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The World Bank

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Report No: PAD1854

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF EURO 26.4 MILLION  
(US\$30 MILLION EQUIVALENT)

TO THE

REPUBLIC OF CÔTE D'IVOIRE

FOR A

TRANSPORT SECTOR MODERNIZATION AND CORRIDOR TRADE FACILITATION  
PROJECT

June 7, 2016

Transport & ICT Global Practice  
Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2016)

Currency Unit = EUR  
EUR 0.877 = US\$1  
US\$1.415 = SDR 1

FISCAL YEAR  
January 1 – December 31

## ABBREVIATIONS AND ACRONYMS

AEO	Authorized Economic Operator
AfDB	African Development Bank
ALTFP	Abidjan-Lagos Trade and Transport Facilitation Project
ANDE	<i>Agence Nationale de l'Environnement</i> (National Environmental Agency)
ASYCUDA	Automated System for Customs Data
BAAC	<i>Bulletin d'analyse des accidents corporels</i> (Bulletin of casualties Analysis)
BCEAO	<i>Banque Centrale des Etats de l'Afrique de l'Ouest</i> (Central Bank of West African States)
Corridor	Abidjan – Ouagadougou regional road transport corridor
CPF	Country Partnership Framework
DA	Designated Account
DPO	Development Policy Operation
ECOWAS	Economic Community of West African States
EIRP	Emergency Infrastructure Renewal Project
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FDI	Foreign Direct Investment
FDTR	<i>Fonds de Development des Transports Routiers</i> (Road Transport Development Fund)
FER	<i>Fonds d'Entretien Routier</i> (Road Maintenance Fund)
GDP	Gross Domestic Product
GHG	Green House Gas
GIE	<i>Groupement d'Interêt Economique</i> (Economic Interest Group)
GRSF	Global Road Safety Facility
HCPETR-CI	<i>Haut Conseil du Patronat des Entreprises de Transport Routier en Côte d'Ivoire</i> (High Council of Road Transport Companies Owners)
HGV	Heavy Goods Vehicle
IA	Implementing Agency
ICB	International Competitive Bidding
ICD	Inland Container Depot
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Financial Report

IMF	International Monetary Fund
IPF	Investment Project Financing
ISP	Implementation Support Plan
LCS	Least Cost Selection
LDP	Letter of Development Policy
MTR	Mid-Term Review
NCB	National Competitive Bidding
ODA	Overseas Development Aid
OIC	<i>Office Ivoirien des Chargeurs</i> (Ivorian Shippers' Council)
OFT	Observatoire de la Fluidité du Transport (Transport Fluidity Observatory)
OHADA	<i>Organisation pour L'Harmonisation du Droit des Affaires en Afrique</i> (Organization for the Harmonization of Business Law in Africa)
OP	Operational Policy
OSER	<i>Office de la Sécurité Routière</i> (Road Safety Agency)
PACIR	<i>Programme d'Appui au Commerce et à l'Intégration Régionale</i> (Trade and Regional Integration Support Program)
PCU	Project Coordination Unit
PIA	Project Impact Area
PIM	Project Implementation Manual
PND	<i>Plan National de Développement</i> (National Development Plan)
PSC	Project Steering Committee
PTC	Project Technical Committee
QCBS	Quality and Cost Based Selection
REC	Regional Economic Community
RFP	Request For Proposal
RTFCC	Regional Trade Facilitation and Competitiveness Credit
SCADD	<i>Stratégie pour la Croissance Accélérée et le Développement Durable</i> (Strategy for Accelerated Growth and Sustainable Development)
SCD	Systematic Country Diagnostic
SICTA	<i>Société Ivoirienne de Contrôle Technique Automobile</i> (Agency responsible for vehicles' technical inspection on behalf of the Government)
SORT	Systematic Operation Risk-rating Tool
SSA	Sub Saharan Africa
SSATP	Africa Transport Policy Program
SYSOAHADA	<i>Système Comptable de l'OHADA</i> (OHADA Accounting System)
TA	Technical Assistance
TDMT	<i>Direction Générale des Transports Terrestres et de la Circulation</i> (Directorate General of Land Transport and Traffic Management)
TOR	Terms of Reference
ULCR	<i>Unité de Lutte Contre le Racket</i> (Road Racket Fighting Unit)
UNCTAD	United Nations Conference on Trade and Development
VOC	Vehicle Operating Costs
WCO	World Customs Organization
WTO	World Trade Organization

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Task Team Leaders:	Ibou Diouf/Fabio Galli



**CÔTE D’IVOIRE**  
**Transport Sector Modernization and Corridor Trade Facilitation Project (P156900)**

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**PAD DATA SHEET***Cote d'Ivoire**Transport Sector Modernization and Corridor Trade Facilitation Project (P156900)***PROJECT APPRAISAL DOCUMENT***AFRICA*

Report No.: PAD1854

<b>Basic Information</b>			
Project ID P156900	EA Category B - Partial Assessment	Team Leader(s) Ibou Diouf, Fabio Galli	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 28-Jun-2016	Project Implementation End Date 31-Dec-2020		
Expected Effectiveness Date 28-Sep-2016	Expected Closing Date 30-Jun-2021		
Joint IFC Yes	Joint Level Complementary or Interdependent project requiring active coordination		
Practice Manager/Manager Nicolas Peltier-Thiberge	Senior Global Practice Director Pierre Guislain	Country Director Pierre Frank Laporte	Regional Vice President Makhtar Diop
Borrower: Ministry of transports			
Responsible Agency: Direction Générale des Transports Terrestres et de la Circulation			
Contact:	Romain Kouakou	Title:	Directeur Général des Transports Terrestres et Circulation
Telephone No.:	22520218224	Email:	rokkouakou@yahoo.fr
<b>Project Financing Data(in USD Million)</b>			
[ ] Loan	[ ] IDA Grant	[ ] Guarantee	
[ X ] Credit	[ ] Grant	[ ] Other	
Total Project Cost:	45.00	Total Bank Financing:	30.00
Financing Gap:	0.00		



Financing Source						Amount				
BORROWER/RECIPIENT						15.00				
International Development Association (IDA)						30.00				
Total						45.00				
Expected Disbursements (in USD Million)										
Fiscal Year	2017	2018	2019	2020	2021	0000	0000	0000	0000	0000
Annual	2.00	7.00	10.00	8.00	3.00	0.00	0.00	0.00	0.00	0.00
Cumulative	2.00	9.00	19.00	27.00	30.00	0.00	0.00	0.00	0.00	0.00
Institutional Data										
Practice Area (Lead)										
Transport & ICT										
Contributing Practice Areas										
Governance, Macro Economics & Fiscal Management, Trade & Competitiveness, Social, Urban, Rural and Resilience Global Practice										
Cross Cutting Topics										
[ X ] Climate Change										
[ ] Fragile, Conflict & Violence										
[ X ] Gender										
[ ] Jobs										
[ ] Public Private Partnership										
Sectors / Climate Change										
Sector (Maximum 5 and total % must equal 100)										
Major Sector	Sector				%	Adaptation Co-benefits %		Mitigation Co-benefits %		
Transportation	General transportation sector				50			50		
Public Administration, Law, and Justice	Public administration-Transportation				40					
Industry and trade	Other domestic and international trade				10					
Total					100					
<input type="checkbox"/> I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.										
Themes										
Theme (Maximum 5 and total % must equal 100)										

Major theme	Theme	%
Trade and integration	Regional integration	50
Trade and integration	Export development and competitiveness	25
Financial and private sector development	Regulation and competition policy	25
Total		100
<b>Proposed Development Objective(s)</b>		
The objective of the proposed project is to improve the efficiency and safety of transport services on the Ivorian section of the Abidjan (Ivory Coast) - Ouagadougou (Burkina Faso) road transport corridor.		
<b>Components</b>		
<b>Component Name</b>	<b>Cost (USD Millions)</b>	
Institutional strengthening and capacity building support for public and private sector participants in the transport sector	5.80	
Development of a heavy cargo truck renewal scheme	30.75	
Support to customs modernization and trade facilitation on the Ivorian section of the Corridor	3.45	
Road safety on the Ivorian section of the Corridor	3.25	
Project management, monitoring and evaluation	1.75	
<b>Systematic Operations Risk- Rating Tool (SORT)</b>		
<b>Risk Category</b>	<b>Rating</b>	
1. Political and Governance	Substantial	
2. Macroeconomic	Substantial	
3. Sector Strategies and Policies	Moderate	
4. Technical Design of Project or Program	Substantial	
5. Institutional Capacity for Implementation and Sustainability	Substantial	
6. Fiduciary	Substantial	
7. Environment and Social	Moderate	
8. Stakeholders	High	
9. Other		
<b>OVERALL</b>	High	
<b>Compliance</b>		
<b>Policy</b>		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [ X ]
Does the project require any waivers of Bank policies?	Yes [ ]	No [ X ]

Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [ X ]
Does the project meet the Regional criteria for readiness for implementation?	Yes [ ]	No [ ]
<b>Safeguard Policies Triggered by the Project</b>		
	<b>Yes</b>	<b>No</b>
Environmental Assessment OP/BP 4.01	<b>X</b>	
Natural Habitats OP/BP 4.04		<b>X</b>
Forests OP/BP 4.36		<b>X</b>
Pest Management OP 4.09		<b>X</b>
Physical Cultural Resources OP/BP 4.11		<b>X</b>
Indigenous Peoples OP/BP 4.10		<b>X</b>
Involuntary Resettlement OP/BP 4.12		<b>X</b>
Safety of Dams OP/BP 4.37		<b>X</b>
Projects on International Waterways OP/BP 7.50		<b>X</b>
Projects in Disputed Areas OP/BP 7.60		<b>X</b>
<b>Legal Covenants</b>		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Schedule 2, Section I.A.1(a) Project Steering Committee (PSC)	<b>X</b>	
<b>Description of Covenant</b>		
The Recipient shall establish and maintain, throughout Project implementation, a PSC with Terms of Reference, composition and resources satisfactory to the association.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Schedule 2, Section I.A.2(a) Project Technical Committee (PTC)	<b>X</b>	
<b>Description of Covenant</b>		
The Recipient shall establish and maintain, throughout Project implementation, a PTC with TOR, composition and resources, satisfactory to the Association.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Project Coordination Unit (PCU).	<b>X</b>	
<b>Description of Covenant</b>		
Schedule 2, Section I.A.3(a) The Recipient shall maintain, throughout Project implementation, within the Ministry of Economic Infrastructure, a PCU with TOR, composition and resources, satisfactory to the Association.		
<b>Name</b>	<b>Recurrent</b>	<b>Due Date</b>
Schedule 2, Section V.A(1) PCU staffing		28-Dec-2016
<b>Description of Covenant</b>		

The Recipient shall have recruited for the PCU a Project coordinator, a deputy Project coordinator, and accountant and a procurement specialist or assistant for the Project, with TOR, qualifications and experience satisfactory to the Association.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.D (a) Project Implementation Manual (PIM) availability.	<b>X</b>		CONTINUOUS

**Description of Covenant**

The Recipient shall ensure that the Project is carried out in accordance with the provisions of the PIM and shall not amend or waive any provision of said manual unless the Association otherwise agree in writing.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section V.A.2 PIM changes		28-Dec-2016	

**Description of Covenant**

The recipient shall have updated the PIM to include specific arrangements related to Schedule 1, Part 2, satisfactory to the Association.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section V.A.3 Recruitment of external auditor	<b>X</b>		CONTINUOUS

**Description of Covenant**

The Recipient shall have recruited an external auditor for the Project, for the purpose of completing the audit referred to in Section II, Paragraph B (3) of this Schedule.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section V.C Counterpart funding	<b>X</b>		CONTINUOUS

**Description of Covenant**

The Recipient has agreed to contribute an amount equivalent to EUR 13.2 million to support activities under Part 2(a) or Part 2 of Schedule 1. These counterpart funds shall be included in the annual work plan and budgets for the Project and shall be made available to the Project in installments of: (a) EUR3.0 million equivalent in calendar 2017; (b) EUR 5.2 million equivalent in calendar 2018; and (c) EUR 50 million equivalent in calendar 2019.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section I.D.2 Preparation and implementation of ESIA/ESMP	<b>X</b>		CONTINUOUS

**Description of Covenant**

Prior to the commencement of the truck scrapping activity under Part 2 of the Schedule 1, the Recipient shall: (a) prepare and furnish to the Association and ESIA and ESMP for its review; (b) adopt and publicly disclose the ESIA and ESMP approved by the Association. During the truck-scrapping activity, the Recipient shall: (a) implement all measures required pursuant to the ESIA and ESMP; and (b) ensure that the implementation of such truck-scrapping activity is in accordance with the provisions of the ESIA and ESMP.

Name	Recurrent	Due Date	Frequency	
Schedule 2, Section V.B Mid-Term Review		30-Jun-2018		
<b>Description of Covenant</b>				
<p>The Recipient and the Association shall carry out a mid-term review (MTR) of the Project, covering the progress achieved in the implementation of the Project. The MTR will take place no later than eighteen (18) months after the expected Effective Date or any other date agreed upon with the Association. The Recipient shall prepare, under terms of reference satisfactory to the Association, and furnish to the Association three months (or date agreed upon with the Association in writing) prior to the beginning of such mid-term review of the Project, a report integrating the results of the monitoring and evaluation activities performed pursuant to this Agreement, on the progress achieved in the carrying out of the Project.</p>				
<b>Conditions</b>				
Source Of Fund	Name	Type		
IDA	Schedule 2, Section IV.B.2 Disbursement for sub component 2A	Disbursement		
<b>Description of Condition</b>				
<p>Notwithstanding the provisions of Schedule 2, Section IV.A of the Financing Agreement, no withdrawal shall be made under Category (2) of the Financing for Part 2(a) of the Project, unless and until the Recipient has adopted an implementation manual, acceptable to the Association, defining all the modalities of the truck renewal scheme to be implemented under the Project.</p>				
Source Of Fund	Name	Type		
IDA	Retroactive financing (withdrawal condition)	Disbursement		
<b>Description of Condition</b>				
<p>Notwithstanding the provisions of Part A of this Section, no withdrawal shall be made for payments made prior to the date of this Agreement, except that withdrawals of up to an aggregate amount not to exceed EUR 900,000 may be made for payments made prior to such date but on or after May 23, 2016.</p>				
Team Composition				
Bank Staff				
Name	Role	Title	Specialization	Unit
Ibou Diouf	Team Leader (ADM Responsible)	Program Manager	Sr. Transport Spec.	GTI01
Fabio Galli	Team Leader	Lead Transport Specialist	Lead Transport Specialist	GTI05
Maurice Adoni	Procurement Specialist (ADM Responsible)	Senior Procurement Specialist		GGO07
Jean Charles Amon Kra	Financial Management Specialist	Sr Financial Management Specialist	Sr. Financial Management Specialist	GGO13

Abdoul Wahabi Seini	Safeguards Specialist	Senior Social Development Specialist	Sr. Social Development Specialist	GSU01	
Abdoulaye Gadiere	Safeguards Specialist	Senior Environmental Specialist	Sr. Environmental Specialist	GEN07	
Antoine H. M. Coste	Team Member	E T Consultant	ET Consultant	GTC07	
Assiata Houedanou Soro	Team Member	Operations Analyst, OPCS	Operations Analyst	AFCF2	
Cheick Omar Tidiane Diallo	Team Member	Transport Specialist	Transport Specialist	GTI05	
Haoua Diallo	Team Member	Team Assistant	Team Assistant	AFCF2	
Hatem Chahbani	Team Member	Sr Transport. Spec.	Sr. Transport Spec.	GTI05	
Jacques Morisset	Team Member	Program Leader	Program Leader	AFCF2	
Jean Michel Noel Marchat	Team Member	Lead Private Sector Development Specialist	Lead Private Sector Development Spec.	GTC07	
Jean-Christophe Maur	Team Member	Senior Economist	Sr. Economist	GTC07	
Khalid Boukantar	Team Member	Program Assistant	Program Assistant	GTI05	
Maimouna Mbow Fam	Team Member	Sr Financial Management Specialist	Sr. Financial Management Spec.	GGO13	
Olivier Hartmann	Team Member	Senior Trade Facilitation Specialist	Sr. Trade Facilitation Specialist	GTCTC	
Samba Ba	Team Member	Senior Economist	Sr. Economist	GMF01	
<b>Extended Team</b>					
<b>Name</b>	<b>Title</b>	<b>Office Phone</b>	<b>Location</b>		
<b>Locations</b>					
<b>Country</b>	<b>First Administrative Division</b>	<b>Location</b>	<b>Planned</b>	<b>Actual</b>	<b>Comments</b>
Cote d'Ivoire	Savanes	Savanes		<b>X</b>	Ivorian section of the Abidjan (Ivory Coast) - Ouagadougou (Burkina Faso) road transport corridor



## I. STRATEGIC CONTEXT

### A. Country Context

1. Côte d'Ivoire, with a Gross Domestic Product (GDP) (current US\$) of about US\$35 billion and a population of 23.3 million in 2015, is the third largest economy and third most populous country in West Africa. As a direct result of the political crisis from 1999-2011, the Ivorian economy grew by only two percent a year in nominal terms, which was among the lowest growth rates for the whole of Sub Saharan Africa (SSA), and well below the population growth rate of about three percent per year. Côte d'Ivoire's recovery since 2011 has been robust and broad based, with the economy growing at an average rate of about nine percent from 2012 to 2015. Real per capita GDP increased cumulatively by more than 20 percent over the same period. All the main sectors of the economy (agriculture, industry and construction, and services), have contributed to the renewed strong growth of GDP and employment, which were supported by an upsurge of public and private investments. GDP growth is expected to average about eight percent over the next two years.

2. In addition to establishing an appropriate macroeconomic framework and following prudent fiscal policy, the Government has dedicated significant resources in recent years to improve security and social cohesion. The Government has also adopted structural reforms to set the stage for resilient and private sector-led growth. Some of the major reforms are aimed at improving the business climate, ensuring financial stability and greater inclusion, and improving public governance and financial management. However, despite the strong post crisis recovery, Côte d'Ivoire's economy remains vulnerable to endogenous/exogenous factors such as low prices for commodities, erratic weather patterns, political instability, and reductions in Foreign Direct Investment (FDI) and Overseas Development Aid (ODA).

3. Despite the progress made since 2011, Côte d'Ivoire has only been moderately successful at reducing the poverty rate, which slightly decreased from 48.9 percent in 2008 to 46.3 percent in 2015, after having dramatically increased since the mid-1980s. Furthermore, Côte d'Ivoire ranked only 171 out of 187 in the 2014 UNDP Human Development Index (HDI). The recently concluded Systematic Country Diagnostic (SCD) (Report 98178), shows that poverty in Côte d'Ivoire is overwhelmingly concentrated in rural areas and in the Northern part of the country traversed by the Corridor.

### B. Sectoral and Institutional Context

4. High transport, trade and logistics costs in Côte d'Ivoire, have weakened its potential to leverage its strategic geographic position in domestic, regional and global markets to accelerate growth and reduce poverty.

#### *B.1 Sectoral context*

5. **Transport sector.** The transport sector in Côte d'Ivoire is one of the most developed in West Africa, despite suffering from a dramatic reduction in investments during the political crisis. Its asset base consists of: (a) a classified road network of 82,000 km, of which 6,500 are paved and 272 km are grade separated highway standard; (b) 1,238 km (including urban sections) of meter



gauge railway line between Abidjan and Ouagadougou; (c) two international airports at Abidjan and Bouake and five domestic airports; and (d) two international ports at Abidjan and San Pedro. Côte d'Ivoire was one of the first countries in West Africa to effectively use Public Private Partnerships (PPPs) in the transport sector with the concession of railway, airport and bridge infrastructure. Over the last five years, the Government and the private sector have invested over US\$2 billion to upgrade/rehabilitate the transport infrastructure asset stock, following more than a decade of under investment caused by the prolonged political crisis.

6. **Abidjan – Ouagadougou regional road transport corridor (Corridor).** The overall length of the Corridor is about 1,189 km of which about 653 km is in Côte d'Ivoire. A meter gauge railway line of about 1,238 km also serves the same Corridor, and the current road/rail modal split is about 75 percent road transport and 25 percent rail transport. In 2013, the Abidjan – Ouagadougou corridor (road plus rail) had a share of about 35 percent of the overall transit trade for Burkina Faso, ahead of Lomé (about 31 percent), Cotonou and Tema (about 17 percent each). This market share is likely to increase as Côte d'Ivoire regains its dominant transit corridor role for Burkina Faso and to a lesser extent Mali and Niger.

## ***B.2 Challenges and opportunities***

7. **Inefficient transport service provision.** Regarding the provision of road transport services, a combination of increasingly deficient infrastructure, inadequate regulations, and market distortions have created a large gap between prices and costs in the provision of transport services and an environment not conducive to sectorial investments. Furthermore, the lack of clear criteria for access to the transport profession and of transparent market mechanisms to match supply and demand for transport services on key corridors like Abidjan - Ouagadougou, has given rise to the emergence of a few dominant operators that capture large rents through the allocation of freight to truckers. The resulting low profitability of the transport service sector creates strong incentives for truckers to resort to short-term profit maximizing behaviors, such as overloading and use of obsolete trucks. This affects the reliability and safety of transport services provision, damages the road network, and discourages containerization. As a result, the containerization rate on West African transit corridors such as the Corridor is about 20 percent for transit goods moving inland, which is amongst the lowest rate in the world.

8. In addition, key issues affecting the efficient use of the truck fleet and their profitability on intra/inter regional corridors, and which increases trade costs, are: (a) slow truck rotation times on regional corridors; (b) delays in clearing goods at the port; (c) cumbersome customs and transit procedures; (d) Non-Tariff Barriers (NTBs) and other informal barriers; and (e) the difficulty to find backhaul cargo. These factors make it difficult for the majority of transporters to fully cover the cost of capital of their operations and to renew their truck fleets with more efficient trucks.

9. **Transport sector reform.** The Government has launched over the last two years an ambitious program of reforms to modernize the road transport and trade environment, including measures to professionalize the trucking industry by reforming access to the profession, improve the functioning of the transport market, facilitate the renewal of the truck fleet, streamline trade and transit procedures, etc. One of the key objectives of this reform program is to improve the efficiency of transport services on key intra/inter regional corridors, such as the Abidjan –

Ouagadougou transport corridor, to better serve the tradable sector of the Ivorian economy and to further enhance Côte d'Ivoire's position as a key transport and trade hub for West Africa. This program of reforms is coordinated with similar reforms in Burkina Faso, which have the objective to reduce trade, transport and transit costs, and prices along the key transport regional corridor linking Abidjan to Ouagadougou.

10. **World Bank support to transport sector reform.** The World Bank, through the Regional Trade Facilitation and Competitiveness Credit (RTFCC) series of Development Policy Operations (DPOs) (P129282 and P158333), covering Côte d'Ivoire and Burkina Faso, is supporting transport sector reform efforts in both countries. More specifically, the RTFCC DPO series directly support joint efforts by the Ivorian and Burkinabe Governments to reduce trade and transport costs, especially on the Corridor, in order to improve the competitiveness of the tradable sectors of the economy.

11. The RTFCC DPO series selected the Corridor due to its economic relevance and potential. Despite the high transport costs of using the Corridor, it has regained its position as one of the main transit corridors in West Africa. As a result of this, the Port of Abidjan has progressively regained regional transit trade market share, despite a temporary setback in 2010/11 at the peak of the political crisis, and is now a major and growing transit gateway.

12. To support and sustain the implementation of some of the RTFCC DPO series longer term transport and customs-related reforms, as well as to mitigate their potential negative impacts on vulnerable stakeholders, both Côte d'Ivoire and Burkina Faso requested the World Bank's continued support. Thus, the proposed project is being prepared in parallel with a similar planned operation focusing on Burkina Faso and the Burkinabe section of the Corridor.

### **C. Higher Level Objectives to which the Project Contributes**

13. The proposed project is fully aligned with the findings of the Systematic Country Diagnostic (SCD) and Country Partnership Framework (CPF) for Côte d'Ivoire FY16-19 (Report 96515-CI), adopted respectively in June and September 2015. The SCD identifies poor trade and transport logistics as one of the main constraints to the development of agro-business and manufacturing industries in the country. In addition, the project support the World Bank Group's twin goals of reducing extreme poverty and boosting shared prosperity by enhancing access of goods and services to the poor.

14. The first pillar of the CPF focuses on sustaining strong private sector-led growth through the reduction of transport and logistics bottlenecks and the removal of trade barriers. The CPF also makes the case that regional economic infrastructure, including in transport and logistics, is key to increasing competitiveness, expanding markets and making goods and services more available and affordable for the poor. Lastly, by reducing the constraints to transport and trade, the proposed project will also contribute to the second cross cutting area of the CPF of reducing spatial inequalities.

15. The proposed project directly supports the key objectives of the RTFCC DPO series, which focuses on reducing trade transaction costs on the Corridor. Finally, the proposed project, complements/supports other development partner's interventions in the sector and Corridor,

including the European Union (EU), African Development Bank (AfDB), French Development Agency (AFD) and Islamic Development Bank (IDB).

## II. PROJECT DEVELOPMENT OBJECTIVES

### PDO

16. The proposed PDO is to improve the efficiency and safety of transport services on the Ivorian section of the Abidjan, Ivory Coast – Ouagadougou, Burkina Faso road transport corridor.

### Project Beneficiaries

17. **Population of Côte d’Ivoire and sub-region.** The general population, especially the poor, will benefit from the proposed project through lower transport costs which should affect the prices of imported goods, commodities and staples. The direct beneficiaries of the project is expected to be 4.15 million people of which 49.7 percent of women.

18. **Tradable sectors of the Ivorian economy.** The tradable sectors of the Ivorian economy will benefit from the proposed project through more efficient logistics chains and transport services provision on the Abidjan – Ouagadougou transport corridor, which should lead to better access to intra/inter regional markets. Shipping companies stand to benefit from increased efficiency in the transport industry owing to lower prices.

19. **Women traders operating on the Corridor.** Women are expected to be the biggest beneficiaries of lower prices and increased access to markets stemming from the proposed project. They are the ones mostly found operating small businesses along the Corridor, in both Côte d’Ivoire and Burkina Faso, trading produce and consumer goods destined for urban consumption.

### PDO Level Results Indicators

20. The following key indicators will be used to evaluate the achievement of the PDO:

1. Average cost of transporting a 40 foot container from Abidjan to Ouagadougou (US\$)
2. Average transit time and variability after exiting the Port of Abidjan to the border with BF (Hours)
3. Number of Casualties on the Ivorian portion of the Corridor (Number)
4. Direct project beneficiaries (Number), of which female (Percentage)
5. CO2 emissions reduction per annum by scrapping 300 trucks and replacing them with an equivalent number of new trucks (tCO2)

## III. PROJECT DESCRIPTION

21. The proposed project is designed to support the Government by: (a) providing technical and financial assistance to enable the effective implementation of transport and customs-related reforms and modernization measures identified in the Policy Matrix of the RTFCC DPO series

(see Annex 6 for full details on the matrix); and (b) establishing support mechanisms to help private operators adapt to the new regulatory and competitive environment on the Ivorian section of the Corridor.

22. The PDO for the RTFCC DPO series, which the proposed project supports, is to “reduce trade transactions costs along the Abidjan –Ouagadougou Corridor” through the following five pillars:

- **Pillar A: Professionalizing and formalizing the trucking industry:** (A1) Business-enabling environment promoting professionalization and formalization of the trucking industry; (A2) Professional organization representing the trucking industry; and (A3) Implementation of axle load regulations.
- **Pillar B: Modernizing the organization of the trucking market:** (B1) Efficiency of road transport operations through better contractual relations between trucking companies and shippers; and (B2) Efficiency of road transport operations through a more efficient truck fleet.
- **Pillar C: Enhancing the competitiveness of maritime and inland gateways:** (C1) Port and terminals operational efficiency and prices.
- **Pillar D: Improving customs clearance:** (D1) Availability of information on trade procedures and regulations; (D2) Customs clearance procedures and reward of compliance; and (D3) Professional standards for customs and logistics service providers.
- **Pillar E: Facilitating transit:** (E1) Border crossing procedures; and (E2) Transit regime.

23. The proposed project design and scope described below aim to complement the reforms supported by the RTFCC DPO series by: (a) supporting the professionalization and formalization of the trucking industry under Pillar A; (b) improving the competitiveness of the road transport mode under Pillar B; and (c) improving customs clearance transit procedures, regulations and border crossing procedures under Pillars D & E.

24. The proposed project components directly support the RTFCC DPO series in the following manner: (a) Component 1 supports Pillar A and part of Pillar B; (b) Component 2 supports part of Pillar B; and (c) Component 3 supports Pillar D and part of Pillar E. Component 4 supports the country towards achieving the United Nations Decade of Action and Africa Plan of Action 2011-2020, with an emphasis on sensitization and awareness campaigns related to the Corridor.

25. An almost identical project is being prepared in Burkina Faso to support the objectives of the RTFCC DPO series on the Burkinabe section of the Corridor. The proposed project in Burkina Faso is expected to be presented to the World Bank Board of Directors by the end of calendar 2016. Lastly, IFC has expressed strong interest in this project, in particular in terms of building on the project’s fleet renewal mechanism to expand minibuses and taxis for passenger transport.

#### **A. Description of Project Components**

26. The proposed project will include the following components (details are presented in Annex 2 of the PAD):

**Component 1: Institutional strengthening and capacity building support for public and private sector participants in the transport sector (US\$5.8 million, of which IDA 100 percent)**

27. This component will strengthen the capacity of the Government and of professional associations in the transport, transit and trade sector to effectively provide efficient support and services to private operators operating primarily on the Ivorian section of the Corridor. The components will also support activities that promote the professionalization of the road transport industry, as well as accompanying measures for the transport and logistics operators who may not be able to adapt to the new regulatory framework. The proposed component will be implemented by the Directorate General of Land Transport and Traffic Management (TDMT) and fund the following activities:

- ***Sub-component 1A (US\$3.8 million): Strengthening the institutional capacity of the Ministry of Transport (TDMT) and related agencies including Observatoire de la Fluidité du Transport (OFT - Transport Fluidity Observatory) and Unité de Lutte Contre le Racket (ULCR - Road Racket Fighting Unit).***
- ***Sub-component 1B (US\$1.5 million): Support to transport operators by:***
  - Building capacity for professional transport sector associations through the development of public and private training capacity for transport and logistics profession.
  - Supporting informal transport operators who cannot comply with new regulatory requirements to convert them to other transport related activities or retrain them.
- ***Subcomponent 1C (US\$0.3 million): Support the establishment of a modern market-based freight allocation mechanism by:***
  - Promoting of a virtual and/or physical market-based freight system.
  - Supporting monitoring of transport conditions on the Corridor through road users' survey, logistics costs measurements, and studies of pricing in the trucking industry.
- ***Subcomponent 1D (US\$0.2 million): Support to joint initiatives and coordination to facilitate trade on the Corridor by:***
  - Supporting communication campaigns on transport and trade reforms to build broad ownership and support.
  - Supporting regional dialogue with Burkina Faso on transport and transit facilitation issues on the Corridor.

**Component 2: Development of a Heavy Cargo Truck renewal scheme (US\$30.75 million, of which IDA US\$15.75 million (51.2 percent) and Gouvernement US\$15 million).**

28. This component will include activities to support the development of a long haul Heavy Cargo Truck renewal scheme. It will also support the institutional strengthening of the Road Transport Development Fund (*Fonds de Développement des Transports Routiers – FDTR*), to ensure it has the capacity to adequately manage the proposed project activities, including the

relationship with both the commercial banks and the truck industry companies. The proposed component will fund the following activities:

- ***Sub-component 2A: Support to the development of a self-sustaining, Heavy Cargo Truck renewal scheme and institutional strengthening of the FDTR to ensure it has adequate institutional and management capacity to administer and manage the truck renewal scheme on behalf of the Government (about US\$30 million) by:***
  - Supporting the design of institutional and implementation arrangements for the involved stakeholders (commercial banks, FDTR, PCU and truck operators), including technical safeguards for operators and vehicles to qualify for the credit line.
  - Supporting the selection of commercial banks to host the line of credit and the selection of operators qualified for truck renewal, including clear flow of funds.
  - Support the competitive selection of a contractor to manage the truck scrapping system.
- ***Sub-component 2B: Capacity building and Technical Assistance (TA) for FDTR to more effectively manage truck renewal scheme (about US\$0.75 million).***

### **Component 3: Support to customs modernization and trade facilitation on the Ivorian section of the Corridor (US\$3.45 million, of which IDA 100 percent)**

29. This component will focus on increasing the efficiency of trade and transit procedures on the Ivorian section of the Corridor. Activities under this component will focus primarily on the operationalization of the interconnection module/interface of the two customs' information systems (ASYCUDA World) to facilitate trade and transit along the Corridor. The proposed component will fund the following activities:

- ***Sub-component 3A (US\$0.5 million): Supporting the interconnection of the existing customs' management system on the Corridor and implementation of new ICT systems to facilitate regional trade by aligning customs procedures.***
- ***Sub-component 3B (US\$1.9 million): Modernization of customs' clearance procedures and promotion of coordination between customs departments to reduce congestion at gateway port (Abidjan) and border posts on the Corridor and capacity building for customs officials.***
- ***Sub-components 3C (US\$0.55 million): Training of customs and external users of customs systems, including support to professionalization of the clearing and forwarding industry through capacity building.***
- ***Sub-components 3D (US\$0.5 million): Communication campaigns and sensitization of operators on the Ivorian section of the Corridor.***

### **Component 4: Road safety on the Ivorian section of the Corridor (US\$3.25 million, of which IDA 100 percent)**

30. This component will focus on activities to improve the safety of the Ivorian section of the Corridor. It will also support the institutional strengthening and capacity building of the Road Safety Agency (*Office de la Sécurité Routière - OSER*), which has the overall mandate for road safety oversight in Côte d'Ivoire. The following activities will be financed by the proposed project:

- *Sub-component 4A (US\$1.5 million): Capacity building for OSER and monitoring of road safety on the Corridor.*
- *Sub-component 4B (US\$0.65 million): Sensitization campaigns on the Ivorian section of the Corridor.*
- *Sub-components 4C (US\$0.4 million, of which IDA 100percent): Identifying accident blacks spots on the Ivorian section of the Corridor.*
- *Sub-component 4D (US\$0.7 million, of which IDA 100percent): Training equipment and other materials for OSER training center.*

31. The Government plans to submit a request to the Global Road Safety Fund (GRSF) to finance the road safety audit and implementation of the action plan on the Ivorian section of the Corridor. It is also submitting a request to the African Transport Policy Program (SSATP) to support the development of a National Road Safety Strategy and a Priority Investment Plan. These activities will be closely coordinated with the activities directly financed under the project to provide synergistic complementarity.

#### **Component 5: Project management, monitoring, and evaluation (US\$1.75 million of which IDA 100 percent)**

32. The following activities will be financed by the proposed component: (a) Operating costs for already established Emergency Infrastructure Renewal Project (EIRP) Project Coordination Unit (PCU); (b) project management, financial and technical audits; (c) Monitoring, reporting and evaluation of project activities; (d) support to implement citizen engagement; (e) studies and technical assistance to project implementation; and (f) HIV/AIDS prevention campaigns, including monitoring of HIV/AIDS along the Ivorian section of the corridor.

#### **B. Project Financing**

#### **Lending Instrument and Total Project Cost**

33. The lending instrument found to best meet the funding requirements of the proposed project is the Investment Project Financing (IPF). This is because the proposed IPF can directly support the implementation of the key objectives and reforms agreed under the RTFCC DPO series. The total cost of the proposed project is estimated at **US\$45 million** to be implemented over a four and half year period. IDA is expected to finance about **US\$30 million**<sup>1</sup> equivalent of the total project

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<sup>1</sup> In accordance with current Republic of Coted d'Ivoire per capita income and IDA 17 lending criteria, the credits will be financed under the Single Currency IDA blend terms, with a 25-year maturity including a 5-year grace

costs, while the Government will finance the balance (**about US\$15 million equivalent**), through counterpart funding.

**Table 1: Project Cost and Financing**

<b>Components</b>	<b>Total amount in million US\$</b>	<b>IDA amount in million US\$</b>	<b>Government funding in million US\$</b>	<b>IDA percentage</b>
1. Institutional strengthening and capacity building support for public and private participants in the transport sector	5.8	5.8	-	100%
2. Development of a heavy cargo truck renewal scheme	30.75	15.75	15.00	51.2%
3. Support to customs modernization and trade facilitation on the Ivorian section of the Corridor	3.45	3.45	-	100%
4. Road safety on the Ivorian section of the Corridor	3.25	3.25	-	100%
5. Project management, monitoring and evaluation	1.75	1.75	-	100%
<b>TOTAL</b>	<b>45.00</b>	<b>30.00</b>	<b>15.00</b>	<b>66.7%</b>

#### IV. IMPLEMENTATION

##### A. Institutional and Implementation Arrangements

34. The institutional arrangements to effectively prepare and implement the proposed project activities are as follows.

35. **Project Steering Committee (PSC).** A PSC, chaired by the Minister of Transport or his representative will ensure that throughout the life of the proposed project, strategic direction, overall oversight of the proposed project, and adequate coordination with line Ministries and alignment with sector strategies, will be ensured. The PSC will include, but not be limited to, the following: Ministry of Economic Infrastructure, Ministry of Economy and Finance, Ministry of Trade and Ministry of Interior and Security. The PSC will meet on a quarterly basis during the first two years of implementation to ensure strategic oversight of the proposed project.

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period. The single currency amount (EUR 26.4 million) will be converted to the final SDR amount for commitment authority and country allocation management purposes on the day of project approval. The estimated value of the credit in Special Drawing Rights (SDR) is SDR21.2 million.



36. **Project Technical Committee (PTC).** Once the proposed project has been approved, the PTC will be responsible for the day-to-day technical oversight and implementation of all project components, sub-components, and activities to ensure that the proposed project meets its objectives, outcomes, and outputs. The PTC will include the coordinator of the EIRP PCU and designated focal points from the implementation agencies.

37. **Implementing Agencies (IAs).** The proposed four major project components will be implemented by dedicated IAs to ensure implementation focus and rapid on the ground results. It is proposed to use a mainstreamed approach, which consists of using existing Government structures as IAs, to ensure greater ownership of project activities. The proposed IAs consist of the following: (a) TDMT for Component 1; (b) FDTR for Component 2; (c) Ivorian Customs for Component 3; and (d) OSER for Component 4.

38. **EIRP PCU.** The already existing and fully operational EIRP PCU will be in charge of the overall fiduciary aspects (procurement and financial management), monitoring and evaluation, coordination and sensitization for the proposed project activities. It will also be responsible for the technical and financial audits. Although the unit has extensive experience in implementing World Bank funded projects, its capacity will be reinforced given the multi-sectoral nature of the project.

## **B. Results Monitoring and Evaluation**

39. **Institutional framework for monitoring outcomes/results.** The monitoring of outcomes/results will be based on the agreed results framework and monitoring arrangements that are described in detail in Annex 1.

40. **Responsibility for monitoring activities.** The monitoring of outcomes will be done at the country level led by the EIRP PCU with project stakeholders. The monitoring will be conducted within the framework of the preparation of a Semestrial Progress Report (SPR), and Annual Progress Report (APR). These reports will present progress in respect of the monitoring indicators in the results framework (see Annex 1).

## **C. Sustainability**

41. The proposed project directly supports and complements the PDO of the RTFCC DPO series, which is to ‘reduce trade transaction costs along the Abidjan – Ouagadougou corridor’. This means that by combining the support from the RTFCC DPO series, together with the proposed project and its equivalent in Burkina Faso, the sustainability of the improved efficiency and safety of the Ivorian section of the Corridor should be ensured. Furthermore, the combination of medium term capacity building support from the proposed project and short term policy reform support from RTFCC DPO series should facilitate the creation of an appropriate institutional environment and commitment by both countries to ensure that the Corridor is efficient, safe and sustainable. Furthermore, the truck renewal scheme sustainability is based on two pillars. Firstly, resources provided to the project under this activity would be e-marked as a revolving fund to continue beyond the project lifetime. Secondly, by supporting the institutional strengthening and the operational performance of FDTR, the institutional sustainability of the scheme is ensured.

## V. KEY RISKS

### A. Overall Risk Rating and Explanation of Key Risks

42. As summarized in the risk table (systematic operations risk-rating tool), the proposed project is rated as an overall **High** risk project. What follows is a more detailed description of the key risks:

43. **Political and governance.** This risk has been rated **Substantial** due to the fact that without a full strategic alignment between Côte d'Ivoire and Burkina Faso it will be difficult to achieve the objectives of the proposed project. Furthermore, a deterioration of the security situation could restrict trade flows along the Corridor. The confirmed alignment of the proposed project with national reform priorities, and strong political commitment expressed at the highest level of the Government of Côte d'Ivoire, and of the new Government in Burkina Faso, should contribute to sustain the reform momentum. Furthermore, the preparation of the second tranche of the RTFCC DPO series is under way, demonstrating continued support by both Governments to the objectives of the DPO series.

44. **Macroeconomic.** This risk has been rated **Substantial**. This is because Côte d'Ivoire remains vulnerable to endogenous/exogenous shocks that may affect the production and price of its main export commodities such as cocoa, coffee and oil. These shocks could have major impacts on its external balances, fiscal position, and rural income. They could directly translate into reductions in trade flows and eventually affect traffic volumes on the Corridor. Furthermore, increased non-concessional borrowing by the Government could rapidly lead to debt distress by the country. Continued prudent fiscal management by the Government, and a strong effort to diversify the economy, should ensure more resilience by the Ivorian economy to endogenous/exogenous shocks. Furthermore, a better environment for trade could also promote diversification of exports, reducing vulnerability to external shocks.

45. **Technical design of the proposed project.** This risk has been rated **Substantial** due to the pioneering design of the proposed project, which requires the Côte d'Ivoire and Burkina Faso to coordinate a set of transport and trade reforms on their respective portions of the Corridor. To mitigate this risk the proposed project: (a) is directly linked and supports the activities/outcomes of the RTFCC DPO series; (b) its objectives are fully aligned in both countries; (c) establishes an effective joint mechanism for the two countries to monitor reforms; and (d) regular and transparent consultations with key stakeholders.

46. **Institutional capacity for implementation and sustainability.** This risk has been rated as **Substantial** in light of the complex and coordinated nature of some of the proposed reforms on the Corridor, which could stretch the Government's technical capacity to implement them. In order to mitigate this risk, all the planned reforms supported by the proposed project are consistent with the priorities of the Government and will be implemented over a four and a half year period. The rating of the risk as substantial is also linked to the ability of the PCU to coordinate among four implementation agencies and the risk of it being overloaded given the fact that it is already managing other World Bank projects. While this seems challenging, the existing PCU is well experienced in implementing Bank projects and working and coordinating among different implementation agencies in the ministries. The EIRP, currently under its coordination, is

implemented by six agencies and the PCU has been able to implement the project almost one year ahead of the closing date. Furthermore, the Government plans to leverage ongoing technical assistance programs to give it the capacity to manage the proposed technical aspects of the proposed project.

47. **Stakeholders.** This risk has been rated **High** since the RTFCC DPO series and supporting/complementary proposed project actions would tackle structural inefficiencies and vested interests. Areas of highest risk are the reform of access to the trucking profession, as small operators may be pushed out of the industry if they cannot meet the new criteria. In addition, measures such as the development of a virtual freight exchange may be resisted by intermediaries, who currently benefit from the status quo. All these vested interests that have lived off of rent seeking activities especially along the corridor, could potentially coalesce to block some of the proposed project activities. The proposed project mitigates these risks by taking into account the findings of the Political Economy Study and Poverty and Social Impact Analysis that was conducted to support the preparation of the RTFCC DPO series, which provided a deeper understanding of interests that could possibly block reforms and helped design measures to prevent reform slippage. Finally, the proposed project activities were elaborated on the basis of extensive consultations organized with all stakeholders during project preparation.

## VI. APPRAISAL SUMMARY

### A. Economic Analysis

#### *A.1 Rationale for public sector provision/financing and Value added of Bank's support*

48. The proposed project supports a series of institutional transport and trade related reforms and capacity building in the provision of core public sector activities, as well as the provision of public goods. Involvement in some activities, for which the private sector plays an important role, is justified by the existence of market failure, distortions and vested interests. However, ultimately, the proposed project intends to promote private sector development where feasible (e.g. development of certification mechanism for private training institutions).

49. The World Bank has a solid track record in building capacity for public institutions, notably in the transport sector, and in implementing social mitigation measures. More specifically, the proposed project builds on the extensive policy dialogue and agreements reached between the World Bank, the Government and private stakeholders in the context of the RTFCC. As emphasized by the Board of Executive Directors upon approval of the RTFCC-1, the proposed project is fully justified by the need to ensure effective implementation of the proposed reforms, mitigate any negative social impacts and ensure their long term sustainability.

#### *A.2 Project Impact Area (PIA)*

50. The Abidjan – Ouagadougou Corridor is a 1,189 km long road and a rail corridor, including a 653 km (55 percent of the total length) section on the Ivorian territory. The Abidjan – Bamako Corridor follows the same road from Abidjan to Ouangolodougou and then branches off to Bamako (a distance of 1,180 km), while the multimodal road/rail route takes the railway from Abidjan to Ouangolodougou and then continues by road to Bamako. The Ouagadougou route

passes through the border posts of Ouangolodougou (some 30 km from the border town of La Léraba in Côte d'Ivoire and Niangoloko in Burkina Faso). The Bamako route passes through the border posts of Pogo (Côte d'Ivoire) and Zegoua (Mali).

51. The PIA is the Ivorian section of the Corridor. However, as some of the project activities are not corridor specific, the related impacts are expected to benefit the transport industry as a whole, to varying degrees, in Côte d'Ivoire, as well as other positive spin offs on jobs creation, safety, and security.

### ***A.3 Potential project impacts***

52. As designed, the proposed project aims to support the Government in two main ways: (a) providing technical and financial assistance to enable the effective operationalization of the policy and regulatory reforms under the World Bank financed RTFCC DPO series addressing the road transport, transit and trade facilitation; and (b) establishing support mechanisms to help private operators adapt to the new regulatory environment and mitigate the potential negative socio-economic impact of such reforms.

53. The implementation of the project components is expected to generate a number of positive impacts that vary in terms of their: (a) materialization time span (short term vs. mid/long term); (b) geographical area (Ivorian section of the Corridor vs. the remainder of the Corridor with all the branching-outs outside Côte d'Ivoire vs. rest of the Ivorian territory); (c) attributions (fully versus partially attributable to the project activities); and (d) impacts order (direct vs. indirect/second order impacts); and measurability (quantitative versus qualitative impacts). Such diversity of project impacts makes it difficult to derive a single economic rate of return for the entire project investments. Consequently, the economic efficiency at appraisal was undertaken through a cost-benefit analysis of the quantifiable and directly attributable project impacts, listed in the following Table 2.

**Table 2: Summary of Project Benefits (2021-2040)**

Estimated Project Benefits (2021 – 2040)	(2015 US\$ million)		
	Estimated yearly benefits	period	Profile
a) Reduction in transport and logistics costs due to better regulated market and professionalization of the industry	23.403	2021-2040	Five years linear ramp up
b) Reduction in Vehicle Operating Costs (VOCs) (fuel consumption & maintenance) thanks to fleet renewal	7.679	2021-2040	constant over first 10 years, then decreasing to zero by 2040
c) Reduction in transit time due to removal of road blocks and improved clearance procedures	3.729	2021-2040	Five years linear ramp up
d) Reduction in vehicle emissions, with the consequent environmental and economic impacts (GHG emissions) and savings in health costs.	0.493	2021-2040	increasing @ 2.8 percent over first 10 years, then decreasing to zero by 2040
e) Reduction in road accidents due to newer fleet, better trained drivers, better police patrol, higher awareness among the corridor riparian populations	10.942	2021-2040	Five years linear ramp up
f) Increase in trade as a consequence of lower transport costs and more reliability of transport journeys, with the consequent new jobs creation and higher added value and better pay	40.554	2021-2040	Ten years linear ramp up

**A.3 Economic analysis**

54. The above impacts were computed using standard econometric methods. Baseline and past trend data was provided by the Ivorian authorities, and complemented with data collected by the World Bank from various available studies.

55. Based on the above project costs and benefits' cash flows, the following economic efficiency indicators were estimated:

**Table 3: Economic Internal Rate of Return (EIRR)**

2015 US\$ million	NPV @ 12%	NPV @ 5%
<b>Benefits</b>	\$231.02	\$609.49
<b>Costs</b>	(\$30.62)	(\$38.02)
<b>Net Benefits</b>	\$200.41	\$571.47
<b>EIRR</b>	<b>40.2%</b>	

56. As Table 3 above shows, the project EIRR is estimated at **40.2 percent** and the project net present value improves with a lower discount rate, reflecting the long-term nature of the project impacts. The investments aim to introduce deep reforms that will gradually yield a lasting behavioral change and create a sustainable business environment that is auspicious and conducive to an efficient and competitive trucking industry in Côte d'Ivoire and the neighboring countries.

57. **Sensitivity Analysis.** Given the low uncertainty on the project costs (little physical investments) and the higher uncertainty on the benefits, we have run a sensitivity analysis of the results, to an increase in project costs by 10 percent and a reduction of the benefits by 20 percent. As the following Table shows, the project remains highly economically viable, highlighting the robustness of the viability conclusions. In addition, given that the highest contribution to the proposed project benefits come from the increase in trade as a consequence of lower generalized transport costs (monetary costs, enhanced reliability of transport journeys, with the subsequent new jobs creation, higher added value, and better paid jobs), we have run a sensitivity analysis of the results to the elasticity of Trade to generalized costs, assuming a reduction of the latter by 50 percent (half).

**Table 4: Sensitivity Analysis of Cost Increase and Benefit reduction**

2015 US\$ million	NPV @ 12%	NPV @ 5%
<b>Benefits:</b>	\$184.82	\$487.59
<b>Costs:</b>	(\$33.68)	(\$41.82)
<b>Net Benefits:</b>	\$151.14	\$445.77
<b>EIRR:</b>	<b>34.5%</b>	

**Table 5: Sensitivity Analysis to Trade Elasticity**

2015 US\$ million	NPV @ 12%	NPV @ 5%
<b>Benefits:</b>	\$186.79	\$483.89
<b>Costs:</b>	(\$30.62)	(\$38.02)
<b>Net Benefits:</b>	\$156.17	\$445.87
<b>EIRR:</b>	<b>37.2%</b>	

## **B. Financial Analysis**

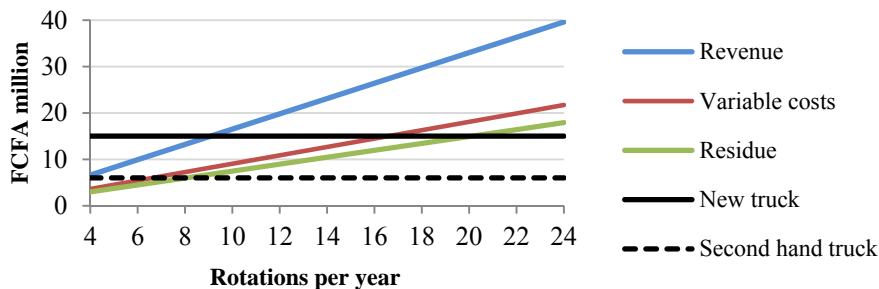
58. The evidence below suggests that, for most transporters, revenue from transport on the Corridor only is insufficient to finance better quality trucks. Operating new trucks is only affordable for transport companies having regular contracts with large shippers or clearing and forwarding firms, and with transport containers between the port terminal and the dry port. Others are likely to be excluded from that segment and to focus on non-containerized freight, where overloading is seen as a short term solution to improve revenue per trip.

### Box 1: Rotations per Year per Truck and Truck Financing

Beyond transport time from Abidjan to Ouagadougou, assessing truck utilization rates with the number of round trips per year is essential to understand trucking companies' capacity to acquire better trucks.

This is because the revenue for truck renewal financing can be estimated as a function of the number of round trips per year. VOCs, such as driver, fuel, and tires, are estimated to represent 55 percent of the price charged to transport a 40 feet container between Abidjan and Ouagadougou (with an empty backhaul to return the container to the port). The balance is considered the amount needed to: (a) cover company overheads (e.g. licenses, staff, and offices), which are higher for large/formal operators than for small/informal ones; and (b) finance the acquisition of trucks. A new truck, costing for instance FCFA 90 million, financed at 50 percent under a bank loan over five years and amortized over seven years, requires around FCFA 15 million per year. As shown in Figure 2.7, it is only beyond twenty round trips per year that operations start to be compatible with the acquisition of new trucks. Even a second-hand truck, frequently costing FCFA 18 million for a 10-year old truck, requires FCFA 6 million per year to finance over three years, which is only possible with at least eight round trips per year. These thresholds can be considered lower-bound estimates, as the calculations do not include fixed costs.

**Figure 1: Revenue and costs for operations on the Abidjan – Ouagadougou corridor**



Source: Hartmann 2013

### C. Technical

59. The proposed project was designed to address major constraints that are making the Corridor costly and uncompetitive for trade. The proposed project supports the following measures to make the Corridor more competitive while modernizing the transport industry: (a) putting in place strong institutions to implement and enforce transport rules and regulations; (b) accompanying measures for the professionalization of the trucking industry such as creating a body of professional truckers; (c) access to credit for truck renewal; (d) supporting the interconnection of customs management systems to facilitate transit and trade and promote containerization along the Corridor; and (e) supporting road safety on the Corridor. All of these measures are also essential to support the objectives of the RTFCC DPO series which is to support the two countries' coordinated efforts (Burkina Faso and Cote d'Ivoire) to reduce trade and transport transaction costs along the Abidjan-Ouagadougou road corridor.

### C.1 Green House Gas Accounting (GHG)

58. The GHG emissions savings resulting from the scrapping and replacement of 300 heavy long-haul trucks in Côte d'Ivoire are estimated at 16,421 tCO<sub>2</sub>/year, a 39 percent savings from the baseline scenario.

59. In the baseline scenario, heavy-duty trucks (35-40 tons) with an average age of 20 years are estimated to operate on a fuel efficiency of 52.5-liters/100 km and an annual truck mileage of 100,000 km. With project financing, about 300 of these heavy-duty trucks are expected to be replaced by newer vehicle truck models at an average fuel consumption efficiency of 32 liters/100 km, according to standards reported by the IRU trucking handbook for 2006.

60. Table below provide the GHG figures.

**Table 5: GHG Figures**

Topics	Mileage	Baseline Scenario (20yr old 35-40ton trucks)	Project Scenario (New truck fleet 2006 standard)	CO <sub>2</sub> savings per truck/ year	CO <sub>2</sub> savings per 300 trucks/ year
<b>Unit</b>	km	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr
<b>Total</b>	100,000	140.175	85.44	54.74	<b>16,421</b>

### C.2 Climate change mitigation benefits

61. The proposed project has climate mitigation benefits. More specifically, sub-component 2(A) (Support the establishment of a truck renewal scheme to facilitate the replacement of old unsafe trucks with modern trucks to primarily ply on the Corridor) (about US\$30 million of which US\$15 million funded by IDA and US\$15 million funded by the Government) has 100 percent mitigation benefits thanks to the truck scrapping scheme that it directly supports, which replaces old trucks with new far more fuel efficient trucks. The calculation of the mitigation co-benefit is the ratio of the commitment to the sub-component per the total amount of IDA financing for this particular sub-component. Since 50 percent of the total IDA financing has been allocated for Sub-component A, the overall mitigation co-benefit that can be attributed to the proposed project activities is 50 percent.

## D. Financial Management

62. The PCU of the ongoing EIRP, under the oversight of the PSC, will have the overall fiduciary responsibility for the proposed project. The financial management arrangements for the proposed project will be based on the existing arrangements in place under the EIRP. The overall financial management performance of the EIRP is **Satisfactory**. Staffing has remained adequate and proper books of accounts and supporting documents have been kept in respect of all



expenditures. The EIRP PCU is familiar with the World Bank FM requirements. In line with the principles of mainstreaming project implementation arrangement within the Government, a Financial Controller from the Ministry of Budget and a Public Accountant from the Ministry of Finance have been assigned to the PCU and their overall performance is adequate. The audit for the year that ended December 31, 2014 for the EIRP was submitted on time, and was unqualified. The interim un-audited financial reports for the on-going project are also submitted on time.

63. The overall FM risk for the proposed project is rated Moderate. This means that the financial management system satisfies the World Bank's minimum requirements under OP/BP 10.00. However, in order to maintain timeliness and reliability of information produced by the PCU and an adequate segregation of duties, an accountant with qualifications and experience satisfactory to the World Bank will be appointed and fully dedicated to the accounting and disbursements tasks of the proposed project. The Implementation Manual including fiduciary procedures will also be updated to include specific arrangements related to the management of Component 2 and 4, and in particular the establishment of credit lines in commercial banks to support the truck renewal scheme and vehicle scrapping program. These two mitigation measures are dated covenants and should be implemented within three months following the effectiveness of the proposed project.

#### **E. Procurement**

64. The overall procurement risk for the project is rated **Moderate**. The EIRP PCU has been entrusted with the procurement management of the proposed project, the implementation of the ongoing EIRP and already closed Emergency Urban Infrastructure Project (EUIP). The EIRP is managed according to traditional institutional arrangements in Côte d'Ivoire. More specifically, the procurement unit within the EIRP PCU will carry out procurement activities for the proposed project, while the technical responsibility of procurement (TORs and technical standards) will remain with the relevant implementing agencies. Procurement activities will be carried out in accordance with the World Bank's Guidelines and the provisions stipulated in the Financing Agreement. Details are provided in Annex 3.

65. The capacity assessment has shown that apart from OSER, the other implementing agencies do not have the experience, skills, and personnel acceptable to the World Bank to handle the procurement of their respective activities. This means that they will be implementing agencies with only technical mandate and responsibilities.

66. The EIRP PCU will be responsible for the coordination of all procurement activities, including the following: (a) preparation and update of the procurement plans; (b) preparation, finalization and launch of the requests for proposals and bidding documents; (c) drafting of minutes of bids/proposals opening and preparation of the evaluation reports; (d) submission of procurement documents (TORs, Request For Proposal (RFP), bidding documents, evaluation reports, contracts, etc.) to the World Bank when prior review is required; (e) preparation of the contracts, and overseeing the payments to contractors; and (f) drafting of procurement progress report and coordination of the activities. Each implementation agency will be involved in implementation.

67. The EIRP PCU has a Senior Procurement specialist and four assistants. However, it is expected that the current procurement work load for the EIRP PCU will increase due to the following World Bank funded projects coming on stream: (a) proposed project; (b) EIRP additional financing; and (c) water sector project. Therefore, to reduce the procurement risk for the EIRP PCU, its capacity will need to be strengthened. See Annex 3 for details.

#### **F. Social (including Safeguards)**

68. The proposed project has been designed as a TA project, which means that no direct adverse social impacts are foreseen. More precisely, the proposed project does not involve any civil works or land acquisition, and therefore does not trigger any social safeguards policies. The proposed project aims to facilitate transit and trade primarily on the Corridor, which should have positive social impact in terms of lower prices for tradable goods.

69. In addition, the truck fleet renewal scheme together with the road safety activities supported by the proposed project, should increase the safety of people living in the vicinity of the Corridor by reducing the frequency of accidents. The truck fleet renewal scheme should also have positive impacts on the health of people living along the Corridor in terms of reduced vehicular emissions and noise pollution.

70. Finally, in streamlining customs transit procedures along the Corridor, the proposed project will contribute to alleviating HIV/AIDS risks/exposure as a result of reduced transit times at the borders. Improvement of border crossing times should also reduce corruption on the Corridor.

71. **Citizen engagement and gender monitoring.** The preparation of the proposed project has benefited from extensive consultations with key stakeholders. More specifically, extensive consultations started early in the identification stage for the RFTCC DPO series, which the proposed project is supporting. A Poverty and Social Impact Assessment was prepared and a gender impact analysis conducted. The findings of these two studies have provided the basis to frame a citizen engagement plan and a gender impact monitoring system.

#### **G. Environment (including Safeguards)**

72. The proposed project is classified as category B-partial assessment. Only safeguard policy OP 4.01 on Environmental Assessment is triggered. This is because the proposed project is a TA project, and it is not expected to cause long term irreversible adverse environmental impacts.

73. The main environmental benefit of the proposed project, through the truck-scraping scheme, is the reduction of greenhouse gas emissions from trucks that are among key factors responsible for global warming. It is anticipated that for the truck fleet renewal component, about 300 old trucks will be scrapped. Even if most of the parts of the scrapped trucks will be salvaged, the disposal of certain materials such as lubricants, grease, batteries and brake pads, will need to be managed properly. However, the process of actually scrapping the trucks will likely be limited to one scrapping yard managed by a suitably qualified operator, selected through a competitive process. Furthermore, the quantum of trucks that will be scrapped under the proposed project will be limited both in number and weight.

74. To mitigate the potential impacts of the truck scrapping activity supported by the proposed project, a TORs requiring the preparation of a limited Environmental and Social Impact Assessment (ESIA) has been prepared and disclosed. The TOR have been reviewed by the National Environmental Agency (*Agence Nationale de l'Environnement* - ANDE) and by the World Bank, and have been disclosed in Côte d'Ivoire and at the World Bank Infoshop on May 2, 2016. During the implementation phase, and well prior to the start of the scrapping process, the ESIA will be prepared by the selected operator of the truck scrapping scheme. This ESIA, which will include an Environmental and Social Management Plan (ESMP) which will also be reviewed by the ANDE and by the World Bank to ensure that it is in full compliance with the World Bank's OP/BP 4.01 and with the Government's environmental policies. The mitigation measures proposed in the ESMP will be strictly implemented by the contractor, during the truck scrapping process. An Environmental Audit will be conducted on a regular basis to make sure the ESMP for the truck scrapping facility is being properly implemented, and any unidentified adverse impacts are handled in a proper and efficient manner. Each Environmental Audit report will be reviewed and validated by both the Government (ANDE) and the World Bank.

#### **H. World Bank Grievance Redress**

75. Communities and individuals who believe that they are adversely affected by a World Bank supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of World Bank 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 World 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/GRS>. For information on how to submit complaints to the World Bank Inspection Panel, please visit [www.inspectionpanel.org](http://www.inspectionpanel.org).

## Annex 1: Results Framework and Monitoring

### Côte d'Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

#### Results Framework

##### Project Development Objectives

PDO Statement

The proposed PDO is to improve the efficiency and safety of transport services on the Ivorian section of the Abidjan, Ivory Coast – Ouagadougou, Burkina Faso road transport corridor

**These results are at** | Project Level

##### Project Development Objective Indicators

Indicator Name	Baseline (2016)	Cumulative Target Values										
		2016	2017	2018	2019	2020					End Target	
Average cost of transporting a 40 foot container by road from Abidjan to Ouagadougou (US\$)	3500	3500	3500	3500	3450	3350						3350
Average transit time & variability after exiting the Port of Abidjan to the Border with BF (Hours)	96	96	84	72	60	60						50

Number of Casualties on the Ivorian portion of the Corridor (Number)	110	110	100	75	70	55					55
Direct project beneficiaries (Number) (Core)	3.77 million	3.77 million	3.86 million	3.95 million	4.05 million	4.15 million					4.15 million
Female beneficiaries (Percentage) Sub-Type: Supplemental) (Core)	49.7%	49.7%	49.7%	49.7%	49.7%	49.7%					49.7%
CO2 emissions reduction per annum from scrapping 300 trucks and replacing them with an equivalent number of new trucks (t/CO2)	0	0	4,000	8,000	12,000	16,000					16,000

**Intermediate Results Indicators**

Indicator Name	Baseline (2016)	Cumulative Target Values										
		2016	2017	2018	2019	2020					End Target	
Enforcement of authorized economic operators system	No	No	No	No	Yes	Yes						Yes

(Yes/No)											
Percentage of overloaded trucks on the Corridor (Percentage)	60	60	55	50	40	35					35
Border Crossing time at Ouangolodougou (CI/BF border) (Hours)	8	8	7	5	3	2					2
Electronic transmission of transit document collected by Ivorian customs is provided in real-time to BF Customs (Yes/No)	No	No	No	No	Yes	Yes					Yes
Customs clearance time at destination (Abidjan) (Hours)	48	48	40	40	36	36					36
Number of new long haul trucks put in service (Number)	0	0	100	150	200	300					300

## Indicator Description

### Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Average cost of transporting by road a 40 foot container from Abidjan to Ouagadougou	The average cost is the sum of the VOC, trucking company fixed cost, harassments, and overloading fines.	Yearly	Survey	Transport Directorate of the Ministry of Transport/ Shippers Council of Côte d'Ivoire (OIC)
Average transit time & variability after exiting the Port of Abidjan to the Border of BF (Hours)	The average transit time spent between the exit of the Port and arrival at the border of Burkina Faso (including time spent at illegal stops/roadblocks) and the variability refers to the minimum and maximum observed during the same period.	Yearly	Survey	Customs/ Observatory of traffic fluidity
Number of Casualties on the Ivorian Portion of the Corridor	The number of Casualties on the Corridor outside urban agglomerations	Yearly	Survey/ “ Bulleting d’ analyse des accidents corporels” (BAAC)	OSER
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage.	Yearly	Survey	EIRP PCU

Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female.	Yearly	Population census & projections	Government
C02 emissions reduction per annum from scrapping about 300 trucks and replacing them with an equivalent number of new trucks.	No description provided.	Yearly.	Survey	FDTR/Ivorian Center of Anti-Pollution ( CIAPOL)

### Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Enforcement of Authorized Economic Operators	Certification system for economic operators compliant with all transit customs procedures	Yearly	Survey	Customs
Percentage of overloaded trucks on the Corridor	Percentage of trucks that go beyond the 20 percent tolerance of axle load limit with regards to West African Economic and Monetary Union (WAEMU) provisions (Regulation 14 of WAEMU).	Yearly	Data from Weigh Station & Mobile Weight	OSER/Directorate of Transport
Border crossing time at Ouangolodougou (CI/BF)	No description provided.	Yearly	ASYCUDA	Customs/ Observatory of traffic fluidity/ Shippers Association of Côte d'Ivoire (OIC).
Electronic transmission of transit document collected by Ivorian customs is provided in real-time to BF Customs	No description provided.	Yearly	Survey	Customs
Number of new long haul trucks put into services	Once the new truck title are delivered to the operator, the truck will be counted.	Yearly	Survey	FDTR



## Annex 2: Detailed Project Description

### Côte d'Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

1. To better align with the current reform priorities of the Government, the proposed project focuses on supporting the implementation of regulatory reforms and addressing policy issues concerning road transport, transit and trade facilitation, with particular focus on the Corridor. The project directly complements/supports the objectives of the RTFCC DPO series in Côte d'Ivoire and Burkina Faso. See Annex 6 for details on the Policy and Results Matrix for the RTFCC DPO series.

2. The proposed project also complements/supports other active World Bank projects in Côte d'Ivoire, which include investment in physical transport infrastructure, such as the Emergency Infrastructure Renewal Project (P124715) and Abidjan- Lagos Trade and Transport Facilitation Project (P116323). In addition, an almost identical project is being prepared in Burkina Faso to support the objectives of the RTFCC DPO series on the Burkinabe section of the Corridor. This means that the proposed project and the other project being prepared in Burkina Faso will complement each other in supporting the overall objectives of the RTFCC DPO series. Furthermore, the International Finance Corporation may support the fleet renewal part of the proposed project to ensure a quicker modernization of the long haul trucking fleet in Côte d'Ivoire. Finally, it complements/supports other development partner's interventions in the sector, such as the EU, AfDB, AFD and ISDB.

3. The proposed project includes the following five components:

#### **Component 1: Institutional strengthening and capacity building support for public and private sector participants in the transport sector (US\$5.8 million, of which IDA 100 percent)**

4. This component will strengthen the capacity of the Government and of professional associations/organizations in the transport, transit, and trade sectors to provide efficient support and services to private operators operating primarily on the Ivorian section of the Corridor. It will also support activities that promote the professionalization of the road transport industry, as well as accompanying measures for transport and logistics operators who may not be able to adapt to the new regulatory framework. This component will be implemented by the TDMT and will include the following four sub-components/activities:

5. ***Sub-Component 1A (US\$3.8 million): Strengthening the institutional capacity of the Ministry of Transport (TDMT) and related agencies (OFT and ULCR).*** The following activities are expected to be financed: (a) updating of the national training program for professional driving license; (b) putting in place an electronic system for the management of driver license exams and monitoring of driver's training schools; (c) Information and Communications Technology (ICT) equipment and software; (d) capacity building for inspectors in order to improve the training for drivers; (e) public awareness of regulations and enforcement of the axle load controls; (f) acquisition of mobile weighbridges and vehicles to transport them; and (g) procurement of ICT equipment and telephone communication services to support OFT and ULCR in monitoring and reducing illegal practices along the Corridor.

6. ***Sub-Component 1B (US\$1.5 million): Support to transport operators.*** This sub-component will include activities to support the professionalization of the road transport industry, capacity building for professional transport sector associations, as well as accompanying measures for the transport and logistics operators who may not be able to adapt to the new regulatory framework. It would also support the development of public and private training capacity for transport and logistics professions (e.g. transport company managers, truck drivers, freight forwarders), through the development of new/existing vocational training institutions and the encouragement of private provision of training.

7. ***Sub-Component 1C (US\$0.3 million): Support the establishment of a modern market-based freight allocation mechanism.*** This sub-component includes formalization of the public-private dialogue on transport, transit and trade issues, communication campaigns on transport and trade reforms to build broad ownership and support to the establishment of modern market-based freight allocation mechanisms. Support to M&E activities to monitor transport conditions: road users survey; logistics costs measurement; and pricing in the trucking industry.

8. ***Sub-Component 1D (US\$0.2 million): Support to joint initiatives and coordination to facilitate trade on the Corridor.*** This sub-component will support communication campaigns on transport and trade reforms to build broad ownership, consensus, and support from stakeholders. It will also support regional dialogue with Burkina Faso on Corridor issues such as implementation of the bilateral road transport agreement, establishment of a permanent dialogue framework and Corridor management body.

**Component 2: Development of a Heavy Cargo Truck renewal scheme (US\$30.75 million, of which IDA US\$15.75 million (51.2 percent) and about US\$15.00 million funded by the Government**

9. This component will include activities to support the development of a self-sustaining long haul heavy cargo truck renewal scheme. It will also support the institutional strengthening of the FDTR, to ensure it has the capacity to properly manage the component activities, including the relationship with both the Commercial Banks and the truck industry companies. This component will be implemented by FDTR and will include the following two sub-components/activities:

10. ***Sub-component 2A (US\$30 million – IDA US\$15.00 million and Government US\$15.00 million): Support the establishment of a truck renewal scheme to facilitate the replacement of old unsafe trucks with modern trucks to primarily ply on the Corridor.*** The following activities to be financed under this sub-component are:

- Support the finalization of the design and establishment of the institutional and implementation arrangements for the key stakeholders (commercial banks, FDTR, PCU and truck operators) that will be involved in the truck renewal scheme. This will be done by finalizing the preparation of an implementation manual defining all the modalities of the truck renewal mechanism that will be implemented under the proposed project. The implementation manual will specify and codify all the details of the truck renewal scheme such as: (a) criteria for selecting a truck operator for consideration under the truck renewal scheme; (b) specifications of the typology of trucks that are eligible for the truck renewal

scheme; (c) criteria to ensure that the truck selected for the truck renewal scheme ply primarily on the Corridor; and (d) criteria to ensure that the trucks that are selected for the truck renewal scheme meet the new vehicles ‘registration standards’, in terms of technical inspection, insurances, and license plate.

- Support the technical evaluation of the proposed trucks slated for scrapping through already agreed specifications in order to determine the residual value of the vehicle to be used as down payment for a commercial bank loan. A consultant will be hired to prepare the technical specifications needed for the valuation of trucks proposed to be scrapped. The “ Société Ivoirienne de Contrôle Technique Automobile”(SICTA- the Agency responsible for vehicles’ technical inspection on behalf of the Government) will be assisting the FDTR in the implementation of the actual technical evaluation and valuation of the trucks to be scrapped.
- Support the competitive selection for commercial banks, or other financial intermediaries, to host truck renewal lines of credit. In line with World Bank guidance and principles for appraising financial intermediates, , the selection will be done by using a multi criteria analysis which will include, amongst other things, financial soundness of bidding financial institution, the interest rate of the loans, term maturity of loans, collateral requirements and collection systems to recover overdue and delinquent loans.
- Support the process to select a qualified contractor who will manage the truck scrapping scheme on behalf of the Government. Some of the key criteria that will be used to select the contractor will be his proven technical capacity and ability to comply with the ESIA and the provisions of the ESMP.

11. ***Sub-component 2B (US\$0.750 million, of which IDA 100 percent): Capacity building and TA for FDTR to more effectively manage truck renewal scheme.*** This sub-component will support the institutional strengthening and capacity building of FDTR to ensure that it meets the highest fiduciary standards in terms of financial control/audits, technical audits and monitoring/evaluation of trucks companies. The sub-component will also support the preparation of an operational manual to be finalized prior to implementation of sub-component 2A. The operational manual will support TDFR/EIRP PCU in the implementing all activities related to Component 2. Finally, this sub-component will also support the modernization of its ICT equipment and software to improve its operational efficiency

**Component 3: Support to customs modernization and trade facilitation on the Ivorian section of the Corridor (US\$3.45 million, of which IDA 100 percent)**

12. This component will focus on activities to increase the efficiency of trade and transit procedures to facilitate trade and transport services on the Ivorian side of the Corridor. This activity will be implemented by the Customs, and will include the following four sub-components/activities:

13. ***Sub-component 3A (US\$0.5 million): Supporting the interconnection of the existing customs management system on the Corridor and implementation of new ICT systems to***

*facilitate regional trade by aligning customs procedures.* This sub-component will support the operationalization of the interconnection of the Burkinabe and Ivorian customs ASYCUDA World customs management systems. The operational interconnection of the customs management systems of Côte d'Ivoire and Burkina Faso is essential to facilitate trade and transit on the Corridor since it will enable both countries to move to a more risk based customs management system. The sub-component is expected to finance the following activities:

- UNCTAD provided TA to implement and operationalize the interconnection of the ASYCUDA World customs management systems of the two countries, including transfer of knowledge to Customs ICT staff;
- Training of Customs key technical staff;
- Training of Customs stakeholders and external partners;
- Support to purchase ICT hardware and software, including network/server equipment; and
- Support to communication and sensitization campaigns to promote the interconnection.

14. ***Sub-component 3B (US\$1.9 million): Modernization of customs' clearance procedures to reduce congestion at gateway port (Abidjan) and border posts on the Corridor and capacity building for customs officials.*** This sub-component will support the modernization of customs procedures and trade facilitation measures on the Corridor, such as:

- Risk management, Authorized Economic Operators scheme, transition to paperless procedures and promotion of coordination between border management agencies;
- Improved access to regulatory information and transparency;
- Promotion of alignment of practices and systems with Burkina Faso to facilitate regional trade and transit (e.g. customs' interconnection, mutual recognition of geo-localization and tracking devices, support for operationalization of the Joint Border Post at La Leraba);
- Improvement of loading/unloading procedures to reduce congestion at Port of Abidjan and border posts; and
- Promotion of containerization and cooperation with transporters and shipping lines to reduce incentives to de-stuff containers by negotiation with shipping lines, trucking companies, shippers to adopt a work plan for reduction/ elimination of fees.

15. ***Sub-components 3C (US\$0.55 million): Training of customs and external users of customs systems, including support to professionalization of the clearing and forwarding industry through capacity building.***

16. ***Sub-components 3D (US\$0.5 million): Communication campaigns and sensitization of operators on the Ivorian section of the Corridor.***

**Component 4: Road safety on the Ivorian section of the Corridor (US\$3.25 million, of which IDA 100 percent)**

17. This component will focus on activities to improve the safety in the provision of transport services on the Ivorian part of the Corridor. The activities of this component are consistent with and will support the objectives of the 2014 'Côte d'Ivoire Road Safety Strategy', as well as the findings of the road safety audit to be carried out on the Ivorian section of Corridor. Funding and TA from the GRSF will be requested to support the road safety audit on the Corridor. Furthermore,

support from SSATP will be sought for the elaboration of the Corridor road safety strategy in line with UN Decade of Action (2020). This component will be implemented by the dedicated road safety agency of Côte d'Ivoire called OSER and it will include the following four sub-components/activities:

- ***Sub-component 4A (US\$1.5 million): Capacity building for OSER and monitoring of road safety on Corridor.*** Activities under this sub-component will include: (a) training of trainers in road safety audit, accidents' diagnostic and analysis; (b) road safety training of truck drivers and primary school teachers in cities and villages along the Corridor; (c) and strengthening OSER key senior staff in road safety management skills. Furthermore, this sub-component will support OSER to more effectively collect data and monitor road safety on the Corridor.
- ***Sub-component 4B (US\$0.65 million): Sensitization campaigns on the Ivorian section of the Corridor.*** Activities under this sub-component will include road user's campaigns and sensitization, installation of road safety signs along the Corridor and support to putting in place of a pilot mobile unit for road safety sensitization. It would also include training for truck drivers and select teachers of primary schools along the Ivorian section of the corridor.
- ***Sub-component 4C (US\$0.4 million): Identifying accident black spots on the Ivorian section of the Corridor:*** This component will systematically identify accident black spots on Corridor to reduce accidents. It will also support the procurement and installation of road fur and traffic calming measures on Ivorian section of the Corridor. Finally, it will identify engineering improvements required to reduce accidents at key well know accident black spots.
- ***Sub-component 4D (US\$0.7 million): Training equipment and other materials for OSER training center.*** This sub-component will finance training equipment and other materials for the OSER training center in Abidjan. This is to give OSER the technical means and tools to provide cutting age training in Côte d'Ivoire on road safety regulations.

**Component 5: Project management, monitoring, and evaluation (US\$1.75 million, of which IDA 100 percent):**

18. To ensure the effective and efficient implementation of all project activities in a timely fashion, the proposed project will support the Government in critical project management, monitoring, and evaluation functions. This component will be implemented by the EIRP PCU in fulfilling its functions on behalf of the Government to implement the project.

19. This component is expected to finance the following activities:

- Operating costs for already established EIRP PCU;
- Project management, financial and technical audits;
- Monitoring, reporting and evaluation of project activities;
- Support to implement citizen engagement along the Corridor;
- Studies and technical assistance to project implementation; and
- HIV/AIDS prevention campaigns, including monitoring of HIV AIDS along the Corridor.

## Annex 3: Implementation Arrangements

### Côte d'Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

#### *Project Institutional and Implementation Arrangements*

1. **Project Implementation Period.** The proposed project will be implemented over a period of about 4.5 years, with an expected closing date of June 30, 2021.
2. The institutional arrangements to effectively prepare and implement the proposed project activities are as follows.
3. **Project Steering Committee (PSC).** A PSC, chaired by the Minister of Transport or his representative will ensure strategic direction, overall supervision of the proposed Project, and adequate coordination with line Ministries and alignment with sector strategies. The PSC will include, but not limited to, the following: Ministry of Economic Infrastructure, Ministry of Economy and Finance, Ministry of Trade and Ministry of Interior and Security. The steering committee will meet on a quarterly basis during the first two years of project implementation to ensure strategic oversight of the proposed project.
4. **Project Technical Committee (PTC).** Once the proposed project has been approved, the PTC will be responsible for the technical oversight and implementation of all project components, sub-components, and activities to ensure that the project meets all of its objectives. The PTC will include the coordinator of the EIRP PCU and designated focal points from the designated implementation agencies (TDMT, FDTR, OSER, and Customs).
5. **Implementing Agencies (IAs).** The proposed four major project components will be implemented by dedicated implementing agencies to ensure focus and rapid on the ground results. The proposed IAs will be mainstreamed within existing Government structures to ensure greater ownership of activities. The proposed IAs will consist of the following: (a) TDMT of the Ministry of Transport for Component 1; (b) FDTR for Component 2; (c) Ivorian Customs for Component 3; and (d) OSER for Component 4.
6. **EIRP PCU.** The already existing and fully operational EIRP PCU will be in charge of the overall fiduciary aspect, monitoring and evaluation and sensitization activities of the proposed project activities. It will also have the responsibility of technical and financial audits. Although the unit has extensive experience in implementing World Bank funded projects, its capacity will be reinforced given the multi-sectoral nature of the proposed project.

#### *Financial Management and Disbursements Arrangements*

7. An FM assessment of the EIRP PCU, which was chosen to manage the proposed project, was carried out in March 2016. The objective of the assessment was to determine whether the EIRP PCU has acceptable FM arrangements in place to ensure that the proposed project funds will be used only for intended purposes, with due attention to considerations to economy and

efficiency. The assessment complied with the Financial Management Manual for World Bank-financed investment operations effective March 1, 2010.

8. The FM arrangements are acceptable if they are capable of accurately recording all transactions and balances, supporting the preparation of regular and reliable financial statements, safeguarding the project’s assets, and are subject to auditing arrangements acceptable to the World Bank. These arrangements should be in place when project implementation starts and should be maintained during the whole project implementation period. The assessment concluded that the financial management of the EIRP PCU satisfies the World Bank’s minimum requirements under OP/BP 10.00, and therefore can provide accurate and timely financial management information on the status of the project.

9. The overall fiduciary risk rating is assessed as **Moderate** and mitigation measures proposed (see FM Action Plan) will strengthen the internal control environment and maintain the continuous timely and reliability of information produced by the PCU and an adequate segregation of duties.

**Table 3.1: Financial Management Action Plan**

<b>Action</b>	<b>Responsible party</b>	<b>Deadline and conditionality</b>
1- Update of the implementation manual including fiduciary procedures to include specific arrangements related to the truck renewal scheme	EIRP PCU	Three months after effectiveness
2- Recruit an accountant with qualifications and experience satisfactory to the World Bank	EIRP PCU	Three months after effectiveness
3- Recruit an external auditor	EIRP PCU	Six months after effectiveness
4- Disbursement condition for sub component 2A	EIRP PCU	Before disbursement

10. **Internal control system.** The internal control system includes a steering committee to oversee the project activities, an FM procedures manual to define control activities, and an internal audit function to carry out ex-post reviews and to evaluate the performance of the overall internal control system. The replacement of the former internal auditor who resigned is being finalized. In addition, in line with the new Decree No. 475 governing the modalities of donors-financed project implementation in Côte d’Ivoire, the Directorate of Inspection of the Ministry of Finance (*Inspection Générale des Finances (IGF)*) will oversee the internal audit function of the project. The composition, the mandate, and frequency of meetings of the steering committee will be strengthened to ensure an adequate oversight of the proposed project. In addition, a technical committee will review the eligibility of credit requests to be funded under sub-component 2B.

11. **Planning and budgeting.** The EIRP PCU will prepare a detailed annual work plan budget, which should first be approved by the Project Steering Committee, before it is submitted to the World Bank, for no objection.

12. **Accounting.** The *SYSCOHADA* (*Systeme Comptable de l'OHADA*), accounting system in West African Francophone countries, will be applicable. The EIRP PCU will customize the existing accounting software to meet project requirements.

13. **Interim financial reporting.** The interim un-audited financial reports (IFR) will need to be prepared every quarter and submitted to the World Bank regularly (**45 days after the end of each quarter**) on time. The frequency of IFR preparation as well as its format and content will remain unchanged.

14. **Annual financial reporting.** The EIRP PCU will produce project annual financial statements, which will comply with *SYSCOHADA* and World Bank requirements. Financial statements may comprise of: statement of sources and uses of funds, which recognizes all cash receipts, cash payments, and cash balances:

- a statement of commitments;
- accounting policies adopted and explanatory notes;
- a management assertion that project funds have been expended for the intended purposes as specified in the relevant financing agreements; and
- project presentation and project developments and progress during the year, to provide context for the financial information reported.

15. **Auditing.** The EIRP PCU will submit audited project financial statements satisfactory to the World Bank every year within six months after closure of the fiscal year. A single opinion on the audited project financial statements in compliance with the International Federation of Accountants will be required. In addition, a management letter will be required. The management letter will contain auditor observations and comments and recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the Financial Agreement. The EIRP PCU should recruit a technically competent and independent auditor by six months after the project effective date.

16. The proposed project will comply with the World Bank disclosure policy on audit reports and place the information provided on the official website within one month of the report being accepted as final by the team.

17. **Upon Credit effectiveness, transaction-based disbursements will be used.** The proposed project will finance 100 percent of eligible expenditures, inclusive of taxes. A new Designated Account (DA) will be opened at the Central Bank (BCEAO) and a Project Account (PA) in a commercial bank under terms and conditions acceptable to IDA. The ceiling of the DA will be established as a FCFA amount, which represents six months of forecasted project expenditures expected to be paid from the DA. An initial advance up to the ceiling of the DA will be made and subsequent disbursements will be made against submission of Statements of Expenditures (SOE) reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as the Report-based disbursements) could be considered, as soon as the proposed project meets the criteria. The other methods of disbursing the funds (reimbursement, direct payment and special commitment) will also be available to the project. The minimum value of applications for these methods is 20 percent of the DA ceiling. The project will sign and submit Withdrawal Applications (WA) electronically using the e-signatures module accessible from the World Bank's Client Connection website.



18. 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 that the project maintains a satisfactory FM system throughout its life.

**Table 3.2: Financial Management Implementation Support Plan**

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

19. The following table specifies the categories of Eligible Expenditures that may be financed out of the proceeds of the Financing ("Category"), the allocations of the amounts of the Financing to each Category, and the percentage of expenditures to be financed for Eligible Expenditures in each Category:

**Table 3.3: Eligible Expenditures**

<b>Category</b>	<b>Amount of the Financing Allocated (expressed in Euro)</b>	<b>Percentage of Expenditures to be Financed (inclusive of Taxes)</b>
(1) Goods, non-consulting services, and consultants' services (including audits), Training, Operating Costs for Components 1, 4 and 5 and Sub-Components d(b) and (c) of the Project	13,200,000	100%
(2) Goods, non-consulting services, and consultants' services (including audits), Training, Operating Costs for 50% of Sub-Component 2(a) of the Project	13,200,000	100%
<b>TOTAL AMOUNT</b>	26,400,000	

## ***Procurement arrangements***

19. **Overview.** A new Procurement Code (Decree N°2009-259 dated August 6, 2009), in line with the WAEMU's procurement Directives and international good practices, and key implementing regulations and documentation, have been adopted. The Procurement Code was amended and modified in July 2015 through the Decree N°2015-525 dated July 15, 2015, also with implementing regulations thereunder. A national procurement capacity building program is in place, and is being implemented at the central and decentralized entities level. An electronic system for collecting and disseminating procurement information and for monitoring procurement statistics has been set up to cover all of the contracting authorities. An audit of single source awarded contracts from 2011 to 2013 has been done in May 2014 and findings were published. However, persistent issues remain that affect transparency and efficiency of the national procurement system in terms of: (a) establishment and operation of effective procurement cells in the line ministries; and (b) training of enforcement officers on the new procurement texts is not yet effective. The current Government is trying to improve governance by implementing a code of ethics at the level of ministers and officials, but the results are not yet visible at this time due to lack of evaluation.

20. **Guidelines.** Procurement for the proposed project will be carried out in accordance with the following Guidelines of the World Bank: "*Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*" dated January 2011; revised July 2014 (Procurement Guidelines); "*Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers*" dated January 2011, revised July 2014 (Consultant 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 the provisions stipulated in the Financing Agreement. National Competitive Bidding (NCB) shall be in accordance with procedures acceptable to the Bank.

21. **Procurement documents.** Procurement would be carried out using the Bank's Standard Bidding Documents (SBD) for all International Competitive Bidding (ICB) for goods and works and for Standard Request for Proposal (RFP) for the selection of consultants through competitive procedures. The Recipient will develop standard documents based on the Bank's SBDs for National Competitive Bidding (NCB) for goods and works and the Bank's RFP for the selection of consultants through methods other than Quality and Cost Based Selection (QCBS), with modifications that will be submitted to the IDA for prior approval.

22. The different procurement or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame are agreed between the recipient and the World Bank in the Procurement Plan dated April 26, 2016. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

23. **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 guidelines mentioned above.

24. For ICB contracts and RFPs that involve international consultants, the contract awards shall be published in the United Nations Development Business (UNDB) online within two weeks of receiving IDA's "no objection" to the recommendation of contract award. For Goods, the information to publish shall specify: (a) name of each bidder who submitted a bid; (b) bid prices as read out at bid opening; (c) name and evaluated prices of each bid that was evaluated; (d) name of bidders whose bids were rejected and the reasons for their rejection; and (e) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. For Consultant services, the following information must be published: (a) names of all consultants who submitted proposals; (b) technical points assigned to each consultant; (c) evaluated prices of each consultant; (d) final point ranking of the consultants; and (e) 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. The other contracts should be published in national gazette periodically (at least, quarterly) and in the format of a summarized table covering the previous period with the following information: (a) name of the consultant to whom the contract was awarded; (b) the price; (c) duration; and (d) scope of the contract.

25. **Procurement methods.** What follows are the procurement methods applicable to the proposed project.

- **Procurement of Works.** The proposed project is not expected to finance any civil works.
- **Procurement of Goods.** The Goods to be financed by IDA would include: office furniture and equipment, office supplies, etc. Similar Goods that could be provided by the same vendor would be grouped in bid packages estimated to cost at least US\$1,000,000 per contract and would be procured through ICB. Contracts estimated to cost less than US\$1,000,000 equivalent may be procured through NCB. Goods estimated to cost less than US\$100,000 equivalent per contract may be procured through shopping procedures. For shopping, the project procurement officer will keep a register of suppliers updated at least every six month.
- **Selection of consultants.** The proposed project is expected to finance consultant services such as technical and financial audits, technical assistance, and activities under the institutional strengthening component, engineering designs, and supervision of works, trainers, and workshops facilitators. Consultant firms will be selected through the following methods: (a) Quality and cost based selection (QCBS); (b) selection based on the Consultant's Qualification (CQS) for contracts which amounts are less than US\$300,000 equivalent and are relative to exceptional studies and researches which require a rare and strong expertise; (c) Least Cost Selection (LCS) for standard tasks such as insurances and, financial and technical audits costing less than US\$300,000; and (d) Single Source Selection, with prior agreement of IDA, for services in accordance with the paragraphs 3.8 to 3.11 of Consultant Guidelines. Individual Consultant (IC) will be hired in accordance with paragraph 5.1 to 5.6 of the World Bank Guidelines and Sole Source Selection may be used only with prior approval of the World Bank. Whatever the cost, any Terms of Reference (TOR) that are required for the selection of consultants must get prior approval of the World Bank.

[Short lists of consultants for services estimated to cost less than US\$300,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines, if a sufficient number of qualified individuals or firms are available. However, if foreign firms express interest, they would not be excluded from consideration.]

- ***Procurement from United Nations Agencies.*** There may be situations in which procurement directly from UN agencies may be the most appropriate method of procurement. In such circumstances, the project would make specific arrangement with the UN Agencies concerned through a single source selection and then they follow their own procurement procedures to purchase and deliver the goods and services needed.
- ***Procurement of consulting services other than consulting services covered by Consultant Guidelines.*** These may include designing, editing and printing project promotion supports, providing logistic support such as car rental for field visits, travel services and logistic support for workshop and the like. The LCS or shopping selection methods will be used.
- ***Training, Workshops and Conferences.*** The training (including training material and support), workshops and conference attendance, will be carried out on the basis of approved annual training and workshop/conference plan. A detailed plan giving the nature of training/workshop, number of trainees/participants, duration, staff months, timing and estimated cost will be submitted to IDA for review and approval prior to initiating the process. The appropriate methods of selection will be derived from the detailed schedule. After the training, the beneficiaries will be requested to submit a brief report indicating which skills have been acquired and how these skills will contribute to enhance his/her performance and contribute to the attainment of the project objective.
- ***Operational Costs.*** Operating costs financed by the proposed project will include office supplies, vehicles operation and maintenance, maintenance of equipment, communication costs, supervision costs (i.e. transport, accommodation and per diem), and salaries of locally contracted staff. They will be procured using the procurement procedures specified in the updated Project Financial and Accounting Manual.

26. **Frequency of procurement reviews and supervision.** The World Bank will conduct prior and post procurement reviews based on the thresholds indicated in the following table. Furthermore, the World Bank will conduct implementation support missions every six months, and annual Post Procurement Reviews (PPR). The World Bank may also conduct an Independent Procurement Review at any time until two years after the closing date of the project.

27. ***EIRP PCU responsibilities.*** The PCU will be responsible for the coordination of all procurement activities, including the following: (a) preparation and update of the procurement plans; (b) preparation, finalization and launch of the requests for proposals and bidding documents; (c) drafting of minutes of bids opening/proposal and preparation of the evaluation reports; (d) submission of procurement documents (TORs, RFPs, bidding documents, evaluation reports, contracts, etc.) to the World Bank when prior review is required; (e) preparation of the contracts, and overseeing the payments to contractors; and (f) drafting of procurement progress report and

coordination of the activities. Each beneficiary-implementing agency will be involved in the implementation.

28. The EIRP PCU has a Senior Procurement specialist and four assistants. However, it is expected that the current procurement work load of the EIRP will increase due to the following new World Bank funded projects coming on stream: (a) proposed project; (b) EIRP Additional financing scheduled to start in the last quarter of 2016; and (c) water supply project scheduled to start in June 2016.

29. This means that the procurement capacity of the EIRP PCU will need to be strengthened through the following actions to reduce possible procurement risks: (a) within three months after project effectiveness date, the EIRP PCU should have been strengthened with a procurement specialist; and (b) improve the skill set within the procurement cell within the EIRP PCU in order to take into account contract management aspects as recommended by the procurement guidelines of the World Bank.

30. **Country Overall Procurement Risk Assessment:**

High	
Average	X
Low	

**Table 3.4: Procurement and Selection Review Thresholds**

Expenditure Category	Contract Value (Threshold)	Procurement Method	Contract Subject to Prior Review
	US\$		
1. Works	NA		
2. Goods	≥1,000,000	ICB	All
	<1,000,000	NCB	The first contract
	<100,000	Shopping	The first contract
	No threshold	Direct contracting	All
3. Consultants Firms	≥300,000	QCBS; QBS; LCS; FBS	All contracts
	<300,000	QCBS; QBS; LCS; FBS, CQ	The first contract
Individuals	≥100,000	EOI	All contracts
	<100,000	Comparison of 3 CVs	
(Selection Firms & Individuals)	No threshold	Single Source	All
All Term of reference regardless of the value of the contract are subject to prior review			

**Note:** QCBS= Selection based on quality and cost; QBS= Selection based on the Consultant's qualifications; LCS = Least cost selection; FBS = Fixed Based Selection; CQ = Consultant Qualification; EOI = Expression of Interest

### ***Environmental and Social (including safeguards)***

31. ***Project context.*** The proposed project is a TA project, which means that it will have limited social and environmental adverse impacts. More specifically, the proposed project is not financing any civil works and will not require any land acquisition. That is why the proposed project is classified category B-partial assessment and only safeguard policy OP 4.01 on Environmental Assessment is triggered.

32. ***Environmental impacts.*** The proposed project is supporting a truck renewal scheme, which will support the reduction of transport greenhouse gases, a key factor in global warming. In addition, the truck renewal scheme should increase the safety of people living in the vicinity of roads by reducing the frequency of accidents due to the circulation of old unsafe trucks. It will also have a positive impact on health for people living along the Corridor due to reduced air and noise pollution from trucks.

33. For the truck-scraping scheme supported by the project, even if most of the parts from the old trucks that will be scrapped will be recycled for export, some of the salvaged materials such as oils, grease and brake pads will need to be managed properly. Taking into account the limited quantities of trucks (about 300) that will be scrapped under the proposed project, only one scrap yard will probably be required, for which the location is not yet known. This means that TOR for a limited Environmental and Social Impact Assessment (ESIA) have been prepared by the borrower and disclosed before World Bank Board approval. The TOR have been reviewed by the Government body (ANDE) in charge of checking the compliance of environmental studies with the national regulatory framework and by the World Bank. Thereafter, they have been disclosed within Côte d'Ivoire and at the World Bank Infoshop on May 2, 2016, which was prior to appraisal.

34. During the implementation phase, and well prior to the start of the scrapping process, an ESIA will be prepared by the selected operator of the truck scrapping scheme as a due diligence. The ESIA, which will include an Environmental and Social Management Plan (ESMP) which will also be reviewed by the ANDE and by the World Bank to ensure that it is in full compliance with the World Bank's OP/BP 4.01 and with the Government's environmental policies. The mitigation measures proposed in the ESMP will be strictly implemented by the contractor, during the truck scrapping process.

35. Finally, an Environmental Audit will be conducted on a regular basis to make sure the ESMP for the truck scrapping facility is being properly implemented, and any unidentified adverse impacts are handled in a proper and efficient manner. Each Environment Audit report prepared during the implementation of the proposed project will be reviewed and validated by both the Government (ANDE) and the World Bank.

36. ***Social impacts.*** The proposed project does not fund any civil works, and does not require any land acquisition, and therefore does not trigger any social safeguards policies. In terms of positive social benefits, the proposed project aims to facilitate trade, transport, and transit on the Corridor, which should lead to higher travel speeds and lower prices for goods. Furthermore by modernizing customs procedures the proposed project will contribute to alleviating HIV/AIDS risks/exposure as a result of reduced transit time at borders.

## ***Monitoring & Evaluation***

37. The EIRP PCU monitoring and evaluation system will be improved, especially with regards to the flow of information between the implementing agencies, the EIRP PCU and the other Government and private stakeholders, as well as the data collection/consolidation and analysis. In this regards, an appropriate draft manual of procedures that will govern the system will be available no later than three months after project effectiveness.

## ***Citizen engagement and gender impact assessment/monitoring***

38. Tax paying citizens are the ultimate beneficiaries of Government, and private sector actions/activities in a country. Emerging evidence shows that sustained citizen engagement, especially in the PIA, including beneficiary feedback loops, can lead to improved development results on the ground if prerequisite conditions are met. For the proposed project, the direct beneficiaries are expected to be transport service providers, people living along the Corridor, shippers, and traders. However, increasing evidence has shown that inefficient and ineffective trade and transport practices along the Corridor not only affect the direct beneficiaries, but ultimately the end users of goods and services transported on it, in terms of higher prices. Therefore, promoting beneficiaries' participation in the project preparation and implementation through the inclusion of a citizen engagement mechanism in the project design is key to achieving satisfactory results.

39. **Citizen engagement.** To promote accountability and enhance transparency along the Corridor, the proposed project will partner with relevant Civil Society Organizations (CSOs) and/or Community-Based Organizations (CBOs), as well as professional associations (transport operators and drivers' unions), to report any illegal practice (bribes, road blocks, illegal customs checkpoint). The proposed project will partner with the *Convention de la Société Civile Ivoirienne* to collect and analyze data on the Corridor and provide regular feedback to the EIRP PCU on specific indicators. They will also be empowered to act as external reviewer of the activities implemented by: (a) *Comité National de Facilitation*, the OFT and ULCR, to report on the effectiveness of their work along the Corridor.

40. The citizen engagement mechanism and its related reporting procedures will be using low cost ICT, to ensure real-time beneficiary feedback and timely reporting to the EIRP PCU on road blocks, unauthorized customs' checkpoints and other illegal practices. In this regards, the proposed project will directly support the TFO and RRFU to ensure that they have the proper ICT technology, such as toll free numbers, GIS systems, satellite cellphones, video links and web sites, to effectively monitor transport activities on the Corridor. The "naming and shaming" approach would be reinforced through locally based community radios, and transparent disclosure of illegal practices in newspapers. Finally, annual reports on the performance of the Corridor from an illegal practices will be prepared and widely disseminated to civil society to ensure that pressure is kept on the Government to facilitate the movements of goods and services on it.

41. **Gender impacts assessment and monitoring.** The proposed project will benefit directly and indirectly all people living along the corridor and sub-region. Women will benefit in particular since many of the commercial activities and markets along the Corridor are run by women. More particularly, on the Ivorian section of the Corridor, the "*groupement des femmes du vivrier*"

(association of women food producers) are the ones that supply the Abidjan and other secondary cities markets for food products. The proposed project has conducted a Gender Impact Analysis to clearly identify the positive impacts of the proposed project activities on women groups and to monitor them.

42. **HIV/AIDS Prevention.** The proposed project will also build on the experience of the implementation of HIV/AIDS sensitization and prevention activities of the Abidjan-Lagos Trade and Transport Project and the West Africa Transport and Transit Facilitation Project. More specifically, a HIV/AIDS multiyear sensitization campaign will be carried out on the Corridor, with particular focus on women groups. This activity will be carried out as part of the mitigation measures of the gender impact mitigation plan. Furthermore, it will on high risks locations (big transit cities, major rest stops, and border posts). The EIRP PCU would have the responsibility for implementing those activities and would be relying on women associations for monitoring/evaluation.



## Annex 4: Implementation Support Plan

### Côte d'Ivoire – Transport Sector Modernization and Corridor Trade Facilitation Project

#### Strategy and Approach for Implementation Support

1. The Implementation Support Plan (ISP) describes how the World Bank will support the implementation of the risk mitigation measures (identified in the –Systematic Operations Risk-Rating Tool - SORT) and provide the technical advice necessary to facilitate achieving the Project Development Objectives (PDO) (linked to results/outcomes identified in the result framework). The ISP also identifies the minimum requirements to meet the World Bank’s fiduciary obligations. The contents of the ISP are as follows.
2. **Implementation support plan.** The project implementation strategy has been based on the following: (a) ensuring a high degree of quality at entry and implementation readiness of all project components; (b) focused technical, financial and procurement reviews both by the World Bank task teams and World Bank-hired consultants; (c) close and constant focus on high risk areas such as quality and speed of procurement; and (d) close and continuous follow-up on issues highlighted during implementation support missions. In order to put in place a continuous implementation support strategy, especially during the first two years of project implementation, the supervision effort will focus on efficiently and effectively implementing the procurement activities.
3. **Team composition.** The implementation support team is expected to consist of one experienced Task Team Leader (TTL) based at headquarters and assisted by one country based World Bank transport staff. In addition to this core implementation support team, country based fiduciary staff (procurement and financial management), as well as social and environmental staff will participate as full team members and be responsible for the implementation of project specific activities in their respective areas of expertise. Other consultant services will be hired on an ad-hoc basis.
4. **Frequency of implementation support effort.** There will be at least two implementation review missions per year and at least one limited review mission per year during the first two years of implementation. Country based staff will monitor implementation progress on a continuous basis, and quarterly video conferences to review project implementation matters will be organized.
5. **Implementation support budget.** To ensure a strong and continuous implementation support effort, especially during the first two full years of implementation, a minimum of US\$105,000 per year of implementation support budget would be required to cover all related fixed and variable costs during the first 24 months of project implementation. The below table provides the breakdown for the implementation support budget for the project.

**Table 4.1: Estimated Supervision Budget (Core Task Team)**  
**(First 24 months of project implementation)**

<b>Team member by skill mix</b>	<b>Fixed costs (US\$)</b>	<b>Variable Costs (US\$)</b>	<b>Number of Staff weeks</b>	<b>Number of trips</b>
Task Team Leader	40,000	15,000	9	2
Country based transport team member	10,000	5,000	10	0
Country based procurement specialist	5,000		3	0
Country based FM specialist	5,000		3	0
Customs and transit facilitation specialist		25,000	5	2
<b>Total</b>	<b>60,000</b>	<b>45,000</b>	<b>30</b>	<b>4</b>

## Annex 5: Economic Analysis

### Côte d'Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

#### A. Scope and Cost of the Project

1. The proposed Project Development Objective is to **improve the efficiency and safety of transport services on the Ivorian section of the Abidjan, Ivory Coast – Ouagadougou, Burkina Faso road Corridor**. To achieve this Objective, the project was designed to: (a) provide technical and financial assistance to enable the effective operationalization of the policy and regulatory reforms under the Bank finance RTFCC DPO addressing road transport, transit and trade facilitation; and (b) establish support mechanisms to help private operators adapt to the new regulatory environment and mitigate the potential negative socio-economics impact of such reforms.
2. The total cost of the proposed project, including the **management and monitoring component**, is estimated at **US\$45 million** to be implemented over a **4.5 year period**. IDA is expected to finance **US\$30 million** of the total project costs, while the Government will finance the balance as counterpart funding.

#### B. Project Impact Area (PIA)

3. The Abidjan – Ouagadougou Corridor is a 1,189 km long road and a rail corridor, including a 653 km (55 percent of the total length) section on the Ivorian territory. The Abidjan – Bamako Corridor follows the same road from Abidjan to Ouangolodougou and then branches off to Bamako (a distance of 1,180 km), while the multimodal road/rail route takes the railway from Abidjan to Ouangolodougou and then continues by road to Bamako. The Ouagadougou route passes through the border posts of Ouangolodougou (some 30 km from the border town of La Léraba in Côte d'Ivoire and Niangoloko in Burkina Faso). The Bamako route passes through the border posts of Pogo (Côte d'Ivoire) and Zegoua (Mali).
4. As stipulated in the PDO, the project direct target area is the Ivorian section of the Abidjan – Ouagadougou road Corridor. However, as the great majority of the project activities are not Corridor specific, the related impacts are expected to benefit the transport industry in Côte d'Ivoire as a whole, as well as other expected positive spin offs on jobs, safety, and security in the Trucking industry. In addition, considering the strategic role of the Ivorian section of the Abidjan – Ouagadougou road Corridor, as a backbone interconnecting the Abidjan Port with its hinterland, the improvements in Transport efficiency along this section, will benefit the various branch-outs beyond the border, including the Burkinabe section of the Corridor and beyond to Niamey in Niger, as well as the La Leraba – Bamako section of the Abidjan – Bamako Corridor, as illustrated in the following Diagram, where the Abidjan-Ouagadougou and Abidjan-Bamako corridors overlap over the section Abidjan – Ouangolodougou (border with Burkina). Both corridors are the primary import/export routes for the two landlocked countries of Burkina Faso and Mali from the Port of Abidjan.

### C. Potential Project Impacts

5. The reforms supported by the proposed project are designed to facilitate transport and trade, and are thus expected to generate socio-economic benefits through lower transport costs and prices, improved safety, and reduced emissions. In addition, the project will strengthen Côte d’Ivoire’s role as a key transport and transit hub for neighboring countries, notably the Sahel landlocked countries, mainly Burkina Faso, but also Mali and Niger, whose economies depend on a reliable and affordable access to international markets. To the extent that these reforms will reduce the costs of importing and exporting goods, improved journeys reliability and predictability, faster delivery periods, and reduced damage to goods, will have great positive impacts on growth, employment and poverty reduction. As for the Ivorian economy, in addition to the project direct impacts stated above, the improved connectivity will foster trade and further integration with the neighboring countries, reduce fragility and expedite the country’s transition to stability, prosperity, and the achievement of the “emerging country” target status by 2020.

6. While some Corridor stakeholders will inevitably be negatively impacted by the project, requiring well-targeted support to ease their short-term adjustment hardship, there will be direct positive impacts on most transport sector participants, resulting from the enhanced productivity and income. Overall, the project expected benefits should outweigh the costs, subject to the full implementation of the underlying reforms, to which rent seeking stakeholders’ hostilities and entrenchment to fair and transparent competition, hold a major risk.

### D. Transit Characteristics on the Abidjan – Ouagadougou Corridor

7. While the Corridor concept is generally well understood and accepted among West African countries, as an important vehicle of development and economic growth, a catalyst to greater regional integration and trade among the linked countries and with the world markets, there are still important hurdles requiring joint political commitments to remove, including: (a) operationalization of Joint Border Post Control; (b) enforcement of Vehicle/Axle Load Control; (c) operationalization of Tracking System; (d) functional Corridor Management Committees; (e) harmonized and coordinated Vehicle/axle load controls; (f) harmonized/Simplified Customs Procedures (Computerization –Interconnection); (g) harmonized transit charging; (h) free access to transport services market; and (i) transport observatories.

8. The poor transit conditions along the Corridor are not unique, and rather common to most of the region’s Corridors, characterized by: (a) missing links or in poor condition links; (b) lengthy transit times and delays at border posts; (c) inadequate security and safety resulting in pilferage and cargo loss; (d) poor cargo handling productivity; and (e) cumbersome and non-harmonized rules and procedures. As a consequence, inland transport costs (US\$/km) on West African Corridors are among the highest in the world, see following table:

**Table 5.1: Inland Transport Costs**

Regional corridors	USA	Black Sea	India	SAWC	South Africa	East Africa	West Africa
Transport costs (US\$/km)	1.00	1.15	0.44	1.23	1.44	2.62	3.31

9. Such high costs are often stated as one of the main cause of uncompetitive West African industries (high imported inputs costs and high products export costs. Together with the low productivity, discourages FDIs flow to the region.

10. While logistics performance in Côte d'Ivoire outperforms that of most West African neighbors, there is still, room for improvement, particularly with the customs clearance performance that is still behind that in Benin, Senegal, Burkina Faso or Niger.

**Table 5.2: Logistics Performance**

2014 Data	Logistics Performance Index (LPI)		Customs		Infrastructure		International shipments		Logistics quality & competence		Tracking and tracing		Timeliness	
	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score	Rank	Mean score
Côte d'Ivoire	82	2.7	119	2.3	103	2.36	82	2.77	85	2.63	70	2.83	73	3.24
Benin	90	2.66	76	2.54	101	2.4	105	2.62	101	2.55	84	2.67	78	3.17
Nigeria	91	2.66	132	2.22	93	2.44	100	2.64	90	2.6	74	2.79	75	3.22
Senegal	100	2.6	78	2.53	108	2.33	73	2.84	96	2.57	105	2.54	142	2.72
Ghana	107	2.54	127	2.25	90	2.46	93	2.67	116	2.42	90	2.65	135	2.78
Guinea	113	2.5	101	2.37	131	2.18	120	2.52	107	2.48	118	2.48	106	2.97
Burkina Faso	116	2.47	110	2.34	120	2.27	131	2.44	115	2.44	129	2.41	114	2.94
Niger	120	2.46	92	2.42	135	2.16	119	2.52	128	2.34	134	2.38	117	2.93
Togo	128	2.42	139	2.19	138	2.15	101	2.64	142	2.24	97	2.59	149	2.67
Mali	136	2.39	149	2.09	147	2.1	121	2.51	152	2.17	110	2.52	120	2.9
Gambia,	141	2.36	141	2.18	155	2.02	99	2.64	122	2.38	148	2.27	153	2.58
Mauritania	145	2.35	146	2.13	105	2.34	151	2.29	141	2.25	138	2.36	136	2.78
Sierra Leone	163	2.06	163	1.78	106	2.34	163	1.91	164	1.92	160	2.07	162	2.36

### ***Transport Costs on the Corridor***

11. Despite the best logistics performance in the region, transport costs in Côte d'Ivoire are still among the highest. Recent surveys undertaken with transport sector stakeholders, revealed that unlawful levying and racketing at road-blocks is the main underlying cause, together with the rent seeking by the industry middleman.

12. Currently the average price (in 2014) paid by the shippers for transporting a cargo of 34 tons (average load), on the Abidjan - Ouagadougou is 1.045 million FCFA (equivalent to US\$2,100), distributed as follows:

- i. Access to the transport market caused by cartels / lack of competition: **373,025 FCFA (35.7 percent)**
  - Intermediate: 24,200 F CFA
  - Margin: 348,825 F CFA
- ii. Transportation cost: **672,620 F CFA**
  - Road blocks molestation, and bribery for overloading: 59,200 F CFA

- Fixed costs of the carrier: 107,030 FCFA, including
  - Access to the profession: 98,830 FCFA
    - Financing for trucks: 18,020 FCFA
    - Corporate Structure: 80,810 FCFA
  - Other authorizations/ border crossing costs: 8,200 FCFA
- Vehicle Operating Costs: 506,390 F CFA, including:
  - Fuel: 414,598 FCFA
  - Maintenance: 91,792 FCFA

13. As shown above, the lack of competition accounts for more than one third of the transport costs. Besides the low average turn-around of trucks (on average two trips per month on the Abidjan – Ouagadougou corridor), the frequent empty backhaul, the high number of checkpoints, the slow return of security on the Ivorian section of the Corridor, and the limited implementation of the 1/3, 2/3<sup>2</sup> rule to the high crops season, are a serious deterrent for many Ivorian transporters, thus reducing competition.

### ***Traffic Levels on the Ivorian section of the Corridor***

#### Corridor Traffic volumes

14. Traffic data on the Ivorian section of the corridor was provided by the Ministry of Transport and included:

- Road traffic counts on the Ivorian section of the Corridor;
- Abidjan Autonomous Port throughput data ; and
- Customs Transit data at the border with Burkina Faso.

15. As summarized in Table 5.3, Average Annual Daily Traffic (AADT) data was provided for three stretches of the Abidjan – Yamoussoukro section of the Corridor, by vehicle category for years 2013 and 2014.

16. As the data shows, traffic on the section Abidjan – Yamoussoukro has decreased during the period 2013-2014, essentially due to the new motorway construction works.

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<sup>2</sup> The 1/3, 2/3 Haulage business share rule between the countries Ivory Coast and Burkina Faso and Ivory Coast respectively was stipulated a bilateral treaty that was established pursuant to the ECOWAS Inter-State Road Transportation Convention (No. A/P2/82). The latter allows pairs of member states to conclude bilateral treaties that give specific percentages of the freight passing through a coastal country's port *en route* to a landlocked country.

**Table 5.3: Average Annual Daily Traffic**

Road section	Length (km)	Private car	Intercity taxi	Minibus < 31 seats.	Autocar > 31 seats.	Pick ups	Lorries	Trucks Artic.	Total
GESCO-ELIBOU	60	2911	200	1 139	772	1 303	1 054	1 038	8 417
% per vehicle category		35%	2%	14%	9%	15%	13%	12%	100%
ELIBOU-BODO	33	2715	38	1 146	487	69	488	977	5 920
% per vehicle category		46%	1%	19%	8%	1%	8%	17%	100%
BODO-SINGROBO	38	2012	44	304	672	370	366	656	4 425
% per vehicle category		45%	1%	7%	15%	8%	8%	15%	100%
Weighted AADT for Abidjan-Singrobo (2014)	131	2600.847	114	898	671	721	712	912	6 630
% per vehicle category		39%	2%	14%	10%	11%	11%	14%	100%
Weighted AADT for Abidjan-Singrobo (2013)	131	2 946	100	1 229	611	493	795	1 082	7 256
SINGROBO-TOUMODI	35	1 980	42	447	525	378	353	644	4 368
% per vehicle category		45%	1%	10%	12%	9%	8%	15%	100%
TOUMODI - YAMOUSSOUKRO	45	2 078	814	402	446	202	204	753	4 900
% per vehicle category		42%	17%	8%	9%	4%	4%	15%	100%
Weighted AADT for Singrobo-Yamoussoukro (2014)	80	2 035	476	422	480	279	269	706	4 667
% per vehicle category		47%	11%	10%	11%	6%	6%	16%	108%
Weighted AADT for Singrobo-Yamoussoukro (2013)	80	2 001	443	541	359	304	247	770	4 665
Weighted AADT for Abidjan-Yamoussoukro (2014)	211	2 386	251	718	599	554	544	834	5 886
% per vehicle category		41%	4%	12%	10%	9%	9%	14%	100%
Weighted AADT for Abidjan-Yamoussoukro (2013)	211	2 588	230	968	516	421	587	963	6 274
%age growth 2013-2014		-7.8%	9.1%	-25.8%	16.1%	31.6%	-7.3%	-13.4%	-6.2%

Source: Ageroute

17. Additional traffic data was collected from traffic using the Abidjan – Yamoussoukro Motorway, showing substantial growth at two toll-booths, at Attinguie (17.5 percent growth) and Singrobo (9.5 percent growth), despite the implementation of relatively high tolls in relation to the average income levels (at a base rate of US\$.02 cents/km, about one-third of average international commercial rates). Such high growth rates are typical of the ramp up period during the first few years after opening to traffic, and should therefore be discounted to obtain the organic growth rates.

18. Consequently, taking the above figures in consideration, we have compared data from year 2013 and 2015, as shown in the table below. While the overall traffic on the Abidjan - Yamoussoukro road section has been static (0 percent growth), the heavy goods vehicles traffic has substantially increased, including by 7.6 percent and 4.5 percent on Classes 3 and 4 respectively.

Table 5.4: AADT Traffic Volumes per Homogenous Section and Vehicle Type

<b>AADT</b>	<b>Year</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Total</b>
<b>Abidjan-Singrobo (131 km)</b>	2013	3046	1722	1406	1082	7256
	2015	3651	1086	1640	1201	7578
	<b>AAGR</b>	<b>9.5%</b>	<b>-20.6%</b>	<b>8.0%</b>	<b>5.3%</b>	<b>2.2%</b>
<b>Singrobo-Yamoussoukro (80 km)</b>	2013	2444	845	606	770	4665
	2015	2220	403	680	811	4114
	<b>AAGR</b>	<b>-4.7%</b>	<b>-30.9%</b>	<b>5.9%</b>	<b>2.6%</b>	<b>-6.1%</b>
<b>Weighted Abidjan-Yamoussoukro (211 km)</b>	2013	2818	1389	1103	964	6274
	<b>2015</b>	<b>3109</b>	<b>827</b>	<b>1276</b>	<b>1053</b>	<b>6265</b>
	<b>AAGR</b>	<b>5.0%</b>	<b>-22.8%</b>	<b>7.6%</b>	<b>4.5%</b>	<b>-0.1%</b>

Class 1: Private car + Intercity Taxi; Class 2: Pick up + Minibus (<31 seats); Class 3: Lorries + Bus (> 31 seats); Class 4: Articulated

### Corridor traffic growth

19. Reliable historic traffic data is difficult to obtain for the period prior to 2010, due to the prolonged political crisis with the consequent economic volatility, directly impacting traffic levels on the corridor. Available traffic data for the period 2011 – 2015 was obtained from the Abidjan Autonomous Port throughput, which provides a good benchmark on the growth of transit traffic along the various corridors it serves.

20. As shown in the tables below, Port of Abidjan traffic has recorded varying patterns of growth for bulk and containerized traffic. While bulk traffic has grown at an average annual rate of 7.7 percent, container traffic grew at lower rate of 3.9 percent annually. The latter representing only 23 percent of the total tonnage, with an improved loading over the period, resulting in an overall average annual growth of Ton equivalent of 7.6 percent, in the same range as that of bulk.



21. When considering Port of Abidjan transit traffic to/from Burkina Faso, Mali and Niger,

**Table 5.5: Transit Traffic per Country**

	TRANSIT TRAFFIC PER COUNTRY (in Tons)					
	2010	2011	2012	2013	2014	AGR 2011-2014
<b>IMPORTS</b>	<b>846,829</b>	<b>682,692</b>	<b>1,389,874</b>	<b>1,567,730</b>	<b>1,535,073</b>	<b>31%</b>
- Burkina Faso	441,747	330,533	667,851	740,926	839,395	36%
- Mali	402,082	349,593	699,616	803,701	642,026	22%
- Niger	506	1,323	8,306	10,770	37,185	204%
- Autres pays	2,495	1,244	14,101	12,332	16,467	137%
<b>EXPORTS</b>	<b>190,955</b>	<b>82,248</b>	<b>223,257</b>	<b>260,736</b>	<b>304,146</b>	<b>55%</b>
- Burkina Faso	109,234	63,869	90,246	144,879	200,245	46%
- Mali	81,721	18,378	133,011	115,857	103,866	78%
- Niger	0	0	0	0	0	
- Autres pays	0	0	0	0	35	
<b>TOTAL MARITIME TRAFFIC</b>	<b>1,037,784</b>	<b>764,940</b>	<b>1,613,132</b>	<b>1,828,466</b>	<b>1,839,220</b>	<b>34%</b>
<b>Equiv. Trucks (34 Tons) AADT</b>	<b>84</b>	<b>62</b>	<b>130</b>	<b>147</b>	<b>148</b>	<b>7%</b>

potentially using the Ivorian section of the Corridor, and assuming an average truck load of 34 tons (Borderless survey data), the transit traffic accounts for only 15 percent of the overall Heavy Goods Vehicles (HGV) traffic, suggesting that most trucks operating in the corridor are for domestic goods transport with similar annual growth rates over the period 2012-2014 of approximately 7 percent.

22. The following Table shows past trends data on the transit traffic through Côte d'Ivoire (Tons) to main hinterland, confirming the overall volumes of Transit Traffic estimated above, with an average equivalent trucks transit through the border at Ouangolodougou of about 130 trucks in 2012, of which 47 percent to/from Burkina Faso and 51 percent to/from Mali. The table also illustrates the impacts of the political turmoil that Côte d'Ivoire has gone through over the period 2002 to 2011, with an erratic pattern of Transit Traffic volumes through the border due to the latter's high sensitivity to security conditions.

**Table 5.6: Past Transit Traffic Trends through Côte d'Ivoire**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Burkina Faso</b>	388993	1584	162077	304077	298309	518878	384650	588979	550963	394402	758097
<b>Mali</b>	637646	176644	251958	285855	399580	374256	325897	656446	483803	367971	832628
<b>Others</b>	23542	1347	6964	1753	1465	326	1926	12227	3000	2567	22407
<b>Total Transit</b>	1050181	179575	420999	591685	699354	893460	712473	1257652	1037766	764940	1613132
<b>Equiv Trucks AADT</b>	<b>85</b>	<b>14</b>	<b>34</b>	<b>48</b>	<b>56</b>	<b>72</b>	<b>57</b>	<b>101</b>	<b>84</b>	<b>62</b>	<b>130</b>

23. The Table below of volumes of Trade across the border derived from customs data, shows a higher growth rate of 6 percent in 2015, essentially driven by a surge in Burkina Faso exports, albeit accounting for only 10 percent of the total border Trade.

24. Based on an average truck load on the Corridor of 34 tons, an average annual daily traffic of approximately 160 Trucks transited through the border (both ways) in 2015, in line with the above estimates derived from the Port of Abidjan throughput.

**Table 5.7: Annual Trade volume across the Border between Burkina Faso and Côte d'Ivoire**

Year 2014	Weight (in Tons)	Equiv Trucks AADT
EXPORT	1,671,238	135
IMPORT	296,336	24
<b>TOTAL</b>	<b>1,967,575</b>	<b>159</b>

Year 2015	Weight (in Kg)	Equiv Trucks AADT
EXPORT	1,718,739	138
IMPORT	366,848	30
<b>TOTAL</b>	<b>2,085,587</b>	<b>168</b>

25. Considering the above, we have retained average **trucks transit traffic of 160 in 2015**, growing at 6 percent annually.

### Conclusions

26. Based on the above analysis we have retained the following traffic volumes for year 2015 and growth levels on the Ivorian section of the Corridor, for the economic analysis period.

**Table 5.8: Traffic volumes per road section for year 2015**

Corridor section	Length (km)	Total Trucks		AADT	Transit trucks
		Lorries	Articulated		
ABIDJAN-ELIBOU	64	1117	1100	8922	160
ELIBOU-BODO	35	517	1036	6275	160
BODO-SINGROBO	40	388	695	4691	160
SINGROBO-TOUMODI	37	374	683	4630	160
TOUMODI - YAMO USSOUKRO	48	216	798	5194	160
YAMO USSOUKRO-TIEBISSOU	40	146	337	2671	160
TIEBISSOU-BOUAKE	66	142	332	2254	160
BOUAKE-OUANGOULOUGOU	283	143	334	2419	160

**Table 5.9: Annual Corridor Traffic Growth**

<b>Annual Corridor Background Traffic growth</b>	<b>2016-2025</b>	<b>2026-2031</b>	<b>2032-2036</b>
Pessimistic scenario	4.0%	3.0%	2.0%
<b>Realistic scenario</b>	<b>6.0%</b>	<b>4.5%</b>	<b>3.0%</b>
Optimistic scenario	8.0%	6.0%	4.0%

***Travel Times on the Ivorian section of the Corridor***

27. Table 5.10 shows that the total transit time (from Cargo offloading at Port of Abidjan to its arrival to final destination in Ouagadougou dry port), is currently around seven days, which makes the Corridor the most competitive among the various alternative gateways serving Ouagadougou (via Lomé and Tema). Similar transit times were recorded for cargo destined to Bamako from Abidjan.

**Table 5.10: Total Transit Time**

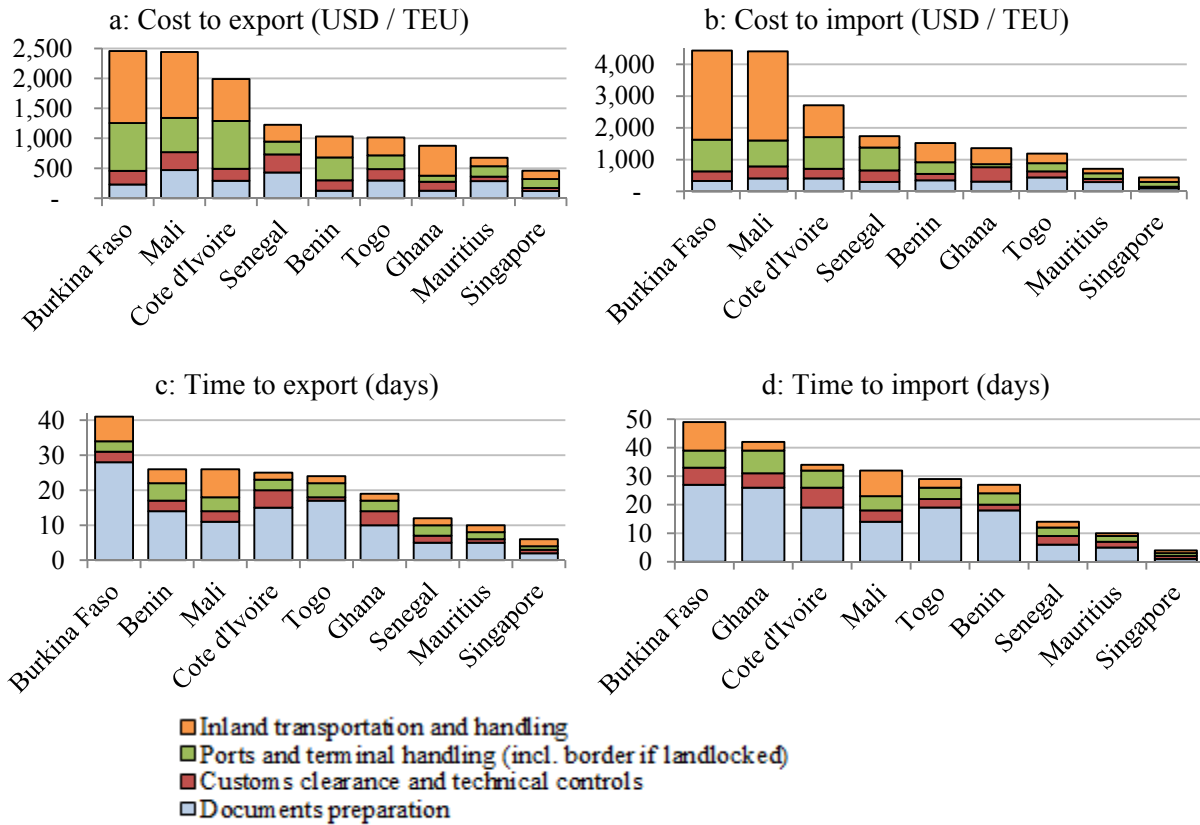
<b>Task\Section</b>	<b>Abidjan - Ouaga</b>	<b>Lomé - Ouaga</b>	<b>Tema - Ouaga</b>
Port Handling	2	2	5
Customs Procedures	2	2	5
Subtotal Through Port	4	4	10
Road Transit	3	5	5.5
<b>Total</b>	<b>7</b>	<b>9</b>	<b>15.5</b>

Source: Feasibility Study for the extension of Abidjan – Yamoussoukro motorway to the north

28. While the inland travel time between Abidjan and Ouagadougou is among the lowest, as illustrated below, the Doing Business Report<sup>3</sup> 2014 shows that the total time for export or import for Burkina’s businesses is among the highest in the world, even when compared to similar landlocked countries such as Mali. In addition, while the inland transport and handling time, taken alone, is well competitive for Burkina’s cargo, the related monetary cost is among the highest, accounting for almost 50 percent of the total export costs and about 35 percent of total import costs, and essentially driven by the high trucks operating costs, bribery, intermediation and rent seeking along the Corridor.

<sup>3</sup> <http://www.doingbusiness.org/reports/global-reports/doing-business-2014>

**Figure 5.1: Time and cost to trade across borders**



Source: Doing Business 2014

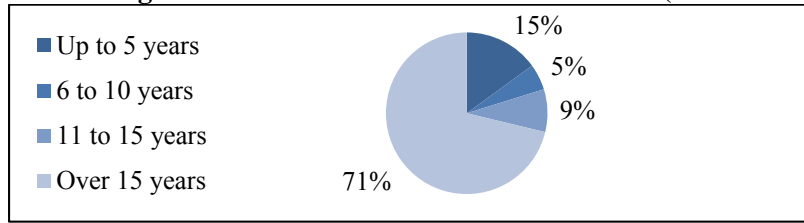
### ***Truck fleet in Côte d'Ivoire***

29. As the table below shows, the typical composition of truckers' fleet vary substantially with the category of operator (formal or informal sector) and the range of operation (Transit or Domestic).

#### Truck fleet distribution in West Africa (excluding Nigeria)

30. The total registered truck fleet in Côte d'Ivoire in 2015 includes 21,618 lorries and 6,278 articulated trucks, including 40 percent out of service trucks at any given time and 85 percent that are more than 10 years old. An estimated 70 percent of these vehicles were purchased second hand and 15 percent were purchased when they were more than 20 years old, resulting on an average fleet age of 21 years. The fleet is composed of about 33 percent container carriers, 50 percent conventional trucks with sides, 5 percent tank trucks and 12 percent others.

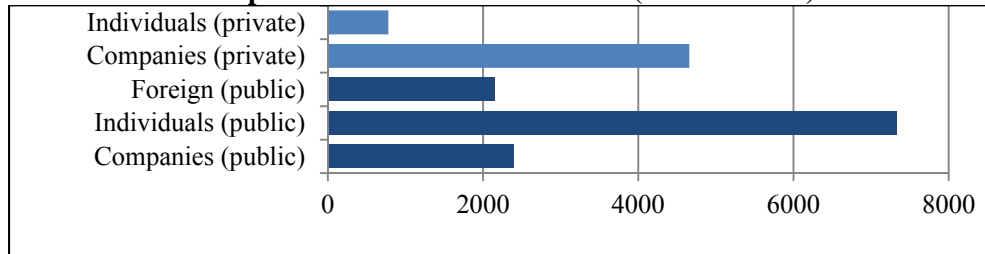
**Chart 5.2: Age distribution of the Ivorian Truck Fleet (19t. and over)**



Source: Hartmann 2013

31. As illustrated in the chart below, 69 percent of the trucks (19 tons and over) fleet is registered under commercial transport, while several companies registered under private (or own-account) transport are actually public transport companies. Individual operators dominate the commercial transport sector, with 62 percent of the fleet, while companies dominate the own-account transport sector, with 86 percent of the fleet.

**Chart 5.3: Ownership Structure of the Truck Fleet (19t. and over) in Côte d'Ivoire**



Source: Hartmann 2013

32. Overall, the market structure is dominated by few operators and characterized by non-transparent allocation of freight, slow rotation times, and inefficient customs clearance procedures. This has given rise to low-productivity and large gap between prices and costs.

### Fleet renewal

33. Access to financing is key to fleet renewal and is usually provided by financial and banking institutions, that requires collaterals. This often represents a major constraint to small and medium trucking companies that are left with the only option of financing through equity or informal loans. In Côte d'Ivoire, due to informal nature and small size of most freight transport companies (less than 5 trucks), the primary modes of financing Trucks' purchase are: self-financing (85.5 percent); lease-buy (5 percent); informal and family loans (6.5 percent), and bank loans (2 percent).

### ***Accident Levels on the Ivorian section of the Corridor***

34. Statistics of accidents and related costs, along the Ivorian section of the Corridor were provided by *OSER*, summarized in the following Tables:

**Table 5.11: Accidents distribution per severity level and section of the Abidjan – Ouangolodougou Corridor**

Corridor section	Accidents	Casualties	Severely injured	Slightly injured
Abidjan – Yamoussoukro Section	106	55	408	260
Yamoussoukro – Ouangolodougou Section	81	35	215	112
Urban Sections	26	20	194	148
Abidjan – Ouangolodougou Corridor	213	110	817	520

35. In 2014, the number of accidents on the Ivorian section of the Corridor amounted to 213, 2.6 percent of the Côte d’Ivoire total number of road accidents (8,262), with 110 killed, representing 13.35 percent of the total number of people killed (816) on the entire road network. This emphasizes the higher severity levels of accidents on the Ivorian part of the Corridor, when compared with a typical section on the national road network.

**Table 5.12: Unit Accident Economic Cost per Severity Level**

Severity	2015 US\$
Casualty	71345
Injured	7510

## E. Economic Analysis

### *Measurable project impacts*

36. The implementation of the project activities is expected to generate a number of impacts that vary in terms of their: (a) materialization time span (short term vs. mid/long term); (b) geographical area (Ivorian section of the Corridor vs. the remainder of the Corridor with all the branching-outs outside Côte d’Ivoire vs. rest of the Ivorian territory); (c) attributions (fully vs. partially attributable to the project activities); (d) impacts order (direct vs. indirect/second order impacts); and (e) measurability (quantitative vs. qualitative impacts).

37. Such diversity of the impacts makes it difficult to derive a single economic rate of return for the entire project investments. Whilst section B.3 above discussed the breadth of qualitative and indirect project impacts, in this section the focus will be on the appraisal of the quantifiable and directly attributable project impacts, for which a cost-benefit analysis will be carried out, namely:

- a) Reduction in transport and logistics costs due to better regulated market and professionalization of the industry;
- b) Reduction in VOCs (fuel consumption, maintenance) thanks to fleet renewal;
- c) Reduction in transit time due to removal of road blocks and improved clearance procedures;
- d) Reduction in vehicle emissions, with the consequent environmental and economic impacts (GHG emissions) and savings in health costs;
- e) Reduction in road accidents due to newer fleet, better trained drivers, better police patrol, higher awareness among the corridor riparian populations; and

- f) Increase in trade as a consequence of lower transport costs and more reliability of transport journeys, with the consequent new jobs creation and higher added value, and better paid.

***Economic Analysis of measurable project impacts***

**a) Reduction in transport and logistics costs due to better regulated market and professionalized industry:**

38. The improvement to the trucking market regulation and professionalization of the industry in Ivory is expected to enable:

- Reduction in the high profit currently being made by a handful of operators due to cartels;
- Access to cheaper financing of working capital and investments in fleet renewals, due to industry professionalization and the consequent better business planning, solvency and predictability; and
- Transfer of all transport costs savings harvested from all other Project activities (such as VOC reduction, travel time reduction, reduction in truck insurance as a result of reduction in road accidents), to the end consumer.

39. As shown under section B.4 above, the estimated costs of non-competition (due to lack of transparency and poor regulation) is **35.7 percent** of the total transport costs (33.4 percent in margin and 2.3 percent in intermediation). In particular for transit traffic, this represent around **US\$746** for a trip between Abidjan and Ouagadougou, or around US\$62.6 cents / Truck x km.

40. Assuming that both the intermediation is reduced by 20 percent and that Truckers' margins is reduced by 20 percent as a result of competition induced by the introduction of the transparent trips allocation (bourse de fret) and better-regulated market. This will imply a total reduction of US\$12.55 cents / Truck x km of the transport costs on the Ivorian section of the Corridor, with direct attribution to the project investments. Considering the above Traffic volumes, the implementation of this activity will accrue for the baseline year, 2015 at total savings of:

**Table 5.13: On the Abidjan - Ouangolodougou Corridor section:**

<b>Baseline year</b>	<b>2015 US\$</b>
Corridor Truck x km/day	512,939
Cost savings / Truck x km	0.1255
<b>2015 costs savings</b>	<b>23,402,842</b>

**b) Reduction in VOCs of the renewed truck fleet**

41. As stated above, the proposed project fleet renewal scheme will result in reduction in fuel consumption and in maintenance costs. For such costs savings to be transferred to the end consumer, it is assumed that market regulation and transparency is in place to create the required competition that drives the prices down. Currently, VOC accounts for 48.4 percent of the transport

costs, including 39.6 percent in fuel (US\$69 cents/km or 52.5 liter/100 km) and 8.8 percent in maintenance (US\$15 cents/km).

42. The new trucks with higher performance are expected to operate at US\$42 cents/km (32 liter/100 km) in fuel and US\$10 cents/km in maintenance.

43. This will result in savings in VOC in year 2015 prices of **US\$7.68 million**. Considering the current average age of Trucks in Côte d’Ivoire of 21 years. Such annual savings will gradually taper off over a period of twenty year, as the new trucks become older, and totally disappear when the trucks reach the twenty years age.

**Table 5.14: Savings in Vehicle Operating Costs**

<b>200 Trucks renewal</b>	<b>Saving/Truck x Km</b>	<b>Saving/Truck x Year</b>	<b>Saving / Year</b>
Saving in Fuel	0.270	21,597	6,479,040
Saving in Maintenance	0.050	4,000	1,200,000
<b>Total VOC savings</b>			<b>7,679,040</b>

**c) Reduction in Transit costs due to removal of road blocks and improved clearance procedures**

44. The improvement of the customs clearance procedures and the reduction in number of road blocks and bribery is expected to be removed gradually over time as behaviors change and the trucking industry move up the professionalization ladder, enabling it to be more compliant with laws and regulations and less subject to police and customs bargaining at road blocks and borders. Hence a 20 percent reduction in bribery and illicit levying was assumed.

45. Similar to the impacts of other project activities, for this to yield economic benefits, the market competition should be at play to transfer any costs savings into benefits to end consumers of hauled commodities.

46. Currently, the bribery and harassment amounts to on average US\$118 per road trip between Abidjan and Ouagadougou, equivalent to US\$9.95 cents/Truck x km. The 20 percent reduction in such practices shall accrue a saving benefit of US\$2 cents/Truck x km, or a total benefit on the Ivorian section of the Corridor in year 2015 prices of:

**Table 5.15: Savings per Year**

<b>US\$ / year</b>	<b>Saving / Year</b>
Savings/ Truck x km	0.0199
Truck x km /day	512,939
Savings for year 2015	<b>3,728,708</b>

**d) Environmental and economic impacts of reduction in vehicle emissions**

47. Currently large heavy-duty trucks (34 tons) with an average age of 21 years are estimated to operate on a fuel efficiency of 52.5 liter/100 km and an annual truck mileage of 100,000 km.



48. Under the project, 300 of these trucks will be scrapped and replaced by newer models at an efficient average fuel consumption of 32 liter/100 km, according to standards reported by the IRU trucking handbook for 2006.

49. As detailed in the table below, the resultant GHG emissions' savings are estimated at 16,421 tCO<sub>2</sub>/year, representing 39 percent savings from the baseline emission levels.

**Table 5.16: GHG Emissions Savings**

Country	Mileage	Baseline Scenario (20yr old 35-40ton trucks)	Project Scenario (New truck fleet 2006 standard)	CO <sub>2</sub> savings per truck/ year	CO <sub>2</sub> savings per 300 trucks/ year
Unit	km	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr	tCO <sub>2</sub> /yr
Côte D'Ivoire	100,000	140.175	85.44	54.735	<b>16,421</b>

50. In addition to the above environmental impacts, there will be economic impacts of the reduction in GHG emissions as a consequence of avoidance of the damage this would have caused the environment. This impact could be estimated by using several methods that provide similar estimates, namely:

- **The social value of carbon** that assesses the marginal (global) damage cost of an additional unit of GHG emitted. The social value of carbon emissions at the present value of expected future damages caused by an additional ton of CO<sub>2</sub>-equivalent emitted to the atmosphere in different years. Projects use a baseline estimate of social value of carbon starting at US\$30/ton of CO<sub>2</sub> in 2015 and increasing to US\$80 in real terms by 2050.
- **Marginal abatement costs** aim to measure the carbon price necessary to achieve a particular climate target. This approach derives shadow price of carbon from large energy-environment-economy models.
- **Carbon market prices** are derived from forecasting models of existing and emerging carbon markets. They are used in financial analysis of projects and can inform credit assessment.

For the purpose of the economic analysis, we will use the savings in **social value of carbon** as a result of the reduction in GHG emission. In the reference year 2015, this will amount to **US\$492,615, increasing in value by 2.8 percent yearly during the first ten years of purchase, then decreasing to zero when the procured trucks reach twenty years age.**

51. It should be noted that transit trucks emissions' savings may occur in both Ivorian and Burkinabé territories. However, for the purpose of the economic analysis, only the savings in GHG emissions occurring inside Côte d'Ivoire will be included.

- e) **Reduction in road accidents due to newer fleet, better trained drivers, better police patrol, higher awareness among the corridor riparian populations**

52. As detailed above the number of accidents on the Ivorian section of the Corridor amounted to 213 in 2014, 2.6 percent of the Côte d’Ivoire total number of road accidents (8,262), with 110 killed, representing 13.35 percent of the total number of people killed (816) on the entire country road network.

53. By providing technical support to OSER, the proposed project will contribute to improving the efficiency of the Agency in fully playing its role of safety advocacy (accidents observatory, safety education to drivers and awareness raising among road users), and monitoring (identification and mitigation of black spots and the implementation of traffic calming measures). If such measures are implemented, it is expected that the number of accidents on the Ivorian section of the Corridor as well as on the entire country road network, should be reduced both in numbers and severity. Data from OSER shows that accidents, particularly the severe ones, tend to be located in specific black spots in the network, which suggests that removal of such black spots should have immediate impacts. Based on this, it is assumed that the number of accidents on the Corridor and the rest of the country road network will be gradually reduced to achieve 50 percent reduction from 2015 figures within Ten years’ time from the project full implementation in 2020. It is also assumed a linear reduction in accidents over the ten years period. This is a reasonably achievable target considering the shown high Government commitments to tackle this issue and the revealed gradual improvement of governance and law enforcement capacity in the country since the 2011 political transition.

**Table 5.17: Accidents**

Accidents costs saving	2015 Casualty value (US\$)	Savings in 2025 (2015 US\$)	
		Reduction in Accidents	Value
Casualty	71345	65	4,637,425
Injured	7510	840	6,304,645
<b>Total</b>			<b>10,942,070</b>

**f) Increase in Trade induced by lower transport costs, safer and more reliable journeys**

54. The reduction in transport costs and the arbitrary police and customs checks and racketing, together with the improvement of security, is expected to encourage more trade along the Corridor. In addition to the background (organic) growth, such increase in trade will generate from a combination of diverted trade traffic from competing corridors, as Corridor becomes more competitive, and induced trade due to new investments along the Corridor to harness the reduced transport costs and improved accessibility and security.

55. The traffic data from the past five years post return to normality show an average growth of freight traffic of about 6 percent per year, in line with the GDP growth in both countries (elasticity of one). This suggests that the corridor did not benefit from a major traffic diversion from competing corridors. That could largely be attributed to the impacts of investments over the past decade on competing Gateway Corridors such as the Lomé, Cotonou, Dakar and Tema. In addition, with the ongoing improvement works on the Abidjan – Ouagadougou railway link, it is

expected that any future diversions from competing corridors will be captured by the latter as a more economic mode of transport for bulk and long haul. Consequently, for the purpose of the economic analysis we will only consider the growth in traffic and trade induced by the reduction in transport costs and improved security along the Corridor.

56. As shown above, the reduction in transport costs will essentially be derived from the reduction in transport companies’ high profit margin, the improved transparency, the removal of intermediaries and rent seekers, the reduction in VOCs, and the reduction in racketing and unlawful fining. Except for the 300 trucks, renewed, the project implementation is expected to reduce mainly the following components of the transport costs:

- i. Costs of access to the transport market caused by cartels / lack of competition, in particular:
  - Banning of intermediary: 20 percent reduction; and
  - Margin: 20 percent reduction.
- ii. Transportation cost
  - Road blocks disruption: 20 percent reduction.

57. This implies an overall reduction by 8.3 percent of the transport costs within the Ivorian section of the Corridor.

58. Since the project impacts are mainly country specific and do not include improvements to the Port-to-Port costs, we can use Clarke et al (2004) estimates of elasticity of trade to transport costs of about - 1.3. This implies an increase in trade and traffic along the Abidjan – Ouangolodougou as a result of the above reduction in transport costs, by 5.93 percent (8.3 percent x 55 percent x 1.3).

59. Currently the trade value along the Abidjan – Ouangolodougou section of the corridor is measured by the estimated overall value of goods transported, which excludes the local passing by trade (service to the truck drivers including hotels, catering, petrol stations, mechanic and tires workshops, etc.) and jobs in the trucking industry. With the increase in Trade volumes, both the passing by trade and the jobs are expected to increase, however as the economic value of such activities seldom exceeds 5 percent of the total Trade value, it could therefore be omitted for the purpose of the analysis.

60. As the economic analysis is being undertaken for the Ivorian investment project, we will be limiting the assessment to the impacts of the project on the increased Ivorian trade with Burkina Faso, Mali and beyond. The following Table summarizes the 2014 total trade value of Côte d’Ivoire with both Burkina Faso and Mali.

**Table 5.18: Total Trade Value**

<b>2015 US\$ million</b>	<b>Burkina</b>	<b>Mali</b>	<b>Total</b>
<b>From Côte d’Ivoire</b>	422.4	306.9	729.3
<b>To Côte d’Ivoire</b>	26.4	6.6	33
<b>Total Ivorian Corridor Trade</b>	<b>448.8</b>	<b>313.5</b>	<b>762.3</b>

61. Assuming that 90 percent of this trade is carried through the Abidjan Ouangolodougou section of the corridor, this implies an increase in total trade between Côte d'Ivoire and both Mali and Burkina Faso as a consequence of the project investments of about **US\$40.55 million**. Such induced effect will build up gradually over a ramp up period of approximately ten years from the project implementation date.

**g) Economic appraisal**

62. The project scope includes five components with the following overall cost to be disbursed evenly over a period of about 4.5 years (October 2016 – June 2021.)

**Summary Project Costs (2016 – 2021)**

63. The total cost of the proposed project is estimated at US\$45 million, to be implemented over a 4.5 year period. IDA is expected to finance **US\$30 million** of the total project costs.

64. The following Table summarizes the project benefits detailed in the previous sections of the note:

**Table 5.20: Summary of Project Benefits (2021 – 2040)**

Project Benefits in 2016 US\$ million	Benefit		
	Reference benefits	Period	Profile
a) Reduction in transport and logistics costs due to better regulated market and professionalization of the industry	23.403	2021-2040	Five years linear ramp up
b) Reduction in VOCs (fuel consumption, maintenance) thanks to fleet renewal	7.679	2021-2040	Constant over first 10 years, then decreasing to zero by 2040
c) Reduction in transit time due to removal of road blocks and improved clearance procedures	3.729	2021-2040	Five years linear ramp up
d) Reduction in vehicle emissions, with the consequent environmental and economic impacts (GHG emissions) and savings in health costs	0.493	2021-2040	Increasing @ 2.8 percent over first 10 years, then decreasing to zero by 2040
e) Reduction in road accidents due to newer fleet, better trained drivers, better police patrol, higher awareness among the corridor riparian populations	10.942	2021-2040	Five years linear ramp up
f) Increase in trade as a consequence of lower transport costs and more reliability of transport journeys, with the consequent new jobs creation, higher added value, and better pay	40.554	2021-2040	Ten years linear ramp up

## Project Economic Appraisal (2016 – 2040)

65. Based on the above project costs and benefits cash flows, the following economic efficiency indicators were computed:

- Project Net Present Value (NPV) discounted at the Bank standard rate of 12 percent as well as the newly recommended rate of 5 percent to account for longer term project impacts
- Project Economic Internal Rate of Return (EIRR)

66. The following table summarizes the results

**Table 5.21: EIRR**

2015 US\$ million	NPV @ 12%	NPV @ 5%
<b>Benefits</b>	US\$231.02	US\$609.49
<b>Costs</b>	(US\$30.62)	(US\$38.02)
<b>Net Benefits</b>	US\$200.41	US\$571.47
<b>EIRR</b>	<b>40.2%</b>	

67. **Sensitivity Analysis:** given the low uncertainty on the project costs (little physical investments) and the higher uncertainty on the benefits' achievement, we have run a sensitivity analysis of the results, to an increase in project costs by 10 percent and a reduction of the benefits by 20 percent.

**Table 5.22: Sensitivity Analysis**

(Increase in project costs by 10 percent and a reduction of the benefits by 20 percent)

2015 US\$ million	NPV @ 12%	NPV @ 5%
<b>Benefits</b>	US\$184.82	US\$487.59
<b>Costs</b>	(US\$33.68)	(US\$41.82)
<b>Net Benefits</b>	US\$151.14	US\$445.77
<b>EIRR</b>	<b>34.5%</b>	

68. In addition, given that the highest contribution to the project benefits coming from the 'Increase in Trade as a consequence of lower generalized transport costs (monetary costs, enhanced reliability of transport journeys, with the consequent new jobs creation, higher added value, and better paid jobs)', we have run a sensitivity analysis of the results to the elasticity of trade to generalized costs, assuming a reduction of the latter by 50 percent (half).

**Table 5.23: Sensitivity Analysis – Trade elasticity**

<b>2015 US\$ million</b>	<b>NPV @ 12%</b>	<b>NPV @ 5%</b>
<b>Benefits</b>	\$186.79	\$483.89
<b>Costs</b>	(\$30.62)	(\$38.02)
<b>Net Benefits</b>	\$156.17	\$445.87
<b>EIRR</b>	<b>37.2%</b>	

**F. Conclusions**

69. As the economic analysis above shows, the project internal rate of return is estimated at **40.2 percent** and the project net present value improves with a lower discount rate, implying the long term impacts of the project and the sustainability of the investments as the intended reforms begin to yield the desired behavioral change that creates an auspicious and conducive business environment for an efficient and competitive trucking industry in Côte d’Ivoire and the neighboring countries. In addition, as the sensitivity analysis results show, the project remains highly economically viable, highlighting the robustness of the viability conclusions.

70. The World Bank has a long track record in building capacity for public institutions, notably in the transport sector, and in implementing social mitigation measures. More specifically, the proposed project builds on the extensive policy dialogue and agreements reached between the World Bank, the Government, and private stakeholders in the context of the RTFCC DPO series. As emphasized by the Board of Executive Directors upon approval of the RTFCC-1 DPO, the proposed project is fully justified by the need to ensure effective implementation of the proposed reforms, to mitigate any negative social impacts and to ensure their long-term sustainability.

## Annex 6: Policy and Results Matrix for RTFCC DPO

### Côte d’Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

	Prior Actions under RTFCC 1	Triggers for RTFCC 2	Results
<b>A - Professionalizing and formalizing the trucking industry</b>			
<i>A1 - Business enabling environment promoting professionalization and formalization of the trucking industry</i>	Adoption of legal and regulatory framework to redefine the criteria for access to the profession of commercial and own-account road freight transport operator (with a well-defined, time-limited transition period) following best international practices (e.g. UNECE Resolution No. 4 on facilitation of international road transport) [BF; CI]	Adoption of a regulatory framework (decrees and/or ministerial order) mutually elaborated between the two countries defining (a) the training curricula for road transport company managers and truck drivers, following best international practices (UN Conventions, IRU); and (b) the criteria and certification mechanism for the creation of private institutions providing training and issuing certificates of professional competence for the trucking industry [BF, CI]	Number of formally registered transport operators under new criteria for access to the profession - BF: 0 (2015) / 300 (2017) - CI: 0 (2015) / 3,000 (2017)
<i>A2 - Professional organization representing the trucking industry</i>	Approval by Transport Ministry of the bylaws and rules of procedures for an independent umbrella professional association representing the trucking industry, in line with best international practices [CI]		
<i>A3 - Implementation of axle load regulations</i>	Adoption of an interministerial order defining the respective responsibilities of the Ministries of Transport and Infrastructure regarding regulation and enforcement of axle load controls [CI]	Application of Article 11.a of WAEMU Regulation 14 on truck axle load standards and controls [BF, CI]	Proportion of non-compliant trucks controlled at weighing stations - BF: 80% (2015) / 35% (2017) - CI: 85% (2015) / 35% (2017)
<b>B - Modernizing the organization of the trucking market</b>			
<i>B1 - Efficiency of road transport operations through better contractual relations between trucking companies and shippers</i>	Revision and implementation by the Ministry of Transport of the regulatory framework (decree and/or ministerial orders) organizing	Introduction in Burkina Faso of a virtual freight exchange that (a) is accessible only by compliant transporters, (b) is voluntary for both shippers and transporters and (c) allows a competitive matching of transport services supply and demand [BF]  Transition to electronic inter-State consignment notes and mutual recognition by BF and CI [Joint]	Volume of trade in Côte d’Ivoire carried under a consignment note: 3.9 million tons (2015) / 5 million tons (2017)

	<b>Prior Actions under RTFCC 1</b>	<b>Triggers for RTFCC 2</b>	<b>Results</b>
	<p>the issuance of consignment notes (OHADA template) in Côte d'Ivoire [CI]</p> <p>Ministers of Foreign Affairs of both countries sign MoU giving mandate to a joint technical committee to negotiate the revision of the 1999 bilateral road transport agreement in the framework of the Friendship and Cooperation Treaty (TAC), including issues related to trade and transport facilitation and the liberalization of freight allocation [Joint]</p>	<p>Signature by the two countries of the revised bilateral road transport agreement [Joint]</p>	
<i>B2 - Efficiency of road transport operations through a more efficient truck fleet</i>		<p>Establishment by the Ministry of Transport of a mechanism to support fleet renewal for compliant transporters, including (a) provisions to lower the cost of vehicles (notably tax and customs duty exemptions); (b) provisions to facilitate access to credit; and (c) accompanying measures [BF;CI]</p> <p>Revision of the technical inspection system and regulations for trucks to eliminate substandard vehicles [BF; CI]</p>	<p>Percentage reduction of new vehicle prices under fleet renewal mechanism</p> <ul style="list-style-type: none"> <li>- BF: 0 (2015) / 35% (2017)</li> <li>- CI: 0 (2015) / 20% (2017)</li> </ul>
<b>C - Enhancing the competitiveness of maritime and inland gateways</b>			
<i>C1 - Port and terminals operational efficiency and prices</i>	<p>Adoption of an <i>arrêté</i> (order) by the Ministry of Transport liberalizing the activity of container delivery in the Abidjan metropolitan area and setting objective and open eligibility criteria for transporters [CI]</p>	<p>Adoption of a ministerial order reactivating the <i>Commission on Competitiveness of Ivorian Ports</i> [CI]</p> <p>Revision of tariff structure and practices of container terminals in Burkina Faso to promote containerization [BF]</p>	<p>1) Reduction of container delivery prices in Abidjan compared to initial FEDERMAR tariff :0% (2015) / 25% (2017)</p> <p>2) Number of transport operators authorized to deliver containers in Abidjan: 30 (2015) / 50 (2017)</p>
<b>D – Improving customs clearance</b>			
<i>D1 - Availability of information on trade procedures and regulations</i>	<p>Adoption by the Ministries of Commerce and Finance of an interministerial <i>arrêté</i> (order) for the preparation and maintenance of a Trade Information Web Portal (TIW) [BF, CI]</p>	<p>Establishment of TIW in line with Article 1 of the WTO's Trade Facilitation Agreement, based on the WAEMU template and best international practices (e.g. WCO, WB) [BF, CI]</p>	<p>Proportion of the inventory of trade procedures and regulations published on the TIW</p> <ul style="list-style-type: none"> <li>- BF: 0% (2015) / 80% (2017)</li> <li>- CI: 20% (2015) / 90% (2017)</li> </ul>



	<b>Prior Actions under RTFCC 1</b>	<b>Triggers for RTFCC 2</b>	<b>Results</b>
<i>D2 – Customs clearance procedures and reward of compliance</i>	Establishment by the customs administration of an automated and operational database on traders' risk profiles [BF; CI]	Strengthening by the customs administration of (a) risk management through the interface of the traders' risk profiles database with the customs management system), and (b) post-clearance audits (PCA) through the adoption of a PCA strategy and manual of procedures [BF, CI]  Adoption and implementation of a legal and regulatory framework defining the criteria and functioning of an Authorized Economic Operator (AEO) scheme [CI]	Proportion of transactions routed in customs' red channel - BF: 25% (2015) / 10% (2017) - CI: 70% (2015) / 30% (2017)
<i>D3 – Professional standards for customs and logistics service providers</i>	Adoption of the Customs Code of Ethic and Good Governance [CI]	Transposition of the revised WAEMU regulation governing the profession of customs brokers [BF, CI]  Improvement by the customs administration of transparency and anticorruption through the adoption of (a) an internal control strategy and audit plan, and (b) an annual plan for the control of customs brokers [BF, CI]	Number of internal controls planned by the customs administration - BF: 2 (2015) / 4 (2017) - CI: 5 (2015) / 7 (2017)
<b><i>E – Facilitating transit</i></b>			
<i>E1 - Border crossing procedures</i>	Signature by the two customs administrations of the interconnection agreement concluding the study phase of the project and defining technical specifications, budget and implementation timeline [Joint]	Interconnection by the two customs administrations of their information systems [Joint]	Percentage of declarations at the border submitted prior to the arrival of the truck - BF: 0% (2015) / 100% (2017) - CI: 0% (2015) / 100% (2017)
<i>E2 – Transit regime</i>	Signature by the Burkinabe and Ivorian Chambers of Commerce of an addendum to the February 2014 Agreement on the single payment of the ISRT transit guarantee enabling its effective application [Joint]  Adoption by the Minister of Finance of a ministerial order requesting Burkinabe customs to stop collecting the ISRT transit guarantee on goods in transit on top of the one collected in CI [BF]		Average transit time between Abidjan and Ouagadougou: 140 hours (2015) / 100 hours (2017)

## Annex 7: MAP

### Côte d'Ivoire: Transport Sector Modernization and Corridor Trade Facilitation Project

