

Document of
The World Bank

Report No: ICR00003592

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-44350 IDA-44380 IDA-44390)

ON

A CREDIT TO THE REPUBLIC OF GHANA
IN THE AMOUNT OF SDR 49.1 MILLION
(US\$80 MILLION EQUIVALENT)

A CREDIT TO BURKINA FASO
IN THE AMOUNT OF SDR 43.0 MILLION
(US\$70 MILLION EQUIVALENT)

A CREDIT TO THE REPUBLIC OF MALI
IN THE AMOUNT OF SDR 24.6 MILLION
(US\$40 MILLION EQUIVALENT)

FOR THE

WEST AFRICA TRANSPORT AND TRANSIT FACILITATION PROJECT

December 31, 2015

Transport and ICT Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective June 30, 2015)

Currency Unit = US\$1
Francs CFA = 588.16 (XOF)
Ghanaian Cedi = 4.36 GHS

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AIT	Agency Implementation Team
ASYCUDA	Automated SYstem for CUstoms Data (customs computerized management system developed by UNCTAD)
BOAD	<i>Banque Ouest Africaine de Développement</i> (West African Development Bank)
CEPS	Customs and Excise Preventive Service (customs agency of Ghana)
CGC	<i>Comité de gestion du corridor</i> (Corridor Management Committee)
CNF	National Committees for Transport Facilitation and Road Transit
CPS	Country Partnership Strategy
ECOWAS	Economic Community of West African States
EIRR	Economic Internal Rate of Return
EU	European Union
FED	<i>Fond de Développement Européen</i> (European Development Fund)
GBF	Government of Burkina Faso
GCMS	Ghanaian Customs Management System
GDP	Gross Domestic Product
GHA	Ghana Highways Authority
GIFF	Ghana Institute of Freight Forwarders
GOG	Government of Ghana
GOM	Government of Mali
GPHA	Ghana Ports and Harbors Authority
ICT	Information and Communications Technology
IMSC	Inter-ministerial Steering Committee
ISN	Interim Strategy Note
JBP	Joint Border Post
M&E	Monitoring and Evaluation
MOT	Ministry of Transport
MoU	Memorandum of Understanding
MSRP	<i>Plan pour la Relance Durable du Mali</i> (Mali Sustainable Recovery Plan)
MTR	Midterm Review
NPV	Net Present Value
OSBP	One-stop Border Post

PACITR	<i>Programme d'Actions Communautaire des Infrastructures et du Transport Routier</i> (Community Action Plan for Road Infrastructure and Transport managed by WAEMU)
PAD	Project Appraisal Document
PCU	Project Coordination Unit
PDO	Project Development Objective
PIR	EU's Regional Indicative Program
PIT	Project Implementation Team
PPF	Project Preparation Facility
REC	Regional Economic Communities
RIAS	Regional Integration Assistance Strategy
RP-I	WAEMU Road Program I
STTV	Satellite Transit Truck Village - Ghana
TA	Technical Assistance
TFP	Technical and Financial Partner
TTL	Task Team Leader
UEMOA	<i>Union Economique et Monétaire Ouest Africaine</i> (West African Economic and Monetary Union) - WAEMU
VOC	Vehicle Operating Cost
WATTFP	West Africa Transport and Transit Facilitation Project

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AFRICA

WEST AFRICA TRANSPORT AND TRANSIT FACILITATION PROJECT

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DATA SHEET

A. Basic Information			
Country:	Western Africa	Project Name:	West Africa Regional Transport and Transit Facilitation Project
Project ID:	P079749	L/C/TF Number(s):	IDA-44350,IDA-44380,IDA-44390
ICR Date:	12/31/2015	ICR Type:	Core ICR
Lending Instrument:	SIM	Borrower:	GHANA, BURKINA FASO, MALI
Original Total Commitment:	XDR 116.70M	Disbursed Amount:	XDR 115.43M
Revised Amount:	XDR 116.00M		
Environmental Category: B			
Implementing Agencies: No project cofinanciers; Technical and Financial Partners providing parallel financing include African Development Bank (AfDB), the European Union (EU), and <i>Banque Ouest Africaine de Développement</i> (West African Development Bank, BOAD)			
Cofinanciers and Other External Partners:			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	01/08/2004	Effectiveness:	10/02/2008	10/02/2008
Appraisal:	12/06/2007	Restructuring(s):		03/28/2013 03/10/2014
Approval:	06/19/2008	Mid-term Review:	11/30/2011	12/14/2011
		Closing:	03/31/2014	06/30/2015

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Moderately Satisfactory
Risk to Development Outcome:	Moderate
Bank Performance:	Satisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Satisfactory	Government:	Moderately Satisfactory

Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Satisfactory
Overall Bank Performance:	Satisfactory	Overall Borrower Performance:	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Satisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Central government administration	10	10
General transportation sector	7	7
Health	1	1
Other social services	1	1
Rural and Inter-Urban Roads and Highways	81	81
Theme Code (as % of total Bank financing)		
Regional integration	67	67
Trade facilitation and market access	33	33

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Makhtar Diop	Obiageli Katryn Ezekwesili
Country Director:	Rachid Benmessaoud (Regional) Henry Kerali (AFCW1) Pierre Laporte (AFCF2) Paul Noumba Um (AFCW3)	Mark D. Tomlinson
Practice Manager/Manager:	Supee Teravaninthorn	C. Sanjivi Rajasingham
Project Team Leader:	Fabio Galli	Fabio Galli
ICR Team Leader:	Hatem Chahbani	
ICR Primary Author:	Hatem Chahbani	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The PDO is to improve access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema — Ouagadougou – Bamako road transport corridor (the "Corridor").

Revised Project Development Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Average transit time for containerized imports from Tema port exit till reaching Ouagadougou reduced by 20%.			
Value quantitative or Qualitative)	7 days	5.6 days		5.6 days
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target is fully achieved, with 20 % reduction			
Indicator 2 :	Average transit time for containerized imports from Tema port exit till reaching Bamako reduced by 20%.			
Value quantitative or Qualitative)	15 days	12 days		5.6 days
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target is fully achieved, with 63 % reduction, exceeding the 20% reduction target.			
Indicator 3 :	Tema port - Ouagadougou transit time variation reduced by 20%.			
Value quantitative or Qualitative)	3 days	2.4 days		2.4 days
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target is fully achieved, with 20 % reduction.			
Indicator 4 :	Tema port – Bamako transit time variation reduced by 20%.			
Value quantitative or Qualitative)	6 days	4.8 days		3 days

Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target is fully achieved, with 50 % reduction, exceeding the 20% reduction target.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Percentage of road in good condition on Tema – Ouagadougou section of the Corridor.			
Value (quantitative or Qualitative)	50%	75%		75%
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target was achieved.			
Indicator 2 :	Percentage of road in good condition on Heremako – Bamako section of the Corridor.			
Value (quantitative or Qualitative)	40%	60%		85.36%
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target is fully achieved, with 85.36 % of road in good condition, exceeding the 60% original target.			
Indicator 3 :	Number of fixed customs check points in Ghana (excluding border posts)			
Value (quantitative or Qualitative)	6	2		5
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target was not achieved. The number of check-points decreased by one point, below the originally targeted reduction of 4 points.			
Indicator 4 :	Number of fixed customs check points in Mali (excluding border posts)			
Value (quantitative or Qualitative)	4	1		6
Date achieved	06/19/2008	03/31/2014		06/30/2015
Comments (incl. % achievement)	The target was not achieved. The number of check-points has rather increased by two additional points, below the originally targeted reduction of 3 points.			
Indicator 5 :	Border crossing time at Ghana/BF border posts.			
Value (quantitative or Qualitative)	5hrs.	4hrs.		1hrs. 25min.
Date achieved	06/19/2008	03/31/2014		06/30/2015

Comments (incl. % achievement)	The target was achieved and exceeded. The border crossing time has decreased by 72%, well above the originally targeted 20% reduction.		
Indicator 6 :	Border crossing time at Mali/BF border posts.		
Value (quantitative or Qualitative)	4hrs.	3hrs.	4hrs 29min
Date achieved	06/19/2008	03/31/2014	06/30/2015
Comments (incl. % achievement)	The target was not achieved. The border crossing time has rather increased by 12% instead of the originally targeted 25% reduction.		
Indicator 7 :	Truck tracking system operating over the entire corridor length.		
Value (quantitative or Qualitative)	Not in place in Mali and Burkina Faso.	In place	In place : BF : Dakola-Koloko.
Date achieved	06/19/2008	03/31/2014	06/30/2015
Comments (incl. % achievement)	At the time of Project closure, this target was not achieved. The tracking system was operating only in the Ghanaian section of the corridor (822 km), or about 43% of the total corridor length (1900 km).		
Indicator 8 :	Truck dwell time at STTV in Tema.		
Value (quantitative or Qualitative)	48hrs.	24hrs.	24hrs.
Date achieved	06/19/2008	03/31/2014	06/30/2015
Comments (incl. % achievement)	This target was fully achieved. 100%. At the time of Project closure, the STTV was not fully operational and the dwell time should be further reduced when this is complete.		

G. Ratings of Project Performance in ISRs

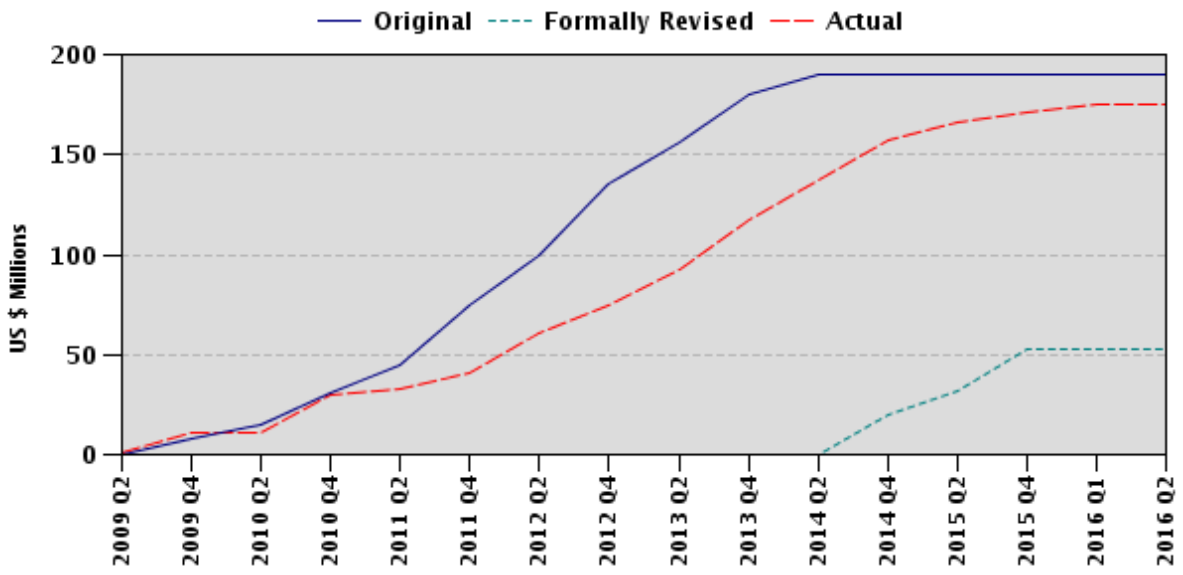
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	08/26/2008	Satisfactory	Satisfactory	0.00
2	11/28/2008	Satisfactory	Satisfactory	0.00
3	03/30/2009	Satisfactory	Satisfactory	2.93
4	08/27/2009	Satisfactory	Satisfactory	11.06
5	11/30/2009	Satisfactory	Satisfactory	11.08
6	05/28/2010	Satisfactory	Satisfactory	28.09
7	09/29/2010	Satisfactory	Satisfactory	30.81
8	03/29/2011	Satisfactory	Moderately Satisfactory	38.50
9	09/12/2011	Satisfactory	Moderately Satisfactory	55.27
10	03/25/2012	Moderately Satisfactory	Moderately Satisfactory	70.56
11	11/05/2012	Moderately Satisfactory	Moderately Unsatisfactory	84.66
12	05/17/2013	Moderately Satisfactory	Moderately Satisfactory	104.60
13	10/09/2013	Moderately Satisfactory	Moderately Satisfactory	126.61
14	02/09/2014	Moderately Satisfactory	Moderately Satisfactory	140.63
15	09/20/2014	Moderately Satisfactory	Moderately Satisfactory	161.67

16	04/08/2015	Moderately Satisfactory	Moderately Satisfactory	169.85
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H. Restructuring (if any)

Restructuring Date(s)	Board Approved PDO Change	ISR Ratings at Restructuring		Amount Disbursed at Restructuring in USD millions	Reason for Restructuring & Key Changes Made
		DO	IP		
03/28/2013	N	MS	MU	100.46	Reallocation and increase in the financing parameters for the Ghana Credit (Cr. 4439-GH) from 92.5 percent to 100 percent for the civil works components (Categories 1, 3, and 5 of the Financing Agreement). The reallocation was to prevent substantial delays in the release of counterpart funds from GOG.
03/10/2014	N	MS	MS	145.46	Extension of the Project closing date from March 31, 2014 to June 30, 2015 to allow for: (a) the completion of civil works in Mali and Ghana; (b) the operationalization of the interface/interconnection of the custom management systems on the RP-Corridor; (c) the initialization of cargo tracking systems on the Malian and Burkinabe portions of the RP-I Corridor; and (d) the full re-absorption of the 15 month disbursement lag.

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

Regional Context and Institutions

1. The West Africa Transport and Transit Facilitation Project (WATTFP) spans three countries of the West Africa region, namely Ghana, Burkina Faso, and Mali. The region includes the 15 Economic Community of West African States (ECOWAS) member countries and Mauritania, which withdrew from ECOWAS in 2000 to join the Arab Maghreb Union. At the time of appraisal, the region had a total population of 273 million that grew to 340 million in 2014, faster than expected (estimated in 2008 to grow to 320 million by 2015).

2. In 2006, the 15 ECOWAS member countries had a combined gross domestic product (GDP) of about US\$259 billion and a per capita GDP of about US\$924 (2007 prices), making it one of the poorest sub regions of the world. Over the period 2007–2014, real economic growth has been modest, at around 2 percent yearly, slower than the population growth (2.8 percent yearly), leading to a per capita GDP in 2014 of about US\$879 (2007 prices) and an annual average growth of –0.7 percent. The three project countries, Ghana, Burkina Faso, and Mali, had varying economic performances over the same period, with Burkina Faso achieving the best growth of 5.6 percent and Ghana experiencing a serious recession and currency devaluation.

Table 1. Average Annual Growth

2007–2014 Average Annual Growth (%)			
Country	Real GDP	Population	Real GDP/Capita
Burkina Faso	5.6	3.0	2.5
Ghana	–8.5	2.5	–10.7
Mali	3.4	3.1	0.2
WAEMU	4.0	3.0	1.0
ECOWAS	2.1	2.8	–0.7

3. Among the ECOWAS member countries, Benin, Togo, Burkina Faso, Guinea Bissau, Mali, Niger, Senegal, and Côte d’Ivoire are also members of the *Union Economique et Monetaire Ouest Africaine* (UEMOA)/West Africa Economic and Monetary Union (WAEMU). Together with ECOWAS, they work to improve the efficiency and competitiveness of the main transport corridors in the sub region that link the landlocked countries (Burkina Faso, Mali, and Niger) to sea gateways to boost intra- and inter-regional trade, a key factor for economic and social integration, inclusive growth, and poverty reduction.

Surface Transport Sector in West Africa

4. The surface transport system in West Africa remains largely based on increasingly obsolete colonial era transport infrastructure, which was developed along resource corridors to facilitate the extraction and export of raw materials out of the sub region. This mainly follows a south-north axis linking major Gulf of Guinea seaports to the hinterland. Numerous studies have shown that transport and transit costs in Mali, Burkina Faso, and Niger are up to 50 percent higher than for

countries with direct access to the sea. These high transport and transit costs translate into high commodities prices to end consumers and loss of external competitiveness.

Tema-Ouagadougou-Bamako Road Transport Corridor (The Project Corridor)

5. The overall length of the Corridor is about 1,900 km, and it has become increasingly important for both Burkina Faso and Mali. In the case of Mali, transit traffic through the Port of Tema in Ghana increased from about 38,000 metric tons in 2001 to about 288,000 metric tons in 2005. For Burkina Faso, traffic rose from about 78,000 metric tons in 2001 to about 428,000 metric tons in 2005. At the time of appraisal, it was anticipated that even with the stabilization of the security situation in Côte d'Ivoire, the Tema Port would remain a major access gateway to both Mali and Burkina Faso, in line with their corridor diversification strategy to ensure greater competition and more affordable ports services, as well as enhancing transit reliability and security.

Rationale for Bank Assistance

6. Most sub regional transport corridors in Africa have not been playing their intended role of boosting trade and development due to a number of hurdles, namely (a) lack of commitment to the implementation of the regional transit agreements, (b) weak transport supply industry, (c) poor infrastructure, and (d) lack of cooperation and interconnectivity of custom systems. Such hurdles underpin the observed high costs, unreliability, delays at borders, and poor levels of transport services, as well as the consequent suppression of intra- and inter-regional trade and weak economic competitiveness.

7. The World Bank's support to the three countries served by the Tema-Ouagadougou-Bamako Corridor, in removing main soft and hard bottlenecks, was considered on the basis of its expertise in the preparation and implementation of transport, trade, and transit facilitation, confirmed over similar past projects in other regions. In addition, the rationale for Bank involvement was built on the ground that the project (a) supports the implementation of the WAEMU RPI program and the Bank overall regional road Transport and Transit Facilitation Program on one of the main ECOWAS/WAEMU endorsed transport corridors in West Africa; (b) is consistent with the World Bank Regional Integration Assistance Strategy (RIAS 2001) for West Africa and the continent-wide RIAS 2008; (c) is aligned with the Africa Action Plan, which supports regional integration and partnerships across Sub-Saharan Africa; (d) supports the Almaty Action Program of the United Nations for landlocked countries; and (e) is in line with the objective of the Ghana, Burkina Faso, and Mali Country Assistance Strategies of supporting regional integration through investments in regionally focused transport projects.

8. It should also be mentioned that the Bank intervention is consistent and complements other Technical and Financial Partners (TFPs) and bilateral donors' parallel investments in other sections of the Corridor, including the African Development Bank (AfDB), European Union (EU), Bank Arabe de Développement Economique en Afrique (BADEA), *Banque Ouest Africaine de Développement* (West African Development Bank, BOAD), and the People's Republic of China, as illustrated in the Corridor map in of this Implementation Completion and Results Report (ICR).

1.2 Original Project Development Objectives (PDO) and Key Indicators

9. The original PDO is to improve access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations and facilitate the efficient movement of traffic along the Tema-Ouagadougou-Bamako road transport corridor (the ‘Corridor’). The achievement of the PDO is measured through a set of indicators, including:

10. **Primary outcome indicators.** Directly measuring the achievement of the PDO:
 - (a) Average transit time for containerized imports from the exit at the Port of Tema to Ouagadougou and to Bamako
 - (b) Variance in transit time for containerized imports from the exit at the Port of Tema to Ouagadougou and to Bamako
11. **Intermediate outcome indicators.** Measuring the outputs of the implementation of either project activities or of actions (outside the project scope) that the recipient countries have committed to:
 - (a) Percentage of road in good condition
 - (b) Number of fixed customs checkpoints (excluding at borders) in the Ghanaian and Malian sections of the Corridor
 - (c) Border crossing time
 - (d) Truck tracking system operating over the entire Corridor length
 - (e) Truck dwell time at the Satellite Transit Truck Village (STTV) in Tema

1.3 Revised PDO and Key Indicators, and Reasons/Justification

12. The PDO has not changed nor have the key indicators.

1.4 Main Beneficiaries

13. The primary beneficiaries of the project are the transport operators, tradable sectors of the economy, foreign investors, and ultimately the consumers and producers inside and outside the region.

14. The project is part of the WAEMU/ECOWAS Road Program-I (RP-I) and contributes, among other projects, to its expected impacts. The program’s impacts are expected to materialize over different stages of the project life. In the short term, the project implementation should result in (a) reduction in transit time; (b) improvement in reliability; and (c) reduction in non-logistic costs, such as inventory and storage costs. In the medium term, the project should contribute to higher quality and more affordable transport services. In the long term, the project is expected to contribute to boosting national, intra-, and inter-regional trade. The positive impacts are expected

to be much larger than adverse trade substitution effects for local economies (particularly at border areas).

1.5 Original Components

15. The project was designed to fund the following three major components:

- (a) **Corridor Road Infrastructure Improvement.:** This component is expected to improve the road Corridor to carry inter- and intra-country traffic by (i) rehabilitating and strengthening key road sections; (ii) constructing rest stop areas; (iii) implementing social and environmental mitigation measures for the civil works; (iv) implementing a Corridor-specific HIV/AIDS action plan; and (v) designing and implementing a Corridor-specific physical road safety action plan.
- (b) **Corridor Transport and Transit Facilitation Measures.** This component is expected to strengthen the capacity of customs and transport authorities to better manage the movement of transit traffic along the Corridor by (i) constructing an STTV adjacent to the Port of Tema; (ii) rehabilitating and equipping the Faladié multifunctional platform in Bamako; (iii) supporting the upgrade of the customs-related Information and Communications Technology (ICT) and extension of the cargo tracking system to better monitor and secure transit traffic; and (iv) logistical, capacity-building, and technical assistance (TA) support to improve the effectiveness of customs and transport authorities to monitor and control transit traffic.
- (c) **Project Management, Monitoring, and Evaluation.** This component is expected to fund the management, monitoring, and evaluation of project implementation activities in Ghana, Burkina Faso, and Mali.

16. The above components translate into the following activities and actions in each of the three participating countries:

- (a) **Burkina Faso (about US\$70 million).** The project scope consisted of the following activities: (i) rehabilitation and strengthening of the Ouagadougou-Sakoinsé (54 km) section of the Corridor; (ii) construction of up to two rest stops; (iii) design and implementation of a road safety action plan for the Burkinabé section of the Corridor; (iv) extension of the existing Automated System for Customs Data ++ (ASYCUDA ++) customs management system to the Ghanaian and Malian borders; (v) interconnection of the Burkinabé ASYCUDA ++ system with the Malian ASYCUDA ++ and Ghanaian Customs Management System (GCMS); (vi) training and procurement of equipment to strengthen the capacity of customs and transport authorities to better monitor and secure transit traffic along the Corridor; (vii) extension of the cargo tracking system to the Burkinabé section of the Corridor; and (viii) implementation of an HIV/AIDS action plan for the Burkinabé portion of the Corridor;
- (b) **Ghana (about US\$85 million).** The project scope consisted of the following activities: (i) rehabilitation and strengthening of the Buipe-Tamale (103 km) section of the Corridor; (ii) design and construction of an STTV near the Port of Tema; (iii) design and construction of two intervening transit checkpoints/rest stop areas and up to two

rest stop areas on the Ghanaian section of the Corridor; (iv) design and implementation of a road safety action plan for the Ghanaian section of the Corridor; (v) capacity strengthening of customs authorities to better monitor and secure transit traffic along the Corridor; (vi) interconnection of the GCMS with the customs systems of Burkina Faso (ASYCUDA ++) and Mali (ASYCUDA ++); and (vii) implementation of an HIV/AIDS action plan for the Ghanaian portion of the Corridor.

- (c) **Mali (about US\$42.2 million).** The project scope consisted of the following activities: (i) part of the rehabilitation of the Bamako-Bougouni (154 km) section of the Corridor; (ii) rehabilitation and strengthening of the Sikasso-Heremakono (45 km) section of the Corridor; (iii) modernization of the multifunctional platform at Faladié (Bamako); (iv) construction of up to two rest stops on the Corridor; (v) capacity strengthening of customs and transport authorities to better monitor and secure transit traffic along the Corridor; (vi) implementation of an HIV/AIDS action plan for the Malian portion of the Corridor; and (vii) design and implementation of a road safety improvement action plan on the Malian portion of the Corridor.

17. The total project cost amounts to US\$197.2 million, with IDA contributing US\$190 million (including two-thirds from the regional envelope and one-third from the national allocations) and the government of Ghana (GOG) and government of Mali (GOM) contributing US\$5 million and US\$2.2 million in counterpart funding, respectively.

18. The WATTFP, together with the following parallel development partners' interventions, support the implementation of WAEMU RP-I:

- (a) **Transport and transit infrastructure improvement.** (i) improvement of the Techiman-Kintampo road in Ghana; (ii) improvement of the Ouagadougou-Po-Ghana border and the Sabou-Bobo Dioulasso road sections in Burkina Faso; (iii) improvement of the Bougouni-Sikasso road section in Mali; (iv) construction and equipment of Joint Border Posts (JBPs) at the Paga border between Ghana and Burkina Faso and at the Heremakono border between Burkina Faso and Mali
- (b) **Transport and transit facilitation.** (i) creation of a regional single transit guarantee system that would replace the three national guarantee systems; (ii) establishment of a cargo tracking system that would enable customs to follow cargo movements in real time and substitute the need for the customs cargo escort; and (iii) creation of an electronic transit management system that would facilitate the passage of transit trucks through the Corridor and, in particular, facilitate border crossings.

1.6 Revised Components

19. The original project components have not changed over the course of project implementation.

1.7 Other Significant Changes

20. The two significant changes to the project concern the Ghanaian components, as follows:

- (a) **Reallocation of Credit proceeds and increase of financing parameters.** In March 2013, the Bank approved the GOG request to reallocate and increase the financing parameters for the Ghana Credit (Cr. 4439-GH). The reallocation of Credit proceeds was justified on the basis of the following:
- To prevent substantial delays in the release of counterpart funds from the GOG by increasing the financing parameters from 92.5 percent to 100 percent for the civil works components (Categories 1, 3, and 5 of the Financing Agreement). The delays were caused primarily by the GOG's over-programming of road works contracts and slow release of funding to the road sector line ministry.
 - To reallocate the Credit proceeds from Categories 8 and 2 to Categories 1, 4, 5, and 6 to fund additional costs for the civil works activities of the Ghana component of the project.
 - The increase in the financing parameters was not expected to affect the implementation of any of the remaining project components because of savings from lower outturn roadwork costs.
- (b) **Extension of the project closing date from March 31, 2014 to June 30, 2015.** On March 10, 2014, the project was granted a 15-month extension from the original closing date of March 31, 2014 to June 30, 2015, to allow for (i) the completion of the remaining civil works in Mali and Ghana; (ii) the operationalization of the interface/interconnection of the custom management systems on the RP-Corridor; (iii) the initialization of cargo tracking systems on the Malian and Burkinabé portions of the RP-I Corridor; and (iv) the full reabsorption of the 15-month disbursement lag that the project had incurred against the original Project Appraisal Document (PAD) disbursement projections.

The extension was justified on the basis that the project implementation had improved during the preceding 18 months despite the effective suspension of the project activities in Mali for about 11 months in the aftermath of the political crisis of March 2012. The improved implementation performance translated into total disbursements of about US\$65 million over the 18-month period, against total cumulative disbursements since the Board project approval (June 2008) of about US\$145 million (about 81 percent of total commitments).

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design, and Quality at Entry

Project Identification and Ownership

21. The need for the WATTFP stemmed from a meeting organized by the WAEMU and ECOWAS (co-chair) in Ouagadougou, in September 2002, to discuss options for the extension of the (then ongoing) WAEMU pilot project to a Transport and Transit Facilitation Program covering

other corridors of the West Africa region. The meeting, attended by a number of regional and bilateral and multilateral institutions, identified the following priority areas of focus:

- Simplification and harmonization of rules and procedures applied to transport and interstate road transit
- Implementation of observatories of abnormal practices along regional corridors
- Construction of juxtaposed/One-stop Border Posts (OSBP)
- HIV/AIDS
- Road safety

22. A follow-up workshop was jointly organized by ECOWAS and the WAEMU in Accra in November 2003 to reach a consensus among the ECOWAS member states on the scope of the newly born Transport and Trade Facilitation Program and agreeing on an action plan to continue its preparation. The workshop defined the program objectives as the improvement of the competitiveness of the ECOWAS member countries' economies through (a) removal of nontariff barriers and (b) reduction of transport costs. This was to be achieved through a combination of soft and hard measures, including

- (a) **hard infrastructure measures** to improve the physical connectivity and levels of service, particularly in ports and road corridors; and
- (b) **soft facilitation measures** to (i) simplify and harmonize transit procedures; (ii) facilitate cross-border movements through JBPs; (iii) modernize information systems and facilitate information flow; and (iv) mitigate the social and environmental impacts of transit traffic (HIV/AIDS prevention, environmental action plan, and road safety).

23. There was a consensus in the outcomes of the workshop across participants from the ECOWAS member countries; donor audience (EU, AfDB, United States Agency for International Development [USAID], AFD); and the Association of West African Transporters (UTRAO) representing the private sector. Given the high consensus and demand for the program, the Bank mobilized its team to identify opportunities for support, and a Concept Note was prepared for a project that would contribute to one or more of the identified corridors, giving birth to the WATTFP.

24. This identification process lasted over two years, requiring substantial Bank resources for support and monitoring to ensure strong ownership around the ECOWAS/WAEMU program, to which it intended to contribute. The contribution of key program sponsors and stakeholders from the Regional Economic Communities (REC), Regional Member Countries, private sector, and civil society was of paramount importance and a warrant of the recipients' ownership.

Project Design and Quality at Entry

25. **Definition of the project target Corridor.** Historically the Abidjan-Ouagadougou-Bamako corridor was the main sea access corridor for Burkina Faso and one of the main corridors

for Mali together with the Dakar-Bamako corridor. In light of the deteriorating security situation in Côte d'Ivoire for more than a decade, there has been a major shift in transit patterns to other competing gateway corridors in the subregion. This was the case for Burkina Faso, Mali, and Niger, who, wanting to decrease transport costs and enhance transit security and reliability, had diversified to the Ghanaian ports.

26. While the priority of providing access to sea gateways for the landlocked countries of Burkina Faso and Mali is undoubtedly high, the rationale for the Bank's final selection of the Tema-Ouagadougou-Bamako Corridor is not clear. Notwithstanding, the argument of the deteriorating security situation in Côte d'Ivoire and the expected spin-off increase in trade along the improved Burkina Faso-Mali section of the Corridor, the rationale prioritizing this corridor was thinly substantiated in the PAD. The latter argues that the project has selected what is perceived to be the highest priority Corridor, while the low Corridor traffic volumes at the time of appraisal—despite the temporary unattractiveness of the competing Abidjan gateway—should have raised questions on its priority for investment, as well as the sustainability of this once security resumes in the Ivorian territory. In addition, as far as access to sea gateways is concerned, Mali already had good road access to the Dakar Port and would have better benefited from the improvement of the Dakar-Bamako rail services while Burkina Faso benefited from improvement to the Ouagadougou-Lomé road corridor, the latter being also a WAEMU member country.

27. In addition, the security problem in the subregion has been chronic for most transport corridors. The Bank approach, which consists of avoiding the intuitively most economically viable corridor for investment on the ground of security concerns, assumes that the security problems would not spread to competing corridors, as turned out to be the case in all corridors serving Mali and Burkina Faso in the aftermath of the political turmoil in these two countries. Investments in fragile zones could have been a factor for bringing back stability through better governance, socioeconomic prosperity, and employment.

28. **Setting of project objectives.** The PAD argues that considering the political, fiscal, and trade regime obstacles to be overcome, it is unlikely that all border controls will be eliminated in the foreseeable future. Accordingly, the project objectives were refocused on streamlining the existing border and transit procedures rather than on their elimination.

29. Such a pragmatic approach has its merits in light of past Bank regional projects' experience and the implementation challenges they entailed. However, it could have seized the opportunity to leverage the Bank's bargaining power in pressuring the participating countries to operationalize the already agreed and ratified WAEMU facilitation measures (tracking system, single guarantee system, seamless border crossing, and so on). Instead the Project Facilitation component was designed to procure equipment and trainings activities of the Facilitation component and has somewhat overlooked the need for raising the recipients' awareness on the importance of implementing and operationalizing the ratified regional protocols to achieve ultimate results.

30. **Project preparation schedule.** As shown in section 2.1.1, the project was first identified toward the end of 2002 and the Concept Note was cleared one year later (end of 2003). However, it took another four-and-a-half years for the project to be approved. While it is understandable that ample time may have been needed for the preparation and coordination of such a highly complex regional operation involving three countries and various agencies within each country, the

economic and social opportunity costs of such delays is high for the two landlocked countries of Burkina Faso and Mali.

31. **Project scope design.** Considering the linguistic and institutional disparities between the gateway country of Ghana on the one hand and the two landlocked countries of Burkina Faso and Mali on the other hand, it would have been more prudent to test the feasibility of such a complex pilot or showcase the project with a more homogenous set of participating countries. In particular, the regional Facilitation components (such as the interconnection of custom systems and exchange of information, the corridor tracking system, and the harmonized transit procedures and documents) would require a substantial amount of coordination and concertation among the recipient countries, for which language is a major barrier.

32. The PAD stipulates that the project was designed as a multinational operation, as the country-by-country approach was already attempted and proved unsuccessful in West Africa due to the need for strong regional framework to resolve transit issues in an integrated fashion. However, the document does not discuss the rationale of having a multinational project (a combination of three national projects) managed separately by each country versus having a single—truly regional—project managed by a regional institution, with the option of providing TA to the latter when necessary. ECOWAS for that matter has on-the ground experience in transit facilitation and could have better managed the underlying activities that require a substantial amount of coordination and concertation among the participating countries that a supranational institution is best placed to handle.

33. The project, by design, has combined the Infrastructure components with short implementation span and immediate outcome yields, with the Facilitation components that are politically (security threat) and financially (customs duties accounting for a major part of state revenues) sensitive, often requiring behavioral and work practices change, and therefore need a much longer time to implement and to generate benefits. This has created a major challenge for the planning of project activities and the overall project duration and has resulted in varied implementation successes, as shown in the next sections of the ICR.

Design of Project Institutional and Implementation Arrangements

34. The design of the project institutional framework was pragmatic and robust. When possible, it made use of already established entities at both the regional and national levels and had reached out, through the focal points, to all government agencies relevant to the project activities.

35. Considering the regional nature of the project, the adopted two-tier implementation coordination arrangement, involving both regional and national institutions, is sound and optimal.

36. **Regional coordination.** At the regional level, the overall coordination of the WATTFP and the other parallel projects under the RP-I Program was carried out by the WAEMU through its Department of Community Territorial Development, Infrastructure, Transport, and Telecommunications. In addition, specifically for the WATTFP, a Joint Technical Committee made up of representatives of the relevant national implementing agencies in each of the three countries was set up to enable coordination between all key stakeholders involved in the WATTFP.

37. **National coordination.** At the national level, the WATTFP implementation relied on established coordination units, or existing government structures, to simplify fiduciary accountability. More specifically, the following implementation arrangements were adopted in each of the three participating countries.

38. **Burkina Faso and Mali.** Established Project Coordination Units (PCUs) were renewed in their overall coordination and supervision role of the Burkina Faso and Mali components of the project as well as the fiduciary activities related to their implementation, including (a) consolidating the annual implementation programs and budgets; (b) monitoring the implementation of all project-related activities; (c) producing periodic implementation reports; (d) maintaining records and accounts for all transactions related to the PCUs; (e) preparing consolidated annual financial statements and Implementation Financial Reports; (f) managing disbursements for components under its responsibility and replenishment applications for the special account; and (g) monitoring and evaluation (M&V) of the various activities supported under the proposed project.

39. For the implementation, relevant government agencies in charge of roads, customs, and land transportation were identified as the implementing agency for each project activity.

40. **Ghana.** The implementation was mainstreamed within the Ministry of Transport (MOT). A three-tier project implementation framework was adopted, including (a) one Inter-ministerial Steering Committee (IMSC); (b) one Project Implementation Team (PIT); and (c) three Agency Implementation Teams (AITs). The IMSC included officials from the MOT, Ministry of Harbors and Railways (MHR), and MOFEP, as well as the Ghana Highways Authority (GHA), Ghana Port and Harbor Authority (GPHA), and Customs and Excise Preventive Service (CEPS), and was responsible for policy guidance and overall project oversight, communication, and cooperation among stakeholders (including road users). The MOT was responsible for the overall coordination of the Ghanaian project subcomponents, including (a) coordinating the procurement process for the services, goods, and works component; (b) ensuring that the agreed implementation schedules are followed by the AITs; (c) reviewing all technical and financial reports received by the agencies from consultants and contractors working under the project; (d) providing overall management of the project financial accounts; (e) arranging annual independent technical audits of the Ghanaian component of the project; and (f) preparing and distributing aggregated biannual reports.

41. Overall, the adopted institutional and monitoring arrangement is sound and robust even if regarding efficiency, it could have been further optimized to reduce project implementation costs.

42. While the use of PCUs and focal points in Burkina Faso and Mali could explain the higher overall implementation performance, Ghana scores higher on efficiency (costs of implementation) as well as the sustainability of the capacity developed through the implementation of the project.

43. **Incorporation of lessons from past Bank operations.** Based on lessons learned from earlier Bank operations, the PAD identified the following critical conditions of paramount importance for successful multicountry operations: (a) the symmetry in involved countries' interests and (b) the realism in project objectives' definition, considering the national and regional capacities to effectively deal with the implementation and coordination challenges in multinational operations. These conditions were then reflected in the project design by (a) simplifying the project

objectives, design, and components; (b) anchoring the project objectives to those of the RP-I Program; (c) undertaking early and comprehensive preparation of engineering, social, environmental, and institutional aspects to ensure quality at entry; (d) conducting extensive consultations with key stakeholders who were critical to enhance ownership; and (e) developing a robust and sustainable M&V framework.

44. The ICR commends the project preparation team for the substantial efforts deployed to distill lessons and best practices from Bank past operations, hence the soundness of the adopted approach.

2.2 Implementation

45. Overall, the project implementation schedule deviated from the appraisal forecasts, with an accelerated pace toward the end of the project. The implementation achievements also varied among the three participating countries as well as across the project activities. Those variations were the result of several factors, both internal and external to the project, among which the key ones are the following:

- **The project design.** As a multinational operation versus a true regional operation, the project has suffered coordination problems among the three implementing agencies. This has particularly affected the implementation of the Facilitation components of the project.
- **The asymmetry of stakes.** The three project participating countries do not share the same level of ownership and did not perceive symmetric project incentives, with Ghana (having free access to sea ports) being the weak link as illustrated in its relatively poorer implementation performance.
- **The lack of enforcement of the least attractive components.** The project did not link the Bank financing or disbursement of funds to any conditionality on the implementation of the more painful Facilitation components. The investments on physical infrastructure, often attractive to the participating countries, were not conditional to the implementation and operationalization of the Facilitation components.
- **The political instability in the region.** Political instability, resulting in deteriorated governance and administration performance as well as the rise of insecurity, has greatly affected the project implementation.

46. Overall, the project activities in Burkina Faso have achieved the highest implementation performance ranking despite the 2014 sociopolitical apprising. While in Mali the military coup and the subsequent instability and insecurity are to blame, in the case of Ghana the unsatisfactory project implementation performance could only be attributed to three factors that are intrinsically linked to the project design: (a) weak project ownership; (b) the lack of urgency or incentives to deliver (being a coastal country not much dependent on the corridor); and (c) the lack of awareness of the project's potential economic spinoffs such as increase in port and transit revenues, passing-

by trade for corridor local communities, and the scaling-up of trade and economic integration with neighboring countries.

47. The adopted project institutional structure has catalyzed the satisfactory implementation of the rather classical civil work activities, albeit with varying degrees of success. However, there are mixed results among the three participating countries on the implementation of the national facilitation activities and an overall unsatisfactory operationalization of some key outputs such as the tracking system and the related removal of escort fees and the interconnection of custom systems. The following is a summary of key implementation issues pertaining to each of the participating country:

- **Burkina Faso Component**

- (a) **Civil works activities.** The rehabilitation of the Ouagadougou-Sakoinsé road section was completed by mid-2013 with a one-year delay due to late mobilization of the contractor on site. Contractual delays penalty was applied by the government of Burkina Faso (GBF) toward the end of the contract original closing date and has proved effective in improving the contractor's performance and in expediting the works implementation. For the two rest stop areas at Sabou and Pâ, works were completed by the end of 2012; however, the two areas remain nonoperational as of December 2015 due to nonfinalized operational handover modalities to the local authorities. The Bank was informed that operation is expected to begin before end of June 2016.
- (b) **Facilitation activities.** The implementation of the facilitation activities was mostly complete. By December 2015, the interconnection of the custom systems with the neighboring countries of Ghana and Mali was established but no data exchanged yet. It is expected that real-time data exchange will begin before the end of March 2016. As of December 2015, the migration to the Sydonia system for all custom clearance offices was complete. For the cargo tracking system, the Burkinabé authorities have opted for a different system from Ghana, which defies the purpose of reducing the delays and costs burden to transit trucks. As of December 2015, the national system is operational on the Paga-Ouagadougou section, and the Ouagadougou-Koloko section is expected to become operational by the end of June 2016.

- **Mali Component**

- (a) **Civil works activities.** The implementation of the civil works in Mali was completed with delays due to the following reasons: (a) the need to revise the designs of the Faladié (Bamako) dry port modernization to fit within the budgeted envelope and the need for the GOM to mobilize additional funding to allow for the additional costs of upgrading the pavement design standards for the Sikasso-Heremakono road rehabilitation works and (b) the insecurity and political instability events during January 2012 to August 2013.
- (b) **Facilitation activities.** Mali has completed, with delays, some of the facilitation activities, including the establishment of interconnection of customs systems, training, procurement of goods, and equipment. As of December 2015, it had not yet begun the

exchange of real-time data with counterparts, which is expected to be achieved before the end of March 2016. For the tracking system, the Malian authorities have opted for the deployment of an in-house system, which has been in pilot phase for few years, with no indication on when this will be operational.

- **Ghana Component**

- (a) **Civil works activities.** Works for the rehabilitation of the Buiepe-Tamale road section were completed with delays due to procurement issues. The construction of the two rest stops incurred substantial delays due to nonavailability of design studies, which were carried out during the project implementation and took longer than expected. Consequently, at the time of project closure, the works for the two rest stops were half complete and the latest estimate, as of December 2015, is to complete and put them in service by June 2016. The STTV was originally planned to be constructed near the Aishaman interchange, which turned out to be a costly option requiring additional funding that the GOG was not able to raise. Consequently, it was decided to improve or upgrade the existing transit yard adjacent to the Tema Port.
- (b) **Facilitation activities.** The implementation of the Ghana facilitation activities, including the procurement of patrol vehicles, training, and equipment was completed by 2012. Furthermore, as part of the RP-I Program, Ghana has already introduced a fully operational self-financing cargo tracking system on its portion of the Corridor. The interconnection of its customs management system with that of the other two participating countries is established and real-time data is expected to be exchanged starting March 2016.

48. **Key outcomes of the project midterm review (MTR).** The project MTR was undertaken during the Bank's seventh supervision mission in November 2011, just over three years after the project effectiveness date and two-and-a-half years before the original completion date. A thorough consultation with the various project stakeholders was undertaken, which concluded that the original PDOs were still relevant and attainable before the project completion date of March 2014. The mission also carried out a detailed review of the project progress and concluded the following:

- **Burkina Component**

- (a) The project had disbursed 56 percent of funds against the 95 percent committed. The MTR argued that despite the already recorded implementation delays on both the Physical and Facilitation components, the remaining project activities were still relevant to the achievement of its development goals.
- (b) Corridor road infrastructure improvement component. All planned activities were already in progress, with the rehabilitation works of the Ouaga-Sakoinsé section achieving 27 percent progress against 85 percent of time elapsed, thus incurring eight months delay.

(c) Transport and Transit Facilitation component. Much of the planned activities were almost achieved, except for the activities relevant to the implementation of the tracking system, which incurred substantial delays. The MTR urged the GBF to use part of the noncommitted funds for additional facilitation activities, in coherence with the project objectives.

- **Ghana Component**

(a) The MTR noted that implementation of the Ghana component continued to remain behind schedule (at the time of the MTR, the project had disbursed 16 percent of funds against the 69 percent committed) due to (a) delays in the mobilization of the contractor on the Buipe-Tamale road rehabilitation works; (b) delays in the selection of consultant services to design and supervise the construction of four rest stops/intervening stations on the Ghana portion of the Corridor and to design the STTV near the Port of Tema; (c) finalization of the land acquisition process to build the two rest stops and rest stop/intervening stations on the Ghanaian portion of the Corridor; and (d) delays in the interface of the customs management systems.

(b) Consequently, it was agreed that while the overall project implementation progress rating remains Moderately Satisfactory, the specific rating for the Ghana component was to be downgraded from Moderately Satisfactory to Moderately Unsatisfactory.

- **Mali Component**

(a) Notwithstanding the implementation delays (disbursed 25 percent of funds against the 37 percent committed), the MTR mission recorded substantial implementation progress since the previous supervision mission because of the Project Action Plan that was put in place. The mission consequently raised the project implementation rating from Moderately Unsatisfactory to Moderately Satisfactory.

- **Impacts of the MTR**

(a) The MTR was thorough and identified key risks of the project meeting its deliverables, particularly relating to delays. The measures resulting from the review were overly focused on resolving delays in the Component 1 activities and have somehow undermined the risks due to slippages in the Component 2 activities. Consequently, at the project closure, all activities under Component 1 were complete (except for the two rest stop areas in Ghana, which were underway), while little progress was made in the outstanding Component 2 activities.

(b) The two major political and security events in Mali and Burkina Faso have contributed considerably to the overall project delays. However, these have occurred post the MTR and could therefore not benefit from its recommendations.

2.3 Effects of the Project Restructuring

49. As stated in section 1, the project objectives and components as well as the related indicators have not changed over the course of the project. The two significant changes to the

project concerned (a) the reallocation of the Ghana Credit proceeds and the increase of financing parameters and (b) the extension of the project closing date. The effects of those changes are summarized below.

50. **Reallocation of Credit proceeds and increase of financing parameters.** One year after the work order was issued, the Bank mission of August 2012 recorded very limited physical progress in the Buipe-Tamale road rehabilitation contract (physical progress was about 2.5 percent against an original work program target of about 29 percent). A subsequent Bank supervision mission, nine months later, around the time of Bank approval of the reallocation of the Ghana Credit proceeds, found that the contractor had already achieved a substantial physical progress of about 40 percent, albeit below the revised work program of 56 percent agreed. As performance improvement had begun well before the reallocation of the Ghana Credit proceeds, it is difficult to draw any causal relationship between the two events. However, the Bank’s August 2012 mission’s aide memoire and management letter that followed, urged the GOG to use contractual remedial measures to expedite the contract execution, which may partly explain the implementation performance improvement.

51. **Extension of the project closing date from March 31, 2014 to June 30, 2015.** The project implementation had substantially improved during the 18 months preceding the project original closing date despite the effective suspension of the project activities in Mali for about 11 months in the aftermath of the political crisis of March 2012. The improved implementation performance translated into total disbursements of about US\$65 million over that period against total cumulative disbursements since the Board project approval (June 2008) of around US\$80 million, lifting the overall disbursed amount at the original project closure date to US\$145 million. Delays in the kick-off of the civil works in Ghana and Mali and the slower than expected implementation of the facilitation activities in the three countries meant that some of the project activities and outcomes could not be completed and achieved by the initial closing date of March 31, 2014.

52. As shown in table 2, in February 2014, one month before original closing date, the project had disbursed 73.6 percent and committed 96.9 percent of the funds. By the new project closing date (June 30, 2015), the project had achieved a total disbursement of 95.6 percent.

Table 2. Disbursements

Disbursement Rates	Total IDA Loan (SDR millions)	By Feb-14		By Jun-15	
		IDA (SDR millions)	%	IDA (SDR millions)	%
Mali	24.60	14.98	60.9	23.78	96.7
Burkina Faso	43.00	40.46	94.1	43.00	100.0
Ghana	49.10	36.14	73.6	44.84	91.3
Total	116.7	91.58	78.5	111.62	95.6

53. Hence, the 15-month extension enabled the disbursement of an additional 17.2 percent of the IDA funds (or 13.7 percent yearly). While this rate is lower than what was achieved during the 18 months preceding the extension of the original project closing date, the results were

nevertheless encouraging and showed an overall beneficial impact of the extension on the project physical implementation and the disbursement of all the funds committed at the original closing date.

54. However, when assessing the impact of the extension on the project Facilitation component, the results are less assertive as most of the related outcomes are yet to be achieved, including (a) the operationalization of the real-time exchange of data between the customs systems; (b) the operational cargo tracking system along the entire Corridor; (c) the reduction in the number of road fatalities along the Corridor; and (d) the removal of the multiple transit trucks checkpoints.

55. **Use of contractual remedial measures.** The rehabilitation of the Ouagadougou-Sakoinsé road section incurred a one-year delay due to late mobilization of the contractor on site. Consequently, contractual delays penalty clauses were applied by the GBF toward the end of the contract original closing date, which proved effective in expediting the works implementation and curbing the delays. Similarly, following limited physical progress in the Buipe-Tamale road rehabilitation contract, one year after the work order confirmation letter was issued, the application delays penalties proved effective in expediting the works implementation.

2.4 Monitoring and Evaluation Design, Implementation, and Utilization

M&E Design

56. To ensure an effective M&E of the project results and outcomes, an institutional arrangement and a measurement framework were put in place in each of the participating countries, while the WAEMU was responsible for the monitoring of the overall RP-I Program that the project supports.

57. The internal monitoring assessing the efficiency in the project internal processes was conducted through the issuing of six-monthly and annual progress reports. The external monitoring covered the whole of the Tema-Ouagadougou-Bamako Corridor and was funded under the Credits of Burkina Faso, Mali, and Ghana, the results of which were made available to the project stakeholders and the general public.

58. The assessment of the project results and outcomes was carried out against the original appraisal baseline data, using a set of project monitoring indicators. For the Facilitation component, particular emphasis was put on monitoring the number of roadblocks along the Corridor, for which the baseline data was drawn from the comprehensive 2006/2007 West Africa Trade Hub funded survey. Other indicators monitored included (a) the number of formal and informal controls on traffic movements; (b) time spent at each checkpoint and its impact on journey times; (c) the number of stopovers that may be avoided; (d) the number of road accidents along the corridor; (e) the overall cargo transit time between Tema and the origin/final destination. In addition, two qualitative user satisfaction surveys were carried out three months before the project MTE and at the project closing date.

59. Considering the PDO of “improving access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitating the efficient movement of traffic along the Tema-Ouagadougou-Bamako road transport corridor”, the indicators were closely correlated to the project objectives and provided a good measure of the achievement.

60. However, the PDO and M&E indicators overlooked the assessment of the increment in the transit cost due to illicit levies that often accounts for an important part of the commodities transport costs component and therefore on the final price to consumers and its affordability. In Sub-Saharan Africa, this component alone accounts for one-third of the transport costs and is as harmful to the trade as the time delays and should have been monitored by the project.

61. Data collection for the various indicators relied on robust and reliable sources such as (a) the customs and the GPHA for the port and border transit data; (b) the three countries' roads and highways authorities for traffic data; (c) the police patrol for accident and fatalities data; and (d) the three countries' MOTs, West Africa Trade Hub, ECOWAS, and WAEMU transport of freight forwarders' associations for the user satisfaction surveys.

M&E Utilization

62. To the extent that the monitoring was mainly directed to measure the attainment of the project results and outcomes, the review of the project missions' aide memoires, management letters, and email correspondence found that this was seldom used during the project life to either inform recipients, raise their attention, or urge them to improve on results'/outcomes' shortcomings such as the reduction of customs fixed checkpoints in both Mali and Ghana. Instead, the Bank focus was mainly on the implementation of the project activities (disbursements and commitments), which was the main motivation for the two changes implemented during the life of the project (extension of the project duration and the increase in the financing parameters for the Ghana component).

63. In addition, as the M&E was funded through the project resources, it is unlikely that the recipient countries will continue to use it beyond the project closure date, as this requires commitment to fund the costs of dedicated staff time and data collection, which is hard to sustain under the countries' budgeting systems.

2.5 Safeguard and Fiduciary Compliance

Safeguard Compliance

64. The economic activities in the project impact area are predominantly agriculture and livestock farming, heavily relying on the Corridor for their access to markets, which should benefit from the transit and trade facilitation and the safety improvement.

65. The project was assigned an Environmental Screening Category B for limited adverse environmental or social impacts since the road sections to be rehabilitated do not traverse any environmentally sensitive areas. As road realignments were not necessary, OP 4.12 - Involuntary Resettlement was triggered only for minor land acquisition or loss of income due to road rehabilitation or the construction of the rest stops works.

66. The project was also designed to benefit women and other vulnerable groups (children, elderly, and poor) by enhancing their mobility and access needs to basic social services (health, schools, administration) and markets. In addition, the project included mitigation measures for adverse project gender impacts from transit traffic on regional corridors, especially at borders and at truck rest stop areas, aiming to reduce infection and transmission risks.

Table 3. Safeguard Policies Triggered by the Project

Policy	Yes	No
Environmental Assessment (OP/BP/GP 4.01)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Natural Habitats (OP/BP 4.04)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Pest Management (OP 4.09)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Cultural Property (OPN 11.03, being revised as OP 4.11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Involuntary Resettlement (OP/BP 4.12)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Indigenous Peoples (OD 4.20, being revised as OP 4.10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Forests (OP/BP 4.36)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Safety of Dams (OP/BP 4.37)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects in Disputed Areas (OP/BP/GP 7.60)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Projects on International Waterways (OP/BP/GP 7.50)	<input type="checkbox"/>	<input checked="" type="checkbox"/>

67. The ICR review has found that the compensations were fully carried out, albeit with delays. Particularly in Burkina Faso, the works contract was signed while the compensations were still ongoing. In Ghana, the increase in the financing parameters helped expedite the resettlement and compensation that were originally budgeted under the counterpart funding resources. In the case of Mali, involuntary resettlements were made for seven households. The compensations were fully financed from the counterpart funding resources.

Fiduciary Compliance

68. Despite the large number of regional and multicountry implementing agencies, the project experienced no major fiduciary issues. This was due to the extensive experience with IDA procurement and financial management standards that all three implementing agencies have gained over the past IDA financing. The project preparation process thoroughly assessed the agencies' capacities and found it satisfactory. In the case of Mali, the Bank had provided some assistance to the Project Implementation Unit in preparing bid evaluation reports according to the Bank standards.

2.6 Post-completion Operation/Next Phase

69. As mentioned, as of December 2015, a number of project activities were ongoing.

- **Burkina Faso**

- (a) **Civil works activities**

- (i) The two rest stops at Sabou and Pâ were completed by the end of 2012 but remain nonoperational due to nonfinalized handover operational modalities to the local authorities. A follow-up with the GBF is crucial to ensure that this does not become a 'white elephant'.

- (b) **Facilitation activities**

- (i) The interconnection of the custom systems with the neighboring countries of Ghana and Mali was established but is yet to become operational with real-time data exchange.

- (ii) The cargo tracking system in Burkina Faso is operational only on the Paga-Ouagadougou section and is in the process of being extended to the remaining section. In addition, the system in place is different from those of Mali and Ghana, requiring truck operators to switch transmitters at every border crossing, with the consequent costs and burden of delays.

- **Mali**

- (a) **Civil works activities**

- (i) The modernization of the Faladié (Bamako) dry port was complete though the facility is not operational yet.

- (b) **Facilitation activities**

- (i) The interconnection of the customs system with Burkina Faso was established but is yet to become operational with real-time data exchange.
 - (ii) The in-house designed tracking system was still at the testing phase and not yet operational.

- **Ghana**

- (a) **Civil works activities**

- (i) The construction of the two rest stops is in progress and is estimated to be complete by mid-2016.

- (b) **Facilitation activities**

- (i) The interconnection of the Ghanaian customs system with that of their counterparts is achieved; however, real-time data exchange has not yet started.

70. For all three countries, the maintenance of the constructed physical assets as well as the procured equipment was not part of the project scope or covenants. Considering the endemic under-maintenance in all three countries, there is a high risk to the sustainability of the investments made unless an efficient budgetary mechanism is put in place together with the appropriate implementation capacity. Given the seven years duration of the project implementation, this would have allowed for an Output Performance-based Contract to be built into its scope, which could have warranted the assets maintenance over the seven years as well as building the necessary capacity and awareness for continued maintenance post completion.

71. In addition, for the Tema-Ouagadougou-Bamako Corridor to operate efficiently, an institutional framework (for example, Corridor authority) will need to be established with the appropriate legal instruments, mission statement, and operational capacity (staffing, budgeting, and Corridor statistics observatory).

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design, and Implementation

72. The PDO is to improve access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema-Ouagadougou-Bamako road transport corridor (the ‘Corridor’).

73. As the PDO’s main focus is on improving the sea access to the two participating countries of Burkina Faso and Mali (with potential spin-offs for Ghana), the assessment of its relevance was therefore measured against its consistency with these two countries’ development priorities. The latter are laid out in the countries’ national development strategies; the REC, ECOWAS, and WAEMU regional integration strategies; and the Bank’s ongoing country and sectoral assistance strategies (echoing the institution’s overall corporate twin goals).

Burkina Faso

74. The country’s overarching development strategy is the 2011–2015 Accelerated Growth and Sustainable Development Strategy (*Stratégie de croissance accélérée et de développement durable*), with the objective of “developing strong economic growth that is inclusive and jobs creating, while being environmentally sustainable.” The strategy evolves around four key areas:

- (a) Accelerate economic growth and productivity, through high value-added industries and services.
- (b) Create jobs and employment through the development of human capital and social protection (access to basic social services such as education, training, health, social protection, urbanization).
- (c) Enhance economic, political, and administrative governance, including at the local government level.
- (d) Emphasize the crosscutting safeguards in the development policies and programs, particularly for gender empowerment, spatial planning, and the green economy.

75. The Bank’s 2013–2016 Country Partnership Strategy (CPS) for Burkina Faso has identified the following three key strategic objectives to pursue:

- (a) **Strategic objective 1.** Accelerate inclusive and sustained economic growth through building up of solid revenue base, maintaining fiscal discipline, investing in productive skills development and infrastructure, and engaging women as well as men into a more active role in the economy. The CPS also proposes to (i) help the country diversify its sources of growth and create value chains; (ii) enhance the business environment to stimulate competitiveness, productivity, and employment, especially in agriculture to increase the incomes of small farmers and rural women; and (iii) improve access to energy, transport, and ICT.

- (b) **Strategic objective 2.** Enhance governance to deliver social services more efficiently. The CPS proposes to support vigorous implementation of programs designed to improve access by the poor to quality basic social services (health, education, and drinking water), with particular attention to equal access to services for women.
- (c) **Strategic objective 3.** Reduce social, economic, and environmental vulnerabilities through sector- and gender-specific measures such as social safety net programs and greater agricultural productivity to ensure food security. The CPS proposes to work with the government to mitigate the impact of climate hazards adaptation and mitigation measures to climate change and early warning and response systems.

76. As shown, the country's ongoing development strategy aims to enhance economic growth through moving its industry up the value chain ladder. A crucial catalyst to this is a reliable, efficient, and cost-effective transport and logistics system that supports the overall competitiveness of the country's industry. This includes the access to sea gateways such as Tema. In addition, the upgrade of the customs system will reduce illicit levying and enhance the GBF governance and revenue collection mechanisms.

77. As for the Bank, the CPS's first strategic objective highlights the importance of infrastructure, being one of the project's main deliverables, in increasing productivity and accelerating inclusive and sustainable economic growth. It also emphasizes agriculture and access to markets as the main income generator for the rural population as an effective and sustainable mean to end poverty. The project was also designed to support better governance and accountability of the police, customs, and transport authorities in the country, which reduces transport money and time costs while improving reliability.

78. Hence, the PDO remains relevant to both the Bank and the country's current national development priorities.

Mali

79. Due to the recent insecurity and political fragility in Mali, most post-conflict focus has been on national reconciliation and peace consolidation. The country's new midterm development strategy is yet to be prepared, however a short-term Mali Sustainable Recovery Plan (*Plan pour la Relance Durable du Mali*, MSRP) is already in place for the post-crisis transition period 2013–14. The plan identifies a number of immediate country priorities, among which the following two are relevant to the WATTFP, that were also reflected in the country Poverty Reduction Strategy Paper for the same period:

- Support the income-generating activities for the poor, such as high labor intensity construction or rehabilitation works of rural roads and damaged public buildings.
- Support the increase in affordable food production through lower transport costs and a large irrigation program.

80. The WATTFP, through the reduction of transport costs along one of the country's key import corridors, will contribute to production and provision of affordable food as well as better

access and revenue generation for the rural populations along the Corridor. Hence, this is highly relevant to the MSRP.

81. For the Bank, an Interim Strategy Note (ISN) was developed in 2013 for the period 2014–15, followed by a Systematic Country Diagnostic in 2015 focusing on poverty reduction. The ISN proposed three priority areas for the two years, aimed at creating short-term stability and laying the foundations of a lasting peace.

- (a) Laying the foundations for long-term accountability and stability
- (b) Protecting human capital and building resilience
- (c) Preparing the conditions for economic recovery

82. The WATTFP is highly relevant to the Bank ISN, particularly on its first and third priority areas:

- (a) Under the first priority area, the WATTFP will contribute to enhancing governance and accountability through better surveillance and optimal monitoring of transit traffic.
- (b) Under the third priority area, the WATTFP, through a more reliable and secure Corridor, with lower transport costs, will contribute to the country's attractiveness for investments, which is much needed for faster economic recovery and employment generation for the growing population. In addition, it will help diversify the country's sources of export and tax revenue, which currently largely hinges on the gold and the cotton industries, into new sources of growth, such as the agribusiness, and the construction sector.

83. Finally, the project fully supports the West Africa Regional Integration Strategy led by both ECOWAS and the WAEMU, where transport and transit facilitation is one of its main pillars and a pre-condition for the development of intra-regional trade and market integration.

84. Consequently, the relevance of the PDO to the achievement of the country, Bank, and global development objectives is High despite the numerous political and security problems that the region endured over the last five years of the project implementation.

85. **Relevance of the project design.** The relevance is measured against the PDO that it intends to achieve. As detailed under section 3.2, the achievement of the PDO outcomes was only contingent upon the successful implementation of Component 1 and some of the Component 2 activities, which was enough to achieve the 20 percent reduction in cargo transit time and 20 percent improvement in reliability.

86. In addition, considering the importance of the transport costs component of the imported commodities prices in West Africa, it would have been reasonable to consider, as an additional objective under the PDO, a target reduction in the Corridor transit money costs that is currently lawfully (escort costs, broker costs, multiple tracking costs, multiple guarantee costs, and so on) and unlawfully (informal and illicit levying) extracted from transiting trucks.

87. Considering the above, relevance of the project design is rated Moderate.
88. In conclusion, the overall relevance of objectives, design, and implementation is rated Significant.

3.2 Achievement of Project Development Objectives

89. The extent to which the project achieved the PDOs is measured through
- (a) the level of achievement of the PDO (magnitude); and
 - (b) the contribution of the project outputs to achieving those PDO outcomes (causality and attribution).
90. **Level of achievement of the PDO (magnitude).** As part of the WATTFP M&V framework, a set of primary and intermediate outcome indicators were designed to measure the PDO levels of achievement.
91. **Primary outcome indicators.** Directly measuring the achievement of the PDO of “improving access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema-Ouagadougou- Bamako road transport corridor”:
- (a) Average transit time for containerized imports from the exit at the Port of Tema (Ghana) to Ouagadougou (Burkina Faso) and to Bamako (Mali) is reduced by 20 percent.
 - (b) Variance in transit time for containerized imports from the exit at the Port of Tema to Ouagadougou and to Bamako is reduced by 20 percent.
92. **Intermediate outcome indicators.** Measuring the outputs of the implementation of either project activities or of actions (outside the project scope) that the recipient countries have committed to:
- (a) Percentage of the Corridor road in good condition (IRI < 4.5) improved
 - from 50 percent to 75 percent on the Tema (Ghana)-Paga (Ghana)-Ouagadougou sections; and
 - from 40 percent to 60 percent on the Heremakono (Mali)-Bamako section.
 - (b) Number of fixed customs checkpoints (excluding at borders) on the Corridor decreased
 - from 6 to 2 in Ghana; and
 - from 4 to 1 in Mali.
 - (c) Border crossing time has decreased

- from 5 hours to 4 hours at Paga (Ghana/Burkina) and Dakola (Burkina/Ghana); and
- from 4 hours to 3 hours at Koloko (Burkina/Mali) and Heremakono (Mali/Burkina Faso).

(d) Truck tracking system operating over the entire Corridor length.

(e) Truck dwell time at the STTV in Tema has decreased from 48 hours to 24 hours.

93. As shown in Table 4, the project has successfully achieved and exceeded the primary outcome targets. This is a very fortunate project achievement considering the unfavorable political and security circumstances that the project direct beneficiaries, namely the two landlocked countries of Burkina Faso and Mali, have both endured during the last three years of the project implementation period.

Table 4. PDO Primary and Intermediate Outcome Indicators

PDO Indicator	Reference Year (2008)	Yearly Project Achievement and Indicator Target Value							
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	June 2015	Target at End of Project
Primary Outcome Indicators									
Average transit time for containerized imports from Tema Port exit to Ouagadougou reduced by 20%	7 days	7 days	7 days	6.5 days	7 days	5.6 days	6 days	5.6 days	5.6 days
Average transit time for containerized imports from Tema Port exit to Bamako reduced by 20%	15 days	7 days	7 days	7 days	12 days	6 days	6 days	5.6 days	12 days
Tema Port-Ouagadougou transit time variation reduced by 20%	3 days	3 days	3 days	3 days	4 days	2.4 days	2.4 days	2.4 days	2.4 days
Tema Port-Bamako transit time variation reduced by 20%	6 days	3 days	3 days	3 days	3 days	3 days	3 days	3 days	4.8 days
Intermediate Outcome Indicators									
Component 1 (Corridor road infrastructure improvement)									
(a) Percentage of road in good condition on the Tema-Ouagadougou section of the Corridor	50	50	55	55	56	56	64	75	75
▪ Section Dakola-Ouagadougou		0	15	15	100	100	100	100	
(b) Percentage of road in good condition on the Ouagadougou-Bamako section of the Corridor	40.00	54.01*	54.01	61.33	61.33	82.89	85.36	85.36	60
▪ Section Ouagadougou-Bobo Dioulasso		61	61	61	61	61	61	100	
▪ Section Bobo Dioulasso-Koloko		0	0	0	0	0	0	0	
▪ Section Koloko-Bamako		73.57	73.57	89.40	89.40	93.06	98.42	98.42	
Component 2 (Corridor transport and transit facilitation measures)									
(a) Number of fixed customs checkpoints (excluding at borders)	10	11	11	11	11	11	11	11	3

PDO Indicator	Reference Year (2008)	Yearly Project Achievement and Indicator Target Value							
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	June 2015	Target at End of Project
▪ Ghana	6	5	5	5	5	5	5	5	2
▪ Mali	4	6	6	6	6	6	6	6	1
(b) Border crossing time at Paga Post (Ghana/Burkina Faso)	5 hr	5 hr	5 hr	4 hr 30 min	6 hr	3 hr 45 min	3 hr 45 min	3 hr 45 min	4 hr
(c) Border crossing time at Heremakono Post (Mali/Burkina Faso)	4 hr	30 min	ND	5 hr	12 hr	8 hr	8 hr	4 hr 29 min.	3 hr
(d) Truck tracking system operating over the entire Corridor length	Not in place in Mali and Burkina Faso	In place (Tema-Paga)	In place (Tema-Paga)	In place (Tema-Paga)	In place (Tema-Paga)	In place (Tema-Paga)	In place (Tema-Paga)	In place (Tema-Ouagadougou)	In place
(e) Truck dwell time at the STTV in Tema	48 hr	72 hr	ND	ND	ND	24 hr	24 hr	24 hr	24 hr

94. The project has also achieved all of the intermediate outcomes' targets under Component 1 and had mixed success/failures under Component 2, with two out of five outcomes' targets achieved (successful reduction of the STTV dwell time by 50 percent and the decrease of border transit time to 1 hr 25 min). The remaining three Component 2 targets (reduction in number of fixed custom checkpoints, the reduction of border transit time at Heremakono, and the operationalization of the tracking system along the entire corridor) are all outstanding as a consequence of the partial implementation of the project Component 2 activities.

95. **Contribution of the project outputs to achieving the PDO outcomes (causality and attribution).** As stated, the project has achieved all of the PDO primary outcomes' targets despite the partial implementation of the Component 2 activities, which suggests that higher primary outcome targets could have been attained had all Component 2 activities been implemented.

96. While the outstanding activities under Component 2 are important on their own to the overall achievement of the PDO (facilitating the efficient movement of traffic along the Tema-Ouagadougou-Bamako road transport corridor), they were not necessary for the achievement of its primary outcome targets. Consequently, the ICR concludes that the PDO primary outcomes' targets should have been more ambitious.

Rating

97. In conclusion, considering the above assessment of the level of achievement of the PDO (magnitude) and the contribution of the project outputs to its outcomes (causality and attribution), the ICR overall assessment of the achievement of the PDO is Moderately Satisfactory.

3.3 Efficiency

98. The review of the WATTFP project outcomes' efficiency aims to answer the question of whether the costs involved in achieving the PDO were reasonable with regard to its attributed benefits ('value for money).

99. Given that the benefits of the project Component 2 have not yet fully materialized, as some of the related activities have not been fully achieved at the project closing date, no meaningful economic or financial appraisal could therefore be undertaken for this component. Consequently, the efficiency assessment focused on the economic appraisal of Component 1 only, whose investments accounted for 83.9 percent of the total project costs. In addition, none of the rest stop facilities along the project corridor, under Component 1, were operational at the time of project closing, which did not allow for any estimate of the profits or financial cash flows that they could potentially generate. Consequently, the economic assessment focused purely on the viability of the rehabilitation and strengthening of the Corridor road sections in poor conditions. The related activities consisted of the following:

- (a) **In Burkina Faso.** Rehabilitation and strengthening of the Bingo-Ouagadougou-Sakoinsé (54 km) section of the Corridor
- (b) **In Ghana.** Rehabilitation and strengthening of the Buipe-Tamale (103 km) section of the Corridor

- (c) **In Mali.** Rehabilitation of part of the Bamako-Bougouni (154 km) section and rehabilitation and strengthening of the Sikasso-Heremakono (45 km) section of the Corridor

100. Table 5 provides a comparison of rehabilitation and strengthening works' forecast and outturn costs, including the project preparation (studies) costs funded under the Project Preparation Facility (PPF).

Table 5. Forecast and Outturn Costs

US\$, millions, including PPF	Burkina Faso	Ghana	Mali	Total
Cost forecasts at appraisal	60.22	68.76	34.45	163.43
Outturn costs	59.77	67.79	33.47	161.03
Percentage change	-0.74	-1.42	-2.84	-1.47

101. As shown in the table, the actual costs of the civil works (road reconstruction/rehabilitation, construction of rest stop areas and upgrading of the truck transit yard near the Port of Tema, and upgrading of the dry port at Faladié, Bamako) were substantially in line with the PAD 2007/2008 cost estimates, suggesting a robust investments cost appraisal and a commendable close monitoring of the civil works contracts.

102. The economic analysis was undertaken for each of the road sections separately. These are summarized in the following paragraphs. The details of the economic analysis are provided in annex 3 to the ICR.

103. **In Burkina Faso - economic analysis of the rehabilitation works of the Bingo-Ouagadougou-Sakoinsé road sections.** The analysis was undertaken separately for the Bingo-Ouagadougou and Ouagadougou-Sakoinsé road sections, using the HDM4 software. The traffic forecasts were readjusted based on the outturn traffic growth observed over the period 2008–2014. In 2014, the outturn traffic volumes were higher than the 2008 forecasts for the same year, by 39 percent on the Ouagadougou-Sakoinsé section and by 17 percent on the Bingo-Ouagadougou section. Table 6 summarizes the updated Economic Internal Rate of Return (EIRR) and Net Present Value (NPV) for each section and for the entire investments in Burkina Faso.

Table 6. EIRR and NPV

	ICR Estimates	
	EIRR (@ 12%)	NPV (US\$, millions)
Burkina Faso	12.00	1.21
Ouagadougou-Sakoinsé	14.00	0.69
Bingo-Ouagadougou	10.00	-2.33

104. **In Ghana - economic analysis of the rehabilitation works of the Buipe-Tamale road section.** The analysis was carried out using the HDM4 software. The traffic volumes were surveyed at three points in 2015, to rebase the traffic forecasts. Journey times between Tema and

the border with Burkina Faso were calibrated to observed data from the customs tracking system, thus providing robust figures for the levels of improvement in transit times because of the corridor road sections rehabilitation.

105. HDM4 was then run using the prevailing road conditions and pavement designs. This provided the following project EIRR and NPV.

Table 7. EIRR and NPV

	ICR Estimates	
	EIRR (@ 12%)	NPV (US\$, millions)
Buipe-Tamale	13.4	1.41

106. **In Mali - economic analysis of the rehabilitation of part of the Bamako-Bougouni (154 km) section and the strengthening of the Sikasso-Heremakono (45 km) section of the Corridor.** The original economic analysis was undertaken as part of the project feasibility study in 2011, which was then used as a basis for the selection of the design option considered the most advantageous with an EIRR estimated at 13.7 percent.

107. The update of the economic analysis used traffic forecasts that were rebased to the 2015 observed traffic volumes on the road.

Table 8. EIRR and NPV

	ICR Estimates	
	EIRR (@ 12%)	NPV (US\$, millions)
Sikasso-Heremakono and Bamako-Bougouni	14.0	2.62

108. The update has also highlighted that traffic volumes along the corridor have grown faster than originally forecasted despite the temporary drop in transit traffic during the unrest periods in both Burkina Faso and Mali, as well as during the construction works.

Rating

109. In conclusion, the updated economic analysis has estimated an EIRR for each of the investments in the three countries, higher than the threshold of 12 percent acceptable to the Bank.

110. Considering the limited achievement of project efficiency, limited to Component 1, the ICR concludes that the project overall efficiency be rated as Moderately Satisfactory.

3.4 Justification of Overall Outcome Rating

Rating: Moderately Satisfactory

111. The overall project outcomes rating is based on a combination of the three performance criteria discussed in sections 3.1, 3.2, and 3.3:

- The relevance is Significant.

- The achievement of PDOs is Moderately Satisfactory.
- The efficiency is Moderately Satisfactory.

112. As the ICR review shows, most of the project-funded activities relating to the civil works are either fully completed (in Mali and Burkina Faso) or close to completion in Ghana (ongoing works for the two rest stops and the STTV). Data on the Corridor transit times and its reliability (variance) show that the outcome target of 20 percent reduction was largely achieved. As for the facilitation activities, despite major progress achieved over the 18 months preceding the project extended closing date of June 30, 2015, the related outcomes targets were partially achieved.

113. Considering all the above, the ICR attributes an overall outcome rating of Moderately Satisfactory.

3.5 Overarching Themes, Other Outcomes, and Impacts

114. Through the provision of social and environmental mitigation measures, the project has engendered some benefit spin-offs particularly to the poor and women. Other second-order effects and externalities of the project were not accounted for and have brought some negative impacts, as discussed in the following sections.

(a) Poverty Impacts, Gender Aspects, and Social Development

115. The project has facilitated transit along the corridor and has resulted in a high growth in truck traffic, as shown in the 2015 traffic survey. The poor populations along the Corridor should directly benefit from the consequent increase in passing-by trade. The poor have also benefited from employment opportunities in the road construction works and will further benefit from employment opportunities in the future when the rest stop facilities and STTV become operational.

116. The awareness raising campaigns on HIV and sexually transmitted diseases that were carried out will certainly have lasting impacts on the vulnerable populations, particularly rural women.

117. Finally, the road safety measures that were implemented have considerably reduced the number of accidents along the corridor (albeit not reaching the targets) with the lifesaving benefits, particularly for the vulnerable populations along the corridor.

(b) Institutional Change/Strengthening

118. At the institutional level, despite not fully implementing the transit facilitation activities of the project, the customs and road authorities in the three countries have managed, despite the language barriers, to connect, discuss, exchange experiential knowledge, and agree on important milestones for future cooperation. This should set a good precedent for cross-country cooperation in other sectors and for boosting regional integration in the subregion.

119. Besides, the modernization of the customs systems should in the future vastly improve the efficiency and accountability of the administrations, reduce fraud, and increase customs revenues.

(c) Other Unintended Outcomes and Impacts (positive or negative)

120. Unless some mitigation measures are put in place, the full implementation of the transit system will have adverse impacts on existing economic activities at the borders, particularly on the customs brokerage business and trade, which may result in protests and unrest or on proliferation of informal and illicit trade across the border as a substitute source of income.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

121. Surveys with key project stakeholders were carried out by each of the three project executing entities. The Bank ICR mission was also able to undertake a meeting with the Ghana Institute of Freight Forwarders (GIFF) in conjunction with the visit to the STTV and the Tema Port's facilities. A summary of the key findings is given here.

122. For a regional project involving three countries, the Bank was commended for succeeding in harmonizing different countries' objectives and in consolidating them into an integrated project to achieve effective transit facilitation. The Bank provided backstop to the implementing agencies to rectify implementation challenges throughout the course of the project.

123. **In Ghana.** Interests from the project stakeholders, including the Ashaiman Municipality, Tema Development Corporation, GHA, and GPHA tended to diverge during the course of the project implementation especially in the selection of the STTV site, which resulted in implementation delays. It was therefore recommended that stakeholders should sign up to the agreed scope through Memoranda of Understanding (MoUs) at the project inception stage. In this regard, GIFF representatives expressed concerns about the design of the STTV not being fit for its expected role as a one-stop shop for transit traffic and about the inefficient access (it takes up to two hours to cross the three miles urban section, where a bypass for express access between the port and the northern fringe of Tema would have solved the problem).

124. The trucking industry in Ghana has an aging fleet. The fragmentation of the tracking supply (single-truck owners) has drastically reduced their investment and renewal capacity and has spoiled the profession and level of service.

4. Assessment of Risk to Development Outcomes

Rating: Moderate

125. As mentioned in section 3, the PDO outcomes were fully achieved at the project closing date. The risk assessment has therefore focused on the uncertainties over the project operational life (useful life) on the sustainability of the PDO outcomes (that is, the risks of it not being maintained).

126. Potential risks to the development outcomes are of both exogenous and endogenous nature and include the following:

- **Insufficient participating countries' ownership of the project.** This results in discontinued commitment to the project's success and often translates into underfunding of maintenance budgets for the rehabilitated road assets, the newly constructed rest stop facilities, or the procured customs modernization equipment.

Also, there is lack of commitment to the full implementation of the International Road Transit System, which requires full cooperation among custom authorities and police, as well as supportive policies for the removal of roadblocks, escorts, and the adoption of a single guarantee mechanism. Finally, the nonoperational rest stop facilities and the STTV at the project closing are at risk of becoming ‘white elephants’ if no commitment to their operationalization is expressed.

This risk is significant considering regional operations’ precedents, particularly with asymmetry of incentives; such is the case here, with Ghana having the lowest desire for success.

- **Different tracking technologies.** The use of different technologies is to the disadvantage of efficiency and the smooth operation of the system. Should there be a unique system deployed along the corridor with one single operator, this would have reduced the costs and facilitated data exchange among the countries. In addition, it would have saved the time of changing onboard tags at every border crossing.

This risk is negligible as it is not directly linked to the PDO’s outcomes.

- **Loss of jobs and social unrests.** Unless some mitigation measures are put in place, the full implementation of the transit system will have adverse impacts on existing economic activities at the borders, particularly on the customs brokerage business and trade, which may result in protests and unrest or in proliferation of informal and illicit trade.

This risk is moderate considering that if it does materialize, it will have limited impacts both on time and space, unless no initiative is taken by the governments to mitigate it, which is unlikely.

- **Political volatility and insecurity.** Considering the political and social unrest that both Mali and Burkina Faso have experienced in recent years, future breakups of unrests will have disruptive impacts on the traffic along the corridor and hence on the two landlocked countries’ access to the Ghanaian Port of Tema.

With the dust still not fully settled in Burkina Faso and the relatively fragile transition in Mali, **this exogenous risk remains significant.**

127. Considering the above potential risks, their likelihood of occurrence and the magnitude of impacts once they materialize, the overall risk to development outcome being maintained is considered as Moderate.

5. Assessment of Bank and Borrower Performance

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

Rating: Satisfactory

128. As detailed in section 2 of the ICR, the Bank has deployed substantial efforts to ensure high project quality at entry, using a blend of good practices that set precedents for similar Bank operations in the future, albeit with few shortcomings to overcome, as follows:

- (a) The Bank's project identification process was sound and methodological and has consequently warranted the selection of a highly relevant Corridor for investment from the ECOWAS/WAEMU Program, to which it intends to contribute. It has also ensured, through the Bank's contribution and monitoring of the program development process, that this was highly participatory as a warrant of the recipient countries' ownership.
- (b) The project preparation process shows that substantial efforts were devoted to distill lessons and best practices from the Bank's past regional operations, which were reflected in the project design, such as (i) simplifying project objectives, design, and components; (ii) anchoring the project objectives to those of the RP-I Program; (iii) undertaking early and comprehensive preparation of engineering, social, environmental, and institutional aspects to ensure quality at entry; (iv) conducting extensive consultations with key stakeholders to enhance ownership; and (v) developing a robust and sustainable monitoring and evaluation framework.
- (c) The process also shows that substantial time was devoted to raise the project to a bankable level (from its identification toward the end of year 2002 till Board approval in mid-2008). While it is understandable that ample time was needed for the preparation and coordination of such a highly complex regional operation, involving three countries and various agencies within each country, the loss of economic and social opportunities due to such delays is however high for the two landlocked countries of Burkina Faso and Mali, considering the high transport money and time costs they incur on a daily basis.
- (d) The Bank project costs estimate was based on a thorough review of outturn costs of similar past projects in the three participating countries and, consequently, has resulted in a robust estimate, as shown in the outturn contracts costs. This effort is commendable and should set a good precedent for future Bank operations.
- (e) Historically, the Abidjan-Ouagadougou-Bamako Corridor was the main sea access corridor for both Burkina Faso and Mali. While the priority of providing alternative access to sea gateways for the landlocked countries of Burkina Faso and Mali (following the deteriorating security situation in Côte d'Ivoire for more than a decade) is undoubtedly high, the rationale for the Bank selection of the Tema-Ouagadougou-Bamako corridor, among other viable corridors, should have been further substantiated.

- (f) Considering the linguistic and institutional disparities between the gateway country of Ghana on the one hand and the two landlocked countries on the other, it would have been more prudent to test the feasibility of such a complex pilot and showcase the project in a more homogenous set of countries. In particular, the regional Facilitation components (such as the interconnection of custom systems and exchange of information, the corridor tracking system, and the harmonized transit procedures and documents) would require a substantial amount of coordination and concertation among the recipient countries.
- (g) The project was designed as a multinational project (a combination of three national projects) managed separately by each country, instead of one (single)—truly regional—project managed by a regional institution, with the option of providing capacity-building activities or TA to the latter if necessary. ECOWAS, for that matter, has on-the-ground experience in Transit Facilitation components and could have better managed the underlying activities that require a substantial amount of coordination and concertation among the participating countries that a supranational institution is best placed to handle.
- (h) The project objective and design were refocused on streamlining the existing border and transit procedures rather than on their elimination. Such a pragmatic approach has its merits in light of the Bank’s experience with projects and the implementation challenges they entailed. As a consequence, the PDO outcomes were somehow downplayed (modest and not enough ambitious) at the project appraisal stage so that they could be achieved by the mere improvement to corridor road conditions, which is much easier to implement than the more painful activities under the Transport Facilitation component of the project.
- (i) The project would have greatly benefited from leveraging the Bank’s convening power to pressure the participating countries (possibly through some conditions precedent to the Bank financing) for the operationalization and effective use of the tracking system (once in place) and the already agreed single guarantee system as a substitute to the current onerous escorting and multiple guarantee practices.

129. Considering the above, the Bank overall performance in ensuring quality at entry is rated Satisfactory.

(b) Quality of Supervision

Rating: Satisfactory

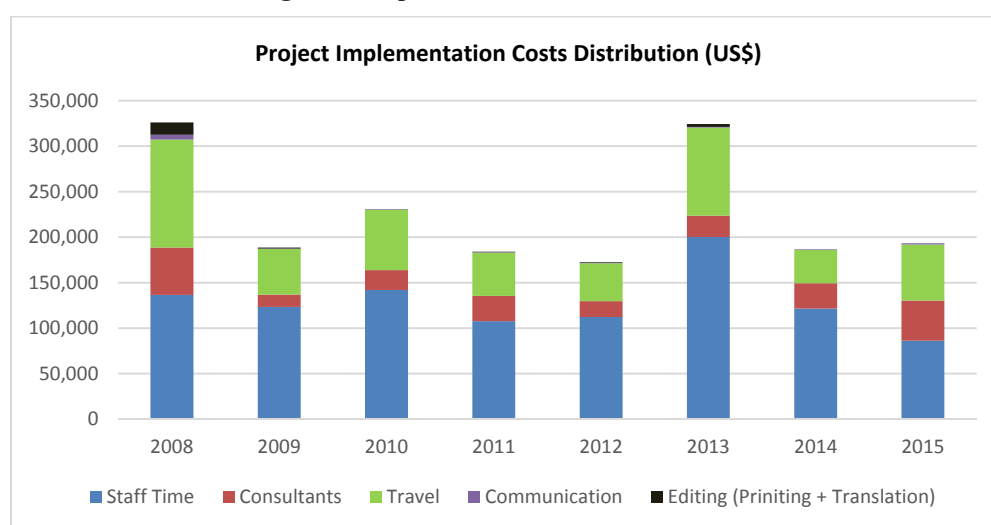
130. The assessment of the quality of Bank supervision was carried out through the review of all Bank implementation support reports, financial management and audit reports, procurement reports, executing agencies’ progress reports, missions’ aide memoires, and management letters.

131. The Bank has undertaken 17 field supervision missions over the project implementation period (approximately every six months), skipping countries where travel restrictions were in place, such as during the political and security problems in both Mali and Burkina Faso.

132. The review of the documents shows that the Bank team was thorough, precise, and candid in reporting implementation progress as well as in providing support and expertise to the client executing agencies in troubleshooting any reported implementation problems. The three client ICRs have commended the Bank task team leader (TTL) and expert team for their high responsiveness and for providing help and advice as and when requested, as well as the close monitoring of progress. In addition, the Bank monitoring and follow-up has closely focused on the project development impacts as well as on the implementation of the activities leading to that.

133. Over the project implementation period (2008–2015), the Bank has spent a total cost of US\$1.806 million on project supervision, of which 57.0 percent was on staff labor; 12.6 percent on consultants’ fees; 28.7 percent on travel; and 1.7 percent on communication, translation, and printing.

Figure 1. Implementation Costs Distribution



134. It should be mentioned that, as shown in the breakdown of costs, the Bank supervision has substantially relied on consultant services (28.7 percent). This was mainly due to the challenges of supervising a regional project with activities scattered across three countries and with highly challenging components such Transport Facilitation, requiring substantial close monitoring and follow-up with each implementing agency as well as coordination among the three participating countries.

135. In addition, the need for reporting on progress to four Bank management units, namely three country management units (for Ghana, Burkina Faso, and Mali) and one regional unit (in Nigeria), required substantial amount of TTL time. It would have been more cost-effective to have a lead unit (ideally the regional unit, given the regional nature of the project) taking the overall project monitoring responsibility on behalf of the others.

136. Despite the above considerations and the implied need for additional supervision resources, the Bank allocates budget resources to projects irrespective of their nature, thus underfunding the resource needs of regional projects (time and budget).

137. Considering the above, the Bank overall supervision quality is deemed Satisfactory.

(c) Justification of Rating for Overall Bank Performance

Rating: Satisfactory

138. Considering the above ratings for the Bank overall performance in ensuring Quality at Entry and Supervision for the Project, where minor caveats in the Quality at Entry are inherent to the complexity and risks around regional operations, often out of control of any donor, the ICR deems the Bank Overall performance to be Satisfactory and Commend the TTL and expert team for the achievement.

139. Considering the above, the Bank overall performance is deemed Satisfactory.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

140. During the project preparation phase, the three participating countries have shown high project ownership and commitment to achieving the aspired to development objectives. During implementation, however, ownership of the Transport Facilitation components, where political commitment is most needed, faded away. Instead, focus gravitated around the project road Corridor physical improvement.

141. Adequate policies in favor of regional integration and/or cooperation as well as the related legislations and regulatory frameworks were well established under the WAEMU/ECOWAS to facilitate transit and trade among member countries. The lack of political commitment to drive the regional integration agenda, however, hindered their operationalization and the achievement of the project's soft components. This, together with the asymmetry of incentives and the political events that both Burkina Faso and Mali lived through, delayed the process and shifted the focus to the more pressing stability and security requirements.

142. Except for Ghana, where the timely provision of counterpart funding was an issue, in both Burkina Faso and Mali, the governments showed good compliance with the Loan Legal Covenants.

143. Regular monitoring and evaluation was an issue in both Mali and Ghana and showed lack of capacity in data collection, interpretation, and reporting for the project needs.

144. Finally, at the project closing date, no clear commitment was made by any of the three participating countries to future maintenance of the rehabilitated road assets or the equipment procured, the operationalization of the rest stop and STTV facilities and custom systems, or the sharing of cargo tracking information.

145. Considering the above, the participating countries' performance is deemed Moderately Satisfactory.

(b) Implementing Agency or Agencies Performance

Rating: Satisfactory

146. A hybrid implementation structure was put in place where in Burkina Faso and Mali the existing PCUs carried out the implementation, while in Ghana it was fully mainstreamed in the government institutions.

147. Throughout the project duration all three implementation entities showed readiness with the timely appointment of key staff, with good knowledge of the Bank fiduciary requirements.

148. However, the three entities showed varied degrees of commitment to achieving the PDO Outcomes, with on average Burkina Faso ranking higher than the two others. This was particularly reflected in the speed of resolution of implementation issues and the utilization of M&E data in decision making and resource allocation. It should nevertheless be mentioned that over the last 18 months before the extended project closing date, all three entities had shown greater commitment and had scaled up performance to implement most of the outstanding project activities and to achieve a good project disbursement rate at closure.

149. Considering the multiple disruptions to the project activities caused by the political events in both Mali and Burkina Faso and the delays in obtaining counterpart funding in Ghana, the performance of the implementing entities is considered to be Satisfactory in the three countries.

150. Considering the above, the implementing entities' performance is deemed Satisfactory.

(c) Justification of Rating for Overall Borrower Performance

Rating: Satisfactory

151. While the implementing entities' performance was deemed satisfactory, the greater responsibility for commitment to achieving the PDO lies with the governments. Without such commitment, the implementing entities can only have control over the implementation of the project physical works and procurement of equipment. However, the operation and maintenance of the facilities as well as the enforcement of soft facilitation measures are beyond their control and requires cooperation from various government agencies and ministries that only the central government is able to mobilize. The latter has therefore the key for the project overall success.

152. Considering the above, the overall borrower's performance is deemed Moderately Satisfactory.

6. Lessons Learned

153. Because of the well-documented project preparation and implementation, the ICR review has managed to draw the following lessons.

6.1 Regional Project Design and Quality at Entry

154. **Consensus building on scoping of regional operations.** The participative approach adopted during project identification, scoping, and preparation was of paramount importance in ensuring full beneficiaries' project ownership. This is particularly important for regional

operations that require several consultations to ensure common understanding of the project scope, balanced commitments, and symmetric incentives among the participating countries.

155. **Good project preparation as a warrant for implementation cost and time control.** When possible, early undertaking of comprehensive project preparation studies is crucial to reduce implementation delays or costs and time overruns.

156. **Combining soft and hard Transport and Transit Facilitation activities.** Regional projects should be carefully designed to avoid a disconnect between the Physical Connectivity (Infrastructure) components, with short-term implementation span and immediate outcome characteristics, and the soft Facilitation components that are both politically (security and immigration consideration) and financially (customs duties accounting for a great part of state revenues) sensitive, with a longer time span to allow for the implementation of behavioral and work practice change.

157. **Building assets maintenance into the project design.** For all three countries, the maintenance of the constructed physical assets as well as the equipment was not part of the project scope. Considering the endemic under-maintenance in all three countries, there is a high risk to the investments made, unless an efficient budgeting mechanism is put in place together with the appropriate implementation capacity. An Output Performance-based Contract for the road construction contracts offers a solution to this during the project implementation period.

158. **Adopting higher and relevant PDO.** While it is a good practice to simplify the project design and components, the Bank, as a lead international development institution, should not back away from pushing the boundaries and take implementation risks of higher development objectives or new delivery methods.

159. **Investing in fragile states.** Prioritizing investments on the ground of volatile and ever-changing security considerations may not be the best approach, considering the Bank mandate to extend support to fragile zones, who could benefit from investment impacts on security improvement because of better governance capacity, employment opportunities, poverty reduction, and shared prosperity.

6.2 Optimal Institutional Arrangements

160. **Regional nonfragmented projects.** The project was designed as a multinational project (a combination of three national projects) managed separately by each country, instead of a single—truly regional—project managed or monitored by regional institutions (for example, the WAEMU or ECOWAS) that are the natural custodian of regional treaties and that are better placed as supranational institutions to handle coordination, enforcement, and concertation among the participating countries.

161. **Corridors' efficient management.** For the Tema-Ouagadougou-Bamako Corridor to operate efficiently, a Regional Institutional Framework (for example, Corridor authority) will need to be established with the appropriate powers, legal instruments, mission statement, and operational capacity (staffing, budgeting, and Corridor statistics observatory).

6.3 Optimal Bank Projects' Management

162. **Delegation of project monitoring to lead country management unit.** Considering the challenging nature of regional projects, with activities scattered across several countries, requiring substantial monitoring and follow-up with each of the participating countries as well as the overall coordination among them, the Bank should allocate more resources for project preparation and supervision as well as allow for longer project preparation and implementation periods. In addition, to enhance the effectiveness of Bank supervision, the TTL should report to a designated lead unit (ideally a regional unit) in the Bank.

163. **Use of contractual remedial measures.** Measures such as delays penalty were applied by both the GBF and GOG toward the end of the contract original closing date, which has proved effective in expediting the works implementation.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

164. Some exogenous factors outside the control of the governments and implementing agencies have affected the implementation of the project and the achievement of its results. Key factors include the following:

- The latest Ivorian crisis (2010–2011) hindered the road construction contractor's supply and resulted in implementation delays.
- The Malian crisis (2012–2013) has disrupted the cooperation between customs of Burkina Faso and Mali on the Facilitation component.
- The language barrier was a handicap for the performance of certain project activities requiring intensive coordination between Ghana and Burkina Faso. The recruitment of a translator was needed to overcome this problem.
- The devaluation of both the Ghanaian cedi and the CFA franc against the U.S. dollar was to the advantage of the project as it improved its cash flow and resulted in financial surplus, which enabled the financing of some additional project activities.
- The crisis in Mali in March 2012 led to a disbursement freeze for 3.5 months and built an implementation backlog, as well as substantial loss and damage to the transport fleet, computers, and communication equipment procured under the project.

165. Other endogenous factors were inherent to the project design and affected its smooth implementation. These include the following factors:

- The obligation to follow two procedures (national Procurement Procedures while the Procurement Plan was on Bank procedures). The latter does not take into account the time for three national publications of at least two weeks each for consultants and has affected the timely implementation of activities.

- The cumbersome national procurement process resulted in lengthy approval times.
- The designation of implementation agencies' focal points, implying additional workload for them but without financial incentives, explains their observed low performance.
- The creation of the National Office of Road Safety in Burkina Faso has strengthened the management and awareness raising on road safety.
- The high staff mobility within the government structures involved in the project has disrupted the implementation of some planned activities and negatively affected the overall project effectiveness. In particular, it has negatively affected the sustainability of the investments on staff training.

166. All three executing entities commended the Bank for the endeavor to provide implementation support and the continuous availability and responsiveness of the TTL throughout the project duration.

167. The slow implementation of the project's Transport Facilitation component, such as the 'cargo satellite tracking system', should have been factored in the project design due to its subregional character requiring substantial political commitment that is beyond the control of the executing entities.

168. Some innovative experiences brought by the project that are worth recording: (a) the construction of rest stop areas along the Corridor to improve road safety; (b) operation of the customs clearance area in Mali through a public-private partnership contract; and (c) the establishment of an electronic disbursement system, which has contributed to expediting and simplifying disbursement procedures, as well as improving the overall project efficiency.

169. The high performance showed by NGOs in the implementation of project activities that were entrusted to them sets a good precedent for future partnerships on activities that they are best at handling.

(b) Cofinanciers/Technical and Financial Partners

170. The Bank was the only contributor to the project financing in addition to the three participating countries. However, other TFPs were involved in the financing of other components of the WAEMU/ECOWAS RP-I Program that the project supports. These include the AfDB, EU, BOAD, and BADEA, who financed the rehabilitation of other sections of the Tema-Ouagadougou-Bamako Corridor (see details in the Corridor map), as well as some transport and transit facilitation measures. The ICR mission has therefore consulted them on issues encountered during their projects' preparation and implementation. These are summarized in the following paragraphs.

171. Winning contractors in Mali and Ghana turned out to be small organizations and faced major difficulties in mobilizing equipment and qualified personnel to site, which resulted in implementation delays and technical difficulties to submit statements on time. The consultancy services for TA to the WAEMU on audit awareness, road studies, control, and supervision of works

showed a satisfactory performance in monitoring and supervising the work, which helped to partly offset the contractors' deficiencies.

172. Under the same project, combining the component on Physical Corridor connectivity improvement with the Transport Facilitation component, of different nature and requiring different implementation spans, was not a good approach and the two components should have been carried out as parallel stand-alone projects. This partially explains the delivery of the Facilitation component, involving lengthier institutional and regulatory reforms that can only be achieved at the subregional level. In addition, regional operations should avoid, as far as possible, trade diversion among corridors as a politically sensitive issue over which regional member countries' views can easily diverge.

173. The project could have greatly benefited from the use of existing institutional arrangements or those that are in the process of being set up, including the Observatory of Abnormal Practices, National Committees for Transport Facilitation and Road Transit (CNF), the Regional Transport Facilitation Committee and Road Transit, and the Steering Committee of Community Action Plan for Road Infrastructure and Transport managed by WAEMU (*Programme d'Actions Communautaire des Infrastructures et du Transport Routier*, PACITR). The RP-I Program has recommended the establishment of a Corridor Management Committee (*Comité de gestion du corridor*, CGC) by the end of the implementation of the RP-I activities. The CNF were created but are still not operational due to lack of operating budgets and the CGC is yet to be created.

174. The construction of the OSBP in Paga and Hérémakono was initially planned but not placed due to insufficient resources allocated and the EU's Regional Indicative Program (PIR) resources to the UEMOA also proved insufficient. It should be noted that (a) the title deeds for the OSBP land lots have been prepared by Ghana and Mali on behalf of ECOWAS and the WAEMU and (b) the WAEMU has included the construction of the Hérémakono OSBP in the scope of the concession signed in 2009 with the Scanning System company, but the work has not yet started and there is no clarity as to the date it will start.

(c) Other partners and stakeholders

175. Representatives from the GIFF recommended that project stakeholders should sign up during preparation to MoUs detailing the agreed project scope to avoid any implementation delays due to downstream diverging views.

176. The GIFF representatives expressed concerns about the design of the STTV in Tema, which is currently not playing its expected role as a one-stop shop for transit traffic, as well as not being easily accessible (it takes up to two hours to cross the 3 mile urban section), where a bypass for express access between the port and the northern fringe of Tema could have solved the problem. They also questioned why this had not been considered as part of the Bank Project.

177. Several safety road humps as well as tollbooths were gradually built along the corridor, causing major delays for transit traffic. It was recommended to provide separate tollbooths for trucks as well as towing services for trucks that break down to the nearest refuges. The shortage of tracking devices has often caused major departure delays of up to two to three days for trucks, which defies the purpose of implementing the trucking system.

178. The trucking industry in Ghana has an aging fleet. The fragmentation of the tracking supply (single-truck owners) has drastically reduced their investment and renewal capacity and has spoiled the profession and quality of service rendered.

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in US\$ million equivalent)

Components	Appraisal Estimate (US\$, millions)	Actual/Latest Estimate (US\$, millions)	Percentage of Appraisal
Corridor Infrastructure Improvement Works	162.70	151.39	93.0
Burkina Faso	60.80	51.79	85.0
Mali	29.90	27.60	92.0
Ghana	72.00	72.00	100.0
Corridor Transport and Transit Facilitation Measures	28.70	21.93	76.0
Burkina Faso	6.80	3.40	50.0
Mali	11.30	7.93	70.0
Ghana	10.60	10.60	100.0
Project Management	3.10	4.59	148.0
Burkina Faso	1.20	3.10	258.0
Mali	1.00	0.59	59.0
Ghana	0.90	0.90	100.0
PPF advance	2.70	2.52	93.0
Burkina Faso	1.20	1.02	85.0
Mali	0.00	0.00	
Ghana	1.50	1.50	100.0
Total Baseline Cost	197.20	180.43	91.5
Physical Contingencies	0.00	0.22	–
Burkina Faso	0.00	0.00	
Mali	0.00	0.00	
Ghana	0.00	0.22	
Price Contingencies	0.00	0.22	
Burkina Faso	0.00	0.00	
Mali	0.00	0.00	
Ghana	0.00	0.22	
Total Project Costs	197.20	180.87	92.0
	0.00	0.00	
	0.00	0.00	
Total Financing Required	0.00	0.00	
	0.00	0.00	

Unavailable data for Ghana

(b) Financing

Source of Funds	Type of Cofinancing	Appraisal Estimate (US\$, millions)	Actual/Latest Estimate (US\$, millions)	Percentage of Appraisal
Borrowers		7.20	7.33	102
Burkina Faso	Counterpart funding	0.00	0.00	
Mali	Counterpart funding	2.20	6.33	288
Ghana	Counterpart funding	5.00	1.00	20
IDA		190.00	173.54	91
Burkina Faso	Credit 4438-BF	70.00	70.00	100
Mali	Credit 4435-ML	40.00	29.79	74
Ghana	Credit 4439-GH	80.00	73.75	92

Annex 2. Outputs by Component and Participating Country

1. The project activities under each of the two components were designed to achieve the following outputs in each of the three participating countries:

- (a) **Burkina Faso (about US\$70 million).** The project outputs consisted of the following activities: (i) rehabilitation and strengthening of the Ouagadougou-Sakoinsé (54 km) section of the Corridor; (ii) construction of up to two rest stops; (iii) design and implementation of a road safety action plan for the Burkinabé section of the Corridor; (iv) extension of the existing ASYCUDA ++ customs management system to the Ghanaian and Malian borders; (v) interconnection of the Burkinabé ASYCUDA ++ system with the Malian ASYCUDA ++ and GCMS; (vi) training and procurement of equipment to strengthen the capacity of customs and transport authorities to better monitor and secure transit traffic along the Corridor; (vii) extension of the cargo tracking system to the Burkinabé section of the Corridor; and (viii) implementation of an HIV/AIDS action plan for the Burkinabé portion of the Corridor.
- (b) **Ghana (about US\$85 million).** The project outputs consisted of the following activities: (i) rehabilitation and strengthening of the Buipe-Tamale (103 km) section of the Corridor; (ii) design and construction of an STTV near the Port of Tema; (iii) design and construction of two intervening transit checkpoints/rest stop areas and up to two rest stop areas on the Ghanaian section of the Corridor; (iv) design and implementation of a road safety action plan for the Ghanaian section of the Corridor; (v) capacity strengthening of customs authorities to better monitor and secure transit traffic along the Corridor; (vi) interconnection of the GCMS with the customs systems of Burkina Faso (ASYCUDA ++) and Mali (ASYCUDA ++); and (vii) implementation of an HIV/AIDS action plan for the Ghanaian portion of the Corridor.
- (c) **Mali (about US\$42.2 million).** The project outputs consisted of the following activities: (i) part of the rehabilitation of the Bamako-Bougouni (154 km) section of the Corridor; (ii) rehabilitation and strengthening of the Sikasso-Heremakono (45 km) section of the Corridor; (iii) modernization of the multifunctional platform at Faladié (Bamako); (iv) construction of up to two rest stops on the Corridor; (v) capacity strengthening of customs and transport authorities to better monitor and secure transit traffic along the Corridor; (vi) implementation of an HIV/AIDS action plan for the Malian portion of the Corridor; and (vii) design and implementation of a road safety improvement action plan on the Malian portion of the Corridor.

Annex 3. Economic and Financial Analysis

1. Given that the benefits of the Component 2 have not yet materialized and as most of the related activities have not been fully achieved at the project closing date, no meaningful economic or financial appraisal could be undertaken for it. Consequently, the efficiency assessment focused on the economic appraisal of Component 1, whose investments accounted for 83.9 percent of the total project costs. In addition, none of the rest stop facilities along the project corridor or the SSTV in Tema were operational at the project closing date, which did not allow any estimate of the profits or financial cash flows that they could potentially generate to be carried out. Consequently, the economic assessment focused purely on the viability of the rehabilitation and strengthening of the Corridor road sections in poor conditions. The related activities consisted of the following:

- (a) **In Burkina Faso.** Rehabilitation and strengthening of the Bingo-Ouagadougou-Sakoinsé (54 km) section of the Corridor
- (b) **In Ghana.** Rehabilitation and strengthening of the Buipe-Tamale (103 km) section of the Corridor
- (c) **In Mali.** Rehabilitation of part of the Bamako-Bougouni (154 km) section and rehabilitation and strengthening of the Sikasso-Heremakono (45 km) section of the Corridor

2. Table 3.1 provides a comparison of rehabilitation and strengthening works' forecast and outturn costs, including the project preparation (studies) costs funded under the PPF.

Table 3.1. Comparison of Rehabilitation and Strengthening Works

US\$, millions, including PPF	Burkina Faso	Ghana	Mali	Total
Cost estimates at appraisal	60.22	68.76	34.45	163.43
Outturn costs	59.77	67.79	33.47	161.03
Percentage change	-0.74	-1.42	-2.84	-1.47

3. As shown in table 3.1, the actual costs of the civil works (road reconstruction/rehabilitation, construction of rest stop areas and upgrading of truck transit yard near the Port of Tema, and upgrading of the dry port at Faladié, Bamako) were substantially in line with the PAD 2007/2008 cost estimates. Furthermore, none of the civil works funded under the project suffered from major cost overruns during implementation, suggesting robust investment cost estimates and good monitoring of the civil works contracts.

4. The preliminary economic benefit of some of the road works (Ouagadougou-Sakoinsé road section in Burkina Faso) is showing higher than the projected EIRRs and NPVs. This was also the case for the road works in Mali and Ghana.

5. The economic analysis was undertaken for each of the road sections separately. These are summarized below:

6. **In Burkina Faso - economic analysis of the rehabilitation works of the Bingo-Ouagadougou-Sakoinsé road sections.** The analysis was undertaken separately for the Bingo-Ouagadougou and the Ouagadougou-Sakoinsé, using the HDM4 software. The traffic forecasts were readjusted based on the outturn traffic growth observed over the period 2008–2014. In 2014, the outturn traffic volumes were higher than the 2008 forecasts for the same year, by 39 percent on the Ouagadougou-Sakoinsé section and by 17 percent on the Bingo-Ouagadougou section. Table 3.2 summarizes the updated EIRR and NPV for each section and for the entire investments in Burkina Faso.

Table 3.2. EIRR and NPV

	Appraisal Estimates		ICR Estimates	
	EIRR (@ 12%)	NPV US\$, millions	EIRR (@ 12%)	NPV US\$, millions
Burkina Faso	19.30	2.32	12.00	1.21
Ouaga-Sakoinsé	18.50	0.69	14.00	3.49
Bingo-Ouaga	19.70	1.63	10.00	-2.33

7. **In Ghana - economic analysis of the rehabilitation works of the Buipe-Tamale road section:** The analysis was carried out using the HDM4 software. The traffic volumes were surveyed at three points in 2015, to rebase the traffic forecasts. Journey times between Tema and the border with Burkina Faso were calibrated to observed data from the customs tracking system, thus providing robust figures for the improvement in transit times because of the corridor road sections rehabilitation.

8. HDM4 was then run using the prevailing road conditions and pavement designs. This provided the following project EIRR and NPV.

Table 3.3. EIRR and NPV

	Appraisal Estimates		ICR Estimates	
	EIRR (@ 12%)	NPV (US\$, millions)	EIRR (@ 12%)	NPV (US\$, millions)
Buipe-Tamale	14.7	13.61	13.4	1.41

9. **In Mali - economic analysis of the rehabilitation works of part of the Bamako-Bougouni (154 km) section and rehabilitation and strengthening of the Sikasso-Heremakono (45 km) section of the Corridor.** The original economic analysis was undertaken as part of the project feasibility study in 2011, which was then used as a basis for the selection of the design option considered most advantageous with an EIRR estimated at 13.7 percent.

10. The update of the economic analysis was undertaken in the summer of 2015, where traffic forecasts were rebased to the 2015 observed traffic volumes on the road. The analysis has estimated the following: NPV = US\$2.62 million; EIRR = 14 percent.

11. The update has also highlighted that traffic volumes along the corridor have grown faster than originally forecasted despite the temporary drop in transit traffic during the unrest periods in Burkina Faso and Mali, as well as during construction works. The increase in traffic, mainly in HGV (trucks), while increasing the absolute benefits of the project with regard to time saving, nevertheless increases maintenance costs to levels that offset the incremental benefits and result in a drop in project economic efficiency. This is mainly the consequence of the following two aspects:

- (a) The relatively low value of time in Sub-Saharan Africa and the insignificant reduction in the overall transit time along the corridor as a result of the rehabilitated sections, caused essentially by the unchanged lengthy delays at border crossings (due to bureaucracy, cumbersome custom procedures, and the need to switch tracking systems), erodes the economic benefits accrued by time saving.
- (b) The higher impact of trucks on road deterioration and therefore the need for higher maintenance to preserve the road assets.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Bhanoumatee Ayoung	Lead Procurement Specialist	GGODR	
Elian Berger	Consultant	AFTP4 - HIS	
Yvette Laure Djachechi	Senior Social Development Spec	AFTCS - HIS	
Alexandre K. Dossou	Sr. Transport. Spec.	GTIDR	
Jean-Noel Guilloso	Program Manager	GTIDR	
Marc H. Juhel	Practice Manager	GTIDR	
Elke U. Kreuzwieser	Consultant	GTCDR	
Jean-Francois Marteau	Program Leader	ECCU5	
Africa Eshogba Olojoba	Lead Environmental Specialist	GENDR	
Siele Silue	Sr. Transport. Spec.	GTIDR	
Mamady Souare	Infrastructure Specialist	AFTTR - HIS	
Hang N. Sundstrom	Language Program Assistant	AFTTR - HIS	
Iraj Talai	Manager, Financial Management	EASFM - HIS	
Supervision/ICR			
Adu-Gyamfi Abunyewa	Senior Procurement Specialist	GGODR	
Luc De Wulf	Consultant	GTCDR	
Ibou Diouf	Sr. Transport. Spec.	GTIDR	
Papa Mamadou Fall	Transport Specialist	AFTTR - HIS	
Maimouna Mbow Fam	Sr. Financial Management Special	GGODR	
Barbara Lantz	Temporary	AFTTR - HIS	
Kolie Ousmane Maurice Megnan	Sr. Financial Management Special	GGODR	
Olivier Marcel Murru	Temporary	AFTTR - HIS	
Moustapha Ould El Bechir	Senior Procurement Specialist	GGODR	
John Kobina Richardson	Transport Specialist	GTIDR	
Rokhayatou Sarr Samb	Procurement Specialist	AFTPE - HIS	
Aguiratou Savadogo-Tinto	Sr. Transport. Spec.	GTIDR	
Alphonse Soh	HQ Consultant ST	GTI05	
Mamata Tiendrebeogo	Senior Procurement Specialist	GGODR	

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	US\$, thousands (including travel and consultant costs)
Lending		
FY03	10.31	82.10
FY04	18.64	134.46
FY05	16.23	138.34
FY06	35.34	214.96
FY07	50.14	327.64
FY08	50.67	326.15
Total Lending	181.33	1,223.65
Supervision/ICR		
FY09	57.06	188.60
FY10	65.24	230.80
FY11	42.48	184.10
FY12	42.23	172.60
FY13	56.35	324.20
FY14	36.30	186.70
FY15	27.30	193.30
FY16	1.50	10.10
Total Supervision/ICR	328.46	1,490.40
Total Lending and Supervision:	509.79	2,714.05

(c) Total Bank Preparation and Supervision/ICR Costs (US\$)

Cost Element	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
160000 -Sal Allocation TRS	2,186	1,057	3,804	8,827	16,041	26,092	36,799	51,543	27,604	27,224	22,610	20,131	18,447	1,010	263,373
160001 -Sal Allocat. TRS ET					1,111	1,270									2,381
160050 -Ben Allocation TRS	1,093														1,093
160150 -Ovt Allocation TRS	12		77	16	18	285	225								633
160151 -Ovt Alloc. TRS -ET				32	67										99
160500 -Lab Allocation TRS	41,626	75,877	58,475	98,537	124,126	108,844	86,280	90,424	75,330	85,087	174,227	101,572	67,825	3,260	1,191,488
160501 -Lab Alloc. TRS ETs								4,764		3,324					8,088
500401351 -Othr Benefits To TFI		3,261													3,261
500401801 -Salary Chg TFI:TRS		6,057													6,057
500401802 -Overhead Chg TFI:TRS		5,280													5,280
500401810 -Short Term Consultnt	3,228	1,290	21,265	22,814	31,850	39,615	5,250	15,305	23,680	17,422	23,468	27,631	44,122		276,940
500401820 -Lump Sum Consultant	1,983														1,983
500401860 -Short Term Temp.Fees					10,130	12,549	8,323	6,581	4,097						41,680
500406000 -Travel - Airfare	25,930	26,618	35,267	59,433	95,569	86,531	29,085	43,012	19,487	23,847	56,980	20,536	32,834	948	556,077
500406005 -TravelAirfare Rebate					-9,327	-13,096	-1,379	-3,956	-2,259	-2,347	-357	-1,801			-34,522
500406010 -Trv Lodging & Accom	5,314	11,733	17,087	22,638	52,655	42,428	20,471	25,208	23,160	10,981	22,648	10,628	18,584	3,856	287,392
500406015 -Meal, Tip, Valet MTV									4,595	8,062	15,280	6,117	9,003	1,698	44,755
500406020 -Travel Misc Expenses	671	2,219	1,801	1,752	3,878	1,999	2,028	1,803	1,925	269	798	369	390	0	19,901
500406030 -In-Out Transport									277	488	1,205	420	477	118	2,985
500406035 -Within-Cty Transport									381	301	341	240	322	4	1,588
500406200 -Representation		35													35
500406220 -Press Conf/Meetings						4,493	68			104	6	528	157		5,354
500406300 -Misc. Contr. Serv													812	-812	0
500406500 -Transl/Proofread						3,181									3,181
500406700 -Bank Charges					50										50
500406720 -Taxi & Oth Loc Trans				521		132					0	56			709
500411095 -Vehicle Purch.&Lease						559									559
500411210 -Telephone	60	376	560	386	920	844	458	477	492	414	637	253	343	48	6,267
500411230 -Freight						81		175							256
500411340 -General Supplies		82				71									152
500411345 -Printing Supplies					29										29
500411350 -Contract Printing					0										0
500411355 -Photocopier Services					35	300									335
500411396 -VAT (Non-Reimb) CO												0			0
500411462 -Video Confrnc-UserCB		570			470	7,255	215	205	510	750	770				10,745
500411473 -Cour/Freight - UsrCB				1	0	8	3					1			14
500411477 -Printing Serv-UserCB					20		669								689
500411478 -Copier Serv-UserCB							58	25	24						107
500411479 -Transl Serv-UserCB						1,300					2,318				3,618
500411491 -Fd Srv CB-Mtgs S						1,414									1,414
Total	82,103	134,456	138,337	214,958	327,641	326,155	188,552	230,800	184,066	172,602	324,255	186,681	193,315	10,130	2,714,049

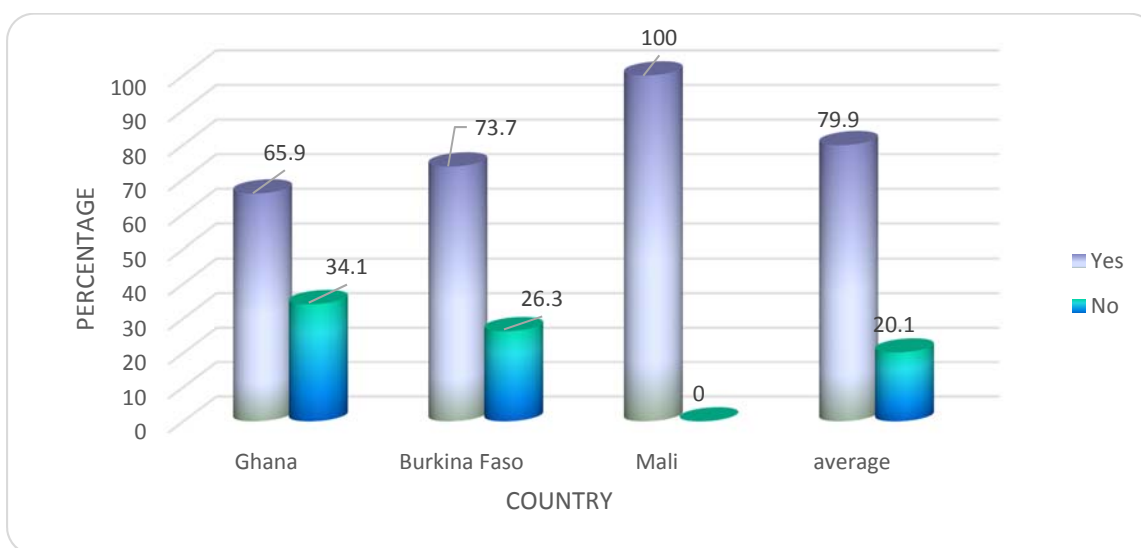
Annex 5. Beneficiary Survey Results

1. A survey was carried with the Corridor improvement main beneficiaries, including the road users, corridor riparian populations, and importers/exporters. The summary of the opinions is listed in the following paragraphs.

(a) Knowledge of Transport Operators about Project

2. The project has made good impacts. Most (80 percent) of the transport operators interviewed had some knowledge about the project. All the transport operators from Mali had knowledge about the project. Ghana transport operators had the least knowledge (about 66 percent). This implies that Mali had the most effective information dissemination about the project.

Figure 5.1. Knowledge about the Project



(b) Savings in Travel Time

3. Travel time on the project Corridor has reduced significantly. Before the road improvement project, only an average of about 35 percent of the transport operators along the road corridor were able to travel from Tema to Burkina Faso within five days. However, after the road corridor improvement project, majority (above 90 percent) of the transport operators are able to travel from Tema Port to Ouagadougou within two to five days. Out of this, all operators from Ghana are able to travel to Burkina Faso within five days while 81 percent of transport operators from Burkina Faso are able to do the same.

4. In the same way, an average of about 65 percent of transport operators travelled from Ouagadougou to Bamako within eight days, before the project. However, after the project, this has increased to 90 percent. About 92 percent of the transport operators attributed the reduced travel time to the good ride quality resulting from the improved road condition.

Figure 5.2. Average Transit Time from Tema to Ouagadougou after Project

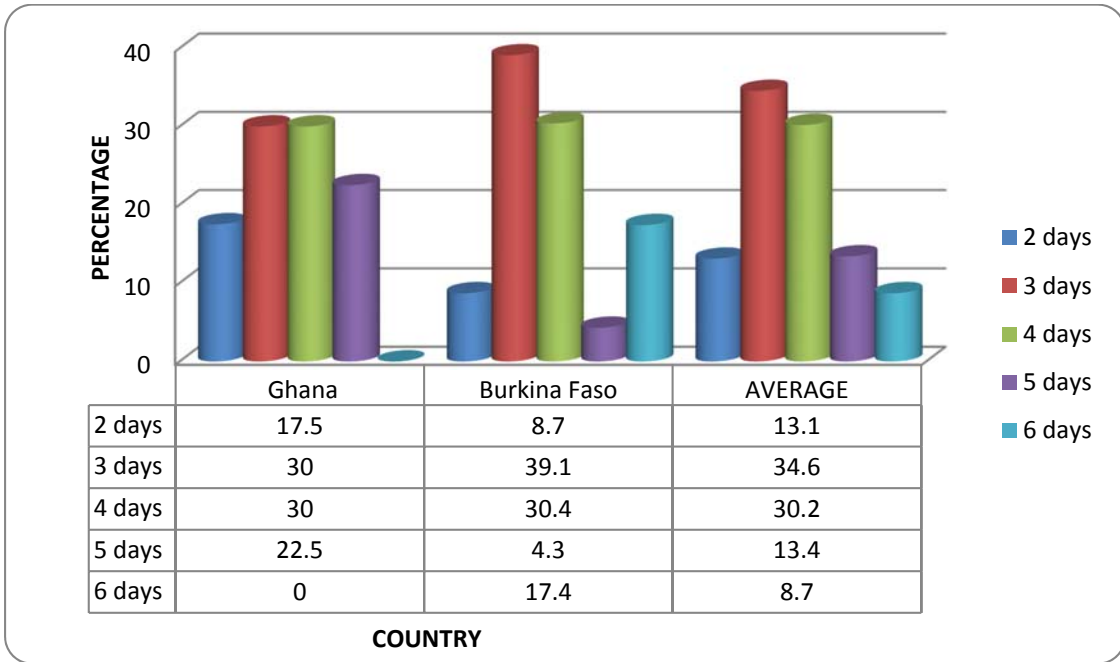


Figure 5.3. Average Transit Time from Tema to Ouagadougou before Project

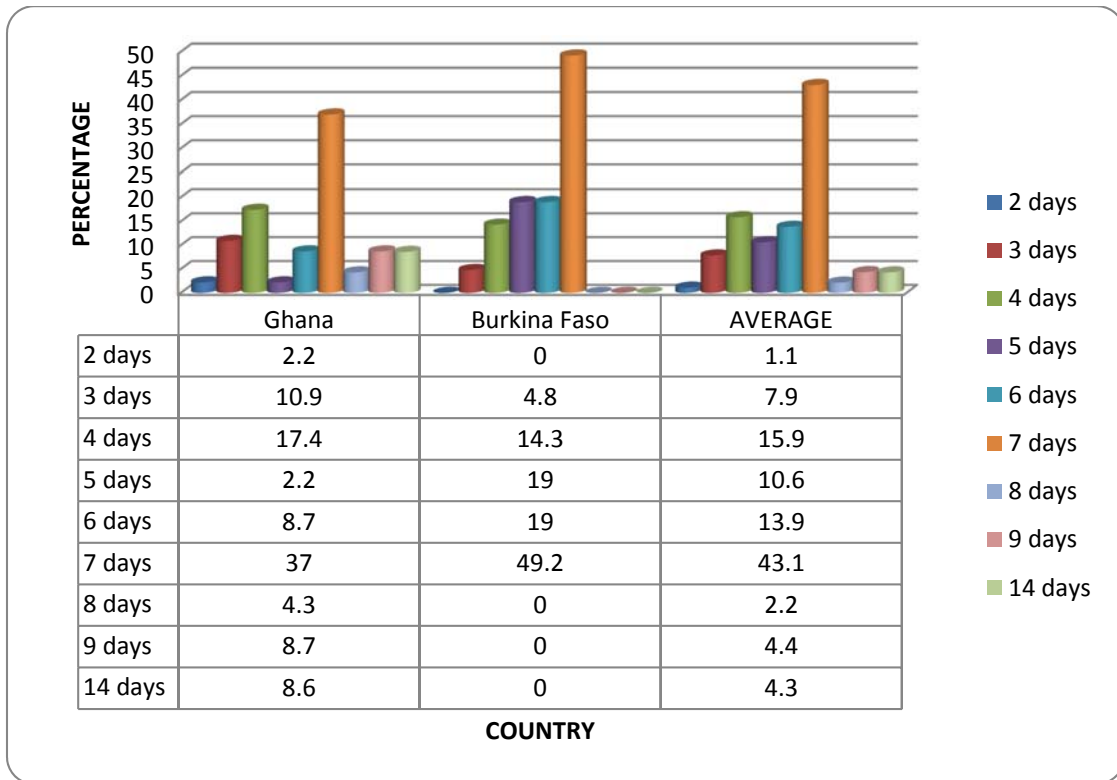


Figure 5.4. Average Transit Time from Tema to Bamako before Project

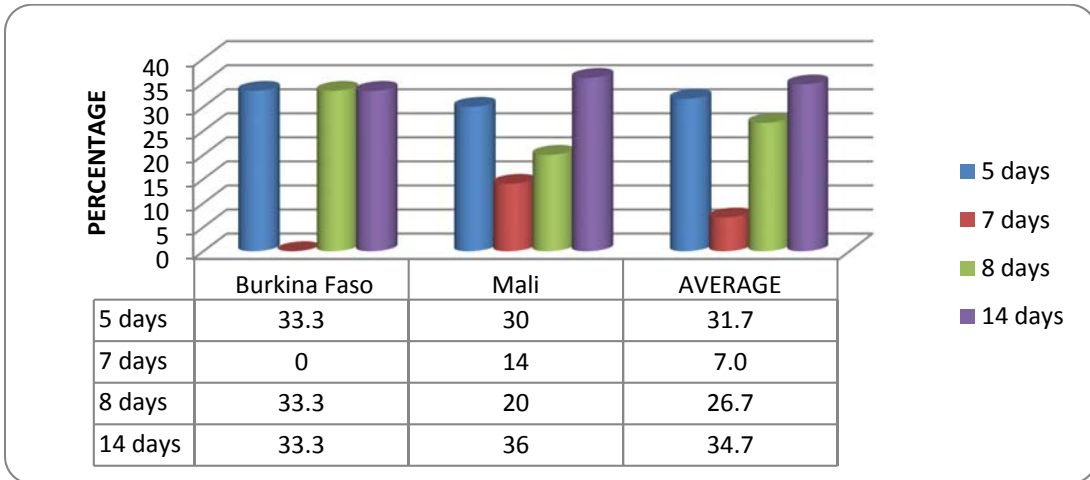


Figure 5.5. Average Transit Time from Ouagadougou to Bamako after Project

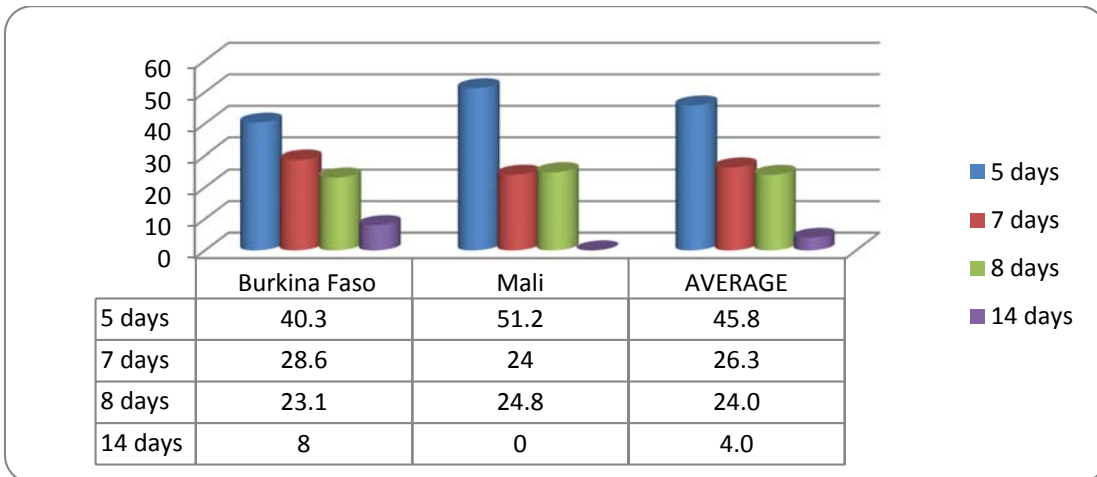
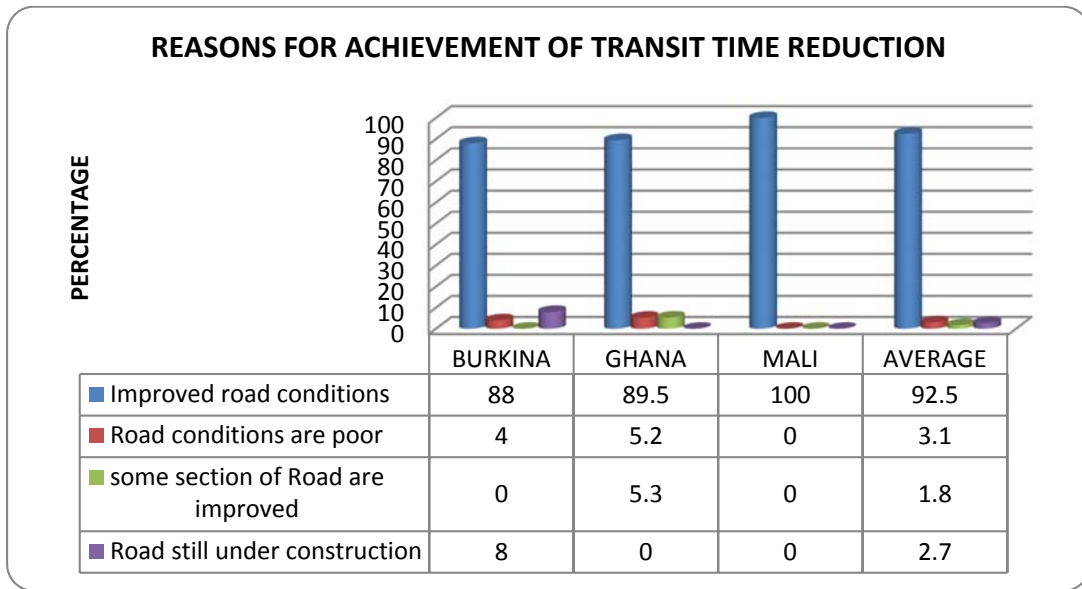


Figure 5.6. Achievement of Transit Time Reduction



(c) Perception of the Road Condition

5. The transport operators rated the condition of the entire road corridor from Tema to Bamako to be 53 percent good, 21 percent fair, and 26 percent poor. This goes to confirm improved riding quality. The consequent impact is improved vehicle operation cost savings and the release of time to operators for other opportunities has been recognized to be an important impact of the road corridor.

Figure 5.7. Road Condition Rating



(d) Savings in Travel Costs

6. Most drivers confirmed that the frequency of vehicle breakdown has reduced. The only challenge to travel cost for the Ghanaian operators is mostly to do with increases in fuel costs,

which is outside the scope of impact of the project. This has caused the cost of goods transport to generally increase even though vehicle operating cost (VOC) savings have been achieved.

(e) Transport Availability

7. Vehicle availability on the project transit corridor has improved. Annual average daily traffic for heavy trucks engaged in haulage increased from 516 in 2011 to 685 in 2015. The percentage change is about 25 percent.

(f) Improvement in Road Safety

8. The transport operators along the transit corridors reported that the road safety situation along the project transit corridor has improved. This is first attributed to the installation of safety measures along the entire road corridor to Bamako and the road safety sensitization activities undertaken as part of the project. Over 80 percent of vehicle operators indicated that the road signs and line markings are good. However, about 56 percent were of the opinion that lighting provisions on the road are poor and about the same percentage indicated that the speed calming systems impeded required travel speed.

Table 5.1. Adequacy of Road Safety Installations

General Road Safety				
Condition Rating	(Road Signs)	(Road Line Marking)	(Lighting)	(Speed Limiters)
Fair	5.7	0.0	11.8	
Good	84.3	90.0	32.4	37.9
Poor	10.0	10.0	55.9	6.1
Too many and high	0.0	0.0	0.0	56.0
Total	100.0	100.0	100.0	100.0

9. With regard to road safety education, there was good impact of the road safety sensitization programs conducted during and after the road construction project. Most operators could recall road safety messages such as the following:

- Cigarette smoking whiles driving is dangerous.
- Do not overspeed.
- Drink, Do not Drive.
- Drive with seatbelt.
- Look carefully before crossing.
- Overspeeding kills.
- When you are tired, rest.

10. Apart from the mentioned achievements, some of the road safety challenges expressed by the transport operators include the following:

- Absence of kilometer indication
- Inadequate measures for speed checks
- Limited street light and security systems
- Limited road line marking and signs in towns
- Poor security and problems with armed robbers
- Poor sections of road at some parts of the corridor especially near Kilimanjaro and waterfall
- Limited truck parking space (currently there is only one parking location at Tamale)
- Reckless driving and drinking by Ghanaian drivers
- Too many speed ramps

11. Some suggestions by transport operators for mitigating the mentioned challenges include

- construction of more dual carriage roads;
- provision of more parking spaces;
- improvement of poor road sections from Accra to Kumasi and then from Tamale to Bolgatanga; and
- provision of more street lighting systems.

12. It is anticipated that the completion of the two rest stops and customs intervening stations will contribute toward mitigating the problem of limited parking spaces for the truck drivers along the route in Ghana.

Figure 5.8. General Road Safety

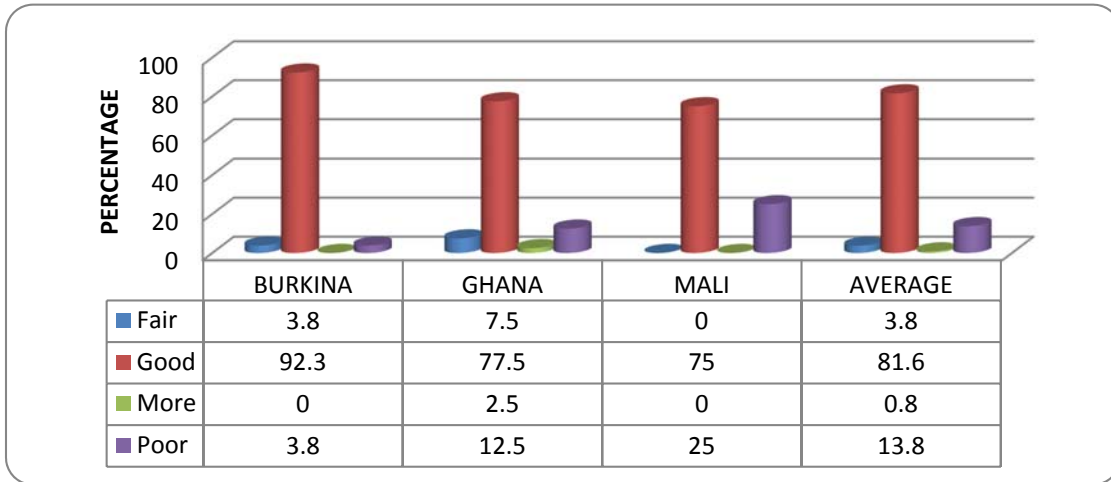


Figure 5.9. General Road Safety

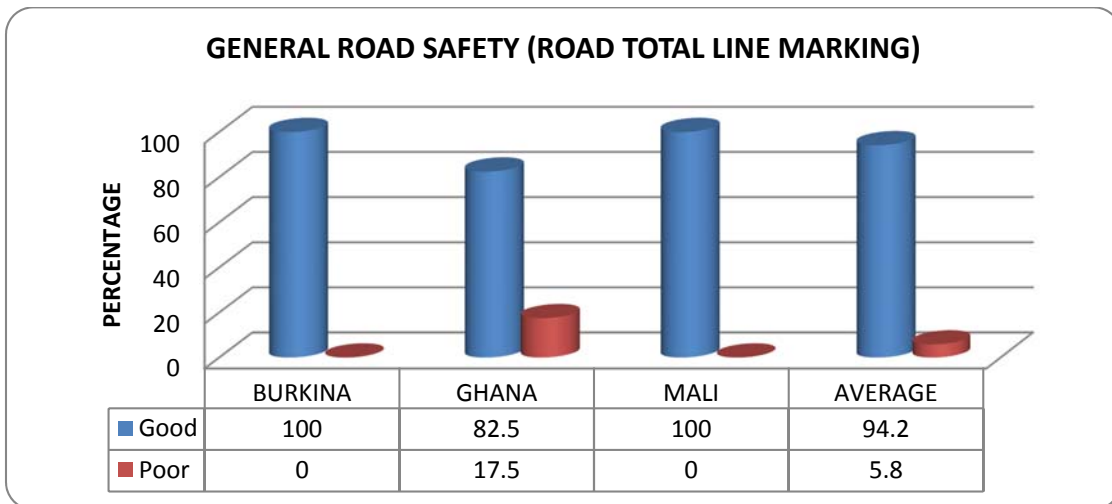


Figure 5.10. Education on Road Use

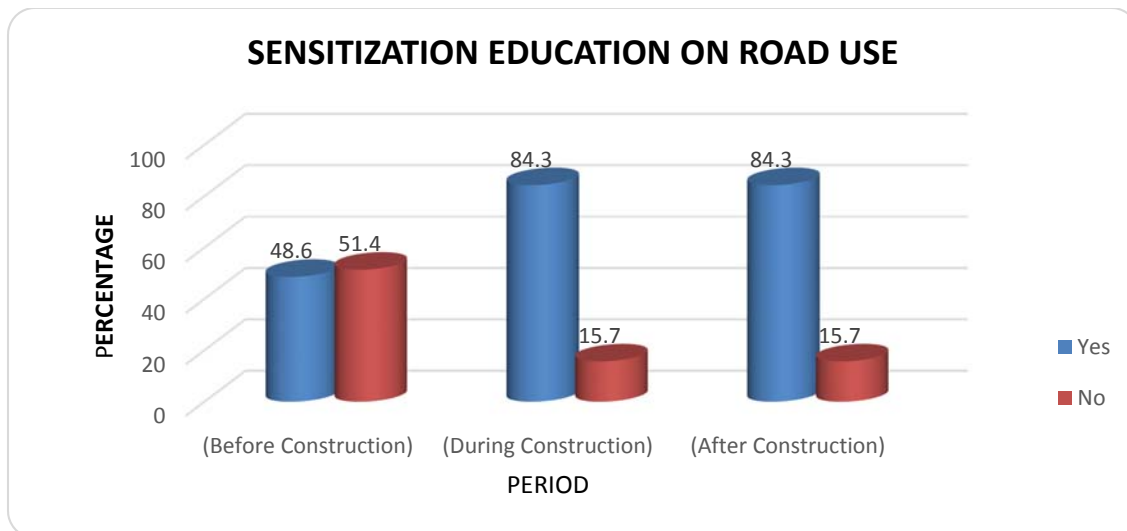


Figure 5.11. General Road Safety (Lighting)

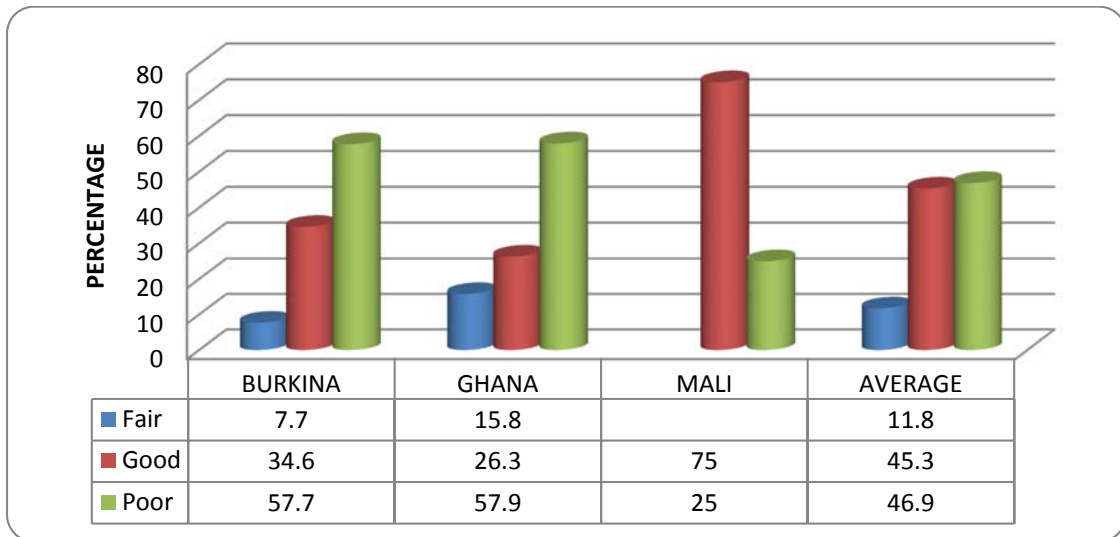


Figure 5.12. General Road Safety (Speed Limiter)

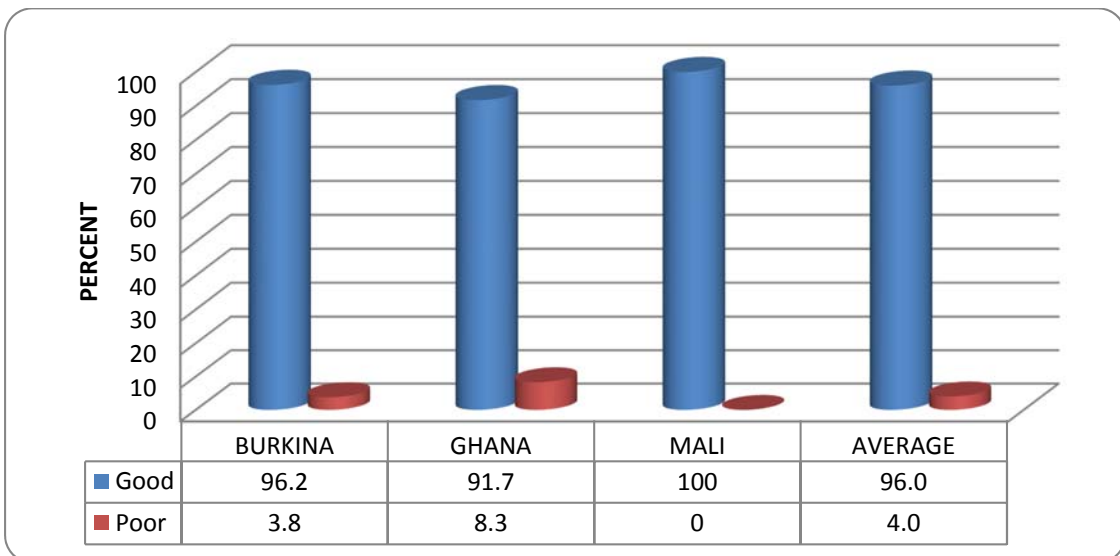


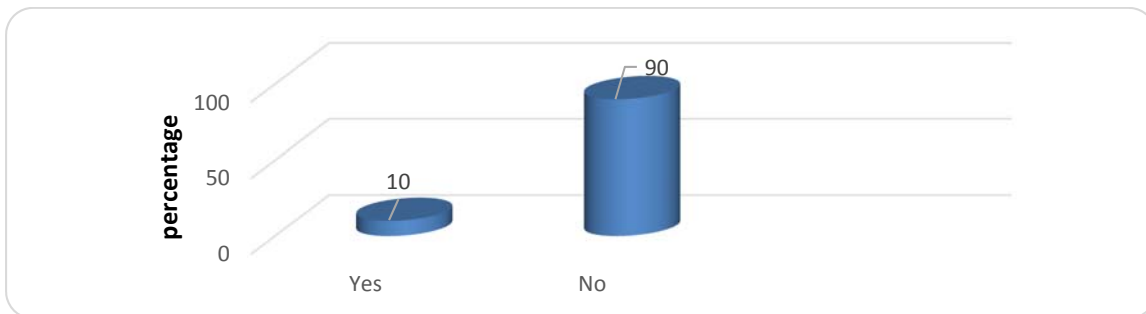
Table 5.2: Road Safety Messages

Road Safety Messages	Percent
Cannot recall	43.4
Cigarette smoking while driving is dangerous	1.9
Do not overspeed	1.9
Drink, Do not Drive	18.9
Drive with seatbelt	3.8
Look carefully before crossing	11.3
Overspeeding kills	7.5
When you are tired, rest	3.8
Others	7.6
Total	100.0

(g) Impact of HIV Education

13. The HIV sensitization program that complemented the road construction activity did not seem to have made much impact on the beneficiaries. Most (90) respondents sampled along the road corridor and some transport operators interviewed had not heard about the HIV sensitization program; 89 percent had not had HIV/AIDS education; and 43 percent of those who did could not recall the messages. These could be attributed to the variations in the location of sample size for this report and the sensitization program. All those who recalled the messages could recall that they had their blood tested. Thus, it can be concluded that blood tests was the most significant impact of the HIV prevention and mitigation interventions.

Figure 5.13. HIV/AIDS Awareness



(h) Impacts Rating of Road Infrastructure Improvement by Transport Operators

14. All the transport operators gave positive response to the impact of the road project on their business. The project benefits expressed included ease of access, improved safety and security, reduced travel time, and good ride quality. Ease of access was rated as the highest benefit of the road project, at an average of 37 percent for all countries. Burkina Faso gave the highest rating to this at 40 percent followed by Ghana at 38 percent. Reduced travel time was next, at an average of 15 percent for all countries, with Burkina Faso giving the highest rating on this variable at 24 percent. Mali rated ride quality as the next highest benefit at 14 percent. The least rated benefit was security, rated only by Ghana at 2.4 percent. Only a few transport operators from Ghana indicated that the road project had not been of some benefit. Figures 5.14 and 5.15 present an overview of the road infrastructure impact rating by transport operators.

Figure 5.14. Benefits to Transit Drivers

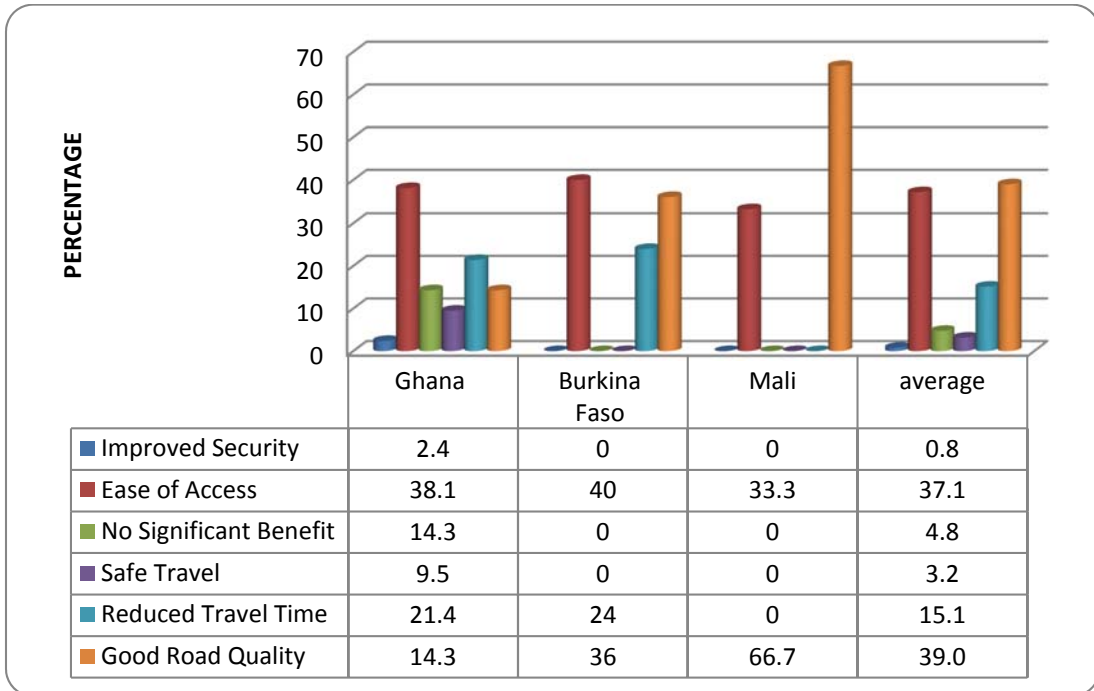


Figure 5.15. Average Dwell Time at Tema Port

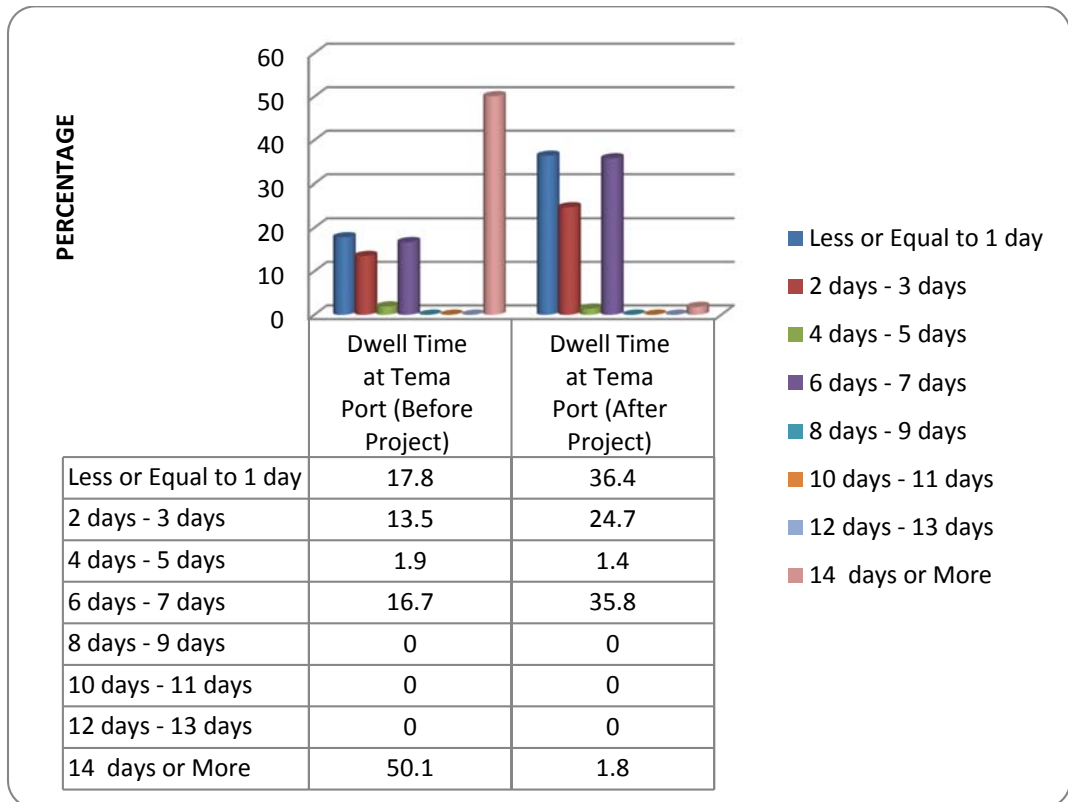


Table 5.3. Constraints Encountered with regard to Police Checks

Constraints	Percent
Big problem	4.5
Checkpoints are bad	1.5
No constraints	3.0
No problem	9.0
Officers are doing well	3.0
Serious problem	6.0
Significant problem	1.5
They are doing well	3.0
Too bad	3.0
Too many checkpoints	6.0
Too many checkpoints and too much money collected	1.5
Too many checks	6.0
Too many checks and extorts money from us	9.0
Too many extortions and checkpoints	37.3
Too many extortions by policemen	3.0
Unnecessary charges and some police officers stand at unauthorized places	3.0
Total	100.0

(i) Project Impact on Transit Facilitation Interventions and Procedures

15. The outcomes and impacts on transit facilitation are presented in the following subsections:

(a) **Harmonization of customs procedures.** As part of the project, the customs procedures of the three project countries were to be harmonized. However, this could not be achieved by project end. The process is still ongoing and it is anticipated that if completed, the expected objective can be achieved.

(b) **Improved port dwell time.** The construction of an STTV village at the Tema Port was aimed at reducing congestion and improving dwell time for truckers at the Tema Port. The average dwell time at the Tema Port reduced for most transport operators. The percentage of transporters who used to spend a day increased from 18 percent before the project to 36 percent after the project. Those who spent two to three days increased from 14 percent to 25 percent. This implies that there has been a reduction in the dwell time for most operators. Also, those who spent more than 2 weeks at the port before the project reduced significantly from 50 percent operators to 1.8 percent.

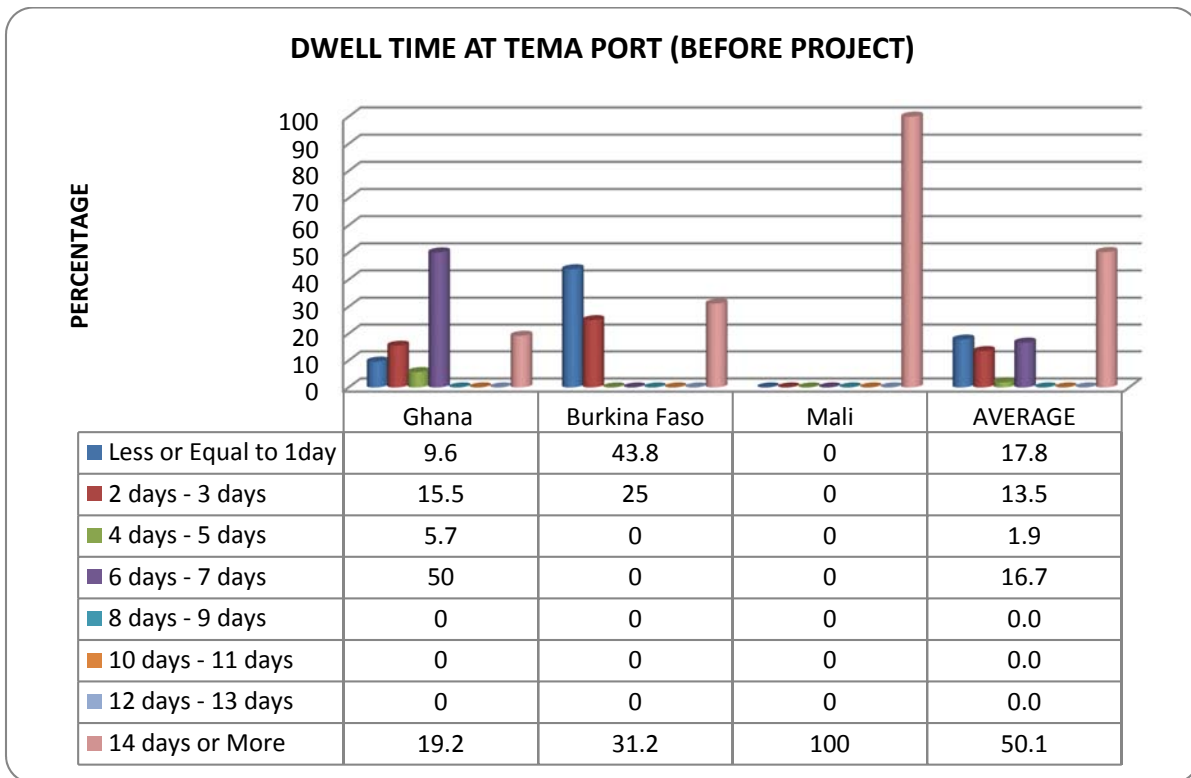
16. Various reasons were attributed to the improved dwell time at the Tema Port. These include the loading of goods before processing and the practice of concurrent loading and processing of documentation at the same time. Only 6 percent of transport operators said there had been no change in dwell time. Also, none of the transport operators complained about increased dwell time.

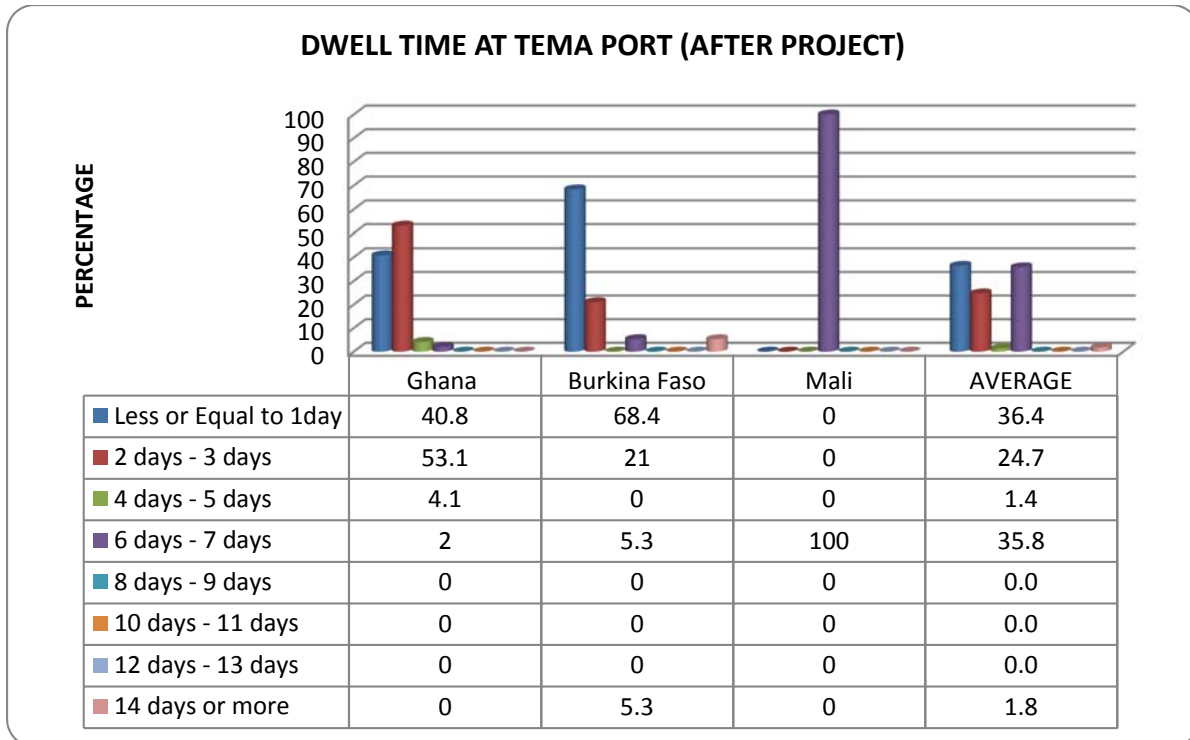
Therefore, though the STTV village could not be constructed under the project, improved procedures at the port have resulted in the improvement of dwell time.

Table 5.4. Reasons for Improved Dwell Time

Description	Percent
Loading is done before processing, which is good	36.3
No change	6.1
Processing and loading are done at the same time	33.3
Processing is done faster	24.2
Total	100

Figure 5.16. Dwell Time at Tema Port (Before and After Project)





17. Some of the challenges still confronting the transport operators at the Tema Port are

- lack of good parking space and toilet facilities at the port;
- bad floor surface condition at the limited parking space which gets muddy when it rains and dusty during the dry season; and
- short expiration date of transit stickers.

18. Some of the proposed mitigation measures are

- extension of sticker validity period; and
- expansion, upgrade, and maintenance of parking space at the port. For example, provision of concrete floors or bitumen surface, place of conveniences, and bath house.

19. Since part of the challenges can be attributed to the inability to complete the construction of the proposed STTV villages, it is anticipated that the pavement of the terminal surface of the old transit yard of the Tema Port under the project, as an alternative to the construction of the STTV village, will provide some additional parking space to boost the facilities at the port.

(j) Reduction of Nontariff Barriers

20. The number of customs border posts along the transit corridor from Tema to Paga on the Ghana side increased from five at the baseline phase to nine at project completion. All the customs checkpoints are official for inspecting waybills. Though the number of the checkpoints increased,

the transporters reported that there has been improvement in the checking time for validating waybills by about 30 minutes to an hour. This could be attributed to the training provided to some customs officials.

(k) Constraints Encountered at Customs Checkpoints

21. With regard to the constraints encountered by the transport operators at the checkpoints, 75 percent of the transport operators had no complaints with the customs checkpoints. However, 15 percent acknowledged that they were charged unofficial fees and 5 percent complained about the number of checkpoints. Only 3 percent complained about delays in checking time while 1.5 percent said they paid for the validation of their documents at the checkpoints. Table 5.5 provides a summary.

Table 5.5: Constraints at Customs Checkpoints

Description	Valid Percent
Charging of fees	15.4
Checking of documents and charging of fees	1.5
Delay in validation of documents	3.1
No complaints	75.4
Too many checkpoints	4.6
Total	100.0

22. Some suggestions for improvement of the mentioned constraints associated with the customs checkpoints are:

- reduction in the number of checkpoints since the same procedures are repeated at each checkpoint;
- government should put measures in place to check illegal charges; and
- non-booking of empty vehicles.

23. There are also police checkpoints for driver and vehicle safety validation. The number of official police checkpoints reduced from 21 to 19 and there was a reduction in the number of unofficial police checkpoints from five to three. The continuous presence of a high number of both official and unofficial police checkpoints on the corridor is attributed to security needs along the corridor due to a rise in armed robbery cases on the corridor. The time spent at official police checkpoints also reduced by 20 minutes and that of unofficial police checkpoints reduced by about 28 minutes.

24. Some challenges expressed by truck operators in relation to police checkpoints are in connection with

- existence of illegal police checkpoints; and
- Extortion of money from transport operators.

25. Some suggestions for addressing the complaints on police checkpoints are as follows:

- Drivers should be made aware of all official checkpoints
- Ghana government barriers from Tema to Paga should be reduced to four
- Government should intervene in the activities of the policemen
- Government should increase the number of police personnel at checkpoints but minimize police charges
- There should be more escort and reduction of checkpoints for security purposes

26. The interactions with the transporters indicated most of them would welcome police presence along the corridor for security reasons but the only problem relates to delays and the payment of unofficial fees to the police for doing their job so this should be controlled by government.

(l) Payment of Non-logistic Fees

27. All customs duties and fees are paid during the processing of documentations at the port. Therefore, all other checks along the route are for verification of customs documentations. However, in situations where documentations are incomplete and operators are required to return to the port to complete them, they resort to the option of the payment of the fees at the specific customs checkpoint for new documentations. In such situations, an average amount of C56.00, which is an increase from C26.00 at the baseline phase is paid. This is normally not considered as an official fee. Moreover, about 97 percent of the drivers acknowledged that they made some unofficial payment at most customs checkpoints but these were not at fixed rates. Some of the indicative unofficial fees paid are presented in table 5.6.

Table 5.6. Type and Amount of Fees Paid at the Checkpoints (C)

Category of Checkpoint	Description of Fee	Amount (C)
Customs checkpoint	Official	2.00
	Unofficial	
Police checkpoint	Official	2.00
	Unofficial	3.00

28. It could, however, not be established as to whether there were any penalties to the transport operators for failing to make any of these payments. Also, the magnitude of impact of these payments on the income and earnings from the business was not considered to be significant by the transport operators, who considered it to be more of nuisance than financial losses.

(m) Reduced Border Crossing Time

29. The average time spent in crossing the Ghana/Burkina Faso border before the project was 5 hours and reduced to 2 hours, which is about 60 percent reduction in crossing time. Table 5.7 provides the summary and Appendix 5 provides the details. The reasons for the change in time

spent in crossing the Ghana/Burkina border was because of less time spent at checkpoints due to reduced processing time.

30. Some of the challenges faced at the border post are

- language barrier; and
- strict rules on road usage such as detaining vehicles for longer periods.

31. Some suggested solutions to challenges are

- removal of bureaucratic requirements on documentations;
- training of customs and police official at border posts in the use of both English and French language; and
- streamlining of procedures and harmonization of rules on both borders.

32. It is anticipated that some of these challenges are still prevalent due to the inability to complete aspects of the project such as the harmonization of customs procedures. It is expected that if such aspects of the project are completed it will go a long way to minimize these challenges.

Table 5.7. Border Crossing Time

Direction	Average Crossing Time by Country of Vehicle Registration (hr:min)			Average - Ghana Burkina Faso
	Ghana	Burkina Faso	Mali	
Ghana to Burkina Faso	2:52	2:51	2:51	2:51
Burkina Faso to Ghana	1:29	1:19		1:24
Average crossing time (hr:min)	2:10	2:05	2:51	2:07

(n) Establishment of Secure Transit System

33. Through the provision of vehicles and the training of customs officials, there has been improvement in quality of customs patrol and the time inputs for processing and inspection of documents. This has not only reduced trade diversions and revenue losses but has also increased security control for most transporters along the corridor.

(o) Provision of Customs Administrations

34. The objective was to provide customs administrations with the necessary tools as specified, such as ICT equipment to enhance their role in facilitating the movement of transit goods while safeguarding the efficient collection of tax revenue. This is yet to be fully operational though the equipment has been bought. The convening stations where the equipment will be installed for operation are yet to be completed and it is expected that if completed, the project objectives will be met.

(p) Strengthening of Economic Integration and Subregional Cooperation

35. The project has contributed toward significant improvement on economic integration at the subregion. It has afforded the trading of the operational needs of different countries for meeting set objectives. There is import of agricultural produce such as tomatoes, onions, and potatoes and livestock such as cattle, sheep, and goats from Burkina Faso to Ghana, while manufactured products such as bicycles, small industrial machinery, and so on are transported from Ghana to Burkina Faso and beyond. Imports of grains, fruits, and related products also rose from C64.25 million (CFAF 11.49 billion) in 2011 to C82.63 million in 2012 (CFAF 14.9 billion). Burkina Faso's exports to Ghana valued at C129.12 million (CFAF 23.3 billion) in 2011 rose to C170.2 million (CFAF 30.72 billion) in 2012. Ghana's exports to Burkina Faso valued at C175 million (CFAF 31.58 billion) in 2011 rose to C274.49 million (CFAF 49.54 billion) in 2012.¹

(q) Suggestions for Transit Improvements

36. The major issues of transit improvement expressed by the transport operators relate to the activities of policemen and the number of checkpoints along the corridor. About 25 percent of the vehicles would want to have a much easier transit than pertains now. About 23 percent want the number of checkpoints reduced while 20 percent are concerned with the activities of policemen along the corridor. Table 5.8 gives an overview of the required improvement interventions expressed by the drivers.

Table 5.8. Suggestions for Transit Improvements

Suggestions	Percentage
None	1.6
Drivers should be made aware of all checkpoints	3.1
There should be free movement of truck drivers	24.9
Ghanaian government should establish four barriers from Tema to Paga	3.1
Ghanaian government should reduce barriers	4.7
Ghanaian government should intervene in the activities of the policemen	20.3
Police should minimize the charges	9.4
There should be more escorts and reduction of checkpoints	23.5
More police officers should be recruited	7.8
Reduction of checkpoints	1.6
Total	100.0

¹Source: Fifth Exhibition by Ghana Association of Industries (AGI), Ghana Export Promotion Authority (GEPA), and Export Development and Agricultural Fund (EDAIF).

Annex 6. Stakeholder Workshop Report and Results

(if any)

No stakeholder workshop was undertaken.

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

Summary of Burkina Faso ICR

1. The World Bank financed WATTFP Project supports the implementation of Phase 1 of the Community Action Program for Infrastructure and Road Transport (PACITR) in West Africa. The Project development objective is to improve access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema — Ouagadougou – Bamako road transport corridor.
2. The specific objectives pursued by the Project are: (i) reduce Transportation costs by improving the level of service and quality of road infrastructure on the Ghana-Burkina Faso - Mali road corridor and (ii) improve the conditions of Transport by reducing barriers to the flow of traffic on the corridor.
3. The Burkina Faso national component of the Project started implementation in December 2008 with an original closing date of March 30, 2014 that was extended until June 30, 2015. The US\$70 million (FCFA 34,020,000,000) national component was implemented through two (2) major technical components and one (1) administrative component: (i) Component A "Infrastructure improvement works Corridor" in the amount of US\$60.3 million (29,310.66 million FCFA); (ii) Component B "Transport Facilitation Measures and Transit Corridor": US\$7.3 million (3,547,800,000 FCFA); (iii) Component C "Project Management": US\$1.2 million (583.2 million FCFA); (iv) Advance for Project Preparation Facility: US\$1.2 million (583.2 million FCFA).
4. The main Project activities implemented are:
 - **Under Component A:** rehabilitation works, construction of roads and rest areas. Awareness activities on HIV and AIDS and road safety and mitigation measures of the environmental impact;
 - **Under Component B:** capacity building of state institutions (DGR, DGD, DGTM) in integrating customs and Facilitation of road transit systems on the corridor. This consisted essentially of the implementation of the interconnection of the customs systems of Mali, Ghana and Burkina Faso, and a satellite tracking system for cargo travelling along the corridor between the three countries; and
 - **Under Component C,** the activities carried out consisted in the coordination, award, and implementation of contracts. In total 95 contracts with a total amount of FCFA 31,583,095,618 were contracted out, 148 trainings were carried out in Burkina Faso for the benefit of 1,213 staff from all the institutions involved in the Project implementation.
5. At the Project closing date in June 30, 2015, the cumulative credit disbursement amounted to FCFA 32,178,658,943 representing a disbursement rate of 98.92%. The physical implementation rate is 99% divided by component as follows: i) Component A: 100%; ii) Component B: 97% and iii) Component C: 100%.

6. The performance of the Project objectives is measured through indicators and are as follows:

- two (2) of two (2) development objective indicators have been achieved.
- three (3) of three (3) performance indicators for Component A were achieved.
- two (2) of four (4) output indicators relating to the Component B have been met.

7. The main lessons to draw from the Project implementation are:

- The good spirit of cooperation that has been maintained between the WBG team and the Project implementation unit (PIU), has contributed to the overall good performance of the Project;
- The difficulties experienced in the implementation of certain Project activities are primarily those of a regional nature. The implementation of an activity involving a number of countries requires a special approach and a lot longer because dependent on the political will;
- The Project promoted dialogue between different stakeholders involved in the Project, which is the basis for the improvement of social and functional relationships between them. For example customs and freight forwarders, carriers and truck drivers recognized that the Project was an opportunity for rapprochement between them;
- The humps, which were introduced as part of the Project to ensure road safety in the Ouaga-Sakoinsé section, have reduced the number of deaths on the stretch;
- The design of Rest areas should have proposed a model for their future operation once implemented, that ensures sustainable high quality service to users;
- The delay penalties applied to road construction company Ouaga-Sakoinsé has an innovative character. It was rarely used over the past in WBG financed Projects, yet covered by the regulations. These penalties have released some of the Project resources to be used in funding additional activities of the Project;
- The Project studies conducted during the preparatory phase of the Project allowed an early launch of the works, which helped improving disbursement levels in the early years of Project implementation and an early completion of the work to give time for asset usage and testing years before the Project ends.

8. The recommendations are:

- Continue the implementation of the customs administration reform activities in order to achieve the Project results (outcome / impact);
- Continue the dialogue with stakeholders in order to operationalize as soon as possible the Rest stop areas;

- Advocate with competent authorities at national level to streamline their national procurement procedures with those of the World Bank for more efficiency;
- Capitalize on the achieved skills enhancement through the implementation of the training program;
- Strengthen the achievements of the Project by the capitalization of experiences by the permanent structures of the state.

Summary of Mali ICR

9. The World Bank financed WATTFP Project supports the implementation of Phase 1 of the Community Action Program for Infrastructure and Road Transport (PACITR) in West Africa. The Project development objective is to improve access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema — Ouagadougou – Bamako road transport corridor.

10. The specific objectives pursued by the Project are: (i) reduce Transportation costs by improving the level of service and quality of road infrastructure on the Ghana-Burkina Faso - Mali road corridor and (ii) improve the conditions of Transport by reducing barriers to the flow of traffic on the corridor.

11. The Mali component of the Project started implementation in December 2008 with an original closing date of March 30, 2014 that was extended until 30 June 2015.

12. An overall amount of US\$42.2 million (about 24.898 billion FCFA) of Project cost was implemented through two (2) major technical components namely the Component A "Corridor infrastructure improvement works" amounting to US\$29.9 million (FCFA 14.210 billion) or 70% and Component B "Corridor Transport and Transit Facilitation Measures" amounting to US\$11.3 million (5.76 billion FCFA) 26.8%; and a Project administration Component C "Project Management" for US\$1.0 million (500 million FCFA) or 2.4%.

13. At the Project closing date, the cumulative budget disbursements (IDA credit and state counterpart) amounted to 23,147,533,279 FCFA (97.2% of the overall budget). Under the IDA credit, the total disbursement is US\$33,346,994.51 (FCFA 19,680,825,868) a disbursement rate of 96.78%. The remaining amount to be disbursed is about US\$1,111(655,816,840 FCFA) 3.22% of the total. The counterpart funding of US\$2.2 million has been exceeded, where at the closing date a total of 4,363,964,590 FCFA or approximately US\$7.4 million was disbursed.

14. The overall physical implementation rate was estimated at 97.3% divided by component as follows: a) Component A: 100%; b) Component B: 94% and c) Component C: 98%. The residual activities are mainly of regional nature, relating to Component B and concern (i) the electronic tracking of goods on Corridor (Tracking); (ii) the interconnection of customs systems and the secure IRT, whose successful implementation depends on multilateral decisions and agreements between Mali, Burkina Faso and Ghana.

15. The Project implementation was also affected by socio-political events that occurred in March 2012, which led to delays in the execution of certain activities as well as incurred physical damage to some of the procured Project equipment and assets.

16. In terms of objectives, at the Project's closing date: a) two (2) performance indicators of the development objective were achieved; b) two (2) intermediate outcome indicators for Component A were achieved; c) four (4) indicators for the Project Component B were not fulfilled (interconnection has not been achieved, the electronic transmission of freight documents is not in place, the tracking system is in place but not functional, and the number of customs controls has not decreased as would have been desired).

17. The Project completion evaluation was deemed overall satisfactory, based on relevance, effectiveness, efficiency, and sustainability criteria.

Summary of Ghana ICR

18. The Transport sector is key to the economic development of the West Africa sub-region generating about 6 percent of its GDP. Road Transport is the most dominant mode with a modal share of about 85 percent for passenger and freight. Landlocked countries such as Mali, Burkina Faso, and Niger are confronted with up to 50 percent higher transit cost. In order to address this, cross border Transport facilities are being upgraded for efficient access to ports. In 2001, WAEMU adopted the Community Action Plan for Road Infrastructure and Transport (*Programme d'Actions Communautaire des Infrastructures et du Transport Routier* (PACITR)), which included a set of integrated infrastructure and Facilitation measures to ensure adequate infrastructure are provided on major transit corridors. The first phase of the PACITR, known as Road Program I (RP-I) focused on the corridor linking Ghana, Burkina Faso, and Mali, with an estimated implementation period of about 10 years.

19. To achieve the objectives of the RP-1, the West African Transport and Transit Facilitation Project (WATTFP) was initiated, with the development objective of improving access by Burkina Faso and the Republic of Mali to the Ghanaian ports as well as ports operations, and facilitate the efficient movement of traffic along the Tema — Ouagadougou – Bamako road transport corridor. The Project included interventions to remove non-tariff barriers to transit, reduction of Transport costs and transit time for persons and goods. The Project commenced in 2008 was due for completion in March 2014 but was extended to June 2015. This Project Completion Report (PCR) gives an overview of reviewed performance and achievements of Ghana's Project component against baseline assumptions and expected Project outcomes and impacts.

Objective of Study

20. The objective of the assignment is to prepare a completion report, which looks at all the interventions made under the Ghana component of the WATTFP. It is to assess the baseline assumptions, which define the envisaged investments compared with actual investments made. It is also to assess borrower's perception of the Bank methodology and responses and the Banks performance.

Methodology

21. The approach to the study involved desk studies for secondary data collation from relevant documentations to the Project and primary data collection through field surveys with different stakeholder groups and agencies to assess the Project performance and beneficiary assessments on the Project inception, objectives, progress made, expected and actual outputs on the works executed, impacts and benefits, challenges, how these challenges can be addressed and the Key lessons learnt to inform future Projects.

Project Formulation and Design Components

22. The Project was formulated and designed as a regional program covering three contiguous economically inter-dependent countries that is Ghana, Burkina Faso and Mali. This was to ensure the transit and Transport needs of the landlocked countries coincided in improving Transport infrastructure along the Corridor and ensuring secure transit system. It had three major components.

23. Component one included a corridor road enhancement program to upgrade the quality of road infrastructure on critical sections of the Tema – Ouagadougou – Bamako Transport corridor through the rehabilitation and strengthening of the Buipe - Tamale Road. It also included the construction of up to four rest stops areas along Tema – Paga Road corridor, consultancy services for the design and supervision of road works component, implementation of social mitigation measures, implementation of HIV/AIDS prevention action plan on the Ghanaian section of the corridor; implementation of corridor road safety action plan, training consultancies, equipment and studies.

24. Component two was on corridor Transport and transit Facilitation to improve road Transport and the transit of goods along the corridor. The component activities included Transport and transit facilities to support customs; construction of two transit check points and rest stop areas; procurement of ICT equipment to fully equip two transit check points and rest stop areas; procurement of vehicles to equip mobile CEPS patrol along corridor; construction of a Satellite Transit Truck Village (STTV) to support Transport and transit facilities to support port activities.

25. Component three was on Project management monitoring and evaluation through the coordination of WATTFP professional management in conformance with legal, fiduciary and safeguard requirements.

Loan Effectiveness and Start Up

26. The approval date of the Ghana component was June 19, 2008, the signing was July 8, 2008, and the Project became effective on October 4, 2008.

Project Costs and Project Restructuring

27. The initial estimated Project cost was about US\$85 million with US\$80 million funding from the IDA and US\$5 million from the Ghana Government. The Project cost components were reallocated in 2012 upon the request of the Ghana Government, to prevent the continued substantial delays in the release of counterpart funds from GoG by increasing the financing parameters from 92.5 percent to 100 percent for the civil works components. However, due to

Projected Project savings lower than expected road works costs, the increase in the financing parameters did not affect the implementation of any of the remaining Project component.

Project Organization and Management

28. The Project was managed at both the regional and national levels. At the regional level, WAEMU/UEMOA was responsible for the coordination and monitoring of the PACITR and RP-I Program. At the national level, the management involved several implementing agencies in the three participating countries. In Ghana, it was coordinated at the Ministry of Roads and Highways (MRH) supported by three implementing agencies, the GHA, the Customs Division of the Ghana Roads Authority (GRA) and GPHA. These were organized into an Inter-Ministerial Steering Committee (IMSC), Agency Implementation Teams (AITs) and Project Implementation Team (PIT) for Project management at the inter-ministerial level, agency level and Project management level.

Procurement

29. Procurement for the proposed Project was carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004 revised October 2006; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004 revised October 2006".

Legal Requirements

30. Standard effectiveness conditions were applied for Ghana, Burkina Faso and Mali as per the General Conditions for Credits and Grants. The Project also complied with the legal covenants of submission of IFRs and Annual Audit reports.

Project Costs and Disbursements

31. As of May 31, 2015, cumulative Project disbursements have reached about US\$68.6 million, leaving an undisbursed balance of about US\$5.1 million at the current SDR/US\$/GHC exchange rate.

Operational Performance by Project Component

Road Corridor Improvement Project

32. The road rehabilitation component was to improve road access from Ghana to Burkina Faso and Mali and the rehabilitation of a 103 km stretch of road from Buipe to Tamale. The contract that started in August 23, 2011 was substantially completed in April 29, 2014 and it should be fully completed by July 31, 2015 after remedial defects liability is completed. The Project was satisfactorily implemented.

33. The construction of two rest stops and customs intervening stations at Savelugu and Sakamkrom commenced on October 25, 2014 and August 25, 2015. As of mid-June 2015, physical progress recorded was about 70 percent. The forecast for the completion date of the works is now end of August 2015 for Sakamkrom and end of October 2015 for Savelugu. Contract for the

management of the facility could not be completed under the Project implementation phase. It is expected that the remaining works and supervision consultant services inputs would need to be funded directly by GHA after the closing date of July 31, 2015. The supply of ICT equipment for the rest stops/interventions, part of which was delivered in June 2015 would have to await the completion of the facilities before being put to use.

34. A Local Area Network (LAN) has replaced an Area Wide Network facility that was to be installed in four regions for GHA and is 90 percent complete. Road safety installation in the form of signage and line marking has also been provided along the entire road corridor. The Ghana Social marketing Foundation (GSMF) under the Management of a consulting firm complemented the road Project with HIV and AIDS sensitization. In all 41,715 individuals were educated and sensitized on HIV prevention, treatment, and care. All activities are 100 percent complete. Under the Projects female empowerment initiative, 60 hawkers/petty Traders in Paga and Kintampo have formed groups, which participated in group-administered micro credit schemes with the Opportunity International and the Nasara Rural Bank in Kintampo and Paga respectively involving the advancement of a total of GH¢ 6,000.00 as soft loans to the two groups.

35. Environmental safeguard measures were addressed under the Project including the successful restoration of Cultural Heritage Sites on the Buipe-Tamale road.

Corridor Transport and transit Facilitation

36. The object of constructing a Satellite Transit Truck Village (STTV) for haulers to ease congestion at the main port at Tema was modified and replaced with the pavement and upgrade of the terminal surface of the old transit yard at the Tema Port as an alternate to the initial proposal due to cost overruns from an estimated amount of US\$5 million within Project budget to US\$11 million. Works, which commenced in May 26, 2015, are expected to be completed by the end of July 2015.

37. The development of an interface of the customs management systems between Ghana and Burkina Faso with a single transit document harmonization format has commenced but not completed. The interface technical solution has been agreed between the three (3) customs authorities and the Protocol on customs systems interconnection and the related manual of procedures, and the updated action plan of the interconnection implementation were signed by the respective heads of Ghana, Burkina Faso and Mali customs administrations in Abuja (Nigeria) on April 30, 2015. However, the implementation of the agreed action plan has been delayed and it is awaiting technical information from Burkina Faso on the configuration and format of data to be exchanged. The GRA is also pursuing the consultations with Burkina Faso and Mali customs on the establishment of one single guarantee along the entire Corridor. The efforts at introducing a single customs guarantee systems and a truck tracking system are yet to be effective with a computerized truck tracking system completed and functioning only within Ghana territory.

38. Vehicles have been procured for customs officers and they are able to patrol the corridor and take action on intelligence reports. The performance was rated satisfactory. Training program has been successfully implemented at a total cost of about US\$1 million. From 2009 to 2014, about 200 customs junior and senior staff has had local training courses and 42 attended different up-country training courses. The types of training courses offered included border management,

integrity awareness proficiency in GCNet/GCMS system, Satellite tracking for transit consignments and Integrity Awareness. The training program has gone a long way to enhance the performance of the department.

Project Management Monitoring and Evaluation

39. All fiduciary reporting requirements were met according to agreed timetables. Technical and financial audit were contracted and completed according to agreed timetables.

Project Impacts

40. **Transit Time:** The travel time on the Project corridor has reduced significantly. The average transit time for imports moving by containers from the exit at the Port of Tema to Ouagadougou Projected to decrease by 20 percent at Project inception, was reduced from 7 days at Project baseline to 5.6 days at Project completion at an average of 20 percent reduction. This was mostly attributed to the improved road condition by the drivers

41. **Road Condition:** The percentage of road in good condition on the Tema – Ouagadougou portion of Corridor (Ghana Section of the Corridor) Projected to be 50 percent at the baseline phase increased to 75 percent at the Project completion phase.

42. **The Variance of transit** from the exit at the port of Tema to Ouagadougou and Bamako Projected to decrease by at least 20 percent from 3 and 2.4 days and from 6 to 3 day respectively at 20 percent and 50 percent.

43. **The Border crossing time** from Ghana to Burkina Faso and vice versa reduced from 5 hours at the baseline phase to an average of 2 hours. The *average dwell time* at the Tema port reduced from 48 hours to an average of 24 hours at about 50 percent reduction and these were attributed mostly to improved documentation processing resulting from the training of customs personnel.

44. However, the inability to complete the harmonization of customs documentation between the three Countries and the failure to implement electronic transmission of transit documents collected by Ghanaian Customs to Burkina Faso's and Mali's customs could not impact positively on transit Facilitation as anticipated since the number of official customs post within Ghana decreased from 6 at the baseline phase to 5 at the Project completion phase. All customs duties and fees are paid during the processing of documentations at the port. Therefore all other checks along the route are for verification of customs documentations. However, in situations whereby documentations are incomplete and operators are required to return to the port to complete them, they resort to the option of the payment of the fees at the specific customs checkpoint for new documentations. In such situations, an average amount of GHC 56.00 Cedis, which is an increase from GHC 26.00 Cedis at the baseline phase is paid. This is normally not considered as an official fee. Aside this, about 97 percent of the drivers acknowledged that they made some unofficial payment at most customs checkpoints but these were not at fixed rates.

45. Though, the number of official Police checkpoints reduced from 21 to 19 and there was a reduction in the number of unofficial Police checkpoints from 5 to 3 the collection of illegal fees was still prevalent. The continuous presence of a high number of both official and unofficial police

checkpoints on the corridor is attributed to security needs along the corridor due to a rise in armed robbery cases on the corridor. Some of the truck operators deemed it to be a nuisance and requested for the reduction of these checkpoints. Some truck drivers also welcomed Police presence along the corridor for security reasons but were dissatisfied with delays and the payment of unofficial fees to the Police for doing their job and requested for it to be controlled by Government.

46. Despite these challenges, through the provision of vehicles and the training of customs officials, there has been improvement in quality of customs patrol and the time inputs for processing and inspection of documents. This has not only reduced Trade diversions and revenue losses, it has also increased security control for most Transporters along the corridor.

Strengthening of economic integration and sub-regional cooperation

47. The Project has contributed towards significant improvement on economic integration at the sub region. It has afforded the trading of the operational needs of different countries for meeting set objectives. There is import of agricultural produce such as tomatoes, onions and potatoes and livestock such as cattle, sheep and goats from Burkina Faso to Ghana, whilst manufactured products such as bicycles, small industrial machinery etc. are Transported from Ghana to Burkina Faso and beyond. Imports of grains, fruits and related products also rose from GH¢ 64.25 million (11.49 billion CFA) in 2011 to GH¢ 82.63 in 2012 (14.9 billion CFA).

Economic performance

48. The results of the economic analysis are as summarized in the tables below:

Analysis period	20 years
Discount rate	World bank: 12%
Construction period	30 months
Start of construction	2011

Table 7.1: Summary of VOC and Travel Time Saving

Discounted benefits	Project Appraisal (2007) US \$m	Project completion (2015) scenario (Tamale-Buipe) US \$m
Project costs	67.0	
Savings in MT VOC (US\$ millions)		17.52
Savings in MT Travel Time Costs ((US\$ millions)		1.58

Discounted benefits	Appraisal (2008) scenario (Kintampo-Tamale-Paga)	Project Appraisal scenario (Tamale-Buipe)	Project completion (2015) scenario (Tamale-Buipe)
Discount Rate	12	12	12
NPV (US\$ millions)	13.61	13.61	1.41
ERR (%)	14.7	14.7	13.4

Banks Performance

49. The Bank ensured the successful implementation of the Project from commencement to completion. The Bank ensured effective Project preparation with stakeholder consultations through appraisal with the development of Project Appraisal Documents to guide the Project implementation. The bank enabled the harmonization of the different objectives by different Countries and consolidated it into an integrated program to achieve effective transit Facilitation. The Bank ensured that the different Countries implemented their components of the Project in consistencies with that of the other countries. It provided back stopping to implementing agencies to rectify implementation challenges if any.

Borrower's Performance

50. The borrower efficiently managed the Project implementation through effective coordination and collaboration with other implementing Countries. It also coordinated the activities of the various implementing agencies under the Project. The Project implementation team (PIT) held quarterly meetings to review progress and status of works with inputs to guide the advancement of Project activities. Minutes of meetings were recorded and distributed. **Though delays of approvals by the bank and delays in the response of the implementation agencies affected the implementation plans of the various activities, these were ably managed to avoid serious impacts on the Project implementation process.** The borrower managed the language barrier between the partner Countries successfully to achieve expected results.

51. However, delays in Project delivery due to contract management irregularities and poor Project implementation schedules resulted in the inability to complete certain essential Project components, which prevented the full attainment of the Project benefits.

Project Constraints and Suggested Solutions

52. The Project constraints and suggested solutions are listed below:

Challenges:

- Delays in the civil works component.
- Delays in payment of compensation and counterpart funds.
- Cost overruns as a result of change in scope and other factors.
- Land acquisition and associated challenges.
- Excessive number of customs and Police check points.
- Payment of non-logistic fees.
- Language barrier.
- Poor port facilities for parking.
- Delays harmonization of customs documentations amongst the three Countries.
- Delays and the use of a common guarantee systems.
- Limitation of tracking system to the Ghana border post.

Suggestions/Recommendation:

- Feasibility studies should be reviewed regularly to meet current circumstances during Project implementation.
- Regular monitoring and evaluation of Project activities should be carried out through self-regulation by Project implementation agencies to avoid delays and constraints.
- GoG should ensure Projects are fully funded by the Bank and adequate provisions should be made for payments of components, which are not born by the bank.
- Efforts should be made to reduce the number of customs checkpoints.
- Illegal Police check points should be removed and discouraged.
- Efforts at harmonization of the customs procedures between the three countries should be facilitated and completed.
- Extension of tracking systems to other Countries.

Sustainability and Risks

53. The Project achieved its Development Objective to some extent and could not meet its final closure in March 2014. The sustainability of the benefits such as reduced travel time along the road corridor will be very reliant on effective maintenance along the entire road corridor by the respective Countries consistently. Also improved customs services would have to be sustained through refresher courses, trainer of trainers (ToT) courses to sustain the momentum for reduced delays at ports and customs check points. In terms of transit Facilitation, the process would be incomplete without the successful implementation of the customs harmonization processes to remove current limitations at the border points. The prevalence of a number of Customs and Police check points coupled with the payment of illegal non logistic fees might not allow for the realization of the full benefits of the Project. Besides, the attainment of the Project benefits would not be complete, nor sustainable, if the uncompleted components of the Project are not continued after the Project closure. The overall rating of critical risks at the Project Completion Phase was moderate risk.

Lessons Learnt

54. Though not all the Project components could be implemented before the closure of the Project, the successful implementation of Project components such as the completion of the Tema-Ouagadougou-Bamako road corridor has demonstrated that regional collaboration can and is feasible. It has created spatial opening for a unified regional economic development through effective access to a large extent.

55. The observance of critical environmental impact mitigation issues on the Project civil works components especially such as the restoration of cultural heritage sites ensured that there were no adverse environmental impacts from the Project implementation.

56. Likewise, the provision of complementary services to the road Project such as road safety installations on the entire corridor and road safety/HIV sensitization created awareness amongst truck drivers and affected communities on how to keep safe and avoid the dangers of these elements. Other aspects such as the payment of compensation for some Project affected persons

and the provision of micro credit facilities can be translated into other social and economic aspects of their lives for improved well-being, and livelihoods. This approach can be adopted for future Projects.

57. The improvement of customs procedures and documentary processing at the Tema port and border crossing ports through training and equipment supply has improved customs and port operations to some extent with regards to reduced delays. This has facilitated intra-regional Trade and contributed towards increased Trade within the sub-region as benefits of increased trading are already being gained. This has created an environment for a more competitive and efficient private sector development through Trade and other economic ventures.

58. Though the challenges with regulatory differences in transit systems and procedures still prevail, the initiated processes to harmonize customs procedures and regularize transit tracking amongst the Project Countries etc. has laid the platform and set the process in motion such that the process can be continued after the Project closure. It can also be continued under an alternate Project arrangement towards the achievement of the expected objective of transit Facilitation.

59. Also the experiences gained through the process can be documented for emulation and adoption for similar arrangement amongst the Project beneficiary Countries and other neighbor Countries in the sub region to facilitate Trade without necessarily inventing a new wheel.

60. Though not completed, the provision of Customs intervening stations and rest stops along the road corridor is an innovation to transit corridor development in Ghana, which can also be dovetailed into other similar Projects. This is because it is a key facility lacking in truck transit and Transport and most operators mentioned it as a constraint.

61. The activities under the various components were carried out to meet their set objectives though the startup and initial implementation was slow particularly due to delays in procurement processes and problems with land. Though the Project could not attain 100 percent completion on all Project components, the successful implementation of such a multi component transit Project has laid the foundation for the replication of such Project on other regional corridors. It has left a legacy of a depth of knowledge guidelines and a framework by which future Projects can draw. It has gone a long way to remove both tangible and intangible barriers to regional integration, Trade Facilitation, and economic cooperation between the Project Countries.

62. Despite the positive outcomes of the Project, in future it should be ensured that Project cost components and budgets are defined within available funds to avoid delays due to unavailable counterpart funding from Government. Where, there is need for hundred percent funding by the recipient Country under a loan arrangement, this should be negotiated at the Project appraisal stage to avoid delays in payment and Project implementation processes.

63. Project implementation schedules for Project components should in future be developed further with work breakdown structures for detail Project activities to guide the timing control in Project implementation. Where feasible, Projects should also be staggered to avoid time overruns. For example the construction of rest stops could have been staggered along with the road Project.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

Technical and Financial Partners (TFPs)

TFPs stake:

1. The Bank has been the only Project Financier, besides the beneficiary countries. The Project outcomes were however expected to be realized through the conjunction of investments from other TFPs who provided parallel investments on the Tema corridor. The latter include:

- (a) **AfDB**, through its Dec. 2003 – Dec 2012 RP-I program (original closing date was Dec. 2009), has funded around US\$100 million for: (a) Road and Facilitation studies including the detailed engineering studies of high priority RP-I roads, Advance Cargo Tracking system, etc.; (b) improvement of Bougouni – Sikasso road (about 158 km) in Mali; (c) improvement of Ouagadougou – Pô road (about 150 km) in Burkina Faso; (d) improvement of Techiman – Kintampo road (about 62 km) in Ghana; (e) sensitization and Facilitation activities and measures including installing a radio communication system on the Corridor; (f) constructing two JBPs in Paga (border Ghana – Burkina Faso) and Heremakono (Border Burkina Faso – Mali); and (g) supporting the introduction of a single ISRT booklet. Particularly important to note that at the Project closure, whilst the infrastructure components (including studies) were satisfactorily implemented, the Facilitation related components, including the construction of JBPs and the single tracking system, were not implemented. Instead each country has procured separately their own tracking system (CGNET in Ghana, EBENI in Mali);
- (b) **European Union**. The EU Transport Facilitation Project is a part of the Regional Indicative Program. It has allocated about € 64 million (US\$96 million equivalent) to meet the Facilitation needs of the designated ECOWAS/WAEMU priority corridors, including the Project Corridor. More specifically, this Project supported: (a) harmonization and simplification of regulations, procedures and documents; (b) construction of JBPs; (c) reduction of the number of checkpoints along the inter-state road axes and crossing time at JBPs; (d) improving the merchandise information system; and (e) related activities (HIV/AIDS, social and environmental mitigation measures, road safety). Furthermore, under the 8th and 9th FED, the EU has funded the rehabilitation of Boromo – Bobo Dioulasso road in BF and Kumasi –Techiman road in Ghana. Under the 10th FED, the EU is expected to fund the rehabilitation of the Sakoinzé – Boromo section of the Corridor in Burkina Faso; and
- (c) **BOAD**. The *BOAD* has provided about US\$17 million equivalent to finance the following road construction and supervision of the works: (a) with AfDB, the Bougouni – Sikasso (Bougouni – Ka) road rehabilitation works in Mali; and (b) also with AfDB, part of Ouagadougou – Po road rehabilitation works in Burkina Faso.

2. Hence, the level of attainment of the Project expected outcomes is tributary to the level of achievement of the outcomes of the above listed parallel initiatives.

Partner Financiers' comments:

3. The ICR review has consulted Project Co-financiers on issues encountered during the Project preparation and implementation. These are summarized below:

4. Overall Co-financiers (AfDB, EU, BOAD) perceived the performance of the World Bank as a financing partner to be Satisfactory.

5. Contractors appointed in Mali and Ghana turned out to be small organizations, and faced major difficulties in mobilizing equipment and qualified personnel to site, which resulted in implementation delays and technical difficulties to submit statements on time. The consultancy services for audit, awareness, TA to the UEMOA, road studies, control and supervision of works, showed a satisfactory performance in monitoring and supervising the work, which has helped to partly palliate for the contractors deficiencies.

6. The Project design, combined two components, namely the road rehabilitation and the Transport Facilitation of different nature, requiring different implementation spans, and should have been carried out under parallel Projects. This explains the partial delivery of the Facilitation component, involving institutional and regulatory reforms that can only be achieved at the sub regional level, also to avoid Trade diversion among corridors, as that is politically a sensitive issue over which political views can easily diverge.

7. The Project could have greatly benefited from the use of existing institutional arrangements in place or in the process of being, including the Observatory of Abnormal Practices (OPA), National Committees Transport Facilitation and road transit (CNF), the Regional Transport Facilitation Committee and Road Transit (CRF) and the Steering Committee of PACITR (CP). The RP1 has recommended the establishment of (i) a Joint Technical Committee (JTC) as disbursement conditions; and (ii) a CPC, as a commitment to achieving by the end of the implementation of RP-1 activities. The CNF was created but is not operational due to lack of operating budget and the CGC is still not created.

8. The construction of the One Stop Border Posts (OSBP) in Paga and Hérémenkono were initially planned but not included due to insufficient resources allocated and the EU PIR resources to UEMOA proved also insufficient. It should though be noted that (i) the title deeds for OSBP land lots have been prepared by Ghana and Mali on behalf of ECOWAS and WAEMU; and (ii) WAEMU has included the construction of the Hérémenkono OSBP in the scope of the concession signed in 2009 with the Scanning System company, but the work has not yet started and there is no visibility as to the date it will start.

Comments from Other partners and stakeholders

9. Representatives from the Ghana Institute of Freight Forwarders (GIFF) recommended that stakeholders should sign-up during inception to the Project scope through MoUs, to avoid any implementation delays due to diverging views.

10. GIFF representatives, expressed concerns about the design of the STTV in Tema, currently not playing its expected role as a one stop shop for transit traffic, as well as is difficult to access (it takes up to two hours to cross the 3 miles urban section), where a bypass for express access

between the port and the northern fringe of Tema should have been constructed as part of the Project.

11. Several safety road humps as well as tollbooths were gradually built along the corridor, cause major delays for transit traffic. It was recommended to provide separate tollbooths for trucks as well as towing services for trucks breakdown to the nearest refuges. The shortage of tracking devices has often caused major departure delays for trucks of up to two to three days.

12. The trucking industry in Ghana suffers from an aging fleet. The fragmentation of the tracking supply (single trucks owners) has drastically reduced their investment and renewal capacity and has spoiled the profession and quality of service rendered.

Annex 9. List of Supporting Documents

1. Project Concept Note, December 2003
2. Project Appraisal Document, May 2008
3. Project Aide Memoires and BTORs
4. Project Management Letters
5. Projects ISRs
6. Project FMRs
7. Environmental and Social Safeguard reports
8. Client ICRs
9. Bank-client electronic correspondence
10. Executing agencies progress reports
11. Executing agencies monitoring and evaluation data and reports

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