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Report No: PAD3660

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A
PROPOSED CREDIT
IN THE AMOUNT OF EURO 275.9 MILLION
(US$313.0 MILLION EQUIVALENT)

TO THE
REPUBLIC OF CAMEROON

AND

ON A
PROPOSED GRANT
IN THE AMOUNT OF SDR 160.7 MILLION
(US$225.0 MILLION EQUIVALENT)

TO THE
REPUBLIC OF CHAD

FOR A

CAMEROON-CHAD TRANSPORT CORRIDOR PROJECT

January 20, 2022

Transport Global Practice
Western and Central Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective November 30, 2021)

Currency Unit =	CFA Franc (XAF)
CFA 578.06 =	US$1.00
SDR 0.7142 =	US$1.00
Euro 0.88 =	US$1.00

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Ousmane Diagana
Country Director:	Boutheina Guermazi
Regional Director:	Ashish Khanna
Practice Manager:	Ibou Diouf
Task Team Leaders:	Franck Taillandier and Papa Mamadou Fall

ABBREVIATIONS AND ACRONYMS

AFD	*Agence Française de Dévelopement* (French Development Agency)
AGER	*Agence Générale d'Entretien Routier* (Road Maintenance Agency)
AWPB	Annual Work Plan and Budget
BGFT	*Bureau de Gestion du Fret Terrestre* (Land Freight Management Unit)
BNFT	*Bureau National du Fret Terrestre* (National Land Freight Unit)
CAA	*Caisse Autonome d'Amortissement* (Autonomous Sinking Funds)
CEMAC	*Communauté Economique et Monétaire de l'Afrique Centrale* (Central African Economic and Monetary Community)
CEMAC TTFP	CEMAC Trade and Transit Facilitation Project
CERC	Contingent Emergency Response Component
CO2	Carbon Dioxide
COMIFER	*Comité Interministériel des Infrastructures Ferroviaires* (Interministerial Committee for Railway Infrastructures)
COVID-19	Coronavirus Disease 2019
CPF	Country Partnership Framework
CSCP	*Cellule de Suivi et de Coordination des Projets* (Projects Management and Coordination Unit)
CSO	Civil Society Organization
CTS	Creosote-treated Sleeper
DA	Designated Account
DFIL	Disbursement and Financial Information Letter
DGIT	*Direction Générale des Infrastructure de Transport* (General Directorate for Infrastructure and Transport)
DHS	Demographic and Health Survey
E&S	Environmental and Social
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FER	*Fonds d'Entretien Routier* (Road Maintenance Fund)
FCS	Fragile and Conflict-affected States
FM	Financial Management
FMS	Financial Management Specialist
FY	Fiscal Year
GBV	Gender-based Violence
GDP	Gross Domestic Product
GIF	Global Infrastructure Facility
GIS	Geographic Information System
GHG	Greenhouse Gas
GRID	Green, Resilient and Inclusive Development
GRM	Grievance Redress Mechanism

GUCE	*Guichet Unique des Opérations du Commerce Extérieur* (Single Window for Foreign Trade)
HDI	Human Development Index
HDM-4	Highway Development and Management
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDF	Institutional Development Fund
IFR	Interim Financial Report
IMF	International Monetary Fund
LPI	Logistics Performance Index
M&E	Monitoring and Evaluation
MFD	Maximize Finance for Development
MID	*Ministère des Infrastructure et du Désenclavement (*Ministry for Infrastructure and Opening-up)
MINEPDED	*Ministère de l'Environnement, de la Protection de la Nature et du Développement Durable* (Ministry of Environment, Nature Protection and Sustainable Development)
MINFOF	Ministry of Forestry and Wildlife
MINT	*Ministère des Transports* (Ministry of Transport)
MINTP	*Ministère des Travaux Publics* (Ministry of Public Works)
MTP	Multimodal Transport Project
MTR	Mid-term Review
ND-GAIN	Notre Dame Global Adaptation Initiative
NDS30	National Development Strategy 2020-2030
NGO	Nongovernmental Organization
NPF	New Procurement Framework
NPV	Net Present Value
ONASER	*Office National de la Sécurité Routière* (National Agency in Charge of Road Safety)
OP/BP	Operational Policy/Bank Policy
OPBRC	Output- and Performance-based Road Contracts
PAD	*Port Autonome de Douala* (Port of Douala Authority)
PAP	Project-affected Person
PCM	Private Capital Mobilization
PDO	Project Development Objective
PIM	Project Implementation Manual
PIU	Project Implementing Unit
PPA	Project Preparation Advance
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public-private Partnership
PPSD	Project Procurement Strategy for Development
PQ2	*Plan Quinquennal 2* (Five-Year Plan)
PRA	Prevention and Resilience Allocations
PRAMS	Procurement Risk Assessment and Management System
QCBS	Quality and Cost-Based Selection
RAP	Resettlement Action Plan
RF	Results Framework
RFB	Request for Bidding

RICAS	Regional Integration and Cooperation Assistance Strategy
RPF	Resettlement Policy Framework
RSF	Regional Stabilization Facility
RSSAT	Road Safety Screening and Appraisal Tool
S2ITM	*Elaboration de la Stratégie intégrée des Infrastructures de Transport multimodal au Cameroun* (Cameroon Integrated Multimodal Transportation Infrastructure Strategy)
SDR	Special Drawing Rights
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SESA	Strategic Environmental and Social Assessment
SPC	Shadow Price of Carbon
SSA	Sub-Saharan Africa
STD	Sexually Transmitted Disease
STEP	Systematic Tracking of Exchanges in Procurement
TA	Technical Assistance
ToR	Terms of Reference
TTU	*Titre de Transit Unique* (Single Road-Rail Transit Document)
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDB	United Nations Development Business
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
WB	World Bank
WBG	World Bank Group

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name
Cameroon, Chad	Cameroon-Chad Transport Corridor

Project ID	Financing Instrument	Environmental Assessment Category
P167798	Investment Project Financing	B-Partial 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
15-Feb-2022	30-Jun-2032

Bank/IFC Collaboration

No

Proposed Development Objective(s)

The proposed project development objective is to improve the efficiency and safety of regional trade transport along the Douala-N'Djamena intermodal corridor.

Components

Component Name	Cost (US$, millions)
Douala-Yaoundé rail track rehabilitation and railway signaling modernization	368.00
Rail/road connections investments, railway capacity building and road safety	24.10
Road reconstruction, maintenance and safety improvements	389.00
Trade facilitation and project implementation support	34.90
Contingent Emergency Response Component (CERC)	0.00

Organizations

Borrower:	Republic of Cameroon Republic of Chad
Implementing Agency:	CAMRAIL Ministère des Transports (Ministry of Transport) Ministère des Infrastructures et du Désenclavement (Ministry for Infrastructure and Opening-up)

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	816.00
Total Financing	816.00
of which IBRD/IDA	538.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	538.00
IDA Credit	313.00
IDA Grant	225.00

Non-World Bank Group Financing

Commercial Financing	103.00
Unguaranteed Commercial Financing	103.00
Other Sources	175.00
EC: European Development Fund (EDF)	45.00
EC: European Investment Bank	130.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Cameroon	313.00	0.00	0.00	313.00
National PBA	104.00	0.00	0.00	104.00
Regional	209.00	0.00	0.00	209.00
Chad	0.00	225.00	0.00	225.00
National PBA	0.00	75.00	0.00	75.00
Regional	0.00	150.00	0.00	150.00
Total	**313.00**	**225.00**	**0.00**	**538.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Annual	10.80	22.50	56.00	67.30	78.50	78.50	78.50	67.30	50.60	28.00
Cumulative	10.80	33.30	89.30	156.60	235.10	313.60	392.10	459.40	510.00	538.00

INSTITUTIONAL DATA

Practice Area (Lead)

Transport

Contributing Practice Areas

Macroeconomics, Trade and Investment

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	Substantial
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

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

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[✓] Yes [ ] No

Have these been approved by Bank management?

[✓] Yes [ ] No

Is approval for any policy waiver sought from the Board?

[ ] 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 of Schedule 2 of Financing Agreement with Chad: The Recipient shall, through the MID, establish, not later than one (1) month after the Effective Date, and thereafter maintain throughout Project implementation, under terms of reference and with a composition satisfactory to the Association, the Bilateral Steering Committee to function with Cameroon.

Sections and Description
Section I.A.2 of Schedule 2 of Financing Agreement with Chad: The Recipient shall, through the MID, appoint, not later than three (3) months after the Effective Date, and thereafter maintain throughout the period of Project implementation, a representative to the Bilateral Technical Committee to function with Cameroon.

Sections and Description
Section I.A.3 (i) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than one (1) month after the Effective Date, recruit to the PMCU one (1) procurement specialist assistant on the basis of terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description
Section I.A.3 (ii) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than three (3) months after the Effective Date, recruit for the PMCU, one (1) GVB specialist and one (1) additional accountant, all on the basis of terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description
Section I.D.(a) of Schedule 2 of Financing Agreement with Chad: The Recipient shall: (i) adopt, not later than six (6) months after the Effective Date, the Stakeholder Engagement Plan for Parts 3, 4.1 (ii), 4.2 (ii), 4.4 (ii), 4.5 (ii) and 5.2

of the Project in form and substance satisfactory to the Association; (ii) thereafter, carry out the Stakeholder Engagement Plan with due diligence and efficiency and communicate the Stakeholder Engagement Plan to the Project stakeholders.

Sections and Description

Section I.E of Schedule 2 of Financing Agreement with Chad: The Recipient shall establish not later than six (6) months after the Effective Date, and thereafter maintain, operate and publicize the availability of, throughout Project implementation, a functional grievance redress mechanism for Parts 3, 4.1 (ii), 4.2 (ii), 4.4 (ii), 4.5 (ii) and 5.2 of the Project, with adequate staffing and processes, and in form and substance satisfactory to the Association, to register, hear and determine fairly and in good faith all complaints raised in relation to Parts 3, 4.1 (ii), 4.2 (ii), 4.4 (ii), 4.5 (ii) and 5.2 of the Project, and take all measures necessary to implement the determinations made by such mechanism in a manner satisfactory to the Association.

Sections and Description

Section I.I (a) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than one (1) month after the Effective Date, update the existing contract of the current internal auditor of the PMCU to adapt it to the Project under terms of reference satisfactory to the Association.

Sections and Description

Section I.I (b) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than two (2) months after the Effective Date, elaborate and adopt the Project Procedures Manual in form and substance satisfactory to the Association.

Sections and Description

Section I.I (c) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than three (3) months after the Effective Date, configure the existing accounting software of the PMCU to customize it for the Project and train its staff in the use thereof.

Sections and Description

Section I.I (d) of Schedule 2 of Financing Agreement with Chad: The Recipient shall not later than six (6) months after the Effective Date, recruit and appoint an independent external auditor for the Project with qualifications and experience and under terms of reference satisfactory to the Association.

Sections and Description

Section II.B of Schedule 2 of Financing Agreement with Chad: The Recipient shall, not later than two (2) months after the Effective Date, elaborate and adopt the Monitoring and Evaluation Manual in form and substance satisfactory to the Association.

Sections and Description

Section II.C (b) of Schedule 2 of Financing Agreement with Chad: The Recipient shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about forty-five months (45) months after the Effective Date, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 3, 4.1 (ii), 4.2 (ii), 4.4 (ii), 4.5 (ii) and 5.2 of the Project and the achievement of the objectives thereof during the period following such date.

Sections and Description
Section I.A.3 of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, not later than three (3) months after Effective Date, recruit and appoint to the PIU one environmental and social safeguards specialist and one monitoring and evaluation specialist, both under terms of reference and with qualifications and experience satisfactory to the Association.

Sections and Description
Section II.C (c) of Schedule 2 of Financing Agreement with Chad: The Recipient shall review with the Association, on or about forty-eight (48) months after the Effective Date or such later date as the Association shall request, the report referred to in the preceding paragraph (b), and, thereafter, take all measures required to ensure the efficient completion of Parts 3, 4.1 (ii), 4.2 (ii), 4.4 (ii), 4.5 (ii) and 5.2 of the Project and the achievement of the objectives thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Sections and Description
Section I.A.1 of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, through the MINT, establish, not later than one (1) month after the Effective Date, and thereafter maintain throughout Project implementation, under terms of reference and witha composition satisfactory to the Association, the Bilateral Steering Committee to function with Chad.

Sections and Description
Section I.A.2 of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, through the MINT, appoint, not later than three (3) months after the Effective Date, and thereafter maintain throughout the period of Project implementation, a representative to the Bilateral Technical Committee to function with Chad.

Sections and Description
Section I.E of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall: (i) adopt, and cause CAMRAIL to adopt, not later than six (6) months after the Effective Date, the Stakeholder Engagement Plan for Parts 1, 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 of the Project in form and substance satisfactory to the Association; (ii) thereafter, carry out, and cause CAMRAIL to carry out, the Stakeholder Engagement Plan with due diligence and efficiency and communicate, and cause CAMRAIL to communicate, the Stakeholder Engagement Plan to the Project stakeholders.

Sections and Description
Section I.F of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall: (i) establish, and cause CAMRAIL to establish, not later than six (6) months after the Effective Date; and (ii) thereafter maintain, operate and publicize the availability of, and cause CAMRAIL to maintain, operate and publicize the availability of, throughout Project implementation, a functional grievance redress mechanism for Parts 1, 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 of the Project, with adequate staffing and processes, and in form and substance satisfactory to the Association, to register, hear and determine fairly and in good faith all complaints raised in relation to Parts 1, 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 of the Project, and take all measures necessary to implement the determinations made by such mechanism in a manner satisfactory to the Association.

Sections and Description

Section I.J (i) of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, through the PIU not later than two (2) months after the Effective Date, adopt the PIU Project Procedures Manual for Parts 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 of the Project, in form and substance satisfactory to the Association and install a computerized system acceptable to the Association to support the accounting under the Project and train its staff to effectively use said system.

Sections and Description

Section I.J (ii) of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, through the PIU not later than three (3) months after the Effective Date, recruit an internal auditor, under terms of reference and with qualification and experience satisfactory to the Association, to conduct ex-post review of the Project activities.

Sections and Description

Section I.J (iii) of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall, through the PIU, not later than six (6) months after the Effective Date, recruit an independent external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to oversee the accounting functions of the PIU and review its internal control system.

Sections and Description

Section I.C.12 of Schedule 2 for Financing Agreement with Cameroun: The Recipient shall take all action required to carry out the study to provide recommendations for increased safety of railway operations under Part 2.2 of the Project with due diligence and to ensure that the measures recommended therein are implemented with efficiency and in a reasonable timeframe.

Sections and Description

Section II.B (b) of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about forty-five months (45) months after the Effective Date, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Parts 1, 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 of Project and the achievement of the objective thereof during the period following such date.

Sections and Description

Section II.B (c) of Schedule 2 of Financing Agreement with Cameroon: The Recipient shall review with the Association, on or about forty-eight (48) months after the Effective Date, or such later date as the Association shall request, the report referred to in the preceding paragraph (b), and, thereafter, take all measures required to ensure the efficient completion of Parts 1, 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) and 5.1 and the achievement of the objective thereof, based on the conclusions and recommendations of the said report and the Association’s views on the matter.

Sections and Description

Section I.A. of Schedule of Project Agreement with CAMRAIL: CAMRAIL shall maintain, throughout Project implementation, the Project Implementation Team within its structure under terms of reference satisfactory to the Association and with financial, technical and administrative resources adequate to enable it to carry out Part 1 of the Project in a timely and diligent manner. To that end, CAMRAIL shall ensure that the Project Implementation Team is headed at all times by the coordinator and that its composition includes throughout Project

implementation relevant Project implementation specialists, including, inter alia, one procurement specialist, one financial management officer, one accountant, one environmental and social specialist, one GVB specialist, and one monitoring and evaluation specialist, all under terms of reference and with experience and qualifications satisfactory to the Association.

Sections and Description

Section I.C. (a) of Schedule of Project Agreement with CAMRAIL: CAMRAIL shall: (i) adopt, not later than six (6) months after the Effective Date, the Stakeholder Engagement Plan in form and substance satisfactory to the Association; and (ii) thereafter, shall carry out the Stakeholder Engagement Plan with due diligence and efficiency and communicate the Stakeholder Engagement Plan to the Project stakeholders.

Sections and Description

Section II.B (b) of Schedule of Project Agreement with CAMRAIL: CAMRAIL shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association, on or about forty-five months (45) months after the Effective Date, a report integrating the results of the monitoring and evaluation activities and setting out the measures recommended to ensure the efficient carrying out of Part 1 of Project and the achievement of the objective thereof during the period following such date.

Sections and Description

Section I.D of Schedule of Project Agreement with CAMRAIL: CAMRAIL shall establish, not later than six (6) months after the Effective Date; and (ii) thereafter maintain, operate and publicize the availability of, throughout Project implementation, a functional grievance redress mechanism for Part 1 of the Project, with adequate staffing and processes, and in form and substance satisfactory to the Association, to register, hear and determine fairly and in good faith all complaints raised in relation to Part 1 of the Project, and take all measures necessary to implement the determinations made by such mechanism in a manner satisfactory to the Association.

Sections and Description

Section I.H (i) of Schedule of Project Agreement with CAMRAIL: The Recipient shall not later than two (2) months after the Effective Date, adopt the CAMRAIL Project Procedures Manual, in form and substance satisfactory to the Association.

Sections and Description

Section I.H (ii) of Schedule of Project Agreement with CAMRAIL: The Recipient shall not later than six (6) months after the Effective Date, recruit an independent external auditor, under terms of reference and with qualifications and experience satisfactory to the Association, to conduct the annual financial audit of the financial statements under Part 1 of the Project along with the review of CAMRAIL's the internal control system.

Sections and Description

Section II.B (c) of Schedule of Project Agreement with CAMRAIL: CAMRAIL shall review with the Association, on or about forty-eight (48) months after the Effective Date, or such later date as the Association shall request, the report referred to in the preceding paragraph (b), and, thereafter, take all measures required to ensure the efficient completion of Part 1 of the Project and the achievement of the objective thereof, based on the conclusions and recommendations of the said report and the Association's views on the matter.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	Financing Agreement with Chad; Article V, Section 5.01: The Recipient, through the Project Monitoring and Coordination Unit, shall have adopted the Project Implementation Manual in form and substance satisfactory to the Association.
Effectiveness	IBRD/IDA	Financing Agreement with Cameroon; Article V, Section 5.01 (a): The Recipient shall have established the PIU, with functions and a composition satisfactory to the Association, through the recruitment and appointment of: (i) the Project coordinator; (ii) one procurement specialist; (iii) one accountant; and (iv) one financial management officer, all of them under terms of reference and with qualifications and experience satisfactory to the Association.
Effectiveness	IBRD/IDA	Financing Agreement with Cameroon; Article V, Section 5.01 (b): The Recipient shall have adopted the Project Implementation Manual in form and substance satisfactory to the Association.
Effectiveness	IBRD/IDA	Financing Agreement with Cameroon; Article V, Section 5.01 (c): The Recipient shall have concluded with CAMRAIL a Delegated Contracting Authority Agreement satisfactory to the Association related to the carrying out of Part 1 of the Project.
Disbursement	IBRD/IDA	Financing Agreement with Cameroon; Section III.B.1 (a) of Schedule 2: under Category (2) unless and until: (i) the Association has approved the proposed terms of reference to recruit an independent engineer to assess the unit costs related to the In-House Costs; and (ii) the PIU has recruited the said independent engineer under the terms of reference as approved by the Association and with qualifications and experience satisfactory to the Association

I. STRATEGIC CONTEXT

A. Country Context

Regional Context

1. **Cameroon and Chad share similar fragility and security challenges from internal and regional conflicts and violence, notably in the Lake Chad region.** Both countries are classified as Fragile and Conflict-affected States (FCS) with a medium-intensity conflict level. Cameroon is suffering from instability in its anglophone regions, located along the western border with Nigeria. In addition, due to recent national crises in neighboring countries such as Sudan, Nigeria and the Central African Republic, both Cameroon and Chad have been hosting an increasing number of refugees, accounting for almost a million people and causing additional tensions at the borders. The Lake Chad region, which is home to a sixth[1] of the riparian countries' populations, is affected by increasing political fragility and social vulnerability. The shrinking of the lake water area by 95 percent in 50 years[2] and above all the impact of climate change, increased temperatures, and climate variability make resources increasingly scarce with direct consequences and risks for livelihoods and food security,[3] increased migration and heightened tensions. The conflict generated by the terrorist group Boko Haram, which started in the same area about 10 years ago, continues to plague the region and has compounded its fragile situation. Approximately 10.7 million people in the Lake Chad Basin are directly affected by this crisis, with close to a quarter of that number having been forced to flee their homes. The conflict caused by the Boko Haram insurgency has also significantly reduced cross-border trade.[4] Improved political, economic, and social integration in the Lake Chad region is essential for the stability of the region. In 2019 the United Nations Development Programme (UNDP) launched the Regional Stabilization Facility (RSF) for the Lake Chad Basin[5] aiming at restoring security and bringing relief to affected communities.

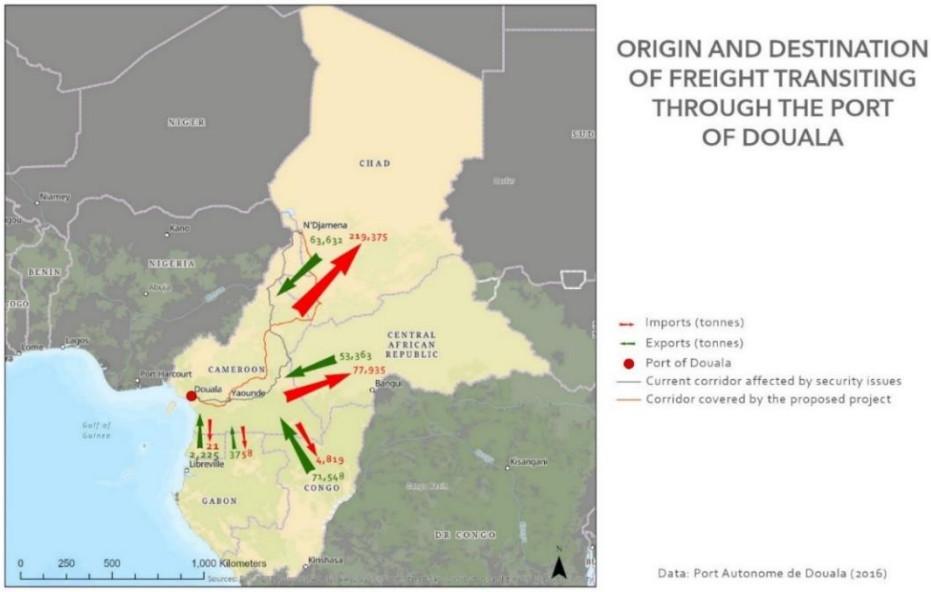
2. **Despite efforts within the Central African Economic and Monetary Community (*Communauté Economique et Monétaire de l'Afrique Centrale,* CEMAC) zone to improve regional integration, trade performance for both countries remains among the lowest in the world.** CEMAC's[6] Vision 2025 sets the objective of making the subregion "an emerging and integrated economic space characterized by security, solidarity and good governance in the service of human development." However, despite an ambitious vision, regional integration in CEMAC remains shallow. Numerous obstacles to the free movement of people and goods remain,[7] including poor physical infrastructure, but also non-physical barriers and transit logistics inefficiencies exist. The World Bank's Logistics Performance Index (LPI) highlights the poor performance of Cameroon and Chad with regard to cross-border trade facilitation. Based on the aggregate LPI of the four last surveys (2012-2018), Cameroon ranked 125th (of 167

[1] World Bank and The Lake Chad Basin Commission.
[2] Ikusemoran, M., M. Alhaji, and B. Abdussalam. 2018. *Geospatial Assessments of the Shrinking Lake Chad.* Adamawa State University Journal of Scientific Research.
[3] Vivekananda, J., M. Wall, F. Sylvestre, C. Nagarajan, and O. Brown. 2019. *Shoring Up Stability: Addressing Climate and Fragility Risks in the Lake Chad Region*. Berlin: Adelphi Research. https://shoring-up-stability.org/wp-content/uploads/2019/06/Shoring-up-Stability.pdf.
[4] Masaki, Takaaki and Carlos Rodriguez-Castelán. 2021. *Socioeconomic Trends in the Lake Chad Region*. World Bank Group.
[5] https://www.africa.undp.org/content/rba/en/home/library/outreach-material/regional-stabilisation-facility-for-the-lake-chad-basin---fact-s.html
[6] CEMAC, which includes Cameroon, the Central African Republic, Chad, the Republic of Congo, Equatorial Guinea, and Gabon, was officially created in 1994. It covers an area of approximately 3 million km² and has a population of about 51 million. CEMAC's main long-term objective is to create a common market for goods, services, capital, and labor. CEMAC is itself included in the broader Economic Community of Central African States (*Communauté Economique des Etats d'Afrique Centrale,* CEEAC).
[7] World Bank. 2019. *CEMAC - Deepening Regional Integration to Advance Growth and Prosperity*.

countries) while Chad ranked 140th. This index assesses logistics performance every two years through several components, namely customs efficiency, quality of infrastructure and logistics services, tracking and tracing, as well as timeliness and price competitiveness of international shipments.

3. **Transit through Cameroon remains the most viable sea access for its two landlocked neighboring countries, Chad and the Central African Republic, despite high transport cost and time.** About 80 percent of the transit traffic in Central Africa takes place along the Douala-N'Djamena and Douala-Bangui corridors, which have a common section within Cameroon, between Douala and Ngaoundéré. In the last decade, 80 percent of goods in transit through Douala port were destined to Chad and about 79 percent of Chad's imports pass through the Port of Douala.[8] Some limited improvements in corridor performance have recently been observed. These are mostly the result of the ongoing road/rail improvement works, and the trade facilitation activities financed by IDA under the recently closed CEMAC Trade and Transit Facilitation Project (CEMAC TTFP; P079736) and the ongoing Multimodal Transport Project (MTP; P143801). Other development partners have also supported improvements to key intra-/inter-regional transport corridors. However, more efforts are needed to substantially reduce transport costs, which should result in lower transport prices. Transport costs along the main transit corridors to Chad and the Central African Republic remain indeed among the highest in Sub-Saharan Africa (SSA).[9,10] Some rail and road infrastructure sections along the corridors are still highly degraded, hampering the corridors' efficiency. Improving these links is identified as a strategic pillar of the CEMAC Program Regional Economic Program II 2017-2021 (*Programme Economique Régional, PER*) endorsed by all CEMAC Governments in October 2017.

Figure 1. Origin and Destination of Freight Transiting through the Port of Douala



Source: World Bank, based on data from Douala Port Authority. 2016.

[8] S2ITM (*Elaboration de la Stratégie intégrée des Infrastructures de Transport multimodal au Cameroun* - Elaboration of the Integrated Strategy of Multimodal Transport Infrastructures in Cameroon), fifth report, p. 204.

[9] Border compliance time to export/import in Cameroon: 202 hours/271 hours; in Chad: 106 hours/242 hours; in SSA: 97.1 hours/126.2 hours. Border compliance cost to export/import in Cameroon: US$983/ US$1407; in Chad: US$319/ US$965; in SSA: US$603.1/ US$690.6. Border compliance time and cost are computed using World Bank data collected through questionnaires and a methodology based on: Djankov, Simeon, et al. 2010. "Trading on Time." *The Review of Economics and Statistics* 92 (1): 166-173. The MIT Press.

[10] Sub-Saharan African Transport Policy Programme (SSATP). 2013. *Logistics Cost Study of Transport Corridors in Central and West Africa.*

4. **The Douala-Koutéré-Moundou-N'Djamena rail/road corridor has become the safest and most viable transit corridor for Chad to reach maritime shipping routes.** Between the Port of Douala and Ngaoundéré is one of the few functioning rail corridors in Africa which offers a safe, competitive and environmentally friendly alternative to road transport. It carries about 40 percent of the freight traffic, mostly hydrocarbon, food, building materials, and manufactured products such as 'uphill traffic' and logs, cotton, and raw material as 'downhill traffic'.[11] From the Ngaoundéré rail-to-road transshipment point onwards, road transporters have two options for reaching N'Djamena: (a) through northern Cameroon, crossing the border to Chad at Kousseri near N'Djamena, or (b) through the alternative road eastward through Moundou, crossing the border to Chad at Koutéré. The recent political and security context in the Far North of Cameroon has led to a shift of truckers to this second alternative route which in 2019 carried almost 375,000 tons of goods, while the traditional corridor through northern Cameroon carried only 20,000 tons.[12] Although some of its sections are highly degraded, the Douala-Koutéré–Moundou–N'Djamena corridor has therefore become the preferred and most viable access to the sea for Chad.[13]

5. **This economic corridor is strategic and important for both countries.** The corridor's 20-km wide area of influence is a significant generator of economic activity and is home to an important share of the population of both countries. It concentrates as much as 35 percent of the gross domestic product (GDP) for both countries, 20 percent of Chad's population, and 35 percent of Cameroon's population. In Cameroon, this corridor connects the two main economic basins of the country (Yaoundé and Douala) and links both basins to the north of the country. In Chad, this corridor road is the only year-round connection between the capital of N'Djamena and the "economic capital" of Moundou where most of the crucial economic activities of Chad take place: (a) major crude oil extraction from the reserves located north and east of Moundou in the Doba basin and (b) all the cotton processing taking place in the facilities owned by *CotonTchad* which are located in the southern part of the country.[14] This road is also the fuel supply route from the Djermaya oil refinery built 10 years ago near N'Djamena to the entire southern region of Chad.

6. **Improving the rail/road corridor between Chad and Cameroon is therefore essential for the competitiveness and improved integration of both countries into the regional market, and to alleviate Chad's isolation particularly in the Lake Chad area.** Among the nine pillars of the RSF's program, *governance through cross-border cooperation* and *socio-economic recovery through infrastructure for trade and integration* have been identified as key drivers for stabilization.[15] An integrated approach, involving investments in both the rail and road infrastructure along the corridor, and intervention on trade facilitation, has the potential to dramatically facilitate trade and economic exchanges between the two countries. A recent study has estimated that such an intervention could increase real national income by 2.8 percent in Cameroon, 3.7 percent in Chad and 4.8 percent for the whole Lake Chad region.[16] Building on and pursuing the objectives of the CEMAC TTFP, the proposed regional corridor project therefore seeks to improve the overall performance, efficiency, and safety of the Douala-Ngaoundéré-Koutéré-Moundou-N'Djamena rail/road corridor through a comprehensive long-term and sustainable approach.

[11] Detailed railway traffic composition is provided in Annex 2.
[12] Data provided by the National Land Freight Unit (*Bureau National du Fret Terrestre* BNFT) in Chad.
[13] An alternative corridor to connect N'Djamena to Port Sudan (Red Sea) is under rehabilitation and construction but is only at an early stage of implementation.
[14] During the 2014-2016 period, Chad was the fourth producer of cotton in Western African, as per the U.S Department of Agriculture Foreign Agricultural Service (USDA FAS).
[15] Lake Chad Basin Region, and African Union Commission. 2018. *Regional Strategy for the Stabilization, Recovery and Resilience of the Boko Haram-affected Areas of the Lake Chad Basin Region*. Abridged version.
[16] Lebrand, Mathilde. 2021. "Infrastructure and Structural Change in the Lake Chad Region." In *Lake Chad Regional Economic Memorandum: Development for Peace*. Washington, D.C.: The World Bank.

Cameroon Context

7. **Cameroon is a Central African lower-middle-income country located along the Atlantic Ocean.** It has a surface area of 475,440 km² and a population of almost 25.9 million inhabitants.[17] In the last decade, the population rose by 2.5 percent per year, with an average density of 56.2 persons per sq. km of land area, although with a much higher density in large urban centers (Douala, Yaoundé and Garoua) and in the western and northern regions.[18]

8. **Cameroon's situation remains volatile.** Despite a slight improvement following the violent riot crisis in 2008 (*Émeutes de la Faim*) thanks to successful political reforms coupled with general elections held in 2013, the political situation remains fragile with instability in the Far North near Lake Chad, armed secessionist movement in the Northwest and Southwest regions near the western border with Nigeria, and insecurity and inflow of refugees near the East and Adamawa regions near its border with the Central African Republic.

9. **Cameroon has weak social indicators and high levels of poverty**. Cameroon ranks 153 out of 189 countries on the Human Development Index (HDI) with an HDI value of 0.563 in 2019, falling into the lower end of the category 'Medium Human Development'. Disparities between women and men remain very high in terms of access to education, employment and participation in decision-making bodies. There is also widespread prevalence of gender-based violence (GBV) with rates of sexual violence higher in Cameroon (29 percent) than those in the broader SSA region (14 percent). Around 25.3 percent of the population (25 percent of women) live in extreme poverty, with less than US$1.90 per day (2018). Inequality levels are high; 13 percent of the national income is shared by the poorest 40 percent of the population, while 35 percent of the income is shared by the richest 10 percent[19] of the population. The Coronavirus Disease 2019 (COVID-19) crisis has reversed much of the progress in monetary poverty reduction achieved in recent years as it is estimated that the international poverty rate has increased by 0.82 percentage points between 2019 and 2020, the first time in more than a decade. Poverty projections suggest that the rate of extreme poverty will remain high (around 25 percent) as a result of job and income losses. The number of poor households will continue to increase, with an additional 166,000 people falling into extreme poverty in 2021. Poverty rates are expected to remain above pre-pandemic estimates until 2023.

10. **Cameroon's economic growth decelerated in 2020 due to the COVID-19 pandemic but has picked up since the beginning of 2021.** Real GDP growth decelerated to 0.5 percent in 2020, from 3.7 percent in 2019, due to lower activity in the primary and tertiary sectors on the supply side. In the tertiary sector, the COVID-19-related lockdown measures have significantly affected non-factor services, including catering and tourism. On the other hand, the industrial sector was resilient amidst the pandemic and was the main growth driver in 2020. The expansion of the construction, mining, and agri-processing industries has supported the performance of the secondary sector. Higher-than-expected oil and value-added tax revenues, coupled with a reprioritization of public spending, helped contain the fiscal deficit at 3.8 percent of GDP in 2020 (compared to 3.3 percent of GDP in 2019). Economic activity picked up in the third quarter of 2020 and has been sustained since then. While considerable uncertainty exists in the economic outlook, the economy is projected to rebound by 3.8 percent on average per year in 2021–2023, with the fiscal deficit narrowing to 2.8 percent of GDP by 2023. The latest World Bank-International Monetary Fund (IMF) Debt Sustainability Analysis (DSA) of July 2021 concluded that Cameroon remains at high risk of debt distress.

[17] United Nations World Population Prospects 2019.
[18] United Nations Population Division 2019.
[19] UNDP (United Nations Development Programme). 2020. *Human Development Report*.

11. **Cameroon is already experiencing climate change and high risks of natural disasters such as flooding of urban and rural areas, coastal flooding, landslides, extreme heat, and water scarcity**.[20] Cameroon has a humid and equatorial climate in the southern part of the country and a semi-arid dry climate in the North. Annual average temperatures have been increasing since the 1960s, with the North experiencing the most rapid temperature rise. Temperatures are projected to continue rising, with the rate of warming higher in the interior of the country than at the coast. Average annual precipitation has decreased by 2.9 mm per decade on average since the 1960s. Different climate model projections show a wide range of changes over Cameroon, with some projecting increases in average annual rainfall and others a decrease.[21] Overall, Cameroon is vulnerable to climate change and ranks 143 out of 182 on the Notre Dame Global Adaptation Initiative (ND-GAIN) 2019 Vulnerability Index, which measures a country's exposure, sensitivity, and ability to adapt to the negative impact of climate change.[22]

Chad Context

12. **Chad is a large landlocked country in Central Africa** covering an area of 1.284 000 km² with 16.2 million inhabitants. The rural population accounts for 76.7 percent of the total population.[23] People under 15 years of age account for 46.5 percent of the total population, the population growth rate is 3.0 percent per year, and average life expectancy is 50 years.[24] With an average density of 13.0 inhabitants per km²,[25] the population is unequally distributed over the national territory with the capital city, N'Djamena, concentrating 1.5 million inhabitants, while Moundou as the second largest city has a population of 150,000.

13. **Chad is a fragile, violence- and conflict-afflicted country marked by periods of instability**. Underscored by the 2021 Chad Risk and Resilience Assessment, the underlying drivers of fragility, conflict, and violence include geographical and social exclusion, lack of security and justice, and tension around access to resources. Since the first Boko Haram attack in Chad in 2015, violence has seen a dramatic rise, particularly in the border areas, with targeted and indiscriminate attacks on local authorities and leaders, security forces, and civilians within the Lake Chad region. Inter- and intra-communal conflict, notably between farmers and herders, is also on the rise particularly in the south and east. More recently, Chad has also faced political turmoil caused by the political crisis following the death of the President and the setting-up of a military transition government in April 2021. These multiple burdens have slowed the economic and social development of Chad.

14. **Chad is one of the poorest and most unequal countries in the world.** It ranks 187 out of 189 countries on the 2019 HDI, with a value of 0.398. Since 2010, its HDI has risen by 0.84 percent while the 'Low Human Development' category it falls into has seen an average increase of 1.04 percent during the same period. 44 percent of the Chadian people live in extreme poverty (less than US$1.9 per day) and the number of poor people is expected to grow in the coming years. In Chad, only 14.6 percent of the total national income is shared by the poorest 40 percent while the richest 10 percent share 32.4 percent of the income.[26] Chad ranks 168 out of 189 in terms of GDP per capita (current U.S. dollar) with US$710 per capita in 2019 (down from US$1,020 in 2014), but its GDP

[20] Think Hazard, consulted on February 17, 2021. URL: https://thinkhazard.org/en/report/45-cameroon.
[21] WBG Climate Knowledge Portal, consulted on February 17, 2021. URL: https://climateknowledgeportal.worldbank.org/country/cameroon/climate-data-historical.
[22] https://gain-new.crc.nd.edu/ranking/vulnerability.
[23] World Bank data, 2019.
[24] UNDP (United Nations Development Programme). 2020. *Human Development Report.*
[25] United Nations Population Division. 2019.
[26] UNDP (United Nations Development Programme). 2020. *Human Development Report*.

per capita growth rate rose again by 3.7 percent in 2019.[27] As in Cameroon, women in Chad are also most negatively affected by poverty, heavier workload, and limited access to basic services and markets. Women also continue to face high rates of GBV.

15. **Since Chad began oil production in 2003, the previously agrarian economy has become heavily dependent on oil**. Oil has become the main source for wealth creation during the 2000–2011 decade. The fall of crude oil prices since 2014, aggravated by the recent COVID-19 crisis, combined with the structural weaknesses of the Chadian economy, have led the country into recession.[28] Despite the oil dependence, agriculture remains the main source of employment, providing jobs for three Chadians out of four.

16. **COVID-19 has significantly affected Chad's economy through both external and internal factors.** Major external factors include (a) a reduction in oil prices and the ensuing reduction in export revenues; (b) contraction in demand for non-oil exports; and (c) reduced foreign direct investment inflows. Key domestic factors include the decline in economic activity stemming from COVID-19-related social distancing policies, border closures, and banking sector vulnerabilities. As a result of the global and domestic economic slowdown, real GDP contracted by 0.9 percent in 2020, compared with growth of 3.2 percent in 2019. This is a downward revision by more than 5 percentage points from the 4.8 percent projected before COVID-19. The COVID-19-induced economic downturn is also increasing widespread poverty and is worsening social conditions. The poverty rate is projected to increase by 1.3 percentage points, equating to an additional 200,000 Chadians being plunged into poverty. Almost two-thirds of Chadian households have experienced a decline in their total income because of the pandemic.

17. **Chad is also experiencing climate change and is exposed to high risks of natural disasters such as flooding, extreme heat, and water scarcity.** Chad has three climate zones, with an arid climate in the North, which is part of the Saharan Desert; a semi-arid climate in the Sahelian region of central Chad; and a tropical savannah climate in the South of the country. Average annual temperatures (recorded since 1960) are rising, and projections indicate a continued increase. No consistent trend has however been detected in mean annual rainfall since the 1960s and different projections exhibit a wide range in forecast changes of rainfall quantities. However, annual maximum 5-day rainfall (25-yr RL)[29] is projected to rise (RCP8.5, collection of model simulations). Overall, Chad is highly vulnerable to climate change and ranks 179 out of 182 on the ND-GAIN 2019 Vulnerability Index.[30] Climate change is exacerbating desertification, putting a strain on farming and livestock, which are the bases for livelihood for 80 percent of the population. The water surface of Lake Chad has shrunk from 25,000 km^2 in 1960 to 1,300 km^2 today.[31] Over the past 10 years, the Saharan and Sahelian zones advanced 150 km to the south, reducing farming and pasture areas and resulting in internal migration. This is reinforcing existing inequality and increasing the share of the vulnerable population. The struggle to access natural resources is contributing to social tensions and conflict.[32, 33, 34, 35]

[27] World Bank data, 2019.
[28] UNDP (United Nations Development Programme). 2020. *Human Development Report*.
[29] Maximum precipitation sum over any 5-day period that can be expected once in an average 25-year period.
[30] https://gain-new.crc.nd.edu/ranking/vulnerability
[31] Ikusemoran, M., M. Alhaji, and B. Abdussalam. 2018. *Geospatial Assessments of the Shrinking Lake Chad*. Adamawa State University Journal of Scientific Research.
[32] WBG Climate Knowledge Portal, consulted on February 17, 2021. URL: https://climateknowledgeportal.worldbank.org/country/chad/climate-data-projections.
[33] World Bank Country Overview: Chad, consulted on February 17, 2021. URL: https://www.worldbank.org/en/country/chad/overview.
[34] Chad Nationally Determined Contribution submitted to the United Nations Framework Convention on Climate Change (UNFCCC). 2015. URL: https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Chad%20First/INDC%20Chad_Official%20version_English.pdf.
[35] United Nations World Food Program, consulted on February 17, 2021. URL: https://www.wfp.org/countries/chad.

B. Sectoral and Institutional Context

Trade facilitation

18. **The trade and transit sector requires complex coordination among numerous institutions and stakeholders in both countries, with uneven capacities and commitments**. The main institutions involved are Customs, the Single Window for Foreign Trade in Cameroon (*Guichet Unique des Opérations du Commerce Exterieur,* GUCE)[36] in Cameroon, the Land Freight Management Unit (*Bureau de Gestion du Fret Terrestre,* BGFT) in Cameroon, the BNFT in Chad, Douala Port, and countries' line ministries. Under the CEMAC TTFP, the implementation of the new CEMAC transit regime aimed to improve transport sector performance and the fluidity of transit goods movements on the Douala-Bangui and Douala-N'Djamena corridors. The project started in all three participating countries (Cameroon, Chad, and the Central African Republic) but the objective was not achieved since the interconnection of the respective customs information systems which was a prior condition to the new transit regime was not fully implemented, although interconnection tests were successfully conducted between Cameroon and Chad customs. As detailed in Annex 4, the implementation of the CEMAC TTFP was hampered by three major factors: (a) growing political tensions in the area; (b) limited capacity and commitment of the three countries to effectively implement the planned trade facilitation measures; and (c) institutional weaknesses of the CEMAC Commission.

19. **The efficiency of the logistics chain along the Douala-N'Djamena rail/road corridor is negatively affected by operational, institutional and governance aspects.** The main bottlenecks identified are the need to (a) further simplify and improve customs procedures; (b) upgrade and scale-up the GUCE; (c) reduce the dwell time of cargo in the port; (d) professionalize transport actors; (e) improve the transport data management system; (f) improve the land freight management and allocation systems to become more transparent and efficient; (g) enhance the bilateral and national sector dialogue framework.

Railway subsector (Cameroon)

20. **The Cameroon railway sector plays a key economic and social role in serving the domestic needs, especially for northern Cameroon, and is also an essential part of the transit corridor to Chad.** The railway sector has an important role to play in improving the overall performance of the rail/road Douala-N'Djamena regional transport corridor. The Cameroon 1,100 km long railway links the Port of Douala with the railhead at Ngaoundéré. In 2014, before Chad's economic crisis, the private concessionaire in charge of Cameroon's railway operations (CAMRAIL) carried 1.8 million tons of goods and 1.7 million passengers.[37] CAMRAIL competes directly with many road transport operators in both domestic and international freight. In 2019, transport tariffs per container were approximately 40 percent lower by rail than by road. Competition between rail and road transport helps contain road transport prices and curb excess loads on the main road corridors, thereby increasing the useful lifespan of roads. Rail transport also has a positive impact on overall transport security and helps mitigate greenhouse gas (GHG) emissions as the railway sector offers a lower carbon alternative to road transport. The railway sector also offers a more reliable option for freight transport, especially in the rainy season.

[36] https://www.guichetunique.org/web/eguceportal/home.

[37] The freight traffic in 2019 was back at 1.6 million tons following Chad's slow recovery, but the passengers' volume was reduced by 60 percent since 2017 at 0.6 million passengers as the Eseka accident resulted in the cessation of all intercity services and reduced the availability of rolling stocks.

21. **The institutional organization of the railway sector is based on a concession agreement.** The privatization of the operation of Cameroon's railway became effective in 1999 when a concession contract was signed between the Government of Cameroon and CAMRAIL, a private company owned by the French group Bolloré Transport & Logistics. The concession agreement, amended twice and established until 2034, delineates roles and responsibilities between the concessionaire and the conceding authority.[38] The concessionaire notably operates and maintains the rolling stock and infrastructure, and also undertakes infrastructure investment and renewal projects under the supervision of the Government of Cameroon, through the Interministerial Committee for Railway Infrastructures (*Comité Interministériel des Infrastructures Ferroviaires,* COMIFER) which is chaired by the Minister of Transport. This role allocation justifies the choice of the concessionaire as the implementing entity for the railway rehabilitation under the proposed project as is the case under the ongoing MTP.

22. **The CAMRAIL concession has been considered as a rare successful example of a public-private partnership (PPP) in Africa's railway sector, but it faces challenges.** Since 1999, the concession resulted in (a) the modernization of 300 km of rail infrastructure and the upgrading of workshops for axles, bogies, and wagons to international standards; (b) a passenger traffic increase of 70 percent between 1999 and 2016 when the Eseka train accident occurred; (c) freight traffic increase of 50 percent during the same period; and (d) a sharp reduction by 92 percent in the number of annual derailments between 1999 and 2012. Since 1999 CAMRAIL has paid the Government an aggregated amount of US$272 million in concession fees, taxes, and import duties, which is a major turnaround from the situation before 1999, when annual operational losses (which had to be covered by the Government of Cameroon) oscillated between US$7 million and US$12 million. Nonetheless, the concession model faces several challenges: (a) criticism from the broader public, especially with regard to the performance and quality of passenger services, which was exacerbated following the train derailment in Eseka in 2016 and (b) criticism of the institutional framework and the Government of Cameroon's role as supervisor and regulator of the concession.

23. **Despite recent improvements,[39] the existing railway infrastructure requires track rehabilitation works and signaling system modernization.** The Cameroonian railway network is in poor condition overall, due to many sections of obsolete track, deteriorated bridges, and an outdated signaling system. Currently, 568 km of track, representing about 58 percent of the entire network, are under various speed restrictions. Consequently, the average operating speed is currently quite low, being limited on some sections to only 40 km/h or even 20 km/h. These speed reductions have a significant effect on reducing the transport capacity of the railway and on diminishing the quality of services provided. The first urgency is the rehabilitation of the track between Douala and Yaoundé, which is the section with the highest traffic and is vital for all rail traffic not only to / from Douala port, but also for future rail traffic on the planned rail link to be built to the deep seaport of Kribi. All rail traffic from and to neighboring countries needs to use the rail link between Douala and Yaoundé. The rehabilitation of this line will allow increasing its capacity and safety and accommodating the traffic forecast for the next 30 years. For long-term extensions, the Government of Cameroon adopted in 2012 a railway development plan (*Le Plan Directeur National des Chemins de Fer*) which aims at developing existing rail lines and building new lines at standard gauge to connect Cameroon with its neighboring countries and to connect, in the long term, Ngaoundéré to N'Djamena (ongoing studies financed by the African Development Bank [AfDB]).

24. **The railway corridor and namely the Douala-Yaoundé section will remain key for freight and passenger traffic even with a shift of port traffic to the new deep-sea port in Kribi.** As the Port of Douala faced several limitations

[38] A detailed assessment of the roles and responsibilities under the concession agreement is provided in Annex 2.
[39] The CEMAC TTFP and MTP financed the rehabilitation of (a) some railway sections between Batchenga and Ka'a and at the entries of Yaoundé and Douala and (b) some bridges.

and a constrained capacity, a deep-sea port was developed in Kribi where a container terminal became operational in 2018 and a multipurpose terminal started operating in 2020. Part of the port traffic will shift to the port of Kribi and as the new port is connected only by road, this might reduce the existing railway market share. The railway corridor and namely the Douala-Yaoundé railway section will however remain a critical railway artery for freight and passenger traffic as (a) Douala is the main economic city and will continue to be a major port in Cameroon even with the development of Kribi; the freight and passenger traffic between the two biggest cities and up to Ngaoundéré will therefore remain significant; (b) while there may be a shift of container traffic from Douala to Kribi, the oil terminal will remain in Douala in the short to mid-term and oil product represents the highest share of railway freight traffic; (c) the construction of the new railway line to connect Kribi to the existing railway line at Edéa (located 50 km from Douala), although not included in the proposed project scope is a priority for the Government of Cameroon;[40] the shared railway section; Edéa-Yaoundé, will therefore support increased traffic from/to Kribi and Douala; and (d) under the proposed project, the Government of Cameroon is considering a new rail/road platform at Edéa to ensure smooth loading/unloading for freight coming from/going to Kribi while the railway section between Edéa-Kribi is not constructed yet.

Road subsector (Chad)

25. **At the regional and national levels, the deficiencies of the road network contribute to isolating the country as a whole and several regions in particular, mostly rural areas**. Chad's nearest seaport is located at Douala, 1,800 km away from the capital city of N'Djamena. This results in costs for transit freight which are among the highest in SSA.[41] At the national level, the situation of domestic transport is aggravated by (a) the low density of population and its wide geographical dispersion and (b) the poor development of the road network. Chad's nominal road network consists of about 40,000 km of roads, of which 7,475 km are national roads. However, only about 2,600 km are considered permanently useable, while most roads are dry-season only and many roads are in fact unmaintained tracks. Only 6 percent of Chad's road network (2,500 km) is paved and about 12 percent (4,875 km) consists of unpaved gravel roads. Roads carry 95 percent of national and international trade. The poor road conditions mean that travel on most roads is slow and difficult in the rainy season, isolating many communities and limiting trade.[42] Costs and delays in the transportation of goods and people are 10 times higher than in developed countries.[43] This affects the price of products reaching local markets. Chad is one of the countries with the highest unmet needs in terms of road infrastructure. According to the 2021 country survey, transport is among the top factors that contribute to poverty reduction, with a significant increase from 6 percent in 2018 to 23 percent in 2021.[44]

26. **The road corridor N'Djamena-Moundou-Koutéré, Chad's main national and international transport corridor, is highly degraded.** It has a length of 595 km and connects the capital N'Djamena with Moundou, the second most important city in Chad. The road then continues to Koutéré at the border with Cameroon. The zone of influence of the corridor road encompasses more than 7 million people,[45] which represents almost half of the Chadian

[40] In July 2020 the Government of Cameroon set up an inter-ministerial committee with a view to recruiting an engineering firm to undertake the detailed technical studies for the railway connection between Edéa and Kribi.
[41] Cost to import (border + documentary compliance) in Chad/SSA: US$1,465/US$977.8.
[42] Paving the Way Out of Poverty: Expanding Chad's Transport Network. Islamic Development Bank. URL: *https://www.isdb.org/case-studies/paving-the-way-out-of-poverty-expanding-chads-transport-network.*
[43] World Bank. 2004. *Chad Trade and Transport Facilitation Audit*. http://documents1.worldbank.org/curated/ar/345051468017457955/pdf/477750WP0TD0Fa1Box0338860B01PUBLIC1.pdf.
[44] https://microdata.worldbank.org/index.php/catalog/4026.
[45] Detailed design's economic report of the road rehabilitation program between N'Djamena, Moundou and Koutere, EGIS/BIAC, p.13.

population. Given the security issues in the northern part of Cameroon, this transport route is the safest and most reliable, and is the only one to provide a permanent road connection between N'Djamena and the oil-producing and agricultural region around Moundou. As part of the CEMAC TTFP, the World Bank in coordination with other donors provided financing for the rehabilitation of the section Bongor-Eré-Kelo (131 km) and the maintenance of the Bongor-Moundou-Cameroon border section (364 km) under a first-generation Output- and Performance-based Road Contract (OPBRC). Unfortunately, the execution of that contract was suspended after a relatively short time as the Government of Chad failed to cover its agreed share (75 percent) of the contract price due to the drastic drop in oil revenues. Most of the corridor road sections are now either degraded or highly degraded. Additionally, climate change and particularly flooding, which is a recurrent[46] hazard in Chad accelerates the degradation of the road corridor.

27. **Truck overloading and inadequate axle load control has long been a major problem and has led to premature road deterioration in SSA and in Chad especially**. The main reasons currently hindering the efficient implementation of axle load control in Chad are: (a) the fact that overloading is a sensible strategy for trucking firms to increase revenues and profit; (b) the lack of human and financial resources in the administrations to enforce load restrictions; (c) truck drivers making extra income by accepting additional informal cargo enroute; and (d) lack of adequate maintenance of weighbridge equipment. Despite all those difficulties, there were times between 2002 and 2008 when the axle load control system in Chad did work quite well, with the support of the World Bank and other funding agencies. There is agreement between all parties that strong efforts must continue to have a functional axle load control system in place.

28. **Road accidents take a significant toll on the population and the economy**. Despite a low motorization rate in Chad (26 vehicles per 1,000 inhabitants), the road traffic death rate accounts for 27.6 deaths per year per 100,000 population in 2018, higher than the African average of 26.6 per 100,000 population.[47] Chad records an average of 2,698 deaths and 6,617 injuries per year due to traffic accidents. In addition to the psychosocial trauma suffered by victims, these road accidents cause an annual economic loss estimated at more than 1.2 percent of GDP.

29. **The Ministry for Infrastructure and Opening-Up (*Ministère des Infrastructures et du Désenclavement,* MID) is responsible for the entire road network through the General Directorate for Infrastructure and Transport (*Direction Générale des Infrastructure de Transport,* DGIT)**. The distribution of responsibilities between different government institutions has recently been updated. Created in 2010 and operational since 2012, the Road Maintenance Agency (*Agence Générale d'Entretien Routier,* AGER) is responsible for road maintenance of the primary network on behalf of the MID. The maintenance of the national and regional road networks is financed by the Road Maintenance Fund (*Fonds d'Entretien Routier,* FER) and its execution has been delegated by the MID to the AGER. Given the limited resources of the FER,[48] only a small part of Chad's road network is maintained.

C. Relevance to Higher Level Objectives

30. **The proposed project is aligned with the World Bank Group's (WBG) Africa Regional Integration and Cooperation Assistance Strategy (RICAS) Update (FY21–23) (Report No. 154458-AFR).** This program explicitly

[46] In 2020, according to the United Nations (UN), 120,000 people were displaced by flash floods caused by heavy rains across Chad, including 32,000 people in the capital city N'Djamena.
[47] WHO (World Health Organization). 2018. *Global Status Report on Road Safety*.
[48] About 1,710 km of roads are currently maintained annually of a network of 7,475 km of national roads. While the planning and programing of road maintenance programs is done appropriately, the problem lies with the insufficient level of funding.

stresses that (a) infrastructure deficits continue to cripple long-term competitiveness of African economies and (b) despite progress in provision of regional infrastructure, critical gaps remain, and progress has been uneven across sub-regions. Even when there have been improvements in regional road infrastructure, the positive impact on greater regional trade has not been fully realized due to a variety of non-tariff barriers and other market failures which exist in those corridors. This points to the need for paying greater attention to 'soft' policy reform issues, alongside filling gaps in 'hard' infrastructure. The RICAS Update aims to generate economic dynamism along regional economic corridors through: (a) improved functioning of regional corridors; (b) enhanced regional transport service markets; and (c) increased private sector leveraging for regional infrastructure.

31. **The project is aligned with the ongoing WBG's Country Partnership Frameworks (CPFs) for Cameroon and Chad.** The Cameroon CPF[49] for the period FY17–22 targets the engagement in the railway sector and notably the modernization of the Yaoundé-Douala railway line as a means to fostering Infrastructure and Private Sector Development (Focus Area 2). The Chad CPF[50] for the period FY16-21 also recognizes the importance of improving transport infrastructures and the regulatory environment for business, and building regional connectivity, as part of Objective 2.2 for "*Improved environment for private sector investment*."

32. **The project is aligned with the objectives of the Prevention and Resilience Allocations (PRA) in both countries**, namely in Chad with the strategic objective III "Increase access to basic social services and boost local development strategies, especially in rural, border, peripheral and conflict-affected areas" and in Cameroon with the strategic objective III "Building a more inclusive society through improved service delivery and access to opportunities" and the associated milestone "strengthening connectivity in/between conflict affected areas" of the Government under the action plan for the PRA.

33. **The project supports Cameroon's National and Sectorial Development Plans and its aspiration to become an emerging economy by 2035.** The project will support the *National Development Strategy 2020–2030 (NDS30*) towards the country's 'Vision 2035'. The NDS30 identifies inadequate infrastructure and an unfavorable business environment as the main factors impeding economic growth and employment creation. It recommends enhancing transport infrastructure to open up isolated regions and thereby enable the movement of goods to domestic and foreign markets, and to allow people to move and reduce transports costs. The proposed project will contribute to some of the key priority areas identified under NDS30, in particular the development of infrastructure in energy, telecoms and transport, and greater regional integration and trade. The project is also aligned with the 2012 Railway Development Plan (*Plan Directeur Ferroviaire National)* and the recently completed Cameroon Integrated Multimodal Transportation Infrastructure Strategy (*Elaboration de la Stratégie intégrée des Infrastructures de Transport multimodal au Cameroun* S2ITM; horizon 2035) financed under the MTP, which recommends, inter alia: rehabilitating and increasing the capacity of the rail network, developing logistic and multimodal platforms, moving toward electronic transit documentation, and facilitating cross-border trade and commerce.

34. **The project is also consistent with Chad's long-term NDS30, "The Chad We Want'' and its National Development Plan (*Plan National de Développement,* PND) 2017–2021** which have identified improvements in infrastructures (transport, energy, and communication) as a leverage for a diversified, inclusive, and sustainable economy.

35. **The proposed project is consistent with the WBG's approach to Maximize Finance for Development (MFD).** In Cameroon the proposed project will (a) leverage an estimated US$103 million Private Sector Capital Mobilization

[49] Country Partnership Framework for Cameroon for FY17-22 (Report No. 107896; March 28, 2017, extended to cover FY22).
[50] Country Partnership Framework for Chad for FY16-20 (Report No. 95277; December 22, 2015, extended to cover FY21)

from the railway concessionaire who shall continue financing, operating, and maintaining the rolling stock and maintaining the infrastructure and (b) finance transaction advisory services to support the Government in recruiting private sector operator(s) for new multimodal rail/road transfer platforms. In Chad, the chosen approach for road rehabilitation and maintenance is based on the contracting modality of long-term OPBRC. This approach transfers the construction quality risk to the construction firms who shall be liable (a) for the quality and durability of the road and (b) for the long-term (10-year) assurance of specified Service Levels, therefore leveraging private sector expertise and maximizing its contribution. From a longer-term perspective, this regional project is follows the MFD approach as it will make access to market more efficient and create economic opportunities along the corridor for small businesses.

36. **The proposed project is aligned with the WBG Next Generation Africa Climate Business Plan[51].** The proposed project will contribute to the Strategic Direction IV on Green Mobility by (a) improving the multimodal corridor toward Chad and facilitating a modal shift of freight from truck usage on roads to rail-based transport, therefore reducing GHG emissions for the transport of goods and (b) ensuring higher standards in infrastructure design and maintenance, for long-term sustainability and more climate resilience.

37. **The proposed project is aligned with the WBG COVID-19 response and the Green, Resilient and Inclusive Development (GRID) recovery**. The GRID approach identified investments in sustainable infrastructure (including transport systems) as key for a strong economic recovery and for creating jobs. The project will contribute to building back better a resilient and sustainable transport system, while creating short- and longer-term employment opportunities, notably in the labor-intensive construction industry. The project will also strengthen the security of the supply chain for landlocked Chad.

38. **The project will directly benefit from the outputs of the recently closed CEMAC TTFP** which sought to improve freight corridors in the CEMAC subregion and particularly in the Central African Republic, Cameroon and Chad. It will also build on achieved road safety results from the CEMAC TTFP and the Africa Road Safety Corridor Initiative.

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

The proposed project development objective (PDO) is to improve the efficiency and safety of regional trade transport along the Douala-N'Djamena intermodal corridor.

PDO Level Indicators

Improve efficiency of regional trade transport along the Douala-N'Djamena intermodal corridor

a. **Freight transit time from departing the Port of Douala to arriving in N'Djamena along the project intermodal corridor (days)**
   i. Rail transit time from departing the Port of Douala to arriving at the Ngaoundéré platform
   ii. Unloading and loading time at the Ngaoundéré platform
   iii. Road transport time from Ngaoundéré to N'Djamena
   iv. Customs clearance time at destination

[51] "World Bank. 2020. *The Next Generation Africa Climate Business Plan: Ramping Up Development-Centered Climate Action*. Washington, DC: World Bank. https://openknowledge.worldbank.org/handle/10986/34098 License: CC BY 3.0 IGO.

b. **Transport cost of one ton of freight along the project intermodal corridor (US$)**
   i. Rail transport costs for one ton of freight from departing the Port of Douala to arriving at the Ngaoundéré platform
   ii. Offloading cost for one ton of freight at the Ngaoundéré platform
   iii. Road transport operating costs for one ton of freight from Ngaoundéré to N'Djamena

Improve safety of regional trade transport along the Douala-N'Djamena intermodal corridor

c. **Reduction in the number of victims (casualties and/or hospitalizations) per vehicle-km reported on the project intermodal corridor (percentage)**
   i. Reduction in the number of casualties and hospitalizations per train-km reported on the rail section of the project corridor (Douala-Yaoundé)
   ii. Reduction in the number of casualties per vehicle-km reported on the road section of the project corridor

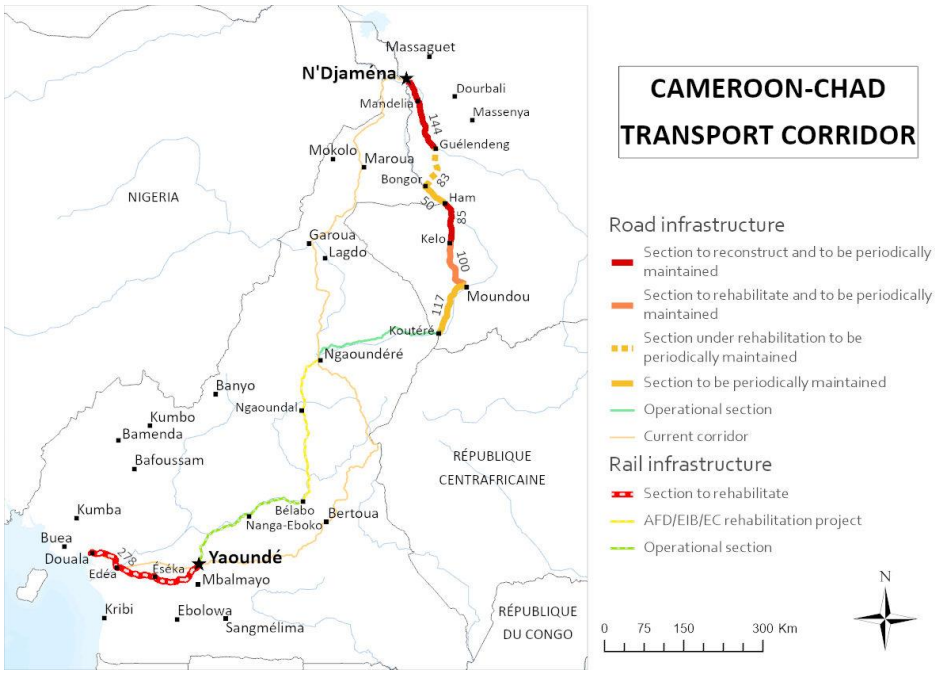
B. Project Components

39. **The proposed project will finance infrastructure improvements for several key sections of the Douala – N'Djamena transport corridor, contributing to the long-term full rehabilitation of the entire rail/road corridor**:
   - **In Cameroon**, the project will include (a) the rehabilitation of the railway infrastructure between Douala and Yaoundé; (b) the modernization of the signaling system along the entire line between Douala and Ngaoundéré; and (c) the rehabilitation of existing rail/road freight transfer platforms. The CEMAC TTFP has already rehabilitated some railway track sections (between Batchenga and Ka'a and at the entries to the cities of Yaoundé and Douala). In parallel, the French Development Agency (*Agence Française de Développement* AFD), the European Investment Bank (EIB), and the European Union (EU) are planning to finance in 2022 the rehabilitation of the railway section from Bélabo up to Ngaoundéré. Once these projects are completed, the whole existing railway line is expected to be in good condition, thereby increasing capacity, safety, speed, reliability, and efficiency of rail traffic and therefore improving the overall performance of the corridor to the benefits of Chad, Cameroon, and the Central African Republic. As the road section in Cameroon between Ngaoundéré and the Chad border at Koutéré is already fully operational and in good condition, the entire Cameroonian section of the corridor will therefore be fully rehabilitated.
   - **In Chad**, the proposed project will improve the entire road corridor between Koutéré, Moundou and N'Djamena of 595 km length through 10-year OPBRCs which will include major rehabilitation works for some sections, pavement strengthening for other sections, the maintenance of the entire road, and the operation of axle load control stations.

40. **The project will also finance "soft" activities to complement the infrastructure investments and will thereby improve the efficiency and safety of the intermodal corridor.** Trade facilitation activities will be included to implement necessary reforms and to remove some of the non-physical barriers in the trade between Chad and Cameroon, building on the achievements of the CEMAC TTFP. Road safety activities will also be included in both countries to improve the safety performance of the corridor.

41. **The proposed project is structured around five components:** (a) rail track rehabilitation between Douala and Yaoundé, signaling modernization and rehabilitation of bridges and railroad crossings; (b) rail/road transfer platform rehabilitation, railway capacity building and road safety activities in Cameroon; (c) road rehabilitation along the corridor N'Djamena-Moundou-Koutéré with performance-based road maintenance during 10 years and road safety activities; (d) trade facilitation activities and project operating support; and (e) Contingent Emergency Response (CERC).

Figure 2. Project Scope



Source: World Bank.

Component 1: Douala-Yaoundé rail track rehabilitation and railway signaling modernization (total estimated cost: US$ 368.00 million equivalent, of which US$265.00 million equivalent financed through an IDA credit to Cameroon and US$103.00 million equivalent through private capital mobilization (PCM))

42. This component is specific to Cameroon and will be implemented by the CAMRAIL concessionaire under the existing concession agreement. It will finance associated works, services, and goods for the following subcomponents:

43. *1.1: Rail track rehabilitation between Douala and Yaoundé.* This subcomponent consists of the rehabilitation of about 238 km of the Douala-Yaoundé rail track aimed to make the rail line more efficient and climate resilient. It will finance (a) the rehabilitation of rail tracks, bridges, tunnels, stations and railroad crossings, and the provision of the equipment required therefore; (b) related consultant services for detailed technical design and supervision of the rehabilitation works; and (c) in-house costs of the concessionaire CAMRAIL that are directly associated with the implementation of this subcomponent.

44. The railway section between Douala and Yaoundé is by far the most trafficked section of the whole rail network but is highly degraded. Rehabilitating the rail track, bridges, and railroads crossings will (a) increase the transport capacity of the line; (b) eliminate the current speed restrictions; and (c) greatly improve traffic safety, reliability and speed. The detailed design of the rehabilitation works needed to sustain rail traffic for the next 30 years has been carried out as part of project preparation.

45. *1.2: Signaling system modernization.* This subcomponent will finance modernization of the signaling system for the entire railway line, including (a) rehabilitation of radio-telecom channels; (b) replacement or upgrading of on-

board signaling systems with centralized control; (c) replacement of signaling equipment at stations; (d) mechanization of selected switches; and (e) modernization and automatization of selected railroad crossings.

46. A strategy for modernizing the signaling system was approved by COMIFER and its implementation started in 2018. First steps which include mechanizing switches and rehabilitating radio-telecom channels are being completed under the ongoing MTP which will close on November 30, 2022. The proposed project will implement the last and final steps of the strategy.

47. *1.3: Safeguard measures implementation.* This subcomponent will finance the implementation of the social and environmental safeguard instruments including, *inter alia*, (a) carrying out of GBV prevention programs and related social aspects, through the hiring of nongovernmental organizations (NGOs) for the supervision of grievance redress mechanisms (GRMs), delivery of awareness campaigns notably on the safety dangers of railway circulation, and related activities for promotion of women's employment among CAMRAIL's staff; (b) a program for the safe management and disposal of creosote-treated sleepers (CTS) removed during track rehabilitation; and (c) the implementation of relevant COVID-19 and other health-related protocols.

Component 2: Rail/road connections investments, railway capacity building and road safety (total estimated cost: US$24.10 million equivalent, to be fully financed through an IDA credit to Cameroon)

48. This component is specific to Cameroon and will be implemented by the new Project Implementing Unit (PIU) within the Cameroon Ministry of Transport (*Ministère des Transports* MINT). It will include activities aimed at improving the management of the intermodal corridor within Cameroon for increased efficiency and safety, including (a) improving the efficiency of interface infrastructures between road and rail; (b) building human capacity in the railway sector for strengthened governance and supervision; and (c) strengthening road safety through the improvement of the regulatory framework and human capacity building. This component will finance associated works, services, and goods for the following subcomponents:

49. *2.1: Improving the efficiency of rail/road modal transfer facilities.* The recently completed S2ITM, which was developed under the ongoing MTP, included an in-depth assessment of all multimodal transport infrastructures in Cameroon. It identified gaps, opportunities, and weaknesses and was the basis for the development of a comprehensive multimodal strategy in view of an integrated, efficient and cost-effective transport network in line with the NDS30. This study identified the need for (a) the rehabilitation and improvement of existing rail/road platforms in Ngaoundéré and Belabo including their potential transformation into dry ports; (b) the development in the medium and long term of new modal transfer platforms that should be built, operated and maintained by private sector operators under balanced PPP arrangements;[52] and (c) the update of the outdated Railway Master Plan (*Plan Directeur Ferroviaire National 2012*) based on an up-to-date traffic forecast.

50. This subcomponent will therefore finance (a) the updating of the Railway Master Plan and the preparation of the related Strategic Environmental and Social Assessment (SESA); (b) the rehabilitation of rail/road modal transfer platforms at Ngaoundéré and, if determined, Bélabo; and (c) the carrying out of general studies, PPP structuring, and advisory services with the aim of recruiting private sector operators that could design, build, operate, and maintain new rail/road modal transfer platforms through a design-build-operate-maintain scheme. The rehabilitation, operation, and maintenance of the platforms is critical to make modal shift from road to rail efficient and effective and consequently to reduce GHG emissions.

[52] A study financed under the Project Preparation Advance is ongoing to assess potential locations for these new platforms.

51. *2.2: Railway sector institutional strengthening.* The Government of Cameroon has committed itself to increase involvement of the State in the railway sector through COMIFER, through a reform of the regulatory framework for the railway sector and through long-term human capital development.

52. This subcomponent will therefore finance (a) the provision of technical assistance (TA) required for capacity building and institutional strengthening with a strong focus on reinforcement of expertise to the benefits of institutional entities in charge of supervising railway activities under the concession agreement (COMIFER), the General Directorate for Railway at MINT and the PIU-MINT, and covering among others, a study to provide recommendations for increased safety of railway operations, any amendment to the Concession Agreement and the definition and implementation of a railway sector reform and (b) graduate training programs development within existing engineering schools to develop human capital and skills in the railway sector in Cameroon and other countries in Western and Central Africa.

53. *2.3: Road safety capacity building.* This subcomponent will finance road safety capacity building activities for which the need was identified as part of the *2018 Evaluation of Road Safety Performance in Cameroon* and the *2019–2023 Cameroon Road Safety Strategy.* The planned activities include (a) the operationalization of road crash and accident data collection; (b) training and capacity building for road safety actors; (c) supply of road traffic control equipment; (d) implementation of activities identified in the National Road Safety Communication Strategy; (e) provision of emergency medical kits to public health facilities along the corridor; and (f) development of standardized procedure manuals for the vehicle inspection and approval processes.

Component 3: Road reconstruction, maintenance and safety improvements (total estimated cost: US$389.00 million equivalent, of which US$214.00 million equivalent financed through an IDA grant to Chad, US$130.00 million financed by EIB, US$45.00 million financed by European Development Fund (EDF))

54. This component is specific to Chad. It will finance associated works, services and goods for the following subcomponents:

55. *3.1: N'Djamena-Moundou-Koutéré road corridor rehabilitation and maintenance program*. The N'Djamena-Moundou-Koutéré road corridor is to be rehabilitated and maintained under 10-year OPBRCs.[53] This subcomponent will therefore finance: (a) the rehabilitation and partial upgrading of all deteriorated sections of the corridor road as well as the performance-based maintenance of the entire corridor road, through two 10-year OPBRCs and (b) the monitoring of compliance by the contractors with the technical, performance, and environmental/social criteria established in the OPBRCs, as well as technical and social audits.

56. The road corridor will be divided into two sections (or lots) to be covered by separate OPBRCs that will also include the operation and maintenance of the axle load control stations. This allotment will significantly increase the number of potential qualified bidders for the contracts and therefore competition between bidders. Bidders will be able to bid for one lot only, or for both lots if they have sufficient technical and financial capacity. A detailed description of this allotment is provided in Annex 3.

57. The total cost of the two 10-year OPBRCs for the entire corridor road of 595 km length is US$380 million. This amount includes rehabilitation and maintenance under the OPBRCs, and 6 percent and 4 percent of additional

[53] Box 3.1 in Annex 3 presents more details on the OPBRC concept.

amounts for supervision costs and contingencies, respectively. This will be jointly co-financed by an IDA grant and a blending of an EIB loan and EU grant.

58. A climate vulnerability assessment for the road corridor was carried out. It identified the necessary measures to enhance the road's climate resilience. These were embedded in the design and maintenance requirements and include the required strengthening and capacity enhancement of drainage structures, and the introduction of additional culverts. The road design will also include various types of physical improvements to improve road safety, following the implementation of a comprehensive road safety assessment of road conditions.

59. The OPBRC contracting method has been chosen following a careful assessment of (a) the benefits of this approach compared to traditional contractual arrangements, to ensure long-term infrastructure sustainability; (b) the applicability of OPBRCs in an FCS country such as Chad; (c) the experience of Chad with first-generation OPBRCs; and (d) private sector capacity in Chad's road sector. Details of this assessment are provided in Annex 3.

60. *3.2: Axle load control stations upgrading.* There are currently five weighing stations[54] along the road corridor to ensure enforcement of legal axle load limits, out of which four are operational. This subcomponent will finance repairs and improvements to axle load control stations, in terms of civil works and equipment: (a) relocation of the station at Walia to Kournarim; (b) construction of a new weighing station in Ngueli; (c) provision of new axle scales for six stations; and (d) standardization of the older weighing stations at Koumra and Moundou.

61. *3.3: Road safety capacity building activities*. In addition to road safety measures embedded in the infrastructure design, this component will include road safety capacity building activities. These will be part of a comprehensive 2019-2023 Chad Road Safety Strategy including (a) improved data collection; (b) training of drivers and road safety management personnel; (c) audit and reform of the technical inspection and control system for vehicles; (d) control and enforcement measures; (e) provision of TA for the National Agency in Charge of Road Safety (*Office National de la Sécurité Routière,* ONASER); and (f) dissemination of the new highway code through the media.

62. *3.4: Safeguard measures implementation*. This subcomponent will finance implementation of safeguard and social measures including, *inter alia*: (a) carrying out of GBV prevention programs and related social aspects, through the hiring of NGOs for GRM supervision, delivery of awareness campaigns, and related activities to attract women to, and promote, women's employment in the road infrastructure construction and maintenance sector; (b) costs linked to the resettlement measures identified in the Resettlement Action Plan (RAP) through the financing of resettlement costs; and (c) the implementation of relevant COVID-19 and other health-related protocols.

Component 4: Trade facilitation and project implementation support (total estimated cost: US$34.90 million equivalent, of which US$23.90 million financed through an IDA credit to Cameroon and US$11.00 million fully finance by an IDA grant to Chad)

63. As the CEMAC TTFP implementation was affected by several shortcomings, various challenges remain with regard to trade facilitation, which all stakeholders from Chad and Cameroon jointly assessed during a workshop held in Ngaoundéré in January 2020 and during the virtual pre-evaluation mission for the project that took place in December 2020. However, the proposed project does not aim to simply resume all those activities of the CEMAC TTFP which were left incomplete. Instead, only those which are still considered relevant and critical to facilitate transit and trade, modernize the customs and transport sectors in both countries, and have a high likelihood of

[54] Walia, Guelendeng, Kelo, Moundou and Koumra.

improving the efficiency and performance of the transit chain will be implemented. The major bottlenecks were therefore identified following a thorough assessment, and the activities listed below will be supported by the project. More details are provided in Annex 4. This component will therefore finance associated works, services and goods for the following subcomponents:

64. *4.1: Supporting the modernization of customs administrations in Chad and Cameroon with a view to improving the efficiency of customs operations through the interconnection of customs information systems; and development of the professionalization of customs staff, brokers, and services users*. This subcomponent will finance activities for (a) the provision of TA and equipment required for the interconnection of Cameroon and Chad customs' information systems and the alignment of customs procedures to facilitate bilateral trade through Douala-N'Djamena Corridor;[55] (b) the establishment of an accreditation system for freight forwarders and customs brokers active in processing transit procedures shipments on the Douala-N'Djamena corridor; (c) the improvement of the traceability and speed of the movement of goods in transit on the rail/road Douala-N'Djamena corridor; and (d) TA or capacity building to reduce customs clearance procedures time in Douala and in N'Djamena.

65. *4.2: Supporting the modernization of the transport sector and the professionalization of public and private sector actors involved in transit, transport, and logistics operations.* This subcomponent will finance activities to (a) strengthen the technical capacity of the public sector administration (ministries and government agencies) involved in transit, transport, and logistics services in Cameroon and Chad; (b) improve physical conditions in the Douala port related to accessibility, efficiency, and security; (c) improve efficiency and transparency of the land freight management and allocation systems in Cameroon and Chad; and (d) provide capacity building for the transport and logistics service providers to help them comply with higher quality professional standards in Cameroon and Chad.

66. *4.3: Supporting the dematerialization program of Douala Single Window to expand its services across Cameroon.* This subcomponent will finance activities for (a) the functional extension of the e-GUCE platform for the production of external trade performance indicators, strengthening the security and availability of the e-GUCE platform, and improving e-GUCE capacity through technological upgrade; (b) the integration and development of online assistance solutions to e-GUCE users, and the development of instruments aimed to continuously build the capacity of GUCE users; and (c) capacity building through the provision of training of GUCE technical teams and users.

67. *4.4: Institutional strengthening and capacity building, supporting bilateral dialogue on trade facilitation.* This subcomponent will finance activities to (a) strengthen the transport sector planning capacity and project monitoring and evaluation (M&E); (b) support communication campaigns on transport and customs procedures reforms; and (c) support national and/or bilateral consultations on transport and transit facilitation issues.

68. *4.5: Project management.* This subcomponent will finance operating costs for the PIUs in Chad and Cameroon within the respective Ministries of Transport, including costs associated with staff, office, and communication equipment, and consulting services for fiduciary support and environmental and social (E&S) monitoring.

[55] The United Nations Conference on Trade and Development (UNCTAD) will provide key TA in both countries, thereby ensuring a consistent approach and implementation.

69. In addition to these activities, further capacity building or TA can be provided during the 10-year project implementation period to accommodate for evolving needs in the improvement of trade facilitation.

Component 5: Contingent Emergency Response (CERC)

70. In the event of an eligible crisis or emergency, to provide immediate and effective response to it, each 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

71. *Public sector financing.* Out of US$816.00 million project total cost, US$713.00 million are to be funded from public sources as follows: (a) an IDA credit to Cameroon of US$313.00 million equivalent (US$209.00 million Regional IDA and US$104.00 million National IDA); (b) an IDA grant to Chad of US$225.00 million equivalent (US$150.00 million Regional IDA and US$75.00 million National IDA); and (c) EIB and EU will provide a total of US$175.00 million equivalent as joint co-financing for road rehabilitation works to be carried out along the Chad road corridor under the two OPBRCs.[56] The resettlement costs estimated under the RAP in Chad is US$0.8 million equivalent. The Government of Chad requested that IDA allow grants to be used to finance the implementation of the RAP, including resettlement compensation in cash and assistance for both physical and economic displacement that is expected as the result of the execution of the civil works under Component 3. The World Bank regional management approved this request on October 22, 2021. The project costs are summarized in Table 1.

72. *EIB/EU co-financing modalities*. EIB/EU co-financing modalities have been agreed at senior management level. Cost recovery scheme as required under Paragraph 5 of Operational Policy OP 14.20 on "Co-financing" have been waived for EIB co-financing for FY22 by decision dated November 22, 2021. A Principle of Collaboration with the EIB is being prepared which includes delegation of procurement to the World Bank on the co-financed OPBRCs and sets the principles of coordination and information sharing amount teams during supervision on other policies which are not delegated. In addition, the EIB will provide a Euro 4 million EIB-executed grant (US$4.54 million equivalent) to support both World Bank and EIB supervision through the hiring of local consultants to monitor works execution, E&S and fiduciary compliances.

73. *Private sector capital mobilization.* The railway concessionaire will continue to finance, operate, and maintain the rolling stock and will also continue to carry out the maintenance of the infrastructure. Over the period 2021–2034, the concessionaire is expected to spend US$220.00 million to procure rolling stocks (locomotives and wagons) and to carry out track maintenance works as part of the overall rehabilitation program *Plan Quinquennal 2* (PQ2) that also includes the EIB- and AFD-financed rehabilitation of the rail tracks between Bélabo and Ngaoundéré in addition to the proposed project. As the proposed project cost represents 47 percent of the PQ2 amount, a total of US$103.00 million can therefore be attributable to the proposed project as Private Capital Mobilization.

[56] EIB loan and EU grant approvals are expected in the first semester of 2022.

Table 1. Indicative Costs and Financing (US$, millions)

Project Components	Costs (US$, millions)	Cameroon		Chad		
		IDA Credit	PCM	IDA grant	BEI	UE
Component 1: Douala-Yaoundé rail tracks rehabilitation and railway signaling modernization	**368.00**	**265.00**	**103.00**	**0.00**	**0.00**	**0.00**
1.1. Railtrack rehabilitation between Douala and Yaoundé	233.00	233.00		-	-	-
1.2. Signaling system modernization	28.00	28.00		-	-	-
1.3. Safeguard measures implementation	4.00	4.00		-	-	-
Component 2: Rail/road connections, railway capacity building and road safety	**24.10**	**24.10**	**0.00**	**0.00**	**0.00**	**0.00**
2.1 Improving the efficiency of the rail/road interface						
Existing rail/road platforms rehabilitation (Bélabo/Ngaoundéré)	9.60	9.60		-	-	-
General studies and transaction advisory services for new rail/road platforms	3.60	3.60		-	-	-
Update of the general railway strategy plan	1.20	1.20		-	-	-
2.2 Railway sector institutional strengthening						
TA and institutional strengthening for railway sector	1.20	1.20		-	-	-
Setting up of a graduate program in the railway sector	3.00	3.00		-	-	-
2.3 Road Safety capacity building	5.50	5.50		-	-	-
Component 3: Road reconstruction, maintenance and safety improvements	**389.00**	**0.00**	**0.00**	**214.00**	**130.00**	**45.00**
3.1. N'Djamena-Moundou-Koutéré road corridor rehabilitation and maintenance program	380.00	-		205.00	130.00	45.00
3.2. Axle load control stations upgrading	4.00	-		4.00	-	-
3.3. Road safety capacity building	3.50	-		3.50	-	-
3.4. Safeguard measures	1.50	-		0.70	-	-
(of which provision for resettlement compensation)	(0.80)	-		(0.80)	-	-
Component 4: Trade facilitation and project implementation support	**34.90**	**23.90**	**0.00**	**11.00**	**0.00**	**0.00**
4.1. Supporting the modernization of Customs administrations in Chad and Cameroon	7.00	4.30		2.70	-	-
4.2. Supporting the modernization of the transport sector and the professionalization of actors	12.80	9.80		3.00	-	-
4.3. Supporting the dematerialization program of Douala Single Window	2.20	2.20		0.00	-	-
4.4. Institutional strengthening, capacity building, supporting bilateral dialogue on trade facilitation	0.70	0.40		0.30	-	-
4.5 Project management	12.20	7.20		5.00	-	-
Component 5: CERC	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Base cost total (US$, millions)	**816.00**	**313.00**	**103.00**	**225.00**	**130.00**	**45.00**

74. *Project duration.* A project duration of 10 years has been deemed necessary to meet the duration of the OPBRCs and ensure successful implementation of regional integration trade facilitation activities. One of the main advantages of the OPBRC is the transfer of the construction quality risk to the construction firm which shall be liable, during the entire contract period, for the quality and durability of the road. To achieve this, it is necessary to align the contract duration with the expected life span of the pavement, which in the case of paved roads is typically 10 years, to make the contractor accountable. Besides infrastructures rehabilitation and maintenance, the reform agenda and the trade facilitation activities, which are regional by nature, will continue in both countries for the whole 10-year duration of the project, justifying that both loans have the same 10-year duration.

D. Project Beneficiaries

75. **The main project beneficiaries will be the population in the area of influence of the corridor in both countries, including women, the young, and vulnerable groups.** They will benefit both directly and indirectly from improved transport performance and safety, reduced transport costs, and increased access to markets. It is expected that in the medium term, the population living in the project's area of influence will benefit from reduced economic and social isolation and will therefore become less vulnerable to economic and external shocks. The populations living in the catchment area of the corridor, defined as the area within 20 km from the road or railway (see map in Figure 3) is estimated at 12 million people and account for 35 percent of GDP of both Chad and Cameroon (Table 2). However, the project is also expected to bring higher level socio-economic benefits to a larger area in both countries. The project will bring positive change in almost every region of Cameroon and Chad. In particular, the region around Lake Chad is expected to experience a 4.8 percent increase in welfare (real income) as a result of the infrastructure investments and trade facilitation measures foreseen under the project.[57]

Table 2. Population in the 20-km Radius Catchment Area of the Corridor

	Population in the catchment area[58]	Corresponding GDP[59]
Chad	3.1 million (20 percent of the national population)	US$2.0 billion (35 percent of national GDP)
Cameroon	8.8 million (35 percent of the national population)	US$9.1 billion (35 percent of national GDP)

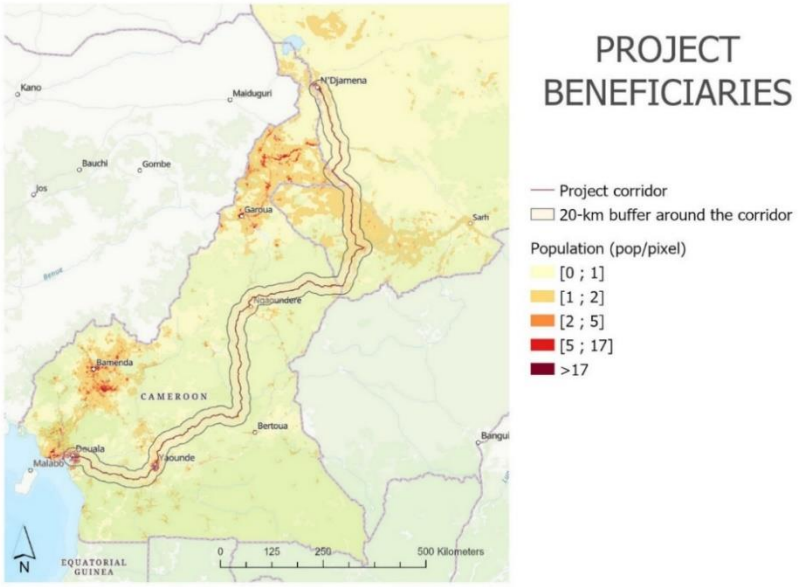
76. **Local consumers and producers of goods in the two countries and the transport sector services community will benefit from improved trade efficiency and safety along the corridor.** The main expected benefits of the project include (a) reduced transport time and cost along the corridor; (b) increased cross-border trade between the two countries through a more reliable trade corridor; and (c) development of growth poles in the vicinity of the corridor. In the long term, the population of landlocked Chad will benefit from reduced economic isolation as a result of improved reliability of transport along the corridor, the expansion of the regional market, and better access to global markets. Firms and producers in the region will also benefit from improved connectivity and better access to production basins, regional markets, and global markets. The project will therefore improve a conducive business environment and enable long-term MFD.

[57] Lebrand, Mathilde. 2021. "Infrastructure and structural change in the Lake Chad region". In *Lake Chad Regional Economic Memorandum: Development for Peace*. Washington, D.C: The World Bank. Annex 6 provides mores details.
[58] WorldPop and World Bank data (2020).
[59] World Bank data (2010).

77. **The project contributes to climate mitigation and to climate resilience of the transport network by rehabilitating the corridor's road and rail sections to climate-resilient standards and by promoting a modal shift from road to rail transport for goods.** In accordance with climate-resilience standards, additional infrastructure elements will be added to the infrastructure works to enhance resilience to flooding, such as new bridges and improved drainage systems. By improving performance of railway transport and rail/road connections on the Douala-Ngaoundéré railway, the system will promote a modal shift to railway-based transport, which is a cleaner alternative to road-based transport. The project is therefore expected to result in a net reduction of pollution and GHG emissions.

78. **The project will also benefit the transport and trade sector by building capacity.** The project will finance capacity building activities to reinforce technical capacity in the transport and trade sector, professionalize the truck and trade industries in both countries, and professionalize the railway industry in Cameroon. These activities also aim at strengthening governance and government supervision and providing long-term capacity building in the railway sector in Cameroon.

Figure 3. Project Beneficiaries as Populations Living in the Catchment Area



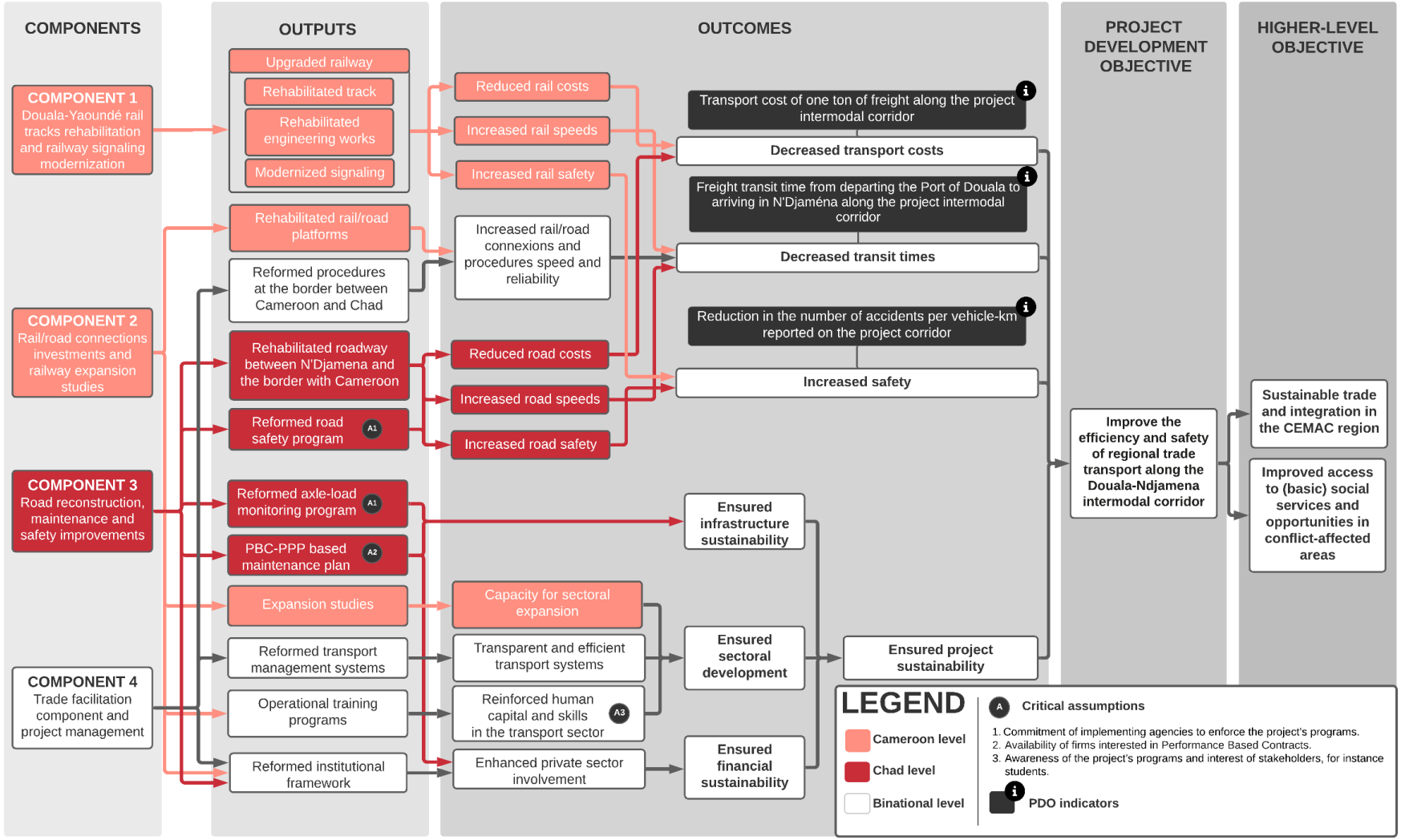
Source: World Bank, based on population data from WorldPop.

E. Results Chain

79. **The overall theory of change is represented in Figure 4.** The project's activities will result in various outputs such as rehabilitated infrastructures, a framework for their maintenance, and modernized procedures. This will not only improve the corridor's efficiency and increase its safety, but also ensure that the project's impacts relative to these dimensions are sustained over time.

80. The proposed PDO is to improve the efficiency and safety of regional trade transport along the Douala-N'Djamena intermodal corridor. Meeting this objective is in turn expected to contribute to higher-level objectives, starting with securing sustainable trade between Cameroon and Chad, which will then allow an improved integration of both countries into the CEMAC region and market and therefore foster their economic development.

Figure 4. Theory of Change



F. Rationale for World Bank Involvement and Role of Partners

81. **The World Bank is well positioned to support railway sector development in Cameroon.** The World Bank has been engaged in the railway sector in Cameroon since the 1970s.[60] It was involved in the creation of the railway concession in 1999 and has since continued to contribute to the development of the sector through different operations (MTP, CEMAC TTFP, and so on) which provided TA and investments to improve railway efficiency and safety. To encourage the commercialization of rail transport and to reduce the burden on government finances, several countries concessioned their rail system from the 1990s onwards with the support of the World Bank.[61] Some of these concessions, as the one in Cameroon, were successful in stabilizing, or even increasing, traffic volumes. In recent years, many governments in Africa have therefore displayed renewed interest in rehabilitating and upgrading their railways, or in constructing new ones. The World Bank has recently conducted a full analysis to provide a sustainable framework for modern railway services in Africa (P172695) that guided the project design in terms of (a) market development; (b) good governance; and (c) adequate funding. A specific analysis to support the preparation of the proposed project has also been financed by the Global Infrastructure Facility (GIF) and the Public-Private Infrastructure Advisory Facility (PPIAF) to (a) assess the performance of the current concession agreement between the Government of Cameroon and CAMRAIL; (b) define a new institutional framework including the potential creation of the *Société de Patrimoine;* and (c) evaluate different PPP options for the future extension of the network. The results of this study were shared with the Government of Cameroon and CAMRAIL during a workshop in July 2021.

82. **The World Bank is well positioned to support the Government of Chad's transport sector strategy.** Chad has already gained considerable experience in carrying out OPBRCs, strengthening transport sector infrastructure, responding to natural disasters, and building resilience against natural disasters. The World Bank's continued engagement in Chad's transport sector adds value through several channels including: (a) bringing global experience and innovation related to road infrastructure investments and associated TA, and in particular for continuing the support of long-term OPBRCs; (b) participating in sector-related donor coordination; (c) helping Chad address E&S safeguards issues; and (d) applying international good practice for building climate resilience into the design of road infrastructure.

83. **The proposed project will harness financing from the EIB and the EU through joint co-financing.** The Government of Chad is in the process of securing co-financing for the proposed project from the EIB and the EU, totaling US$175.00 million equivalent.[62] The AFD, EU, and EIB are also involved in the rehabilitation of the rail section between Bélabo and Ngaoundéré. This coordination with other donors will allow the full rehabilitation of the entire corridor between Douala and N'Djamena, achieving the PDO objective in a consistent way.

G. Lessons Learned and Reflected in the Project Design

84. **Transport corridor projects should embed both hard investment and soft reforms to maximize impacts.** The project design benefits from the lessons learned from ongoing and past projects in the region and the World Bank's strategy for regional integration in Africa, to provide an innovative combination of World Bank instruments.

[60] The Government of Cameroon and the state-owned *Regie des Chemins de Fer du Cameroun* (Regifercam) had asked the World Bank to assist in financing a railway rehabilitation and modernization project consisting of the works on existing lines included in the first three years (1970/71 - 1972/73) of the Third Railway Development Plan (1970/71 -1975/76).

[61] Bullock, R. G. 2005. "Results of railway privatization in Africa." World Bank document.

[62] When the co-financing materializes, EIB will provide a Euro 4 million EIB-executed grant (US$4.54 million equivalent) to support both World Bank and EIB supervision through the hiring of local consultants to monitor works execution, E&S, fiduciary compliances.

Indeed, the World Bank's wealth of experience shows that infrastructure investment, especially on a regional corridor, is more effective when combined with soft regulatory measures, namely trucking industry reforms, trade facilitation, and axle load control.

85. **SSA railway concessions in the past generally required concessionaires to make substantial commitments to rehabilitate and renew infrastructure.** Several of these concessions have run into problems because of their inability to generate sufficient revenue to actually make the agreed investments and had to be renegotiated. The lesson learned is that for railways with low traffic density, the Government should be expected to fund infrastructure investment, either in whole or in part. Several concessions that originally required all infrastructure investment to be funded by the private sector have been restructured to shift funding to the government, as done in Cameroon through the 2005 amendment of the concession. In the case of Cameroon, CAMRAIL will retain full operational responsibilities including for the implementation of infrastructure investments (supervision of rehabilitation works, maintenance, and operation) as it has proven successful during previous operations. More details on context are presented in Annex 2.

86. **Combining rehabilitation and maintenance activities under long-term OPBRCs is essential to ensure the sustainability of road investments and their resilience to climate change.** The choice of the OPBRC contracting modality is driven by the problems experienced in Chad and in other countries with ensuring the longevity of roads built under traditional works contracts. Under traditional contracts, the contractor in charge of road rehabilitation cannot be held accountable for good and solid road conditions beyond the one-year liability period after the completion of the works. With the limited resources of the FER, only a small share of roads in the national network can be maintained, leading to the premature degradation of most paved roads in Chad. Combining rehabilitation and maintenance under the OPBRC contracting approach, thereby transferring responsibility to the contractor for maintaining road service quality through long-term contracts will help ensure sustainability.

87. **Lessons learned from the CEMAC TTFP have been well identified and the project has been designed accordingly.** Related to the trade facilitation component, the project will build on the CEMAC TTFP achievements and lessons to improve the efficiency of the transit chain by targeting critical activities. A thorough assessment of CEMAC TTFP implementation and shortcomings was carried out during project preparation. The proposed project design seeks to address these shortcomings mainly through (a) bilateral governance without relying on any regional organization whose institutional weakness hampered CEMAC TTFP implementation; (b) national coordination ensured by Ministries of Transport in both countries; (c) strong TA provided by the UNCTAD - a UN organization focused on trade and in particular on customs information systems, especially ASYCUDA - in both countries; and (d) a careful analysis of the remaining bottlenecks in the logistics chain and a mutual agreement on proposed solutions. More details on lessons learnt, project context analysis, and proposed solutions are provided in Annex 4. The proposed project will also take advantage of the recent positive developments and commitments in both countries. The initiatives taken over the last two years by both customs administrations, especially in electronic exchange of customs data, confirm the will and commitment of both parties in view of the implementation of the CEMAC transit regime: (a) the Cameroonian customs has provided assistance to strengthen the capacity of the Chadian customs since 2020 through a bilateral convention funded under internal resources and (b) the Cameroonian customs has initiated the development of a Single Road-Rail Transit Document (*Titre de Transit Unique,* TTU) application with CAMRAIL, as well as the use of electronic payment for customs duties and taxes.

88. **Capacity building is essential to ensure long-term benefits and develop human capital that will last beyond the duration of the project.** The project will support human capital by providing TA and capacity building, including

for the development of a university-level training program for railway engineering and for the design and monitoring of OPBRCs. These activities aim at reinforcing local capacity and industry with potential benefits materializing much beyond the project implementation period.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

89. **The overall oversight of this regional project will be ensured by a Bilateral Steering Committee and a Bilateral Technical Committee.** Bilateral governance arrangements were extensively discussed during the project preparation workshop held at Ngaoundéré in January 2020, which was attended by delegations from Cameroon, Chad, and the World Bank. Subsequently, bilateral implementation agreements between the two countries were drafted in December 2020.[63] The Bilateral Steering Committee will comprise line ministers from the various sectors concerned. It will provide guidance and supervision of project activities and will meet at least once a year. The Bilateral Technical Committee will comprise focal point staff from the different ministries and agencies involved to provide technical supervision on behalf of the two Governments. It will meet at least once every six months during the project implementation period.

90. **At the national level, the MID in Chad and the MINT in Cameroon will be the line ministries of the regional project and will have overall coordination responsibility for all project related activities.** In each country, a National Inter-ministerial Steering Committee chaired by the line ministry will ensure the coherence of activities with the sectoral strategy and intersectoral coordination with other ministerial departments. In Chad, the steering committee tasked with supervising all transport projects within the MID is already in place[64]. In Cameroon, a national steering committee will be created within the Ministry of Transport to ensure supervision and coordination of all stakeholders of the proposed project at national level.

91. **Project implementation Units (PIU).**
    - **In Chad,** the Project Implementation Unit (PIU) in charge of infrastructure projects within the MID in Chad (the Project Monitoring and Coordination Unit, or *Cellule de Suivi et de Coordination des Projets, CSCP*) will manage Component 3 and those activities of Component 4 that are specific to Chad. This PIU is already well established, fully operational, and well-experienced in the implementation of World Bank- financed projects, including the application of the World Bank's fiduciary and safeguards policies. The PIU will be strengthened nonetheless to further increase its capacity for managing the project, in particular for the management of the E&S safeguards, GBV aspects, fiduciary aspects and the monitoring of project performance through the Results Framework (RF).
    - **In Cameroon,** institutional and fiduciary arrangements for Component 1 will remain the same as for the regional CEMAC TTFP and for the MTP. The PIU (which consists of a Project Implementation Team) will remain within the concessionaire CAMRAIL under a specific Project Agreement. The project implementation team in CAMRAIL is fully in place. The project implementation team is adequately staffed with the right skills mix and has proved effective in implementing project activities, even though some delays in managing procurement activities have been observed. A thorough assessment of the team's capacity for implementing the E&S

[63] Signing was expected in May 2021 but was postponed due to the political crisis in Chad. It is expected to occur in the coming months.
[64] *Comité de Pilotage du secteur des transports* created by ministerial decree No. 018/MITD/DGM/CSCP/2019.

aspects of the project has been undertaken. As a result, staff capacity in this area will be strengthened, and a clear set of procedures established to comply with World Bank policies.

- For those activities of Components 2 and 4 which are related to Cameroon, a PIU will be created within the MINT in Cameroon to create new capacity in an entity that plays a critical role in the governance of the railway, trade facilitation, and road safety sectors. The newly established PIU will have the technical, fiduciary, and safeguards skills necessary for the implementation of the project. The new PIU team has been assisted by the existing PIU in charge of the air transport component as part of the ongoing Transport Sector Development Project (P143801) concerning the fiduciary aspects during the preparation phase. In addition, the PIU will support MINT in overall coordination of project activities.

92. A Project Implementation Manual (PIM) satisfactory to the World Bank will be prepared in each country. In Chad, a specific M&E Manual will be prepared while in Cameroon, a specific section in the PIM will be dedicated to the M&S system. Project Procedures Manual (setting out guidelines and procedures for administrative, financial management [FM], and disbursement, and other fiduciary arrangements) will be prepared for each PIU.

B. Results Monitoring and Evaluation Arrangements

93. **Project-level M&E systems, which will be detailed in the M&E Manual or in the corresponding section in the PIM will track progress during implementation, measure intermediate outcomes, and evaluate project impacts.** The M&E system will capture information to assess project results against the targets set as part of the RF. To inform the RF indicators at project inception, a baseline survey will be undertaken. Beneficiaries will be surveyed subsequently in year 5 (mid-term) and year 10 (project end) to track the changes in their livelihood conditions attributable to the project. The PIUs will be responsible for the overall project results monitoring and for the reporting of project progress. In addition to regular periodic monitoring and reporting on the agreed project indicators, the timely, efficient, and transparent management of procurement activities and contract management will also be monitored, along with the effective implementation of the Environmental and Social Management Plan (ESMP) and RAPs, and the successful completion of studies and training activities.

94. **The PIUs will prepare progress reports every semester during project implementation.** These reports will be submitted to the World Bank no later than 45 days after the end of the period covered by the reports. Monitoring of results and outcomes, in accordance with the project RF (Section VII), will be reported in the project progress reports. An M&E specialist will be hired at the PIU to implement and coordinate all M&E activities under the project. Furthermore, the World Bank will supervise the project over its lifetime. Up to the Mid-term Review (MTR), which will be carried out no later than four years after project effectiveness, the project will produce semi-annual reports. The MTR will reassess the periodicity of project implementation reports as may be required.

C. Sustainability

95. **Sustainability of physical road assets.** The World Bank team and the Government of Chad agreed on the need to ensure the sustainability of physical road assets. The longevity of the entire 595 km long corridor road between N'Djamena and Koutéré at the Cameroon border must be ensured through good asset management and maintenance. If the project limited itself to simply rehabilitating road sections through traditional civil works contracts, asset sustainability would not be assured, because the contractor's responsibility would end one year after the completion of the rehabilitation works. Through the OPBRC methodology, the contractors will remain

responsible for the good condition of the road throughout the 10-year contract period and thereby ensure the long-term sustainability of the corridor road.

96. **Sustainability of physical rail assets**. The financial sustainability of most SSA railways is fragile, as in many other countries in the world, especially those with lower density rail traffic. Many railways therefore need to be supported through financial contributions by governments. However, such funding should not be ad hoc but should be provided through a defined program based on specific objectives and targets. The two most common government contributions to railways are (a) payments to support the provision of passenger transport services and (b) payments to support infrastructure maintenance, renewal, and investment. In the case of Cameroon, a long-standing and well-established concession agreement with CAMRAIL covers investments and passenger service subsidies until 2034.

97. **Climate resilient infrastructures**. A climate vulnerability assessment of the road and rail infrastructure took place during project preparation. It identified as the main risks extreme temperatures, floods, wildfires and geophysical hazards such as landslides which could damage the infrastructure and disrupt traffic along this crucial lifeline. However, the project design has taken into account these parameters to anticipate the effects of the aforementioned hazards. The climate risk mitigation measures which have been triggered are:
    (a) *The improvement of engineering and design*. For instance, to strengthen the hydraulic design of the road drainage structures, culverts with larger openings will replace the existing corrugated metal pipes and other culvert types. Certain locations will require the placement of additional culverts. Rail infrastructure will also be subject to these considerations as the rehabilitation works will give special attention to addressing flooding risks.
    (b) *The inclusion of operations and maintenance in the project***.** In this regard, it is important to note that the project opted for the OPBRC methodology for its road component, which limits the risk that the roads will again deteriorate a few years after their rehabilitation. Similarly, in Cameroon, the railway concessionaire is responsible until 2034 for infrastructure works and maintenance, as well as rail operations.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

Technical Analysis

98. **The whole project corridor will be significantly improved through major rehabilitation works and continuous maintenance of the road and railway infrastructure.**
- **In Chad**, the corridor is composed of various sections which are in different conditions: (a) some sections are beyond repair and need immediate full-scale reconstruction; (b) other sections need major repairs and rehabilitation within the coming two to four years; (c) others are still in reasonable condition today but will need strengthening or rehabilitation in five to seven years; and (d) one section is currently being rehabilitated (works are almost complete). All sections will need continuous routine maintenance to ensure that traffic can continue flowing without interruptions, even before and during planned rehabilitation works. Provisions must also be made in the contracts for emergency works which may become necessary due to extraordinary climate events. The OPBRC will enable upgrading the corridor road and ensuring its long-term maintenance.
- **In Cameroon,** the Douala-Yaoundé and Bélabo-Ngaoundéré railway sections are highly degraded with 39-year-old worn-out tracks on average, various speed restrictions, aging tunnels and bridges, unsafe railroad

crossing, and creosote-treated wooden sleepers and they need urgent rehabilitation. The signaling system is outdated and needs full-scale modernization. The Ngaoundéré rail/road modal transfer platform needs rehabilitation to improve performance. Together with the AFD/EIB financed rehabilitation of the Bélabo-Ngaoundéré, the proposed project will therefore enable the full rehabilitation of the railway network in Cameroon. The road between Ngaoundéré and Koutéré at the border with Chad is already in good condition and does not need any intervention besides regular maintenance.

99. **Technical justification of long-term (10-year) OPBRCs for the Chad road corridor.** The instrument of "long-term (OPBRCs)" is considered most appropriate to ensure a consistently good Level of Service on the entire road corridor in Chad. The OPBRC contracting modality is expected to deliver better results than the traditional quantity-based construction contracts. Under the OPBRC, the National Road Agency will define required Levels of Service for each road section. It is the responsibility of the private sector contractor to meet this level of service, through a combination of reconstruction, rehabilitation and maintenance works. Compliance with the required service levels is measured on a monthly basis. Full payment is only made if the required service level is achieved. Payment reductions are applied if the required service levels are not fully achieved. The alternative to the OPBRCs would be the classic civil works contracting approach, with separate rehabilitation and maintenance contracts, with the latter having a much shorter duration. This contracting approach would entail (a) a very limited transfer of construction quality risk to the private sector and (b) a high risk that the roads would again deteriorate a few years after their rehabilitation, exacerbated by the shortage of resources within the FER.

100. The OPBRC approach provides strong rationale for long-term (10-year) contracts:
    (a) The expected minimum life span of the rehabilitated/reconstructed road sections is 10 to 15 years, provided the quality of construction is good. Low construction quality will lead to premature deterioration which typically starts about five years after the pavement rehabilitation works are completed.
    (b) One of the main objectives and advantages of the OPBRC is the transfer of the construction quality risk to the construction firm who shall be liable, during the entire contract period, for the quality and durability of the road. To achieve this, it is necessary to align the contract duration with the expected life span of the pavement, which in the case of paved roads is typically 10 to 15 years. Therefore, a contract duration of at least 10 years for the OPBRC is necessary to ensure the contractor's accountability.

101. A contract duration that is much shorter than 10 years will not sufficiently incentivize the contractor to (a) ensure quality of the original rehabilitation works and (b) carry out preventive road maintenance.

102. **Axle-load control stations over the road section in Chad will be operated by the private operator under the OPBRC.** Under the project, the physical operation and maintenance of the axle load control stations is transferred from the MID to the contractors executing the OPBRCs for the road corridor. These will have a strong interest and incentive for preventing vehicle overloading, because (a) overloaded trucks cause higher road maintenance expenditures for the contractor and (b) overloading increases the risk of premature pavement failure, which will oblige the contractor to rebuild the pavement without being entitled for additional payment. As enforcement authority cannot be legally transferred to the private sector, the State will keep its role to enforce the legal restrictions on axle loads and total vehicle weight as per the applicable laws and regulations: the police officers at the weighing stations will direct the trucks to the weighing equipment and oblige truckers to partially unload to re-establish compliance with axle load limits as needed while the staff of the FER will be responsible for issuing fines which are paid exclusively through bank deposits. It is expected that this approach will lead to significant improvements to axle load control, thereby protecting the road infrastructure from premature deterioration.

103. **A comprehensive approach to road and railway safety.** It is expected that the project will make a significant contribution to improved road and railway safety along the corridor. One specific indicator is included in the RF to capture progress toward reducing road and railway casualties along the corridor.
    - A comprehensive road safety approach was followed during project preparation to comply with most stringent World Bank recommendations derived from the newly adopted Environmental and Social Framework 4 (ESF4) and the corresponding guidance note. This approach includes (a) in Chad a road safety assessment during project preparation using the Road Safety Screening and Appraisal Tool (RSSAT) tool; (b) an independent audit of the detailed engineering studies and road safety improvements included in project design; (c) detailed requirements in the OPBRCs bidding documents to ensure the contractors comply as much as possible with a minimum RSSAT Projet Safety Impact of 1; (d) road safety related capacity building activities in Chad; and (e) institutional strengthening for road safety in Cameroon.
    - In Cameroon, the project will finance a comprehensive railway safety approach addressing both infrastructure aspects and soft components including (a) infrastructure rehabilitation; (b) a modernized signaling system; (c) investments to improve the safety of rail/road crossings; (d) TAs to strengthen governance and railway sector supervision by government agencies; and (e) long-term railway capacity building through the set-up of a training program at university level.

Economic Analysis

104. **Methodology.** The economic analysis of the proposed project builds on standard cost-benefit evaluation methodologies, which compare the present value of incurred costs to the attributable benefits under two scenarios, namely 'with project' and 'without project'. The Economic Internal Rate of Return (EIRR) and Net Present Value (NPV) that were calculated provide a measure of the project's economic viability over its lifetime. Economic analyses were separately conducted for Component 1 (railway rehabilitation) and for Component 3 (road rehabilitation and maintenance program), accounting for 90 percent of the total project cost. Discounted benefits and costs of both components are compared to discounted benefits and costs of the 'without project' baseline situation. Three scenarios were assessed: (a) without accounting for carbon externalities (calculated as described below); (b) taking into account the carbon-output related social costs with low shadow price carbon values; and (c) taking into account the carbon-output related social costs with high shadow price carbon values.[65]

105. **Railway rehabilitation under Component 1.** The economic analysis has been conducted as part of the feasibility study for the planned railway investments. Costs include (a) investments in infrastructure rehabilitation and rolling stocks and (b) operating costs related to infrastructure maintenance and railway operations. Benefits include (a) the economic surplus of users (time costs and generalized costs); (b) the economic surplus of customers (operational costs and revenues for road and rail transport); and (c) externalities such as the social costs for accidents and carbon emissions. The analysis was conducted for a 31-year evaluation period, which corresponds to the expected lifespan of the railway investments and considers a discount rate of 7 percent.

106. **The economic benefits of the project mainly stem from the reduction of rail transport time for freight and passenger services, as well as of accidents and carbon emissions.** Indeed, the rehabilitation of the railway section Douala-Yaoundé will increase freight trains' speed to 40 km/h and passenger trains' speed to 70 km/h, thus

[65] World Bank. 2017. *Guidance Note on Shadow Price of Carbon in Economic Analysis*. This note recommends that projects' economic analysis use a low and high estimate of the carbon price starting at US$40 and 80, respectively, in 2020 and increasing the carbon price by 2.25% each year leading to values of US$78 and US$156 by 2050.

reducing transport time. It will therefore foster the modal shift from road to rail, which is safer and less emitting than road. This results in a benefit in terms of rail operating costs as well as in a negative impact on road transportation (decreasing revenues and losses in operating costs).

107. **The traffic demand and projections over the 31-year period for all scenarios are based on the forecast evolution of Cameroon's GDP and population growth.** GDP growth projections until 2051 are computed in concordance with the IMF's estimations for the short term and with GDP elasticity projections for the mid and long terms. Import and export flows and consequently freight traffic demand is derived from Cameroon's past economic growth and past freight demand on the Douala-Yaoundé line, taking into account the limited capacity of Douala's port. Similarly, passenger traffic demand is derived from CAMRAIL's passenger transport data, transport statistic yearbooks and population growth estimates.

108. **Social costs related to accidents are computed by multiplying rail freight or passenger traffic projections by the average cost of rail freight or passenger accidents, US$0.24/1,000 ton-km and US$0.71/1,000 pax km, respectively.** The same is computed for road — with an average cost of road freight or passenger accidents of US$20/1,000 ton-km and US$39.6/1,000 pax km, respectively; thus, the modal shift impact can be calculated and subtracted. Social costs related to carbon dioxide (CO_2) emissions are taken into account by multiplying the volume of emission by the Shadow Price of Carbon (SPC) on a year-by-year basis.

109. **The 'without project' baseline** is a continuation of the demand trends and considers a deterioration of the railway infrastructure, resulting in an overall decrease in the modal share of the railway by 4.2 percent and 10.2 percent for freight and passenger transport, respectively. The project scenario is based on the following assumptions: (a) an overall 2.1 percent and 14 percent increase in the modal share of rail in freight and passenger transport, respectively, and (b) the commissioning of the railway rehabilitation in 2026.

110. **The result shows a positive NPV of US$40.62 million with an EIRR of 9.2 percent.** When including carbon emissions costs, time savings account for around 45 percent of project benefits, accident reduction for 34 percent, and carbon reduction for 3 percent and 6 percent for low and high SPC, respectively. Rail operating benefits and revenues are considerable but offset by losses in the road sector. The NPV increases with inclusion of SPC in the economic analysis, as the component is estimated to decrease GHG emissions compared to the baseline scenario.

111. **The sensitivity analysis confirms the robustness of the results** (a) in a pessimistic scenario with lower-than-expected economic growth and transport demand, and a lower-than-expected modal shift from road to rail, and (b) in a scenario with a 10 percent increase in investment costs (including rolling stock costs).

Table 3. Summary of the Economic Analysis for the Rail Component

RAIL		EIRR (%)	NPV (US$, millions)
Results: Project scenario	Without carbon externality	9.2	40.62
	With carbon externality (Low SPC)	9.4	45.57
	With carbon externality (High SPC)	9.7	50.53
Sensitivity: Pessimistic scenario	Without carbon externality	8.9	34.89
	With carbon externality (Low SPC)	9.1	39.29
	With carbon externality (High SPC)	9.3	43.69
Sensitivity: Cost +10 percent	Without carbon externality	8.5	28.59
	With carbon externality (Low SPC)	8.7	33.54
	With carbon externality (High SPC)	8.9	38.50

112. **Economic evaluation of road rehabilitation and maintenance program under Component 3.** The economic analysis for Component 3 has been carried out using the Highway Development and Management (HDM-4) tool, which simulates road conditions over the life cycle of the road and the resulting cost of operation of the vehicles using the road. It provides economic decision criteria for determining the most appropriate road construction and maintenance interventions. The HDM-4 model was originally developed by the World Bank and is generally used for the economic evaluation of road projects worldwide. The main project benefit is a reduction of the vehicle operating costs and travel time along the road resulting from the project investments. The economic analysis also considers road safety related costs and benefits and GHG emissions costs (without and with the project). Since there are important differences between the subsections of the overall corridor road in terms of current road conditions, traffic levels and required investment for rehabilitation, the road was divided into 10 homogenous subsections and separate analyses were carried out for each subsection.

113. **This cost-benefit analysis was conducted for a 22-year evaluation period and considers a 5 percent discount rate. The results show an NPV of US$741.560 million and a combined EIRR of 29.1 percent.** The sensitivity analysis carried out as part of the economic analysis simulated (a) an increase of 20 percent in road rehabilitation costs, resulting in an EIRR of 25.5 percent; (b) lower expected traffic volumes, by 20 percent, resulting in an EIRR of 24.3 percent; and (c) a combined increase in construction costs of 20 percent and also lower traffic by 20 percent, resulting in an EIRR of 21.1 percent. For Component 3, the NPV decreases with inclusion of SPC in the economic analysis, as the component is estimated to increase GHG emissions compared to the baseline scenario, which is due to the additional traffic generated by the better road conditions resulting from the project.

Table 4. Summary of the Economic Analysis for the Road Component

ROAD		NPV (US$, millions)
Results: Project scenario	Without carbon externality	721.106
	With carbon externality (Low SPC)	721.056
	With carbon externality (High SPC)	721.007
Sensitivity: Traffic –20 percent	Without carbon externality	676.059
	With carbon externality (Low SPC)	676.019
	With carbon externality (High SPC)	675.976
Sensitivity: Cost +20 percent and Traffic –20 percent	Without carbon externality	646.160
	With carbon externality (Low SPC)	676.121
	With carbon externality (High SPC)	676.081

GHG emissions

114. **The methodology for GHG emissions calculations is based on the World Bank's internal guidance materials for the GHG analysis for road[66] and rail[67] projects.** As for the economic analysis, the GHG analysis also compares 'with project' and 'without project' scenarios to compute the project's net emissions. In the analysis, it is assumed that (a) the levels of GHG emissions are correlated with CO_2 emissions and (b) GHG emissions associated with the infrastructure rehabilitation works are negligible compared to the GHG emissions resulting from road and rail traffic operations.

115. **GHG emissions analysis for railway rehabilitation under Component 1**. The GHG accounting analysis indicates that over the 31-year evaluation period, the implementation of the activities included in this component will result

[66] World Bank. 2016. *GHG Analysis Road Improvement.*
[67] World Bank. 2019. *Estimation of Greenhouse Gas Emissions Associated with Non-Urban Railway Projects*.

in a decrease in GHG emissions as shown below. The decrease in emissions results from a modal shift from road to rail transport.

Table 5. Summary of the GHG Analysis for the Rail Component

RAIL	**Baseline emissions**	**Project gross emissions**	**Project net emissions**
Lifetime	634,687 tCO_2e	302,677 tCO_2e	-332,010 tCO_2e
Annual	20,474 tCO_2e/year	9,764 tCO_2e/year	-10,710 tCO_2e/year

116. ***GHG emissions analysis for road rehabilitation and maintenance program under Component 3.*** The GHG accounting analysis indicates that over the 22-year evaluation period, the implementation of the activities included in this component will result in an increase in GHG emissions as shown below. The increase in emissions is expected to result mainly from (a) the expected increase in trade and traffic and (b) the increase of traffic speed on the rehabilitated road and the related increase in vehicle fuel consumption due to the higher speed.

Table 6. Summary of the GHG Analysis for the Road Component

ROAD	**Baseline emissions**	**Project gross emissions**	**Project net emissions**
Lifetime	5,369 tCO_2e	7,278 tCO_2e	1,909 t CO_2e
Annual	244 tCO_2e/year	331 tCO_2e/year	87 tCO_2e/year

117. **GHG emission analysis for both Components 1 and 3 combined.** The GHG accounting analysis indicates that over a common 22-year evaluation period, the project will result in an overall decrease in emissions as detailed below.

Table 7. Summary of the Combined GHG Analysis for the Whole Project.

RAIL + ROAD	**Baseline emissions**	**Project gross emissions**	**Project net emissions**
Lifetime	337,572 tCO_2e	194,887 tCO_2e	-142,685 tCO_2e
Annual	15,344 tCO_2e/year	8,859 tCO_2e/year	-6,485 tCO_2e/year

Regional spillover effects

118. The project's economic assessment also benefited from the findings of a 2021 World Bank study[68] that investigates the role of past infrastructure investments in the Lake Chad area on structural transformation and economic development in adjacent countries (Cameroon, Chad, and Nigeria). The study shows that access to paved roads is associated with significant structural transformation away from agriculture to more productive sectors. At the regional scale, the access to a paved road at the district level is associated with a reduction in the employment share of agriculture by more than 5 percentage points and an increase of the employment share in manufacturing by 4.5 percentage points. Annex 5 provides a summary of this study.

119. More importantly, the study developed a model to calculate the welfare impacts of future investments, which was used to quantify the general impacts of the proposed project at the regional and national levels. Simulations show that combining infrastructure investments with a trade facilitation program will result in income gains for the large majority of sub-areas within the broader Lake Chad area, due to lower trade costs and new regional trade opportunities. At the national scale, the proposed project will lead to an increase of real national income by 2.8 percent points in Cameroon, 3.7 percent points in Chad, and 2.3 percent in Nigeria. The study's findings therefore further illustrate the project's beneficial effects on regional integration and economic development.

[68] Lebrand, Mathilde. 2021. *Infrastructure and structural change in the Lake Chad region,* Chapter 5 from World Bank (2021). *Lake Chad Regional Economic Memorandum: Development for Peace*. Washington, D.C.: The World Bank.

B. Fiduciary

(i) Financial Management

120. **In Chad,** the proposed regional project will be implemented by the CSCP in charge of managing externally funded infrastructure projects within the MID. The CSCP was established more than 30 years ago and has operated continuously ever since. The CSCP is currently managing the IDA-funded Chad Rural Mobility and Connectivity Project (P164747, IDA D4170: US$30 million) which will close on June 30, 2025. In addition, the CSCP has successfully hosted the CEMAC TTFP (P079736, IDA-H3150: US$30 million) which closed on June 30, 2020, and the National Transport Program Support Project (P035672, IDA 34260: US$67 million) which closed on January 31, 2008. The fiduciary compliance was deemed satisfactory for the above projects. First audits for the Rural Mobility and Connectivity Project (P164747) have been performed and the audit report was received on time. The report was issued with an unqualified opinion. In general, the unaudited Interim Financial Reports (IFRs) were submitted on time and found acceptable.

121. **The FM assessment concluded that the fiduciary arrangements of the CSCP satisfy the minimum requirements under World Bank Policy and Directive for IPF operations. Nonetheless, key actions to further strengthen the CSCP's FM system were identified.** These actions include the following: (a) recruit an additional Accountant, no later than three months after effectiveness; (b) open, within one month of the project effectiveness date, a Designated Account (DA) in a local commercial bank satisfactory to the Association and under terms and conditions satisfactory to IDA; (c) customize, within three months of the project effectiveness date, the existing TOM2PRO accounting software to handle the project's activities under the responsibility of the CSCP; (d) prepare (i) the Project Procedures Manual (setting out guidelines and procedures for administrative, FM, and disbursement, and other fiduciary arrangements under the project) and (ii) an M&E Manual, no later than two months after the effectiveness date; (e) prepare a PIM satisfactory to the World Bank before the effective date; (f) recruit an independent auditor to audit the project's financial statements, within six months after the effectiveness date, in order to further strengthen the internal control environment; and (g) revise the Terms of Reference (ToRs) and contract of the Internal Auditor to include the specific needs of the proposed project, within one month of the project effectiveness date.

122. **In Cameroon**, the implementation for Component 1 will lie with CAMRAIL under the supervision of the National Steering Committee and within the regulatory framework as set for in the Concession Agreement. The MINT will implement Components 2 and 4. The day-to-day implementation management will be handed over to a project implementation team (PIU) already in place at CAMRAIL and a new PIU that will be set up and equipped accordingly within the MINT. To ensure readiness for implementation, the MINT did request and receive a project preparation advance (PPA) that aims at, among other things, equipping the PIU in terms of staffing, internal control and information systems, and conducting relevant activities pertaining to project preparation.

123. **The FM assessment concluded that CAMRAIL has strong experience in managing World Bank financed projects through its existing project implementation team.** Therefore, its good understanding of World Bank procedures and policies will be useful to oversee and supervise the project activities. Since it is currently implementing the MTP, CAMRAIL's PIU is already equipped with systems and qualified staff to handle FM aspects for the proposed project. Although the MINT had experience in managing World Bank-financed projects, the new PIU to be put in place will need additional capacity to implement the project activities. The PIU of the ongoing Transport Sector Development Project (P150999), Cameroon Civil Aviation Authority under the MINT is currently in charge of the

fiduciary aspects of the PPA and is assisting the MINT in putting in place appropriate FM arrangements for the proposed project.

124. 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 DA is not a Disbursement Method currently available under this financing. 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, if already signed before.

125. It is to be noted that the prior Regional Integration IPF operation in the transport sector (CEMAC TTFP), implemented by the Ministry of Public Works (*Ministère des Travaux Publics* MINTP), closed with an unsatisfactory FM performance due to the PIU's failure to submit audit reports on time and document advances to the DA after project closure resulting in potential ineligible expenditures— to date the undocumented advance is still to be refunded. However, under the proposed project, the PIU is different and under a different ministry. FM arrangements also include closer monitoring of advances (for example, setting lower DA ceilings and frequent documentation of advances), and strengthening controls in contract management to further mitigate the risks.

126. As such, the project design of the project's FM arrangements will be aligned with the existing country FM arrangements which have been put in place for donor-funded projects. These arrangements are centered on two main institutions: the Autonomous Sinking Funds (*Caisse Autonome d'Amortissement,* CAA) equipped with a standardized FM Manual and the Ministry of Public Procurement in charge of controlling all suppliers' invoices associated with a contract before any payment can be made by the CAA.

127. In addition, and in light of the conclusion of the assessment carried out by the World Bank staff, the MINT has made use of the PPA to recruit a seasoned FM officer and an accountant and to procure and install an accounting software. The following additional measures will be undertaken after the project becomes effective: (a) no later than two months after effectiveness, the standardized FM Manual of Procedures developed by the CAA and the procedures manual for the MTP (P143801) will be customized to reflect the project specificities for the MINT and CAMRAIL, respectively; (b) no later than three months after effectiveness, an internal auditor will be recruited for the MINT to conduct ex post reviews of the project transactions and procedures, and to ensure that identified internal control weaknesses are addressed in a satisfactory manner; and (c) no later than six months after effectiveness, an independent external auditor will also be recruited by each PIU to conduct an annual financial audit of the financial statements of the project, and a review of the internal control system.

128. **Conclusions.** For both countries, considering the proposed risk mitigation measures, and based on the experiences of the PIUs that are already implementing World Bank-funded projects, the overall country context, and the regional nature of the operation, the FM residual risk is deemed **Substantial**. The proposed arrangements satisfy the World Bank's minimum requirements in terms of FM.

(ii) Procurement

129. **Applicable procurement rules and procedures**. In each country, procurement of goods, works, and non-consulting and consulting services for the whole project will be carried out in accordance with (a) the procedures specified in the World Bank Procurement Regulations for IPF Borrowers, dated November 2020 (Procurement Regulations);

(b) the Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (dated October 15, 2006 and revised in January 2011 and as of July 1, 2016 - Anticorruption Guidelines); and (c) the provisions stipulated in the Financing Agreement.

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

131. **Procurement risk assessments.** As part of the Procurement Risk Assessment and Management System (PRAMS) exercise carried out by the World Bank on PIUs, notably CAMRAIL and the MINT (for Cameroon) and the CSCP (for Chad), the overall procurement risk is assessed as ***Substantial.*** Main risks identified for the three PIUs are:
    - Staff from implementing agencies involved in the project may not have enough knowledge of the New Procurement Framework (NPF) and/or may confuse the NPF with the former Procurement and Consultant Guidelines;
    - Insufficient number of procurement personnel within the implementing agencies with the experience required to effectively implement procurement actions on time and in line with World Bank's policies and procedures;
    - Inadequate communication and interaction between the PIUs and other concerned stakeholders may lead to delays in procurement and poor cost projections;
    - Administrative routines may result in procurement delays with potential effects on project implementation progress; Procurement for specialized business areas with few potential bidders can restrict competition and possibly increase prices and risk of collusion; The corruption risks in procurement of big contracts taking into account Cameroon's Corruption Perception Index;
    - The poor filing of documents, which may lead to loss of documents; and
    - Insufficient capacity overall, which can lead to poor contract management and poor administration especially of large contracts.

132. These risks can cause remedial actions by the World Bank, delays in evaluation of bids and technical proposals leading to further delays in implementation, poor quality of contract deliverables, and reputational risks to the World Bank and the project.

133. While the overall **procurement risk is currently Substantial,** it is expected that it will be lowered to **Moderate** through the following mitigation measures:
    - **In Chad**, competitive hiring by the CSCP of an additional Procurement Specialist who is experienced and familiar with the World Bank's procurement procedures and policies;
    - **In Cameroon**, competitive hiring by both CAMRAIL and the PIU within the MINT of a Procurement Specialist experienced and familiar with the World Bank's procurement procedures and policies;
    - Training of procurement staff involved with the NPF through activities that include: (i) organizing procurement "red flags" training in collaboration with the World Bank's Integrity Vice Presidency (Preventive) for implementing units at the appropriate time; (ii) onboarding of Owners' Engineer with procurement and contracts management experts from the early stages of project implementation; (iii) market engagement, sounding, and outreach for the large OPBRCs to better understand the evolution of the market and solutions offered; (iv) detailing procurement procedures in the PIM to clarify the roles of each member of the PIUs, utility or government entities involved in the procurement process and define the maximum delay for each procurement stage, specifically regarding review and approval systems, and the signing of contracts; and (v)

the development of contract management plans for prior review contracts;
- Regular and close monitoring and follow-up by the World Bank task team of the large value activities, including the technical and safeguards aspects;
- Transfer the major risks (identified in the PRAMS exercise) to a day-to-day monitoring matrix and monitor it during project implementation through monthly meetings with the Recipient during the first two years of the project to make sure things are on track; and
- Improving the filing system at the PIUs to ensure compliance with the World Bank's procurement filing manual.

134. **Project Procurement Strategies for Development (PPSDs**) **and draft Procurement Plans** detailing the first 18 months of implementation have been reviewed and were approved before negotiations in both countries. During implementation, the PPSD and Procurement Plans will be updated as required, and at least annually, to reflect actual program implementation needs and improvements in institutional capacity. The PPSDs have identified the appropriate selection methods, market approach, and type of review by the World Bank for the high-risk and high-value contracts that will be executed during the implementation of the project. The PPSD also describes the overall project operational context, market situations, implementing agencies capacity, and possible procurement risks. The Procurement Plan sets out the procurement selection methods as well as prior and post review thresholds to be followed by the Recipients during project implementation in the procurement of goods, works, and non-consulting and consulting services.

135. **Hands-on Enhanced Implementation Support (HEIS).** In Chad, several activities were identified for which, according to the scope, estimated costs, market research and analysis undertaken, the PIU has requested a HEIS in the PPSD approved by the World Bank, to provide the support needed in procurement preparation and implementation:

- The 2-lot OPBRCs including Lot 1 (rehabilitation and maintenance of the N'Djamena-Guelendeng section) and Lot 2 (rehabilitation and maintenance of the Bongor-Kélo-Moundou - Cameroon border section) for a total estimated cost of US$364.00 million. The single bid with two lots approach will attract and foster the participation of big reputable international firms through international competition using Request for Bidding (RFB) with prequalification.
- Two Consulting Service activities for the monitoring and control of the OPBRC Lot 1 and Lot 2, respectively, through Quality- and Cost- Based Selection (QCBS) method with open international advertisement and request for Expression of Interest to identify a short list of qualified firms for an estimated total cost of US$10.0 million and US$6.8 million, respectively.

C. Safeguards

136. **The project is prepared under World Bank safeguards policies, the project's environmental risk level is classified as Substantial, and the project is Category B.** Given the sources of potential risks, constraints and opportunities identified under this project, the following World Bank Environmental Safeguard Operational Policies are triggered: OP/BP 4.01 (Environmental Assessment); OP/BP 4.11 (Physical Cultural Resources); OP/BP 4.04 (Natural Habitats), OP/BP 4.36 (Forests), and OP/BP 4.12 (Involuntary Resettlement).

137. **Safeguards documents are finalized and published in the countries and on the World Bank website as per the table below.** Safeguards instruments present measures and management plans in order to mitigate adverse impacts of the project. The PIM being produced covers all E&S safeguards instruments applicable to the project,

including the GBV aspects, the mechanism for stakeholder engagement, monitoring, and areas of capacity building. Several safeguards' instruments were prepared and disclosed before project appraisal stage, namely:

- Chad: A Resettlement Policy Framework (RPF) for the project, an Environmental and Social Impact Assessment (ESIA), and a RAP for Component 3.
- Cameroon: An Environmental and Social Management Framework (ESMF) and an RPF for the project and an ESIA for the identified railway rehabilitation works under Component 1; the ESMF report also included a CERC section related to Component 5.

Table 8. Safeguards Documents Disclosure

Country	Instruments	Date of disclosure in-country	Date of disclosure on World Bank external website
Cameroon	ESMF	12/04/2021	12/05/2021
	RPF	12/05/2021	12/06/2021
	ESIA	12/04/2021	12/05/2021
Chad	RPF	12/08/2021	12/08/2021
	RAP	12/08/2021	12/08/2021
	ESIA	12/08/2021	12/08/2021

(i) Environmental Safeguards

Cameroon

138. **Component 1.** The risk level of this component has been classified as Substantial with a Category B Assessment. The rehabilitation works will indeed take place mostly outside urban environments and only within the existing right-of-way. The quarry is already identified and privately managed. Rehabilitating the rail track, bridges and railroad crossings and modernizing the signaling system will greatly improve traffic safety, reliability, and speed. Besides, this will be the continuation of the closed CEMAC TTFP, for which the lessons learned have been quickly translated into concrete actions to address E&S issues related to the proposed project.

139. The main environmental risks identified relate to: (a) safe removal and final disposal of decommissioned creosote-treated sleepers as well as social issues associated with decommissioned sleepers; (b) health and safety of those directly involved in the activities of the small and medium enterprises (SMEs) as some rehabilitation activities will be outsourced to them; and COVID-19 risk associated with labor inflow in remote areas; (c) the protection of Natural Habitats, including the role of rail transport as a potential link in the bushmeat trade in Cameroon, perturbation of sensible areas, and habitat fragmentation; and (d) exposure of populations to high levels of noise particularly around schools near the Edéa station. Other common adverse impacts of construction works which have been identified for the implementation phase are: degradation of air quality, soil pollution by wastes, soil erosion and slope instability, water pollution, loss of vegetation and increase in illegal logging, disturbance of wildlife and increased poaching, noise and vibration, risk of fire and explosion, and risk of road traffic accidents.

140. *Safeguards documents.* To mitigate the above-mentioned potential risks impacts, an ESIA/ESMP was prepared, consulted upon, and disclosed. In accordance with Cameroon's regulatory requirements, the ESIA was sent to the Ministry of Environment, Nature Protection and Sustainable Development (*Ministère de l'Environnement, de la Protection de la Nature et du Développement Durable,* MINEPDED) for approval. The MINEPDED should then deliver an Environmental Compliance Certificate (*Certificat de Conformité Environnemental*). The ESIA report includes an ESMP, as well as a GBV / Sexual Exploitation and Abuse (SEA) / Sexual Harassment (SH) Risk Prevention

and Mitigation Action Plan in accordance with the World Bank's SEA/SH Good Practice Note.

141. **Based on the findings of the ESIA, it appears that the project will not cause irreversible or unavoidable impacts on the environment during its implementation and operation phases.** Regarding the bushmeat trade, a sizable number of initiatives have been put in place with national institutions to combat bushmeat trafficking through the railway transport system and it has been shown that this risk is now under control. In recent years, Ministry of Forestry and Wildlife (MINFOF) agents have been systematically monitoring railway stations to intercept bushmeat shipments. In addition, CAMRAIL has secured much of its network through fences. Bushmeat trafficking is therefore limited, and hunters sell bushmeat locally in villages. As detailed in the section GHG above, the project is expected to lead to a reduction in the emissions of GHGs (CO2, CH4, and N2O) and atmospheric pollutants (NOx, COV's, PM10, SO2) during its implementation phase. In relation with OP 4.36, the ESIA proposes the plantation of 6,000 trees as compensation measures for GHG emission during the construction phase. There should be several positive impacts of the project on the physical, biological, and human environments if the ESMP is properly implemented. The cost of the ESMP is estimated at more than one CFA (1) billion (US$1.8 million).

142. *Creosote-treated sleepers (CTS).* Several mitigations measures are already applied by CAMRAIL, and will be complemented through additional measures identified in the ESMP:
    (a) Under the MTP (P147058), CAMRAIL recruited an NGO in August 2020 to carry out an initial assessment on decommissioned CTS and to raise awareness of the local communities on the environmental and health risks associated with the use of those used-wood sleepers for domestic purposes. The results of that assessment have been included in the current ESIA; 718 households in 50 villages for a total of 7,506 decommissioned sleepers have been identified with support from the local populations. The main uses of CTS for domestic purposes are walkways, fences, toilet floors, attics, walls for habitats/houses, benches, tables or chairs, pedestrian access to houses, and sleeping beds. They are most harmful when used as insecticide and firewood. In addition to the existing measures (listed below in points b and c) already put in place by CAMRAIL, the current ESIA proposed biomechanical remediation as a method for eliminating CTS for economic and ecological purposes.
    (b) In addition, 58 agents of CAMRAIL's subcontractors in charge of railway maintenance work have been trained on the decommissioning of sleepers. All decommissioned sleepers that were abandoned near the railway line were collected and stored on an impermeabilized platform in Douala where they are completely covered by waterproof tarpaulins.
    (c) A decanter was constructed near the sleepers' storage area to collect and decant all runoff from the CAMRAIL wood sleepers' storage area before being discharged to rainwater pipes. Construction of the decanter was completed in April 2020. All these measures have been considered in the current ESMP.
    (d) The ESIA recommended the temporary storage of waste from wooden sleepers before disposal for a period of one year. Storage sites must be set up outside flood zones and must have a drainage system that includes a geomembrane at its base. To avoid water runoff from the site, an external waterproof collection ditch must surround the storage facility throughout its perimeter. It must be set up before the start of operation. The installation must be at least 15 cm above the ground. The ESIA shows that transporting CTS waste from pre-storage points directly to the disposal site is cheaper than combined rail/road transport.

143. *Safety for railway operations.* An action plan to secure the movement of trains transporting oil was put in place at CAMRAIL in 2019 under IDA funding. It mitigates all major operational risks and incorporates the actions needed to respond to accidental oil spills, namely training and raising awareness of the agents in charge of oil handling.

Safety equipment (motor pumps, tank tarpaulins, dispersants, barriers, and so on) has been acquired by CAMRAIL within the parent project and is part of the emergency response plan within the ESMP of the proposed project.

144. *A COVID-19 Pandemic Prevention and Management Action Plan* on construction sites was prepared in April 2020 by CAMRAIL. The action plan follows the restriction measures prescribed by the Prime Minister of Cameroon on March 17, 2020, with the aim of limiting the spread of COVID-19 in the country. It outlines the specific measures that must be implemented by the contractors to ensure the safety and good health of their staff and the communities surrounding the construction sites. Risks and impacts associated with COVID-19 on construction sites and within communities related to project activities have been identified and suitable mitigation measures have been included. This plan is applicable to the project.

145. **Components 2 and 4.** Given the lack of a specific detailed design for the rehabilitation of the rail/road transfer platform, an ESMF and a RPF have been prepared and reviewed by the World Bank's E&S specialists. These reports were cleared with the World Bank and disclosed in-country and on the World Bank website. Activities under Components 2 and 4 will take place in the regions of Littoral, Central, East, and Adamaoua in Cameroon. Ten Departments (Wouri, Sanaga Maritime, Nyong and Ekellé, Mefou-et-Akono, Mfoundi, Lekié, Haute-Sanaga, Lom and Djerem, Djerem and Vina) regrouped into three ecoregions: high Guinean savannas and humid forest areas with bimodal and monomodal rainfall. The estimated cost for the implementation of the ESMF/ESMP is estimated at more than CFA 1 billion. This amount covers specific E&S instruments to be prepared per screening activities and E&S management that will be carried out by the PIU. The PIU shall be responsible for the environmental, social, hygiene, health and safety compliance of the project; the obtaining of permits and authorizations required per the regulations; and the preparation of periodic monitoring reports and the completion report. Accordingly, the PIU staff should include specialists in E&S protection.

146. In addition, the updating of the Railway Master Plan will likely not have any direct E&S impacts on natural habitats and forests. However, the expected future investments which may be included in that master plan may potentially cause large scale habitat fragmentation and social impacts. Thus, the selection of the final site will require careful analysis and evaluation of alternative sites that could avoid large resettlements of populations and significant negative environmental impacts. Other impacts to be evaluated are the: increase of road traffic near stations, need for new parking space, road accidents, urban development near new railway stations centralities, and so on. A specific Social and Environmental Strategic Assessment (SESA) will be prepared in parallel with the Railway Master Plan update.

Chad

147. **Component 3.** The risk level of this component has been classified as Substantial with a Category B Assessment. No major risks have been identified during project preparation. Particular attention will need to be paid for rehabilitation of road sections near Mandelia Wildlife Reserve and Logone Lowlands (RAMSAR site).[69]

148. Potential risks and impacts are related to: (a) occupational health and safety issues of workers involved in rehabilitation activities and COVID19 risk associated with labor inflow in remote areas; (b) natural habitats including impact of road rehabilitation and potential perturbation of sensible areas; and (c) community health and

[69] Wetlands selected on account of their international significance in terms of ecology, botany, zoology, limnology or hydrology. *https://www.ramsar.org/.*

safety issues such as population exposure to noise, degradation of air quality, soil degradation and pollution by wastes, water pollution, risk of road traffic accidents, and so on.

149. To mitigate the above-mentioned potential risks and impacts and as part of safeguards requirement for the Cameroon-Chad Transport Corridor Project, an ESIA/ESMP for the road section between N'Djamena, Moundou and Koutéré has been prepared, consulted upon and disclosed. As the project location is known, there was no need to prepare an ESMF for the investments in Chad. The cost of the ESMP is estimated at approximately US$1 million (CFA 559,132,162).

150. The ESIA conclusions confirmed that the project will not develop irreversible or unavoidable impacts on the environment during its implementation and operation phases, and identified the below mitigation measures:
    (a) Occupational health and safety issues and community health and safety issues: The recruited firm will have to prepare a series of specific plans to be validated by both the Recipient and the World Bank before the implementation of project activities. Such plans are as follows: (i) implementation of a Specific Safety and Health Protection Plan; (ii) Waste Management Plan; (iii) Information, Education and Communication Plan; and (iv) Management plan for the materials resulting from the earthwork (backfill, excavation); and (v) Labor Management Procedures.
    (b) Natural Habitats: During the ESIA elaboration, field visits revealed that Mandelia Wildlife Reserve was not neighboring the road anymore (reserve's limits are in the process of being revised) because of extensive urbanization. However, for the Logone Lowlands area, the recruited firm will have to hire a specialist to produce a Wildlife Management Plan before the implementation of project activities. In addition, the recruited firm will prepare a rehabilitation plan for degraded areas in which it intervenes.

Component 5. for both countries, Contingent Emergency Response Component (IRM-CERC)

151. The PIMs will include a CERC section which describes amongst others the CERC activation procedure, and a positive list of eligible activities. In case of emergency and in connection with Component 5 of the project, an assessment of the safeguards will be conducted and reflected in the project restructuring document. If the category changes, the policies triggered by the new activities will be reflected in the project paper.

(ii) Social Safeguards

152. **Overall, project activities in both countries are expected to induce Substantial social risks and impacts on beneficiary communities.** These are mostly site-specific and can be mitigated to an acceptable level. Considering the foreseen project activities in both Cameroon and Chad, the social safeguards policy OP/BP 4.12 on Involuntary Resettlement has been triggered for the project. Cameroon and Chad's PIUs have prepared appropriate social safeguard instruments to mitigate the project's adverse impacts. Moreover, in both countries, the implementation of many project activities will require changes in social behavior, including current attitudes and beliefs about road and railway maintenance and sanitation practices. Thus, the project will fund social communication campaigns to provide information, educate, and train local residents and other stakeholders on social issues in the road and railway sectors, as well as related prevention and mitigation measures provided by the project. The material and format to be used in these campaigns will be adapted to ensure that they are culturally relevant and comprehensible and that they enhance the inclusion of women, youth, and other vulnerable groups.

Cameroon

153. *Components 1 and 2*: Project activities include rehabilitation works on rail tracks, bridges, railroad crossings, and the rehabilitation of rail/road platforms. Most rehabilitation works on the Douala-Yaoundé rail track will be implemented outside urban areas with less dense population concentration, thus reducing the scale of negative project impacts on affected communities. The rehabilitation of rail/road platforms in Ngaoundéré and Bélabo will be carried out solely within the grounds of the existing platforms. The project will improve the movement of people and goods and consequently the livelihoods of communities in the project area through increased economic activity. It will also motivate job creation and income-generating activities around project worksites.

154. Social issues that could potentially result from project activities include the potential loss of land, houses, income from roadside small businesses, and crops of people, particularly encroachers living along the railway right-of-way in rural and urban areas. In rural areas (project communities between Edéa and Yaoundé), the households along the project route are poor, with heads of households earning less than the minimum monthly wage (CFA 28,216) from agricultural livelihoods. Physical displacement will worsen the already low living standards of rural households if not accompanied by compensations including significant livelihood restoration measures. Other social issues relate to the decommissioning and removal of old wooden railway sleepers within from project communities; population and labor inflow which could exacerbate GBV, SEA, and SH; the occurrence of HIV/AIDS and Sexually Transmitted Diseases (STD); theft; crime; grievances; increased potential exposure to COVID-19; and conflicts within project communities.

155. For Component 2, the detailed design of rehabilitation projects for rail/road platforms are not known. Therefore, the project has prepared an RPF to set the rules and procedures for risk mitigation and land acquisition for the entire project. The RPF approved by the World Bank has been disclosed before appraisal. The project will prepare site-specific RAPs once the nature of investments is known. General studies for new railway lines in the Railway Master Plan will also consider social risks related to land acquisition in rural and urban areas bordering future railway lines.

156. For Component 1, the railway rehabilitation works will be undertaken using a track renewal train with gantries and will take place within the 5 m right-of-way of the existing railway platform. Following a thorough assessment, no physical encroachment has been identified on this right-of-way. It was therefore deemed that no RAP is needed. The RFP will cover the preparation of potential RAP(s) that could be needed during rehabilitation works for (a) physical displacement on work access roads and/or storage at the railway station(s) or otherwise and (b) potential livelihood restoration activities for registered or unregistered businesses or individual traders at stations during the rehabilitation works. The ESIA/ESMP for the Douala-Yaoundé railway track includes a budgeted plan to address risks and impacts that may arise from civil works. The ESIA/ESMP also includes specific measures and actions related to conflicts/grievances, the removal and disposal of decommissioned wooden railway sleepers, HIV/AIDS/STDs in project-affected communities, and GBV/SEA/SH risks on women and girls.

Chad

157. Component 3 is likely to result in land acquisitions, land use restrictions, and involuntary resettlement. The resulting negative social impacts could include economic displacement (loss of land or other assets, loss or limited access to assets resulting in loss of income source or livelihood) as well as physical displacement (relocation, loss of residential land or shelter). Resettlement of people away from the road right-of-way or related infrastructure could worsen the already low standard of living of rural households if not accompanied by compensation including significant livelihood restoration measures, whether they must physically move or not. As for the restriction of

access, it could result in negative impacts on the living conditions of those affected by involuntary resettlement. In addition, other social problems may arise from the inflow of population and labor such as working conditions, exacerbation of GBV/SEA/SH, increased incidence of HIV/AIDS and STDs, theft and crime, and grievance conflicts in project communities.

158. The project has prepared an overall RPF, and a RAP related to the rehabilitation works on the N'Djamena-Moundou-Koutéré road corridor to comply with World Bank's OP/BP 4.12 (Involuntary Resettlement) requirements. The RPF and RAP approved by the World Bank were disclosed in-country on the World Bank external site on December 8, 2021.

159. The total cost of the RAP is estimated at CFA 396 million, equivalent to US$794,000, out of which (a) CFA 47.8 million for land loss compensation; (b) CFA 139 million for buildings compensation; (c) CFA 38 million for trees loss compensation; (d) CFA 85 million for moving allowances; (e) CFA 35 million for temporary income losses; (f) CFA 15 million for RAP management support (audit and implementation) directly associated with the rehabilitation of the road along the Koutéré-Moundou-N'Djaména corridor in Chad; and (g) 10 percent of the total amounting to CFA 36 million for contingencies. Resettlement related compensation under the RAP consists of cash payments to the 662 Project-affected Persons (PAPs) identified. Continuous consultations with the PAPs were part of the RAP preparation process.

Gender-Based Violence, Sexual Exploitation and Abuse, and Sexual Harassment (GBV/SEA/SH).

160. The GBV/SEA/SH risk level for the Cameroon and Chad project works is rated Moderate. This risk level was determined using the World Bank SEA/SH screening tool developed for projects involving major civil works. The project-specific risks include labor inflow and proximity of project workers to women and girls in communities with pre-existing GBV and high poverty levels. Prevailing forms of GBV in project-affected communities include physical and psychological abuse, sexual violence, and early marriages. Both Cameroon and Chad have high prevalence rates of GBV.

161. In Cameroon, the prevalence of physical and sexual violence committed by a husband or partner is the highest in SSA: it represents 51 percent of women, while the regional rate is 39 percent. 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 2018 Demographic and Health Survey (DHS), almost a third (30 percent) of women and men aged 15 to 49 percent) believe that husbands are justified for beating their wives, and 38 percent of men share those views. 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 SH) but many types of 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.

162. In Chad**,** it is estimated that 28.6 percent of women nationwide have experienced physical or sexual violence by an intimate partner at some point in their lives (DHS 2015). Conflict, militarization, and insecurity in some areas of the country have further exacerbated pre-existing risks of GBV in multiple ways: the collapse of social safety nets and protective relationships, the growing challenges associated with accessing life-saving services leaving survivors isolated and unable to seek care, the weakened rule of law and state presence failing to provide protection, and the widening of levels and severity of gender inequality and different manifestations of GBV – from intimate partner violence (IPV) to sexual exploitation of women and girls. In addition, according to United

Nations Children's Fund (UNICEF), Chad has the third highest prevalence rate of child marriage in the world with 67 percent of girls married before the age of 18 and 29 percent under the age of 15 (UNICEF 2018). It is also important to note the legal dualism prevailing in Chad, as the Constitution recognizes traditional and customary rules as having the status of laws. To this end, GBV is overwhelmingly addressed by traditional leaders without consideration for national laws which punish domestic violence, rape, and other forms of GBV. Thus, impunity prevails in most cases, or perpetrators usually only pay a fine. Given the context described above, the forms of GBV that are most documented are domestic violence, female genital mutilation (FGM), child marriage, and other forms of GBV such as denial of resources. Reported incidents of rape and attempted rape are not higher than regional averages. However, given the social stigma associated with sexual violence as well as the prevailing impunity, it is likely that such cases are drastically under-reported. Nonetheless, the country benefits from the presence of both international and national organizations that are informed and actively working to prevent and respond to GBV. There are several projects which aim at reinforcing local capacities to fight GBV throughout the country, and work to provide GBV information systems.

163. *Mitigation plans.* In both Cameroon and Chad, the PIUs have conducted a GBV/SEA/SH risks assessment as part of the social assessment, which included a service mapping and a quality assessment of mapped service. The GBV/SEA/SH assessment is reflected in the safeguards instruments including the ESIA/ESMP as well as contractual obligations and other relevant project implementation documents. An SEA/SH prevention and mitigation plan is included in the ESMP: (a) CAMRAIL in charge of Component 1 and the CSCP in Chad have recruited or identified a gender/GBV specialist to oversee the implementation of the GBV/SEA/SH action plan and to monitor the evolution of GBV/SEA/SH risks throughout project implementation; (b) both will also recruit a GBV consultant (NGO) in each country to provide additional support to enhance project reach across all zones; and (c) moreover, in both countries, the PIUs will provide an updated GBV-sensitive GRM, providing safe access to potential GBV survivors, and enhancing GBV/SEA/SH-related complaints processing. The PIUs will ensure that the relevant GBV/SEA/SH risks prevention and mitigation requirements, including codes of conduct, gender/GBV expertise, and associated budgets, are considered throughout project procurement. The World Bank social development specialist and GBV consultant assigned to the project will provide TA to the project gender/GBV specialist and the GBV consultant (NGO) during implementation.

Gender analysis and proposed actions

164. **Gender-based inequalities are high in both Cameroon and Chad and have been aggravated by the COVID-19 pandemic**. Cameroon and Chad ranked 141 and 160 out of 162, respectively, on the Gender Inequality Index (UNDP 2019), which reflects gender-based inequalities in three dimensions–reproductive health, empowerment, and economic activity. Women in both countries work primarily in the agricultural sector and face similar challenges for development, particularly in areas of literacy, mortality, morbidity, access to assets, sexual violence, and early marriage. Women, especially in rural areas, face higher unemployment levels and carry a heavy burden of work such as collecting water and firewood, agricultural work, preparing meals or child rearing. Despite some improvements in the legislation to promote women, gender equality and equity in succession and access to land resources at the community level remain low in these countries, with women having little to no access to land despite being the most represented in the agricultural sector, and limited access to resources and financial services.

165. In Cameroon, gender-based inequalities are being affected by the country's three ongoing crises–the civil conflict in the southwest and northwest regions, the security crisis in the Lake Chad Basin, and the inflow of refugees from

the Central African Republic. An estimated 3.9 million people in Cameroon are in need of humanitarian assistance from the start of 2020. These crises are added to existing structural problems–notably high rates of maternal mortality, HIV/AIDS, poor access to drinking water, a fragile health system, and a youth/working class with high rates of underemployment. In this context, the gender inequalities deeply rooted in traditional and cultural norms place women in more vulnerable positions, particularly in terms of access to education, health, and economic opportunities. It is estimated that 39 percent of the population lives below the national poverty line, this rate rising to 51.5 percent for women. The average household size is 4.6 people and 26.4 percent of households are headed by women (INS., MICS5 2014). Gender inequalities have significant educational, health, and economic consequences. Women represent 71.6 percent of workers in the informal agricultural sector and only 32.5 percent of women over 25 have reached some level of secondary education (39.2 percent for men), with boys having greater access to education.

166. In Chad, although the law provides for equal inheritance rights and the right to own land for women, women still have limited access to land, financial resources, and credit. Chadian women also continue to be significantly under-represented in all spheres of political and public life, particularly in decision-making bodies, even at the community level. Limited access to education and disparities between girls and boys in this area is one of the most important primary sources of inequality in women's access to decision-making positions. Due to the traditional roles prescribed for men and women in the region, girls and women lack equal access to education. Girls may be less likely to go to schools than boys due to early marriage and household obligations, such as fetching firewood and water, or with agriculture activities and grazing livestock.

167. The COVID-19 pandemic has increased the challenges faced by women particularly in the health and education sectors, depriving women and girls of access to essential public services and the opportunity to protect themselves.[70] Experiences from countries who have been hit by the COVID-19 pandemic showed that specific forms of GBV are likely to increase in the context of isolation and quarantine measures in response to COVID-19.

168. **The project will seek to reduce some of the gender gaps identified during project preparation.** Under Component 1 in Cameroon, the project will finance several activities specifically designed to benefit women following an assessment of gender disparities in the railway sector. Women are indeed underrepresented when it comes to working in the railway sector. Female workers represented only 5.7 percent among the concessionaire staff in 2020. Following consultation with the Recipient during a national workshop on November 12, 2021, an ambitious target of 20 percent of female employment among the concessionaire staff has been agreed. A specific indicator is included in the project RF to capture progress toward reducing the identified gender gap and to monitor the achievement of the gender target in employment. Achievement of this target will require the project to finance among others (a) an assessment of gender disparities in the railway sector including a list of potential activities to create employment opportunities for women among the concessionaire staff; (b) awareness campaigns in communities, with special attention to women, about employment opportunities in railway construction; and (c) technical and gender-informed training on new railway maintenance approaches in order to increase women's employability and chances for career progression.

169. In Chad, to foster job opportunities for women and their participation in the road construction sector, the project will finance a detailed gender assessment in the road sector including the transport-related civil works, maintenance, and management of the constructed roads as well as trade facilitation sector. The assessment will

[70] Care. 2020. *Analyse Rapide Genre pour COVID-19 Cameroun Mai 2020*. https://www.careevaluations.org/wp-content/uploads/Rapport-RGA_COVID-19_pour_validation_Cameroun-VF.pdf

review the possibility of creating employment opportunities for women in the road sector and of setting targets to contribute to women's economic empowerment through employment during construction and maintenance. Achievement of these targets will require the project to finance (a) the development of a gender-tailored communication strategy; (b) awareness campaigns and training to include skills related to road rehabilitation and maintenance and financial literacy to support efforts in reducing the gap of employment between men and women; and (c) gender-centric activities such as support to women's groups to promote gender employment along the corridor.

Social Safeguards Capacity.

170. In Cameroon, the PIU at CAMRAIL will include an E&S specialist to provide oversight for the implementation of the ESMP as well as monitor the evolution of E&S risks. During project implementation, the project will also recruit a consultant (NGO) for GRM supervision, awareness campaigns, and activities for promotion of women's employment among the concessionaire staff. As regards managing project risk from GBV/SEA/SH, the PIU at CAMRAIL will include a GBV specialist. Additionally, CAMRAIL has recruited an NGO with gender and GBV/SEASH expertise to lead community/social communications during project preparation. The World Bank safeguards team will provide safeguards and ESF training to boost PIU capacity to manage project social risks. The World Bank safeguards team will also provide specific training on social aspects as well as organize information sharing sessions through the platform of PIU E&S specialists. The project will mobilize adequate financial resources for safeguards implementation and monitoring. During supervision, the World Bank safeguards team will verify the project's compliance with safeguards requirements.

171. In Chad, regarding GBV/SEA/SH-specific risks, the PIU has identified a GBV specialist. The NGO recruited for community/social communications will support the project GBV specialist in implementation and monitoring of the GBV/SEA/SH action plan. The NGO will also oversee SEA/SH complaints processing in the project GRM. The World Bank GBV specialists will build capacities of the project social specialist, GBV specialist, and NGO recruited to support the SEA/SH action plan. Moreover, the World Bank safeguards and GBV team will provide TA throughout the SEA/SH action plan implementation, and during supervision, verify the project's compliance with World Bank requirements for addressing SEA/SH risks.

Citizen engagement and project GRM

172. Although prepared under the World Bank safeguards policies, the project design has incorporated some of the core principles of the newly adopted ESF on stakeholder engagement and its corresponding guidance note. It is committed to proactive citizen engagement in Cameroon and Chad through the development and implementation of a comprehensive long-term two-way inclusive communication strategy. Citizen engagement has guided the design and preparation of the project and will be continued during project implementation. Consultations with stakeholders have been, and will continue to be, conducted throughout the project cycle. The groups consulted include district authorities, chiefs of departmental delegations, heads of railway stations and bus stations, members of associations or unions (such as moto taxis' associations, transporters' unions...), local residents, and more generally any stakeholder in the transport sector or concerned by the project. Three main approaches will be used: (a) collaboration: Representatives of civil society organizations (CSOs) will echo the voices of the beneficiaries and participate in the decision-making process for the implementation of project activities; (b) collection, recording and reporting of citizens' contributions: Feedback from beneficiaries on project implementation (effectiveness, inclusiveness, quality, delivery and targeting) will be obtained periodically during supervision missions and during the evaluation of project achievements through focus group discussions and

satisfaction surveys; the information collected will be used for continuous improvement; and (c) citizen-led monitoring: CSOs and communities will be involved in the supervision missions as well as in the joint evaluation of project results at the end of the project. Public consultations and stakeholder engagement will be conducted to comply with national and local COVID-19 restrictions put in place by the Government and minimize risks posed by conducting public meetings. The project will use diversified means of communication that are gender and culture sensitive, to ensure the inclusion of women and other vulnerable groups. The project will follow World Bank guidance on COVID-19 and stakeholder engagement.[71] A citizen engagement indicator has been included in the results matrix.

173. **GRM.** In Chad, a GRM at the project level will be developed by the PIU and will be put in place to allow all beneficiaries affected by the project to submit complaints and receive timely feedback and problem resolution. The existing GRM used by the Rural Mobility and Connectivity project (P164747) and approved by the World Bank will be updated and consolidated. The GRM will document grievances and maintain a database to track the type of complaints and their timely handling. For GBV/SEA/SH complaints, a survivor-centered approach will be adopted to ensure confidentiality. Specific measures and procedures will be put in place accordingly with the support of the NGO and the GBV specialist and annexed to the project's GBV/SEA/SH GRM document. In addition, in raising the awareness of communities and workers, it is necessary to strengthen the links between the GRM and the project's Codes of Conduct. All workers should understand the links between the grievance mechanism and the code of conduct. Their roles, responsibilities, and prohibited behaviors (such as SEA/SH) will be detailed in the code of conduct with penalties for misconduct.

In Cameroon, the PIU has prepared a GRM, though it is not yet fully operational. The GRM details channels and procedures to collect, track, and respond to general project-related complaints. The PIU is updating the GRM to include information from the ESIA, GBV assessment, and RAP consultations. The updated GRM will ensure multiple accessible channels through which PAPs can initiate complaints as well as appropriate conflict/complaint resolution procedures that ensure the safety of all its users. Moreover, the updated GRM will provide specific SEA/SH grievance response procedures, including confidential reporting with safe and ethical documenting of GBV cases and referral protocols. A GRM communications plan will be prepared and implemented by the NGO in charge of community/social communications. The project will hire a GBV consultant (NGO) to supervise GRM implementation, including SEA/SH complaints collection, processing, and resolution.

174. **Climate co-benefits.** The project contributes to enhancing resilience and reducing GHG emissions of the trade and transport sectors of Chad and Cameroon, mostly by (a) integrating climate resilience considerations in road and rail infrastructure design and maintenance requirements and (b) promoting a modal shift from road-based transport to rail transport which is a lower carbon alternative. Details of activities contributing to climate co-benefits are provided in Annex 6.

World Bank Grievance Redress System

175. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's

[71] World Bank. 2020. "Technical Note: Public Consultations and Stakeholder Engagement in World Bank-supported Operations When There are Constraints on Conducting Public Meetings".

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

176. **The project's overall risk is rated as Substantial on the basis of the detailed evaluation of specific risks.** The risk analysis which was carried out using the Systematic Operations Risk-Rating Tool showed that there are high and substantial risks in the political and governance areas, as well as in macro-economy, sector strategy and policy, fiduciary, institutional capacity for implementation and sustainability, stakeholder, and E&S areas.

177. **Both in Cameroon and Chad, Political and Governance risks are rated High.** This is due to the countries' weak governance structure, instability in Cameroon's Anglophone area, around the Lake Chad region and at the border with the Central African Republic, intra- and inter-communal conflicts along the Chad road corridor with recurrent clashes between pastoralists and farmers or between farmers, with an inflow of refugees. Both countries have medium-intensity conflict situations. More specifically, in Chad a military offensive in the Tibesti region (Northern Chad) initiated by a Chadian rebel group took place from April to May 2021 following the 2021 Chadian presidential election. The Chadian President was killed during the offensive, and his son became acting President of Chad as head of the Transitional Military Council of Chad. A special presidential election is expected in 2022 though sporadic clashes continued in the country's north. To balance these risks, the project will rely on a high-level bilateral steering committee between Cameroon and Chad, given the high priority of the corridor for both countries and the broader region, and constant monitoring of the security situation on the ground will be carried out to mitigate the impact on project implementation.

178. **The Macroeconomic risk is rated Substantial.** This is due to the medium-term outlook which is very challenging as the COVID-19 pandemic and its associated restrictions deteriorates global and regional economic environments and may increase volatility and fragility in regional trade. The current situation was preceded by a deterioration of Cameroon's and Chad's fiscal and external balances between 2012 and 2016, challenging macroeconomic stability and exposing the countries to greater vulnerability due to oil price changes. Nevertheless, even though the macroeconomic situation of the countries is currently very vulnerable, risks on the financing of the project are mitigated through ring-fenced external funding. In the case of co-financing with other International Financial Institutions (IFIs), a full assessment of grant conditions has been made through the World Bank-IMF model to limit the exposure of the Chadian Government and avoid any disruption of payments.

179. **The risk for Sector Strategies and Policies is rated Substantial.** Even though Cameroon's strategy for its railway sector is now well established, there are some potential threats and incertitude uncertainties concerning the railway governance system that could weaken the railway concession scheme. Regarding infrastructure maintenance, key sections of the rail network in Cameroon and of the road network in Chad have not been

adequately maintained over the past decades. As mitigation measures, a full analysis of the railway sector governance has been developed as part of project preparation[72] and some lessons learned from previous operations have been included in the project design. For Cameroon, an Integrated Multimodal Transport Infrastructure Strategy (IMTIS) was adopted under the MTP (P143801).

180. **Technical Design risk is rated Moderate.** CAMRAIL has much experience in design and implementation of railway rehabilitation. In Chad, the Ministry of Infrastructure has considerable experience with the OPBRC approach. The project design for Components 1 and 3 involves rehabilitation of existing infrastructure using established technical standards already used in previous operations. The technical design of other project components will also benefit from the experience of past projects, such as the CEMAC trade facilitation project (P079736).

181. **Institutional Capacity risk for Implementation and Sustainability risk is rated Substantial.** In Cameroon, although CAMRAIL has a long track record of proven experience with World Bank-financed projects, the risk to of a change in the concession agreement and in the risk sharing between the public and private sector might affect the sustainability of the project and of the concession. Besides, a new PIU to be based in Yaoundé will be created within the Ministry of Transport in Cameroon for Components 2 and 4 related to trade facilitation and road safety sectors. This newly created PIU will be supported to obtain the necessary skills to handle the technical, fiduciary, and safeguard aspects of project implementation. In Chad, the institutional capacity risk for implementation is moderate due to the presence of experienced staff at the PIU who have successfully implemented earlier projects.

182. **Fiduciary risk is rated Substantial.** Based on the assessment and mitigation measures detailed in Annex 1, the procurement residual risk is rated moderate in both countries. The FM residual risk is Substantial in both countries. For Cameroon, as CAMRAIL has a strong track record of implementing World Bank-financed projects, the key FM residual risks relate to the lack of experience of the new PIU within the MINT that will manage Component 2 and 4, and mitigation measures include recruiting qualified FM staff; leveraging the support of the PIU of an ongoing transport sector project, which is managing the PPA of the proposed project, and adopting robust management of advances to the DA and strengthening contract management. For Chad, there are several FM risks related to the project. The first risk is the size of the FM team at the CSCP level comprising of one Financial Management Specialist (FMS), one Accountant, and one Accounting Assistant, which is still managing the existing IDA-funded Rural Mobility and Connectivity Project (P164747). This new project may further stretch the capacity of the CSCP, and especially the FM team. The second risk is the low capacity of line ministry staff to supervise and monitor the overall project implementation. There is also the risk that corruption and irregularities go undetected and that the internal and external audits may not capture these weaknesses on time manner.

183. **The Environment and Social risk rating is Substantial.** The project is proposed to be classified as Environmental Assessment Category B. A detailed assessment of the E&S risks of the railway and road works has been carried out during the preparation phase. In Cameroon, a risk might arise from potential resettlement within the broader railway public domain beyond the 5 m wide railway platform, where railway rehabilitation will be undertaken. It has however been confirmed that no resettlement is expected unless required for the project as determined later during project implementation and therefore implemented in accordance with the RPF. Risk mitigation measures have been adopted. The full implementation of the mitigation measures will be closely monitored during project implementation.

[72] RebelGroup. 2021. *Evaluation des options d'évolution du schéma institutionnel pour les chemins de fer au Cameroun*. GIF- and PPIAF-financed study.

184. **Stakeholder risk is rated Substantial** given the recurrent criticism that CAMRAIL is facing. However, the project will benefit from Government support and relies on Government decisions and communication campaigns. The role of CAMRAIL is limited to operational support for Component 1, which is necessary to carry out rehabilitation works under the concession agreement between the Government of Cameroon and CAMRAIL. The project will involve affected communities situated along the road and the railway. During project implementation, the Governments will hold consultations with stakeholders to garner their support for the project.

VI. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY: Western Africa

Cameroon-Chad Transport Corridor

Project Development Objectives(s)

The proposed project development objective is to improve the efficiency and safety of regional trade transport along the Douala-N'Djamena intermodal corridor.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Improve efficiency of regional trade transport along the Douala-N'Djamena intermodal corridor				
Freight transit time from departing the Port of Douala to arriving in N'Djamena along the project intermodal corridor (Days)		20.00	16.10	12.20
Rail transit time from departing the Port of Douala to arriving at the Ngaoundéré platform (Days)		7.10	6.05	5.00
Unloading and loading time at the Ngaoundéré platform (Days)		1.70	1.35	1.00
Road transport time from Ngaoundéré to N'Djamena (Days)		4.20	3.20	2.20
Customs clearance time at destination (Days)		7.00	5.50	4.00
Transport cost of one ton of freight along the		155.38	148.27	141.16

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
project intermodal corridor (Amount(USD))				
Rail transport costs for one ton of freight from departing the Port of Douala to arriving at the Ngaoundéré platform (Amount(USD))		60.00	57.50	55.00
Offloading cost for one ton of freight at the Ngaoundéré platform (Amount(USD))		1.38	1.27	1.16
Road transport operating costs for one ton of freight from Ngaoundéré to N'Djamena (Amount(USD))		94.00	89.50	85.00
Improve safety of regional trade transport along the Douala-N'Djamena intermodal corridor				
Reduction in the number of victims (casualties and/or hospitalizations) per vehicle-km reported on the project intermodal corridor (Percentage)		0.00	15.00	30.00
Reduction in the number of casualties and hospitalizations per train-km reported on the rail section of the project corridor (Douala-Yaoundé) (Percentage)		0.00	15.00	30.00
Reduction in the number of casualties per vehicle-km reported on the road section of the project corridor (Percentage)		0.00	15.00	30.00

Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Component 1: Douala Yaoundé rail track rehabilitation and railway signaling modernization				

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Direct and indirect beneficiaries (Number)		0.00	4,400,000.00	8,800,000.00
Freight volume of the rail section the project corridor (Metric ton)		1.33	1.43	1.53
Length of railway track rehabilitated to climate-resilient standards (Kilometers)		0.00	119.05	238.10
Rate of progress of railway signaling modernization works (Percentage)		0.00	50.00	100.00
Derailments reported per 1,000 trains operated on the project section of the railway (Number)		0.60	0.40	0.20
Share of women among workers employed during track rehabilitation and maintenance (Percentage)		5.70	12.90	20.00
Debt service coverage ratio of CAMRAIL (Number)		1.71	1.46	1.20
Component 2: Rail/road connections investments, railway capacity building, road safety activities				
Platforms rehabilitated (Percentage)		0.00	50.00	100.00
Railway Master Plan updated (Yes/No)		No		Yes
Implementation of a diploma course for the railway sector in Cameroon (Yes/No)		No		Yes
Operationalization of the center for collection and analysis of road safety data (Yes/No)		No		Yes
Component 3: Road reconstruction, maintenance and safety improvements				
Direct and indirect beneficiaries (Number)		0.00	1,550,000.00	3,100,000.00
Freight volume on the road component of the project corridor (Metric ton)		0.38	0.66	0.94
Length of road rehabilitated to climate-resilient standards (Kilometers)		0.00	247.00	494.00
Length of road maintained to climate-resilient standards on performance-based contract (Kilometers)		0.00	288.50	577.00

Indicator Name	PBC	Baseline	Intermediate Targets	End Target
			1	
Calibrated axle-load monitoring stations along the corridor (Number)		0.00	3.00	6.00
Component 4: Trade facilitation component and project management				
Revision of major customs agreements between Chadian and Cameroonian administrations (Yes/No)		No		Yes
Formal registration procedure set in place for transporters (Yes/No)		No		Yes
Chadian operators using the e-GUCE platform (Number)		0.00	25.00	50.00
Transparent freight allocation procedure (Yes/No)		No		Yes
Registered grievances responded to and/or resolved within the stipulated service standards for response time (Percentage)		0.00	50.00	100.00

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Freight transit time from departing the Port of Douala to arriving in N'Djamena along the project intermodal corridor	Total aggregated transit time along the project corridor, from the departure at the Port of Douala to arriving in N'Djamena for freight traffic. It is the sum of the subindicators detailed	Biannual	See below	See below	See below

	below.				
Rail transit time from departing the Port of Douala to arriving at the Ngaoundéré platform	Rail transit time from departing the Port of Douala to arriving at the Ngaoundéré platform. It includes (a) the average time between the client's request of the wagon's provisioning for loading and the provisioning of the wagon by CAMRAIL for loading (currently 0.8 days), (b) the average time between the beginning of loading and the end of the declaration of shipment by the client (currently 1.9 days), and (c) the average rail travel time between Douala and Ngaoundéré stations, including waiting time for departure after the declaration of shipment) (currently 4.4 days) .	Biannual	Operational data from CAMRAIL collected monthly.	CAMRAIL's database	CAMRAIL
Unloading and loading time at the Ngaoundéré platform	Unloading and loading time at the Ngaoundéré platform. It includes (a) the time between delivery of the wagon to the loader and its actual unloading and (b) the administrative and	Biannual	Operational data from CAMRAIL collected monthly.		CAMRAIL

	customs formalities time.				
Road transport time from Ngaoundéré to N'Djamena	Road transport time from Ngaoundéré to N'Djamena	Biannual	Surveys of a representative number of transport companies and freight forwarders		CSCP
Customs clearance time at destination	Customs clearance time at destination	Biannual	Operational data provided by the Chad Customs and logistics operators in Chad		Chad customs, Dry port
Transport cost of one ton of freight along the project intermodal corridor	Average cost of transporting a ton of freight between Douala and N'Djamena. It is the sum of the two subindicators detailed below.	Biannual	See below	See below	See below
Rail transport costs for one ton of freight from departing the Port of Douala to arriving at the Ngaoundéré platform	Rail transport costs for one ton of freight from departing the Port of Douala to arriving at the Ngaoundéré platform	Biannual		Values will be calculated by CAMRAIL every six months by dividing the revenues of freight in transit by the volume of freight in	CAMRAIL

				transit transported over the same period of time.	
Offloading cost for one ton of freight at the Ngaoundéré platform	Offloading cost for one ton of freight at the Ngaoundéré platform	Biannual	CAMRAIL data		CAMRAIL
Road transport operating costs for one ton of freight from Ngaoundéré to N'Djamena	Road transport operating costs for one ton of freight from Ngaoundéré to N'Djamena	Biannual	Surveys	Calculation will be provided by Chad PIU based on surveys of a representative number of transport companies and freight forwarders.	CSCP
Reduction in the number of victims (casualties and/or hospitalizations) per vehicle-km reported on the project intermodal corridor	Average of the two subindicators monitoring safety on the rail and road sections of the project	Biannual	See below	See below	See below
Reduction in the number of casualties and hospitalizations per train-km reported on the rail section of the project corridor (Douala-Yaoundé)	Percentage of reduction of the number of deaths and hospitalizations of passengers, staff, and population, per train-km on the Douala-Yaoundé rail section	Biannual		Values will be calculated by CAMRAIL every six months by dividing the number of casualties and hospitalizations by the traffic flow over the same period of time. Force majeure accidents and those resulting from the negligence of third parties are excluded	CAMRAIL

				from the scope of this indicator.	
Reduction in the number of casualties per vehicle-km reported on the road section of the project corridor	Percentage of reduction of the number of deaths per vehicle-km on the Koutéré-N'Djamena road corridor.	Biannual		Values will be calculated by the CSCP every six months by dividing the number of casualties reported by ONASER by the traffic flow over the same period of time. Force majeure accidents are excluded from the scope of this indicator- only avoidable occurences are considered.	• Accidentology: ONASER • Traffic flow and calculation: CSCP

Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	**Definition/Description**	**Frequency**	**Datasource**	**Methodology for Data Collection**	**Responsibility for Data Collection**
Direct and indirect beneficiaries	Number of direct and indirect beneficiaries that experience improved access to transport infrastructure and services that have been built or rehabilitated through the project	Every 3 years	Geographic Information Systems (GIS) information and population distribution	This indicator is calculated using GIS, by defining a 20 km buffer around the railway and joining it with a population distributionmap layer	MINT PIU

				to calculate the number of beneficiaries.	
Freight volume of the rail section the project corridor	Million tons of goods in transit by rail per train and per year on the Douala-Yaoundé section	Biannual	Operational data from CAMRAIL	This indicator will be updated based on operational data provided by CAMRAIL.	CAMRAIL
Length of railway track rehabilitated to climate-resilient standards	Length of railway track rehabilitated to climate-resilient standards, through measures including (a) drainage structure improvements (adding new culverts and enlarging opening of existing ones) and (b) the replacement of worn tracks using resistant materials.	Biannual	Work completion reports	Rehabilitation works target the rail section from PK 17+350 to PK 255+450 between Douala and Yaoundé. This indicator will be updated based on work completion reports provided by CAMRAIL.	CAMRAIL
Rate of progress of railway signaling modernization works	Rate of progress of railway signaling modernization works	Biannual	Work completion report	This indicator will be updated based on work completion reports provided by CAMRAIL.	CAMRAIL
Derailments reported per 1,000 trains operated on the project section of the railway	Number of derailments per 1,000 trains operated on the main track of the project section of the railway	Biannual	Operational data from CAMRAIL	Values will be calculated by CAMRAIL every six months by dividing the number of derailments by the traffic over the same period of time. Force	CAMRAIL

				majeure derailments are excluded from the scope of this indicator- only avoidable occurences are considered.	
Share of women among workers employed during track rehabilitation and maintenance	Share of women among workers employed during track rehabilitation and maintenance	Biannual	This indicator will be updated based on employment reports provided by CAMRAIL.		CAMRAIL
Debt service coverage ratio of CAMRAIL	Debt service coverage ratio of CAMRAIL	Biannual	This indicator will be updated based on financial data provided by CAMRAIL.		CAMRAIL
Platforms rehabilitated	Percentage of work completion on platforms concerned by the project	Biannual	Completion reports provided by MINT/CAMRAIL		MINT/CAMRAIL
Railway Master Plan updated	Updated strategy of the Plan Directeur Ferroviaire	Biannual		The "Yes" value will be reached upon	MINT

	National			publication of the Plan Directeur Ferroviaire National.	
Implementation of a diploma course for the railway sector in Cameroon	Implementation of a diploma course to develop human capital and skills in the railway sector in Cameroon	Biannual		The "Yes" value will be reached upon graduation of the first student's cohort.	MINT
Operationalization of the center for collection and analysis of road safety data	Making the center for collection and analysis of road safety data fully operational by supplying the needed equipment and providing capacity building assistance to the center's staff	Biannual		The "Yes" value will be reached upon completion of both aspects of the operationalization.	MINT
Direct and indirect beneficiaries	Number of direct and indirect beneficiaries that experience improved access to transport infrastructure and services that have been built or rehabilitated through the project	Every 3 years	GIS information and population distribution	This indicator is calculated using GIS, by defining a 20 km buffer around the project road section and joining it with a population map layer to calculate the number of beneficiaries.	CSCP
Freight volume on the road component of the project corridor	Million tons of goods in transit on the road section from Koutéré to N'Djamena	Biannual	Surveys of a representative number of		CSCP

			transport companies and freight forwarders		
Length of road rehabilitated to climate-resilient standards	Number of kilometers of road rehabilitated financed by the project. Climate resilience enhancement is achieved through measures including (a) drainage structure improvements (adding new culverts and enlarging opening of existing ones) and (b) adequate pavement design (use of appropriate layer coefficients, drainage coefficients, weather-resistant pavement surfacing materials, asphalt mix designs, and pavement thicknesses).	Biannual	Work completion reports from the supervision firms	This indicator will be updated based on work completion reports provided by the main constructor.	CSCP
Length of road maintained to climate-resilient standards on performance-based contract	Number of kilometers that are reported to be maintained at a satisfying level and to climate-resilient standards. Climate resilience is ensured through provisions included in the contracts to remedy the impacts of extraordinary	Biannual	Work completion report from the supervision firm	This indicator will be updated based on work completion reports provided by the main constructor.	CSCP

	climate events (heavy rains and flooding).				
Calibrated axle-load monitoring stations along the corridor	Number of calibrated axle-load monitoring stations along the corridor	Biannual	Data from DGIT MID	This indicator will be updated based on work completion reports provided by the main constructor.	CSCP
Revision of major customs agreements between Chadian and Cameroonian administrations	This indicator measures the improvement of both the bilateral convention signed on transit transport between the two countries and the Mutual Administrative Assistance Agreement between the two customs administrations.	Biannual		The "Yes" value will be reached upon signature of the revised: (a) bilateral convention signed on transit transport and (b) Mutual Administrative Assistance Agreement between the two customs administrations.	Directorate General of Customs of Chad and Cameroon
Formal registration procedure set in place for transporters	This indicator measures success in the establishment of an accreditation system for transporters and means of transport.	Biannual		The "Yes" value will be reached upon signature of the decree/ministerial ruling validating the implementation of the new system.	Ministry of Transport of Chad and Cameroon
Chadian operators using the e-GUCE platform	This indicator measures success in the deployment of the electronic single	Biannual	This indicator will be updated		GUCE

	window for external trade procedures (e-GUCE) to Chadian transport operators.		based on operational data collected by GUCE.		
Transparent freight allocation procedure	This indicator measures the success in providing the BGFT and BNFT with an information system allowing the freight and transport offers to be publicly disclosed, with the possibility of direct interaction between the shipper and the carrier to negotiate the transport contract.	Biannual		The "Yes" value will be reached upon first publication of a freight or transport offer on the BGFT/BNFT information system.	BGFT/BNFT
Registered grievances responded to and/or resolved within the stipulated service standards for response time	Share of all grievances received by the GRM that have been addressed within the stipulated timeframe of one month	Biannual	Information provided by respective implementing agencies in Cameroon and Chad		Cameroun and Chad PIUs

ANNEX 1: Implementation Arrangements and Support Plan

A. Project institutional and implementation arrangements

1. **Project oversight at the regional level**. Overall responsibility for project implementation at regional level will be with by a Bilateral Steering Committee and a Bilateral Technical Committee.
   - The Bilateral Steering Committee will be responsible, among other things, for (a) giving strategic orientations; (b) monitoring the overall performance of the project; (c) identifying, in relation to the donors, any necessary adjustment according to the progress of implementation and project results; and (d) contributing to the timely mobilization of counterpart funds if necessary. It will be co-chaired by the ministers in charge of infrastructure of Chad and transport in Cameroon. The members of the committee shall include, among others, representatives of ministries in charge of planification, infrastructures, finance, lands affairs, environment of each country, and the project coordinators (PIU heads). It will meet at least once a year.
   - The Bilateral Technical Committee will be composed of focal points from the different ministries and agencies involved in the project to provide technical supervision on behalf of the project governments. It will be co-chaired by high representatives of line ministries of each country. It will meet at least once every six months.

2. **Project oversight at the national level.** The MID in Chad and the MINT in Cameroon will be the line ministries and will have overall coordination responsibility for all project-related activities. In each country, a National Inter-ministerial Steering Committee will be chaired by the line ministry and will comprise representatives of other ministerial departments to ensure coordination. In Chad, the steering committee is already in place within the MID while in Cameroon, a specific steering committee will be created within the Ministry of Transport.

3. **Government counterparts funding** will cover the costs of the (a) Bilateral Steering Committee; (b) Bilateral Technical Committee; (c) the Special Tender Board; (d) the National Steering Committees; (e) any costs (including per diems) related to the carrying out of site visits, and follow-up and supervision missions; and (f) any other costs required for project implementation that are not eligible for financing by IDA (for example, payments of government civil servants).

4. **PIUs.**
   - In Chad, the PIU in charge of the infrastructure project within the MID in Chad will manage Component 3 and the activities of Component 4 specific to Chad. This PIU (CSCP) is already established and fully operational for all World Bank financed transport projects, including the implementation of fiduciary and safeguards World Bank policies. The CSCP is a public administrative unit with financial autonomy created by Decree No. 277/PR/MTP/MTAC/89 of April 29, 1989, with the following mission: (a) to ensure technical and financial monitoring of the implementation of investment programs and measures; (b) to ensure coordination of actions to be carried out with donors and national authorities; and (c) to produce quarterly reports on the status of projects. The CSCP is headed by a Coordinator and includes a Deputy Coordinator, an Internal Auditor, an Administrative and FMS, a Procurement Specialist, a M&E Specialist, an Environmental Specialist, a Social Specialist and an Accountant. This team has been in place and implementing the Rural Mobility and Connectivity Project (P164747). The PIU will be reinforced with the recruitment of an assistant procurement specialist, an assistant accountant and a GBV expert.
   - In Cameroon, institutional and fiduciary arrangements for the Component 1 of the proposed project will be the same as for the closed regional CEMAC TTFP and MTP. The PIU will remain the concessionaire CAMRAIL. CAMRAIL is a private entity responsible for the transport of passengers and merchandises by rail in Cameroon.

The privatization of the operation of Cameroon's railway became effective in 1999 with a concession agreement signed between the Government of Cameroon and CAMRAIL. The concession agreement was amended twice and established until 2034. The project implementation team within CAMRAIL is fully staffed and experienced as it has worked on the now closed regional CEMAC TTFP since its inception. The project implementation team is adequately staffed with the right skills mix and has proved effective in managing project activities, even though some delays in procurement activities have been observed. Besides a thorough assessment of their capacity on E&S implementation has been undertaken. Staff competencies will be reinforced, and procedures will be strengthened to comply with World Bank policies.

- In Cameroon, for Components 2 and 4 for activities related, a PIU will be established and hosted within the MINT. Its creation will be an effectiveness condition for this project. The newly established PIU will be based in Yaoundé, with the technical, fiduciary, and safeguards skills necessary for the satisfactory implementation of the project and will create new capacity in an entity who plays a critical role in the governance of the railway, trade facilitation, and road safety sectors. Under the PPA, a team composed of key staff such as an FMS, a procurement specialist, and an accountant were competitively recruited with competencies satisfactory to the World Bank to advance on project preparatory activities; a coordinator was nominated with the non-objection of the World Bank. This team will constitute the PIU which will be reinforced with the recruitment of the E&S specialist, M&E specialist, an internal auditor and an independent external auditor. These recruitments will be included as dated covenants for the implementation of the project. Furthermore, the team has received support from the PIU in charge of the air component as part of the Transport Sector Development Project (P143801) for the fiduciary aspects during the preparation phase.

5. **Implementation schedule.** The proposed project will be implemented over a 10-year period. The contracts for the identified infrastructure works are all expected to be signed during the first 18 months of implementation.

B. Financial Management Assessment

6. As part of the project preparation, an FM assessment of the proposed PIUs was conducted for Chad, and Cameroon. The objective of the FM assessment was to determine whether the respective selected PIUs have adequate FM arrangements to ensure that the: (a) project funds will be used for purposes intended in an efficient and economical way; (b) project financial reports will be prepared in an accurate, reliable, and timely manner; (c) project's assets will be safeguarded; and (d) project is subjected to a satisfactory auditing process. The review of existing FM systems included budgeting, staffing, financial accounting, financial reporting, funds flow and disbursements, and internal and external audit arrangements.

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(i) Budgeting Arrangements

7. The CSCP will prepare an annual work plan and budget (AWPB) in accordance with ToRs acceptable to the World Bank. The implementing entities receiving funds from the CSCP will submit their budgets to the CSCP for consolidation. The AWPB will then be submitted to the World Bank for approval not later than November 30 of each calendar year throughout the implementation of the project.

8. The CSCP will monitor the project's budget execution with the project accounting software in accordance with the budgeting procedures specified in the Project Procedures Manual, and they will report on variances along with

submitting the semi-annual unaudited IFRs. The budgeting system will need to forecast for each fiscal year the origin and use of funds under the proposed project Only budgeted expenditures will be committed and incurred to ensure that resources are used within the agreed-upon allocations and for the intended purposes. The semi-annual IFRs will be used to monitor the execution of the AWPB.

(ii) Accounting Arrangements

9. **Accounting policies and procedures, and information system.** Overall, accounting procedures are adequate for the CSCP. The CSCP will utilize a multi-site license of the existing accounting software used for the ongoing IDA-funded Rural Mobility and Connectivity Project (P164747) to reflect the needs of the proposed project. The new accounting software license will be acquired, and the existing accounting systems will be customized within three months after effectiveness. The team will keep records on an Excel spreadsheet until then. Any new accounting staff recruited for the proposed project will be trained to be conversant with the accounting software.

10. A Project Procedures Manual (setting out guidelines and procedures for administrative, FM, and disbursement, and other fiduciary arrangements under the project) will be prepared in form and content satisfactory to the World Bank, no later than two months from effectiveness.

11. **Accounting staff.** To strengthen the accounting staffing arrangements in place at the CSCP, which will retain the FM staff currently in charge of the ongoing IDA-funded Rural Mobility and Connectivity Project (P164747), several actions are recommended. All accounting staff will be trained in World Bank FM and disbursement procedures as well as in the use of the project accounting software.

12. The current FM team within the CSCP comprises: one qualified, and experienced FMS, an Accountant, and one Accounting Assistant at the central level, in the office of N'Djamena. An additional Accountant to be dedicated to the project should be recruited no later than three months after effectiveness.

13. **Accounting standards and basis.** The CSCP will use the current SYSCOHADA accounting system customized for African francophone countries and in use for the ongoing IDA-funded Rural Mobility and Connectivity Project (P164747), and other World Bank-funded projects managed by the CSCP. It will also use the modified cash basis of accounting.

(iii) Internal Controls and Internal Audit Arrangements

14. **Internal controls.** The internal control procedures will be documented in the Project Procedures Manual, the PIM, and the M&E Manual, taking into consideration the current gaps in the internal controls to ensure that project FM arrangements are in line with the financing agreement. These efforts will ensure that the proposed project has an effective internal control system covering the procedures required to support activities under different components, including those that will be carried out with subnational and local actors. A review of the internal control systems noted no major internal control issues.

15. **Internal audit.** Robust internal audit arrangements are in place at the CSCP. The Internal Audit team within the CSCP comprises of an Internal Auditor with qualifications and experience satisfactory to the World Bank. The internal auditor will conduct the audit using a risk-based approach. To this end, the CSCP will need to include in the annual workplan of its current internal audit team the activities of the proposed project. The ToRs and contract of the

current Internal Auditor will be revised to take into consideration the needs of the proposed project, within one (1) month of project effectiveness.

(iv) Funds Flow Arrangements

16. **Designated Account (DA).** A DA will be opened in a reputable commercial bank acceptable to the World Bank and managed by CSCP, to receive advances for the project's expenditures eligible for project financing. The DA will be managed according to the disbursement procedures described in the Project Procedures Manual, and in the DFIL which was discussed in detail with the relevant government officials during negotiations. The initial advance to the DAs will cover approximately four months of expenditures and will be specified in the DFIL. The minimum value of direct payment and special commitment is 20 percent of outstanding advance made to the DA.

17. **Disbursements.** The CSCP will access funding from the World Bank using the disbursement methods described in the World Bank Disbursement Handbook (that is, advance, direct payment, reimbursement, and special commitments). Detailed disbursement procedures will be documented in the Project Procedures Manual. Upon grant effectiveness, the CSCP will be required to submit a withdrawal application for an initial deposit to the DA, drawn from the IDA grant, in an amount agreed in the DFIL. Further deposit of funds from IDA to the DA will be made upon evidence of satisfactory utilization of the advance, reflected in the Statements of Expenditure (SOEs). Withdrawal applications must be submitted regularly (at least once a month).

18. If ineligible expenditures are found to have been made from the DA, the Recipient will be obligated to refund the same. If the DA remains inactive for more than three months, the World Bank may reduce the amount given as advance. The World Bank will have the right, as reflected in the terms of the Financial Agreement, to suspend disbursement of the funds if significant conditions, including reporting requirements, are not complied with. Additional details regarding disbursement will be provided in the DFIL.

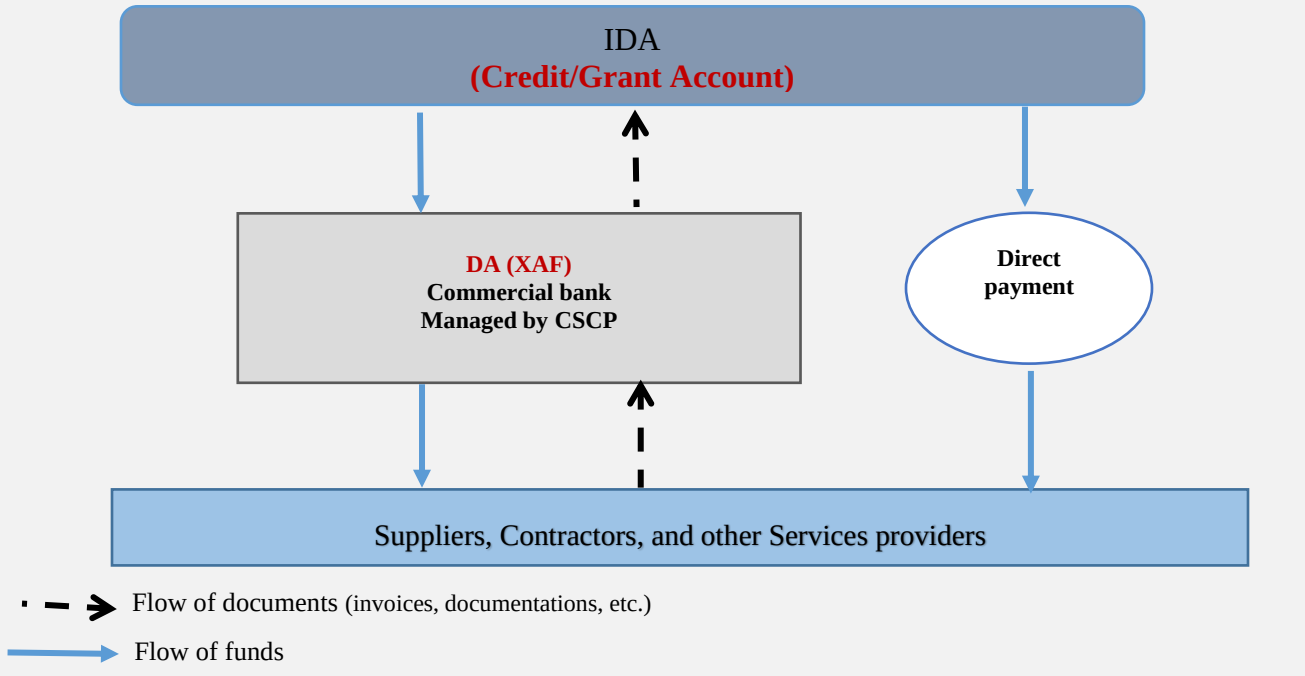
Table 1.1. Eligible Expenditures per Category for IDA Grant to Chad

Category	Amount of the Grant Allocated (expressed in SDR)	Percentage of Expenditures to be Financed (exclusive of Taxes)
(1) Goods, works, non-consulting services and consulting services under Part 3.1 (i) of the project	145,300,000	Up to a maximum of 100 percent, as such percentage is determined by the Association as the sum of the Association's financing percentage of Eligible Expenditures under the Grant combined with the financing percentage covered by the Co-financiers and established for each calendar year, starting in calendar year 2022, on the basis of the applicable AWP&B approved by the Association pursuant to the provisions of Section I.H of this Schedule 2
(2) Goods, works, non-consulting services, consulting services, training and Operational Costs under Parts 3.1 (ii), 3.2, 3.3, 3.4, 4.1 (ii), 4.2 (ii), 4.4 (ii) and 4.5 (ii) of the project	13,700,000	100 percent

(3) Resettlement Costs under Part 3.4 (ii) of the project	600,000	100 percent
(4) Emergency Expenditures under Part 5.2 of the project	0	100 percent
(5) Refund of Preparation Advance	1,100,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
TOTAL AMOUNT	160,700,000	

19. **Funds flow.** Funds will flow from the DA to the suppliers, contractors, consultants, and other beneficiaries. The signatories to the DA should be in line with the Project Procedures Manual. The diagram below depicts the funds flow mechanism that will be deployed for the project.

Figure 1.1. Flow of Funds Disbursements in Chad



(v) Financial Reporting Arrangements

20. The CSCP will prepare semi-annual unaudited IFRs in form and content satisfactory to the World Bank, which will be submitted to the World Bank within 45 days after the end of the semester to which they relate. The frequency, formats and contents of the IFR were agreed upon between the World Bank and the Recipient during negotiations. The contents of the IFRs for the proposed project will include the following information to account for project funds:

- Statement of Sources and Uses of Funds
- Statement of Uses of Funds by Project Activity/Component
- DA Activity Statement
- Bank statements for both the DA and related bank reconciliation statements
- Summary statement of DA expenditures for contracts subject to prior review
- Summary statement of DA expenditures not subject to prior review

21. The CSCP will also prepare annual financial statements for the project within three months after the end of the accounting year, and these statements will comply with SYSCOHADA and World Bank requirements. The audited financial statements will be required to be submitted to the World Bank within six months after the end of the fiscal year.

(vi) External Audit Arrangements

22. The CSCP will use private audit firms that are acceptable to the World Bank; the project will meet the cost of hiring a private audit firm. All audits will be carried out in accordance with International Standards on Auditing. The ToRs for will be agreed with the World Bank. The external auditors must be appointed within six (6) months of effectiveness. Audit reports for the project accounts, together with a management letter, should be submitted to the World Bank within six months after the end of the government's fiscal year (December 31 for Chad). The audit reports will be publicly disclosed by the World Bank in accordance with the World Bank disclosure policy. A review of the audit reports (as documented under the internal control assessment reported above) found no major accountability and internal control issues that needed to be addressed. The CSCP does not have outstanding audit reports.

23. Resettlement funds will be included in the annual project auditing exercises and will be managed as specific transaction/expenditures related to resettlement in the project's general ledger to facilitate this audit. The ToR of the external auditor will be modified to include these expenditures and the external auditors will express their related appreciation in a separate paragraph in the audit report. The project internal auditor will update the internal audit annual work plan to include these activities and conduct internal auditing exercises to verify the appropriate use of the funds.

Table 1.2. FM Action Plan for Chad

Issue/topic	***Action recommended***	***Responsible body/person***	***Completion status/date***
Staffing	Recruitment of an additional Accountant	CSCP	Within three months after effectiveness
Information system accounting software	Configure CSCP accounting software parameters to take into consideration the specificity of the proposed project	CSCP	Within three months of effectiveness
FM Manual of Procedures	Elaborate Project Procedures Manual	CSCP	Within two months of effectiveness
PIM	Elaborate a PIM	CSCP	Before effectiveness
M&E Manual	Elaborate an M&E manual	CSCP	Within two months of effectiveness
DA	Opening a DA in a commercial bank under conditions satisfactory to IDA	CSCP	Within one month of effectiveness
Internal Auditing	ToRs and contracts of existing FM staff to be updated	CSCP	Within one month of effectiveness
External Auditing	Recruitment and appointment of an External Auditor	CSCP	Within six months of effectiveness

CAMEROON

24. In line with the use of the country's national system, the project FM arrangements will rely on the existing country FM arrangements put in place to manage donor-funded projects. These arrangements are centered on two main institutions, the CAA equipped with dedicated tools developed by the Bank Institutional Development Fund (IDF) and the Ministry of Public Procurement in charge of ex ante control of all suppliers' invoices associated with a contract before any payment by the CAA.

25. ***Staffing.*** The PIU to be established under the MINT will be fully staffed with an FM officer and an accountant. The team will be supported by an internal auditor. For CAMRAIL, the PIU is already staffed with an FM officer and an accountant. The CAMRAIL internal audit unit should fulfill the internal audit needs of the project.

26. ***Budgeting.*** The overall responsibility for preparing an annual work plan and related budget will lie with the PIUs. The different steps of budget management (preparation, revision, adoption, and execution) will be detailed in the budget section of the Project Procedures Manual of each PIU. The AWPB and budget will be prepared yearly, submitted to the World Bank early enough to have them approved and included in the national finance law. A budget execution report will be included in a bi-annual IFR to enable the project's implementation to be monitored.

27. ***Accounting Policies and Procedures.*** Each PIU through its accounting team will have the overall responsibility for maintaining the accounts of the project activities and ensuring that the annual financial statements are produced on timely manner and in accordance with the OHADA accounting standards that are in effect in Cameroon. An accounting software will be procured and installed through the PPA for MINT, while the existing accounting software will be customized for the project's purposes for CAMRAIL. Moreover, when the current CAA reporting systems, developed with the software provider Tomate, permits, a dedicated window will be opened for the project's users by CAA on the module of the accounting and reporting of said CAA information system. Once the case is set, thanks to the interface that is being developed between the Integrated Disbursement Management System (*Système Intégré de Gestion des Décaissements,* SIGED) and the existing systems in the Directorate of Public Treasury (PATRIOT) and the Directorate of Budget (PROBMIS), the project transactions will be easily incorporated into the national financial statements.

28. ***Internal Control and Internal Auditing.*** The administrative, financial, and accounting procedures will be a standalone document for each PIU. The manual will include a clear description of the initiation and approval processes with respect to segregation of duties. In that regard the standardized FM Manual of Procedures developed by the CAA with World Bank IDF support will be customized to reflect the project specificities for the MINT; the MTP manual will be customized for CAMRAIL. Each PIU will make use of the computerized accounting system to capture all project-related transactions. The FM officers will be responsible for maintaining all necessary controls to ensure: (a) that the project funds are used only for the intended purposes in an efficient and economical way; (b) the preparation of accurate, reliable, and timely periodic financial reports; and (c) that the project's assets are adequately safeguarded. These are reinforced by the government's internal control arrangements, such as the review and visa by the Ministry of Public Contracts before the payment of the project's invoices, and the control by the CAA over withdrawal applications and payments requests.

29. To sustain the capacity building initiatives of the project team, the World Bank units will provide adequate training in disbursement and FM procedures to the project FM team. All of these measures aim at further enhancing the internal control system.

30. An internal audit unit is operational in CAMRAIL. Therefore, it will be relied on to conduct the internal audit reviews of the project. For the MINT, an internal auditor will be hired to conduct ex post reviews.

31. ***Financial Reporting and Monitoring.*** The IFRs to be generated from the computerized FM system will be presented in accordance with the format acceptable to the World Bank and submitted to IDA within 45 days of the end of each calendar quarter. The current content and format of the IFR agreed upon under the Multimodal Project will continue to be used for CAMRAIL. The IFRs will normally include: (a) sources and uses of funds by the classifications of project expenditures; (b) a comparison of budgeted and actual project expenditures (commitment and disbursement) to date and for the quarter; (c) a statement of the use of funds by component or activity, (d) DA activity; and (e) a physical progress report on the implementation of the project. At the end of each fiscal year, the project will prepare and consolidate annual financial statements and submit it for external audit.

32. ***External Auditing.*** The consolidated annual financial statements and quarterly IFRs prepared by the PIUs as well as the internal control system will be subject to an annual audit by a reputable and independent auditing firm based on ToR that are satisfactory to IDA.

33. 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 the DA to the ultimate beneficiaries. The project will comply with the World Bank's access to information and disclosure policies by making all disclosable audit reports publicly available promptly after receiving them. The project's external auditor will be hired within six months of 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.

34. ***Funds Flow and Disbursement Arrangements.*** 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 public accountant which includes the signing authorization on all payment means using the automated payments module of the CAA information system for donor financing.

35. 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 DA is not a Disbursement Method currently available under this Financing. 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 DFIL will first need to be amended at a later date to reflect such arrangements, if already signed before.

36. Funds will flow from the IDA Account to one DA denominated in CFA franc for each PIU and opened in a reputable commercial bank in Cameroon that is 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 manuals and the DFIL which will include a closer monitoring of the advances to the DA, including lower DA ceilings and more frequent reporting to mitigate the risks associated with prior projects implemented by the PIU in the same sector.

37. Upon effectiveness, this operation will follow the transaction-based disbursement method. The initial advance will be equivalent to four months' forecast of eligible expenditures and will be replenished regularly through Withdrawal Applications based on the 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.

38. If ineligible expenditures are found to have been made from the DAs, the implementing entities will be obligated to refund the same. If the DAs remain inactive for more than six months, the implementing entities may be requested to refund to IDA amounts advanced to the DAs.

Table 1.3. Eligible Expenditures per Category for IDA Credit to Cameroon

Category	Amount of the Credit Allocated (expressed in EUR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services and training under Part 1 of the project	215,800,000	100 percent
(2) In-House Costs under Part 1.1 (iii) of the project	16,300,000	100 percent
(3) Goods, works, non-consulting services, consulting services, training and Operating Cost under Parts 2, 4.1 (i), 4.2 (i), 4.3, 4.4 (i), 4.5 (i) of the project	42,300,000	100 percent
(4) Emergency Expenditures under Part 5.1 of the project	0	100 percent
(5) Refund of Preparation Advance	1,500,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
TOTAL AMOUNT	275,900,000	

Figure 1.2. Flow of Funds Disbursements in Cameroon

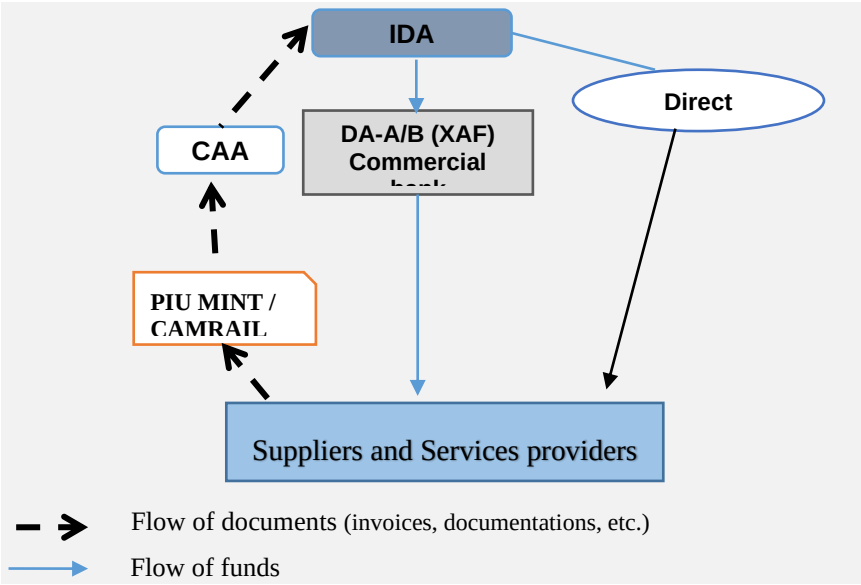


Table 1.4. FM Action Plan for Cameroon

Action to be undertaken	Completion date	Responsible body
1- Recruit an FM officer	Through the PPA	PIU MINT
2- Recruit an accountant	Through the PPA	PIU MINT
3- Purchase and customize an accounting software to handle the project activities under its responsibility	Not later than two months after effectiveness	PIU MINT
4- Elaborate the project FM procedures manuals	Not later than two months after effectiveness	PIU MINT/ CAMRAIL
5- Recruit an internal auditor to conduct ex post review of the project activities	Not later than three months after effectiveness	PIU MINT
6- Recruit an external auditor to conduct annual financial audit of the financial statements of the project along with the review of the internal control system	Within six months of effectiveness	PIU MINT/ CAMRAIL

IN BOTH COUNTRIES

Governance and Anti-Corruption (GAC) Arrangements

39. The implementing entities will follow the institutional rules/regulations/guidelines/policies and procedures in place. FM arrangements will ensure that there are internal control systems in place and audits conducted to prevent and detect fraud and corruption. Transparency and accountability are highly encouraged by putting the project budget and audited financial statements on the project implementing entity's websites if applicable. Complaint-handling mechanisms should also be set up by the project implementing entity so that beneficiaries who are not receiving services as planned have a mechanism to raise their complaints and ensure that they are followed up and addressed. This will involve putting a system in place to record all complaints received, direct them to the person responsible for addressing them, and record when a response is sent to the complainant. The proposed project must also comply with the World Bank Anti-Corruption Guidelines. The World Bank and the government officials will explore the use of the Global Environment Monitoring System (GEMS), for the monitoring of infrastructure contracts, which will also provide additional real-time information for internal and external audits.

Supervision Plan

40. As part of its project supervision missions, IDA will conduct risk-based FM supervision and implementation support visits, at appropriate intervals. During project implementation, IDA will supervise the project's FM arrangements in the following ways: (a) review the project's semi-annual IFRs as well as the project's annual audited financial statements and auditor's management letter, remedial actions recommended in the auditor's Management Letters; (b) during IDA's on-site supervision and implementation support missions, review the following key areas: (i) project accounting and internal control systems; (ii) budgeting and financial planning arrangements; (iii) disbursement management and financial flows, including counterpart funds, as applicable; and (iv) any incidences of corrupt

practices involving project resources; and (c) conduct joint FM and procurement contract post reviews will be conducted once per year. As required, a World Bank-accredited FMS will assist in the supervision process.

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

Table 1.5. Implementation Support Plan

FM Activity	Frequency
Desk reviews	
IFRs review	Semi-annually
Audit report review of the project	Annually
Review of other relevant information such as interim internal control systems reports	Continuous as they become available
On site visits	
Review of overall operation of the FM system	Semi-annual (Implementation Support Mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit, and other reports	As needed
Transaction reviews (if needed)	As needed
Capacity building support	
FM training sessions	During implementation and as and when needed

Conclusion of the FM Assessment

42. The FM Assessment indicates that subject to the full implementation of the agreed action plan, the proposed FM arrangements meet the World Bank's minimum requirements under World Bank Policy IPF, and therefore are adequate to provide, with reasonable assurance, accurate and timely information on the status of the project required by the World Bank (IDA). The overall residual risk ratings are Substantial for both Chad and Cameroon.

C. Procurement

43. **Applicable procurement rules and procedures.** 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),** as well as the provisions stipulated in the Financing Agreement.

44. **Fraud, coercion, and corruption.** The project's procurement activities will be carried out in accordance with the Anticorruption Guidelines (Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and revised in January 2011 and as of July 1, 2016.

45. **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 Regulations. Procurement plans 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.

46. **Procurement documents.** For international competitive procurement of goods, non-consulting services, and consulting services, the Recipients 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.

47. **For National competitive of Procurement of Goods,** as of today, the National Standard Bidding documents in Chad and Cameroon contain majors' deviations with the World Bank procedures. The Recipients 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

48. **Procurement information and documentation, filing and database.** Procurement information will be recorded and reported by the PIUs 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: (i) revised cost estimates, where applicable, for each contract; (ii) 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 (iii) updated Procurement Plans, including revised dates, where applicable, for all procurement actions.

49. **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.

50. **For request for bids and request for proposals** that involve international bidders/consultants, the contract awards shall be published in the United Nations Development Business 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.

51. **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 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.

52. **For other contracts**, the information should be published in the 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.

53. **Training, workshops, study tours, and conferences.** Training (including training material and support), attendance to workshops and conferences based on individual or group needs, and on-the-job training, will be carried out based on an approved annual training and workshop/conference plan, which will identify the general framework of training activities for the year. A detailed plan and ToR providing the nature of training/workshop, number of trainees/participants, duration, staff months, timing, and estimated costs will be submitted to IDA for review and approval before initiating the process. The appropriate methods of selection will be derived from the detailed schedule. After the training, each beneficiary 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. Reports by the trainees, including completion certificate/diploma upon completion of training, shall be provided to the Project Coordinators, will be kept as parts of the records, and will be shared with the World Bank if required.

54. **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 manuals shall be prepared/updated by the Recipients and agreed with the World Bank before effectiveness.

55. **Operating costs.** Operating costs financed by the project are incremental expenses, incurred by the PIUs or its regional representations, based on the Annual Work Plans and Budgets as approved by IDA, on account of project implementation, management, and M&E, including office supplies, bank charges, vehicles operation, maintenance and insurance, maintenance of equipment and buildings, communication costs, travel and supervision costs (that is, transport, accommodation, and per diem), the costs related to utilities and office space rental, and salaries of contracted and temporary staff. The related goods/services will be procured using the procurement procedures specified in the Procedures Manuals and accepted and approved by the World Bank.

56. **Procurement Procedures.** When approaching the national market, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3 to 5.6 related to National Procurement Procedures and subject to certain requirements for national open competitive procurement. Other national procurement arrangements (other than national open competitive procurement) that may be applied by the Recipients (such as Limited/Restricted Competitive Bidding, RFQ, Shopping, Local Bidding, and Direct Contracting) shall be consistent with the World Bank's core procurement principles and ensure that the World Bank's Anticorruption Guidelines and Sanctions Framework and contractual remedies set out in its Legal Agreement apply.

Assessment of the PIUs to Implement Procurement

57. **The procurement activities for the project will be executed by the PIUs, notably CAMRAIL and the MINT (for Cameroon) and the MID (for Chad).** The PIUs 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 the Procurement Plan; (d) monitoring the implementation of procurement activities; (e) developing procurement reports; and (f) seeking and obtaining approval of internal designated entities and then of IDA on procurement documents, as required. The PIUs will participate in the process of all procurement activities and will notably support the following activities: (a) preparation of ToRs and the bidding documents; (b) preparation of evaluation reports and contracts related with World Bank procedures; and (c) participation in procurement commission activities and all related meetings. Detailed assessments for respective implementing agencies are detailed below.

Cameroon

58. An assessment of the capacity of CAMRAIL and the MINT to implement procurement activities was carried out, which reviewed the organizational structure for implementation of the project, the PIU to put in place, and the interaction between the different agencies involved in the project.

59. CAMRAIL, in charge of Component 1 of the proposed project, is implementing another World Bank-financed project—the recently closed Regional CEMAC TTFP—and the ongoing MTP through the same PIU. Although the project implementation team is well staffed with the right skills mix and has proved effective in managing project activities, an additional Procurement Specialist will be hired to be dedicated to the project with regard to some delays in procurement activities which have been observed.

60. The MINT/PIU in Cameroon is in charge of Components 2 and 4 of the proposed project. The MINT has no experience as a PIU; thus, there is a need to put in place a dedicated PIU and equip it with the needed technical and fiduciary staff including procurement.

61. 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 confusion with previous sets of guidelines; (b) there is lack of proficient procurement staff to implement actions on time and in line with the NPF; (c) inadequate communication and interaction between the beneficiaries and the PIU may lead to delays in the procurement processes and poor cost estimations; (d) administrative routines may increase delays in the procurement processes and affect project implementation; (e) the procurement in a specialized market in fragile area with few bidders can restrict competition and possibly increase prices and collusion risks; (f) there may be poor contract management and administration of big contracts; and (g) poor filing of documents may lead to loss of documents. All these risks can cause remedial actions by the World Bank; possible delays in 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.

62. The overall procurement risk for the project is rated **Substantial**. The residual risk will be **Moderate** after adopting the agreed mitigation action plan summarized in Table 1.6.

Table 1.6. Procurement Action Plan (Cameroon)

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	• Hire, on a competitive basis, a Procurement Specialist who is experienced and familiar with World Bank procurement procedures and policies. • Organize workshop sessions on the NPF to train all staff involved in the procurement of the project • Continuous hands-on trainings on the NPF for identified key staff.	MINT/PIU CAMRAIL AND MINT/PIU CAMRAIL AND MINT/PIU/ World Bank	Hired under the PPA Two months after effectiveness During the life of the project
2. Inadequate communication and interaction between the beneficiaries and the PIU which may lead to delays in procurement processes and poor estimation of the costs	• Develop a procurement section in the Procedure Manuals to clarify the role of each team member involved in the procurement process of the project and the maximum delay for each procurement stage, specifically concerning the review, approval system, and signature of contracts.	CAMRAIL AND MINT/PIU	Two months after effectiveness
3. Internal administrative procedures 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 of quotations, evaluation, and award. • Monitor, on a regular basis, the Procurement Plan's implementation and set up a close follow-up in relation with beneficiaries to ensure that appropriate actions are taken on time. • Transfer the major risks (identified in the PRAMS exercise) to a day-to-day monitoring matrix and monitor it through monthly meetings with the Recipient during the first two years of the project, to make sure things are on track.	CAMRAIL AND MINT/PIU CAMRAIL AND MINT/PIU CAMRAIL AND MINT/PIU/ World Bank	During the life of the project During the life of the project During the first two years of the project
4. Poor contract management and administration of big contracts	• Develop contract management plans for prior review. • Keep the large value Works and OE contracts on team's radar for regular follow-ups with support from technical and safeguards team members, as may be needed for review.	CAMRAIL AND MINT/PIU CAMRAIL AND MINT/PIU /World Bank	Two months after effectiveness During the life of the project
5. Procurement in a specialized market in a fragile area with few bidders can restrict competition and possibly increase prices and collusion risks	• Organize procurement red flags training in collaboration with the INT (Preventive) for implementing agencies at appropriate time.	CAMRAIL AND MINT/PIU /World Bank	Three months after effectiveness
6. Poor filing which can lead to loss of documents	• Improve the filing system at the PIU level to ensure compliance with World Bank procurement filing manual.	PIUs/Procurement Specialist	During the life of the project

Chad

63. In Chad, the current public procurement system is governed by the public procurement code adopted in October 2020 (Decree No 002130/PR/2020) as well as subsequent texts including the Decrees relating to: (a) thresholds for awards, control and approval of procurement contracts (Decree 2499 / PR / 2020 of December 21, 2020) and, (b) the simplified procedure for public procurement (Decree 2500 / PR / 2020 of December 21, 2020).

64. An assessment of the capacity of the PIU in Chad that will be responsible for the implementation of Component 3 (the CSCP, within the MID) to implement procurement activities of the project was carried out. The assessment reviewed the organizational structure for implementation of the project, the PIU in place, and the interaction between the different stakeholders involved in the project. The assessment revealed that: (a) the CSCP has experience in implementing World Bank-financed projects; (b) the existing Procurement specialist has qualifications, competencies and national public procurement skills, and sufficient experience in World Bank Procurement Regulations, but there is a need to recruit an assistant Procurement Specialist.

65. Procurement risks for the project arise from the current public procurement country system characterized by: (a) delays in the approval of bid evaluation reports; (b) long delays observed in signing off and approval of contracts; and (c) poor contract management. In addition: (a) staff involved in the project may not have sufficient knowledge of the NPF and/or there is a risk of confusion with previous sets of guidelines; (b) there is lack of proficient procurement staff to implement actions on time and in line with the NPF; and (c) a PIM is available and must be updated with procurement provisions in line with the World Bank's Procurement Regulations.

66. The overall procurement risk for the project is rated **Substantial**. The residual risk will be **Moderate** after adopting the agreed mitigation action plan summarized in Table 1.7.

67. **Frequency of procurement reviews and supervision**: The World Bank's prior and post reviews will be carried out based on thresholds indicated in Table 1.6. IDA will conduct six-monthly supervision missions and annual post-procurement reviews. The standard post-procurement reviews by World Bank staff should cover at least 10 percent of contracts subject to post review. 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. IDA may also conduct an independent procurement review at any time until two years after the closing date of the project.

68. **Procurement prior review.** The procurement risk is rated Substantial. Table 1.8 summarizes the procurement prior review for Substantial risk. These prior review thresholds can evolve according to the variation of procurement risk during the life of the project.

Table 1.8. 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

Table 1.7. Action Plan Mitigation Measures (Chad)

Risk	Action	Responsibility	Date
1. Delays in the approval of bid evaluation reports	• Organize workshop sessions on the NPF to train all staff involved in the procurement of the project. • Continuous hands-on trainings on the NPF for identified key staff, developing qualification criteria and bid evaluation, and risk management to the project implementing staff to further strengthen their fiduciary capacities.	CSCP/World Bank CSCP/World Bank	Two months after effectiveness During the life of the project
2. Important delays in signing off and approval of contracts	• Exercise quality control on all aspects of the procurement process, including developing the ToRs, technical specifications, bidding documents, proposals, request of quotations, evaluation, and award. • Monitor, on a regular basis, the implementation of the Procurement Plan and set up a close follow-up in relation with beneficiaries to ensure that appropriate actions are taken on time. • Transfer the major risks (identified in the PRAMS exercise) to a day-to-day monitoring matrix and monitor it through project implementation monthly meetings with the Recipient during the first two years of the project, to make sure things are on track.	CSCP CSCP CSCP	During the life of the project During the life of the project During the first two years of the project
3. Weak quality of the contract's management and administration of big contracts	• Develop contract management plans for prior review. • Keep the large value Works on team's radar for regular follow-ups with support from technical and safeguards team members, as may be needed for review.	CSCP/World Bank CSCP/World Bank	Two months after effectiveness During the life of the project
4. Staff involved in the project may not have enough knowledge of the NPF and/or risk of confusion with the former guidelines	• Hire, on a competitive basis, an assistant Procurement Specialist who is experienced and familiar with World Bank procurement procedures and policies. • Ensure that all procurement staff, procurement decision makers, and evaluation committee members sign undertaking for following ethics; ensure 100 percent use of STEP as planned under the project; deploy third party monitors for regular concurrent monitoring of the progress in infrastructure contracts; deploy GEMS for remote monitoring of progress in infrastructure contracts, including involvement of citizens; and strengthen the complaint handling management during procurement and contracts management.	CSCP CSCP/World Bank	One month after effectiveness During the life of the project
5. Absence of a procedure's manual with procurement provisions in line with the World Bank's procurement regulation	• Develop a section in the Procedure Manual to clarify the role of each team member involved in the procurement process of the project and the maximum delay for each procurement stage.	CSCP	Two months after effectiveness

69. **PPSD and Procurement Plan**

(a) The different approaches, the selection methods for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the Recipient and the World Bank in the Procurement Plans.

(b) The PPSD and derived Procurement Plans for the first 18 months of program implementation were prepared during appraisal and the final versions discussed and approved during negotiations. During implementation, the Procurement Plan will be updated as required—at least annually—to reflect the actual program implementation needs and improvements in institutional capacity.

(c) Preferred arrangements of major contracts. As per the PPSD, Table 1.9 below summarizes the key high-risk, value, and prior review contracts for the project.

Table 1.9. Procurement Prior Review Contracts (US$, millions)

#	**Contract Description**	**Budget Estimate (US$, millions)/Risk rating**	**Procurement Method/Market approach**	**World Bank's Review Yes/No**	Evaluation Method • Rated Criteria (VfM) • Lowest Evaluated Cost
CHAD					
Works					
1	OPBRC of: **Lot–1**- rehabilitation and maintenance of the N'Djamena-Guelendeng-Bongor section *(including Moulkou Bridge -axle load control aspect*), **Lot–2** - rehabilitation and maintenance of the Bongor-Kélo-Moundou Cameroon border section	264,200,000/High	RFB/ International, Open	Yes	Lowest Evaluated Cost
Consulting Services					
2	Monitoring and control of rehabilitation and maintenance of the N'Djamena-Guelendeng-Bongor section *(Lot 1 of works*)	10,500,000/ High	QCBS/International, Open	Yes	Lowest Evaluated Cost
3	Monitoring and control of rehabilitation and maintenance of the Bongor-Kélo-Moundou Cameroon border section *(Lot 2 of works)*	6,300,000/ High	QCBS/International, Open	Yes	Lowest Evaluated Cost
CAMEROON					
Works					
1	Railway renewal works between Douala and Yaoundé (tunnels, viaducts and bridges)	32,212,824 / High	RFB/International, Open	Yes	Lowest Evaluated Cost
2	Rehabilitation works on four tunnels	17,787,723/High	RFB/International, Open	Yes	Lowest Evaluated Cost
Goods					
3	Acquisition of rails (512700 ML or 27906 Tons)	32,556,975/High	RFB/International, Open	Yes	Lowest Evaluated Cost

#	**Contract Description**	**Budget Estimate (US$, millions)/Risk rating**	**Procurement Method/Market approach**	**World Bank's Review Yes/No**	Evaluation Method • Rated Criteria (VfM) • Lowest Evaluated Cost
4	Acquisition of reinforced concrete sleeper (*Traverses en Béton Armé* TBA) including elastic fasteners	30,155,930/High	RFB/International, Open	Yes	Lowest Evaluated Cost
5	Supply and installation of equipment for centralized rail traffic management (signaling)	27,779,326/High	RFB/International, Open	Yes	Lowest Evaluated Cost

Note: RFB = Request for Bid; QCBS = Quality and Cost-Based Selection.

ANNEX 2: Cameroon Railway Sector Description

General Information about the Railway Sector in Cameroon

1. The railway infrastructure is the property of the Cameroonian State, consists of 984 route-km of single-track meter gauge line, and plays an important role in providing connectivity between the regions of Cameroon via its east-west and north-south axes in a context of insufficient road infrastructure. In addition, the railway infrastructure of Cameroon is essential for Chad and the Central African Republic, for which the bulk of trade is transported via the Port of Douala and gradually via the port of Kribi, passing by road or by rail.

2. The railway infrastructure of Cameroon has an axle load limit of 17 tons/km and is equipped with mechanical and electronic types of signaling. The railway network of Cameroon can be split geographically into three main sections.
   - Transcam 1, a 263 km section between Douala and Yaoundé, with 16 stations and 25 halts[73] and equipped with light signaling, single track block and signal boxes
   - Transcam 2, a 622 km section between Yaoundé and Ngaoundéré with 17 stations and 20 halts and equipped with telephone box.
   - Western Line, a 99 km section between Douala, Mbanga and Kumba; all services are discontinued to date.[74]

3. The railway infrastructure comprises hundreds of structures including 91 reinforced concrete slab bridges, 30 metal bridges, 3 viaducts, 4 tunnels, 6 automated level crossings, and 114 standard level crossings. The Cameroonian network is in poor condition, with stable but low passenger and freight traffic. Its Quality of Railroad Infrastructure[75] index rating is 2.29.[76] The train design speeds were originally between 50 and 90 km/h depending on the section, but the impact of aging of the track induced the degradation of the operating performance of the railway. Currently 568 km of track representing about 58 percent of the entire network are under various speed restrictions. Consequently, the average operating speed is currently lower, reaching in some places 40 km/h or even 20 km/h. These speed reductions have a significant effect on the productivity and efficiency of the network.

4. A multi-year plan to improve infrastructure has been in place since 2002 and was implemented on limited number of kilometers. The new standard for the track is a metric track with rails bearing 54 kg/m on bi-block concrete sleepers with a density of sleepers of 1669 sleepers per kilometer (every 60 cm). The rehabilitation and extension programs of the network included two five-year programs[74]
   - PQ I[77] (1999–2018): Renewal program for some sections, automation of level crossings in Douala and Yaoundé, and diagnosis of engineering structures and hydraulic works of the network, financed under the CEMAC TTFP;
   - PQ II (2019–2034): Complete renewal of the Douala-Yaoundé section (2020–2023, financed in the proposed project); complete renewal of the Bélabo-Ngaoundéré section (2022–2025) that shall be financed by the EIB/AFD; rehabilitation works on the Western Line; and network's extension studies (Edéa-Kribi and Ngaoundéré-N'Djamena sections).

[73] A halt is a place where the train stops to let down/take up passengers but without a station building or other infrastructure.
[74] CPCS & Egis Cameroun. *2019. Rapport d'évaluation du système de transport camerounais.*
[75] Sustainable Mobility for All. *www.sum4all.org.*
[76] Ranked 78 out of 101 countries in 2017.
[77] Plan Quinquennal.

Governance of the Railway Sector

5. The management of the railway sector is split between the Ministry of transport (MINT) and the Ministry of Public Works (MINTP).
   - ***The MINT*** oversees the transport sector, including railways. Through its Directorate of Rail Transport and Regional Transport Delegations, the MINT ensures monitoring and control of (a) the conditions of carriage of passengers and goods, (b) the exploitation of railway assets, (c) the implementation of the railway Concession's terms, (d) the application of State/concessionaire passenger transport agreement, (e) the implementation of the railway investment program, (f) the process of rehabilitation and renewal of railway infrastructure, (g) studies relating to the development of the network and the creation of new railway lines, (h) the development of rail transport regulations, (i) matters relating to railway safety and environment protection, and (j) the implementation of a level playing field for rail/road competition.
   - ***The MINTP***[78] supervises all the State's infrastructure works. Through its General Directions of Technical Studies and Infrastructural Works, the MINTP ensures: (a) carrying out or following up of feasibility studies and preliminary and detailed design of railway infrastructure projects and (b) project management for rail infrastructure projects.

The Operation of Transport Services by Rail in Cameroon

6. The Government of Cameroon granted a concession to operate the railway activity on the Cameroonian network in 1999. Since then, the concessionaire, **CAMRAIL**, a company owned by Bolloré Transport & Logistics, has been in charge of (a) technical and commercial operation of rail freight and passenger transport services; (b) operation, maintenance, renewal, and development of railway infrastructure (in particular by having delegated project management); and (c) day-to-day management of the concessioned railway.

7. The concession agreement signed between the Government of Cameroon and CAMRAIL in 1999 set out the obligations and rights of the concessionaire, in particular (a) tariffs for commercial rail services are freely set by the concessionaire and (b) certain non-commercial obligations are imposed by the Government of Cameroon on the concessionaire in return for subsidies. In 2005, a first amendment to the concession agreement renewed the term of the concession granted to CAMRAIL for 30 years until December 31, 2034. In 2008, Amendment No. 2 to the concession agreement clarified the roles and risk allocation between the concessionaire and the Government of Cameroon with regard to infrastructure management and financing.

8. The concession agreement sets roles and responsibilities between the Government of Cameroon and the concessionaire as follows for infrastructure financing and management: (a) the concessionaire is in charge of the upkeep and routine maintenance of the railway infrastructure and has delegated project management for all railway infrastructure renewal, upgrades, or extension; (b) The Government of Cameroon is in charge of financing the rehabilitation, upgrades, and extension of the railway infrastructure and the renewal of the passenger rolling stock while the concessionaire remains responsible to finance the renewal of the freight rolling stock and the infrastructure maintenance; and (c) the concessionaire must pay a fixed concession fee of CFA 2 billion and contribute at 50 percent of its net profit before tax to the Railway Renewal Fund.

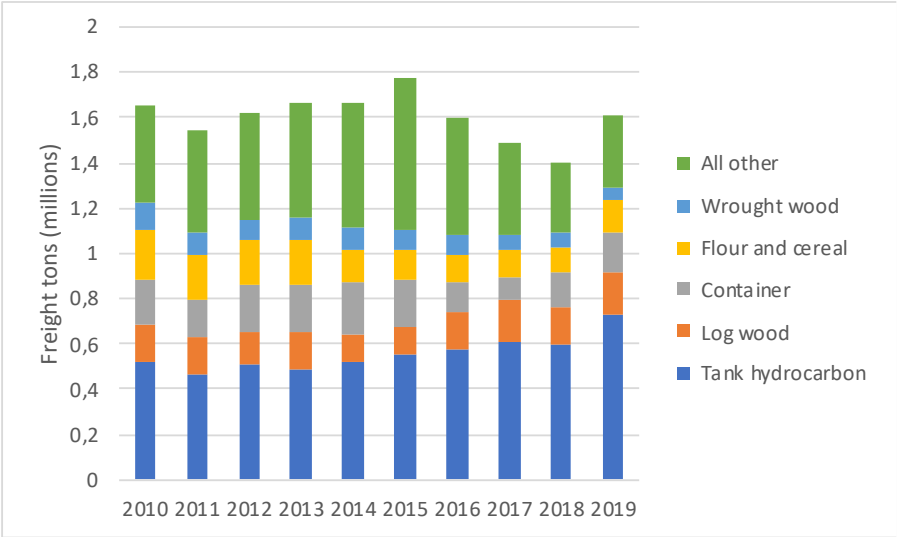
[78] Ministère des Travaux Publics.

Railway Traffic

9. The railway sector in Cameroon provides freight and passenger transport services. Like in any other railway in the world, the freight transport services are the backbone of the activities as they can be operated with profitability, while the passenger transport services have a major social importance and require subsidies from the Government.

10. *Freight Traffic*. CAMRAIL transported 1,608,810 tons of freight in 2019. Traffic was up 13 percent over the previous year, but comparable to many of the previous 10 years[79]. (Camrail, 1999-2019)

Figure 2.1. CAMRAIL Freight Traffic (tons)



Source: (Camrail, 1999-2019)

11. Most of the freight traffic on the railway routes represents import / export traffic, highlighting the importance of the railway sector not only for the economy of Cameroon, but also for Chad and the Central African Republic. The most densely circulated part of the railway network is the line Douala-Yaoundé, as all traffic from the Port of Douala no matter its destination and all traffic originating from Ngaoundéré (see the railway map) must use this line. The line Douala-Yaoundé is the heart of the railway network in Cameroon and its operating performance is key to the efficiency of the railway system in the country.

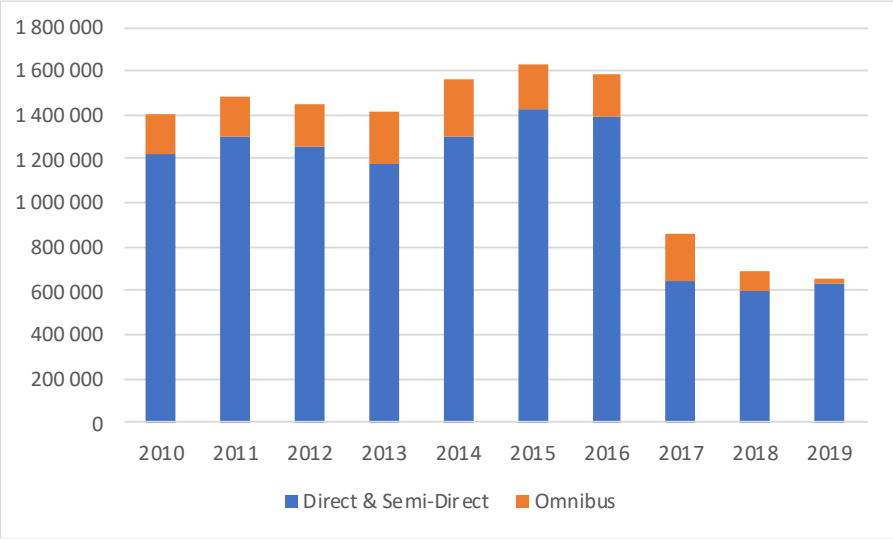
12. There are two main types of traffic: so-called "uphill" traffic destined for different consumer centers (Yaoundé, Northern Cameroon, Chad, Central African Republic, Northern Congo), and the so-called "downhill" traffic, bound for the Port of Douala:
    - Uphill traffic is mainly broken into these categories: SCDP80 hydrocarbons; import containers; food (in bags - flour, rice, sugar); agricultural (fertilizer) and industrial inputs (alumina, clinker, gypsum, petcoke); building materials (cement in bags, concrete iron, sheet metal); oil and gas equipment (cement big bag, pipes, baryte); and other merchandise (soap, oil, machinery, equipment, other food products).
    - Downhill traffic is mainly composed of export commodities such as logs and sawn timber, cotton fiber, sesame, gum Arabic, seeds and oilcake, and live animals.

[79] CAMRAIL, 1999—2019.
[80] *Société Camerounaise des Dépôts de Pétrole.*

13. CAMRAIL competes with road transport. It reported:
    - 34 percent market share in the "container" segment destined for Chad at the end of December 2019, an increase of 4 percent compared to the end of December 2018; and
    - 40 percent market share in the "conventional" segment destined for Chad at the end of December 2019, stable compared to 41 percent at the end of December 2018.

14. CAMRAIL tariffs are lower than road tariffs, with the average cost of CFA 1.2 million for the transport of one container by rail/road against CFA 2.1 million by road. It emphasizes the importance of supporting the development of the railway sector transport in Cameroon as an important factor for the economic development of the country.

Figure 2.2. CAMRAIL Passenger Traffic



Source: (Camrail, 1999-2019)

Passenger transport

15. Passenger transport by rail is the most sensitive activity for any railway in the world, as public perception plays a vital role in developing this business. In Cameroon, passenger transport is only a marginal business for CAMRAIL. The collected revenues represent 8 percent (US$6.1 million) of the total revenues; the remaining 92 percent (US$68.4 million) are the revenues from freight transport. The rail passenger transport increased by 70 percent during the concession agreement, up to 1.7 million passengers annually. The terrible accident of 2016[81] had a dramatic negative impact, the trust of people in the railway safety dropped, and currently CAMRAIL transports around 600,000 passengers annually.[82]

16. A public campaign will be organized by the Government and the concessionaire to increase the public awareness of increased safety and general quality of transport services by rail due to the renewal of infrastructure and the modernization of signaling systems.

Signaling system

[81] Eseka accident on October 21, 2016; a derailment of a passenger train near Eseka that officially resulted in 80 dead, 7 missing, and more than 950 injured.
[82] Only a local service, not competitive with the road transport, has been maintained between Douala and Yaoundé since 2016.

17. The installation of a new signaling system will provide a significant increase in traffic safety and transport capacity of the railway network in Cameroon. The operation of traffic will require skilled staff at the CAMRAIL to be able to manage the modern signaling technologies. The contract for the new signaling system will include obligations for the supplier to create and consolidate the necessary skills at the CAMRAIL, as follows:
    - Training programs will be provided for the staff at CAMRAIL with responsibilities in operation and maintenance of the new signaling system.
    - The trained CAMRAIL staff will assist in the installation and testing activities for the new system executed by the experts of the supplier.
    - Experts of the supplier will assist the CAMRAIL staff during the operation and maintenance of the new signaling system for a number of months after the installation.
    - Commissioning of the new signaling system will take place only after the finalization of the contracted signaling works in all stations and across the entire length of lines.

Intermodality

18. The railway sector of Cameroon needs very good interoperability with the sea and the road transport, as most of the freight traffic is international (import/export/transit). Currently, all freight transported by rail is loaded/unloaded at the port of Douala and is then transferred to/from trucks at the multimodal platforms of Bélabo (traffic to the Central African Republic and Northern Congo) and Ngaoundéré (traffic to Northern Cameroon and Chad). In the future the railway network is planned to be connected with the deep seaport of Kribi. Considering the high dependency of the railway traffic in Cameroon on sea and road transport, intermodality will remain a crucial issue for many years and needs to be greatly improved to facilitate exchanges in Cameroon and in the subregion, as recommended in the "Integrated Multimodal Transport Infrastructure Strategy" (S2ITM).

Staff

19. The current railway activities in Cameroon offer a good platform for preserving and developing the railway skills in the country. The staff of the railway company decreased during the last years in accordance with the evolution of the traffic. However, CAMRAIL reported having 1,465 permanent employees in 2019, down from 1,609 in 2016, including only four foreign experts, and distributed as follows:
    - Operations staff: 733 (average age: 39.06);
    - Supervisors: 608 (average age: 42.71); and
    - Management: 124 (average age: 44.04).

20. CAMRAIL conducts different types of training to develop human capital in the railway sector and ensure the next generation of railway workers is properly skilled:
    - Internally, mainly training courses related to specific railway professions are provided by in-house experts, which can be: (a) qualifying and allow to claim for a promotion or a reconversion and (b) non-qualifying (upgrading).
    - Externally: (a) a partnership agreement was signed in 2017 with the La Salle CFPC[83] for access to basic railway professions (training of 200 young people to date) and (b) training in support professions (HR, sales, Information Systems, Environmental, Social and Governance) to strengthen the capacities of agents were carried out in partnership with training firms.

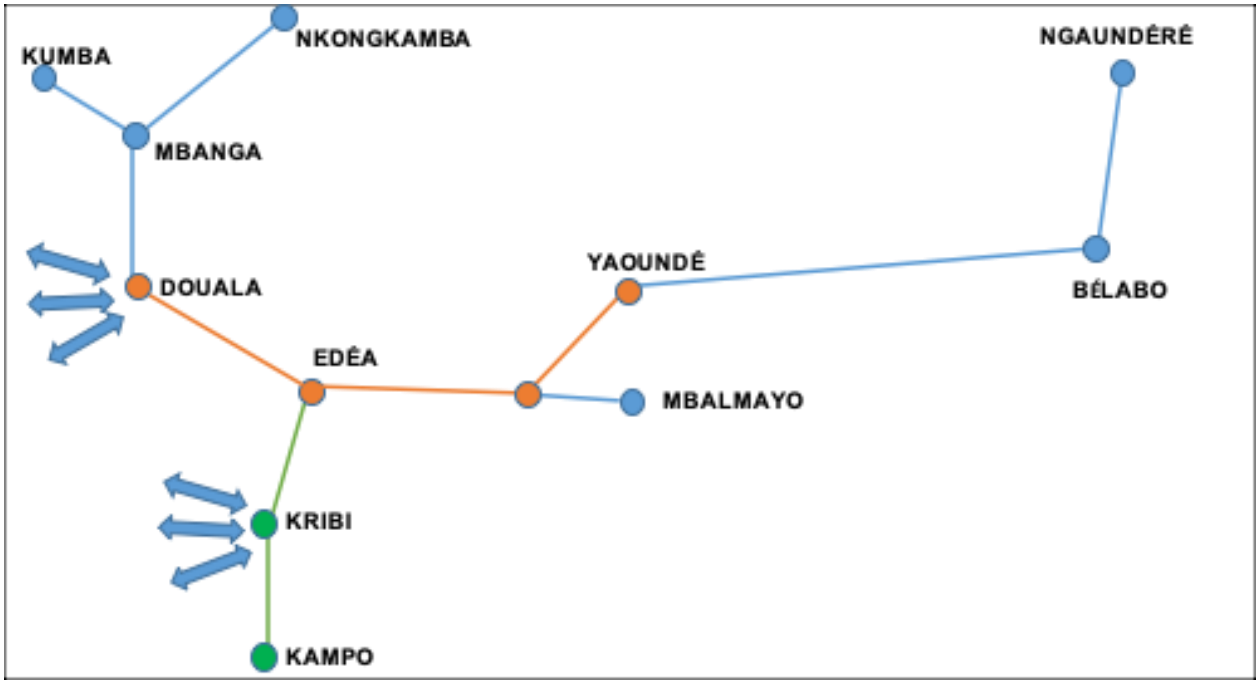
[83] *Centre de Formation Professionnelle et Continue de La Salle*.

Plans for the development of the railway infrastructure

21. The pace of trade growth between Cameroon and its neighboring countries depends on the capacity of the Port of Douala, which operates presently about 12 million tons per year and its capacity development is limited to a maximum of 20 million tons per year. However, the traffic forecasts based on the predicted increase of the GDP of the country, indicate that the annual volume of freight can achieve higher volumes during the next 30 years.

22. In this context, the Government of Cameroon started the development of a new port at Kribi, at South of Douala, which has also the advantage of operating in deeper waters and has no restrictions for the development of its annual capacity. Currently, the new port is connected only by road and as the traffic will continue to increase, part of the traffic currently operated in Douala will migrate to Kribi, reducing the existing railway market share. On the other side, an important port as Kribi cannot continue to develop its capacity without a railway connection. The Government already initiated discussions for the construction of a new railway line to connect the new port of Kribi to the existing line Douala-Yaoundé in the station of Edéa (located at 50 km from Douala). The railway connection of the new port of Kribi with the current railway network of Cameroon at Edéa, is a long-term project, as the new line will have 155 km length and the cost of construction is estimated at about US$1 billion. The direct impact of the new railway connection will be a reduction of the railway traffic on the line Douala – Edéa, due to the traffic diverted from Douala to Kribi, and at the same time a significant increase of the railway traffic on the rest of the existing line, from Edéa to Yaoundé and Ngaoundéré (see in the schematic representation below, the railway network in Cameroon, highlighting in yellow the existing line Douala-Yaoundé and the new line Kampo-Kribi-Edéa, in green).

Figure 2.3. Railway network



Source: World Bank.

23. The development of the new railway line will significantly increase the annual volumes of freight operated by rail for the economy of Cameroon and for Chad and the Central African Republic. It may create the critical mass of freight which will make the railway sector in Cameroon financially sustainable.

Safety

24. The railway safety depends on the technical status of the assets (infrastructure and the rolling stock) and the safety culture of the company. A serious accident occurred in Eseka in 2016 due to several causes (overload, excessive speed, obsolescence of the equipment). CAMRAIL and the Government of Cameroon took many measures to correct the underlying cause of the accident such as the reduction of traffic and train speed, the immobilization of the rolling stock involved, and the compensation of victims. Passenger demand dropped following the accident, the resumption of normal passenger traffic is still not in effect and customer confidence has still not been restored.

25. As a direct consequence of the postponement of the necessary investments for the rehabilitation of the obsolete infrastructure, the number of mainline freight train derailments amounted to 10 in 2019, down by 91 percent from the previous year. The total duration of mainline interruptions due to derailments amounted to 74 hours in 2019, down significantly from 208 hours in the previous year[84] (Camrail, 2019). The 239-km section track between Douala and Yaoundé, the most densely circulated line of the network, is 39 years old; the 329-km Bélabo to Ngaoundéré route is 46 years old.

Investments needs

26. The Cameroonian railway network was developed on a traffic artery (Douala-Yaoundé). Even after the planned construction of the new line Kribi-Edéa, the line Douala-Yaoundé will continue to be the most densely circulated line in the country. It is one of the most efficient railway networks in SSA. It should be able to benefit from a regional integration strategy, especially by capturing transit traffic to the hinterland (north to Chad, east to the Central African Republic and northern Congo). The development of the port of Kribi will allow the reception of new traffic, both export and import, which could justify the construction of a new Kribi-Edéa railway.

27. Yet, road competition develops as both Douala-Yaoundé and Edéa-Kribi motorway programs are underway. A comprehensive regulatory system both for rail and for road transport sectors will be necessary to create fair competition on the market.

28. Also, the obsolescence of the existing railway infrastructure constitutes another major threat: despite the repairs carried out under the PQ I, the rehabilitation is only partial, and the weak segments impose speed restrictions on the network. Urgent modernization of the infrastructure (track, bridges, and signaling system) is necessary, especially on the line Douala-Yaoundé which operates most of the existent and future traffic. The reliability of the rolling stock also remains in question (Eseka accident in October 2016) and this will need to be addressed by a joint financing between the Government and the private sector.[85]

[84] CAMRAIL 2019.
[85] CPCS & Egis Cameroun 2019.

ANNEX 3: Detailed Design of Chad Road (Component 3)

1. **Chadian section of the transport corridor.** While in Cameroon the transport corridor is multi-modal (rail/road), on the Chadian side the corridor is single mode with road transport only. The Chadian part of the corridor has a total length of 595 km and consists of two main sections: (a) N'Djamena-Moundou (478 km) which is the main North-South road connection within Chad and also leads to the Central African Republic, and (b) Moundou-Koutéré at the border with Cameroon (117 km). The various sub-sections of the corridor road in Chad are in different conditions:
   - The section Guelengdeng-Bongor (83 km) has just been rehabilitated and is the only sub-section in good condition;
   - Some sections are severely deteriorated and need immediate full-scale rehabilitation;
   - Other sections are somewhat less deteriorated and need rehabilitation within the coming three to four years;
   - Others are still in reasonable condition but will need rehabilitation in five to six years.

   All sections will need continuous maintenance services to ensure that traffic can continue flowing without interruptions, even before and during rehabilitation works. Provisions must also be made in the contracts for emergency works which may become necessary due to extraordinary climate events (mostly to remedy damages caused by heavy rains and flooding).

2. **Experience with OPBRCs.** Chad is one of the pioneering countries in Africa in the use of OPBRCs. These types of contracts are designed to increase the efficiency and effectiveness of road asset management and maintenance. Their objective is to ensure that the physical condition of the roads under contract is adequate for the need of road users over the entire period of the contract, which is normally several years. They usually combine road rehabilitation with integrated road maintenance. This type of contract significantly expands the role of the private sector, from the simple execution of road works to the management and conservation of road assets, thereby ensuring pre-defined Service Levels. A fundamental feature of the OPBRC is that the contractor is responsible for designing and carrying all works, services and actions necessary to achieve and maintain the Service Levels stated in the contract. The Service Levels are defined from a road user's perspective and may include factors such as average travel speeds, riding comfort, safety features, and so on. If the Service Level is not fully achieved in any given month, the payment for that month shall be reduced or even suspended. The first OPBRC was implemented successfully in Chad in the period between 2001 and 2006 with World Bank funding and technical support. Several other OPBRC's have since been implemented in Chad and the Government favors this contracting approach also for planned new projects.

3. **Private sector is active in the road construction sector.** Since the 1990's, the Government of Chad with support from the World Bank has implemented major reforms in the road sector which focused among others on the private sector participation. In response to the termination of the State's role as executor of physical road construction and road maintenance works by force account, this reform has since given rise to numerous private sector contractors and consulting firms being active in Chad's road sector. There are currently about 10 major road contractors active in Chad, of which 5 are local firms and 5 international firms from different countries. Overall, there is currently enough competition in the road construction sector. The national legislation has no restrictions for the participation of national and international contractors in bidding for road works, including road maintenance.

4. **Road Safety.** In addition to the challenges of managing and maintaining road infrastructure, road safety is a substantial issue in Chad. The National Road Safety Strategy, elaborated in 2003, was revised in 2014 with the support of the World Bank. The revised strategy is aligned with the UN decade of action for road safety for 2011–2020. The economic and physical improvement of the road network in Chad has resulted in a significant increase in

road traffic, one of the consequences of which has been an increase in road accidents. The World Bank already provides support for road safety in Chad through the ongoing Rural Connectivity Project, which funds activities of the National Road Safety Strategy's Action Plan. The proposed Corridor Project will include road safety improvement along the 595-km long corridor road between N'Djamena and the border with Cameroon at Koutéré.

5. **Choice of OPRCs instead of traditional works contracts.** The Government and World Bank team and are in full agreement concerning the choice of the OPBRC contracting method. The Government was inspired to use long-term OPBRC due to (a) its own positive experience with such contracts, which were introduced in Chad in 2001 with support from the World Bank and continue to be used until today, and (b) the experience in Liberia where the World Bank is funding 10-year contracts for the corridor road from Monrovia to the Guinea border, also with very positive results. Both Chad and Liberia are FCS with serious security issues and difficult implementation environments, but have been able to achieve success with OPBRCs.

6. **The OPBRC choice is driven essentially by the problematic experience in Chad and other countries with ensuring the longevity of roads built under traditional works contracts.** Under traditional contracts, the contractor cannot be held accountable for good and solid road conditions beyond the one-year liability period after the completion of the works. The World Bank team and the Recipient have agreed that OPBRC would be most appropriate to ensure a consistently good Level of Service on the entire road corridor. The OPBRC contracting modality is expected to deliver better results than the traditional quantity-based construction contracts. Under an OPBRC, the Road Administration will define required Levels of Service for each road section. It is the responsibility of the private sector contractor to meet this level of service through a combination of reconstruction, rehabilitation and maintenance works. Compliance with the required service levels is measured monthly. Penalties or payment reduction are applied if the required service levels are not fully achieved.

7. **OPBRC duration and project duration.** The Government and the World Bank team considered (and did not deem technically appropriate) options of OPBRC' that are either shorter or longer than 10 years. From a purely technical perspective, the ideal contract duration should be 15 years, which is the expected lifespan of the selected pavement design (asphalt concrete). However, the 15-year option was rejected for several reasons: (a) The World Bank would not be able to fully fund a 15-year contract duration; consideration was given to funding the first 10 years of a 15-year contract, with the Road Fund or the Government committing to pay the remaining five-year period, but it was found that this would introduce too much uncertainty and risk concerning the actual availability of funding for the last five years. This risk would appear as too high for contractors who may not be willing to submit bids at reasonable prices. (b) In terms of Contracting Strategy, it was recognized that Chad is clearly a high-risk country, not only in terms of security, but also in terms of availability of Government funds to pay contractors. Serious international contractors are typically only willing to participate in bidding for large construction contracts if they know that the contracts are fully funded by external sources. In addition, the cost of obtaining and maintaining a Performance Security with a commercial bank is high for contractors in any case, but it is even higher for contracts taking place in high-risk countries such as Chad. The cost is proportional to the length of a contract. While this is still a manageable issue for a 10-year contract, it would become prohibitive for a 15-year contract, especially if the funding by the external donor ends after 10 years.

8. A contract duration of less than 10 years was also considered but rejected because it would not allow holding the contractor sufficiently accountable for the longevity of the road. Road failures that are due to low-quality road construction (or rehabilitation) works normally occur four to seven years after the completion of the construction/rehabilitation works. If the OPBRCs were shorter than 10 years, the likelihood of premature pavement

deterioration or failure due to shoddy construction appearing during the contract period is fairly low. Therefore, one of the main benefits of OPRC contracts, of holding the contractor accountable for premature road deterioration, would just not be present for contracts with a duration of only 5, 6, or even 8 years. Ten years is thus deemed to be the appropriate contract duration for this project. In the past there have also been OPBRCs with shorter (5 or 6 years) duration, imposed mostly due to the unwillingness of financing institutions to support longer projects, but there is now a widespread consensus that such shorter contracts are suboptimal for paved roads and do not make use of the full potential benefit of this contracting method.[86]

Applicability of long-term OPBRC's in FCS condition, such as in Chad

9. The long-term performance-based contracting approach remains suitable in an FCS such as Chad as shown in the World Bank's actual and practical experience in Liberia, which is clearly another FCS:

   - The ***Liberia Road Asset Management Project (LIBRAMP, P125574)*** was conceived as a 10-year project and approved as such in 2011. It is currently in its ninth year of implementation. It is very similar to the planned project in Chad, because (a) it covers the reconstruction and maintenance of the Liberian section of the international road transport corridor between Liberia and Guinea and (b) it uses long-term (10-year) OPBRCs. Its PDO is as follows: *"…to reduce transport costs along the road corridor from Monrovia to the Guinea border and to maintain the road in good condition over a 10-year period."*
   - At the time of preparation of the Liberia project, the country was just coming out of a long civil war and its overall capacity for project preparation and implementation was actually much lower than Chad's capacity today. In Liberia there was no knowledge and capacity whatsoever for performance-based road contracts, contrary to Chad which has implemented such contracts (with the World Bank's support) since 2001.
   - The LIBRAMP funds two 10-year OPBRCs which combine the reconstruction of the corridor road with its continuous maintenance and also include the resurfacing/strengthening of the road toward the end of the contract period.

10. In the LIBRAMP, the World Bank is the lead donor while other donors contribute to the project through the multi-donor Liberia Reconstruction Trust Fund managed by the World Bank, with the EU being a major contributor. In 2017, the EU funded and carried out an independent MTR of the project, with the particular objective to evaluate the design and implementation of the project in accordance with the five Development Assistance Committee - Organization for Economic Co-operation and Development (DAC-OECD) Evaluation Criteria which are: Relevance, Efficiency, Effectiveness, Impact, and Sustainability. The evaluation report has a large number of conclusions and also suggestions for improvement, but overall provides an endorsement of the approach selected for the project. Key conclusions of the evaluation were the following:

    - *"The choice of the Output and Performance-based Road Construction (OPRC) format for tendering the works was driven by the urgency to tackle the problems, the limited capacity in the Ministry of Public Works (MPW) and in the contracting industry, and an expected lower cost. The analysis of assumptions and risks has been a major driving factor in the choice for OPRC. This has worked out quite well."*

[86] For an overview of the worldwide experience and history of OPBRCs, see the "Guide to Performance-based Road Maintenance Contracts, CAREC/ABD 2018," which can be downloaded from *https://www.carecprogram.org/uploads/Guide-Performance-Based-Road-Maintenance-Contracts.pdf*. The document shows in section 3 (Implementation Experience) how several countries originally started with shorter contract durations covering only routine maintenance but moved on to longer contracts (typically 7 to 10 years) covering both maintenance and capital works (for example, Estonia, Canada, New Zealand, India, Malaysia). The World Bank is currently funding 10-year contracts in Liberia.

- *"The efficiency of the implementation of the three OPRC contracts was good; value for money was received."*
- *"The OPRC methodology in itself is good, but hampered by (i) a lack of understanding by most stakeholders of the Asset Management concept; and (ii) contract documents that have to be modified considerably."*
- *"The quality of the works executed in the Rehabilitation Works phase is considered to be good and the Routine Maintenance phase is developing well."*
- *"The OPRC projects were cheaper than comparable traditional FIDIC works contracts recently tendered in Liberia and the region."*
- *"The overall objective, namely to foster national integration and economic recovery by improving transportation, has been fulfilled. The result sought from the project was for one main axis road to be rehabilitated. This was fulfilled twice over."*
- *"The project roads have improved the quality of life for those living near the road through better access to services. Regional integration is enhanced because the improved road extends to the Guinea border and benefits Cote d'Ivoire traffic entering Nimba and proceeding to Monrovia."*
- *The planned benefits … were realized and … they benefitted the expected beneficiaries. There is, however, an unplanned disbenefit: a marked increase in serious road accidents [because of higher speeds on the reconstructed road]."*

Proposed allotment

11. The total cost of the 10-year contracts for the entire corridor road of 595 km length is US$380 million. This amount includes rehabilitation and maintenance under OPBRCs, and respectively 6 percent and 4 percent of additional amounts for supervision costs and contingency works, respectively. Although various technical design options were assessed to reduce the overall cost, a decision was made not to lower technical specifications as this would (a) induce a cost reduction of less than 10 percent; (b) rely heavily on axle load enforcement that has proved challenging; and (c) and could jeopardize the sustainability of the infrastructure due to accelerated infrastructure degradation, ultimately costing more to Chad (higher maintenance cost and earlier need for the next rehabilitation).

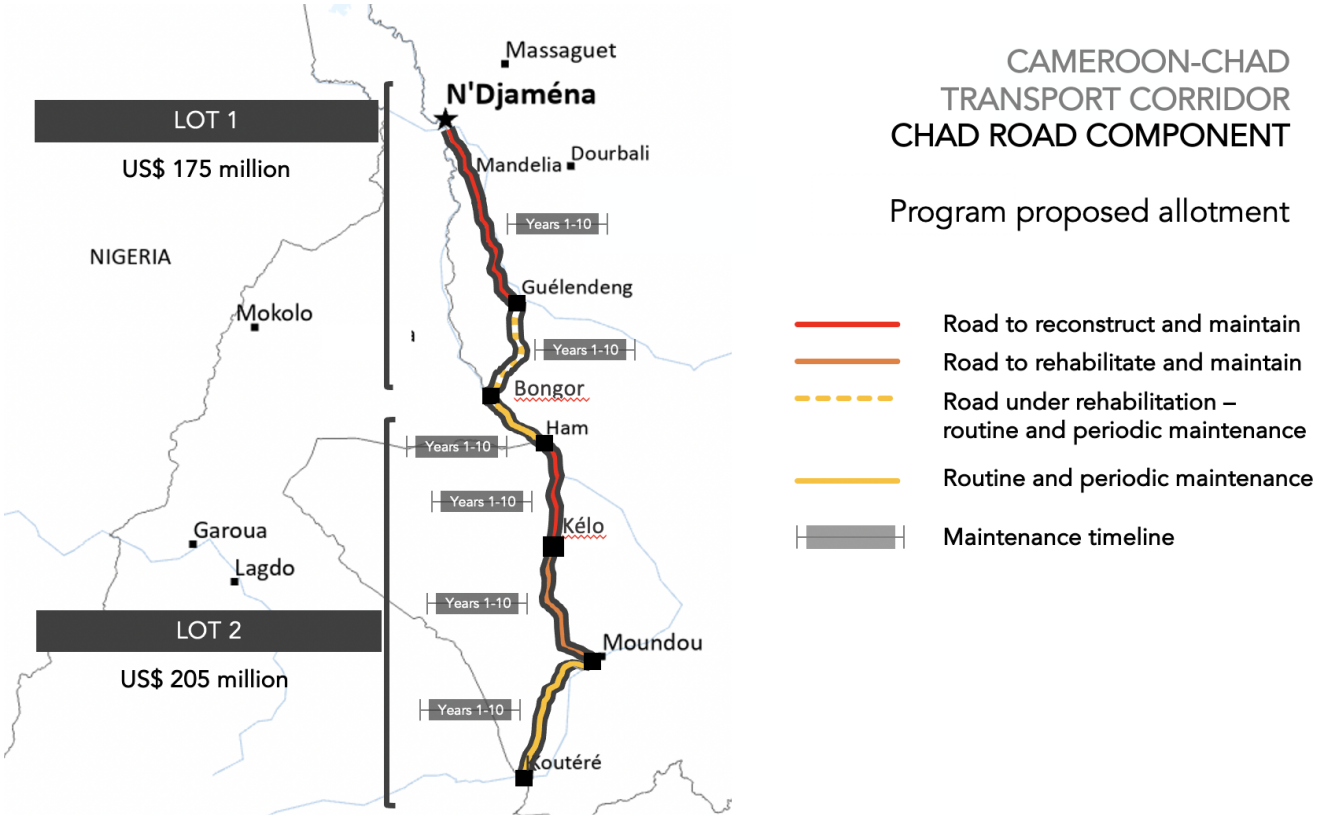
12. Defining the allotment for OPBRCs: given the large overall volume of rehabilitation works and maintenance services over the 595 km between N'Djamena and the border with Cameroon at Koutéré, the Recipient and the World Bank team agreed that one single contract would be too large to handle for most road construction firms active in the sub-region. It was therefore decided to have two contracts (or lots) which will significantly increase the number of potentially qualified bidders and therefore also increase competition between bidders. Bidders will be able to bid for one lot only, or for both lots if they have sufficient technical and financial capacity.

13. The two lots and their respective financing are defined as follows:
    - Lot 1 from N'Djamena to Bongor has a total length of 224 km and includes the most deteriorated section of the corridor, between N'Djamena and Guelengdeng (144 km), which requires urgent rehabilitation. The contract for Lot 1 will ensure (a) the rehabilitation of the 144 km between N'Djamena and Guelengdeng, (b) the maintenance for the entire 224 km during the 10-year contract duration, and (c) the replacement of a bridge at Moulkou. The total estimated cost of Lot 1 will be US$175 million (including the cost of supervision and contingencies).
    - Lot 2 covers the road sections Bongor-Kelo-Moundou-Koutéré totaling 368 km. The contract for Lot 2 would ensure (a) the rehabilitation of the road section between Bongor and Kélo of 135 km; (b) the rehabilitation of the road sections Kélo-Moundou-Koutéré (216 km as the 17 km road section crossing Mondou is out of the scope of the project), which will be done on the 5th and 6th year of the contract because these sections are today

still in reasonable condition; and (c) the maintenance for the entire 353 km during the 10-year contract duration. The total estimated cost of Lot 2 will be US$205 million (including the cost of supervision and contingencies).

14. The proposed project will apply OPBRCs with a 10-year duration. The choice of long-term (10-year) OPBRCs was made to break the vicious cycle often observed in many countries, namely: first, the expensive reconstruction of roads, followed by absence of adequate maintenance, leading to premature road deterioration and then again, the need for reconstruction, long before the expected lifespan of the road is achieved. The management and maintenance services which are a key part of the OPBRCs will not only cover the road sections to be rehabilitated under the project, but also the section which has recently been rehabilitated under a traditional works contract (Guelengdeng-Bongor) which does not include maintenance arrangements.

Figure 3.1. Proposed Allotment of the Chad Road Component



Source: World Bank.

15. The technical and engineering studies for the project have been completed. The cost estimates are based on unit rates in several recent contracts carried out in Chad. It has to be kept in mind that typical road construction unit costs in Chad are high in comparison with other countries in the Sahel Region, due to the scarcity of rock materials in Chad in general, and in the area of the corridor road in particular, and the resulting need to use cement-stabilized base course layers for the rehabilitation works.

16. An assessment of the conditions conducive to the success of OPBRCs in Chad was carried out as part of the technical feasibility study. It showed that the capacity of local and international road contractors and engineering

consultants present in Chad is sufficient for this type of contracts which require good technical, engineering, and management capacities that go beyond those normally needed for the execution of traditional road works contracts. The project activities also include technical support for the Ministry of Infrastructure and Transport which is in charge of managing the overall implementation of this project component. During the project preparation period, the World Bank team has provided substantial technical support in the specific area of Output- and Performance-based Contracting.

Box 3.1. Concept and Characteristics of OPBRCs

Output-and performance-based contracting for roads is designed to ensure that the physical condition of the roads under contract is adequate for the need of road users over the entire period of the contract (which is normally several years) and that the road asset is handed over in good condition at the end of the contract. This type of contract significantly expands the role of the private sector, from the simple execution of works to the design, management, and conservation of road assets.

During the bidding process for OPBRCs, contractors compete among each other by essentially proposing fixed lump-sum prices for bringing the roads covered by the contract to a certain service level and then maintaining it at that level for a relatively long period. It is important to understand that contractors are not paid directly for "inputs" in the form of physical works (which they will undoubtedly have to carry out), but for achieving specified Service Levels, that is, the rehabilitation of the road to pre-defined standards and Maintenance Services for ensuring certain Service Levels, that is, the rehabilitation of the road to a pre-defined standards and Maintenance Services for ensuring a certain Service Levels on the roads under contract, both representing outputs or outcomes. A monthly lump-sum remuneration paid to the Contractor will cover all physical and non-physical Maintenance Services provided by the Contractor, except for unforeseen Emergency Works which are remunerated separately. The Rehabilitation and Improvement Works which have been explicitly specified by the Employer in the contract are quoted on the basis of measurable output quantities and paid pro rata as performed. To be entitled to the monthly payment for Maintenance Services, the Contractor must ensure that the roads under contract comply with the Service Levels which have been specified in the bidding document. It is possible that during some months he will have to carry out a rather large amount of physical works to comply with the required Service Levels and very little work during other months. However, his monthly payment remains the same as long as the required Service Levels are complied with.

A fundamental feature of the OPBRC is that the contractor is responsible for designing and carrying out the works, services, and actions he believes are necessary to achieve and maintain the Service Levels stated in the contract. If the Service Level is not achieved in any given month, the payment for that month shall be reduced or even suspended.

Under the OPBRC, the Contractor has a strong financial incentive to be both efficient and effective whenever he undertakes work. To maximize profits, he must reduce his activities to the smallest possible volume of intelligently designed interventions, which nevertheless ensure that pre-defined indicators of Service Level are achieved and maintained over time. This type of contract makes it necessary for the Contractor to have a good management capacity. Here, "management" means the capability to define, optimize, and carry out on a timely basis the physical interventions which are needed in the short, medium, and long term, to guarantee that the roads under contract remain above the agreed Service Levels. In other words, within the contract limitations and those required to comply with local legislation, technical and performance specifications and environmental and social regulations, the Contractor is entitled to independently define: (a) what to do, (b) where to do it, (c) how to do it, and (d) when to do it. The role of the Road Administration and of the Employer is to enforce the contract by verifying compliance with the agreed Service Levels and with all applicable legislation and regulations.

ANNEX 4: Trade Facilitation and Institutional Strengthening (Component 4)

1. The project is expected to contribute to the efficient and safe movement of goods and people along the Douala-N'Djamena Corridor. It will build on the achievements of the CEMAC TTFP, with rehabilitation and maintenance of rail and road infrastructures, trade facilitation, institutional strengthening and capacity building activities in both countries. This annex is focusing on trade facilitation activities, providing a brief description of the context, major failures, and achievements of the CEMAC TTFP. It then highlights the main challenges faced by the logistics chain on Douala-N'Djamena rail/road corridor and justifies the critical activities that the Chad Cameroon Transport Corridor Project will finance.

1. Brief overview of the CEMAC TTFP

a. CEMAC implementation context

2. The implementation of the CEMAC TTFP was hampered by three major factors: (a) the difficult regional context marked by the civil war and long instability period in the Central African Republic and the insecurity in North Cameroon as well as some regions in Chad with Boko Haram terrorist group; (b) the lack of commitment from the three corridor countries especially to the trade and transport facilitation component; and (c) the situation in the Central African Republic aggravated the pre-existing inefficiencies of the CEMAC Commission as headquarters were located in the Central African Republic capital Bangui, also hosting the ASYCUDA Regional Centre which was centralizing the entire CEMAC interconnection program. CEMAC commission did not play the expected coordination role due to institutional weaknesses and lack of commitment to the project.

b. Unachieved objectives and uncompleted activities

3. The implementation of the CEMAC new transit regime aimed to improve the transport conditions and fluidity of the transit goods movement along the Douala –Bangui and Douala-N'Djamena Corridors. This objective was not achieved. The electronic exchange of transit data between the three customs administration through the interconnection of their respective information systems which was a prior condition to the new transit regime was not implemented. It was initiated in all three countries but was not finalized although the interconnection tests were successfully tested between Cameroon and Chad customs. The testing phase was aimed to monitor, identify and address any technical problem occurring through the interconnection system, before deciding to safely launch the implementation of the CEMAC new transit regime. The transit regime was supposed to start with a pilot phase, involving a few identified operators, and limited types of shipments (containers) before being extended to other operators and types of shipment. One of the problems raised was the funding of the interconnection costs with the Internet bandwidth subscription, since the CEMAC TTFP would not finance the interconnection operating costs.

4. Cameroon was the major project beneficiary (a) as the corridor gateway with Douala Port and (b) as the transit country with 99.9 percent of the Douala-N'Djamena corridor length through the Kousseri border crossing. However, several beneficiary entities demonstrated poor performance due to low implementing capacity. Important logistics infrastructure and equipment were canceled, and funds reallocated such as the logistics platform for transit goods in Douala Port, and the new and upgraded multimodal logistics platform in Ngaoundéré. The feasibility studies for the logistics platform within Douala Port were never completed, hampered by a lack of follow up and commitment. The new multimodal platform in Ngaoundéré experienced a similar obstacle and the project site was no longer available when studies were completed. The World Bank was advised that the new multimodal platform would be shifted to another terrain at 7 km distance out of Ngaoundéré city, disconnected from the existing railway, which

would have also required an extension of the rail line. In both cases, there was a combination of low implementing capacity and low commitment to the project.

5. In Chad, three important factors explained the failures: (a) the project support was limited as the CEMAC TTFP was funded to 75 percent by domestic resources allocated to road infrastructure against only 25 percent IDA resources which were allocated mostly to road rehabilitation and maintenance between Bongor and the border with Cameroon. A small portion of the IDA funds was allocated to the trade facilitation component and used for a very few soft actions focused on regional activities including the CEMAC new transit regime which did not work, and the construction of the Customs headquarters following the destruction by fire of the former customs offices; (b) an important gap of human resources in Chad and limited capacity to efficiently design and implement complex projects components, and (c) limited use of new information and communication technologies, which is a key pillar of the transit regime.

c. Major achievements

6. The implementation of a single window for external trade procedures (GUCE) in Douala, from a physical single window to a fully operational electronic single window with more than 60 automated and operational procedures out of 72 developed was the most important achievement, connecting all private and public entities involved in import-export procedures. E-GUCE does allow import-export operators to effect transactions from their working stations without any travel to Douala as was previously necessary.

7. Despite failure of the Customs administration to implement the new CEMAC transit regime, an important step toward the modernization was achieved in Cameroon with the offices' computerization through the use of ASYCUDA ++ in all customs offices.

2. Implementation environment and activities for the proposed project

a. Project context

8. The context has slightly changed. The proposed project will be implemented in an improved context and will benefit from the experience and lessons learned from the CEMAC TTFP: (a) The security context has improved, no significant security threats are expected to affect the project implementation. The proposed project is not covering the Central African Republic as it was the case with the CEMAC TTFP and the project zone is far from the areas hit by insecurity in recent years, but which are now experiencing a significant security improvement and tending to stabilize. (b) It is a bilateral project whose implementation will not depend on any other regional organization, thus avoiding the difficulties encountered by the CEMAC TTFP, and the envisaged interconnection system will no longer go through the ASYCUDA Regional Centre. (c) At national level, the proposed project coordination will be ensured by the ministries in charge of transport in both countries, whereas the CEMAC TTFP was coordinated by the administrations in charge of public works, having more interest in transport infrastructure than transport and trade facilitation aspects. The attachment to the transport administrations will strengthen the Recipient ownership and commitment to the project. (d) The main reforms in transport and customs administrations will be supported by strong TA expertise, which was not the case with the CEMAC TTFP. They will be reinforced by strong consulting firms not only to design the proposed sector reforms, but also as to actively accompany the reforms implementation. (e) Cameroon and Chad have demonstrated more commitment to customs IT systems interconnection, motivated by the reduction of fraudulent practices and the resulting loss of revenue. Cameroon and Chad have signed a TA aimed to improve some key Chadian ASYCUDA functionalities and achieve an effective electronic exchange system of transit data

between ASYCUDA and CAMCIS. Joint technical teams customs are working on it since September 2020. The proposed project will evaluate the proposed technical solution, with the objective of helping them to implementing an efficient interconnection system that complies with World Customs Organization standards and international best practices. (f) One of the lessons learned from the COVID-19 pandemic is an increased need for the use of new technologies and paperless solutions in the delivery of services to overcome the consequences of travel limitations. As a result, several agencies including the GUCE and Customs have noted an increase in demand for online services, a trend that is likely to continue and contribute to a mindset change in running a business. (g) The financial crisis that Chad has been facing following the drastic drop in oil revenues has over the recent years encouraged the Government to rely on and maximize internal resources mobilization, including customs and tax revenues. This situation created a motivation to modernize the customs administration, with an emphasis on the use of new information technologies, that was illustrated by the creation of an IT and trade facilitation division which did not exist within the Directorate General of Customs. (h) The Port of Douala Authority (Port Autonome de Douala, PAD) has been provided with a stronger and more committed management team, more open to dialogue than the previous teams, which anticipates better performance in the project implementation. In 2020, the PAD courageously introduced an additional tax on container parking to discourage prolonged stay in the port area, which is a good measure to reduce congestion of the platforms.

b. Major bottlenecks in the logistics chain, and proposed solutions:

9. The logistics chain efficiency of the Douala-N'Djamena rail/road corridor is negatively affected by different issues mostly related to operational, institutional, and governance aspects. The matrix below is identifying the major bottlenecks and proposing potential activities to address them.

Table 4.1. Description of major bottlenecks and proposed solutions

Major bottlenecks	Proposed activities
i. **Customs transit procedures**: Customs procedures in both countries are cumbersome, requiring simplification and improvement through the implementation of an efficient transit regime including electronic exchange of transit data between customs systems, an efficient bond management system, streamlining rail/road transport mode transit documentation and procedures towards more efficiency and traceability, and professionalization of transit actors including customs brokers, freight forwarders, and other transit services providers.	**Implementation of a more efficient transit regime**: a. Effective implementation of the Cameroon-Chad customs information systems interconnection, aimed at enabling Chadian customs and authorized agents to anticipate customs operations, reducing time and cost of transit of goods processes from Cameroonian ports. b. Acquisition of required IT equipment and systems, the development of an interface between ASYCUDA and CAMCIS, training of the technical teams and system users, as well as the implementation of a communication plan to support the interconnection process aimed at avoiding related resistance through attitude change. c. Accreditation system of transit actors including accompanying measures aimed at professionalizing customs brokers, freight forwarders, and other related professions. This will contribute to building a sustainable and competitive sector and improving the corridor performance. d. Improvement of the customs bond system on transit goods: development of a dedicated electronic platform

Major bottlenecks	Proposed activities
	between Customs and banking institutions, aimed at improving the security and management of customs bonds, in conformity with the single bond mechanism as stipulated under the new CEMAC transit regime. The acquisition of needed IT equipment and training of technical staff and users involved in the guarantee processing will also be considered. e. Improving the traceability and celerity of the movement of goods in transit on the rail/road transport mode: the project will provide technical support to finalize the development of the TTU, including the implementation of related procedures.
ii. **Dematerialization program**: Douala single window e-platform needs upgrade so as to address the growing demand in Cameroon and other corridor countries generated by the ramp-up of the dematerialization program, which the GUCE will not be able to meet in the short and medium term unless its current capacity is strengthened and its system is modernized.	**Support GUCE dematerialization action plan** a. Proposed project will support e-GUCE to sustain the progress achieved by extending its services across the major centers and border posts in Cameroon. It will also support initiatives to extend e-GUCE services in Chad, facilitating operators to access the e-platform and perform transactions from their working stations. b. Improving e-GUCE capacity through the reinforcement of the platform data storage capacity and security, e-platform upgrading through modern technologies including big data analytics, and staff capacity building through specialized training program aimed at anticipating and addressing technical challenges in a fast-moving field will be considered, as well as hiring external expertise for further developments where needed.
iii. Reducing port dwell time: Dwell time of transit goods at the Port of Douala remains long and requires a reorganization of the port processes. The long port delays have repercussions on the overall duration of the transit of goods and the corridor performance.	**The project will support consultations aimed at identifying actions likely to improve the most critical port phases, which may include**: a. The establishment of a management system controlling the port access and movement of trucks within the port area through a truck calling system which optimizes uploading and offloading flows, and reduces congestion in the area. b. The establishment of a management system aimed at improving the pre-clearance and removal of goods phases, including monitoring of the different security and check points within the port area, possibly to be connected to e-GUCE system (dematerialization of the check points). This may issue alert messages to the port

Major bottlenecks	Proposed activities
	authorities on unjustified delays or congestion at the check points. c. Any other system that may help to improve the smooth and safe movement of goods and vehicles in the port area. d. Identified measures implementation will be supported under the project.
iv. **Professionalization of transport actors**: The lack of professionalization of transport operators and staff constitutes a major constraint to the development of sustainable transport in the region. The low fluidity of the movement of goods and the poor transport conditions contribute to increased transport costs and prices and generate low productivity of the transport industry.	The proposed project will support the **establishment of an accreditation system for transporters and means of transport,** based on standard and objective criteria, as well as accompanying measures aimed at improving the sector capacity and performance.
v. **Lack of an efficient transport data management system**: The transport sector planning and monitoring is handicapped by the lack of reliable, accurate, and complete data, including data on transport operators, transport vehicles, transport costs and prices, and so on.	**Establishment of a computerized data collection and processing system for the transport sector**: the project will support the implementation of an efficient data collection and management system to monitor the evolution of transport supply and demand, transport costs and prices, as well as the performance of transport operators. This will improve the sector planning and monitoring capacity.
vi. Inefficient and opaque road transport market: The lack of transparency and efficiency in the process of allocating transit freight to road freight carriers is a major constraint to the development of a viable and competitive road transport industry in Cameroon and Chad. The role of land transport freight bureaus in both countries constitutes important factors of high transport costs and prices and discourages new investments in the regional trucking industry.	**Improvement of land freight management and allocation systems with a view to establishing a more transparent and efficient system:** the project will finance a diagnostic study of the current land freight allocation system, propose solutions to identified problems and support the implementation of the recommended solutions.
vii. Bilateral and national sector dialogue framework: The lack of an effective dialogue framework at country, corridor, or regional levels contributes to the crystallization of problems that could be rapidly resolved through consultations among stakeholders.	The project will support consultations at sector, national and bilateral levels aimed at building confidence and cooperation among stakeholders and removing all bottlenecks that hamper trade and transport activities at all stages of the transit chain.

ANNEX 5: Infrastructure and Structural Change in the Lake Chad region

1. This annex presents main findings of the World Bank study to assess the project's economic impact at the regional scale. This study on infrastructure and structural change in the Lake Chad region and the Horn of Africa was prepared by the World Bank in 2021 and study develops a model to calculate the welfare impacts of regional integration from new transport infrastructure and border investments, which is used to quantify the impacts of the proposed project.

Method

2. The study relies on a spatial general equilibrium model that captures the spillover effects a localized investment has on the rest of the country, then generates welfare calculations for all the country. Main features of the model include the following:
    - The economy consists of multiple sectors of production (agriculture, manufacturing, and services) .
    - Locations differ in productivity, geography and trade links with each other.
    - Labor is mobile across regions within the country.
    - Roads investments are assumed to have general equilibrium effects via trade costs, the reallocation of labor across space, and the resulting changes in trade across locations.

3. Following its calibration to obtain the underlying parameters of the model for the baseline situation, the model is applied to a counterfactual scenario where different parts of the proposed project (transport investments, trade facilitation programs) are implemented.

Figure 5.2. Summary of CounterFactual Scenarios. A new speed of 70 km/h for the new road corridor is assumed

Baseline			
Scenario	Country	Infrastructure	Policies
1	Cameroon	Rail line that is less and less competitive with the road: speed 40km per hour	Platform in Ngadoundere to move form rail to road
	Chad	Corridor (Njamena-Moundou) in bad conditions: speed 30km/h followed by the segment Moundou to the border in good condition	Land Border with Cameroon: 30 hours per each border point + administrative costs to trade
Transport infrastructure investments			
2.1	Cameroon Chad	 New road line	
2.2	Cameroon Chad	New rail line New road line	
Border investments			
3	Cameroon and Chad	Baseline	from 30 hours to half time : 15 hours
Transport + Border investments			
4.1	Cameroon Chad	Baseline New road corridor	Half border time Half border time
4.2	Cameroon Chad	New rail line New road corridor	Half border time Half border time

Source: Lebrand, Mathilde. 2021. "Technical Paper 4. Infrastructure and Structural Change in the Lake Chad Region" (p.213). In Lake Chad Regional Economic Memorandum. World Bank, Washington, DC.

Results

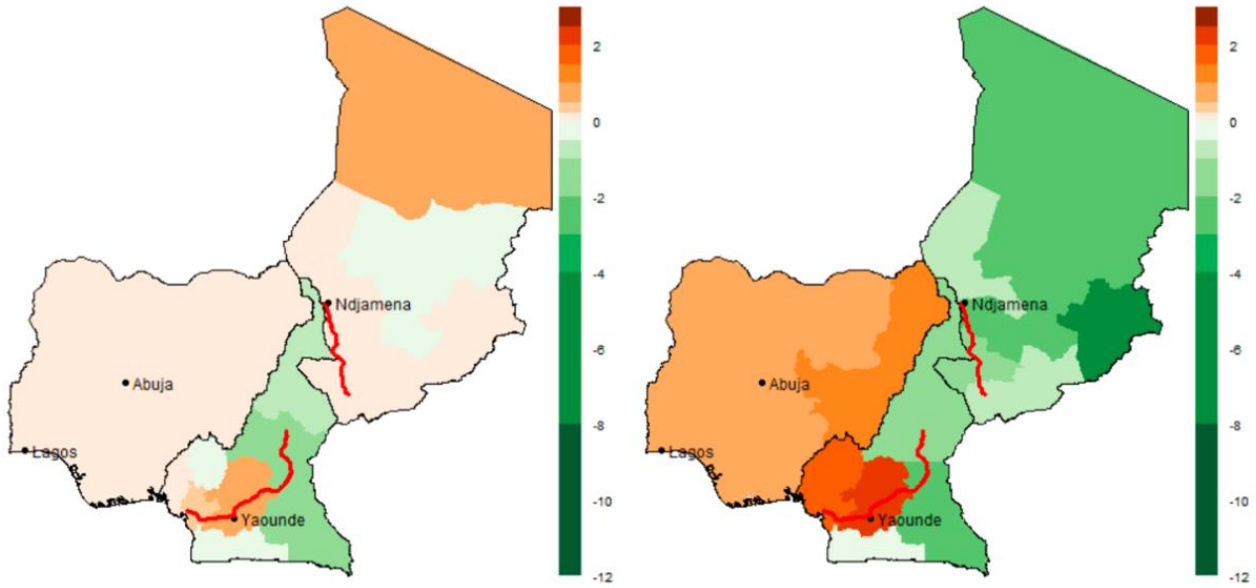
STRUCTURAL TRANSFORMATION

4. The proposed transport investments are expected to have a marginal impact on structural change away from agriculture at the national level; we can, however, note that Chad tends to specialize more in the primary sector. However, most changes will happen between regions within country.

5. Spatially, this translates into an increased specialization at the national scale. Combined transport and border investments increase the specialization of the southeastern part of Cameroon towards non-agricultural activities. The rest of Cameroon and most Chadian regions specialize more into tradable agricultural activities.

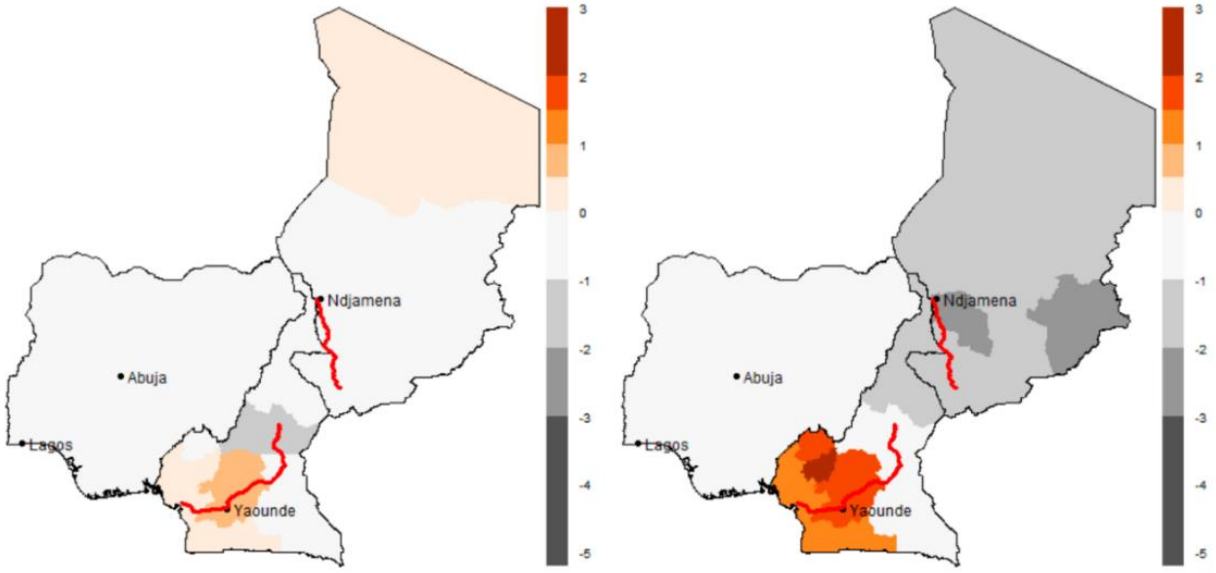
The specialization patterns differ when implementing the trade facilitation program or not.

Figure 5.3. Change in share of employment in non-agricultural sectors from transport corridor investments (left) with additional border reduction (rights) compared to baseline - in percentage points



Source: Lebrand, Mathilde. 2021. "Technical Paper 4. Infrastructure and Structural Change in the Lake Chad Region" (p.216). In Lake Chad Regional Economic Memorandum. World Bank, Washington, DC.

Figure 5.4. Change in share of employment in manufacturing sectors from transport corridor investments (left) with additional border reduction (rights) compared to baseline - in percentage points



Source: Lebrand, Mathilde. 2021. "Technical Paper 4. Infrastructure and Structural Change in the Lake Chad Region" (p.216). In Lake Chad Regional Economic Memorandum. World Bank, Washington, DC.

WELFARE IMPACTS

6. The following table shows the percentage change in welfare (real income) when different parts of the project are implemented (first infrastructure investments only, then combined with trade facilitation program).

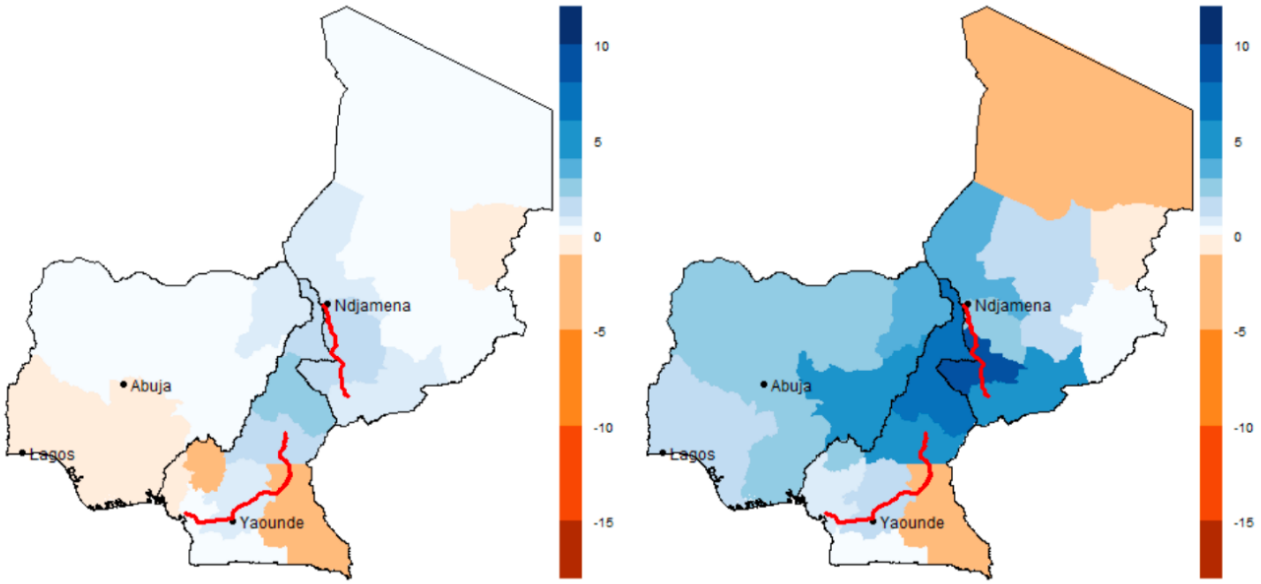
Figure 5.5. Percentage Change in Welfare (real income)

Scenarios	Cameroon	Chad	Nigeria	Lake Chad region
Transport only	0.5	0.7	0.03	0.8
Transport + Border	2.8	3.7	2.3	4.8

Source: Lebrand, Mathilde. 2021. "Technical Paper 4. Infrastructure and Structural Change in the Lake Chad Region" (p.215). In Lake Chad Regional Economic Memorandum. World Bank, Washington, DC.

7. Welfare gains, measured as gains in real subnational income, are positive at the aggregate level for all countries but not for all subnational regions. When only investing in corridors, some regions lose in terms of regional income, while others gain. When adding border time reduction, the large majority gains from lower trade costs and new regional trade opportunities.

Figure 5.6. Regional welfare impacts from transport corridor investments (left) with additional border reduction (right) - percentage change in regional welfare



Source: Lebrand, Mathilde. 2021. "Technical Paper 4. Infrastructure and Structural Change in the Lake Chad Region" (p.217). In Lake Chad Regional Economic Memorandum. World Bank, Washington, DC.

8. Overall, Chad gains the most from the projected investments as it benefits from its own corridor and the corridor in Cameroon. The new transport corridor in Cameroon benefits the most Cameroon when it is accompanied by a significant reduction in border costs. The sources of welfare gains are reallocation of workers across sectors and locations, and lower prices leading to higher purchasing power.

Conclusion

9. Infrastructure expansions have been a driver for structural change around the Lake Chad region, with varying effects across countries and locations. More regional integration through new transport and trade investments could increase regional specialization and bring welfare gains for the regions around the Lake Chad.

ANNEX 6: Activities to Enhance Climate Change Resilience and Reduce GHG Emissions

1. Most project components contribute toward enhancing resilience and to reducing GHG emissions of the trade and transport sectors of Chad and Cameroon. The following table provides an overview on how each project component generates climate co-benefits.

Component	Description of Climate Linked Activities
1 - Douala Yaoundé rail tracks rehabilitation and railway signaling modernization	A) Integration of climate resilience consideration in rehabilitation construction design standards and specifications for rail racks, including bridges and rail crossings. A climate vulnerability assessment at railway infrastructure level is being carried out and will identify the necessary measures to enhance the railway climate resilience based on international standards. For instance, to strengthen the hydraulic design of the rail drainage structures, culverts with larger openings will replace the existing corrugated metal pipes and other culvert types. Certain locations will require the placement of additional culverts. B) Investments in the rail network provides redundancy in the transport network and strengthens a good alternative, especially during the rainy season. C) Investments in the rail network will improve its efficiency and performance thus maintaining high modal share and inducing modal shift from freight road transportation. This will reduce GHG emissions from the transport network. D) It is important to note that the railway concessionaire is responsible until 2034 for infrastructure works and maintenance of rail operations.
2 - Rail/road connections investments and railway expansion studies	A) Investments in rail/road connections improves inter-operability of the two modes of transport, improving performance and redundancy in the network and thus does enhancing resilience to extreme climate events and natural disasters. In addition, the increased modal shift from road to rail and the consequent reduction of carbon emissions directly depend on the efficiency of the multimodal platforms. B) Investments in dry port and rail/road platforms will consider climate resilient design standards and specifications, operations and maintenance provisions to enhance the resilience of the transport network and its operations. C) Investments will also consider the possibility to develop storage and conservation units to limit high post-harvest losses.
3: Road reconstruction, maintenance and safety improvements	A) Revised road design standards and specifications: Special focus will be on areas with major risks of flooding that might cause erosion and damage to the road. Important elements to consider are the road levels, cross drainage and erosion protection of the road.

	B) Bridges, culverts and drainage structures: the thermal expansion of bridges will be countered through the use of expansion joints and accounting for the temperature increment at the design phase. Empirical recommendations from assessed extreme peak flows and design return periods at critical points will also be considered. The use of resilient design may call for additional cross and side drainage, adjustment in the vertical alignment of road, and higher hydraulic clearances for the bridge and culverts. C) Pavement design: Climate change impacts due to extreme temperatures may include deformation of the surface, cracking, accelerated aging of binder, rutting of asphalt and bleeding/flushing of seals. The counter measure entails the use of appropriate layer coefficients, drainage coefficients, weather-resistant pavement surfacing materials and asphalt mix designs, and revised pavement thicknesses which take into consideration the future temperatures and the use of advanced heat resistant materials. D) Maintenance Operations and Emergency Works: Revised provisions in contracts for maintenance works and emergency works which may become necessary due to extraordinary climate events (to remedy the damages caused by heavy rains and flooding). It is important to note that the project opted for the OPBRC methodology for its road component, which limits the risk that the roads will again deteriorate a few years after their rehabilitation. E) Hydrology: Balancing ponds may have a very limited effect in protecting the road but can be of use for villages to store water, to be used for irrigation during dry season. This will be one of the measures to protect vulnerable livelihoods from adverse effects of climate change such as prolonged droughts. F) Improved services including safety will increase resilience of farmers to transport their produce to markets during rainy season thus avoiding loss of valuable lifeline produce, as well as for the population to access school and health services.
4: Institutional strengthening and capacity building	Policies, strategies, plans, regulatory reforms, training developed in both countries, with the assistance of the project, will be climate smart (mitigation and adaptation) and will contribute to make transport more efficient along the corridor. In particular, these include (a) the elaboration of a new regulatory framework for transporters; (b) new computerized management of freight in the Port of Douala and of freight allocation; and (c) increased collaboration between the Chadian and Cameroonian customs, which will foster climate adaptation (for example, by impeding overloading and the consequent premature road damage, and by coercing the highly emitting informal sector).