemplated, ensuring land-use schemes incorporate services that could ease the mobility of care, such as childcare provision in piloted areas close to the BRT.

(b) Preparation of station-area development plans for the public spaces around one or two selected BRT stations including detailed land use and plot-level plans to guide pilot investments. These station areas for pilot investments are being selected based on the diagnostic of the city operation, neighborhoods surveys, and the CUD's prioritization and will be localized in the areas surrounding BRT stations that are being determined as part of the detailed engineering design studies of the BRT. Three sites (Carrefour Leclerc, Carrefour Ndokoti, Quartier PK8) have been pre-identified based on the baseline assessment of the entire TOD area (see Annex 4). The development concept proposed for each of these sites is being formulated. The final selection of station areas for pilot investments and the formulation of station-area development plans will follow a participatory process articulated, among others, around charette-type workshops, that will engage both informal and formal private sector actors, residents, people with disabilities, women's associations, public transit users, etc., to define specific investments that would support inclusive local economic development.

(c) Design, construction, and supervision of the pilot investment packages around BRT stations identified in the station-area development plans as a pilot demonstration. Since street trader management around transport hubs is a major challenge in Douala and within the remit of the municipal administration, the pilot interventions will focus on supporting inclusive economic development. These investments could include street furniture and shading, water/electricity supply, public toilets and ablution facilities, kiosks, markets and other vending infrastructures, storage, shelters, street lighting, landscaping, community art, waste

management, sidewalks and pedestrian crossings, rehabilitation of existing public facilities and other urban infrastructure, etc. The exact content of these investment packages will be formulated once stations areas for pilot investment are selected, and their development plans finalized. The study is ongoing, detailed engineering designs and bidding documents will be ready by December 2022.

(d) TA to support the organization of street traders/informal vendors around the BRT station areas to meaningfully participate in the preparation and design process, with a strong focus on gender-specific barriers faced to participating and being heard in trade organizations.

(e) TA to improve street trader management and design suitable fee structures for economic activities around BRT stations with a view to ensure the operation and maintenance of infrastructure while maintaining affordability for informal vendors.

(f) TA to support the implementation and institutionalization of the CDS through (i) support the preparation of the legal instruments (municipal bylaws, laws, etc.) needed for its formal adoption as a binding planning document by the CUD and other public actors involved; and (ii) the development of a capacity-building strategy for the main actors in charge of its implementation.

60. The integration of transport and urban planning through a TOD approach will contribute to cleaner mobility and a less carbon-intensive urban environment. Pilot development plans and investments around selected BRT stations will reflect climate adaptation considerations by integrating cost-effective structural and nature-based adaptation measures that mitigate flood risks identified in climate vulnerability assessments.

Component 4: Project management and capacity building (US$17 million equivalent, of which US$12 million equivalent financed by IBRD and US$5 million by counterpart funds).

61. This component will finance services and goods for the following activities:

(a) Project management costs including Project Implementation Unit (PIU) operating costs associated with staff, consultants, office and communication equipment, and consulting services for fiduciary support, environmental and social (E&S), and monitoring and evaluation (M&E) activities.

(b) Capacity building and TA for the PIU including (i) TA to the PIU on important cross-cutting issues including gender, citizen engagement, road safety, and climate change and disaster risk; and (ii) capacity building for the PIU to strengthen internal capacity for project implementation and monitoring.

(c) Technical support to the PIU for Components 2 and 3 through the engagement of a project management firm (*Assistance à Maitrise d'Ouvrage,* AMO) to support the PIU in, procurement, supervision of works, studies, and coordination of stakeholders under Components 2 and 3 of the proposed project.

62. This comprehensive approach of capacity building and strengthening activities will bridge the technical project design and implementation teams who will manage and citizens who will use the BRT, to further enhance climate resilience and mitigation.

Component 5: Contingent Emergency Response (CERC)

63. In the event of an eligible crisis or emergency, to provide an immediate and effective response to it, the Government may request the World Bank to re-allocate project funds to support emergency response activities and the reconstruction of infrastructures. This component will draw from the uncommitted credit resources under the project to cover emergency response. An Emergency Response Operations Manual, acceptable to the World Bank, setting forth detailed implementation arrangements for the implementation of the Contingent Emergency Response Plan will be developed and constitutes a disbursement condition for this component.

C. Project Cost and Financing

Table 1: Indicative Costs and Financing (US$M)

Project Components	Costs (US$, millions)	Public Sources Financing			Private Sector
		IBRD Loan	IDA Credit	GoC	
Component 1: Support to institutional strengthening and professionalization of existing public transport operators	**11.00**	**11.00**	**0.00**	**0.00**	**0.00**
(a) Technical support and capacity building activities to CUD to implement Component 1	3.00	3.00			
(b) Improvement of regulatory framework and reorganization of the public transport network	2.50	2.50			
(c) Tactical urbanism activities and facilities for the informal transport operators	2.50	2.50			
(d) Fleet renewal scheme	3.00	3.00			TBC
Component 2: BRT infrastructure facilities, systems, and rolling stock	**470.00**	**137.30**	**217.70**	**15.00**	**100.00**
(a) BRT infrastructure	328.00	115.30	212.70		
(b) BRT ITS system	22.00	22.00			
(b) BRT fleet	100.00				100.00
(d) Safeguard measures implementation	20.00		5.00	15.00	
(of which provision for resettlement compensation)	*(17.00)*		*(2.00)*	*(15.00)*	
Component 3: Transit-Oriented Development around the BRT system	**42.00**	**42.00**	**0.00**	**0.00**	**0.00**
3.1. Road and non-motorized infrastructure improvements along feeder roads	25.00	25.00			
3.2. Corridor Development Strategy and public space improvements around BRT stations	17.00	17.00			
Component 4: Project management and capacity building	**17.00**	**12.00**	**0.00**	**5.00**	**0.00**
(a) Project management costs	13.00	8.00		5.00	
(b) Capacity building and TA for the PIU	2.00	2.00			
(c) Technical support (AMO) to the PIU for Components 2 and 3	2.00	2.00			
Component 5: CERC	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total (US$, millions)	**540.00**	**202.30**	**217.70**	**20.00**	**100.00**

64. **The total proposed project cost is estimated at US$540 million, all taxes included.** This will be financed by (i) an IBRD loan in the amount of US$202.30 million equivalent; (ii) an IDA credit in the amount of US$217.70 million equivalent; (iii) a private sector investment for an estimated capital mobilization of US$100 million[69] equivalent through PPP arrangements; and (iv) an estimated total contribution of counterpart financing of up to US$20 million equivalent. The tentative project costs are summarized in Table 1 and will be revised based on the

[69] This preliminary estimate was obtained through the ongoing feasibility study. In-depth assessment will be performed by IFC as part of the PPP structuring phase.

outcomes of ongoing studies and the final allocation decision.

65. **The resettlement costs are estimated in the Resettlement Action Plan (RAP) at US$17 million equivalent (CFA 9.731 billion).** Following a request letter from the CUD dated April 6, 2022, and in the absence of a national legal framework related to economic displacement, the World Bank regional management approved on an exceptional basis on April 13, 2022, that IDA credit covers the resettlement costs for economic displacement estimated at US$2 million (CFA 1.145 billion) for 919 identified Project Affected Persons (PAPs) while the counterpart funding would cover all other resettlement costs for an estimated amount of US$15 million (CFA 8.5 billion).

66. **Private sector capital mobilization**. A private-sector operator is expected to finance, purchase, operate, and maintain the BRT fleet and to carry out the maintenance of the infrastructure. The BRT operator is expected to provide a minimum of US$100 million as PCM to procure the BRT buses required to meet the estimated demand. The exact amount and modalities will be further assessed by IFC Advisory during the PPP structuring phase. The PCM will be further enhanced thanks to the conducive business environment created through the TOD strategy.

D. Project Beneficiaries

67. **Approximately 800,000[70] people living directly within the project's influence zone and currently reliant on collective transport services (formal and informal), will have access to a safe, environmentally friendly, reliable, and affordable mass-transit transport system**. Women, the elderly, children, IDPs, and other vulnerable populations will benefit from an inclusive, accessible, and safe mass public transport system. The BRT and feeder networks provide a backbone for more efficient urban development. In the long term, beneficiaries will benefit from improved urban living conditions as a result of the combined effect of improved urban mobility and CDS rollout. Over the long term, the whole population of Douala urban area will benefit from increased access to opportunities (jobs, education opportunities, social services, markets).

68. **Women and IDPs will have increased access to opportunities, including qualified jobs created by BRT operations.** The project proposes to target long-term equal access to opportunities in the sector through jobs created by BRT operations with gender and IDPs targets under discussion. Moreover, the project anticipates fostering the hiring of women during the construction and operations phase to a representation of at least 20 percent of the active workforce. During implementation, options will also be explored to see how the hiring process for jobs opportunities created by the project's infrastructure works could include specific measures to specifically target IDPs.

69. **Local operators will operate the feeder lines of the integrated transport corridor.** Incumbent transport operators are expected to run bus services operations for both feeder and restructured complementary networks. These operators will also benefit from professionalization, improved regulation, and a pilot fleet renewal scheme.

70. **The Government, at local and central levels, will benefit from the institutional reform and capacity-building activities during the preparation and implementation stages**. The business environment in Cameroon will also benefit from the success of the first PPP transaction in the urban transport sector.

71. **The TOD rollout will foster an integrated urban and inclusive local economic development benefiting the area residents and all public transit users.** Informal sector actors, who represent up to 80 percent of the urban workforce in Douala and are made up primarily of economically vulnerable groups such as the youth and women, will be key beneficiaries with special emphasis placed on supporting street traders/informal vendors in the TOD areas to improve their day-to-day working conditions.

[70] Estimated using EDM data – PMUS de Douala, Systra, 2018.

E. Results Chain

72. **The overall theory of change is represented below.** The project activities will result in various outputs, including the BRT infrastructure and fleet, and among others, a new structure for public transport and strategies for future urban and economic development in the project area. These will not only improve the quality of public transport and contribute to travel times reductions, but they will also contribute to urban environment enhancement with a special focus on creating a favorable business climate. It will also rehabilitate urban infrastructure and promote more sustainable and green urban development through TOD. These outcomes are essential steps to improve urban mobility and support inclusive urban and economic development along selected BRT corridors and its feeder lines in Douala (PDO). Meeting the PDO is in turn expected to contribute to higher-level objectives, starting with enabling better access to services, jobs, and economic opportunities as well as creating economic growth but also to contribute to sustainable urban development and to support women's empowerment, ultimately contributing to achieving NDCs.

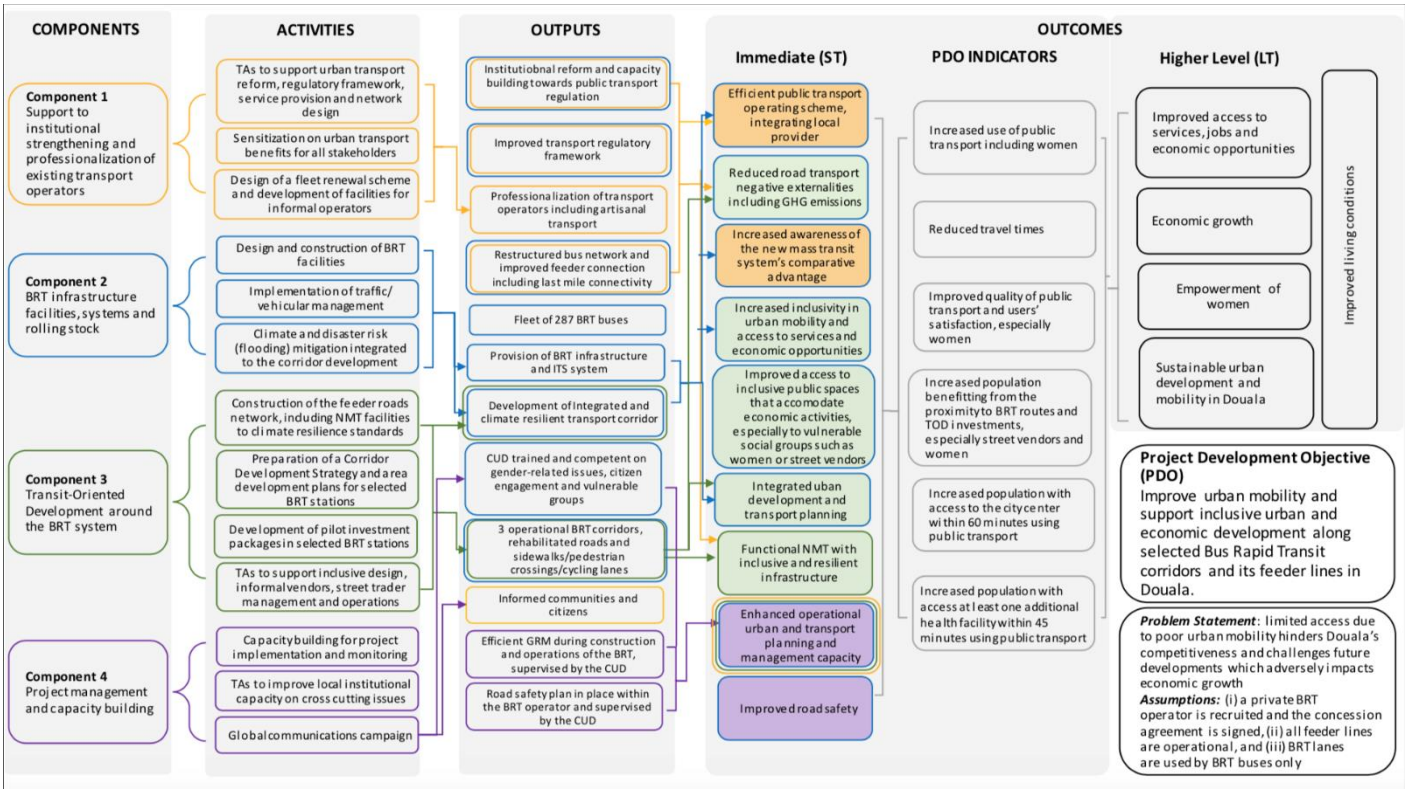


Figure 2: Theory of Change

F. Rationale for World Bank Involvement and Role of Partners

73. **The World Bank's involvement in the proposed project is justified by the complexity and the risks of implementing the first BRT system and transit-oriented investments in Cameroon, which will require substantial amounts of coordination across different agencies (transport infrastructure, urban development, private sector activities).** The World Bank offers the necessary convening power to effectively support such an integrated endeavor as well as technical expertise. The World Bank recently carried out a Cameroon City Competitiveness

Diagnosis,[71] which identified urban mobility and transport infrastructure as key bottlenecks for economic development in Douala, as well as a subsequent analysis of multi-modal transport needs and political economy in Douala. The project preparation and implementation will continue to be jointly led by the Transport and the Social, Urban, Rural and Resilience Global Practices bringing together considerable knowledge and experience in preparing holistic urban projects focused on resolving challenges faced by cities in developing countries.

74. **The WBG has a longstanding track record in preparing urban transport projects including complex mass transit systems throughout the world** which include BRT components that are developed through PPPs, underpinned by public improvement of urban infrastructure and sector reorganization. Furthermore, the WBG has supported integrated planning approaches anchored in TOD principles to leverage transport system development for better guiding rapid urban growth. Through the IFC Advisory collaboration, the WBG will mobilize specific expertise to support the structuring of the PPP transaction required to develop the BRT system. Finally, with support from Multilateral Investment Guarantee Agency (MIGA), the WBG could improve the risk profile of putting in place a PPP transaction to develop the Douala BRT system.

75. **BRT projects involve large infrastructure works with E&S challenges that should be carefully mitigated to reap the benefits of the new infrastructure**. Combined with the complexity of the institutional structure in Cameroon and the need to leverage additional investments from the private sector and other development partners, the WBG would play an important role in coordinating between all concerned parties and bringing in international expertise.

G. Lessons Learned and Reflected in the Project Design

76. **The project design takes stock of country-specific lessons and of international best practices.** Over the last two decades, the World Bank has been supporting public transport activities in over 30 countries. Lessons learned from successes and failures of operational BRT systems initiatives, such as Transmilenio in Bogota, Colombia, Aayalolo in Accra, Ghana, and DART in Dar es Salaam, Tanzania, were considered during project design; specifically, new approaches to contract bundling for service provision, adoption of low-emitting bus technologies, evolving institutional arrangements, and risk assessment for private capital investments. Similarly, lessons learned from project preparation stages have been incorporated concerning e-mobility penetration, institutional setup, and leadership experiences from World Bank's projects in Abidjan, Côte d'Ivoire; Dakar, Senegal; and Nairobi, Kenya. A decisive and tailored reform of the existing institutional and regulatory frameworks stands as a common mandatory denominator in all the experiences considered, further highlighting the importance of the activities financed under Component 1 towards the successful implementation of a BRT-based mass transit system in Douala.

77. **Strong and continuous political leadership and project ownership are key to the success of the proposed project.** Per the legislation, the CUD has exclusive competence for the management of urban public transport and roads on the entire CUD territory and for the eventual contractual oversight of the BRT system once operational. Moreover, from a political stance, the proposed project has benefitted from early and continuous commitment and support by the CUD and the MINHDU; from a strategic stance, the project has been consistently identified and referenced in all urban and mobility strategy plans adopted by the CUD and supported by the national government.

78. **The operationalization of Douala's pilot BRT system as planned is contingent on the prompt selection of a competent vehicle operating concessionaire following a sound BRT system business plan**. This underlines the need to launch the studies required to define and structure the PPP arrangement(s) and contractual/concessional

[71] Cameroon City Competitiveness Diagnostic, World Bank, 2018.

agreement(s) as early as possible, ensuring due diligence in terms of determining the project's financial viability and identification of the most appropriate business model for Douala's context. As previously stated, IFC Advisory is supporting the CUD in pursuing this endeavor.

79. **Stakeholder consultation and an effective communication strategy will be critical.** The project has carried out extensive consultations with all stakeholders, including existing transport operators (motorbike riders, taxi minibus drivers, SOCATUR), private sector actors both formal and informal, central government line ministries (MINHDU, MINTP, MINT, MINEPAT,[72] MINEPDED,[73] etc.) and their deconcentrated services in Douala (CUD and other local municipalities), NGOs, and others. Similarly, the project will ensure to continue active stakeholder engagement throughout project implementation. Particular attention will be given to engaging incumbent operators to ensure the BRT system and the transport services resulting from the proposed reorganization are complementary. This stakeholder engagement will ensure the project is effective in restructuring the public transport network in a sustainable manner.

80. **Urban integration supporting the TOD strategy has been built into the project from the onset**. A key lesson from past experiences of BRT development is the need to couple the BRT investments with the overall BRT corridor's urban and economic development strategy through a TOD approach. This coupling enables the integration of urban development and urban transport in a coordinated and mutually reinforcing manner rather than disjoint and competing initiatives. For example, TOD objectives such as investing in fostering residential and business densification as well as enhancing NMT modes in the areas around the BRT corridor play a key role in increasing public transport ridership just as the public transport itself is a powerful catalyst for TOD investments. The proposed project has integrated a TOD component from the onset, following Dar es Salaam's BRT lesson, where an ex-post TOD project was undertaken to correct early omissions. The project will be based on a TOD approach by focusing on the integration of the BRT with the city's economy, the other transport modes, and the feeder route network. This will result in a more efficient public transport network and coverage in Douala and contribute to the economic development of the BRT corridor area and its adjoining public spaces.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

81. **Per Cameroonian legislation, the CUD has an exclusive mandate for the management of urban public transport and the development, maintenance, operation, and management of primary and secondary roads on the entire CUD territory**.[74] Given the scope of the proposed project, the CUD will be the main implementing agency and will have overall responsibility for all project-related activities as well as the contractual oversight of the BRT system once it is operational. TA has been included in Component 1 to strengthen the CUD's capacity and organization to supervise mass-transit operations over the long term.

82. **The overall institutional structure of the project will be composed of**: (i) a steering committee that ensures the coherence of activities with the sectoral strategy and intersectoral coordination for sub-components under the responsibility of ministerial departments, companies, and local authorities; and (ii) the PIU in the CUD to ensure the coordination of project implementation. Capacity building has already started for the existing institutions that

[72] Ministry of Economy, Planning, and Regional Development (*Ministère de l'Economie, du Plan et de l'Aménagement du Territoire,* MINEPAT).
[73] Ministry of Environment, Nature Protection and Sustainable Development (*Ministère de l'Environnement, de la Protection de la Nature et Développement Durable,* MINEPDED).
[74] Article 241 alinéa 3 of the « Code Général des Collectivités Territoriales Décentralisées »

were involved in the project preparation, in particular the technical staff of the PIU.

83. **The Project Steering Committee (PSC) will be created specifically for the project within one month after effectiveness.** It will be chaired by the Mayor of Douala or his/her representative and vice-chaired by a representative of the MINHDU. It will include representatives from key ministries, communes and agencies with responsibilities in urban development, transport, economic development. The full composition of the PSC will be detailed in the Project Implementation Manual (PIM). The PSC will be responsible for providing overall strategic guidance for project implementation and related policies, facilitating vertical and horizontal coordination, and will validate the annual work plan and budget (AWPB). The PSC will meet at least twice a year and can invite any other agencies and experts as a non-voting members and technical advisors as deemed adequate. The PIU will provide secretariat services to the PSC.

84. **The project will be implemented through a dedicated PIU**. The CUD has substantial competence in planning and execution although its organizational chart is characterized by its complexity. The CUD already has gained experience implementing World Bank-financed projects, including the Douala Infrastructure Project (P074490) and the Cameroon Sanitation Project (P117102). During project preparation, a dedicated Douala-based PIU was created by decree to help advance project preparatory activities. The PIU is composed of key technical, fiduciary, and safeguards staff appointed or competitively recruited (e.g. coordinator, specialists in financial management (FM), procurement, environmental safeguards, social development, accounting, infrastructure and transport) with competencies satisfactory to the World Bank. Furthermore, the team has received support from the PIU in charge of the PDVIR on all fiduciary aspects during the preparation phase, further strengthening its capacity. The PIU will be strengthened during implementation with the recruitment no later than three months after project effectiveness of an M&E specialist, a communications officer, a social and environmental supervisor, a RAP expert, a GBV and gender specialist, a Health, Safety and Environment (HSE) expert, and an assistant to the procurement specialist. Capacity building activities to strengthen PIU competences in managing large urban projects are also planned within the Component 4 of the proposed project.

85. **Implementation modalities include several project management support mechanisms**. For overall implementation needs, the PIU will rely on existing technical units within the CUD, in close coordination with relevant local representatives of sectoral ministries, notably through the institutional dialogue platform created during preparation. The PIU will also be supported by short- and long-term technical experts/consultants, as needed. The CUD will rely on various project management support for project implementation: (i) for infrastructure aspects of Components 2 and 3, a project management support firm (AMO), competitively recruited under Component 4, will support the PIU; and (ii) for Component 1, the PIU will be supported by CODATU under a contract for TA that can be financed by the project. For Component 2, the CUD has mandated IFC Advisory to carry out the transaction advisory services for the recruitment of the private sector operator(s) required to ensure BRT system operations.

86. **The CUD is the authority that will establish, undertake, and oversee the PPP contract with the private sector operator(s)**. As part of its due diligence, IFC Advisory undertook a thorough legal assessment of the existing regulatory framework regarding the recruitment and supervision of the private sector operator(s) required to ensure BRT operations. The assessment concluded that the CUD: (a) is the authority responsible for the preparation and implementation of the bidding procedure with support from various ministries and the Support Council for the Implementation of Partnership Contracts *(Conseil d'Appui à la Réalisation des Contrats de Partenariat*, CARPA), a national agency created in 2010 to support PPP undertakings; and (b) will be the signing authority of the PPP contract (*Contrat de Partenariat*), in charge of supervising the operations performed by the private sector operator.

87. **Project Manuals.** A PIM satisfactory to the World Bank is being prepared with a specific section dedicated to the M&E system and shall be ready before effectiveness. Project Procedures Manual setting out guidelines and procedures for administrative, FM and disbursement, and other fiduciary arrangements will be prepared and shall be approved two months after effectiveness.

B. Results Monitoring and Evaluation Arrangements

88. **The project-level M&E framework will track progress in implementation, measures intermediate outcomes, and evaluate project results and impacts**. The results framework outlines the key indicators, data collection methods, frequency, and responsibilities.

89. **The PIU at CUD will be responsible for the overall management and implementation of M&E for the project**. This will include collecting and maintaining data, managing the flow of information between government actors and the World Bank, and producing periodic monitoring reports.

C. Sustainability

90. Sustainability of the intervention will be ensured through the following mechanisms:

    (a) **Stakeholders' appropriation of the project.** If the Government's intention to move towards more sustainable urban mobility and reduce reliance on cars is made clear by this project, other actors' implication is necessary to ensure the project's sustainability. In this regard, the first component of the project will ensure institutional strengthening and professionalization of existing public transport operators, showing that considerable attention is paid not only to setting up a viable PPP arrangement but also to national actors' ownership of the project. Stakeholder engagement has been and will remain an overarching principle or project implementation.
    (b) **Careful consideration of the project's social take-up**, notably the population's interest and demand, will be closely monitored by key result indicators such as the average daily passenger ridership using the BRT system per weekday. Good performance from a successful mass transit system would likely progress towards a system scale-up in the future.
    (c) **Perspective of replicability**, implementing the first BRT system and public transport optimization in Cameroon will demonstrate the mass transit proposition's viability for the country's context and make it possible for the technologies it entails to develop and take root in the region.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

(i) Technical Analysis

91. **The Douala urban mobility project has been conceived following the recommendations of 2018's PMUS and stands as the cornerstone and first phase of the city's long-term vision for sustainable mobility**. The plan proposes an integrated multimodal transport network and is supported functionally and tactically by time-sensitive multidisciplinary recommendations. The project's BRT system will be the backbone of the integrated network and will provide transport services along two of three planned/proposed BRT corridors along the northeast - CBD and southeast-CBD axes. Public transport supply will be expanded by feeder services and a complementary network of bus lines.

92. **International best practices in the design and implementation of BRT systems have been observed to structure**

and formulate the project's technical proposition adapted to Cameroon's and Douala's specific contexts. More specifically, it will follow the Integrated Corridor Management Approach[75] which will cater to the needs of all road users along the corridor, thus expanding the targeted group of beneficiaries with a focus on NMT, public transport users, and other vulnerable road users. In addition to infrastructure and functional enhancements along the main corridor, deteriorated road sections along the selected feeder road network and associated catchment areas will be rehabilitated and improved, traffic management will be upgraded, and parking issues will be addressed.[76]

93. **The project design incorporates multimodal integration, universal access, and safety.** The technical design of the BRT infrastructure and other components of the project will include measures to improve physical integration between public transport modes and their access to onward journey modes (for example, walking and cycling). The provision of convenient, secure, and safe pedestrian access to the stations will receive specific attention. Rehabilitation of sidewalks along the corridor will improve the environment for pedestrians. Universal access design principles and guidelines will be applied throughout all aspects of the design of the BRT infrastructure and associated facilities financed by the project. Important features enabling inclusiveness for all, particularly those living with a disability and/or limited mobility, will be incorporated including (i) mass transit system accessibility; (ii) prioritization of NMT in terms of provision of adequate dimensions and safety considerations; and (iii) geometric design as a traffic calming passive measure.

94. **The proposed BRT system will be developed along three main thoroughfares connecting the city's most strategic, densely populated, and congested districts.** The northeast-CBD axis of 14.5 km starts at the northeast suburbs at the PK14 junction following the P14 route's inbound alignment traversing Ndokoti area and progressing west by way of the Avenue Roger Milla, Boulevard de l'Unité, and Boulevard President Ahmadou Ahidjo, reaching the Leclerc Square in the CBD's Akwa district. The southeast-CBD axis is composed of two sections: the first begins at the southeastern suburbs at the Yassa junction and progresses inbound following the N3 route's (*Pénétrante est*) alignment up to Nelson Mandela's junction (8.9 km); the second section begins at Nelson Mandela junction and progresses north connecting with Ndokoti area where it joins the northeast-CBD axis (4 km). Figure 3 provides details of the selected BRT corridor alignments.

95. **The BRT corridor will have 28 km of median-aligned dedicated busways, 44 median stations, and four BRT terminals/depots.** The BRT dedicated lanes will follow the design of median-aligned lanes[77] and with central stations some of which will be staggered given cross-section constraints. It will feature four terminals and depots (Leclerc, PK14, Nelson Mandela, and Tradex Yassa) offering services of passenger point of access, feeder and conventional routes integration at terminal areas, and overnight parking and maintenance services at depot areas. Keeping in view the busway infrastructure's long-term sustainability, the project is proposing rigid pavement for the BRT lanes based on the international experience of comparable BRT infrastructure projects. Pavement structure and materials for the mixed traffic lanes will be determined upon detailed traffic analyses. The phasing of civil works will be explored given the project's complexities related to the scope of capital investments and potential traffic management conflicts during construction.

[75] ICM objective is to use of road network and transport supply to maximize the movement of people and goods safely, quickly, and efficiently with the least socioenvironmental footprint. Integrated Corridor Management for Urban Transport, Zimmerman Sam, Dahdah Said and Wei Wang, Transportation Research Record, Journal of Transportation Research Board, January 2012.
[76] No additional lane for individual vehicles is expected to be created.
[77] The corridor insertion for the N3 alignment (from Mandela to Yassa Junction) would be lateral due to MINTP request to minimize interference between BRT operations and cargo vehicles accessing Douala's port.

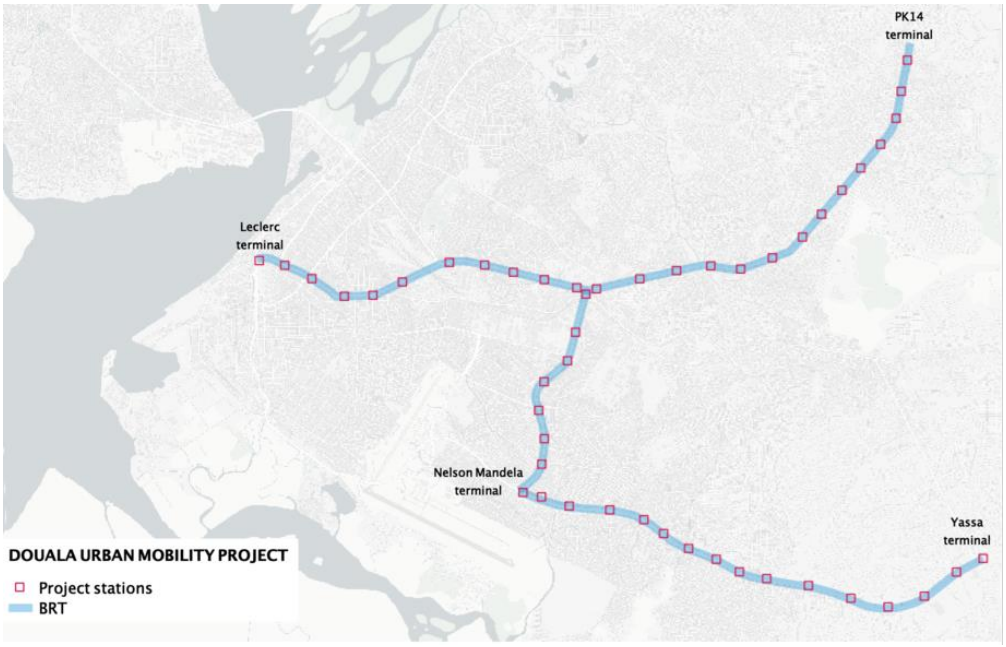


Figure 3: Selected BRT Corridors

96. **Ndokoti junction and its surrounding area represent one of the project's major planning challenges while offering a unique opportunity for drastically improving the city's mobility and living conditions**. Ndokoti is a junction at the center of a road connection point linking the city's western districts (old town and its business, commercial, and historical districts such as Akwa, Bonanjo, Bepanda, Deido) with the city's eastern more recently established districts and new residential suburbs. Moreover, it is the city's major hotspot for institutional, industrial, and commercial activities attracting and generating enormous traffic and pedestrian volumes, chaotically coexisting in an extremely constrained right-of-way and poorly planned, managed, and maintained public space. The project contemplates a complete overhaul of the existing conditions by revisiting and optimizing land use practices, urban mobility conditions, and urban infrastructure provision emphasizing the efficient rollout of TOD principles primarily related to the protection and promotion of NMT.

97. **The forecasted daily ridership by 2025 is 650,000 BRT passengers served by a fleet of 251 18 m articulated buses and 21 feeder routes**. The service plan consists of five Trunk Routes (express and stopping) [78] and 21 Feeder Routes. Commercial speed for the busiest trunk services is about 26 km/h with an average bus headway of 1.8 minutes during peak hour with an estimated 16,000 Passengers Per Hour In The Peak Direction (PHPD).[79] A comprehensive comparative analysis of alternatives suitable for Douala's conditions and the implications to the business model to implement will determine the choice of vehicle engine technology to adopt choosing from low-carbon options such as EURO 5 or 6 Diesel/Compressed Natural Gas or electric engines.

98. **Using the proposed BRT system could translate into an average of 91 minutes of in-vehicle time travel savings per public transport passenger per weekday**. Compared to the 2025 without-project scenario, estimated cumulative savings amount to 38 hours per month or 19 days per year that each person using the system can recover to spend in productive or leisure activities, greatly improving quality of life and overall personal well-being. In economic terms, these travel time gains have the monetary equivalent of US$97 million per year.

[78] Rolling stock estimates include a reserve fleet of 7 percent.
[79] Forecasted at PK7 – Brasserie.

(ii) Economic Analysis

99. **An economic analysis of the proposed project was carried out under the ongoing feasibility study for Component 2 (civil works, BRT facilities, and fleet), based on a standard cost-benefit evaluation approach**. The social, economic, and environmental impacts of Component 2, which represents 87 percent of the project's total cost, were accounted for by comparing the without- and with-project scenarios. Ongoing road and infrastructure projects are taken into account in both scenarios namely the PDVIR lanes, Primary lanes, the Douala by-pass, and the Rocade 10km. The Economic Internal Rate of Return (EIRR) and Net Present Value (NPV), calculated with a discount rate of 7 percent by comparing the two scenarios, provide a measure of the project's economic viability over its lifetime (2022 to 2045).

100. **Economic costs and benefits were derived from traffic and passenger demand which were obtained using a four-step model and a mode-specific EMME model**.[80] Specifically, travel demand matrices were generated using PMUS datasets, considering three-time horizons: (i) 2025, when the BRT system's commissioning is expected; (ii) 2030; and (iii) 2045, which is the final year of the infrastructure's lifetime. Assumptions for population growth and distribution are based on the PMUS' estimates for the period 2025-2045. Fares were based on estimations provided by the ongoing feasibility and detailed design study which relies on the PMUS results. The current fare structure considers: a FCFA 400 flat fare for BRT services use, with additional FCFA 100 increments to integrate with feeder services; the use of only feeder services is charged at FCFA 200.[81] For each scenario and time horizon, the traffic demand model provides ridership, vehicle-km traveled, generalized travel time, and fleet estimations per mode during the morning peak hour. Daily and annual results were derived using expansion factors, nine and 300 respectively.

101. **Electric- and diesel-powered vehicle typologies were compared to assess the economic impacts of the engine technology choice**. Since each technology is associated to different operational constraints, the traffic analysis model was run for both electric- and diesel-powered buses to enable a comparison of the required fleet size, acquisition cost, operating costs, and GHG emissions. Although e-buses have a much higher acquisition cost than their diesel peers (150 percent more),[82] vehicle operating costs (VOC) and carbon emissions are lower, with electric emitting about four times less CO_2 than diesel per km. A lifetime of 10 years for buses was considered in the analysis with a fleet renewal in 2035.

102. **Results of the economic analysis indicate a positive NPV of US$301.0 million and an EIRR of 13 percent for the Euro V diesel-based fleet**. When including the social cost of GHG emissions, the NPV ranges from US$312.6 million to US$324.1 million for low and high shadow price of carbon (SPC) values, respectively.[83] In other words, the reduction in emissions attributable to the BRT increases the NPV by 4 and 8 percent when carbon externalities are factored in for Low and High SPC, respectively. With the Low SPC, generalized travel time savings represent 75 percent of the benefits attributable to Component 2, with the decrease of overall VOCs accounting for 14 percent and road safety gains for 4 percent. To ensure the robustness of results, the analysis included sensitivity tests which considered: (i) a 20 percent capital cost overrun (of the BRT fleet); (ii) a 10 percent BRT operational cost increase; (iii) a 10 percent reduction in demand; (iv) a 20 percent increase in infrastructure cost; and (v) the combination of the four above mentioned scenarios. None of the tests bring the project below the 7 percent minimum EIRR, and the NPV calculated with a 7 percent discount rate remains positive in all scenarios (Table 2).

[80] EMME is a multimodal transport planning software produced by INRO.
[81] The financial analysis being carried out for the project will conduct a detailed analysis on potentially viable fare structures to ensure their competitiveness and affordability from the perspectives of the operator and users.
[82] Economic Analysis for the Abidjan Urban Mobility Project (P167401), Grütter Consulting.
[83] The SPC was computed based on: World Bank Group, Guidance note on the SPC in economic analysis, Cover Note, 2017.

An equivalent analysis has been conducted for an electric BRT fleet and shows a positive NPV and an EIRR of at least 7 percent in all scenarios.

Table 2: Economic analysis summary for the Euro V diesel-based fleet

	Base		+20% CAPEX		+10% OPEX		-10% demand		+20% INFRA		+10% OPEX -10% demand +20% INFRA +20% CAPEX	
	NPV*	EIRR	NPV*	EIRR	NPV*	EIRR	NPV*	EIRR	NPV*	EIRR	NPV*	EIRR
Without carbon externalities	301.0	13	282.3	13	236.5	12	229.1	12	245.9	11	97.2	9
Low estimate tCO2 price	312.6	13	293.9	13	248.1	12	239.5	12	257.5	12	107.7	9
High estimate tCO2 price	324.1	13	305.5	13	259.7	12	250.0	12	269.1	12	118.1	9

*Million US$

GHG emissions calculation

103. **The net GHG emissions of the BRT system will be –575 Ktons CO_2 eq. for the project lifetime for Euro V diesel fleet.** The BRT system will avoid 27 Ktons CO_2 eq. every year, with annual gross emissions decreasing from 391 Ktons in the baseline scenario to 363 Ktons CO_2 eq. with a diesel BRT fleet. The reduction in GHG emissions is the consequence of the modal shift induced by the project, from low capacity and high-emission conventional transport modes (private vehicles, taxis, mototaxis) to low-emission mass transport modes, thereby decreasing congestion and leading to significant reductions in Douala's mobility carbon intensity. The impact of the project's low-carbon mass transit system on climate change mitigation is therefore significant as, compared to the without-project scenario, the BRT will cut GHG emissions due to transport in Douala by a minimum of 7 percent during the project's lifetime.

Table 3: GHG emission summary for Euro V diesel and electric fleet

	Gross emissions without BRT	Gross emissions with diesel BRT	Gross emissions with electric BRT	Net emissions with diesel BRT	Net emissions with electric BRT
Project lifetime (tCO_2 eq)	8,208,588	7,633,127	6,485,564	-575,431	-1,722,994
Annual[84] (tCO_2 eq)	390,884	363,482	308,836	-27,401	-82,047

104. **The choice of an electric engine technology for BRT rolling stock reduces GHG emissions by 1,723 Ktons of CO_2 eq. by 2045 compared to the without-project scenario**. With electric buses, annual net GHG emissions will be–82 Ktons CO_2 eq., which is three times as much GHG emissions avoided than with a diesel BRT fleet. This additional reduction in emissions with an electric fleet is due to the higher energy efficiency of e-buses and the lower well-to-wheel carbon intensity of electricity in Cameroon compared to diesel.[85] The comparative advantage of e-buses with respect to climate change mitigation could be even greater if Cameroon's electricity mix was further decarbonized during the project's 24-year lifecycle, as planned in the country's 2021 NDC.

[84] 2025-2045 period average, excluding construction period.

[85] Considering well-to-wheel carbon intensities enables the comparison of fuel-based technologies such as diesel with an electric engine technology (which generates no tank-to-wheel GHG emissions), by taking into account GHG emissions generated to extract, convert and transport the energy source.

Accessibility Analysis

105. **An accessibility analysis was conducted as part of the project preparation to estimate its impact in terms of access to opportunities for the population of Douala**[86] The study focused on the morning peak period (6:00 to 9:00 AM) and considered different travel times thresholds varying with the type of opportunity: 60 minutes for jobs and the CBD, 45 minutes for health, education and markets opportunities, and 30 minutes for emergency services. City-wide accessibility to employment opportunities and services is estimated under several scenarios for the year 2025: (i) a scenario without the project considering only the existing transport network – baseline scenario; (ii) a scenario with the BRT corridors alongside existing transport networks; and (iii) a scenario with the BRT system and the restructuring of selected feeder lines – the 'with project' scenario.

106. **The implementation of the proposed BRT system could contribute up to 138 percent increase in jobs accessible within one hour of travel for low-income households compared to the baseline scenario**. With the project, 28.7 percent of jobs would be accessible in less than 60 minutes, compared to 13.7 percent in the baseline scenario. An estimated 200,000 additional jobs could be accessible city-wide within the same time span with significant improvement in access to low-skilled and manual jobs, with an increase of 66 percent in the BRT-only scenario and 110 percent in the BRT and feeder network scenario compared to the reference situation. The project would also lead to a 136 percent increase in the share of the population able to access the CBD within one hour.

107. **The project will also bolster access to health services, education facilities, and markets.** The implementation of the BRT and feeder network would allow 68 percent of the population in Douala to access at least one additional health facility in less than 45 minutes. For the same time threshold, compared to the baseline, an additional 8 percent of students would have access to at least one university with the project, and 48 percent of pupils would have access to at least one additional secondary school. With the BRT system, five markets would be accessible within 45 minutes, compared to only two without the project. These metrics are even more relevant when considering the role women play as primary caretakers directly responsible for their household's health- and market-related trips. Table 3.1Table in Annex 3 presents the results in detail.

(iii) Financial Analysis

108. **IFC will support the GoC, represented by the CUD, in assessing, structuring, and tendering the PPP transaction for a selection of a BRT operator**. IFC Advisory has completed the legal due diligence. The structuring, as well as the tender and implementation phases, will follow, based on the various ongoing studies such as demand assessment, feasibility design, Environmental and Social Impact Assessment (ESIA), and will include: (i) the preparation of a complete risk sharing matrix; (ii) the determination of the roles and responsibilities of the public and private parties; (iii) the preparation of a financial model; and (iv) the specification of procurement procedures for the proposed mass transit system.

109. **The concession agreement(s) will be carefully drafted to ensure a balanced risk allocation, contracting fairness, and to safeguard the interest of all involved stakeholders**. The structure of the PPP as well as the level of public financing and the risk-sharing between the private operator and the Government in terms of construction and operation of the infrastructure and equipment is not known yet. A duration of 10-15 years is envisaged for the PPP contract. It is likely, given the level of fare and the expected ridership and past assessment in other Sub-Saharan cities such as Abidjan and Dakar, that revenues should allow financing at least the BRT rolling stock and equipment capital costs with commercial bank financing. It is therefore anticipated that financing, procurement, operations, and maintenance of all BRT assets and services (e.g. rolling stock – trunk and potentially feeders, ITS,

[86] Accessibility is measured by the number of opportunities (e.g. employment, markets, health or education services) that can be accessed from a given origin in a given travel time.

corridor, and facilities) will be undertaken by private operators. The type of contract and optimal bundling arrangement shall be determined during the definition of the BRT system's preferred business plan and PPP transaction. This assessment will also determine if local operators may be involved in the shareholder structure of the future operator together with a qualified BRT operator.

B. Fiduciary

(i) Financial Management

110. **An FM assessment of the CUD was conducted in line with the World Bank Directive FM Manual for Investment Project Financing (IPF) operations to determine whether the proposed FM arrangements for this project are considered adequate**. The CUD has previously implemented two World Bank-financed projects but under dedicated PIUs. The assessment concluded that the CUD's FM capacity will need to be strengthened by relying on the PIU that has been established under the CUD to manage the overall coordination and implementation of the project, including FM aspects. Specifically, the PIU will establish and maintain adequate FM arrangements that will: (i) correctly and completely record all transactions and balances related to the project; (ii) prepare the project's financial reports in an accurate, reliable, and timely manner; (iii) secure the project's assets; and (iv) ensure that the project will be subject to auditing arrangements acceptable to the World Bank. For the PIU to fulfill these requirements, an experienced FM officer has been designated among the CUD staff during the PPA implementation period to ensure the PIU is ready for effectiveness. This officer has been working with the PDVIR's FM team in charge of the PPA's FM implementation to strengthen capacities. The CUD has also upgraded the accounting software and has regularized the PPA accounting during project preparation. This software will be used to manage the project accounts.

111. **The overall FM residual risk is Moderate** considering the mitigation measures recommended by the assessment, which should be implemented consistently to reduce the risk level and ensure the project achieves its development objective in the agreed timeline.

112. **With respect to the use of country systems, the project will rely on the existing FM arrangements put in place to manage donor-funded projects**. These arrangements are housed in two main institutions. First, the Autonomous Sinking Funds *(Caisse Autonome d'Amortissement,* CAA) is equipped with dedicated tools developed by the World Bank Institutional Development Fund (IDF) including (i) a standardized FM Manual; and (ii) an integrated FM system for donor-funded projects (namely SIGED), which includes modules relating to the project cycle, budgeting and accounting, automated payments, and electronic filing. Second, the Ministry of Public Procurement (*Ministère des Marchés Publics,* MINMAP) is responsible for ex-ante control of all suppliers' invoices associated with a contract which must be exercised prior to payment by CAA. In addition, the PIM is being prepared and will be adopted by the Borrower before effectiveness as an additional risk mitigation measure to strengthen the FM arrangements. It will be approved by the World Bank.

113. **The following additional measures should be undertaken after the project becomes effective**:

(a) The standardized FM Manual of Procedures developed by CAA with World Bank IDF support has been customized to reflect the project's specificities;
(b) The accounting software configured during the PPA will be parameterized to handle accounting and reporting needs under the project;
(c) An accountant will be designated by the CUD, or recruited under Terms of Reference (ToR) acceptable to the World Bank;
(d) A staff working at the Inspectorate-General of Services (*Inspection Générale des Services)* will be designed to fulfill the internal audit function for the project; the dedicated internal auditor will conduct ex-post reviews

of the project transactions and procedures, and to ensure that identified weaknesses are addressed in a satisfactory manner; and

(e) An external auditor will also be recruited to conduct an annual financial audit of the financial statements of the project along with a review of the internal control system.

114. **The project will be disbursed in line with Disbursement Guidelines for World Bank IPF operations (dated May 2017), together with the current arrangement that involves the CAA as a public accountant.** At the time of preparing the FM assessment and for the reason set forth in subsection 5.2 of the Disbursement Guidelines, the advancing of financing proceeds into a Designated Account (DA) is not a Disbursement Method currently available under both the Loan Agreement and the Financing Agreement. As the foregoing measure is deemed temporary, disbursement arrangements have been designed to include the use of DAs to the extent such use is permitted at a later date during project implementation; provided that the Disbursement and Financial Information Letter (DFIL) will first need to be amended at a later date to reflect such arrangements.

115. **Following the implementation of the above-mentioned mitigation measures, the proposed FM arrangements for this project are considered adequate and meet the World Bank's minimum FM requirements**.

(ii) Procurement

116. **Regulations**. Procurement for goods, works, non-consulting, and consulting services will be carried out in accordance with the procedures specified in the latest World Bank Procurement Regulations for IPF Borrowers dated November 2020 (Procurement Regulations), the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (revised as of July 1, 2016; Anti-Corruption Guidelines), and provisions stipulated in the Financing Agreement.

117. **The proposed project will use the Systematic Tracking of Exchanges in Procurement (STEP) system**. STEP is a planning and tracking system which would provide data on procurement activities, establish benchmarks, monitor delays, and measure procurement performance.

118. **Capacity assessment**. The CUD has established a PIU to prepare and implement the project. An assessment of the capacity of the PIU to implement procurement was carried out by the World Bank's procurement specialist during the preparation of the project (see details in Annex 1). The assessment found that the PIU has limited experience with implementing the World Bank's procurement procedures under the New Procurement Framework (NPF) and regulations. The procurement unit within the CUD, accustomed to working within the framework of the national procurement code and the World Bank's Procurement Guidelines, has never handled procurement under World Bank Regulation. Consequently, PIU's capacity in this area needs to be strengthened.

119. **The overall procurement risk is Substantial** after the implementation of the proposed mitigation measures. These measures include: (i) providing for the mobilization of a senior procurement expert who is experienced and familiar with World Bank procurement procedures and policies among the experts of the AMO to support the PIU in the implementation of Components 2 and 3; (ii) hiring an assistant to the procurement specialist within three months after project effectiveness; (iii) strengthening the capacity of actors on the NPF and contract management; (iv) developing a Procedures Manual (Administration, Finance, and Accounting) to clarify roles for each team member involved in the procurement process, and define the maximum delay for each procurement stage, specifically with regard to review and approval systems, and the signing of contracts; (v) setting a special tender board for the project in line with Cameroon's procurement regulations to oversee review of procurement documents, request for quotations, request for proposals, request for bids, evaluation reports, and drafting of contracts; and (vi) improving the filing system at the PIU level to ensure compliance with World Bank procurement filing manual. All mitigation measures proposed are presented in Annex 1.

120. **A Project Procurement Strategy for Development (PPSD) and a draft Procurement Plan (PP) detailing the first 18 months of implementation have been prepared and approved prior to negotiations**. The PPSD has been developed to analyze the key features of the project and related procurement risks and opportunities, building on the lessons learned from similar projects. Over 83 percent of the total value of acquisitions and works planned as part of the implementation of the project (US$413 million) will be used for contracts for road infrastructure works including for the BRT infrastructure and feeder roads. While there is a market with qualified national and international contractors, potential risks include the unavailability of specific expertise required for the BRT infrastructure, delays in receiving imported goods, and delays in the procurement process due to administrative routines or inadequate communication and interaction between the beneficiaries and the PIU. Several other specialized consultant services requiring highly qualified contract management and transport management, or sector reform experience will be performed in support of the BRT set up. During implementation, the PPSD and PP will be updated as required, at least annually for PP, to reflect actual program implementation needs and improvements in institutional capacity.

C. Safeguards

121. **The project is prepared under World Bank safeguards policies. Project activities envisioned under Components 2 and 3 are likely to have significant effects on the environment and the occupational health and safety (OSH) of workers and the populations surrounding the project site. Therefore, according to OP/BP 4.01, the project has been classified in category A with environmental high-risk level.** Five policies have been triggered during the preparation stage: OP/BP 4.01 on Environmental Assessment; OP/BP 4.04 on Natural Habitats; OP/BP 4.03 on Performance Standards for Private Sector, OP/BP 4.11 on Physical Cultural Resources, and OP/BP 4.12 on Involuntary Resettlement.

122. **Several safeguards instruments have been prepared for the project, consulted upon, cleared by the World Bank and disclosed in-country and on the World Bank website as per the table below, namely** (i) an Environmental and Social Management Framework (ESMF) for activities under Component 1, 3, and 4 for which locations are still unknown; (ii) a Resettlement Policy Framework (RPF) given that the exact location of some project activities under Component 3 is not well-known; (iii) an ESIA for Component 2; (iv) a RAP for Component 2 for the BRT corridor and its stations. In addition, an ESIA shall be prepared for Sub-component 3.1 “Improvement of roads and non-motorized infrastructure along BRT corridor” once site locations are known, and a SEP and GRM are being prepared. All the safeguard instruments have been financed by the PPA and prepared with the World Bank’s technical support.

123. **ToR for all E&S studies have been prepared and cleared by the World Bank since October 2019**. These ToR have been updated to take into account all relevant COVID-19 pandemic issues and to follow the structure provided by national regulations in force. Consistent with national regulation, and before starting studies, ToR of the two ESIAs have also been sent to Ministry of Environment, Nature Protection and Sustainable Development (*Ministère de l’Environnement, de la Protection de la Nature et Développement Durable* MINEPDED) for approval.

Table 4: Safeguards Documents Disclosure

Instruments	Date of disclosure in-country	Date of disclosure on World Bank external website
ESMF	12/01/2021	12/01/2021
ESIA	12/01/2021	12/01/2021
RPF	02/25/2022	03/02/2022
RAP	03/31/2022	03/31/2022

(i) Environmental Safeguards

124. **The ESMF has been cleared and disclosed on December 1, 2021**. The ESMF focuses on activities under Components 1, 3, and 4 for which locations will only be fully defined during project implementation (e.g. infrastructure improvement along selected feeder roads, public space improvements around BRT stations). The ESMF provides guidance for the environmental assessment of those investments and is extended to any TA included in the project.

125. **The ESIA of Component 2 (BRT corridor infrastructure) has been prepared, consulted upon and disclosed on December 1, 2021**. A full Environmental and Social Management Plan (ESMP) has also been produced as part of ESIA and disclosed at the same time. Following national regulation, reports have been sent to the MINEPDED for approval and for the Certificate of Environmental Compliance (*Certificat de Conformité Environnementale* CCE).

126. **Based on the findings of the ESIA, environmental challenges faced by the implementation of the BRT pilot corridor in the City of Douala are**:

(a) **Alteration of air quality**. The rise of dust particles and exhaust gases are elements that may alter air quality during the construction and operation of the BRT. Noise and the production of tremors during the construction of the BRT infrastructure are real sources of nuisance. The regular movements of trucks and other construction equipment also produce noise and vibration in the basement.
(b) **Flooding**. The urban space surrounding the BRT corridors and the feeder roads is crossed by a dense river network that flows into the Wouri river. Floods mainly threaten habitats that are illegally installed in low-lying areas and areas of water stagnation. The Rain Drainage Project recently carried out by the CUD has facilitated water flow and reduced flooding in several neighborhoods bordering the BRT project. These include Akwa, Mboppi, Camp Yabassi, Ndogbati and Logbaba.
(c) **Climate change and reduction of GHG emissions**. Available data indicates that the pollutants emitted during transport activities in the project area are in order of importance CO_2, CO, Volatile Organic Compounds, and Nox. The implementation of a BRT system will contribute to increasing the supply of public transport, potentially absorbing a significant share of private vehicle users, and thereby reducing the number of vehicles that are used on given routes. The reduction in the number of vehicles and their replacement by low-emission mass transport automatically implies the reduction of GHG emitted by transport into the atmosphere. It is therefore expected that the project will reduce the city's transport sector contribution to GHG concentration in the atmosphere, which is the leading cause of global climate change.
(d) **BRT system's workers, users, and residents' safety**. This issue is part of occupational safety and public health. Project activities may result in occupational accidents, traffic accidents, incidents involving residents, etc. Project implementation could also lead to the involuntary displacement of populations and their subsequent loss of property, including land, homes, and even sources of income).
(e) **Disruption of activities**. Many of the small business units and small trades that open directly onto the road along the BRT corridors will be disrupted.

127. **ESMP and main mitigation measures.** Mitigation measures have been prepared, planned, and budgeted in the ESMP. The ESMP identifies three categories of measures: (i) mitigation measures that consist of general environmental protection measures, allowing to reduce the direct effects of road construction works on ecosystems and socioeconomic environments; (ii) compensation measures for unavoidable negative impacts of BRT lane construction; and (iii) positive impact enhancement and accompanying measures proposed to positively influence the patterns of road infrastructure use and to improve the social and economic conditions of the populations served. The implementation cost of the ESMP has been estimated at CFA 575,600,000. It includes, among others, the costs of contractor's worksites compliance with international EHS standards and the

mobilization of highly qualified personnel for the implementation of ESHS aspects. As the BRT will be implemented in a densely populated and congested area, the ESIA has identified specific measures to mitigate health and safety risks, as well as disturbances related to exacerbated traffic congestion. These measures include (i) the development and implementation of a Traffic Management Plan at an estimated cost of CFA 109.5 million; (ii) the sensitization of motorcycle taximen and taximen to the risks related to their intrusion into the BRT lanes, at an estimated cost of CFA 20 million; (iii) the requirement for contractors to be recruited to achieve ISO 9001 and ISO 14001 certification; and (iv) the recruitment of an OHS expert within each contractor's and supervision's teams.

(ii) Social Safeguards

128. **The project is classified as Environmental Assessment Category A and is subject to a full assessment**, as there are impacts that will affect neighboring populations' lifestyle and assets, reduce their access to some basic facilities, cause a disruption of economic activities in general, and particularly transporters. Operational Policies OP/BP 4.11 on Physical Cultural Resources and OP/BP 4.12 on Involuntary Resettlement are triggered within the framework of this project. Both physical and economic displacements are anticipated. The proposed project is implemented within the right-of-way of the existing road. However, in some sections, the right-of-way is partially occupied. Elements identified are physical assets (houses, little shops (locally called Kiosques), containers, trees, crops, etc.) and economic activities. OP 4.11 Physical Cultural Resources is triggered because the civil and earthworks during BRT Corridor construction may affect known or unknown physical cultural resources. In fact, monuments, and graves are also identified within the project footprint.

129. **A RPF has been prepared, consulted upon, and disclosed on March 2, 2022**. The RPF provides guidelines for the overall resettlement process within the scope of the project and notably defines the procedures for the PAPs regarding (i) their census; and (ii) the mitigation measures to be implemented and/or the compensations' evaluation. Specific attention is paid to informal operators (vendors or transporters) conducting activities within the project right of way. Vendors with fixed or semi-fixed installations are deemed eligible for compensation.

130. **A RAP has been prepared, consulted upon, and disclosed on March 31, 2022, for the specific BRT infrastructure under Component 2**. The total cost of the RAP is estimated at CFA 9.731 billion, equivalent to US17 million, out of which (a) CFA 549 million for land loss compensation; (b) CFA 7.831 billion for buildings compensation; (c) CFA 28.2 million for crops loss compensation; (d) CFA 1.145 billion for economic displacement; and (e) CFA 177 million for RAP management support (audit and implementation) directly associated with the rehabilitation of the BRT infrastructure. Resettlement related costs consists of compensation to the 1,377 PAPs identified. Continuous consultations with the PAPs were part of the RAP preparation process.

131. **A resurgence of HIV/AIDS, Sexually Transmitted Diseases (STD) and COVID-19 is also anticipated**. Contractors shall inform and sensitize their staff on risks related to HIV/AIDS/STDs and COVID 19 transmission. They will also put in place preventive measures against disease risks. OHS issues will also be considered and addressed. Mitigation measures are included in the ESMPs and will be inserted in contractors' contracts.

GBV/Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH)

132. **This project will mobilize a significant number of workers for civil works, which can lead to some social risks, especially GBV, SEA, and/or SH.** The risk of GBV, SEA, and SH for the project works is rated Moderate. This risk level was determined using the World Bank SEA/SH screening tool developed for major civil works projects. The labor influx for this project will be moderate as the project is implemented in an urban area with a large skilled and unskilled labor force. Living standards in Douala are higher than in the other parts of the country, and project areas are easily accessible and not subject to high-security risks. Moreover, the project will not require the mobilization of security forces to protect project equipment and staff. The project-specific risks include moderate

labor inflow and proximity of project workers to women and girls in communities with high GBV and poverty levels. Prevailing forms of GBV in project-affected communities include physical and psychological abuse, intimate partner violence and sexual violence. The project conducted a GBV/SEA/SH assessment and identified mitigation measures to address GBV/SEA/SH risks on women, girls, and children in project communities as part of the ESIA. The project will prepare a GBV/EA/SH action plan during implementation proportionate to the SEA/SH risk level. Required prevention and mitigation actions will include signing codes of conduct, recruitment of a GBV specialist, community sensitization, capacity building of project and local actors, and GBV service mapping. Moreover, the project GRM will be adapted to ensure safe and confidential access for SEA/SH survivors. The PIU will ensure that the relevant GBV/SEA/SH risks prevention and mitigation requirements, including codes of conduct, GBV/SEA/SH expertise, and associated budgets, are considered throughout project procurement. The World Bank social development team will provide TA to the project gender/GBV specialist and other required GBV consultants (NGO) who may be recruited to support the project.

Gender

133. **The project seeks to improve access to opportunities in Douala by reducing constraints faced by women and vulnerable road users in particular.** The lack of affordable and accessible transport is a constraint to women's mobility. Women currently make the vast majority of walking trips and tend to have fewer transport alternatives, making them more dependent on public transport. Women's mobility patterns usually include multiple trips, traveling with children, and/or cumbersome loads as well as challenges that extend into areas of public space (e.g. transport terminals, bus stops, walkways). The CDS will promote a more diverse, less automobile-dependent urban transport that effectively serves non drivers, the majority of which are women. The BRT system and associated infrastructure will be designed to address specific mobility and accessibility needs with considerations for ease of access in regard to adequate safety and security, comfortable navigation, universal design that accommodates the needs of people with disabilities and women (particularly when traveling with cumbersome loads or children), and boarding/alighting along and within the corridor. In the results framework, indicators will measure the impacts of improved access through accessibility, average travel times, female ridership, and satisfaction among BRT system users. The results framework will measure women's daily use of the BRT network, the share of women among the beneficiaries of improved urban living conditions, and women's satisfaction with the service provided, in terms of accessibility, affordability, and safety.

134. **Improved physical infrastructure and safer mobility options are expected through investments in BRT and TOD pilot sites.** Perceived and real threats of violence in public transport and other public spaces are a significant mobility barrier for women, girls, and other vulnerable users. Women are more likely to be exposed to safety and security risks in transit or whilst waiting for public transport. Under Component 1, the activities will include (i) gender sensitization, capacity building, design of a reporting mechanism, communication campaigns, and training to appropriately intervene in cases of SH; and (ii) comprehensive support to design a mechanism for SH prevention and response to be permanently embedded within the BRT system's operational practice including a code of conduct for BRT bus drivers. Under Components 2 and 3, the BRT infrastructure and systems, and the investments in public space within and around the integrated transport corridor will focus on ensuring inclusive access to terminals/stops, better lighting in public spaces, CCTV in stations and buses, limited use of dead ends/ corners/ opaque materials that hinder visibility and adequate provisions for amenities. The CDS will also engage a participatory approach to prepare area development plans for public spaces around selected BRT stations. These activities will include GBV prevention programs and related social aspects during project implementation through the hiring of a Non-Government Organizations (NGO) for GRM supervision support as needed, delivery of communication and awareness campaigns on GBV, and related activities.

135. **The project will foster job opportunities for women and their participation in the transport sector.** Following consultation with the Borrower during a preparation mission in February 2022, ambitious targets of 20 percent of female employment among the BRT operator staff and within the construction firms' staff have been agreed upon. These targets are tailored to Douala and Cameroon's transport sector and defined according to women's participation in the sector and women's share in transport-related educational/training programs; with the CUD strongly supporting women empowerment, they will be revised during project implementation and raised in consequence where and when applicable. The project will support sensitizing BRT operators and construction firms on minimizing unconscious bias thanks to awareness building and communication. In addition, Component 1's TA for the professionalization of transport operators will explore how to expand opportunities for women with informal providers, which could lead to a gender action plan to foster equality in the sector, derived from an analysis of the structural, recruitment, and retention barriers for women to participate in the public transport and construction sectors. This TA shall create a strategy to address identified barriers, such as driving training, advice on submission of license applications, and support to address any other constraints identified. Finally, the BRT operator will also assess mechanisms to improve women's retention (e.g. flexible working schedules, maternity leave, SH in the workplace mechanism). The project shall also focus on recruitment and retention barriers for women in construction, with activities undertaken by the construction firm including, but not limited to, gender-sensitive recruitment strategies during the time, days, and spaces suitable for women, capacity building and analysis of barriers for women-led contractors. The project will not only promote employment opportunities for women as operators and in construction, but also for women as traders in the project area as direct beneficiaries of improved infrastructure and opportunities brought by efficient mobility and TOD schemes offering more "location-efficient" jobs and access to denser economic areas. Three specific indicators are included in the project's results framework to capture progress toward reducing the identified gender gap and to monitor the achievement of the gender target in employment.

Citizen Engagement

136. **The CUD has committed to a comprehensive citizen engagement approach for the project**. A series of consultations have been conducted during the project preparation, aiming at sensitizing and ensuring population adhesion to the project and at collecting citizen feedback and incorporate it in the preparation of safeguards documents. In particular, during RAP and ESIA preparation, a series of consultation meetings were held in the Douala I, Douala II, Douala III, and Douala V subdivisions (*communes d'arrondissement*). Furthermore, transporter's unions, travel agencies, traders, and Civil Society Organizations (CSO) were consulted. From the feedback received, these various stakeholders generally welcome the project. Feedback from beneficiaries and PAPs will be recorded and monitored throughout the project through a GRM under preparation. Implementing the SEP throughout the project cycle will contribute to maintaining regular and extensive dialogue with communities, local leaders, transporters, and various unions. In addition, BRT users' feedback will be collected annually through surveys that will monitor their satisfaction with the level of service, affordability, availability, customer services, communication systems, the complaint system, security and safety. This will be specifically captured by a PDO indicator and will help design corrective actions if needed.

137. **The project is expected to reinforce citizen engagement by ensuring that related mechanisms in place are inclusive**: the project will implement the GRM which will allow beneficiaries to submit any complaint concerning project activities by ensuring that (i) the project has citizen engagement indicators, which will track user satisfaction and feedback on services supported by the project; and (ii) the project will reinforce and implement the GRM to strengthen project governance. The project will support regular communications with the general public to increase understanding of the project and the use of public services. Public consultations and information will be organized throughout project implementation, participatory planning, and monitoring (including social

audits). The project will ensure that all consultations/initiatives are accessible and promote equal participation, opportunities, and resources for people who seem to be excluded from the mainstream of society.

(iii) Other Safeguards

138. **Climate Change and disaster risk management.** The proposed project has been screened for short- and long-term climate change and disaster risks using the World Bank's screening tool, and corporate requirements regarding climate change will be fully considered during project preparation. The definition of specific resilience-enhancing measures will be completed during project preparation and technical designs for the main infrastructure works are being prepared. The preparation of project activities will also consider the recommendations of the Guide to Integrate Climate and Disaster Risks into Development Planning, completed by MINEPAT with World Bank's support in June 2017. Moreover, project preparation will benefit from additional technical expertise and support on resilient urban investment planning in the context of the CRP.

139. **Climate co-benefits**. The project contributes to enhancing climate resilience and reducing GHG emissions of transport activities in Douala, mostly by (a) integrating climate resilience considerations in road infrastructure design, BRT infrastructure, and operations, and maintenance requirements and (b) strengthening institutional frameworks and professionalization of public transport, deploying BRT infrastructure, systems and low carbon rolling stock and supporting TOD around the BRT corridors, therefore promoting a modal shift from individual motorized modes of transportation to lower carbon alternatives like public transport and NMT. Details of activities contributing to climate co-benefits are provided in Annex 2.

World Bank Grievance Redress System

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

V. KEY RISKS

141. **The overall residual risk of the project is High**. A risk analysis using the Systemic Operations Risk-Rating Tool shows that, after implementation of planned mitigation measures, there are high and substantial residual risks for political and governance, fiduciary, procurement, E&S, as well as macroeconomic and technical design. Residual risks related to stakeholders are rated as high.

142. **Political and Governance risk (High):** There are high political and governance risks as the country is going through turmoil in the country's northwestern and southwestern regions, which could affect the country and city's stability, given the relative proximity of Douala to these two regions. In particular, the already significant displacement of anglophone populations in the neighboring Littoral and West regions and in the main urban centers of Douala and Yaoundé could be amplified, straining even more host communities and service delivery capacities. In addition, some weaknesses in governance may continue to afflict Cameroon, hindering its ability to

attract investments to further develop cities such as Douala where private sector participation is needed to boost competitiveness. As the decentralization procedure is still underway, allocation of responsibilities of key aspects (notably regulatory and enforcement mandates) between central and local government agencies may become complex, conflictive, and/or contradictory thus complicating the project's progress. To mitigate those risks, the project team will work closely with the WBG Conflict Engagement Platform and will also build on lessons learned through the implementation of the PDVIR which intervenes in Douala, but also in the Northern cities of Maroua and Kousseri and planned to intervene in the South-West city of Kumba. As part of the elaboration of the PIM, conflict-sensitive approaches will be adopted to include specific implementation arrangements and to possibly adapt project activities and contingency plans in the event of security/conflict-related disruptions to implementation.

143. **Fiduciary risk (Substantial):** Even though the CUD has some prior experience with World Bank projects, procurement and FM staff may become overwhelmed by the multiplicity of activities and beneficiary institutions involved, especially with complex bidding documents for the construction and selection of the private operator(s). Moreover, given that this would be the first BRT project in Douala, the lack of clear institutional arrangements defining the roles of transport operators in this new model may present challenges. With the proposed mitigation measures identified during project preparation, the residual FM risk is rated Moderate while the residual Procurement risk is rated Substantial, therefore justifying an overall fiduciary risk of Substantial.

144. **Procurement risk** (**Substantial):** Key procurement risks under the project are as follows: (i) staff involved in the project may not have sufficient knowledge of the NPF, and/or there is a risk of confusing NPF with former procurement and consultant's guidelines; (ii) procurement staff with the experience required to effectively implement procurement actions on time, and in line with World Bank procurement policies and procedures are insufficient; (iii) inadequate communication and interaction between the Special Tender Board and the PIU may lead to delays in procurement; (iv) administrative routines may result in procurement delays with the potential to impact project implementation; (v) the procurement in a specialized market with few bidders can restrict competition and possibly increase prices and collusion risks; (vi) the corruption risks in procurement of big contracts taking into account Cameroon's Corruption Perception Index; and (vii) poor filing which may lead to loss of documents. Overall, all these risks can cause mis-procurement, possible delays in the evaluation of bids and technical proposals leading to implementation delays, poor quality of contract deliverables and reputational risks to the World Bank and the project. After implementation of the proposed mitigation measures presented in Annex 1, the residual risk is Substantial.

145. **Environmental and Social risks (Substantial):** The BRT system will cross densely populated areas and could lead to potentially adverse short-term impacts on existing public transport operators due to sustainable modal shifts towards the new BRT services. In addition, the BRT corridors and feeder lines may be affected by flooding and expected increased maximum temperatures for Douala may affect roads substantially. Regarding social risk, the project would support interventions that would require engaging with and reorganizing potentially large numbers of informal vendors around BRT stations, tasks that would demand a new approach for the CUD. The current project is implemented within the right-of-way of the existing road. However, in some sections, the right-of-way is partially occupied by constructions and vendors. Both physical and economic displacements are anticipated.

146. **Institutional Capacity for Implementation and Sustainability risks (Substantial):** The institutional arrangements and capacity with regards to transport and urban development, and in particular urban mobility, could negatively affect project implementation and sustainability in light of the large number of actors, complicated division of labor with responsibilities laying across different institutions and overall technical complexity of the project in a complex and loosely regulated urban environment and transport sector. Moreover, once operational, the BRT system could face serious challenges should the business plan revenue stream estimates fail to materialize, thus

compromising the system's financial sustainability and jeopardizing the service provision continuity under the signed PPP contracts. These risks will be mitigated by: (i) contracting skilled and dedicated project management support to the CUD for the implementation of the proposed project for the three main components; (ii) support from IFC Advisory as transaction advisor for the definition of a robust, relevant and all-encompassing business plan that is mindful of the specific Douala context, and for the recruitment of BRT system private sector operator(s); and (iii) targeted capacity building initiatives and regulatory framework reforms in the urban mobility subsector, as outlined in Component 1. With the implementation of these mitigation measures, the residual risk is rated Substantial.

147. **Macroeconomic risk (Substantial)**: The medium-term outlook in Cameroon is challenging as the COVID-19 pandemic deteriorates global and regional economic environments and has resulted in a large decrease in the price of oil. However, the economy's reopening coupled with the ongoing developments of violence in eastern Europe (as of 2022 first quarter) has exacerbated the volatility of oil prices and production output which could add uncertainty in the long-term, particularly since oil is one of Cameroon's key exported commodities. Additional factors could negatively impact project activities such as exchange rate volatility, national exports price volatility, value chain impacts on national economic output, fiscal instability due to global health crises, tax-related issues for loan proceeds, and government capacity to fund resettlement expenditure.

148. **Technical design risk (Substantial):** The project represents Cameroon's first concrete attempt at modernizing, and optimizing the public transport service provision through the rollout of a mass transit system in Douala. The effort cautiously follows similar attempts made in other countries in Africa and worldwide, taking stock of key lessons learned to correct identified missteps as a fundamental risk mitigation measure. In addition, the execution of corridor works could also be affected by delays in moving technical networks (such as drinking water) in sensitive places due to a lack of information on the positioning of these networks and the low responsiveness of the concerned network operators. These risks will be mitigated through the hiring of renowned BRT planning advisors, a transaction advisor, construction firms and supervision companies, consultants, and experts during all project phases. Finally, strategic know-how on the operational side is expected through the successful implementation of a PPP agreement in which professionally qualified BRT operator(s) are to be involved, ensuring efficient operations and further mitigating the risk. With the implementation of these measures and given the complexity of the technical design, the risk is rated Substantial.

149. **Stakeholder risk (High)**. This project will reshape the current public transport environment and, as a result, some of the incumbent operators may oppose it as they will need to modify their business modus operandi either by operating different services or transitioning to other economic activities altogether. The materialization of BRT system ridership forecasts strongly depends on the effectiveness with which the complementary feeder route network operations are rolled out, per PMUS and BRT service and operational plans' recommendations. These forecasts rely heavily on the ability of local operators to provide the planned complementary services, notably SOCATUR whose capacity and competencies must be strengthened to meet the operational expectations outlined by the BRT system service plan. To mitigate the negative impact of the BRT on the sector and improve its efficiency, the project embeds several activities under Components 1 and 3 to professionalize the sector including (i) permanent communication and citizen engagement activities during all project stages, fostering continuous support and buy-in from all stakeholders to mitigate the risk of opposition and animosity towards the project; (ii) involvement of current local transport operators in BRT system operations through the provision of feeder and complementary services; (iii) a pilot fleet renewal initiative; (iv) significant training and capacity building activities, including for SOCATUR; and (v) investments along the feeder roads to facilitate public transport services.

150. **Other risks (Substantial)**. Other risks are primarily related to (a) traffic congestion during construction and (b) COVID-19 potential impacts during construction (short-term) and during BRT operations (medium- and long-

term). For (a): There are various risks associated with the necessity to undertake BRT infrastructure construction in a densely populated and congested area. Traffic congestion will be most exacerbated during construction. Thus, it may worsen road users' frustration and lead to opposition to the project. This risk will be mitigated by: (i) carefully planning and phasing the civil works; (ii) hiring highly qualified contractors and supervision firms; and (iii) undertaking an appropriate information campaign to the general public and road users. For (b): Despite optimistic trends and signs of recovery and a steady return to normalcy following the pandemic, a set of cautionary measures must be kept and observed – particularly when managing and operating large construction sites and highly-transited mass transit facilities – and strengthened in case of a resurgence of virus community transmission. Therefore, and as mitigation measures, the development, management, and operation of civil works, and all associated sites, shall align with all relevant health and safety protocols approved and implemented by the GoC and the World Bank's COVID-19 response guidelines. Similarly, the management of BRT operations and all associated facilities must observe and align with GoC and World Bank's COVID-19 health and safety protocols.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework
COUNTRY: Cameroon
Douala Urban Mobility Project

Project Development Objectives(s)

The Project Development Objective is to improve urban mobility and support inclusive urban and economic development along selected Bus Rapid Transit corridors and its feeder lines in Douala.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	End Target
Improved urban mobility along the Bus Rapid Transit corridors in Douala			
Average weekday passenger ridership using the BRT routes (Number)		0.00	535,000.00
Of which female (Percentage)		42.00	50.00
Average rush hour in-vehicle travel time on BRT routes (Minutes)		58.50	48.40
Satisfaction rating by public transport users of the BRT (Percentage)		0.00	75.00
Satisfaction rating among women who use the BRT (Percentage)		0.00	75.00
Improved inclusive urban and economic development along the Bus Rapid Transit corridors in Douala			
Beneficiaries of the project with improved working and/or living conditions around TOD investments (Number)		0.00	3,192.00
Street vendors benefitting of improved working conditions		0.00	2,554.00

Indicator Name	PBC	Baseline	End Target
through inclusive infrastructure (Number)			
Women benefitting of improved living and working conditions (Number)		0.00	638.00
Population of Douala able to access to the city center within a 60-minute commuting period using public transport (Percentage)		16.00	33.00
Population of Douala able to access at least one additional health facility within 45 minutes using public transport (Percentage)		0.00	77.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	End Target
Support to institutional strengthening and professionalization of existing public transport operator			
Transport service providers trained through formal training programs (Number)		0.00	7,500.00
Of which informal operator (Percentage)		0.00	90.00
Relevant staff from CUD and stakeholder institutions having completed institutional training programs (Percentage)		0.00	50.00
Of which female (Percentage)		0.00	50.00
A regulatory framework for public transport providers is in place (Yes/No)		No	Yes
A strategic restructuring plan is finalized for the public operator SOCATUR (Yes/No)		No	Yes
Definition of an incentive mechanism for fleet renewal (Yes/No)		No	Yes

Indicator Name	PBC	Baseline	End Target
Tactical urban sites rehabilitated for the informal sector (stations, stops...) (Number)		0.00	22.00
Implementation of an integrated digital platform connecting users and transport operators (Yes/No)		No	Yes
BRT infrastructure facilities, systems and rolling stock			
A contract agreement with a private company to invest and operate the BRT is signed (Yes/No)		No	Yes
BRT infrastructure constructed to climate resilience standards (Percentage)		0.00	100.00
Operational BRT buses operated by private operator (Number)		0.00	251.00
Percentage of female staff in: (Percentage)		8.00	20.00
The construction of the BRT (Percentage)		8.00	20.00
BRT Operations (Percentage)		8.00	20.00
Annual GHG emissions net savings on BRT corridors in tCO2eq (Number)		0.00	27,400.00
Transit-oriented development around the BRT system			
Feeder roads rehabilitated to climate resilience standards (Percentage)		0.00	100.00
Pedestrian and cycle paths rehabilitated to climate resilience standards (Percentage)		0.00	100.00
Completed pilot urban planning projects around BRT stations (Number)		0.00	2.00
Project management and capacity building			
Annual disclosure by CUD of the audited annual financial statements and the operational results of the BRT (Yes/No)		No	Yes
Grievances addressed within the project Grievance Redress Mechanism (GRM) timeframe during construction (Percentage)		0.00	100.00
Grievances addressed within the project Grievance Redress		0.00	100.00

Indicator Name	PBC	Baseline	End Target
Mechanism (GRM) timeframe during BRT operation (Percentage)			
Reduction in serious injuries and fatalities along the BRT corridor (Percentage)		0.00	30.00
A road safety management plan is in place within the BRT operator (Yes/No)		No	Yes
A comprehensive communication strategy covering the institutional and social aspects of the project is operational (Yes/No)		No	Yes

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Average weekday passenger ridership using the BRT routes	This indicator measures the average daily ridership of the BRT. The data collected will be disaggregated by gender.	Biannual	The CUD will collect the information from the BRT operator.		CUD
Of which female	This sub-indicator measures the share of women among daily BRT passengers.	Biannual	This indicator measures the average daily ridership of the BRT. The data collected will		CUD

			be disaggregated by gender.		
Average rush hour in-vehicle travel time on BRT routes	This indicator measures the average in-vehicle time of the BRT at morning peak hours between 7:00am and 9:00 am.	Annual	The CUD will collect the information through surveys.		CUD
Satisfaction rating by public transport users of the BRT	This indicator will reflect the improvement in public transport services and the increase in satisfaction by BRT users. A sub-indicator will report women's answers.	Annual		Public transport user surveys will be conducted on an annual basis among the BRT users by a specialized consulting firm. The ToR of the survey will be submitted for the World Bank's review. The sample size will be at least 1,000. A 5-level satisfactory scale (1: unsatisfied; 2: moderately unsatisfied; 3: neutral; 4: moderately satisfied; 5: satisfied) will be used. The average of the scores attributed by all surveyed users will be computed and	

				translated into a percentage to obtain the indicator. The survey will include measurements of satisfaction with the level of service, affordability, availability, customer services, communication systems, complaints system and other topics that affect women disproportionately such as safety and security.	
Satisfaction rating among women who use the BRT	This sub-indicator will report women's answers.	Annual		The indicator uses the same methodology and considers only users identifying as women in the survey.	
Beneficiaries of the project with improved working and/or living conditions around TOD investments	This indicator measures the number of Douala's inhabitants who benefit from the development of transport services and urban development carried out by the project. The project will foster economic and employment opportunities	At start, midterm, and end of the project.		Countings/surveys of different social groups will be conducted to determine the impact of the project on their working and living conditions. The sum of the sub-indicators will take into account	CUD

	and women empowerment. It is the sum of the sub-indicators below.			potential overlapping between the different social groups. The areas covered by the survey have to be clearly defined (markets, hubs, stations, TOD pilots, tactical sites...).	
Street vendors benefitting of improved working conditions through inclusive infrastructure	This sub-indicator measures how the project will improve the business environment for informal trade around the BRT area.	At start, midterm, and end of the project		Countings/surveys of street vendors will be conducted to determine the impact of the project on informal trade through improved infrastructure and public spaces.	
Women benefitting of improved living and working conditions	This sub-indicator measures how the project will improve women's access to economic and employment opportunities and their consequent empowerment in the area of influence of the BRT.	At start, midterm, and end of the project.		Countings/surveys of women will be conducted to determine the impact of the project on their economic and social empowerment through improved infrastructure and public spaces, that concentrate jobs, markets and services.	CUD
Population of Douala able to access to the city center within a 60-minute commuting	This indicator measures the improved accessibility the	Annual.		A GIS-based spatial analysis will be	CUD

period using public transport	project is expected to provide to Douala residents in terms of employment opportunities, economic development and services located in the city center (of coordinates: 9.69296331E, 4.03973582N).			conducted to assess the results on this indicator. Speeds will be collected by the CUD via the BRT operator and other transport providers through GPS and surveys. The center of the central business district has the following coordinates: 9.69296331E, 4.03973582N.	
Population of Douala able to access at least one additional health facility within 45 minutes using public transport	This indicator measures the improved accessibility to health services the project is expected to provide by measuring the percentage of the population who have access to at least one additional health facility using public transport.	Annual.		A GIS-based spatial analysis will be conducted to assess the results on this indicator. Speeds will be collected by the CUD via the BRT operator and other transport providers through GPS and surveys. Accessibility improvements will be measured only considering the health facilities identified and geo-located at the time of baseline estimations, excluding any new ones	CUD

				built during the course of project implementation.	

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Transport service providers trained through formal training programs	This indicator measures the number of transport operators enrolled and having completed formal training programs financed by the project.	Annual		The CUD will collect this information.	CUD
Of which informal operator	This sub-indicator measures the share of informal operators among them.	Annual		The CUD will collect this information.	CUD
Relevant staff from CUD and stakeholder institutions having completed institutional training programs	This indicator measures the percentage of relevant staff from the CUD and stakeholder institutions that have completed institutional training programs.	Annual		The CUD will collect this information.	CUD
Of which female	This sub-indicator measures the share of women among them.	Annual			CUD
A regulatory framework for public transport providers is in place	The project will provide TA to define a new regulatory framework of the urban mobility sector and for	Annual		The Yes target value will be reached when the new regulatory framework is adopted.	CUD

	public transport providers including, but not limited to, vehicle/route licensing, taxation, fines and violations, and permits issuance.				
A strategic restructuring plan is finalized for the public operator SOCATUR	This indicator measures progress in reforming and restructuring the public operator SOCATUR thanks to capacity building and TA activities. A strategic plan will be defined to reorganize the SOCATUR network, its fares and its fleet, improve the management of operations, integrate the SOCATUR lines to the urban network.	Annual		The Yes value is reached once the strategic restructuring plan for SOCATUR's growth - institutional and operational - is adopted.	CUD
Definition of an incentive mechanism for fleet renewal	This indicator measures progress in tackling the issue of aging and highly emitting vehicles, by structuring an incentive mechanism for fleet renewal. A fleet renewal strategy will be developed and will identify both the type of eligible fleet (taxis and/or minibuses) and the suitable mechanism based on best practices in similar	Annual		The Yes value is reached once a fleet renewal strategy (excluding BRT) is finalized.	

	countries.				
Tactical urban sites rehabilitated for the informal sector (stations, stops...)	This indicator measures the number of rehabilitated tactical facilities (such as stations and stops) used by informal transport providers outside the BRT corridor. It will reflect their integration in the overall transport system.	Annual		The CUD will collect the information from the supervision firms.	CUD
Implementation of an integrated digital platform connecting users and transport operators	This indicator measures the progress in implementing an integrated digital platform for public transport users and operators, which will contribute to organize and professionalize the urban mobility sector and incumbent operators.	Once		The Yes value is reached once the digital platform is created, operational and used by 10% of drivers.	CUD
A contract agreement with a private company to invest and operate the BRT is signed	This indicator mesures the operational effectiveness of the project via a signed concession agreement - operations, maintenance, and provision of the BRT fleet - with a BRT operator. The CUD will receive transaction advisor to define the business and support the procurement process until reaching financial	Once		The Yes target value will be reached when the concession agreement between the private operator and the GoC is signed meaning that the deal is closed.	CUD

	closing.				
BRT infrastructure constructed to climate resilience standards	This indicator tracks the progress of the construction of the whole BRT infrastructure to climate resilience standards. It consists in the aggregation of the financial progress of each works contract (roads, stations, terminals, depots...).	Biannual		The CUD will collect the information from the supervision firms.	CUD
Operational BRT buses operated by private operator	This indicator measures the number of operational buses and will reflect the level of transport services provision through the availability of the BRT fleet (privately financed) after the hiring of the BRT operator. This indicator will also capture the main PCM leveraged by the project.	Biannual		The CUD will collect the information from the BRT operator which has the number of operational buses every day. The number will be an average of these daily numbers.	CUD
Percentage of female staff in:	This indicator measures the percentage of women employed in the construction stage and in operations of the BRT, to reflect the gender empowerment impact of the project.	Annual		See below	CUD

The construction of the BRT	Percentage of women employed in BRT construction	Annual		The CUD will collect the information from the construction firms.	CUD
BRT Operations	Percentage of women employed in BRT operations	Annual		The CUD will collect the information from the BRT operator.	CUD
Annual GHG emissions net savings on BRT corridors in tCO2eq	This indicator will measure the annual GHG emissions savings enabled by the project thanks to the induced modal shift to lower-emitting (BRT) or non-emitting (cycling, walking) modes on the BRT corridor.	Annual		Diesel consumption of the fleet of BRT buses, number of km run by this fleet as well as number of passengers will be collected by the CUD via BRT operator. The computing will compare the reference scenario (without the project) and the project scenario.	CUD
Feeder roads rehabilitated to climate resilience standards	This indicator tracks the progress of the rehabilitation of feeder roads to climate resiliency standards.	Annual		The CUD will collect the information from the supervision firms.	CUD
Pedestrian and cycle paths rehabilitated to climate resilience standards	This indicator reflects how the project improves soft mobility by tracking the progress of the rehabilitation of pedestrian and cycle paths	Annual		The CUD will collect the information from the supervision firms.	CUD

	rehabilitated to climate resilience standards in the project area.				
Completed pilot urban planning projects around BRT stations	This indicator measures the number of pilot projects - urban development around BRT stations - that are finalized using the TOD approach.	Annual		The CUD will collect the information from the construction firms.	CUD
Annual disclosure by CUD of the audited annual financial statements and the operational results of the BRT	The CUD will be the main entity in charge of monitoring the BRT operations and concession. This indicator will reflect the capacity of CUD in playing that role and the transparent implementation of the BRT operations and concession.	Annual		The audited annual financial statements as well as the operational results will come from the BRT operator under the supervision of the CUD.	CUD
Grievances addressed within the project Grievance Redress Mechanism (GRM) timeframe during construction	This indicator is to ensure that any citizen has the possibility to provide feedback during the construction of the infrastructure and any complaint/reclamation is appropriately handled and addressed, keeping the citizen informed about the status of the complaint until its conclusion.	Annual		The CUD with the support of the WB will ensure that a GRM is permanently operational.	CUD

Grievances addressed within the project Grievance Redress Mechanism (GRM) timeframe during BRT operation	This is to ensure that any citizen has the possibility to provide feedback on the BRT operations and any complaint/reclamation is appropriately handled and addressed, keeping the citizen informed about the status of the complaint until its conclusion.	Annual		The CUD with the support of the WB will ensure that a GRM is permanently operational.	CUD
Reduction in serious injuries and fatalities along the BRT corridor	This indicator measures road safety improvements along the BRT corridor.	Annual		Accidentology will be documented by CUD. The baseline value will be computed during the first years of the project (when the corridor is being built).	CUD
A road safety management plan is in place within the BRT operator	This indicator will measure the focus on road safety for BRT operations. The requirement for a road safety management plan will be part of the concession agreement.	Annual		The CUD will ensure that the management plan is adopted and implemented.	CUD
A comprehensive communication strategy covering the institutional and social aspects of the project is operational	A global communication strategy covering the institutional and social aspects of the project is implemented and operational. This strategy will ensure a constant	Annual		The CUD will adopt the strategy once it has been finalized.	CUD

	stakeholders' - in particular incumbent operators' - support and buy-in to the project as well as the awareness of the population on BRT development and activities.				

ANNEX 1: Implementation Arrangements and Support Plan

COUNTRY: Cameroon
Douala Urban Mobility Project

A. Project Institutional and Implementation Arrangements

1. **Per Cameroon legislation, the CUD has exclusive mandate for the management of urban public transport and the development, maintenance, operation, and management of primary and secondary roads on the entire CUD territory**.[87] Given the scope of the proposed project, the CUD will be the main implementing agency and will have overall responsibility for all project-related activities as well as the contractual oversight of the BRT system once it is operational. A TA has been included in Component 1 to strengthen the CUD's capacity and organization to supervise mass-transit operations over the long term.

2. **The overall institutional structure of the project will be composed of**: (i) a steering committee that ensures the coherence of activities with the sectoral strategy and intersectoral coordination for sub-components under the responsibility of ministerial departments, companies, and local authorities; and (ii) the PIU within the CUD to ensure the coordination of project implementation. Capacity building has already started for the existing institutions that were involved in the project preparation, in particular the technical staff of the PIU.

3. **The PSC will be created specifically for the project within 1 month after effectiveness.** It will be chaired by the Mayor of Douala or his/her representative and vice-chaired by a representative of the MINHDU. It will include representatives from key ministries, communes, and agencies with responsibilities in urban development, transport, and economic development. The full composition of the PSC will be detailed in the PIM. The PSC will be responsible for providing overall strategic guidance for project implementation and related policies, facilitating vertical and horizontal coordination, and will validate the AWPB. The PSC will meet at least twice a year and can invite other agencies and experts as non-voting members and technical advisors as deemed adequate. The PIU will provide secretariat services to the PSC.

4. **The project will be implemented through a dedicated PIU**. The CUD has substantial competence in planning and execution although its organizational chart is characterized by its complexity. It has already gained experience implementing World Bank-financed projects, including the Douala Infrastructure Project (P074490) and the Cameroon Sanitation Project (P117102). During project preparation, a dedicated Douala-based PIU was created by decree to help advance project preparatory activities. It is composed of key technical, fiduciary, and safeguards staff appointed or competitively recruited (e.g. coordinator, specialists in FM, Procurement, Environmental safeguards, Social Development, accounting, Infrastructure and Urban Development) with competencies satisfactory to the World Bank. Furthermore, the team has received support from the PIU in charge of the PDVIR on all fiduciary aspects during the preparation phase, further strengthening its capacity. The project's PIU will be strengthened during implementation with the recruitment no later than 3 months after project effectiveness of a M&E specialist, a communication officer, a Social and Environmental Supervisor, a RAP expert, a GBV and gender specialist, an HSE expert, an assistant Procurement Specialist. Capacity-building activities to strengthen CUD competences in managing large urban projects are also planned within the Component 4 of the proposed project.

5. **Implementation modalities include several project management support mechanisms**. For overall implementation needs, the PIU will rely on existing technical units within the CUD, in close coordination with

[87] Article 241 alinéa 3 of the « Code Général des Collectivités Territoriales Décentralisées »

relevant local representatives of sectoral ministries, notably through the institutional dialogue platform created during preparation. The PIU will also be supported by short- and long-term technical experts/consultants, as needed. The CUD will rely on various project management supports for specific project implementation needs: (i) for infrastructure aspects of Components 2 and 3, a project management support firm (AMO), competitively-recruited under Component 4 will support the PIU; and (ii) for Component 1, the PIU will be supported by CODATU under a contract for TA that will be financed by the project. For Component 2, the CUD has mandated IFC Advisory to carry out the transaction advisory services for the recruitment of the private sector operator(s) required to ensure BRT system operations.

6. **The CUD is the authority that will establish, undertake, and oversee the PPP contract with the private sector operator(s)**. As part of its due diligence, IFC Advisory undertook a thorough legal assessment of the existing regulatory framework regarding the recruitment and supervision of the private sector operator(s) required to ensure BRT operations. The assessment concluded that the CUD: (a) is the authority responsible for the preparation and implementation of the bidding procedure with support from various ministries and the CARPA, a national agency created in 2010 to support PPP undertakings; and (b) will be the signing authority of the PPP contract (*Contrat de Partenariat*), in charge of supervising the operations performed by the private sector operator(s).

B. Financial Management

7. **The FM overall residual risk is deemed Moderate.** An assessment was conducted at the CUD, in accordance with the directives and policy for IPF and relevant World Bank Guidance on FM in IPF operations and principles for risk assessment. In doing so, the team went beyond the Borrowers' knowledge of the World Bank's fiduciary rules to focus more on lessons learned considering their track record in implementing previous World Bank-financed similar operations. The proposed mitigation measures are considered adequate and meet the World Bank's minimum fiduciary requirements.

Table 1.1: Assessment and Mitigation Measures of Project FM Risks

Risks Description	Risk rating	Risk Mitigating Measures	Residual risk Rating
INHERENT RISK			
Country level Governance is widely acknowledged to be weak and may negatively impact the achievement of development objectives of programs and projects implemented.	H	Donor community actions are oriented toward PFM reform agenda in support of the Government's commitment to tackle the cross-cutting issue of governance in public resources' management. Donors are supporting through programs and budget support instruments in coordination with the IMF support program that promotes the transcription of all the CEMAC directives into national laws to help accelerate the pace of the PFM and governance agenda. The project implementation will not follow the existing public finance management but rather the country FM arrangements put in place for donor-funded projects.	H

Risks Description	Risk rating	Risk Mitigating Measures	Residual risk Rating
Entity level The CUD has previously implemented two World Bank-financed projects, but under a dedicated PIU, and has not gained sufficient experience in managing World Bank-funded operations; this could jeopardize project readiness for implementation.	S	The Government requested a PPA to help ensure project readiness for implementation. This includes the setup of a PIU staffed with a seasoned fiduciary team and equipped with a sound internal control system.	M
Project level The project will be implemented by an entity that should coordinate activities with various sectoral ministries, thus the risk of delays in the implementation of activities and difficulties in coordination.	H	Internal control will be premised on an implementation manual (to be approved before effectiveness) to ensure that the project is implemented in accordance with accepted procedures and a clearly defined segregation of duties.	S
INHERENT RISK	**H**		**S**
CONTROL RISK			
Budgeting Elaboration of a credible budget in line with the PP, and in accordance with the government budget calendar that is finalized in October might be an issue as the new PIU may experience delay vis a vis the new regulation set for all projects prepared and executed in Cameroon. In addition, the project might experience deviations from budgets that might not be authorized.	S	The government budgeting process and calendar will be clearly disseminated to the project team during the preparation phase to align the project budget preparation timeline to that of the national budget. The standardized FM manual will be tailored to the project specificities and include the provision of clear timeline and responsibilities for budget preparation and monitoring.	S
Accounting Arrangements for the establishment of the PIU have been made through the PPA; but they are still under the PDVIR's supervision. Also, the accounting software needs to be parameterized with the new project. Consequently, the project may experience delays in the recording of the financial information and the analysis of the financial information.	S	During the PPA implementation period, an FM officer has been designated by the CUD and is strengthening his capacities under the PDVIR's supervision. The accounting software currently in place for a previous project implemented by the CUD has been migrated under a bi-projects version and has been configured for the PPA accounts; it will be configured and parameterized to fit the project accounting needs. An accountant will be designated by the CUD, or recruited under ToR acceptable to the World Bank, no later than three months following effectiveness.	M

Risks Description	Risk rating	Risk Mitigating Measures	Residual risk Rating
Internal Controls and Internal Audit Absence of a procedure manual specific to the project might hamper the project implementation and coordination.	S	A PIM will be completed and approved prior to effectiveness. A separate project manual of procedures will be elaborated based on the existing manual developed for all projects in Cameroon. An internal auditor in the *Inspection Générale des Services* of the CUD will be designated and dedicated to the project, to conduct ex-post reviews of the project transactions and procedures and ensure that identified weaknesses are addressed in a satisfactory manner.	M
Funds Flow As there is not yet a dedicated account for the project there is a risk that the project funds are diverted and used for non-project eligible purposes.	S	One (1) DA for each agreement (Loan Agreement and Financing Agreement) will be opened in a stable commercial bank acceptable to the World Bank and managed by the CAA.	M
Financial Reporting Delays in the submission of agreed Interim financial reports (IFRs) and annual project financial statements as the accounting software is not yet parameterized to accommodate accounting and reporting needs under the project.	S	The PIU will be equipped during the PPA period with experienced staff and appropriate accounting software that will be customized and deployed to ensure timely recording of financial information as well as timely production of quarterly and annual financial statements. The reporting scheme will be clearly defined in the manual.	M
Auditing The project account might not be audited as no auditor has been recruited to audit the project funds and the chamber of accounts is not yet equipped to conduct such audits in accordance with World Bank requirements.	S	An external auditor will be recruited according to ToR acceptable to the World Bank, to conduct external audits of the project yearly; the report will be furnished to the World Bank within six months of the end of the fiscal year.	M
CONTROL RISK	**S**		**M**
OVERALL FM RISK	**S**		**M**

Note: H = high; L = low; M = moderate; S = substantial

Table 1.2: FM Action Plan

Action to be undertaken	Time-frame	Responsible body
1- Designate an FM officer	Through the PPA	CUD
2- Designate an internal auditor under the *Inspection Générale des Services*, to conduct ex-post review of the project activities	Through the PPA	CUD
3- Purchase and customize an accounting software in order to handle the project activities under its responsibility	Through the PPA	CUD
4- Prepare the PIM	Before effectiveness	CUD
5- Recruit / Designate an Accountant	Before effectiveness	PIU CUD

Action to be undertaken	Time-frame	Responsible body
6- Elaborate the Project FM procedures manual	Not later than two months after Effectiveness	PIU CUD
7- Recruit an external auditor to conduct annual financial audits of the financial statements of the project along with the review of the internal control system	Not later than six months after Effectiveness	PIU CUD

8. **Staffing**. The PIU will be responsible for day-to-day implementation of FM activities and will be staffed with a qualified FM team including an FM officer and accountant. The team will ensure the transmission and archiving of financial data, and additional controls to be implemented in order to ensure the accuracy and completeness of the financial data. This includes ensuring that every transaction is duly authorized and properly recorded and that assets are safeguarded. During the PPA implementation period, an FM officer has been designated by the CUD to support, under the supervision of the PDVIR team. An accountant will be designated by the CUD, or recruited under ToR acceptable to the World Bank, before project effectiveness.

9. **Budgeting**. The overall responsibility for preparing an annual work plan and related budget will lie with the PIU. The different stages of budget preparation and management (preparation, revision, adoption, and execution) will be detailed in the FM procedures' manual. The AWPB will be prepared annually for approval by the PSC and submitted to the World Bank for approval (No Objection) early enough to have them approved and included in the national finance law. A budget execution report will be included in the reporting scheme to enable the monitoring of the project implementation. The government budgeting process and calendar will be clearly disseminated to the project team to align the project budget preparation timeline to that of the national budget. The standardized FM manual will be tailored to the project specificities and include the provision of clear timeline and responsibilities for budget preparation and monitoring.

10. **Accounting Policies and Procedures**. The PIU's FM team will assume the overall responsibility for maintaining accounts associated with project activities and ensuring that annual financial statements are produced in a timely manner, and in accordance with accounting standards that are in effect in Cameroon. The accounting software has been customized and will be parameterized accordingly for the accounting and reporting needs of the project. The budget and accounting modules of the integrated FM system for donor-funded projects (SIGED) is being used by the CAA for the sake of consolidation and ease of data sharing, the project will procure, install and use the same system namely TOMPRO developed by TOMATE. It is expected that the accounting software will be in place and customized to record the project's transactions and to produce periodic reports not later than two months after the effectiveness date.

11. **Internal Control and Internal Auditing.** *FM procedures' manual.* Administrative, financial, and accounting procedures will be specified in the procedures manual (administration, finance, and account). The manual will include a clear description of initiation and approval processes, and the designation of duties and responsibilities. The FM procedures' manual for PDVIR as well as the standardized FM Manual of Procedures developed by the CAA with World Bank IDF support will be customized to reflect the specificities of the project. The PIU will make use of the computerized accounting system to capture all project-related transactions. FM officers will be responsible for maintaining all controls to ensure: (i) that the project funds are used only for the purposes they were intended efficiently and economically; (ii) the preparation of regular, accurate, reliable, and timely financial reports; and (iii) that the project's assets are adequately safeguarded. Those internal control arrangements are reinforced by the government's internal control arrangements, such as the prior approval of payments by the

MINMAP that will apply to the project's invoices and CAA controls regarding withdrawal applications and payment requests.

12. *Internal audit.* To ensure the integrity of the internal control environment and associated systems throughout the life of the project, a staff working at the *Inspection Générale des Services* of the CUD will be designated as an internal auditor for the project. The internal auditor will conduct ex-post reviews of the project's transactions and activities, conduct a periodic review of the continuing adequacy of the internal control environment in general and report on its state to project management and the steering committee. Internal audit reports will be produced quarterly, or within a shorter period, depending on the risk matrix and its associated audit plan, both of which must be elaborated during the first month of the internal auditor's assignment.

13. *Training from the World Bank*. To sustain the capacity-building initiatives for the project team, the World Bank Finance and Loan Department and FM units will provide training to the project FM team on disbursement and FM procedures. All these measures will aim to further enhance the project's internal control system.

14. **Financial Reporting and Monitoring.** IFRs will be generated using the computerized FM system. They will be prepared and submitted within 45 days of the end of each calendar quarter. The content of the IFR will typically include: (i) the sources and uses of funds by the classification of project expenditures (detailed by components and activities); (ii) a comparison of budgeted and actual project expenditure (commitment and disbursement) by date and for the quarter; (iii) a statement on the use of funds by component or activity; (iv) the DAs activity; and (v) a physical progress report on project implementation. The format of the IFR have been agreed at negotiations. At the end of each fiscal year, the project will prepare annual financial statements that will be subject to external audit.

15. **External auditing.** The annual financial statements prepared by the PIU as well as the internal control system will be subject to an annual audit by a reputable and independent auditing firm based on ToR satisfactory to IDA. The scope of the audit will be tailored to the project's specific risks in accordance with World Bank requirements and will be agreed upon with the Government. In particular, the independent auditor will audit the use of all funds flowing from DAs to beneficiaries. The project will comply with the World Bank's access to information and disclosure policies by making all disclosable audit reports (opinion reports only) promptly available to the public after receiving them. The project's external auditor will be hired within six months of project effectiveness. A single audit opinion, in compliance with International Standards on Auditing, will be issued and will cover all project receipts, payments, and accounts. The audited financial statements, along with the auditor's report and management letter (incorporating management's comments), covering any identified internal control and accounting system weaknesses, will be submitted to IDA within six months of the end of each financial year.

16. **Funds Flow and Disbursement Arrangements.**[88] Funds' flow will rely on the Government's banking arrangements through the CAA. In this regard, the CAA's managing director will continue to act as a public accountant which includes the signing authorization on all payment means using the automated payments module of the CAA information system for donor financing. Funds will flow from the IDA/IBRD account to 2 DAs denominated in XAF and opened in a reputable commercial bank in Cameroon that are acceptable to the World Bank. The DAs to finance eligible expenditures under all components will be managed according to the disbursement procedures described in the administrative, accounting, and financial procedures manual as part of the section of the PIM and the DFIL.

17. Upon effectiveness, this operation will follow the transaction-based disbursement method. The initial advance

[88] This paragraph describes the general disbursement arrangements that should apply when the temporary measure explained in paragraph 114 will be lifted.

would be replenished regularly through withdrawal applications based on project activities implementation pace and associated needs for additional funding. Direct payment, reimbursement, and special commitment methods will be available to the project and might apply as appropriate. The minimum value of the direct payments, reimbursements and special commitments will be 20 percent of the DA ceiling. The implementing agency will be obliged to refund any ineligible expenditures found to have been made from the DAs. If a DA remains inactive for more than six months, the implementing agency may be requested to refund IDA/IBRD amounts advanced to the DA.

18. **Implementation Support Plan for FM.** FM implementation support will be available depending on intensity and frequency in line with a risk-based approach and will involve a collaborative approach with the entire Task Team. An initial implementation support mission will be undertaken three months following project effectiveness and thereafter, implementation support missions will be scheduled using the risk-based approach model.

19. **Conclusions of the FM Assessment.** The overall FM residual risk at preparation is considered Moderate. The proposed FM arrangements for this project are considered adequate and meet the World Bank's minimum fiduciary requirements.

C. **Procurement**

20. **Regulations.** Procurement for goods, works, and non-consulting and consulting services will be carried out in accordance with the procedures specified in the **World Bank Procurement Regulations, dated November 2020 (Procurement Regulations),** and provisions stipulated in the Financing Agreement.

21. **Fraud, coercion, and corruption.** The project's procurement activities will be carried out in accordance with the Anti-corruption Guidelines (revised as of July 1, 2016).

22. **The proposed project will use the STEP system.** The project will be implemented using STEP, a planning and tracking system, in accordance with clause 5.9 of the procurement regulation. PPs and their updates, and requests for prior reviews will be sent to the World Bank for clearance through this tool. Procurement activities not requiring World Bank prior reviews will be recorded in STEP as well.

23. **Procurement documents**. For international competitive procurement of goods, non-consulting services, and consulting services, the Borrower shall use the World Bank's Standard Procurement Documents with minimum changes, acceptable to the World Bank, as necessary to address any project-specific conditions.

24. **For National competitive Procurement of Goods,** as of today, the National Standard Bidding documents in Cameroon contain majors' deviations from the World Bank procedures. The Borrower shall use World Bank's Standard Procurement Documents with minimum changes, acceptable to the World Bank, as necessary to address any project-specific conditions

25. **Procurement information and documentation, filing, and database**. Procurement information will be recorded and reported by the PIU as follows:

    a. Complete procurement documentation for each contract, including bidding documents, advertisements, bids received, bid evaluations, letters of acceptance, contract agreements, securities, and related correspondence will be maintained at the level of respective ministries in an orderly manner, readily available for audit.
    b. Contract award information will be promptly recorded and contract rosters, as agreed, will be maintained.
    c. Comprehensive quarterly reports will be prepared, indicating: (a) revised cost estimates, where applicable, for each contract; (b) status of ongoing procurement, including a comparison of originally planned and actual dates of the procurement actions, preparation of bidding documents, advertising,

bidding, evaluation, contract award, and completion time for each contract; and (c) updated PPs, including revised dates, where applicable, for all procurement actions.

26. **Advertising Procedure**.

- **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 requests for bids and requests for proposals** that involve international bidders/consultants, the contract awards shall be published in the United Nations Development Business online (UNDB online) and on the World Bank's external website with the provisions of the Procurement Regulations. For works and goods, the information to publish shall specify: (a) the name of each bidder who submitted a bid; (b) bid prices as read out at bid opening; (c) the name and evaluated prices of each bid that was evaluated; (d) the names of bidders whose bids were rejected and the reasons for their rejection; and (e) the name of the winning bidder and the price it offered, as well as the duration and summary scope of the contract awarded. For consultants, the following information must be published: (a) names of all consultants who submitted proposals; (b) technical points assigned to each consultant; (c) evaluated prices of each consultant; (d) final point ranking of the consultants; and (e) the name of the winning consultant and the price, duration, and summary scope of the contract. The same information will be sent to all consultants who submitted proposals.
- **For other contracts**, the information should be published in national/regional gazette periodically (at least, quarterly) and in the format of a summarized table covering the previous period with the following information: (a) the name of the bidder/consultant to whom the contract was awarded; (b) the price; (c) duration; and (d) scope of the contract.
- **Training, workshops, study tours, and conferences.** Training (including training material and support), workshops, and conference attendance will be carried out based on an approved annual training and workshop/conference plan. A detailed plan providing the nature of training/workshop, the number of trainees/participants, duration, staff months, timing, and estimated costs will be submitted to the World Bank for review and approval before initiating the process. The appropriate methods of selection will be derived from the detailed schedule. 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 his/her performance and contribute to the attainment of the PDO.
- **Manual.** Procurement arrangements, roles and responsibilities, methods, and requirements for carrying out procurement activities shall be elaborated in detail in the Procurement section of the PIM. The manual shall be prepared/updated by the Borrower and agreed upon with the World Bank before the effectiveness date.
- **Operating costs.** Operating costs financed by the project are incremental expenses, including office supplies, vehicles' operation and maintenance, maintenance of equipment, communication costs, supervision costs (that is, transport, accommodation, and per diem), and salaries of locally contracted staff. They will be procured using the procurement procedures specified in the project's manual of administrative, financial, and accounting procedures approved by the World Bank.

27. **Assessment of the Project Implementing Agencies to Implement Procurement**

- The procurement activities for the project will be executed by the PIU which will be established in the CUD. The CUD's PIU will carry out the following activities: (a) managing the overall procurement activities and ensuring compliance with the procurement process described in the relevant manuals; (b) ensuring

compliance of bidding documents, draft Requests For Proposals, evaluation reports, and contracts with World Bank procedures; (c) preparing and updating of the PP; (d) monitoring the implementation of procurement activities; (e) developing procurement reports; and (f) seeking and obtaining approval of internal designated entities and then of the World Bank on procurement documents as required.

- An assessment of the capacity of the PIU to implement procurement activities of the project was carried out during the project preparation. The assessment reviewed the organizational structure for implementation of the project, the procurement capacity (past procurement experience, staff in charge of procurement, tools including manuals, procurement filing, etc.) of the CUD, and the interaction between the different stakeholders involved in the project.
- The assessment revealed that: (a) the beneficiary agency does not have sufficient technical expertise to prepare the technical documents (ToR, bidding documents, technical specification), subject to the recruitment of consultants to reinforce specific activities; (b) that procurement capacity within MINMAP, particularly with regard to IDA financing, is limited; and (c) the proposed PIU staff has limited experience with implementing the World Bank's procurement procedures.
- The key procurement risks identified for the project are as follows: (a) staff involved in the project may not have sufficient knowledge of the NPF, and/or there is a risk of confusing NPF with former Procurement and Consultant's guidelines; (b) procurement staff with the experience required to effectively implement procurement actions on time, and in line with World Bank procurement policies and procedures are insufficient; (c) poor quality of evaluating bids/proposals for complex works or services; (d) technical staff not familiarized with complex works, which may lead to poor technical documents; (e) inadequate communication and interaction between beneficiaries and the PIU may lead to delays in procurement and poor cost projections; (f) administrative routines may result in procurement delays with the potential to impact project implementation; (g) poor contract management and administration of high-value or/and high-risk contracts; (h) procurement in a specialized market with few bidders can restrict competition and possibly increase prices and collusion risks; (i) corruption risks in procurement of high-value contracts taking into account Cameroon's Corruption Perception Index; and (j) poor filing which may lead to loss of documents. Overall, all these risks can cause mis-procurement, possible delays in the evaluation of bids and technical proposals leading to implementation delays, poor quality of contract deliverables, and reputational risks to the World Bank and the project.

28. **Contract management capability.** The major consultancy contracts are awarded by the PIU. Being the nodal agency, the PIU is overall responsible for the compliance to the agreed procurement procedures and processes and shall monitor the contractual performance including contract management issues, if any.

29. **The overall procurement risk** for the project is rated Substantial after adopting the agreed mitigation action plan summarized in Table 1.3.

Table 1.3: Procurement Action Plan Mitigation Measures

Risk	Action	Responsibility	Date
1. Staff involved in the Project may not have enough knowledge of the NPF and/or risk of confusion with the former guidelines.	Provide for the mobilization of a senior procurement expert who is experienced and familiar with World Bank procurement procedures and policies among the AMO experts to support the PIU in the implementation of Components 2 and 3;	PIU	
	Hiring an Assistant to the Procurement Specialist;		3 months after effectiveness

Risk	Action	Responsibility	Date
	Strengthen the capacity of actors on the NPF and contract management;		During the life of the project, specifically before the launch of the request for bids for complex works or services
	Organize workshop sessions on the NPF to train all staff involved in the procurement of the project;	World Bank Procurement Specialist	During the life of the project
	Continuous hands-on training on the NPF for identified key staff.	Procurement Specialist /World Bank	During the life of the project
2. Technical staff not familiarized with complex works, which may lead to poor technical documents	The AMO experts will support the IPU in the drafting of technical documents and the Borrower must ensure their participation in the work of the evaluation committees of complex projects.	PIU	During the life of the project
3. Poor quality of evaluating bids/proposals for complex works or services (including high-risk contracts)	Providing a training clinic on bid/proposal evaluation before bid opening for staff involved in the evaluation	World Bank Procurement Specialist	During the life of the project, specifically before the bid opening of complex works or services
	The Borrower should ensure the participation of the AMO experts in the work of the tender evaluation committees of complex projects.	PIU	During the life of the project
4. Inadequate communication and interaction between the beneficiaries and the PIU which may lead to delays in procurement processes and poor estimation of the costs.	Elaborate the manual of administrative, financial, and accounting procedures to consider the NPF and clarify the role of each team member involved in the procurement process of the project and the maximum delay for each procurement stage, specifically with regard to the review, approval system, and signature of contracts.	PIU	2 months after effectiveness
5. Administrative routines may increase delays in the procurement processes and affect project implementation.	Exercise quality control on all aspects of the procurement process, including developing ToRs, technical specifications, bidding documents, proposals, request for quotations, evaluation, and award.	PIU	During the life of the project
	Monitor, regularly, the PP implementation and set up a close follow-up in relations with beneficiaries and official bodies involved (Ministry of Public Contracts [*Ministère des Marchés Publics*], CAA) to ensure that appropriate actions are taken on time.	PIU	During the life of the project
	Transfer the major risks (identified in the PRAMS exercise) to a day-to-day monitoring matrix and monitor it through monthly meetings with the Borrower during the first two years of the project,	PIU	During the first two years of the project

Risk	Action	Responsibility	Date
	to make sure things are on track.		
6. Poor contract management and administration of high-value or/and high-risk contracts	Organize workshop sessions on contract management to train all PIU staff involved in contract management.	PIU	Two months after effectiveness
	Develop contract management plans for prior review.	PIU	At the beginning of the procurement process for each high-value contract
	Keep high-value contracts on the team's radar for regular follow-ups with support from technical and safeguard team members, as review may be needed.	PIU	During the life of the project
	Use of the AMO experts to provide the support needed by the PIU staff in defining arrangements for monitoring contract implementation.	PIU	During the life of the project
7. Procurement in a specialized market with few bidders can restrict competition and possibly increase prices and collusion risks.	All procurement of high-value contracts will be thoroughly reviewed by the World Bank.	PIU	During the life of the project
8. Corruption risks in the procurement of high-value contracts	The Borrower will regularly update its market survey and cost estimates.	PIU	During the life of the project
9. Poor filing which can lead to loss of documents	Set an appropriate filing system at the level of PIU to ensure compliance with the World Bank procurement filing manual.	PIU/Procurement specialist	During the life of the project

30. **Frequency of procurement reviews and supervision:** The World Bank's prior and post reviews will be carried out based on thresholds indicated in Table 1.4. the World Bank will conduct six-monthly supervision missions and annual post-procurement reviews. The standard post-procurement reviews by World Bank staff should cover at least 20 percent of contracts subject to post-review. Entering timely and accurate data and information on procurement is essential for post-review work under STEP. Post reviews consist of reviewing technical, financial, and procurement reports on project procurement actions by World Bank staff or consultants selected and hired by the World Bank. Project supervision missions shall include a World Bank procurement specialist or a specialized consultant. The World Bank may also conduct an independent procurement review at any time until two years after the closing date of the project.

31. **Procurement prior review.** The procurement risk is rated High. Table 1.4 summarizes the procurement prior review for High risk. These prior review thresholds can evolve according to the variation of procurement risk during the life of the project.

Table 1.4: Procurement Prior Review Thresholds (US$ millions)

Type of Procurement	Thresholds
Works	10
Goods, Information technology, and non-consulting services	2
Consulting firms	1
Individual consultants	0.3

32. **PPSD and PP:** The PPSD and derived PPs for the first 18 months of program implementation were prepared during appraisal and the final versions were discussed and approved prior to negotiations. During implementation, the PP will be updated as required—at least annually—to reflect the actual program implementation needs and improvements in institutional capacity. As per the PPSD, Table 1.5 below summarizes the key high-risk, value and prior review contracts for the project.

Table 1.5: Main contracts

	Contract Description	Budget Estimate (US$)	World Bank's Review	Procurement Method / Market Approach	Evaluation Method
Consulting Services					
1	Implementation management for the Construction of the BRT Corridor Infrastructure in the City of Douala	6,500,000	Priori	QCBS/ International, Open	Rated Criteria
2	Assistance to the project owner for the implementation of the project	2,000,000	Priori	QCBS/ International, Open	Rated Criteria
Works					
3	Construction of the BRT corridor infrastructure in the City of Douala (4 lots)	325,000,000	Priori	RFB/ International, Open	Lowest Evaluated Cost
4	Rehabilitation of the feeder roads of the BRT corridor in the City of Douala (3 lots)	22,263,854	Priori	RFB/ International, Open	Lowest Evaluated Cost
Goods					
5	Systems (telecommunications, fare collection, traffic lights)	20,000,000	Priori	RFB/ International, Open	Lowest Evaluated Cost

*RFB: Request for Bid
*QCBS: Quality and Cost-Based Selection

ANNEX 2: Activities to Enhance Climate Change Resilience and Reduce GHG Emissions of Urban Transport in Douala

I. Hydrological context and extreme climate-related events

1. The city is located at the estuary of the Wouri and has expanded on both sides of the river, especially in Douala V over the past years. Alongside the Wouri river, which is the main morphological element characterizing the city, the hydrographic network of Douala is dense and dendritic, with 23 catchment basins (Figure 2.1). Due to Douala's uneven terrain, stormwater is evacuated through streams that form in topologic depressions, although inadequate drainage systems result in stagnating waters in some areas.

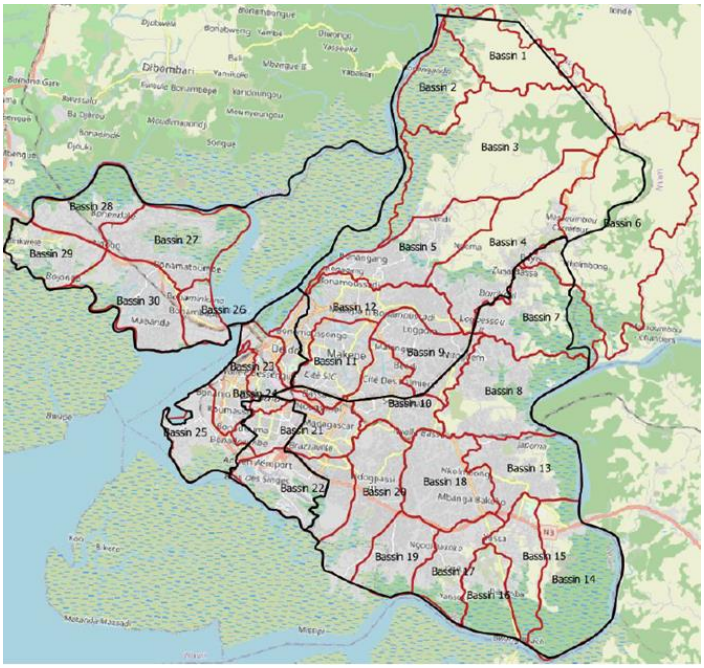


Figure 2.1: Map of Douala divided into 30 catchment basins[89] (in red) and its 5 main districts (in black). Source: CREALP report, 2021.

2. Douala is highly vulnerable to extreme hydro-meteorological events. According to CMIP6 climate projections, rainfall levels and intensity are expected to increase in the Littoral region in the coming decades, even for the most optimistic socio-economic baseline scenario (SSP1).[90] Heavy rainstorms are already increasing in intensity and frequency, with rainstorms bringing high precipitations (205mm/h) likely to occur every 2 years. High-impact flood events have affected the city annually between 2015 and 2020. Most recently in late August 2020, the city was hit by large floods due to the combination of heavy rainfall and a 2.6 meters high tide of the Wouri, causing important material and infrastructure damage, hundreds of displacements, and widespread traffic disruptions. Continued uncontrolled urban development in flood-prone areas and soil sealing will further increase the exposure of the city's population and economic development to greater climate risks. Rising sea levels induced by global warming will also exacerbate the risks of flooding along Cameroon's coasts, including in Douala.

[89] The initial 23 catchment areas were further divided into 30 sub-basins to better capture all hydrological processes, for the purpose of the study of flood risks (conducted by CREALP and SOGEFI).
[90] Climate Change Knowledge Portal, Cameroon. Climate Projections are based on CMIP6 data.

II. Measures to strengthen the climate resilience of urban infrastructure in Douala

3. Mitigating these flood risks requires urgent action to increase the climate adaptation capacity of transport infrastructure in Douala. To support the proposed urban mobility project, the World Bank is executing a Trust Fund financed by the Government of Japan to assess flood risks and address the need for resilient infrastructure development in Douala. To this effect, two studies will inform the various technical feasibility studies that are being prepared for the proposed project. These two studies will provide inputs to strengthen climate resilience aspects throughout project preparation, particularly in the Front-End Engineering Design (FEED) phase.

4. Firstly, a flood modeling study for Douala was conducted and completed in October 2021. The model was developed using the hydrological and hydraulic modeling software IBER[91] based on a Digital Elevation Model (DEM) using LiDAR data combined with land occupation data from OpenStreetMaps and rainfall data for 10-, 20-, 50- and 100-year return period rainfalls from the Douala Sanitation Master Plan study report. Flood simulations were conducted to produce water speed and depth maps, which were then used to create flood danger maps for the city and its catchment basins (Figure 2.2). Based on these danger maps, critical vulnerability points were identified along the BRT corridors.

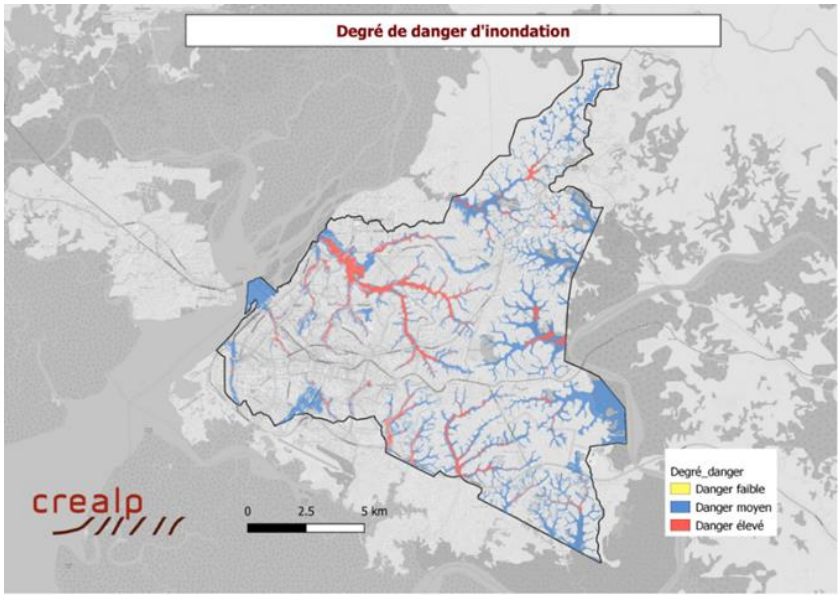


Figure 2.2: Flood danger map for all of Douala. Source: Crealp.

5. Addressing these vulnerability hotspots is crucial to ensure that infrastructure design and transport operations are adapted to climate risks. A second study is therefore being carried out to assess flood risks associated with the project's activities. It will propose priority investments and measures to strengthen the climate resilience of the urban transport infrastructure and operations. This study will inform climate adaptation plans and measures at three levels:

(i) The study will assess the exposure of the BRT infrastructure and selected feeder roads to extreme hydrometeorological events. It will inform their technical design at the FEED and tendering stages to adapt to

[91] Iber is a 2D model for the simulation of free surface flows in rivers and estuaries. https://www.iberaula.es/

extreme hydrometeorological events and make sure crossing structures are correctly sized considering flood risks. It will also identify and prioritize suitable technical solutions to mitigate flood risks for the mass transit system and its feeder roads. These technical solutions will be aligned with the TOD approach, by combining structural and ecosystems-based approaches.

(ii) On the operational side, the study will support the preparation of resilient Operation and Maintenance protocols for the BRT system, as well as emergency response and contingency plans for BRT and other transportation services in case of extreme hydrometeorological events.

(iii) To ensure long-term resilience, the study will strengthen the capacity of municipal and national institutions to ensure climate-related hazards are systematically considered in urban transport planning and management. To this effect, it will include a review of transport infrastructure construction codes and standards to assess how climate-related risks can be better integrated. A roadmap will be elaborated to help stakeholders in assessing the urban vulnerability to climate change and designing an adaptation strategy for urban networks. Local stakeholders will also be trained in urban mobility and climate change issues, to better incorporate climate-resilience considerations in urban transport planning and management.

III. Climate-linked activities embedded in the project design

Table 2.1: Climate co-benefits table with adaptation and mitigation activities under each component

Component	Description of Climate Linked Activities
1. Support to institutional strengthening and professionalizatio n of existing public transport operators	A. The capacity-building activities, especially those targeting the regulatory framework, BRT operations and maintenance, and the public transport operator SOCATUR, will improve the management and maintenance of the BRT infrastructure, of feeder roads, and of public transport fleets. This will directly reduce emissions due to public transportation by the means of well-maintained roads – which ensure steadier speeds and slow the aging of vehicles - and efficient fleet management. The resulting public transport sector in Douala will be more efficient and reliable: congestion will decrease and modal shift to buses, BRT and to non-emitting modes such as walking and cycling will increase, thus GHG emissions will be further reduced. B. A stronger operational and regulatory framework is also key to mitigate climate risks (such as floods and other extreme events) and to ensure the resilience of the public transport network, through emergency response mechanisms and contingency planning. C. Similarly, the professionalization, improved management of traffic and of informal transport operators and maintenance facilities will regularize and improve the quality of the informal sector, notably by building resilience and reducing the emissions of aging vehicles and/or in poor conditions. D. The fleet renewal of public transport providers is a climate change mitigation measure, as it directly reduces GHG emissions and improves the resilience of the sector.
2. BRT infrastructure facilities, systems, and rolling stock	A. The BRT infrastructure will be built according to climate resilience standards in order to mitigate the risk of floods, extreme climatic events, traffic disruptions, and premature aging/deteriorating of the infrastructure. Such adaptation measures can include re-sizing crossing structures and drainage systems, bioswales, stormwater retention vegetation, traffic diversion routes... B. The BRT infrastructure and the traffic management plan will reduce congestion along the corridor and foster the modal shift from private vehicles, taxis and mototaxis to the BRT – a

Component	Description of Climate Linked Activities
	lower-emitting mode – thus reducing GHG emissions. C. The rolling stock financed by the project will be selected in order to be the least emitting possible: electric buses (non-emitting buses) are the preferred option considered at this time. This climate change mitigation measure will directly reduce GHG emissions.
3. Transit-oriented development around the BRT system	**Sub-component 3.1** A. The rehabilitation and construction of the feeder roads network will be realized to climate resilience standards to mitigate the impacts of floods, and extreme climatic events, as well as to avoid traffic disruption, reduce congestion, and to improve the overall efficiency of the transport network. Adaptation measures include improved drainage, sewer/water supplies and maintenance. B. The rehabilitation and construction of NMT facilities, including sidewalks, pedestrian crossings, and cycling lanes will be realized to climate resilience standards, consequently positively impacting the modal shift to non-emitting modes and reducing the urban vulnerability to flooding. C. The operational and well-maintained feeder roads network, the NMT infrastructure, and the new infrastructure for formal and informal operators will contribute to fluidifying traffic, reducing congestion, fostering the modal shift to public transport, and to non-emitting modes. Therefore, GHG emissions will decrease. **Sub-component 3.2** A. The inclusive TOD approach promoted by the project will reinforce and develop cleaner mobility, by making the city more walkable and cyclable (improvement of pedestrian crossings, sidewalks, lighting, landscaping, waste management...). It will also foster mixed-use urban design - especially through the development of the pilot projects around selected BRT stations - which reduces the distance traveled to access basic need amenities and facilities and therefore positively contributes to climate adaptation. B. The maintenance and construction of the infrastructure and of urban public facilities (stations, for informal vendors...) will be designed to foster climate resilience and to minimize and mitigate flood risks.
4. Project management and capacity building	A. Capacity building and management activities are critical to ensure the quality of services, of the infrastructure and of risks management on the mid to long run. Among others, these activities will target climate change, disaster risk and road safety, thus enhancing climate resilience and mitigation.

ANNEX 3: Measuring the Impact of the Restructuring of Douala's Public Transport Network on Accessibility within the City

1. During project preparation, an accessibility study was conducted to measure and evaluate the impact of the project on accessibility within the Douala agglomeration, in terms of improved access to opportunities such as jobs, schools, and health facilities, with a focus on the poor. In urban transportation, 'accessibility' describes the ease with which people can access any place in the city, considering the transportation network efficiency, the spatial distribution of the population, and of opportunities. It clearly illustrates the benefits that transportation provides, connecting people with destinations given the travel times on the network.

Methodology

2. The study focuses on assessing accessibility gains provided by restructuring the public transport around the BRT corridors, as the Douala Urban Mobility Project intends to achieve, compared to the no-project scenario. In the no-project scenario, the existing transport system consists of a public bus network operated by SOCATUR, informal yellow taxis running on organized lines, and mototaxis. In the project scenario, the system comprises the BRT lines supplemented by existing SOCATUR routes and additional feeder lines. Organized transport networks are illustrated below.

Figure 3.1: No-project scenario – Existing transport network

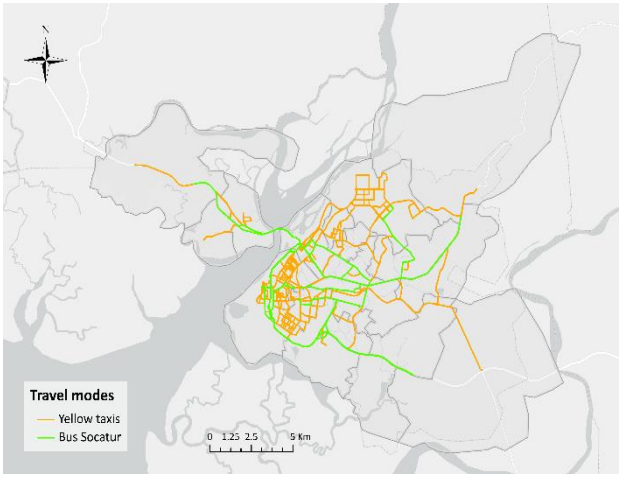
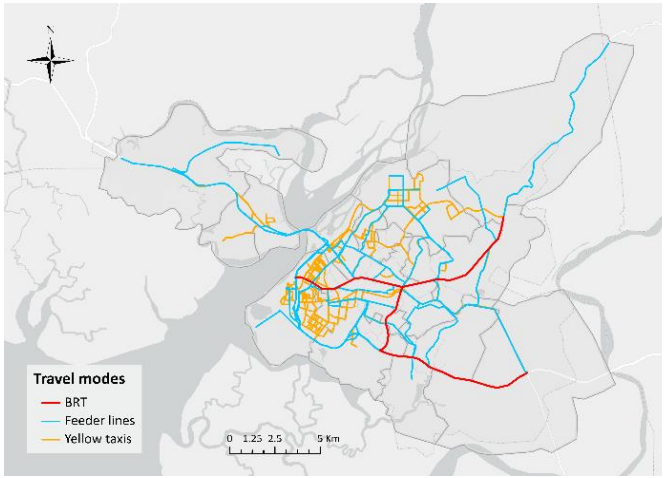


Figure 3.2: Project scenario – Project transport network



3. The BRT corridor passes through densely populated areas and the mapping of employment, education, shopping, services, and health-related opportunities suggests that these opportunities are concentrated along the BRT route. These are the categories of opportunities for which accessibility gains are estimated. The maps below show the population density in Douala as well as the location of opportunities.

Figure 3.3: Density of population per district

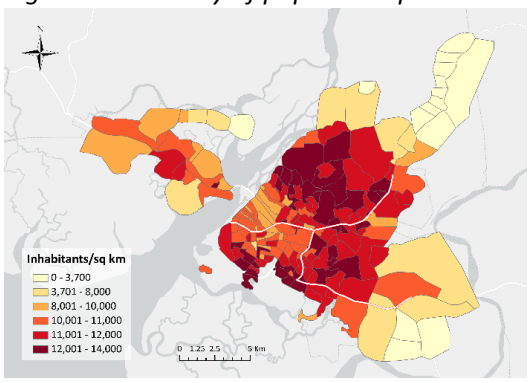


Figure 3.4: Density of employment opportunities

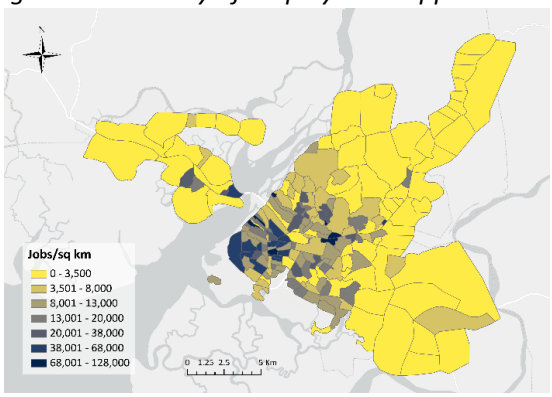


Figure 3.5: Distribution of health facilities

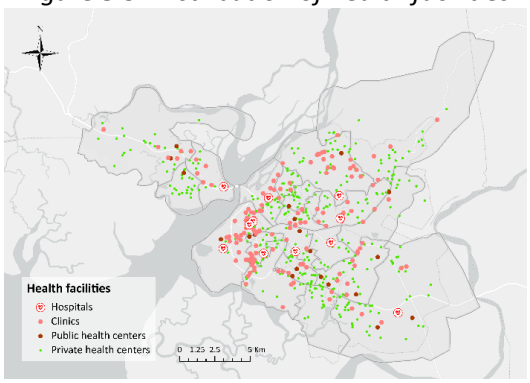
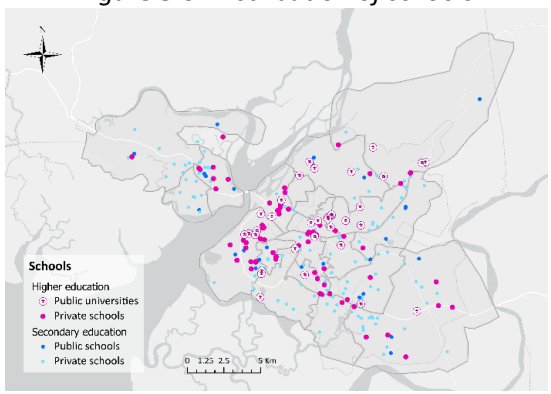


Figure 3.6: Distribution of schools



Results

4. **Access to jobs.** An average resident will access twice as many employment opportunities thanks to the project. In 2025, during rush hour, the share of jobs accessible by the average Douala resident within a maximum travel time of 60 minutes using public transit is predicted to be 13.7 percent in the no-project scenario, and to double in the with-project scenario, reaching 28.7 percent. For the poorest share of the population, this ratio is 12.6 percent in the no-project scenario, and 26.2 percent with the project.

Figure 3.7: Accessibility to jobs within 60 minutes of public transport – No-project scenario

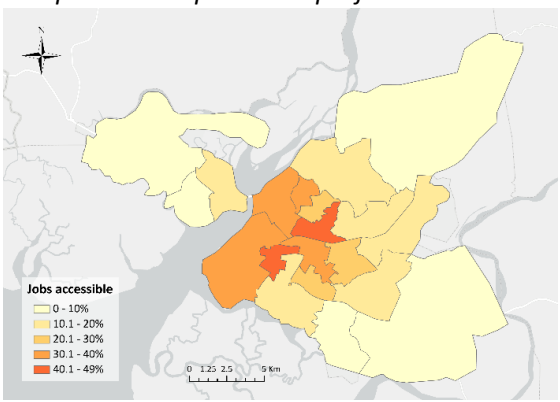
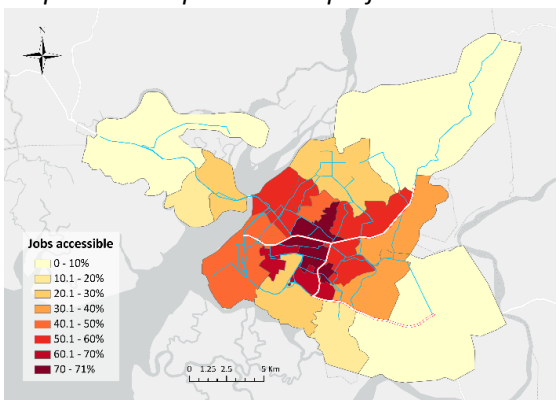


Figure 3.8: Accessibility to jobs within 60 minutes of public transport – With-project scenario



5. **Access to health care.** With the project, 68 percent of Douala's inhabitants will access an additional public health facility – public health center or hospital – within 45 minutes. The share of inhabitants who have access to at least one public hospital within 45 minutes is expected to increase from 43 percent in the no-project scenario to 58 percent with the project.

Figure 3.9: Accessibility to any health facility within 45 minutes of public transport – No-project scenario

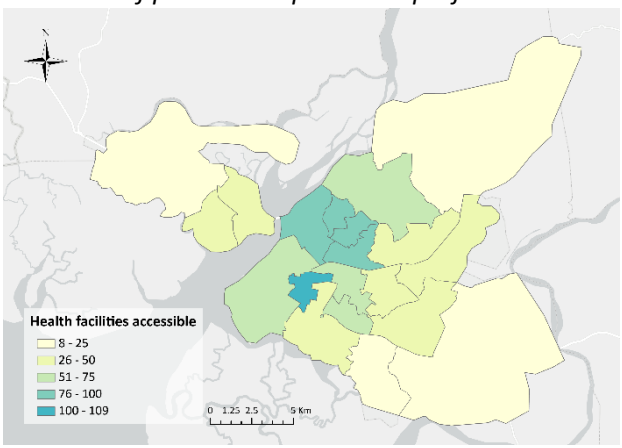
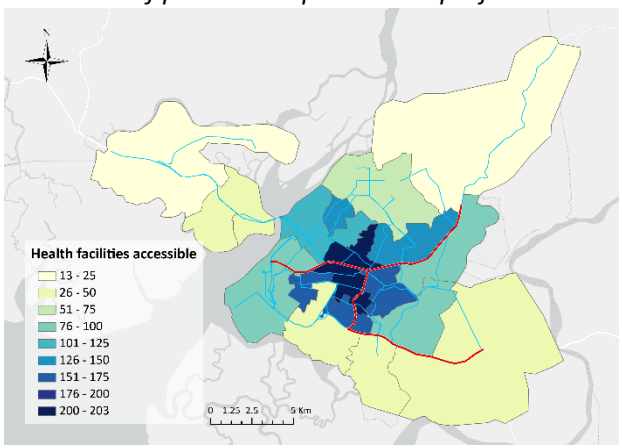


Figure 3.10: Accessibility to any health facility within 45 minutes of public transport –With-project scenario



6. **Access to education.** The 8 percent of students who do not have access to a university in the no-project scenario will have access to a public university in the PMUD scenario. In addition, the share of people who will have access to at least one public secondary school and/or public university within 45 minutes, will increase by 5 percent and 6 percent respectively.

Figure 3.11: Accessibility to public secondary schools within 45 minutes of public transport – No-project scenario

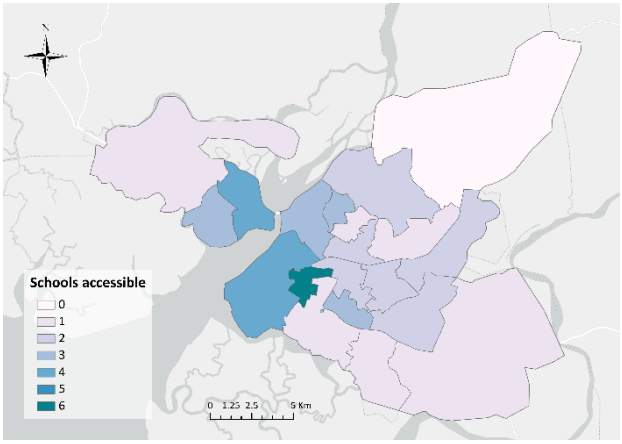
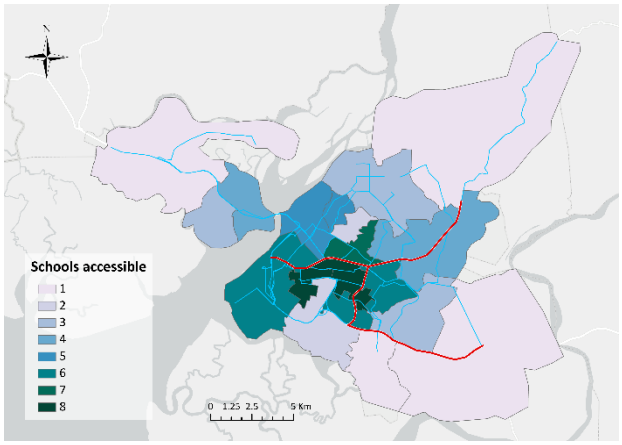


Figure 3.12: Accessibility to public secondary schools within 45 minutes of public transport – With-project scenario



7. **Access to other services.** With the project, 33 percent of the population will have access to the city business district center (CBD) in less than 60 minutes during rush hour, compared to about 14 percent in the no-project scenario. 80 percent of the population will have access to at least one market within 45 minutes; a 9 percent increase compared to the no-project scenario.

Figure 3.13: Accessibility to the CBD within 60 minutes of public transport – No-project scenario

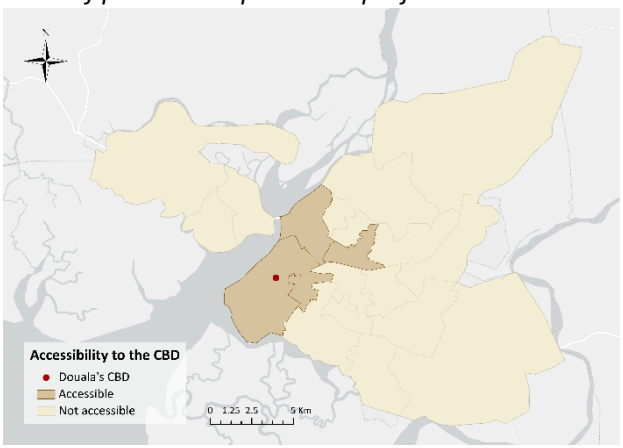


Figure 3.14: Accessibility to the CBD within 60 minutes of public transport – With-project scenario

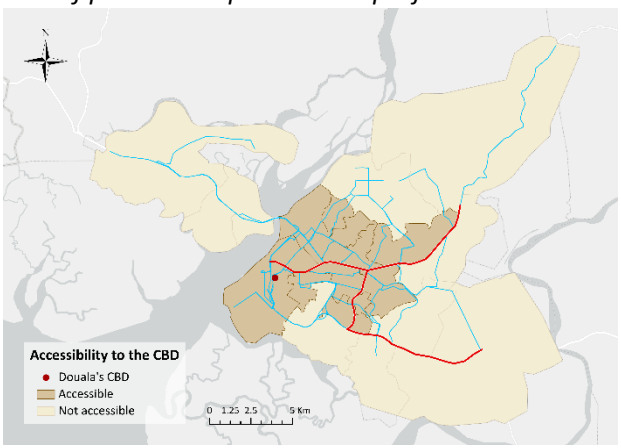


Table 3.1: Accessibility analysis results

OPPORTUNITIES ACCESSIBLE IN 2025	BASELINE	PROJECT SCENARIO
JOBS		
Average percent of jobs accessible within 60 min	13.70%	28.70%
Percentage increase in jobs accessible compared to baseline	-	110%
Average percent of jobs accessible to poor people within 60 min	7.00%	16.60%
Percentage increase in jobs accessible to poor people compared to baseline	-	138%
HEALTH		
All facilities		
Average number of facilities accessible within 45 min	38	74
% of people who can access at least 1 additional compared to baseline	-	77%
Public facilities		
% of people who can access at least 1	72%	77%
% of people who can access at least 1 additional compared to baseline	-	58%
Hospitals and clinics		
Average number accessible within 45 min	11	21
% of people who can access at least 1 additional compared to baseline	-	68%
Hospitals		
Average number accessible within 45 min	1	2
% of people who can access at least 1 additional compared to baseline	-	40%
Facilities with emergency services		
Average number accessible within 30 min	2	3
% of people who can access at least 1 additional compared to baseline	-	35%
EDUCATION		
Secondary schools		
Average number accessible within 45 min	9	19
% of people who can access at least 1 additional compared to baseline	-	68%
Secondary public schools		
Average number accessible within 45 min	2	3
% of people who can access at least 1 additional compared to baseline	-	48%
Higher education		
Average number accessible within 45 min	7	15

OPPORTUNITIES ACCESSIBLE IN 2025	BASELINE	PROJECT SCENARIO
% of people who can access at least 1 additional compared to baseline	-	62%
Public universities		
Average number accessible within 45 min	2	5
% of people who can access at least 1 additional compared to baseline	-	48%
MARKETS		
Average number accessible within 45 min	2	5
% of people who can access at least 1 additional compared to baseline	-	58%
CENTRAL BUSINESS DISTRICT		
Percentage increase in the share of the population able to access the CBD in 60 min	-	136%

ANNEX 4: TOD Approach Adopted and Selection Principles for the Pilot Sites Investments

1. The project aims to foster economic and urban development around the BRT corridor based on a TOD approach. TOD is a planning and design strategy that consists in promoting urban development that is compact, mixed-use, pedestrian- and bicycle-friendly, and closely integrated with mass transit by clustering jobs, housing, services, and amenities around public transport stations. However, in a city like Douala, a TOD approach has to be innovative and adaptative and may have to depart from the conventional approach applicable in North American cities and other developed countries.

2. During project preparation, and as part of the development of the CDS, a critical step is to contextualize and adapt the TOD approach to the context of Douala including through (i) planning for the informal economy which represents around 80 percent of the city's economic activities ; (ii) addressing the limited financial capacity of the CUD through exploring strategies for additional income generation in the CDS (including through land value capture); and (iii) developing a roadmap for public authorities' capacity building to implement the CDS.

I. General TOD principles adopted in the project

3. In light of Douala's specificities, the TOD core principles of intervention have been formulated around the following axes:
   - **Reassess land uses to be maintained, encouraged, or eliminated with a view to fostering a more viable mixed development.** The balance of uses is not the same everywhere, but the distinct character of each TOD area will be taken into consideration during planning.
   - **Operating a densification of the TOD area based on density thresholds adapted to the environment** (central area, peri-urban, …) and taking into account the proposals of the Land Use Plans and Sector Plans;
   - **Identify the pedestrian paths** to the access points to the BRT to be fitted out, redeveloped or reconfigured according to the TOD principles to facilitate the accessibility to the BRT stations for all the neighborhoods of the study area (permeabilization of the islands, adaptation of routes to the terrain, integration of drains and watercourses, etc.);
   - **Improve the living environment** by proposing sustainable developments aimed at limiting the current nuisances and enhancing the role of the landscape components within the city (green and blue grid, relief and opening onto the large landscape);
   - **Propose suitable arrangements for the redeployment of the informal sector** based on the urban space operation reconfiguration (routes and paths) induced by the BRT Project.
   - **Review the design of convivial spaces** at the neighborhood level (local centrality) to preserve the urban intensity that characterizes them while improving their operation.
   - **Foster land value capture** in the heart of the agglomeration (study area) for the benefit of the community.

II. Methodology and criteria used for selecting the pilot sites

4. A baseline assessment of the entire TOD area was conducted at three spatial scales (metropolitan area, study area, neighborhood area). This assessment permitted to establish a typology of sites that can be classified in three main categories:
   - Metropolitan center with supra local influence,
   - Urban or peri-urban center with city-wide influence,
   - Local center corresponding to the neighborhood scale.

5. Considering this typology, the station areas for pilot investments are being selected based on the diagnostic of the city operation, neighborhoods surveys, and the CUD's own prioritization. The diagnostic offers a neighborhood level analysis applying the TOD principles adopted to discuss possible interventions scenarios. Based on this analysis, additional classification and selection criteria include: (i) the flow of passengers by station/node, focusing on the most important; (ii) the potential influence of the intervention in relation to the situation of the site; (iii) the diversity of situations to be dealt with in terms of scale and functions/vocations around the stations, etc. Based on this approach, twenty- three (23) areas were pre-identified (Figure 4.1), and three (3) pilot sites were pre-selected as potential pilot projects.

Figure 4.1: Localization of the pre-identified sites

III. Localization and description of the potential pilot investment packages

6. The three pilot sites were selected as ideal-representative cases of each of the three categories listed above: (i) Carrefour Leclerc as a case of a metropolitan center with supra-local influence; (ii) Carrefour Ndokoti as a case of urban or peri-urban center with city-wide influence; and (iii) Quartier PK8 as a local center corresponding to the neighborhood scale. Carrefour Leclerc and Carrefour Ndokoti are the two main multimodal exchange hubs on the BRT corridor. Both centrally located in the city, they are already densely developed and only offer urban restructuring, brownfield, and infilled development opportunities (Figure 4.3 and Figure 4.4). The third one, Quartier PK8, is more peripheral and offers relatively more opportunities for greenfield and greenway developments (Figure 4.5).

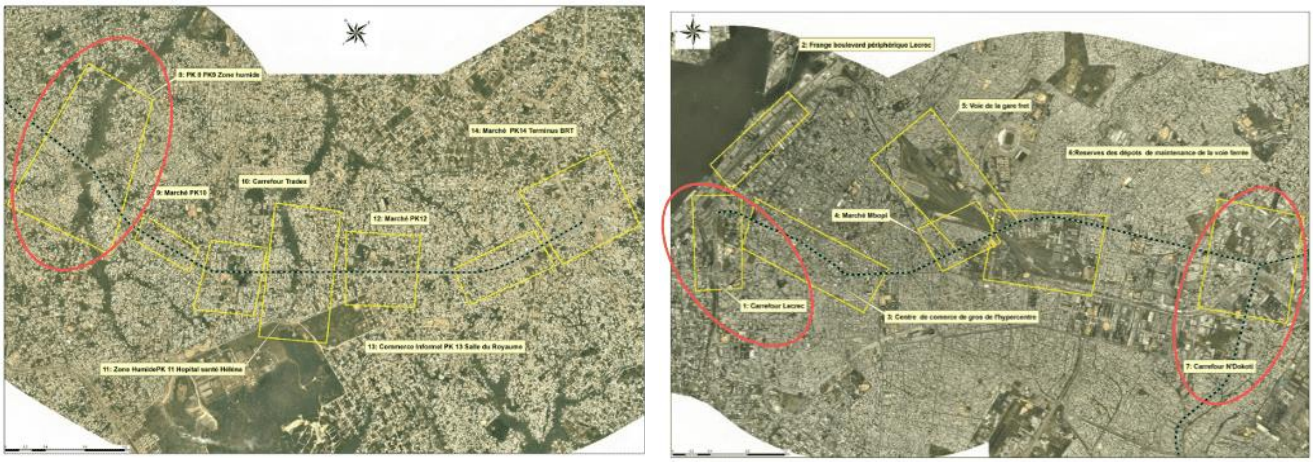


Figure 4.2: Localization of the three potential pilot sites (Carrefour Leclerc, Carrefour N'Dokoti , Quartier PK8)

- **Carrefour Leclerc**

- **Landscape development and integration into the MEH – BRT Station**
- **Materialization, landscaping and securing of pedestrian routes (and other active modes) towards the BRT station** (sidewalks, alignment trees, continuous pedestrian crossings, cycle paths, signage, street furniture, etc.)
- **Development of equipped green areas on either side of the main road (N3)**
- **Densification of underused land and high-rise construction** (especially on the right bank) to enhance the situation on the plateau with an unobstructed view of the port and the body of water – Front of high-rise buildings (to the right of the MEH- BRT)
- **Mixed uses**: Rebalancing the institutional and logistical predominance by favoring tourist, cultural, office and high-end residential uses

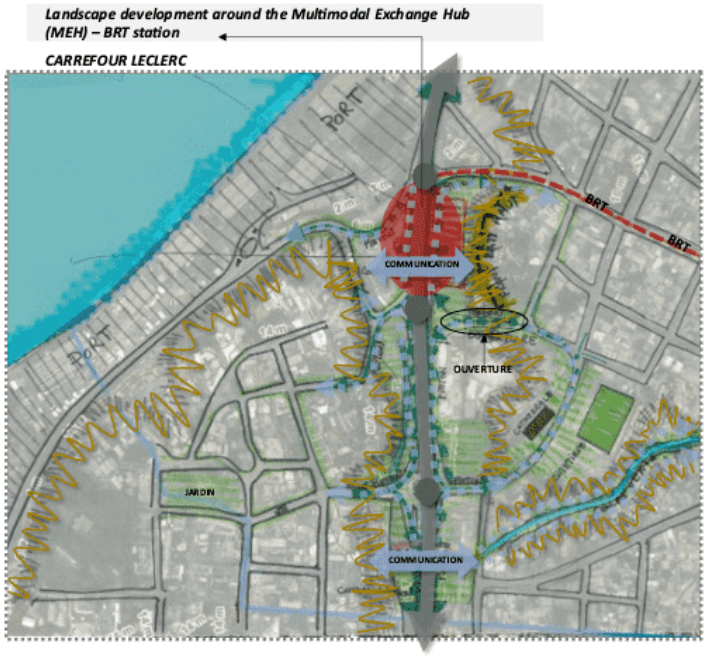


Figure 4.3: Proposed intervention in Leclerc

➢ Carrefour Ndokoti

- **"DIFFUSE" centrality on a North-South and East-West articulation;**
- **Move from a functional node to an urban space with a central vocation;**
- **Priority to BRT and pedestrian traffic (ground level traffic);**
- **Limitation of building height to preserve the quality of public spaces;**
- **Diffuse car traffic to decongest the intersection and reorient transit traffic with grade-separation arrangements;**
- **Mitigation of ruptures caused by the railway line, infrastructures, large industrial islands, precarious housing pockets, etc.;**
- **Succession of connected green spaces favoring travel in active mode and the creation of a green lung around (and along which), densification will take place:** central North-South green route connected to an East-West green corridor along of the rail. Furthermore, the open spaces will contribute to create buffer zones between the different vocations/assignments;
- **Mixed uses** with a commercial and service function, a leisure and entertainment function, a residential function, an industrial function (non-polluting) linked by a new travel network;
- **Integration of informal trade** by reorganizing it around high-traffic public spaces (street-market near the station / commercial village set up in an open space);
- **Capitalization on its function as place of convergence and sociability to enhance the intangible cultural heritage** - create public meeting spaces, rely on the cosmopolitanism of the city;
- **Composition with the existing to limit the impacts:** stick to the traces of the existing roads, open roads in unoccupied spaces, follow the limits of the plots, maintain certain buildings and equipment (courthouse, cemetery, etc.), etc.

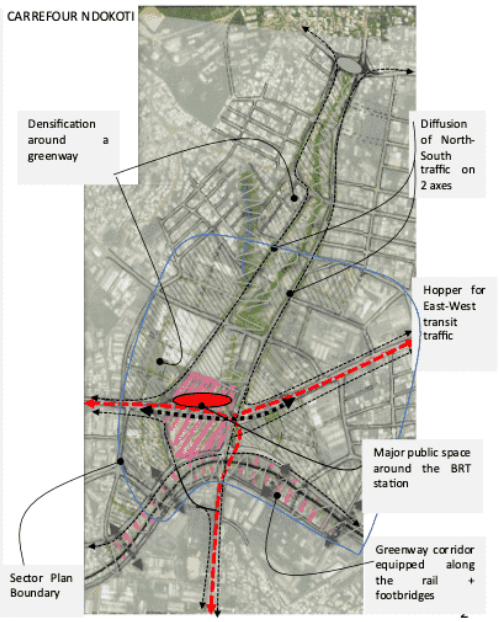


Figure 4.4: Proposed intervention in Ndokoti

➢ Quartier PK 8

General vision: An urban area structured around an ecological corridor with a mix of uses and a network of inter-district links.

Programme d'intervention :

- **Structuring the urban area along an ecological corridor:** It is a question of operating a **transition from the role of these landscape components** currently perceived as a source of nuisance towards a more rewarding role of recreational green space participating **in the creation of green lung in saturated tissue**. Added to this is **the environmental dimension** through the reservation in urban areas of natural areas of water infiltration. **This implies upstream the following developments: Hydraulic protection works, reshaping of the watercourse, sanitation of the area (waste, wastewater, plantations, etc.), setting up of maintenance routes, setting up of a sanitation network, waste collection and management, eviction in risk areas, etc.**
- **Enhance the network of drains for a better structuring and service of the districts: Connect the green corridors to each other (green and blue grid) and create service networks within and between districts in order to make daily travel more fluid. Providing links to the BRT stations**, these pedestrian routes organized around the drains will contribute to **the structuring of centralities at the neighborhood level**. They will be **places of sociability** with commercial activities (integration of informal trade), socio-collective and entertainment facilities;
- **Develop these vast green corridors and give them functions to facilitate their appropriation by the inhabitants and allow their regular maintenance: A suitable functional program** will be developed for each component according to its location and scale. For example, it is possible to provide **sports facilities, fitness trails, arable land (urban agriculture), nurseries, micro-architectures, play areas,** etc.,
- **Restructure the secondary and tertiary grid to open up the neighborhoods and facilitate travel: Distinguish between the automobile circuit and the pedestrian path** which adapt differently to the relief. Promote a road layout that follows the level curves to limit field work and facilitate travel;
- **Exploit the large open spaces created as buffer zones** between an existing **urban fabric that needs to be improved** and **new areas along the corridor, to be urbanized as part of land consolidation**

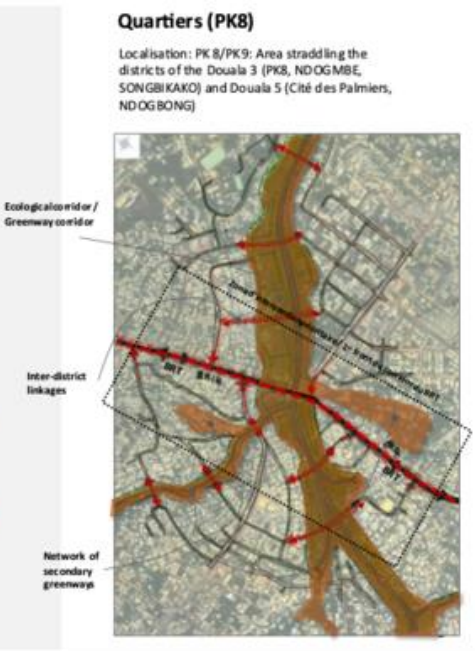


Figure 4.5: Proposed intervention in Quartier PK8