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# TRANSPORT AND LOGISTICS COSTS ON THE TEMA-OUAGADOUGOU CORRIDOR

West Africa Trade Hub Technical Report #25



# Transport and Logistics Costs on the Tema-Ouagadougou Corridor

West Africa Trade Hub Technical Report #25

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## ACRONYMS AND ABBREVIATIONS

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AfDB	African Development Bank
AEO	Authorized Economic Operator
ASYCUDA	Automated Systems for Customs Data
BC	<i>Brigade commerciale</i>
BE	<i>bon à enlever</i>
BF	Burkina Faso
BFCC	Burkina Faso Chamber of Commerce in Ghana
BL	bill of lading
BRI	<i>Brigade de Recherches et d'Intervention</i>
CBC	<i>Conseil Burkinabé de Chargeurs</i> (Burkinabé Shippers' Council)
DO	delivery order
CCIA-BF	<i>Chambre de Commerce, d'Industrie et d'Artisanat du Burkina Faso</i>
CEMAC	Economic and Monetary Community of Central Africa
CEPS	Customs, Excise and Preventive Services (Ghana)
CFA	<i>Communauté financière d'Afrique</i>
CIF	cost, insurance & freight
ECOWAS	Economic Community of West African States
EU	European Union
FOB	free on board
GCMS	Ghana Customs Management System
GCNet	Ghana Community Network Services Limited
GHS	Ghana cedis
GM	<i>Garde Magasin</i>
GPHA	Ghana Ports and Harbours Authority
GPS	global positioning system
GSC	Ghana Shippers' Council
IATA	International Air Traffic Association
ICT	information and communication technology
IRTG	Improved Road Transport Governance initiative
ISRT	Convention A/P.4/5/82 relating to Inter-State Road Transit of Goods (ECOWAS)
IST	Convention A/P.2/5/82 regulating Inter-State Road Transportation between ECOWAS Member States
JAPTU	Joint Association of Port Transport Unions
MPS	Meridien Port Services

N/A	not applicable
ONTTB	<i>Organisation nationale des transporteurs terrestres de Burkina</i>
OTRAF	<i>Organisation des Transporteurs Routiers du Faso</i>
Ouagarinter	<i>Gare routière internationale de marchandises d'Ouagadougou</i>
PMD	<i>passage magasin douane</i>
Ro/Ro	Roll-on roll-off
RRTC	Reduced Road Transportation Costs initiative
SDV	SCAC-Delmas-Vieljeux
SIC	State Insurance Company of Ghana Ltd.
t	tonne (= metric ton = 1,000 kilogrammes)
T&L	transport and logistics
TBL	through bill of lading
TEU	Twenty-foot equivalent unit
UEMOA	<i>Union Economique et Monétaire Ouest Africaine</i>
UNCTAD	United Nations Conference on Trade and Development
USAID	United States Agency for International Development
USD	United States Dollars
WA	West Africa
XOF	CFA franc, the common currency in UEMOA member countries

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## Foreword

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For policy makers in West Africa, the key conclusion of this report is that the cost to deliver a container from Tema to Ouagadougou is more than seven times the cost to deliver the same container from Newark to Chicago, a route of roughly equal distance. This is despite the fact that trucker salaries in the USA are roughly 25 times higher. And the trip takes as much as four times longer.

In 2005, “everybody” knew that the high cost of transport and logistics in West Africa was due to official corruption at roadway checkpoints. The authors of this report have researched that question and, according to their findings, it seems “everybody” was wrong.

The first recommendation of this report – restructuring of trucking markets – is based on evidence from Rwanda, is striking, and is consistent with the findings of our colleagues at the World Bank in their important 2008 study, *Transport prices and costs in Africa* (Teravaninthorn and Raballand). We at USAID have looked closely at that analysis, find it compelling, and commend it to the reader interested in further study. Our principal concern is that the road leading to a restructured trucking market is not entirely evident. We would do well to find a way to enlist the support of the trucking industry itself.

Including restructuring the trucking market, the authors of this report have proposed 23 recommendations. While more study will be required to confirm the impact that the implementation of these recommendations will have on the market, in the absence of strong evidence to the contrary, it seems to us quite prudent to push forward with the authors’ suggested agenda.

This work is the embodiment of “aid for trade.” We know that West Africa has a difficult time competing in world markets, though many companies can and do compete successfully. Through our work with particular companies, we know about trade problems with a great deal of practical specificity. The problems West African companies encounter as they seek to sell their products offer us clear indications of where limited governmental resources, supported by donors in some cases, might best be targeted to achieve business expansion, higher paying jobs that add greater value to products, and ultimately, the elimination of poverty. That is why we are here.

Jeffrey A. Cochrane  
Regional Program Economist  
Chief, Trade and Investment Office  
USAID/West Africa  
April 12, 2010

## Executive summary

This report has its genesis in the work on Improved Road Transport Governance (IRTG) in 2005 when the Trade Hub began supporting a joint initiative by the Economic Community of West African States (ECOWAS) and *l'Union Economique et Monétaire Ouest Africaine* (UEMOA). The IRTG program aims to reduce the delays and corruption at checkpoints that occur along transport corridors in West Africa that negatively affect West Africa's competitiveness in world markets. With the help of volunteer truck drivers and other transport stakeholders, the program monitors road barriers along major West African transport corridors, and the delays and bribes transporters incur at these checkpoints.

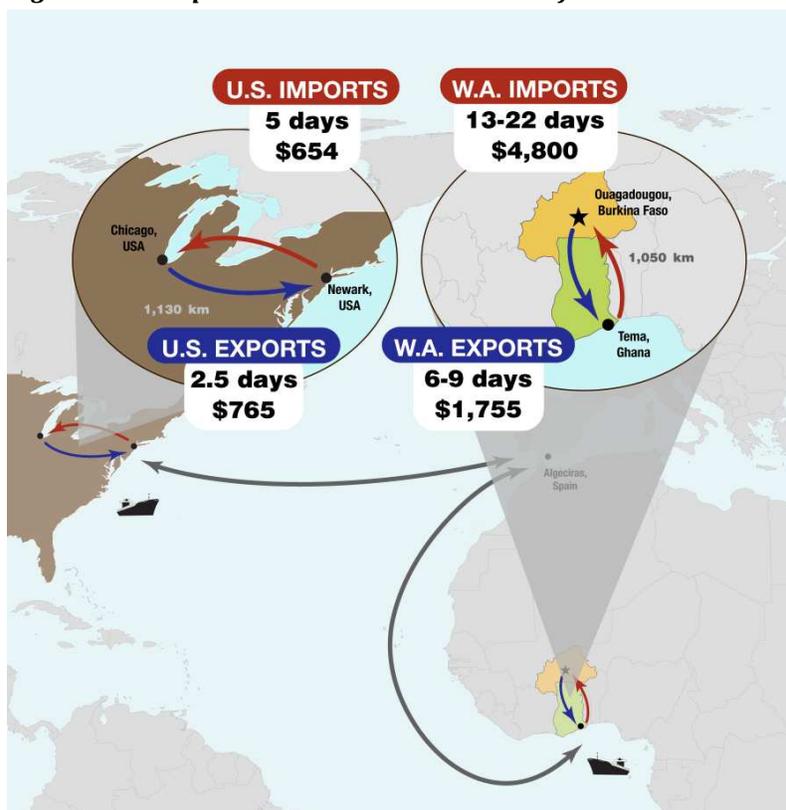
The Trade Hub hoped that eliminating these road blocks would resolve transport problems in West Africa. However, the work raised questions as to whether hurdles other than road blocks also significantly limit the efficiency of transport in West Africa. As a result, the Trade Hub initiated this study of the Tema-Ouagadougou corridor, in mid-2008, in order to document all procedures, costs and delays traders experience while importing to, or exporting from, Burkina Faso through the Ghanaian port of Tema.

From July to September 2008, a Trade Hub team conducted interviews with more than 100 stakeholders. Through these interviews, the team collected average values for formal costs, i.e. official fees and legitimate charges for handling and transport, and informal costs such as bribes and other un-receipted costs, as well as the time and delays taken for various procedures. The team collected data on each of these cost categories for different import and export commodities and handling modes. The team selected the most representative responses and standardized the units of analysis to standard 20-foot containers (TEU) and tonnes (t). The study benefited from other studies conducted by sister USAID projects, the European Commission and the World Bank, in particular regarding the issues of axle load control, deregulation of the sub-Saharan trucking market, and comparisons with transport corridors in other developing countries.

Shipping to and from West Africa is time consuming and expensive compared in particular to the situation in developed countries. To put the West Africa transport and logistics (T&L) costs and transit times in perspective the study

looked at the door-to-door transport cost for containers between Ouagadougou and Chicago, via Tema port as shown in Figure 1 above. Chicago, Illinois, is approximately the same distance from the port of arrival, Newark, New Jersey, as Ouagadougou is from Tema. The US land-side transport cost is the benchmark against which the study compares the performance of the Tema-Ouagadougou corridor in order to establish the ultimate benefits West Africa would gain if its transport efficiency reached the level achieved in developed

**Figure 1: Transport Costs in the US and West Africa**



*Note: Importing and exporting a standard 20' container*

countries. Indeed, given that labor costs in the USA are about 25 times higher than in West Africa<sup>1</sup>, it should be feasible to achieve overall transport and logistics costs in West Africa that are significantly lower, in spite of the lack of economy of scale and the imbalance between import and export traffic.

This comparison underlines the extent to which transport and logistics in West Africa are handicapped by high costs, long transit times, uncertainty in costs and transit times, and corruption. Transporting goods from Tema port to Ouagadougou costs seven times as much as moving goods the same distance from Newark to Chicago. Similarly, the West African leg of importing takes an unpredictable 13 to 22 days, compared to the highly predictable 5 days it takes from the arrival of the vessel in Newark until the cargo arrives at the terminal in Chicago. In the case of export, the Ouagadougou-Tema leg costs more than twice as much as moving goods from Chicago to Newark and takes an unpredictable 6 to 9 days compared to the predictable 2.5 days it takes in the U.S. As for corruption, the study found that it made up about 8.2% of the total transport and logistics costs in West Africa for imports and 2.9% for exports.

The study also found that importing goods to Burkina Faso via Tema port in Ghana costs considerably more, takes longer, involves more uncertainty and incurs more bribes than exporting as shown in Table 1 below.

**Table 1: Tema-Ouagadougou corridor - import versus export transport costs for containerized cargo**

	<b>Import</b>	<b>Export</b>
Transport & logistics costs	USD 4,803/TEU	USD 1,755/TEU
Transit time	13.5-22 days	6-9 days
Bribes	USD 399/TEU	USD 66/TEU

Exporting costs less mainly because it is subject to few if any duties and taxes - which means that exporting is subject to less attention and fewer controls thereby speeding up the clearance processes and reducing the demand for bribes. Also, competition for export cargo is fierce among trucking companies because Burkina Faso exports much less than it imports. Many trucks are therefore obliged to make the southbound Ouagadougou-Tema journey empty. Most exports rely on imports to varying degree. High import costs therefore negatively affect export competitiveness.

The biggest surprise of the study was that delays and bribes at road barriers – although a serious and highly visible cancer on society – are a small part of the total bribes and delays suffered by traders and transporters on the Tema–Ouagadougou corridor. For imports, bribes paid at road barriers amount to less than 10% of the total amount of bribes paid by traders on imports. For exports, bribes paid at road barriers are the same amount per truckload as bribes paid for imports, but represent almost 50% overall bribes for exports.

So, if the costs and delays on the Tema-Ouagadougou corridor are not primarily caused by road checkpoints, where are the problems?

First consider imports. Trucking represents more than 60% of the total West African part of import T&L costs. West African trucking costs are high relative to global norms and are therefore an obvious target for cost reduction. For delays, Tema port is the major bottleneck on the import side as almost half the standard time and more than half the additional delays occur during the port and customs clearance processes. More than 50% of informal costs – bribes - are incurred at Ouagarinter (the customs clearance yard in Ouagadougou), which is not surprising as that is where duties and taxes are paid and thus where most money changes hands.

Exports attract much less official attention than imports since there are few duties and taxes to be paid and therefore much less intervention by customs<sup>2</sup>. The exporter therefore faces fewer costs, and time delays in

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<sup>1</sup> Sources : - West African truckers' unions (salary range for a truck driver : USD 55-150 per month, i.e. USD 0.60/hour).  
 - US Bureau of Labor <http://www.bls.gov/oco/ocos246.htm#earnings>  
 (Median hourly wages of heavy truck and tractor-trailer drivers were \$17.92 in May 2008)

the Ouagarinter terminal and Tema port, and the trucking leg becomes the major focus for reducing costs and transit times.

The problems at Tema port can be resolved by reducing congestion at the port and streamlining port and customs procedures. The high costs related to the trucking leg for both import and export is best resolved by deregulating the trucking market in the ECOWAS region, while the high level of informal payments incurred during the clearance process at Ouagarinter would be greatly reduced if ECOWAS governments were successful in establishing a single market with no internal borders.

The most important actions that would reduce transport and logistics costs, transit times, delays and uncertainty on the Tema-Ouagadougou transport corridor include the following:

- **Creating a single market in the ECOWAS region**  
Eliminating internal borders between ECOWAS countries would create a single transport and logistics market and effectively make Burkina Faso and other Sahelian countries “non-landlocked”. This would solve most of the problems identified.
- **Deregulating the West African trucking market**  
A free market in trucking services would replace cargo sharing rules between transporters from the port country and the landlocked country, and the “first come, first served” cargo-truck allocation system existing at Tema port. This would result in more competition based on price and quality of service, and lead to a more professional trucking industry with newer and better maintained trucks, making the Tema-Ouagadougou road-transit link faster and less costly. The study encourages ECOWAS Member States to consider not only the deregulation of transit traffic but the creation of a single market for transport and logistics services in the region.
- **Further automating and streamlining customs procedures**  
This should speed up customs processes and reduce the need for direct contact between customs agents and forwarders/importers, which should result in fewer opportunities to offer/demand bribes.
- **Promoting the use of containers for all transit cargo**  
Using containers would improve speed and security in clearing goods and would also reduce the occurrence of heavily overloaded trucks and make it more difficult for dishonest traders or transporters to engage in fraudulent practices.
- **Fighting corruption**  
Unofficial payments add uncertainty to transactions, reduce confidence in the rule of law and discourage investments.

The complete list of recommendations can be found in Section 6.6.

Compared to other developing country transport corridors, the Tema-Ouagadougou corridor lags significantly behind with respect to: Ship waiting times in the port; average unloading and loading times in the port; dwell time for transit cargo in the port; share of inbound containers stripped in port; the cost of road transport; the performance of the border post in Burkina Faso; and, the average speed of road transport.

On the other hand, the Tema-Ouagadougou corridor compares favorably with other corridors in: The total cargo handling costs in the port; customs costs at the port; and, border post costs and transit time in Ghana in the inbound direction.

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<sup>2</sup>The Trade Hub continues to strongly support the IRTG program technically, administratively and financially and believes fighting corruption at road checkpoints may be the most effective way to fight corruption in transport in general because it is very visible and because most members of the general public have themselves experienced harassment by uniformed services at road barriers.

For other aspects of performance, such as reliability, the Tema-Ouagadougou corridor is about average compared with other corridors. The percent of unofficial payments is better than the worst countries but can be improved.

Burkinabé import and export traffic through Tema port amounted to 320,000 t and 130,000 t respectively in 2006. If all the recommendations in this report were implemented, total potential savings for Burkina Faso could be USD 24.7 million on imports and USD 5.9 million on exports.

If costs fell to the competitive levels found in the US, potential savings could reach USD 189 per tonne for imports and USD 46 per tonne for exports, i.e. annual savings for Burkina Faso of USD 60 million on imports and USD 6 million on exports.

The impact on trade would be significant, making it easier for West African companies to compete in a globalized world and lowering the prices of goods for consumers and producers within the region. Based on the linkage between transport costs and trade volumes established by a World Bank study<sup>3</sup> which found that a 10% increase in transport costs typically reduces trade volumes by approximately 20%, both imports and exports from Burkina Faso can be expected to increase by more than 50%, thus creating a virtuous circle of steadily increasing benefits from trade and economic development.

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<sup>3</sup> Limao, N., and A. J. Venables. 2001. "Infrastructure, Geographical Disadvantage and Transport Costs." *World Bank Economic Review* 15 (3): 451–79.

# 1 Introduction

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## 1.1 Background

---

Slow, unpredictable, and costly transport in West Africa severely limits the ability of companies in the region to trade competitively in world markets, resulting in unnecessarily high consumer prices for imported goods and lower than necessary profits for exporters. This study investigates the various inefficiencies on the transport corridor from Ouagadougou to Tema, then quantifies and prioritizes them and concludes with recommendations for actions to address the most serious problems.

The study has its genesis in the work on Improved Road Transport Governance (IRTG) in which the West Africa Trade Hub became involved in 2005 in support of a joint initiative by the Economic Community of West African States (ECOWAS) and *l'Union Economique et Monétaire Ouest Africaine* (UEMOA). The IRTG program aims to reduce the delays and corruption at checkpoints that occur along transport corridors in West Africa and which negatively affect West Africa's competitiveness in world markets. With the help of volunteer truck drivers and other transport stakeholders, the program documents the number of road barriers and controls along major West African transport corridors, and the delays and bribes transporters incur at these checkpoints.

At the time it was generally considered that road blocks and corruption was the major problem preventing West African transport from being competitive. A 2003 report by the African Development Bank<sup>4</sup> (AfDB) described the road-transport situation in West Africa when the UEMOA/Trade Hub program started as follows: *Constraints from a multitude of road barriers that are officially there to check vehicle condition, permits, and adherence to laws and regulations, are in reality there principally to extort money from trucks and buses.*

The AfDB report noted the considerable loss of time and increase in vehicle operating costs caused by these stops. At the time, the 1,600 km trip from Douala, Cameroon, to Bangui, Central African Republic, usually took between 7 and 10 days, mainly because of the numerous roadblocks and controls, while without the roadblocks the unconstrained trip should take only 3 days. The level of bribes paid during the voyage amounted to the equivalent of about USD 580.

The sad story of road checkpoints and bribes in West Africa is an old one. The situation in 2003 related above is not very different from the situation in the 1950s, described in the novel "*No Longer at Ease*" by the Nigerian writer Chinua Achebe<sup>5</sup>.

Since 2005, USAID's West Africa Trade Hub has provided technical assistance to the Economic Community of West African States (ECOWAS) and the *Union Economique et Monétaire Ouest Africaine* (UEMOA) through the Improved Road Transport Governance (IRTG) initiative. The IRTG initiative documents and disseminates information about delays and corruption along major road transport corridors in West Africa<sup>6</sup>. In early 2008, the Trade Hub established the Reduced Road Transport Costs (RRTC) initiative to go beyond issues of road-transport governance and examine the entire range of costs and delays for representative import and export commodities on West African transport corridors – from the arrival of the ship in a West African port to customs release in a landlocked Sahelian capital, and vice versa

The Trade Hub hoped that eliminating these road blocks would resolve transport problems in West Africa. However, a couple of years into the IRTG program, questions were raised as to whether hurdles other than

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<sup>4</sup> African Development Bank and UNECA (2003) "*Review of the Implementation Status of the Trans-African Highways and the Missing Links*"

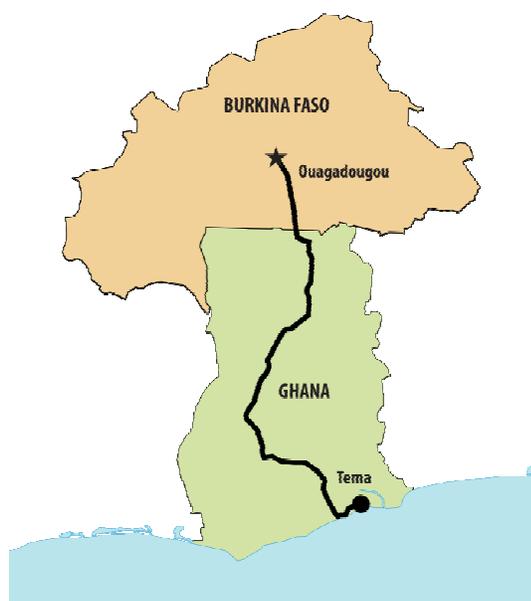
<sup>5</sup> Chinua Achebe, in his 1960 novel "*No Longer at Ease*", describes how a bus is stopped at a checkpoint and a bribe has to be paid.

<sup>6</sup> For more information on the IRTG project see [www.watradehub.com](http://www.watradehub.com)

road blocks also significantly limit the efficiency of transport in West Africa. As a result, the Trade Hub initiated this study of the Tema-Ouagadougou corridor, in mid-2008, in order to document all procedures, costs and delays traders experience while either importing to, or exporting from, Burkina Faso through the Ghanaian port of Tema.

This initial RRTC study covers the Ouagadougou-Tema corridor, for which the West Africa Trade Hub collected data in collaboration with the Ghana Shippers' Council (GSC) and the Burkinabé Shippers' Council (CBC), during the period July to September 2008. Further studies will follow on other corridors. Figure 2 shows the Ouagadougou-Tema road corridor

**Figure 2: Map of Ouagadougou-Tema corridor**



#### **Corridor Profile**

**Total Length: 1,057 km**

**Ghana segment: 881 km**

**Burkina segment: 176 km**

**Total imports: 320,000 tonnes (2006)**

**Total exports: 130,000 tonnes (2006)**

## **1.2 The problem and justification for the study**

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West African traders and transporters need a thorough understanding of procedures and costs involved in trade in order to make informed decisions about the choice of port, transit corridor and handling mode, and to contribute usefully to the debate on improving transport policies, and to comment on public and private investments in transport infrastructure. They also need details of official and unofficial costs, as well as administrative bottlenecks and delays that have an impact on the total transport costs.

Policy makers and government agencies need this information in order to introduce, in consultation with the private sector, appropriate policy reforms and to make sound transport-infrastructure investments.

The premise of this study is that where several port options are available, an overview of costs and delays will generate competition among these ports, which should result in the sharing of best practices, the promotion of administrative reforms and streamlining of procedures, an increase in infrastructure investments and, eventually, an overall improvement in the performance of all transport corridors.

## **1.3 Objectives**

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The study describes in considerable detail the steps and procedures involved in importing to and exporting from Burkina Faso through Tema port in Ghana. The study also identifies the time and delays as well as official and unofficial costs incurred at various points in the transport chain as the goods travel along the Ouagadougou-Tema corridor. Some costs are paid directly by the importer whereas others are paid by the forwarders and transporters and are included in the price of their services.

The study aims to provide importers and exporters with the information they need to make informed decisions about choosing the transport corridor that offers the fastest, most cost-effective and reliable, quality service. The study also aims to provide traders with the information they need to lobby governments effectively for appropriate reforms, better transport infrastructure, more streamlined import and export procedures, less corruption, and the elimination of unnecessary delays.

The information and analysis found in the study should also be useful for national governments, regional bodies (ECOWAS and UEMOA), and donor organizations with an interest in promoting trade and transport facilitation by identifying the most important barriers to trade and transport along the corridor, and thus guide transport infrastructure investments and procedural reforms.

## 1.4 Methodology

From July to September 2008, a Trade Hub team conducted interviews with over 100 stakeholders along the transport corridor. Stakeholders interviewed included transporters and forwarders/customs brokers, as well as representatives of shipping lines, shippers' councils, business associations and private companies.

The Trade Hub team also reviewed and described the many institutions that play important roles in the import and export of goods along the Ouagadougou-Tema corridor and the key trade and transport related policies and resolutions these institutions administer and enforce. These are described in Annex A. Readers unfamiliar with the context of import and export along the Ouagadougou-Tema corridor should review this annex first.

Through the stakeholder interviews, the team collected average values for formal costs (official fees and legitimate charges for handling and transport) and informal costs such as bribes and other un-receipted costs, as well as the time and delays taken for various procedures. The team collected data on each of these cost categories for different import and export commodities and handling modes. The Ghana Ports and Harbours Authority (GPHA) and the GSC provided statistics and other information on the Tema port while the CBC provided statistics on transit traffic to and from Burkina Faso through the port of Tema. The study also benefited from other studies conducted by sister USAID projects, the European Commission and the World Bank. Additional experts provided information on specific technical issues.

The answers to the questions sometimes varied widely. The team selected the most representative responses for use in the model and standardized the units of analysis to standard 20-foot and 40-foot containers and to metric tons (t).

### 1.4.1 Costs

The study distinguishes between formal and informal costs. Economic operators receive receipts when they pay for formal costs, but do not when they pay for informal costs. Bribes are classified as informal costs.

Costs have been defined and categorized as follows:

Formal costs:	All receipted costs
Informal costs:	All un-receipted costs
Port Costs:	Formal and informal port and shipping line charges
Trucking costs:	All formal and informal charges associated with the organization of trucking, labor for loading of the truck, and the price of the trucking journey
Customs processing costs:	All formal and informal charges payable to customs authorities and other government agencies at the ports, at borders and at destination, as well as the fee for the bond required by the Ghanaian customs for all goods transiting Ghana – commonly referred to as the “guarantee” premium.

Forwarding costs:	All formal and informal costs payable to forwarders for clearing goods and organizing transport
Duties and taxes:	Customs duties and taxes
Opportunity costs:	The cost of capital locked up while goods are transported, or in the case of truck owners, when trucks are being unnecessarily delayed

The fact that this study takes informal costs as well as formal costs into account provides additional context to the World Bank's "Doing Business" methodology related to the topic "Trading across Borders"<sup>7</sup>. This annual World Bank study looks at the procedural requirements for exporting and importing goods, taking into account all fees associated with completing the procedures to export or import goods. However, the World Bank study only accounts for formal costs, while the current study accounts for both formal and informal costs. Other distinctions are that the RRTC study is specific to a transport corridor and considers containerized, break-bulk and bulk cargo whereas the World Bank report is country-specific and considers only goods transported in full, dry-cargo 20-foot containers.

## 1.4.2 Exchange Rates

The exchange rates used for this study were based on the averages recorded during the study period, June 6, 2008 to September 15, 2008.

**Table 2: Exchange rates used in the study**

Currency	Average exchange rate (September 15, 2008)
XOF <sup>8</sup> to USD	0.0024
GHS <sup>9</sup> to USD	0.90
USD to XOF	420

## 1.4.3 Choice of studied commodities

This study considers both import, northbound trade (Tema to Ouagadougou), and export, southbound trade (Ouagadougou to Tema). The primary factor determining the choice of cargo was the contribution to total trade along the corridor over the past several years. For imports, the study chose commodities that illustrate certain types of handling modes and that can be used for similar studies on other trade corridors: edible oils, sugar and textiles that together accounted for 17% of Burkina Faso's total imports in 2007. For exports, the study chose commodities relevant to the Trade Hub's business stakeholders: shea nuts, sesame seeds and cashews. These three commodities were each among Burkina Faso's top 20 export commodities by value for 2000-2004.

<sup>7</sup> For more information, refer to: <http://www.doingbusiness.org/>

<sup>8</sup> XOF is the international ISO code for the CFA franc, which is the common currency in UEMOA member countries.

<sup>9</sup> A re-denominated Ghana cedi was introduced on July 1, 2007, worth 10,000 old cedis. The international ISO currency symbol for the new cedi is GHS, in contrast to GHC for the old cedi. The currency symbol for the cedi is ¢.

#### 1.4.4 Standard time, delays and uncertainty

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In calculating the **standard time** for various activities, respondents were asked the average time that was spent on an activity, assuming all things were working as they usually did. This may include some measure of idling or delay. If some delays always occurred in the process, this was included in the standard time.

In the case of **average delays**, respondents were asked the delays that were experienced beyond what they considered to be 'normal'. (e.g. Electronic systems are occasionally down, officials are not at their post when they are expected to be there, equipment is unavailable, etc.)

All the responses were reviewed and a final average was determined based on:

- Origin of the information (some respondents were considered to be more trustworthy/credible than others)
- Simple averages
- The researchers' own experience

Finally the findings were presented at various validation workshops in Tema and changes were made where the participants collectively agreed that adjustments were needed to reflect the actual situation.

Except for vessel berthing operations in Tema port, the analysis considers only delays caused during normal working hours and therefore does not account for the time lost, for example, in overnight delays along the route.

As the delays are impossible to know in advance, average delays are an indication of the **uncertainty** associated with transporting goods to and from Burkina Faso via Tema port.

#### 1.4.5 Customs duties and taxes

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The cost analysis in this study excludes duties and taxes. Although these represent a significant portion of the importers' total costs, they are not part of transportation or logistics costs.

However, customs duties and taxes have an important indirect impact on transportation costs. High import duties tempt traders and transporters to engage in fraudulent behavior. This causes governments to institute complex inspection and control procedures, which again lead to more costs, delays and opportunities for informal payments to either speed up the processes, or to make government agents turn a blind eye to unlawful situations. This is a vicious circle, which might be broken if and when ECOWAS member countries create a single free market with common external duties and a harmonized internal tax regime.

### 1.5 Compared with other developing world transport corridors

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The USAID-funded companion study "*West Africa Transport Logistics Analysis Using FastPath: Tema-Ouagadougou Corridor*", using the data collected by the West Africa Trade Hub for this study and its own research, compared the Tema-Ouagadougou corridor with similar transport corridors in Mozambique, Laos, and Bangladesh using the FastPath model, a transport logistics diagnostic tool developed with USAid funding<sup>10</sup>.

The *FastPath* model assesses the variables of cost, time, and reliability of key infrastructure components along a corridor in a consistent and replicable fashion. Each variable represents an indicator of performance by itself, but the three variables are also used to generate a summary performance measure, or logistics score. In the case of the Tema-Ouagadougou corridor, the team assessed Tema port, the road network between Tema and Ouagadougou, and the border crossings at Paga, Ghana and Dakola, Burkina Faso.

The findings of the *FastPath* analysis has been summarized in section 6.5.

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<sup>10</sup> Nathan Associates (2010) *West Africa Transport Logistics Analysis Using FastPath - Tema-Ouagadougou Corridor*, USAid

## 1.6 Axle-load regulations

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Since Niger started enforcing UEMOA axle-load regulations in January 2009, the West Africa trucking market has been in turmoil.

The idea of regulating axle loads in West Africa dates back to 1982 when ECOWAS Member States signed a convention<sup>11</sup>, which stipulates that the maximum axle load of vehicles authorized to carry out interstate transportation, should not exceed 11.5 tonnes per axle. Since mid-2009, Ghana, Niger and Togo were enforcing the regulations and other UEMOA's member states have agreed to enforce the rules by June 2010.

Overloaded trucks have a serious negative impact on the West African road infrastructure. A recent report<sup>12</sup> found that on the Burkina Faso road from the Ghanaian border to Ouagadougou, 84% of trucks were overloaded by an average exceeding 52 tonnes with some trucks weighing up to 142 tonnes – almost three times the legal limit. When made to endure such abuse, the life of a road is reduced to 1 to 4 years, compared to a normal life of 15 years or more. Heavily overloaded trucks also make for dangerous driving situations as they are difficult to drive and, more important, difficult to stop once they are moving. Overloading also leads to more breakdowns, which have financial impacts on exporters and importers, and represent a threat to the safe journeys of other road users.

The initial result of enforcing the axle-load rules was dramatic: Hundreds of overloaded trucks were stranded for long periods at the Burkina Faso-Niger border, and at Tema port. Because of the sudden decrease in tonnage that trucks were allowed to carry, and the resulting decrease in profit per trip, transport prices from Tema to Niger, for example, initially more than doubled from about USD 64 per tonne to about USD 154<sup>13</sup>. However, by September 2009 transport prices seem to have stabilized at a level about 50% higher than before the implementation of the axle-load regulations.

Many trucks, particularly Ghanaian ones, have been heavily reinforced in order to carry excessive loads. This reinforcement increases the tare weight of the trucks and thus limits how much cargo the trucks can legally carry and still respect the gross axle-weight limits. Many of these trucks are now working in countries that have not yet implemented the axle-load regulations.

Although transport prices have gone up, at least in the short run, failing to implement axle-load controls is clearly not a viable option. In the long run, transport prices should go down as a result of better and safer roads which will allow for faster trips and thus more revenue per truck, particularly if the regional trucking markets are de-regulated allowing for competition based on service and price.

This study has made no attempt to update transport costs and prices to reflect the 2009 situation for three reasons: first, the current situation (March 2010) is still in flux; second, the conclusions and recommendations are not affected; and third, there is value in having a benchmark for the situation just before the implementation of the axle-load regulations.

## 1.7 Deregulation of the West African road transport market

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In a recent World Bank report, *“Transport Prices and costs in Africa”*<sup>14</sup>, the authors note that *“in regulated environments such as West and Central Africa, regulatory constraints (formal and informal) must be dismantled because they are the root cause of limited competition, poor service, and high transport prices.”*

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<sup>11</sup> Convention A/P.2/5/82 regulating Inter-State Road Transportation between ECOWAS Member States

<sup>12</sup> «Etudes des impacts de la réduction des charges des véhicules de poids lourds » (October 2008), Europaid/125136/D/SER/BF

<sup>13</sup> “Overweight trucks stopped as Niger implements rule” West Africa Trade Hub *Tradewinds* issue 18 May 2009

<sup>14</sup> Teravaninthorn S. & G. Raballand (2008) *Transport prices and costs in Africa: a review of the international corridors* World Bank

Although, the sub-Saharan African transport sector has undergone major transformations since the 1990s<sup>15</sup>, the World Bank report explains that the only experience so far in the African region in deregulating the trucking market in transit traffic took place in Rwanda in 1994<sup>16</sup>. This had a significant effect on transport prices, confirming the impact that cartels have had elsewhere. After deregulation of international transport, prices declined by more than 30% in nominal terms and by almost 75% in real terms (when taking into account the continued increase in input prices)<sup>17</sup>.

This study did not set out to survey the structure and regulation of the West African trucking market; however, the importance of the issue became evident from the World Bank report. In order to get a better understanding of the West African road transport market, the Trade Hub commissioned a study on the subject<sup>18</sup> and its executive summary appears in Annex H.

Cargo destined for landlocked Sahelian countries is usually shared between truck owners from the landlocked and the port country on a two-thirds, one-third basis. That is, two-thirds of cargo destined for a landlocked country is reserved for hauling by trucks owned and operated by companies in the landlocked country while one-third can be hauled by trucks from the port country. This cargo sharing arrangement is usually accompanied by a cargo/truck allocation system whereby, in principle, the first truck in line is the first to obtain cargo.

The monopoly on the allocation of freight has several negative effects.

- First, it allows older, poorly maintained trucks to remain in service because they only have to wait at the port, like their competitors, to get cargo. In a more competitive environment, newer, better maintained trucks would out-compete them; the queuing system puts old trucks in poor condition on an equal footing with their competitors. In this context, modern, well maintained trucks cannot realize their potential.
- Second, the possibility for older, poorly maintained trucks to remain economically active results in an oversupply of trucks on the market. Without the queuing system, owners would probably scrap them.
- Third, the oversupply of trucks and increased waiting times at the port mean that rotation times between the port and the Sahelian destination are increased. The additional downtime reduces the distance a truck can cover in a year and thus the efficiency and profitability of trucking.
- Fourth, to counter the low distance covered annually, firms tend to overload their trucks. The old, poorly maintained and overloaded trucks have a greater propensity to break down, cause accidents, pollute the air and degrade the roads prematurely. The slow, irregular progress of these trucks yields a poor service to importers. The accidents, pollution and road degradation are negative externalities with high economic and social costs.
- Fifth, the queuing process encourages bribery in order to avoid waiting. Also, overloading and contravention of road safety regulations leave drivers open to extortion by the police. The result is limited competition, poor service, high transport prices and compromised governance.

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<sup>15</sup> "Since the 1990s the transport sector (in Africa) has ... mostly been deregulated, and transport policies have been modified to permit market-determined decisions, enterprise autonomy, and private participation in the ownership and management of transport business. Most bus and trucking companies have been privatized, and governments are making concessions on the railways, ports and harbours, and airports, especially since 2000." Jerome, Afeikhena Theo, *Private Sector Participation in Infrastructure in Africa (1970 to 2007)*, December 21, 2009. Available at SSRN: <http://ssrn.com/abstract=1526659>

<sup>16</sup> Teravaninthorn S. & G. Raballand (2008)

<sup>17</sup> The positive impact of deregulation may be less pronounced in other countries as road freight services in Rwanda before the de-regulation were a monopoly of a parastatal trucking company

<sup>18</sup> Zerelli, S. (2009) "Trucking to West Africa's landlocked countries – market structure and conduct", USAID West Africa Trade Hub

In reality, the cargo-sharing and truck-allocation system is not strictly implemented on the Tema-Ouagadougou corridor. Still, the study on West African road transport efficiency confirmed the conclusions of the World Bank report, which recommend that:

- The West Africa road transport market should be deregulated in order to dismantle the institutional mechanisms that promote queuing rather than free-market contracting for trucking loads.
- A new vehicle tax structure should be introduced which would make newer trucks that can cover higher annual distances more competitive, perhaps by transferring the fiscal burden on trucking firms from fuel to truck ownership and registration.
- Truck import duties should be designed to encourage the import of newer trucks, or penalize the import of older trucks. Governments could institute an import tax on trucks that increases with truck age.

Deregulation can be implemented to different degrees, from cancelling the cargo-sharing agreements between the landlocked and port country, to opening up the respective domestic trucking markets for transporters from both the landlocked and port country, to totally opening the trucking market for ECOWAS transporters in the ECOWAS region. The further the trucking market is opened for competition, the more importers and exporters will benefit in terms of lower costs and better service. This would also be an important step towards realizing the ECOWAS mission:

*"...to promote economic integration in all fields of economic activity, particularly industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial questions, social and cultural matters ...."*<sup>19</sup>

However, regarding the implementation of a deregulated trucking market, the World Bank report cautions that:

*"Deregulating the trucking industry in West and Central Africa is less a technical than a political and social issue. The main concern is that under a liberalized, competitive market, the demand could be served efficiently by a much smaller number of trucks. This would lead to a drop in trucking employment and profits, since some companies (or owner-operators) would disappear and other would shrink.... There is a chance that the coalition of interest groups opposing change in the transport market in most of West and Central African countries might accept reforms as long as compensation schemes are introduced with the purpose of paying, at least partly, the social costs of such reforms."*<sup>20</sup>

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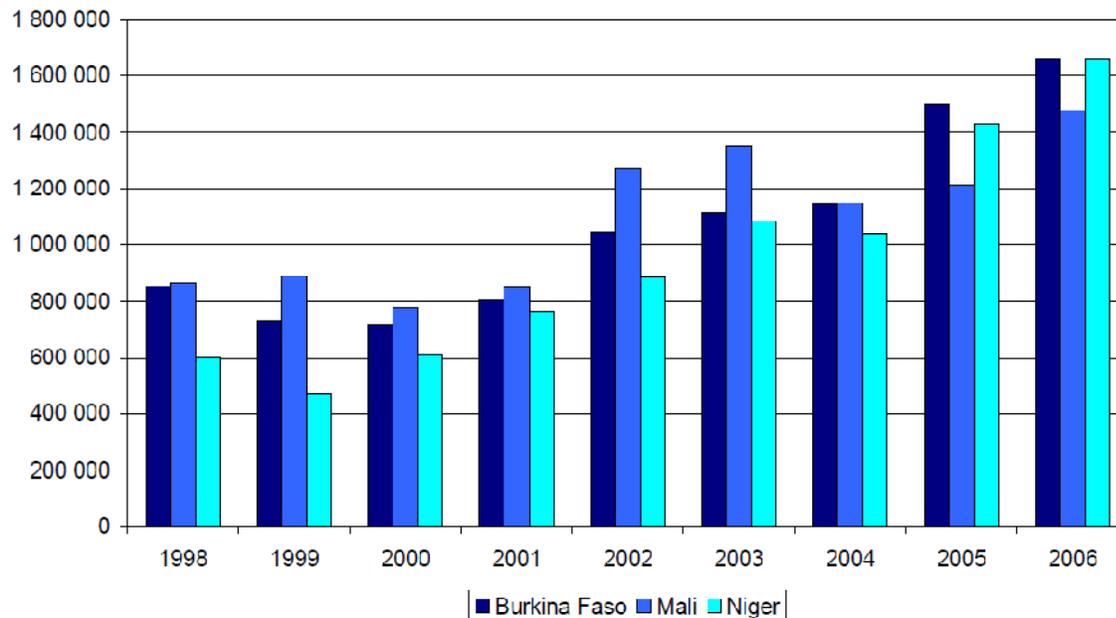
<sup>19</sup> See [http://www.comm.ecowas.int/sec/index.php?id=about\\_a&lang=en](http://www.comm.ecowas.int/sec/index.php?id=about_a&lang=en)

<sup>20</sup> Teravaninthorn S. & G. Raballand (2008), pg.8

## 2 Transit traffic to Sahelian landlocked countries

The Sahelian landlocked countries served by the Tema-Ouagadougou corridor are primarily Burkina Faso, Mali and Niger. These countries together generate approximately 5 million tonnes of transit cargo through West African ports as shown in Figure 3 below.

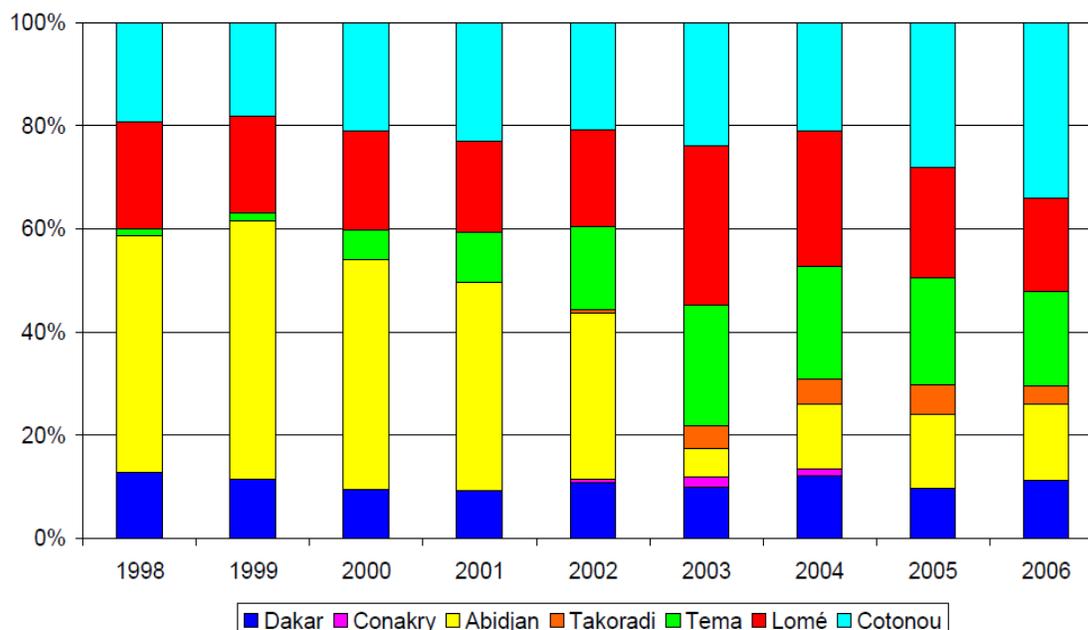
**Figure 3: Maritime transit traffic for Burkina Faso, Mali and Niger**



Source: *West African Road Transport and Transit Facilitation Strategy*, by Zerelli et al, ECOWAS (December 2008)

The ports competing for this cargo include Dakar in Senegal, Conakry in Guinea, Abidjan in Côte d'Ivoire, Tema and Takoradi in Ghana, Lomé in Togo, and Cotonou in Benin. Figure 4 shows the distribution of the Sahelian transit traffic among these ports.

**Figure 4: Total transit traffic for Burkina Faso, Mali and Niger, share per port**



Source: West African Road Transport and Transit Facilitation Strategy, Zerelli et al (Dec. 2008) ECOWAS ref 9ACP ROC

During the civil unrest in Côte d’Ivoire from 2002 to 2004, when road and rail transport was interrupted, and risky and unreliable at best, significant transit traffic was diverted to other ports, principally Lomé but also to Tema. Since security has improved in Côte d’Ivoire, some of the traffic diverted to Tema has returned to Abidjan.

## 2.1 Transit traffic through Tema port

Tema port is Ghana’s main gateway to international trade and the country’s most important port for transit traffic to the Sahelian landlocked countries. GPHA has invested to promote transit trade, conducting marketing campaigns in the landlocked countries, opening an office in Burkina Faso, leasing port land to landlocked countries to develop their own storage facilities, and building transit sheds and truck parking facilities.

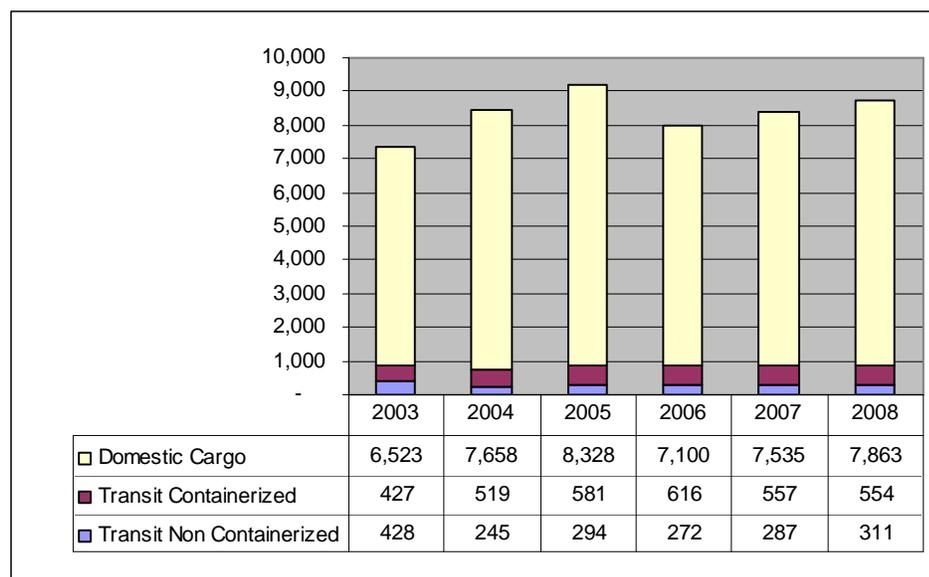
### Tema cargo volumes

In 2008, Tema port handled nearly 8.7 million tonnes. Imports constitute about two-thirds of port throughput; exports account for about one-third. Containerized cargo amounted to 4.8 million tonnes, or 55% of total tonnage. Tema is Ghana’s most important container port, handling close to 550,000 20-foot equivalent units (TEU) in 2008<sup>21</sup>.

Since 2003, annual transit traffic has remained fairly stable at about 850,000 tonnes as shown in Figure 5. About 85% of Tema transit cargo is transported to/from Mali, Burkina Faso and Niger.

<sup>21</sup> The measure for containerized traffic is the 20-foot equivalent unit (TEU) where a standard 20-foot container is equal to one TEU and a standard 40-foot container equals two TEUs

**Figure 5: Total volume of cargo handled at Tema port, 2003-2008 ('000 tonnes)**

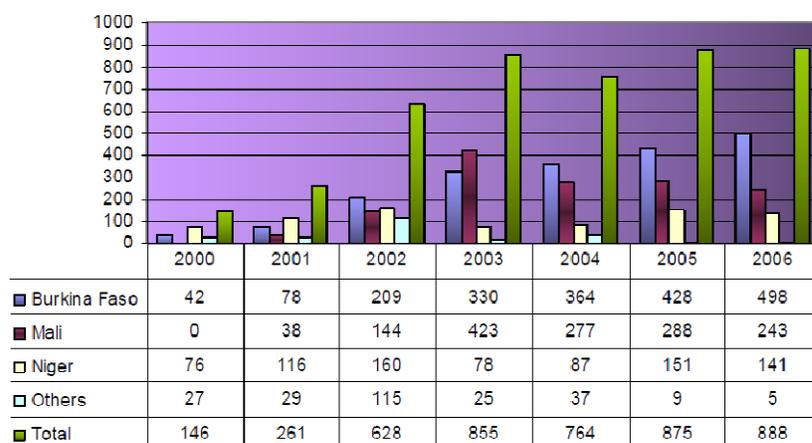


Source: GPHA

Within Ghana, Tema port competes with Takoradi, Ghana's second port, which emerged as a transit port as a result of Tema port approaching full capacity. Takoradi port handles about 4 million tonnes of cargo annually, of which transit traffic represents only about 200,000 tonnes.

Figure 6 shows the historical volumes of transit traffic through Tema port sorted by country of destination.

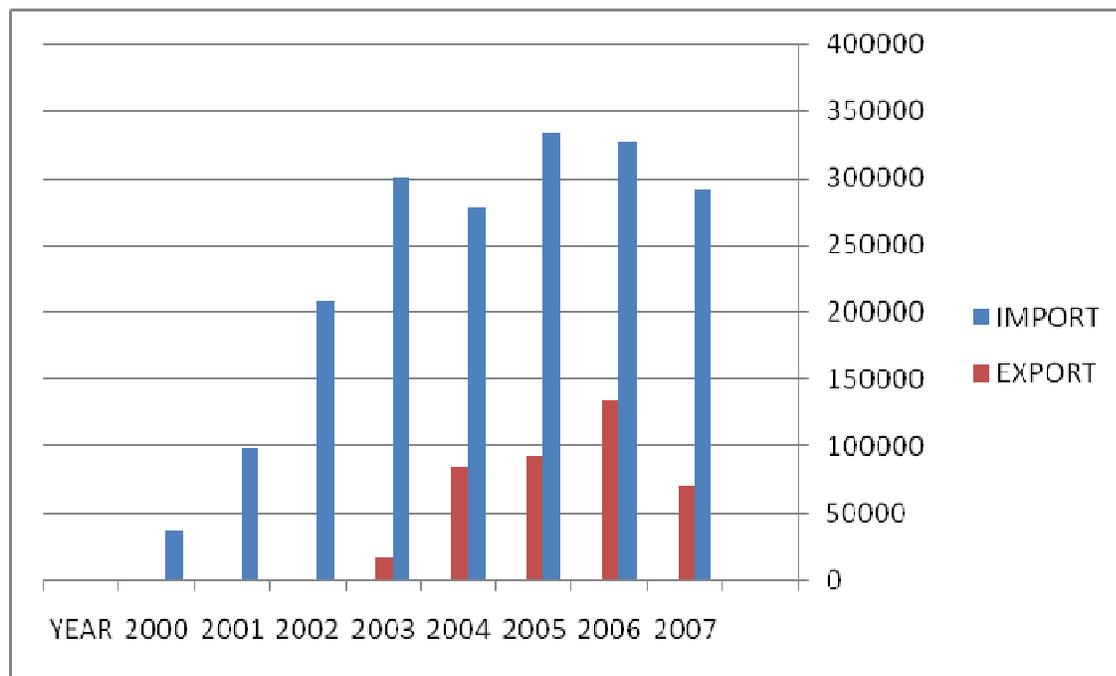
**Figure 6: Tema transit traffic volume by country, 2000-2006 ('000 tonnes)**



Source: The West Africa Trade Hub, GPHA

Burkina Faso accounts for more than half the transit volume, which had been rising steadily until 2006. Flows to and from Mali have remained approximately constant from 2004 to 2006. Flows to and from Niger fell in 2003, but have since increased again in 2005 and 2006. Figure 7 shows the transit import and export traffic through Tema port to Burkina Faso.

**Figure 7: Transit traffic through Tema to Burkina Faso (2000-2007)**



Source: Conseil Burkinabè des Chargeurs. Note: No export data available before 2003.

Almost two-thirds of Tema transit cargo arrives containerized. Of the containerized transit traffic destined for Burkina Faso, 80% is unloaded from the container in the port before onward transport to Ouagadougou as break-bulk.

### 3 Costs per type of commodity and handling mode

In order to get a picture of the range of transport costs Burkinabé importers and exporters have to pay, the study team carried out a detailed analysis for typical import and export commodities and handling modes in both directions of the Tema-Ouagadougou transport corridor.

The team also looked at the cost quoted to move a 20- and 40-foot container from Chicago to Tema in order to get a sense of how the transport costs of the West Africa portion compare to the total cost of moving cargo from an overseas destination to Ouagadougou. The team chose Chicago because the distance Chicago-Newark (1130 km) is close to the distance Tema-Ouagadougou (1060 km) and thus represents a benchmark for what the West Africa inland cost could be with a level of transport efficiency similar to a developed country.

#### 3.1 Burkinabé imports - northbound cargo

For imports, four commodities were chosen which represent the three common types of handling modes for import cargo, i.e. containerized all the way to Ouagadougou (textiles), containerized until Tema port and then stripped for onward transport to Ouagadougou (edible oils), and bulk or break-bulk all the way (rice and sugar).

##### 3.1.1 Import - choice of commodities

The cargoes selected as typical imports to Burkina Faso were textiles, edible oils, sugar, and rice. Table 3 shows the weight and Cost-Insurance-Freight (CIF) value of these commodities. The figures represent actual examples of cargo destined for Burkina Faso imported through Tema in 2008. Textiles alone made up approximately 10% of imports into Burkina Faso through Ghanaian ports between 2005 and 2007, while edible oils represented 5% of imports. The transport and logistics costs associated with the bulk cargoes, rice and sugar, are calculated based on consignments of 1,000 tonnes transported by trucks carrying average individual loads of 40 tonnes.

Other commodities accounting for the bulk of imports on this corridor include miscellaneous manufactured articles, auto spare parts, construction materials (iron rods, coils and ceramic tiles) and chemical products.

**Table 3: Burkinabé imports - northbound cargo**

Type of Transport	Commodity	Weight (tonnes)	Container type	CIF value, Tema (USD)	Annual volume (tonnes)	% of total BF imports through Tema port
Full container	Textiles	18	20'	9,051	29,519	10
	Textiles	30	40'	17,200		
Stripped container (break-bulk)	Cooking oil	22	20'	22,000	13,627	5
	Cooking oil	28	40'	28,000		
Bulk	Sugar	1	n/a	445	5,409	2
	Rice	1	n/a	1,200		

Source: Conseil Burkinabé des Chargeurs (2007)

##### 3.1.2 Tema-Ouagadougou transport costs by commodity and type of handling

Table 4 shows the total transport and logistics costs (both formal and informal costs) in USD per commodity for the different handling modes. The “stripped” columns pertain to truckloads of the goods after the freight forwarder has had them removed from the containers in which they arrived at Tema port.

The assumptions underlying the cost calculations are explained in detail in Annex G.

**Table 4: Imports - Total transport and logistics (T&L) costs per commodity and handling mode**

Transport mode	Full container			Stripped container (break-bulk)			Bulk*		Average**	
Commodity	textiles 20'	textiles 2 x 20'	textiles 40'	cooking oil 20' ***	cooking oil 2 x 20'	cooking oil 40'	sugar	rice		
Value: Tema, CIF (USD)	9,051	18,102	17,200	22,000	44,000	28,000	17,800	48,000	25,530	
Weight (tonnes)	18	36	30	22	44	28	40	40	32	
Chicago-Newark, 1130 km (USD)	765		900	765		900				
Maritime leg, Newark-Tema (USD)	2,560		3,645	2,560		3,645				
Total Chicago-Tema**** (USD)	3,325		4,545	3,325		4,545				
Total port costs (USD)	Formal	141	168	288	193	210	383	102	102	198
	Informal	5	9	9	32	32	36	78	78	35
Total customs costs (USD)	Formal	324	377	407	270	481	337	330	330	357
	Informal	195	220	300	258	322	278	137	137	231
Total trucking and logistics costs (USD)	Formal	2,576	3,743	3,671	3,163	3,776	3,250	2,719	2,719	3,202
	Informal	178	178	178	98	196	124	178	178	164
Total forwarding costs (USD)	Formal	850	1,700	1,430	778	1,557	1,159	962	962	1,175
	Informal	6	6	12	12	24	12	1	1	9.2
Total formal costs (USD)	3,891	5,988	5,796	4,404	6,024	5,129	4,114	4,114	4,933	
Total informal (USD)	384	413	499	399	574	450	394	394	438	
Informal as % of total	9.0%	6.5%	7.9%	8.3%	8.7%	8.1%	8.7%	8.7%	8.2%	
<b>Grand total West Africa T&amp;L costs (USD)</b>	<b>4,275</b>	<b>6,401</b>	<b>6,295</b>	<b>4,804</b>	<b>6,598</b>	<b>5,579</b>	<b>4,508</b>	<b>4,508</b>	<b>5,371</b>	
<b>Total WA T&amp;L/tonne (USD)</b>	<b>238</b>	<b>178</b>	<b>210</b>	<b>218</b>	<b>150</b>	<b>199</b>	<b>113</b>	<b>113</b>	<b>168</b>	
Total Chicago-Ouagadougou (USD)	7,600		10,840	7,600		10,840				

Notes: \*Bulk cargo is calculated for 1,000-tonne shipments, assuming that individual truckloads are 40 tonnes

\*\* This is a straight average of the 8 commodity/handling-mode combinations studied

\*\*\*Used for benchmarking comparison

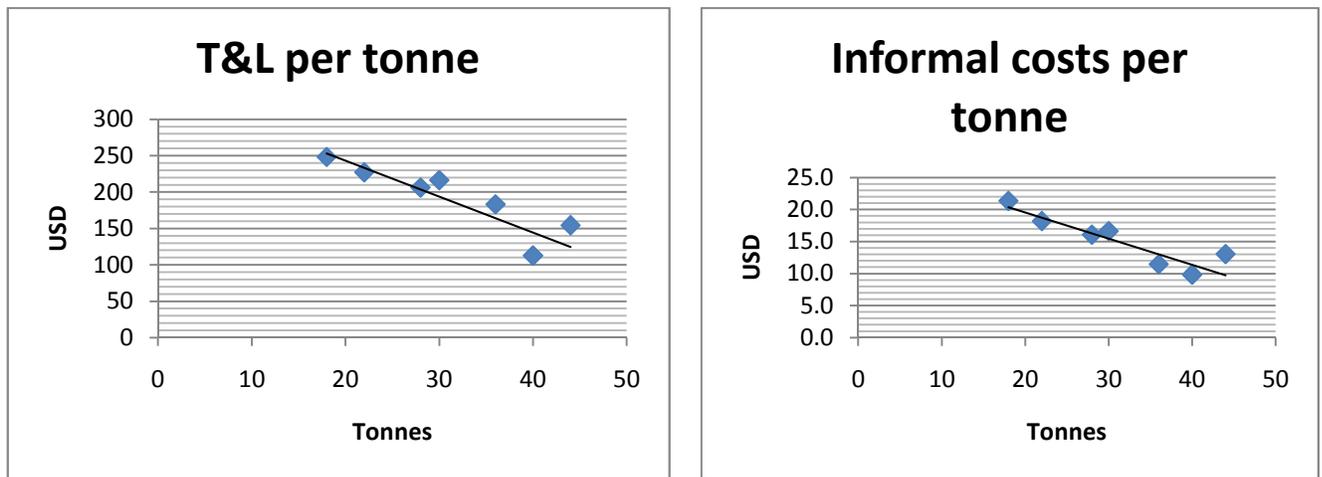
\*\*\*\* Source: Maersk website, January 2010 for reference.

### 3.1.3 Results

As shown in Table 5, the West Africa transport and logistics (T&L) cost is close to 60% of the total door-to-door cost of a container shipment from Chicago to Ouagadougou, which we consider a typical situation. The US land transport is approximately equal to 25% of the West Africa land portion (trucking). This is an approximate benchmark for what West African transport cost could be if it were as efficient as a highly developed country.

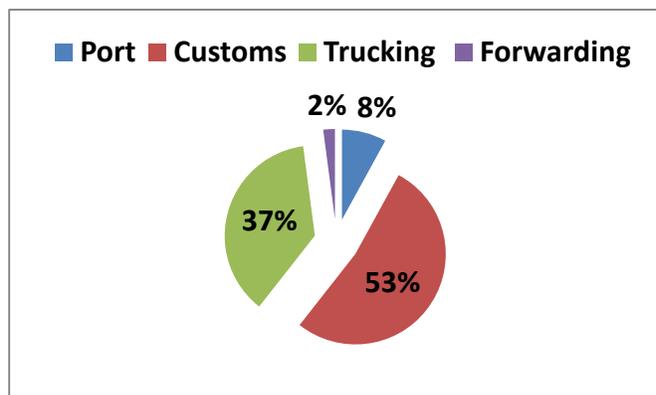
Costs per tonne for the selected commodities were generally proportional to the tonnage loaded on the truck. This is not surprising since the more tonnes of cargo a transporter can load the less it costs per tonne. This creates a powerful incentive to overload trucks, even taking account of the accelerated depreciation to trucks due to increased wear and tear. See Figure 8 below.

**Figure 8: Transport and logistics costs and informal costs per tonne - imports**



Informal costs accounted for about 8% of the total T&L cost for imports. Figure 9 shows the distribution of average unofficial costs between the different points of intervention and agencies, with customs being the biggest recipient of informal payments. High Burkinabé import duties and numerous and cumbersome clearance procedures partly explain this. Importers and forwarders pay bribes to speed up the clearance process, or to have customs agents not enforce the rules, or both.

**Figure 9: Imports - Distribution of unofficial costs**



*Note: Total bribes for imports = USD 438 per average truckload, about 8% of total T&L costs*

## 3.2 Burkina Faso exports - southbound cargo

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The chosen cargoes represent the two typical handling modes for export, i.e. containerized all the way from Ouagadougou to Tema and onward to final destination, or break-bulk from Ouagadougou to Tema and loaded into containers at the port.

### 3.2.1 Export - choice of commodities

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The commodities analyzed for export are shea butter, shea nuts, cashew nuts and handcrafts. The weights and values of these commodities are shown in Table 5.

**Table 5: Export commodity weights and values**

Commodity	Container type	Weight (t)	Tema FOB value (USD)
Shea butter	40' dry	26	39,000
Shea nuts	20' dry	17	8,500
Cashew nuts	20' dry	16	95,200
Handcrafts	40' dry	11	21,000

### 3.2.2 Ouagadougou-Tema transport costs by commodity and type of handling

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About 30% of the export commodities chosen are containerized in Ouagadougou; the remaining 70% travels as bulk or break-bulk to Tema port where it is usually stuffed into containers immediately upon arrival for maritime shipping onward to the final destination. In the analysis we therefore do not include warehousing costs in Tema. We also assume that the content of one truckload of break-bulk cargo equals that of two TEUs. Other assumptions underlying the cost calculations are explained in Annex G.

### 3.2.3 Results

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Table 6 shows total export transport and logistics costs, and cost per tonne, for various handling modes and types of cargo and services. The figures are typical of the transport and logistics costs for most commodities exported from Burkina Faso through Tema.

**Table 6: Export - total transport and logistics (T&L) costs per commodities and handling modes**

Transport mode	Container				Break-bulk from Ouagadougou, containerized in Tema				Averages	
Commodity	40' shea butter	20' shea nuts	20' cashew	40' handcrafts	40' shea butter	2 X 20' shea nuts	2 X20' cashew	40' handcrafts		
Value (USD) - Tema FOB	39,000	8,500	95,200	21,000	39,000	17,000	190,400	21,000	53,890*	
Weight (tonnes)	26	17	16	11	26	34	32	11	22*	
USA inland haulage, 1130 km (USD)	770	654		770						
Maritime leg, Tema-Newark (USD)	4,014	3,209		4,014						
Total Tema-Chicago** (USD)	4,784	3,863		4,784						
Total port costs (USD)	Formal	324	177	177	324	324	336	336	324	290*
	Informal	5	5	5	5	5	10	10	5	6*
Total customs costs (USD)	Formal	322	322	322	322	322	394	394	322	340*
	Informal	26	26	26	26	46	60	60	60	39.5*
Total trucking & logistics costs (USD)	Formal	1,439	723	723	1,439	2,076	2,076	2,076	2,076	1,579*
	Informal	33	35	35	33	35	58	58	35	40*
Total forwarding costs (USD)	Formal	737	467	467	737	737	934	934	737	719*
	Informal	0	0	0	0	0	0	0	0	0
Total formal T&L costs (USD)	2,822	1,689	1,689	2,822	3,459	3740	3740	3,459	2,928	
Total informal T&L costs (USD)	64	66	66	64	86	128	128	86	86	
Informal as % of total	2.2%	3.8%	3.8%	2.2%	2.4%	3.3%	3.3%	2.4%	2.9%	
<b>Grand total West Africa T&amp;L costs (USD)</b>	<b>2,886</b>	<b>1,755</b>	<b>1,755</b>	<b>2,886</b>	<b>3,545</b>	<b>3,868</b>	<b>3,868</b>	<b>3,545</b>	<b>3,014</b>	
T&L costs per tonne (USD)	111	103	110	262	136	114	121	322	137	
Total Ouagadougou-Chicago (USD)	7,670	5,618		7,670						

Note: \*These are straight averages of the 8 commodity/handling-mode combinations studied

\*\* Source: Maersk website, January 2010.

As illustrated in Table 7, for export, West Africa transport and logistics (T&L) costs are close to 40% of the total door-to-door cost of a container shipment from Ouagadougou to Chicago.

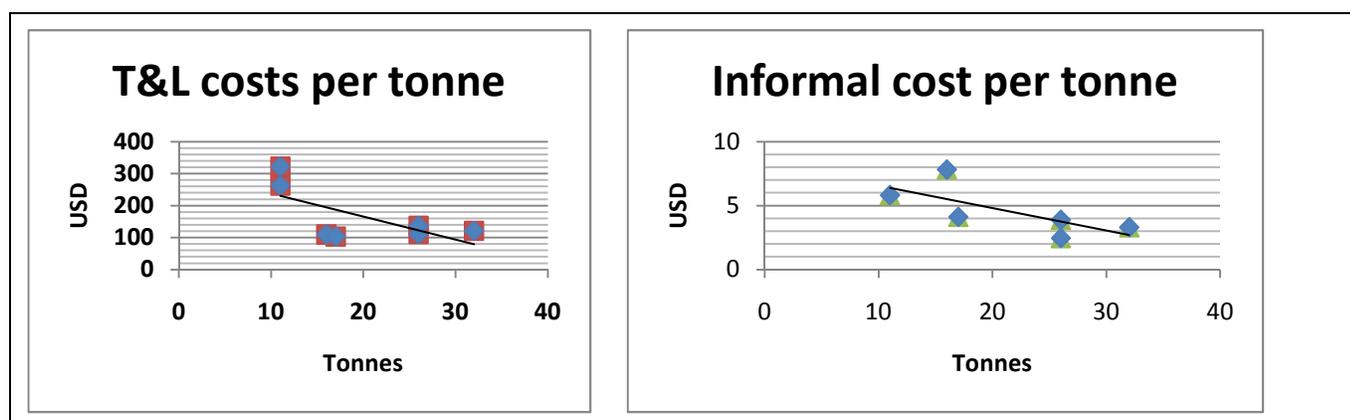
The total West Africa T&L cost for an average export truckload is less than 60% of the cost of an average truckload for import: USD 3,014 for export versus USD 5,371 for import. This is to be expected as Burkina Faso imports about three times more than it exports; so, many trucks travel to Tema empty.

For containers the situation is even more striking as the cost for moving a 20-foot container from Ouagadougou, in our example, is very close to what it cost to move a 20-foot container the same distance in

the US. This is the price a shipper can obtain from a transporter if the transporter from the outset has a contract for the round trip Tema-Ouaga-Tema and thus doesn't have to wait for cargo in Ouagadougou, or make the Ouagadougou-Tema leg empty. Few shippers however, are in a position to take advantage of this as only containers transported to Ouagadougou by shipping lines on Through Bills of Ladings are available for export cargo. Containers rented by importers are almost all returned empty to the shipping lines in Tema port because importers have little "free" time before incurring demurrage charges. Also, importers are not set up to find return cargo to Tema. In theory, break-bulk cargo should be able to benefit from the same low trucking price as containers, but in reality it turns out to be a difficult coordination problem.

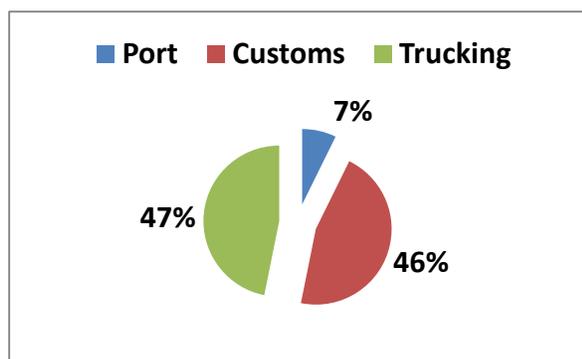
For the chosen commodities, the average import truck load is 32 tonnes compared to 22 tonnes for an average export truckload. This means that the average cost per tonne is USD 166 for import versus USD 160 for export. The low density of handicraft, in particular, increases the average cost per tonne for exports which is why transport costs for export are more closely correlated to the truckload than to the tonnage as shown in Figure 10.

**Figure 10: Export - transport and logistics and informal costs per tonne**



Informal costs on export cargo for all handling modes averaged 2.9 % of total transport and logistics costs compared to 8.2 % for imports. The distribution of informal costs among the different agents is shown in Figure 11. The highest informal cost for exports was payments made for trucking, closely followed by informal payments to customs officers. The low percentage of informal costs paid on exports can be attributed to the simpler procedures involved in exporting and thus the limited intervention of customs.

**Figure 11: Export - Distribution of unofficial costs**



*Note: Total bribes for exports = USD 86 per average truckload, about 3% of total T&L costs*

## 4 Imports: Logistics procedures, costs and delays

In this section we review and analyze the cost and delays experienced when importing a shipment of cooking oil which arrived in Tema port in a standard 20-foot container. The container was stripped in Tema port and the cargo was trucked to Ouagadougou as break-bulk.

From the moment a vessel drops anchor outside Tema port and starts waiting for a berth to unload, the transport leg which is under the control of West African authorities and operators begins. Imported goods arrive in containers and in bulk. The goods are unloaded from the vessel to the port and then cleared by customs, a cumbersome process involving a significant amount of time and paperwork, before they are loaded onto trucks. Once loaded on a truck, customs, insurance agents, the port authority and national security agents check the truck and cargo for compliance with laws and regulations. The truck carrying the goods is outfitted by Ghana's Customs, Excise and Preventive Services (CEPS) with a global positioning system (GPS) device for tracking before it

Figure 12: Imports: The movement of cargo from Tema to Ouagadougou



leaves on its journey to Ouagadougou. The trip involves a number of stops at checkpoints within Ghana operated by police, customs and transport unions, among others, before the truck arrives at the Ghana-Burkina Faso border. At the border, police and customs officials on both sides inspect and process the shipment before the truck continues to Ouagadougou where customs clear the goods and the importer ultimately takes possession. Figure 12 outlines the process and identifies the key points where costs are incurred.

## 4.1 Imports: main cost components for northbound traffic

The main components of the transport costs and delays for Burkinabé imports from the time the cargo arrives at anchor at Tema port until the cargo is cleared and collected in Ouagadougou are summarized in Table 7. As a representative commodity and handling mode we have chosen a 20-foot container, equal to one TEU, of cooking oil, stripped in Tema for onward transportation to Ouagadougou as break-bulk.

**Table 7: Main components of Tema-Ouaga transit traffic – 20' stripped container of cooking oil**

Activity, West Africa	Total cost (USD/TEU)	Of which informal cost (USD/TEU)	Standard time (hrs)	Average delays (hrs)	Remarks
Average anchorage & berthing	Included in freight cost	n/a	1	40	24 hrs days
Average unloading at berth	Included in freight cost	n/a	20	n/a	
Anchorage and berthing	n/a	n/a	21 hrs (0.9 days)	40 hrs (1.7 days)	
Port, transit yard & stripping	\$121.95	\$31.50	38	21.5	8 hrs days
Customs	\$115.04	\$25.00			
Forwarding	\$281.00	\$0.00			
Shipping line release	\$102.30	\$0.00			
Port operations subtotal	\$620.29	\$56.50	42 hrs (5.25 days)	23.5 hrs (2.9 days)	
Road transport to border (Tema-Paga)	\$2,868.63	\$97.90	24	1.5	
Border crossing at Paga (Ghana)	\$25.54	\$25.54	1	1	
Border crossing at Dakola (BF)	\$141.08	\$14.28	2	3	
Road transport to terminal (Dakola-Ouagarinter)	Included in "Road transport to border"		8	3	
Road-transport leg subtotal	\$3,035.25	\$137.72	35 hrs (4.4 days)	8.5 hrs (1.1 days)	
Ouagarinter customs	\$296.96	\$204.68	24	24	
Ouagarinter forwarding	\$458.15	\$0.00			
Ouagarinter truck demurrage	\$392.70	\$0.00			
Ouagarinter subtotal	\$1,147.81	\$204.68	24 hrs (3 days)	24 hrs (3 days)	
<b>Total - West Africa</b>	<b>\$4,803</b>	<b>\$399</b>	<b>122 hrs (13.5 days*)</b>	<b>96 hrs (8.7 days*)</b>	

**The big picture: The overseas Transport & Logistics portion – import to West Africa (Chicago – Tema – Ouagadougou)**

Transit cost/time Chicago-Newark	\$765		2.5 days	24 hrs days
Transit cost/ time Newark-Tema**	\$2,560		30.5 days	
Total transit time/cost Chicago-Ouaga	\$8,128	10,360 km	46.5-55.2 days	
Cost/time of WA leg, % of total	59%		30-40%	
<b>Landside Newark-Chicago, 1130 km***</b>	<b>\$654</b>	<b>Benchmark - import</b>	<b>118 hrs (4.9 days) – US import</b>	
WA inland cost/time, % of benchmark	735%		275-450%	

\* Anchorage and berthing are 24-hrs days, all other operations are 8-hrs days; \*\* Source: Maersk website, January 2010; \*\*\* US landside import leg, Chicago- Newark, is the benchmark for the WA import landside leg; \*\*\*\* Calculated as "Total, WA" – "benchmark"

The longest delays occur in the port, while the road-transport leg is the most expensive and most bribes are paid during the clearance process in Ouagadougou.

If one compares to the benchmark for land side transport - time from when the vessel arrives in New Jersey until the container arrives in Chicago (1130 km) – one notes that the difference in hours is small: 118 hrs in the US versus 122 hrs in West Africa (without delays). The difference is that in the US cargo moves 24 hrs a day with little uncertainty. The container therefore arrives in Chicago after less than 5 days after being unloaded whereas it takes anything from 13.5 to 22.2 days from the time the vessel arrives in Tema until the container is cleared in Ouagadougou. The indicative inefficiency cost on the import side – the saving if the West Africa transport efficiency equaled the North American one - is more than USD 4,000, or about 50% of the total door-to-door cost.

The following description and analysis is divided into three parts:

- The port operations, which again are divided into berth operations, including waiting at anchor, and terminal operations.
- The road-transport leg, which includes the border crossing between Ghana and Burkina Faso.
- The clearing processes at the Ouagarinter terminal in Ouagadougou.

## 4.2 Imports: Tema port operations

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GPHA owns the Tema port land and certain facilities, operating primarily as a landlord and regulator of port functions. In order to modernize and privatize the handling of containers in Tema, GPHA signed a concession agreement with Meridian Port Services (MPS) in 2004. Since then, MPS has managed the port but GPHA continues to provide vessel-handling and stevedoring services in the remaining part of the port.

The following performance review of the port includes Tema port’s five main facilities and services: the berth, the storage yard, intermodal transfer, customs, and the gate. The review consists of a description and analysis of the berth and vessel operations and another of other services, grouped under “terminal operations”.

### 4.2.1 Berth and vessel operations<sup>22</sup>

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The overall performance of the port is affected by the entire throughput. However this study focuses only on transit cargo and therefore the analysis restricts itself to the components of the port associated with transit cargoes. The following sections present more detailed statistics on the volumes of vessels and cargo handled at the port and how this affects its transit-related performance. Table 8 presents the volume of cargo handled by Tema port, with a breakdown by type of commodity.

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<sup>22</sup> This sub-section is based on the USAID-funded companion study “*West Africa Transport Logistics Analysis Using FastPath - Tema-Ouagadougou Corridor*” by the DAI/Nathan Group (August 2009)

**Table 8: Volume of cargo handled by Tema port by commodity and handling mode (tonnes)**

Commodity Description	2003	2004	2005	2006	2007	2008
Agri bulk	52,244	64,261	44,998	32,038	78,955	62,512
Bagged cargo	1,17,1613	774,802	1,109,976	845,193	978,457	80,7120
Containerized	2,477,468	2,856,543	3,386,954	3,774,264	4,226,254	4,759,554
Dry bulk	1,138,782	1,201,982	1,032,062	1,205,488	1,208,095	1,304,211
Lumber	1,524	320	1,192	1,025	1,509	8,202
Conventional	39,234	21,050	32,002	77,744	17,484	45,458
Frozen	-	213,314	246,847	203,436	205,997	310,197
Iron & steel	196,721	203,486	427,610	286,314	316,388	261,085
Liquid bulk	2,179,088	2,954,759	2,785,277	1,417,522	1,173,204	991,132
Machinery & equipment	10,429	14,443	17,253	19,126	23,647	27,573
Unitized cargo	32,433	57,897	46,513	55,040	65,327	62,641
Unpacked vehicles	78,772	59,076	72,779	70,232	83,630	87,364
<b>TOTAL</b>	<b>7,378,308</b>	<b>8,421,933</b>	<b>9,203,463</b>	<b>7,987,422</b>	<b>8,378,947</b>	<b>8,727,049</b>

Source: GPHA

A detailed analysis of the port cargo volumes shows that 63% of the transit cargo is containerized, while 32% is break-bulk cargo. However importers usually strip cargo received in containers for onward shipment as break-bulk to landlocked countries, partly because shipping lines charge consignees high deposits for the use of containers, but also because transporters can load more break-bulk cargo on a given truck than they can if the cargo remains containerized.

### *Berth throughput and occupancy*

For the purpose of analyzing the throughput statistics, the berths of the main port are divided into three sections:

**Berths 1 and 2**, also referred to as Quay 2 South, the port section under concession to MPS, the deepest berths in Tema (at 13 meters) and the only ones equipped with shore-based gantry cranes:

This section, which serves only specialized container ships, handled about 66 and 52% of the container throughput in 2007 and 2008, respectively.

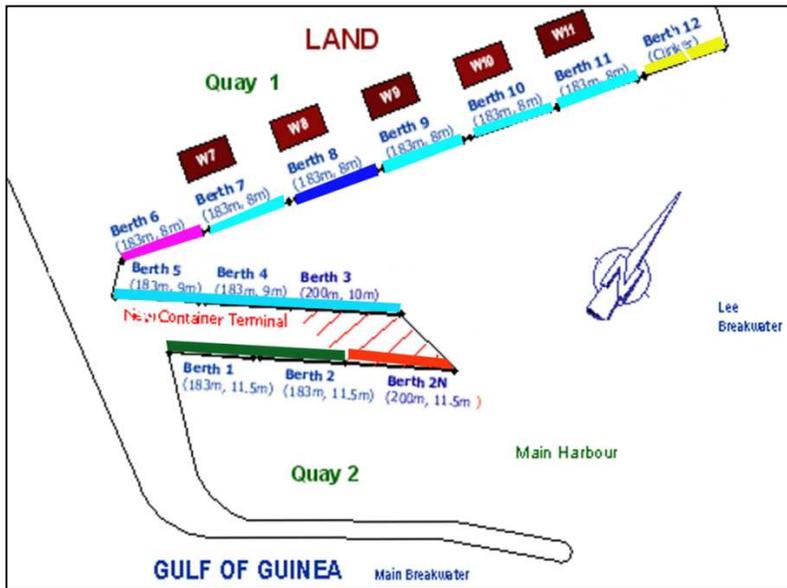
**Berths 3, 4, and 5**, also referred to as Quay 2 North, located at the back of Quay 2 South:

The second section, which handles container ships as well as roll-on roll-off (Ro/Ro) and break-bulk vessels (bagged imports, for example), increased its container-handling share of total containers handled in the port from 15% to 28% in 2008. The container ships handled at Quay 2 North are usually smaller than those handled at Quay 2 South because of the shallower draft of 10.5 meters.

**Berths 6–12**, the rest of the main port:

Berths 6–12 are all multipurpose berths. The total volume of containers handled in this area of the port accounted for 20% of the container volume during 2008. This section of the port is even shallower than Quay 2 North, with drafts ranging from 7 meters to 9 meters, and handles mainly small container ships. Figure 13 presents the layout of the water-side port facilities at the port of Tema.

**Figure 13: Tema port water-side facilities layout**

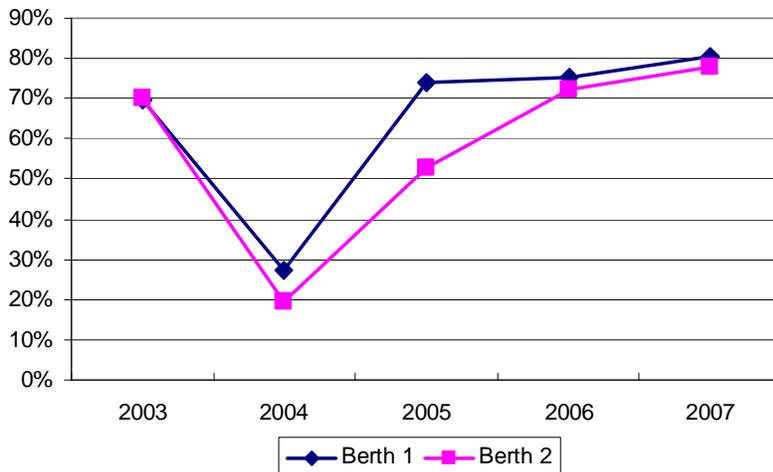


Source: AfriTramp

### Berth Occupancy

Berth occupancy rate is usually defined as ships' working and idle time at berth as a percentage of total available time. Figure 14 shows occupancy rates for the MPS container terminal, berths 1 and 2, which in 2007 reached 80% and 79%, respectively. Considering that berths are unavailable during the berthing and de-berthing processes, which require about 30 minutes each, this level of occupancy is very high, suggesting that both berths are working at full capacity.

**Figure 14: Occupancy Rates for Berths 1 and 2, 2003-2007**



Source: DAI/Nathan Group

The reduction experienced in 2004 and the later recovery in 2005 is due to the fact that during this period the port installed three ship-to-shore cranes, which interfered with operations during the installations.

## Ship Waiting Time

International experience suggests that occupancy rates in the 80–90% range usually result in substantial ship waiting time. Table 9 presents the monthly average ship waiting time that container and general cargo ships experienced during 2008.

**Table 9: Monthly average ship times, 2008 (hours)**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
<b>CELLULAR CONTAINER SHIPS</b>													
Ship calls	50	45	51	50	52	54	54	51	56	54	46	47	50.8
Waiting time	19.8	28.7	41.7	28.3	39.0	34.5	21.6	24.2	80.6	27.5	34.8	95.8	39.7
Port navigation time	1.0	1.0	1.1	1.0	1.0	1.2	1.4	1.1	1.2	0.9	1.0	1.0	1.1
Berth time	34.5	42.2	36.4	41.6	42.8	35.5	43.8	38.6	41.2	40.8	45.7	47.2	40.8
<b>Total port time</b>	<b>55.3</b>	<b>71.9</b>	<b>79.2</b>	<b>70.9</b>	<b>82.7</b>	<b>71.1</b>	<b>66.8</b>	<b>63.9</b>	<b>123.0</b>	<b>69.2</b>	<b>81.5</b>	<b>144.0</b>	<b>81.5</b>
<b>GENERAL CARGO SHIPS</b>													
Ship calls	5	7	5	6	6	7	5	11	7	8	6	10	6.9
Waiting time	18.6	81.4	25.1	27.7	6.5	46.2	54.2	46.7	49.0	53.5	30.1	79.6	46.4
Port navigation time	3.0	1.0	1.0	1.6	0.8	1.0	1.6	1.3	1.3	1.2	0.8	1.2	1.3
Berth time	122.8	113.6	91.6	209.0	185.2	154.0	257.9	180.9	213.4	163.3	92.1	112.7	157.5
<b>Total port time</b>	<b>144.4</b>	<b>196.0</b>	<b>117.7</b>	<b>238.3</b>	<b>192.4</b>	<b>201.2</b>	<b>313.6</b>	<b>228.8</b>	<b>263.8</b>	<b>218.0</b>	<b>123.0</b>	<b>193.5</b>	<b>205.1</b>

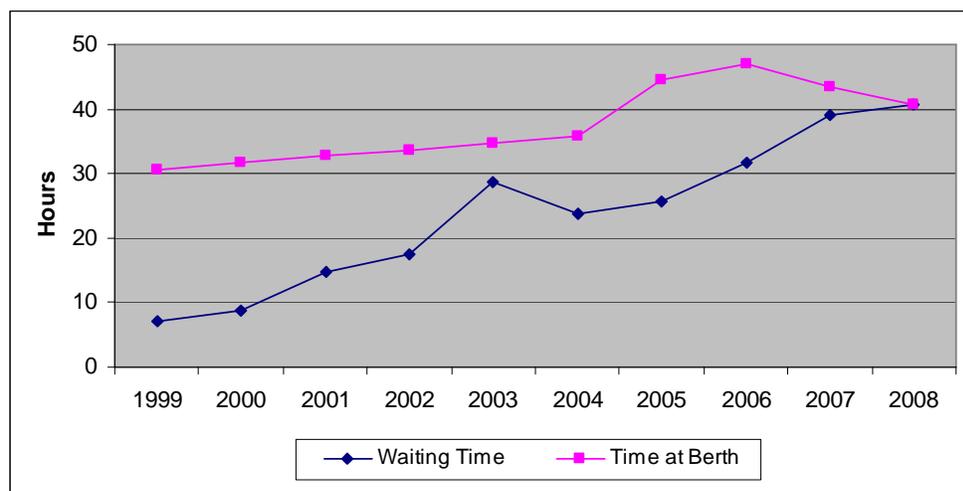
Source: GPHA

For container ships, the overall average waiting time was 39.7 hours, or about 2 days. The average ship berth time (working and idle) was 40.8 hours and total port time 81.5 hours, or 3.4 days. The highest waiting time, recorded in December 2008, was 95.8 hours, about 4 days. For general cargo vessels, the ship berth time was 157.5 hours, of which average waiting time was 46.4 hours, and total port time 205.1 hours or 8.5 days. This means that Tema port channel waiting time lags considerably behind other developing country ports such as Maputo, Mozambique and even Dhaka, Bangladesh, which have waiting times of 4 hrs and 30 hrs respectively. However, total Tema customs and ports costs are relatively low compared to these other ports<sup>23</sup>.

Figure 15 shows the performance in terms of Tema port's water-side operations experienced by cellular container ships during the last ten years. We have combined the berth waiting time and the channel navigation time and defined it as "channel time." The data show clearly that the waiting time at the port has been steadily increasing each year.

<sup>23</sup> *ibid*

**Figure 15: Cellular container ship turn-around time**



Source: GPHA

The cost of delays and inefficiencies experienced by shipping lines at the port are transferred to cargo owners through the rates charged by shipping lines.

### *Berthing and vessel operations – analysis*

Average 2008 waiting times for container ships in Tema, 40.8 hours in 2008, are far longer than those in specialized container terminals elsewhere in the world where typical waiting times are no more than 2 to 4 hours and where ships often berth upon arrival and start working immediately. This is achieved by terminal management applying a strict system of preplanned berthing windows, along with an efficient system of information exchange with shipping lines.

A ship's port time has two main components, berth waiting and berth operating times. Among these, waiting time is especially harmful to liner shipping because of the unpredictability it introduces. A long waiting time disrupts the arrival schedule at other ports and throws the entire service off balance. Sometimes, to avoid delays, ships may bypass a congested port altogether, resulting in important expenses for additional shipping and port handling. Minimizing port time is critical to ship owners and, hence, a critical measure of the level of service provided by a port to its customers. Also, depending on the level of port congestion, shipping lines may add a surcharge on their bills to importers which varies from shipping line to shipping line and from port to port, and which is frequently adjusted.

Reducing ship waiting times will require the creation of more berth space for the MPS container operations. This can be done by combining Berths 3, 4, and 5 (the north side of the finger pier) with the MPS operations at Berths 1 and 2 (the south side of the finger pier) which would provide 1.5 hectares of additional terminal area. Consolidating the berths to render the additional berthing area suitable for container ship and container handling would require roughly USD 70-80 million in investment<sup>24</sup>. GPHA is currently preparing a master plan that may address such consolidation as a remedy for berth waiting.

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<sup>24</sup> *ibid*

### *Berthing and vessel operations - recommendations:*

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Create more berth space for the MPS container operations by combining Berths 3, 4, and 5 (the north side of the finger pier) with the MPS operations at Berths 1 and 2 (the south side of the finger pier) in order to provide 1.5 hectares of additional berth areas.

**Benefits:** Reduction in vessel waiting time before berthing, and improved predictability, which should lead to lower handling fees and the elimination of surcharges.

#### 4.2.2 Imports: Port terminal procedures and costs

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This section analyzes costs and procedures at Tema port from the point where the container is unloaded from the vessel onto the terminal. From this point, cargo clearing and forwarding procedures consist of 26 operations. These operations take about 8 days, of which 3 days are delays, and cost on average USD 620 for a 20-foot container, of which USD 56.50 are informal costs

GHPA allows a 21-day demurrage-free period to process the shipment. However, some shipping lines start charging importers demurrage on containers after only 7 or 14 days. Also, if a container is used for onward transport to Ouagadougou, it usually has to be returned within 21 days of being unloaded, although each shipping line has its own policy in this regard.

Cargo in transit to Burkina Faso is not subject to import duties or taxes in Ghana. Transit cargo travels under customs bond, the customs guarantee fund, until it leaves the country. Customs agents seal bonded cargo before it leaves the port.

GPHA port offices are officially operational from 8:00 am to 5:00 pm on weekdays, from 9:00 am to 3:00 pm on Saturdays and closed on Sundays and public holidays. Outside official hours, customs officials and some port staff work at overtime rates negotiated on a case-by-case basis.

### *Customs - GCNet*

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In 2000, the Government of Ghana created the Ghana Community Network (GCNet) Services Ltd<sup>25</sup> as a private-public sector partnership to develop and operate a customized electronic system for processing trade and customs documents. GCNet started work in Tema in June 2003.

Within GCNet, a web-based transit module, the I-Transit system, captures details of transit consignments, transit truck and driver details, and issues an electronic transit bond from the State Insurance Company (SIC), Ghana's national ISRT guarantor. Uniquely in West Africa, the I-Transit system makes use of satellite-tracking transponders attached to the cabins of trucks carrying transit goods, which allows customs to know the location of all transit trucks in real time until they reach Paga, at the Ghana-Burkina Faso border. Customs charges the importer a fee of 50 GHS (USD 45) for this obligatory service.

GCNet developed this method of cargo tracking as a tool for controlling the problem of diversion of transit goods into the Ghanaian market. Previously, CEPS had tracked cargo and monitored transit activity using an unreliable and costly escort system whereby convoys of trucks bound for Burkina Faso would leave Tema port only when the customs escorts were ready, causing extensive delays. GCNet's satellite-tracking system allows transit trucks to leave Tema when they like.

The system uses various seals, including seals with serialized numbers for containerized cargo and a unique system for sealing the 70% of transit cargo carried as break-bulk, in order to ensure that the cargo is not tampered with during the trip. Also, internet-protocol cameras record images of the cargo and containers before departure from the port to protect against tampering en route.

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<sup>25</sup> GCNet maintains a website at [www.ghanatradenet.com](http://www.ghanatradenet.com).

## Customs processing and forwarding procedures

Cargo clearing and forwarding procedures in the port consist of 26 steps involving customs, the port authority, shipping lines, banks, etc. Table 10 summarizes the number of steps involved at various points in the process, the standard times which economic operators find acceptable as well as observed average delays above the standard time spent in the clearance process.

**Table 10: Processes, costs, times and delays - Tema port clearance of containerized transit cargo**

Description	Number of steps	Formal costs (USD/TEU)	Informal costs (USD/TEU)	Standard time (working hrs)	Delays (hrs)	Causes of delays
Customs procedures	15	90.0	25.0	38	21.5	Absence of customs officer during normal work hour, truck queuing (e.g. at the port exit gate), equipment unavailability, etc.
Port & transit yard procedures	10	90.5	31.5	Included above	Included above	Insufficient or malfunctioning tracking devices, malfunctioning printers, etc
Forwarding	Included above	281.0	Included above	Included above	Included above	
Shipping line release	1	102.3	n/a	4	2	Computer release system failures, queuing time at shipping-line premises
<b>Total</b>	<b>26</b>	<b>563.80</b>	<b>56.5</b>	<b>42</b>	<b>23.50</b>	

Source: freight forwarders

Annex B provides details of the 26 individual steps for port clearance that are summarized in Table 11. Figure 16 illustrates the main steps of the process for clearing containerized imports through Tema port.

**Figure 16: Transit import-clearance procedures for containerized cargoes in Tema port**



## *Freight forwarders and shipping agencies*

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Customs requires that imports through Ghanaian ports are cleared by certified brokers, popularly known in Ghana as forwarders. Customs brokers must be members of one of three national freight forwarders' associations<sup>26</sup>. These associations maintain standards within the profession and periodically publish recommended tariffs for their members as a guide for the freight-forwarding market. They also carry out regular training for members and conduct examinations and award certificates to individuals and institutions that have demonstrated their professional knowledge and ability. There is, however, a free market in freight forwarding services.

The importer hands over all documents to the forwarder who handles the cargo-clearance process and declares the details of the cargo through GCNet.

Shipping agencies alert the port authorities and MPS about the arrival times of vessels with all specifications such as flag, origin, cargo, consignee, etc. The forwarder declares the cargo as either for direct unloading by the ship's crane onto waiting trucks, or for temporary warehousing.

All trucks with transit cargo loaded directly from the vessel move from the port to the transit yard to complete the cargo-clearance process; there, customs officers affix a GPS device to trucks before allowing them to leave the bonded parking area.

The difficulty of mobilizing large numbers of trucks when unloading bulk or break-bulk cargo often requires the freight to be stored temporarily in a bonded warehouse either within the port, which has limited storage capacity, or outside. Warehousing means double handling and therefore results in increased costs; so, this is not the preferred option. In most situations importers use a combination of the two processes: They load part of the cargo directly on waiting trucks for immediate dispatch and offload the remaining cargo into a bonded warehouse.

Approximately 20% of import cargo destined for Burkina Faso is shipped from origin via Tema to Ouagadougou under "through bill of lading" (TBL) terms. This means that the shipping line is responsible for cargo clearance at the port and the trucking to Ouagadougou. The importer takes delivery of his or her cargo from the shipping-line agency at the final destination.

## *Formal fees*

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### *Shipping agency charges*

There is a wide variety of fees payable to the shipping agencies. The charges that currently have the most impact on shipping costs are the agencies' administrative charges and the container deposit fee. Shipping agencies often introduce new fees without notice, thus causing unnecessary difficulties and delays for importers who must transfer additional funds to pay the new, higher fees.

The container deposit fee is the money that the importer must provide as a guarantee to the shipping agency before the agency allows the importer to take the container from the port area. Upon the return of the container, the agency refunds the deposit fee to the shipper. This fee currently ranges between USD 1,350-3,500 per TEU for transit cargo. Larger-scale, better established shippers and forwarders have the option of depositing a negotiated fixed amount with the shipping line, usually not below USD 20,000, to serve as a guarantee for the return of all empty containers.

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<sup>26</sup> Ghana's three associations of freight forwarders are: the Ghana Institute of Freight Forwarders (GIFF), the Customs Brokers Association of Ghana (CUBAG) and the Freight Forwarders Association of Ghana (FFAG).

### *Container stripping*

If an importer decides to ship the cargo as break-bulk from Tema to Ouagadougou, the container is emptied, or “stripped,” and the content loaded on multi-purpose trucks while the container is returned to the shipping line.

When an importer requests stripping, MPS issues a permit, valid for 24 hours, for the goods to be moved out of its terminal. GPHA arranges the transfer of the container to a dedicated port area, and strips the container for the importer. The GPHA stripping tariff is GHS 2.39 (USD 2.15) per tonne based on a notional minimum of 25 tonnes per TEU regardless of the actual tonnage of the cargo.

If GPHA cannot move a container from the MPS terminal within the stipulated 24 hours, MPS charges GHS 10.00 (USD 9.00) to renew the permit for another 24 hours.

### *Passage Magasin Douane (PMD) fees*

In Tema, all cargo destined for Burkina Faso is subject to a PMD fee payable to Burkina Faso Chamber of Commerce in Ghana (BFCC). This fee is based on the cargo weight indicated on the bill of lading. GPHA requires the original receipt of the PMD to authorize the loading of a consignment of goods inside the port. Another PMD fee is charged when the cargo arrives in Ouagadougou.

### *Port charges*

Table 11 gives an overview of the various formal costs associated with the port clearance process. These include fees charged by the port authority and the terminal operator (GPHA and MPS), trucking unions, the Burkina Faso Chamber of Commerce, shipping agencies and customs. Charges are shown for the three main handling modes, i.e. containerized cargo, stripped or break-bulk cargo, and cargo in bulk.

Port costs, as with other transport and logistics costs, can be complex as they are comprised of a multitude of fees and charges, some of which are based on weight, volume, mode of handling, type of packaging, or the commodity, while other costs are transaction-based, such as inspection procedures, and some are based on the value of the cargo such as the customs guarantee fund.

**Table 11: Summary of formal fees payable during Tema port clearance**

Charge type	Cost (USD)	Unit	Recipient
<b>Containerized cargo</b>			
Port-handling charges	17.03	20'	port (GPHA/MPS)
Shipping-agency charges	(import) 102.30	20'	shipping agency
	(export) 87.50	20'	shipping agency
Forwarder's fee	135.00/180.00	20'/40'	forwarder
Dock transfer cost	10.68/21.36	20'/40'	port (MPS)
BFCC PMD tax	30.94/49.98	20'/40'	BFCC - Ghana
<b>Bulk cargo</b>			
Port-handling charges	0.44 one-step <sup>1</sup>	t	port (GPHA)
	1.12 two-step <sup>1</sup>		
Shipping-agency administrative charges	0.40	t	shipping agencies
BFCC PMD tax	0.50 one-step <sup>1</sup>	t	BFCC - Ghana
	0.92 one-step <sup>1</sup>	t	BFCC - Ghana
<b>Containerized/Bulk</b>			
GPHA container-stripping fee <sup>2</sup>	2.15	t	port (GPHA)
	53.75/ 107.50 minimum <sup>3</sup>	20'/40'	
BFCC unstuffing fee <sup>2</sup>	7.08	container	BFCC in Ghana
Customs guarantee-fund "premium"	0.50%	duty payable for import into Ghana <sup>4</sup>	SIC
<b>All Cargo</b>			
Transit-infrastructure fee	45	truck	GCNet
CBC interstate waybill	22.31 <sup>5</sup>		
	7.44	truck	CBC
Payment to OTRAF	23.80 <sup>5</sup>	truck	OTRAF
Payment to JAPTU (Burkinabé trucks)	5.40 <sup>5</sup>	truck	JAPTU
Logbook/sticker	3.15	truck	SIC

*Notes*

- 1 One-step handling refers to cargo loaded directly from a vessel into a quayside truck; two-step handling refers to cargo stored in the port prior to loading on to a truck.
- 2 Stripping, or unstuffing, refers to the process of removing cargo from the container, usually to be loaded on a general purpose truck for the road journey.
- 3 If the container weighs more than the assumed minimum, costs rise at the rate of USD 2.15 per tonne.
- 4 SIC collects this premium as a percentage of the duty that would be payable if the importer were importing into Ghana, rather than transiting to Burkina Faso.
- 5 Transporters pay these fees. Freight forwarders pay all other listed costs on behalf of the importer.

## Informal Fees

Informal fees in Tema port are fairly stable and well known to all parties. The forwarder pays, on average, USD 25/45 per 20-foot/40-foot container to customs and port officials if the cargo remains containerized. If the container is stripped, the forwarder pays an additional USD 31.50/36.00 per 20-foot/40-foot container to port equipment operators and the stripping gang to speed up the process. Table 12 provides estimates of all informal costs that freight forwarders pay in Tema port.

**Table 12: Summary of average informal fees payable during Tema port clearance of a 20' container**

Location	Recipient	Amount (USD)	Unit	Comments
Long room	Customs officers	5.00	20'	
Port	Customs officers	15.00	20'	
	Port officials	5.00	20'	
Shipping line	N/A	0.00	N/A	No informal fees paid
Additional informal cost for container stripping	Port equipment operators and the stripping team	31.50	20'	
<b>Totals</b>		<b>56.50</b>		

Source: Key informants, particularly freight forwarders

Note: Fees are converted from cedi estimates and rounded to nearest USD.

## Imports: terminal operations and customs clearance – analysis and recommendations

The port operations from the time a vessel arrives at anchor until the goods leave the port gate on a truck headed north take on average 6 days, which extends to as many as 11 days due to delays. This represents 45% of the standard time and 53% of the total delays.

The port and customs clearing process costs on average USD 620 per TEU, including informal payments of USD 57, which represents 13% of the total T&L costs for imports and 14% of total informal payments.

The long time transit cargo spends at Tema port, about 11 days including delays, means that the port is the major bottleneck in the Tema–Ouagadougou transport chain.

## Reducing customs and port clearance time and port congestion

Potential solutions to reduce terminal-dwell time would be to speed up the customs and other agencies' procedures, which alone take some 5 days, by further computerizing the clearance process and creating a so-called "single window" for imports, with facilities for document submission and fee payment in the same place for all agencies. The customs clearing procedures in Lomé, in neighboring Togo, have been reduced to 2 days and there is no reason this could not also be achieved in Tema, resulting in savings of inventory costs and a reduction in port congestion.

Reducing the 21-day free storage in the port would also result in decongestion. Providing incentives to move containers out of the yard is a policy action that does not involve investment. Speeding up customs procedures requires some re-engineering of processes, improved information systems and modifications in the current facilities.

The lack of sufficient container-handling equipment results in difficulties moving containers to the stripping area within the 24 hours stipulated by the MPS permit. More equipment and better management of existing container-handling equipment should resolve this issue. The absence of an operational terminal-management

system for the stacking of containers often results in time lost locating containers – up to several hours, or even several days.

### *Recommendations (customs and port clearance and congestion)*

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- Simplify cargo-clearance procedures at Tema port including further computerization and the introduction of a one-stop single-window facility whereby all clearing processes and payments of all agencies are handled at the same location. As a first step, there should be a dedicated desk for transit cargo at each stage in the processes involving customs and GPHA.

Benefits: Time saved in port clearance (5 days reduced to 2 days). A reduction in the number of steps involved in the process should result in a reduction of bribes paid to customs and other port workers and officials.

- Advocate for better management of container-handling equipment within the port to save time lost in the container stripping area. Also, the MPS permit should be extended from 24 to 48 hours as the lack of terminal-handling equipment makes it difficult to complete the container move within the allotted time.

Benefits: Time saved in the container-stripping area: Better management of terminal-handling equipment would make it possible to complete the container moves within the allotted time and reduce related fees and informal payments.

### *Reducing container stripping*

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Currently about two-thirds of Tema transit cargo destined for Burkina Faso arrives containerized and 70% of this is unloaded – stripped – from the container in the port before onward transport to Ouagadougou as break-bulk.

Several factors encourage the transit container stripping activity:

- A transporter can load - often overload - a single truck with more cargo than can be transported in one or two containers. This was particularly attractive, from the point of view of the transporter and importer, before the UEMOA axle-load regulations were enforced.
- Smaller importers find it difficult to afford the high deposit that shipping lines demand to ensure that the importer will return the container. The problem of fluctuating exchange rates and delays inherent in cross-border fund transfers to finance the deposit aggravates this difficulty.
- Importers have to return the containers to the shipping line within 21 days in order to avoid demurrage.
- It is easier for an importer, who may be so inclined, to prepare a fraudulent cargo declaration when the cargo is unloaded from containers and shipped in break-bulk.

However, transporting goods in containers all the way to Ouagadougou and reducing the practice of container stripping would bring several important benefits:

- The intermodal transfer from vessel to truck is faster than stripping a container and loading the cargo as break-bulk – the port would be less congested
- The cargo would be better protected against theft, loss and damage if it remained containerized
- Overloading of transit trucks is less of a problem with containers as containers arriving in Tema port are seldom overloaded – this would result in safer driving conditions and less damage to the road infrastructure and to the trucks
- The problem with fraudulently declared goods should diminish if the goods remain in a sealed container until final destination
- The problem of goods tampering during the trucking leg would diminish as it is easier to seal a container than break-bulk cargo

- Importers would avoid the stripping charges and related delays.

### *Recommendations (reducing container stripping)*

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- Facilitate and promote the use of containers on the road-transport leg from Tema to Ouagadougou.

One approach would be to replace the deposit fee with an insurance/guarantee scheme in order spread the risk and reduce the cost to the individual importer/transporter. Implementing innovative container guarantee-schemes that have been developed elsewhere and that could be adapted to Tema and other West Africa ports would also help resolve this issue.

Benefits: Faster port throughput, quicker customs processing, better protection and thus reduced cargo losses, reduction in overloaded trucks, elimination of stripping charges.

- Ensure that overloaded trucks do not exit the port. Excess cargo should be offloaded rather than making the truckers pay fines.

Benefits: Protection of the road infrastructure and a reduction in road maintenance costs and/or better quality roads and thus faster travel times. If road maintenance costs are reduced it may also be possible to reduce fuel taxes

### *Other terminal operations and cargo clearance issues*

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GPHA assumes a minimum of 25/50 tonnes per 20-foot/40-foot container when it calculates the stripping costs for loading containerized cargo on to trucks as break-bulk. However, in most if not all cases, the cargo weighs less than the minimum assumed. GPHA should either charge a true fee per tonne or simplify its tariff structure and charge a fixed price per container.

Shipping agencies often do not give any notice before introducing new charges or amending existing ones. Sudden increases in charges create problems for importers, as forwarders find themselves lacking sufficient funds to complete the cargo-release procedures, resulting in delays with corresponding additional costs, until the importer sends extra money from Burkina Faso.

In addition to the issues mentioned above, the study identified the following inefficiencies:

- The absence of customs officers during normal working hours, the unavailability of equipment to transfer goods between terminals, and the queuing of trucks at the exit gate all cause delays.
- The many steps required to get the cargo through the port offer plentiful opportunities for bribery.
- The PMD tax collected by BFCC both in Tema and again in Ouagadougou looks like double taxation

### *Recommendations (other terminal issues)*

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- A mandatory notification period of at least one month prior to amending or introducing new shipping-line charges. Each shipping agency should publish all applicable charges on its website and formally notify key stakeholders.

Benefits: Improved management of traders' resource through the elimination of last minute requests for additional money transfers due to misinformation regarding existing charges.

- GPHA, customs and private-sector stakeholders should collectively analyze the current processes and determine ways in which the customs-clearance process, as well as general port operation and cargo-delivery procedures, can be streamlined.

Benefits: Multiple additional efficiencies, small and large, await coordinated implementation by the port community.

- Eliminate the PMD tax in Tema

Benefits: Reduce bureaucracy and cost to the shipper.

### 4.3 Imports: Tema-Ouagadougou by road

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The distance between Tema and Ouagadougou is 1,040 kilometers and the road surface is in good/fair condition on 82% of the distance, which is above average for West Africa.

#### Trucking prices

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Prices for trucking services on the Tema-Ouagadougou corridor are not formally regulated. However, the *Organisation des Transporteurs Routiers du Faso* (OTRAF) publishes annual indicative tariffs from West African ports to Burkina Faso as a guide to its members. Actual rates charged by transporters seldom vary from the published ones by more than 10 to 15%<sup>27</sup>. OTRAF is the largest truckers' union in Burkina Faso and has a representative in Tema port. Table 13 shows OTRAF suggested trucking tariffs for the Tema-Ouagadougou corridor in 2007.

**Table 13: 2007 OTRAF reference trucking rates, northbound from Tema to Ouagadougou**

Load Type	XOF	USD
1x20' (up to 15 tonnes)	900,000	2,142
2x20'/1x40' (up to 30 tonnes)	1,300,000	3,094
Additional containerized cargo per tonne	30,000	71
Average bulk per tonne	30,000	71

Source: OTRAF records 2008

The first challenge of the trucking leg is to match the cargo with available trucks. OTRAF manages a cargo and truck allocation system queuing system, which works on a "first-come, first-served" basis. This system keeps some poorly maintained trucks in business since it guarantees availability of cargo.

Road transport to and from landlocked countries in West Africa is, in general, governed by bilateral freight-sharing rules between coastal and Sahelian countries. These freight-sharing rules, which in the case of Burkina Faso is managed by the *Conseil Burkinabé des Chargeurs* (CBC), usually specify that two-thirds of transit cargo should be carried by trucks registered in the landlocked country while one-third of the cargo should be carried by trucks from the port country. For strategic goods, such as Burkinabé Government cargoes of rice or sugar, CBC has the right to allocate 100% of the cargo to Burkinabé trucks.

#### Official trucking procedures

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The loading in Tema port of cargo destined for Burkina Faso, including cargo shipped on a through bill of lading (TBL) basis, is subject to a number of procedures mainly involving CBC and freight forwarders as follows:

- The freight forwarder, representing the importer, submits a pre-load-shipment notification form called a "freight declaration" to the CBC office at the port thus informing it of cargo to be cleared for onward transport to Burkina Faso. This notification should be submitted at least 48 hours before the loading of the truck is due to start. Submission and processing of the declaration are free of charge.
- CBC endorses the freight declaration, processes it, and sends a copy to OTRAF as the sole representative of Burkinabé truckers present in the port area.

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<sup>27</sup> Zerelli, S. *Trucking to West Africa's landlocked countries – market structure and conduct*, The West Africa Trade Hub, August 2009

- The freight forwarder liaises with OTRAF for the selection of trucks required to load the consignment. The freight forwarder has the right to reject a truck proposed by OTRAF (if he doubts its road worthiness, for example), and to enter directly into a contract with the transporter(s) of his choice.
- The freight forwarder submits the details of the trucks selected to CBC, which issues a “loading note” for each truck on the list. The trucks then proceed to the loading point within the port. Terminal or warehouse operators check the loading note before the trucks are loaded. GPHA requires haulage companies to obtain loading notes from the transit country’s shippers’ council and checks them before the truck leaves the port’s transit yard.
- Once the trucks are loaded and the freight forwarder has information on the particulars of the consignment loaded onto each truck, he obtains an interstate road waybill from CBC for every truck before the truck leaves the port. This document covers the vehicle and cargo up to its final destination and is part of Burkinabé customs requirements: Customs agents will check the interstate road waybill at the Burkinabé entry office at Dakola, as well as at the destination office in Ouagadougou. GPHA security officers check that every truck loaded with Burkina transit cargo has obtained an interstate waybill before it leaves the port’s transit yard.
- To further the efficiency and safety of the business, GPHA has taken steps to compile a register of all vehicles engaged in the transport of transit cargo from the port. The information includes data on chassis and license numbers of each vehicle, its driver’s name and address, and endorsements by the recognized transport association to which the vehicle owner may belong. GPHA passes this information on to CEPS, which releases only registered vehicles to undertake the transit journey to Burkina Faso.
- In order to engage in regional transport, trucks must be insured through the ECOWAS Brown Card motor-vehicle insurance scheme.

### *Limitations of the official procedure*

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In reality, the cargo-sharing and truck-allocation system is not strictly implemented on the Tema-Ouagadougou corridor and approximately 25% of Tema port’s freight forwarders do not submit freight declarations to CBC. Failure to present the freight declaration to CBC does not result in any penalty and Ghanaian authorities are reluctant to enforce a “non-national” regulation. Also, a Burkina Faso-bound truck leaving the port without an interstate road waybill can get CBC’s border office to issue one. Anecdotal evidence suggests that some importers may use this opportunity to fraudulently change the particulars of the consignment (notably the weight and description) to avoid paying the correct amount of customs duty at destination.

A shortage of Burkinabé trucks sometimes compels CBC to use Ghanaian trucks which in general end up carrying more than 50% of the transit cargo to Burkina Faso, in spite of the two-thirds, one-third cargo sharing rule. Also, importers with their own fleets of trucks are at liberty to use them to transport their cargo and thus avoid the queuing system. Own-fleet-trucking accounts for the transportation of about 15% of northbound transit cargo.

Ghanaian trucks are often more roadworthy than Burkinabé trucks and are available at short notice to meet haulage requests. Furthermore, many Ghanaian trucks have been heavily reinforced so as to allow them to carry heavier loads. This has in the past allowed them to offer more competitive rates. With the enforcement of the UEMOA axle-load regulations in early 2009 the situation is changing, as reinforced Ghanaian trucks are now at a disadvantage since the extra weight of the reinforcement increases their tare weights and thus lowers their legal load capacity.

To facilitate bypassing the official truck-queuing system, informal middlemen, known as “transport agents”, or “*coxeurs*”, offer to match freight to trucks on a fast-track basis. They contact the drivers and promise to find them cargo quickly, while also letting freight forwarders know that they have trucks ready to load. The transporter pays the transport agent a commission of about XOF 60,000 (USD 142.80) per truck for this service. The transport agent is strictly a matchmaker who offers no additional services, such as guarantees of a lorry’s roadworthiness or the importer’s ability to pay.

## Trucking – payment currency

All Burkinabé and even some Ghanaian transporters request payments in CFA francs, possibly because the Ghanaian cedi is not easily convertible outside Ghana and is considered a less stable currency. This causes a problem because Ghanaian banks cannot transact business in CFA francs and much time and effort is therefore spent obtaining CFA francs.

## Trucking – checkpoints and bribes, Tema to Paga

After completing the customs-clearance process in Tema, trucks leave on a 3 to 5-day journey (881 km) to Paga at the Ghana-Burkina Faso border. However many trucks are in poor condition and therefore often break down or have accidents along the road. Because of this the journey from Tema to Paga can take more than a week.

Along the roads in Ghana, drivers encounter about 15 control points operated primarily by police and customs agents. These barriers cause on average a total of 160 minutes delay and the payment of the equivalent of USD 11.84 in bribes between Tema and Paga. These bribes are paid by the transporter<sup>28</sup> and are included in the trucking price. Table 14 shows the details of delays and bribes along the Ghana section of the corridor while Figure 17 shows the location of the checkpoints along several transport corridors during the third quarter of 2008 (when the Trade Hub collected its detailed data on T&L costs).

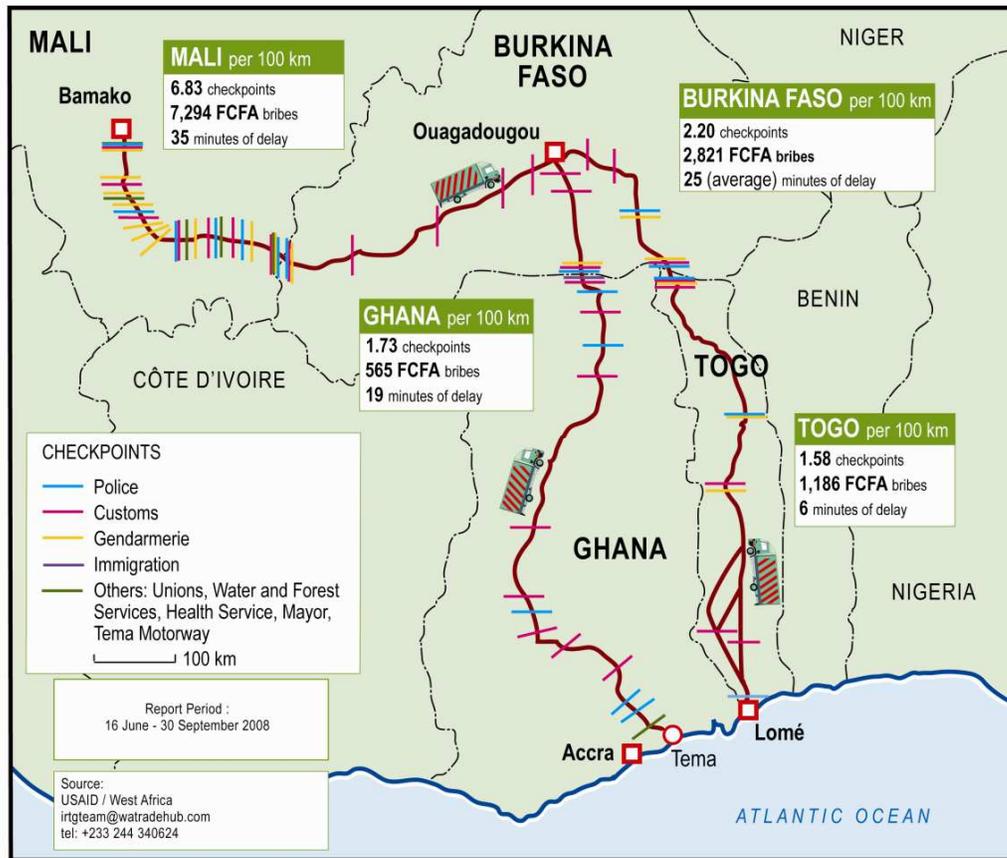
**Table 14: IRTG results for Ghana from June to September 2008**

IRTG Results : 16 June to 30 Sept. 2008									
Checkpoints, Bribery and Delays									
Tema–Paga (Ghana border with Burkina Faso)									
Number of voyages	Distance covered (km)	Checkpoints and bribes						Delays (min)	
		Police	Border police and immigration	Customs	Transport associations and unions	Total	Ratio per 100km	Total	Ratio per 100km
67	881	<b>Average number of checkpoints by type of agency</b>						160	19
		5.84	1.00	8.36	0.09	15.3	1.73		
		<b>Bribes, equivalence in USD</b>							
		4.00	0.17	7.30	0.37	11.84	1.35		

Source: 5th Improved Road Transport Governance report published by UEMOA and the West Africa Trade Hub

<sup>28</sup> The truck driver pays the bribes from a kitty that the truck-owner gives him.

**Figure 17: Checkpoints on major transport corridors**



Source: 5th Improved Road Transport Governance report published by UEMOA and the West Africa Trade Hub. IRTG reports include maps that summarize key findings and show checkpoint locations

### Other trucking issues

Certain trucking associations have unilaterally introduced mandatory fees for trucks irrespective of a truck owner's membership in these associations. Both OTRAF (Burkinabé truckers' union) and JAPTU (Ghanaian truckers' association) are collecting fees in Ghana from non-Ghanaian trucks in the amount of XOF 10,000 (USD 23.80) and GHS 6.00 (USD 5.40) per truck, respectively, for the same service – to assist trucks in case of trouble that they may experience during the transit journey. Even those drivers and truck owners that do not want this insurance coverage must pay fees to both associations.

#### 4.3.1 Import border crossing procedures: Paga, Ghana

Business hours on the Ghanaian side of Ghana's border with Burkina Faso are officially from 6:00 am to 6:00 pm daily, including weekends. However the offices often open later than, and close earlier than, these official times.

#### Process

The clearance process for northbound cargo consists of a customs check of the transit documents: No customs declaration is required. Customs officials also verify that the seal has not been tampered with and remove the GPS tracking device.

## Fees

There are no formal fees charged at this stage, and in principle, the process is simple and does not require a forwarding agent as the driver can present the transit documents to the customs officers himself. However, it appears drivers usually pay an informal fee of about XOF 10,000 (USD 23.80) to middlemen at the border, who in turn pay half the informal fee to customs agents to facilitate passage of the truck. Key informants at the border note that customs officers foster the existence of these border middlemen, processing documents faster for them than they do for unassisted drivers. This is the only instance where drivers pay informal forwarding fees along the corridor.

Well-established freight forwarders such as Maersk and SDV Logistics, have agents at the border principally for their own 'track and trace' purposes. Drivers for these companies do not use the middlemen's services.

**Figure 18: The border at Paga, Ghana**



## Time taken and delays

One hour should be enough to complete the entire five-step process. However, on average, delays add another hour to the processing time. Table 15 gives a summary of all steps and costs in the border clearance procedure at Paga. Annex C gives more detail.

**Table 15: Summary process, costs, and times at Paga**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Causes of delays
Clearing procedures	5	0	23.80	60	60	General inefficiency

Source: freight forwarders

### 4.3.2 Import border crossing procedures: Dakola, Burkina Faso

Dakola, the Burkinabé post at the Ghana-Burkina Faso border, operates from Monday to Friday 7:00 am to 12:30 pm and 3:00 pm to 5:30 pm, and on weekends and public holidays from 8:00 am to 3:00 pm. The lack of correspondence of the opening hours with the Ghanaian side of the border contributes to delays in crossing the border.

## Process

Dakola is connected electronically to the Burkinabé customs' Automated System for Customs Data (ASYCUDA)<sup>29</sup>.

Customs requires that a licensed freight forwarder handle the clearance process on behalf of the importer. Forwarders make an online customs declaration at the customs office where there are three ASYCUDA

<sup>29</sup> Burkina Faso and several other West African states use the *Automated System for Customs Data* (ASYCUDA) customs information system. ASYCUDA functions include customs declarations and the tracking of taxation, warehousing, authorizations, etc. UNCTAD developed the system and maintains a permanent regional support centre in Burkina Faso. The use of the same computer system in multiple customs administrations generates economies of scale. However, Ghana uses its own GCNet system, rather than ASYCUDA.

computers dedicated to forwarders. They can complete the process within 10 minutes, but may be delayed for up to 45 minutes due to the limited availability of computers. The Burkinabé border customs office is not allowed to collect duties on goods with a value exceeding XOF 500 000 (USD 1,190). For security purposes, duty on such goods is collected in Ouagadougou at Ouagarinter.

**Figure 19: Entering Burkina Faso at Dakola**

The shorter opening hours on the Burkinabé side of the border bring about delays more frequently for south-north traffic than for north-south traffic. The Ghanaian side opens before the Burkinabé side and closes after the Burkinabé side. The 12-hour-long daily opening period on the Ghanaian side contrasts with two open periods of 5.5 (morning) and 2.5 (afternoon) hours (a total of 8.0 hours) on weekdays and a single period of 7.0 hours on weekends and public holidays on the Burkina Faso side. There is thus a significantly greater chance of completing the Burkinabé formalities and finding the Ghanaian side open than vice versa. Burkina Faso has 16 public holidays while Ghana has 13. Thus the Burkinabé border offices are open for a total of 2,804 hours, compared to Ghana's 4,380 hours, i.e. 64% of the Ghanaian total.



The northbound delays due to the shorter Burkinabé border opening hours are of two types: “siesta” delays and overnight delays. Northbound siesta delays occur on weekdays that are not public holidays in cases where a truck finishes its Ghanaian formalities after 10:30 am, which doesn't leave enough time to complete the two-hour Burkinabé formalities before 12:30 pm. In this case there is a 2.5-hour delay before the Burkinabé offices open again at 3:00 pm for a period long enough to get the Burkinabé paperwork done before the end of the working day at 5:30 pm. Overnight delays result from the fact that the second of the two customs escorts, which northbound trucks must join to Ouagadougou, leaves at 4:30 pm, so trucks not cleared before 12:30 must wait for the first customs escort at noon the next day, arriving in Ouagadougou by the end of the business day. In this way, northbound trucks lose approximately one business day in Ouagadougou.

Table 16 below summarizes the number of processing steps, costs and time involved in clearing goods being imported to Burkina Faso through the Dakola border post. For a detailed description of steps, costs and times please see Annex D.

**Table 16: Summary process, costs, and times at Dakola**

Description	Number of steps	Formal costs* (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Causes of delays
Clearing procedures	10	67.99	16.66	250	325	Inefficiencies and waiting for customs escort to Ouagadougou

Source: freight forwarders – Note: \* exclusive of guarantee-fund premium

Burkinabé authorities do not recognize the Ghanaian ECOWAS Interstate Road Transport Scheme (ISRT) logbook; so, the Burkinabé customs issues its own ISRT logbook at the cost of XOF 3,000 (USD 6.87). Neither do Burkinabé authorities recognize the Ghanaian ISRT customs guarantee; so, the forwarder pays 0.25% of the CIF value of the cargo as a guarantee-fund premium (non reimbursable customs bond) for Burkina Faso, either in cash at the customs office or via money-transfer schemes like *Western Union* in the nearby town of Pô. This is paid by the importer and can be a major cause of delays. The ECOWAS Brown Card, the motor vehicle insurance scheme, is accepted however.

Major forwarders like Maersk and SDV prepay directly at the Burkinabé Chamber of Commerce at Ouagadougou, which is responsible for administering the Burkinabé guarantee scheme, through a negotiated credit account.

### *Fees*

Informal fees paid to customs at this stage of the process are approximately XOF 7,000 (USD 16.66).

### *Time taken and delays*

It is possible to complete the actual customs clearance process at Dakola within 2 hours, if all documents are in order and customs officers are available. But this is seldom the case and delays add another 3 hours to the customs-clearance process.

### *Customs escort*

After clearing the goods, the trucker has to wait for the customs escort that accompanies truck convoys from Dakola to Ouagadougou. The usual schedule is two departures daily, one between 12:30 pm and 1:30 pm and one between 4:00 pm and 5:00 pm. However, on many days there is only one departure (between 3:00 pm and 4:00 pm). This can add several more hours to the total time spent at the border and even result in overnight stays<sup>30</sup>. Some cargoes such as medicines, dangerous goods, and state cargoes are exceptionally allowed to have an escort outside these hours.

### **4.3.3 Trucking of cargo from Ghana-Burkina Faso border to Ouagadougou**

After completing formalities at the border, trucks travel the 176 km to Ouagadougou in convoys that take approximately 3-5 hours.

#### *Trucking – checkpoints and bribes, Dakola to Ouagarinter*

On the short 176 km distance to Ouagadougou, the trucks can expect to encounter 6 checkpoints at which they pay the equivalent of about USD 21 in bribes and which cause extra delays of about 1.5 hours.

**Table 17: IRTG results for Burkina Faso from June to September 2008**

IRTG Results: 16 June to 30 Sept. 2008										
Checkpoints, Bribery and Delays										
Dakola (Burkina Faso's border with Ghana ) to Ouagadougou										
Number of voyages	Distance covered (km)	Checkpoints and bribes							Delays (min)	
		Police	Border police and Immigration	Customs	Gendarmerie	Transport associations and unions	Total	Ratio per 100km	Total	Ratio per 100km
67	176	<b>Average number of checkpoints by type of agency</b>							89	48
		0.84	1.00	3.24	0.87	0.01	6.00	3.38		
		<b>Bribes, equivalence in USD</b>								
		3.89	3.60	8.79	3.99	0.04	20.94	11.90		

Source: 5<sup>th</sup> Improved Road Transport Governance report published by UEMOA and the West Africa Trade Hub

<sup>30</sup> The effect of overnight stays is not included in the analysis as only working hours are considered. Truckers may of course drive outside normal working hours, but banditry, defective headlights and natural sleep rhythms limit drivers' proclivity to travel during hours of darkness.

Table 17 above shows the breakdown of checkpoints by agency, the average bribe paid, and the related delays as recorded in the third quarter of 2008. These bribes are paid by the trucker and are included in the trucking price.

#### 4.3.4 The road-transport leg – analysis and recommendations (imports)

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The road leg of Burkina Faso imports take on average 4.4 days which may extend to 5.5 days due to delays at road barriers and at the border crossing. This represents 32% of the total standard time and 12% of the total average delays for the West Africa import leg .

The road leg costs on average USD 3,035 including informal payments (USD 138). This represents 63% of the total T&L costs for imports and 34% of the total informal payments.

The road leg is thus the most costly link in the Tema-Ouagadougou transport chain, but incurs the least time and delays.

#### *Trucking*

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Transporting goods from Tema port in Ghana by road to the Ouagadougou terminal in Ouagadougou costs about USD 3,035 for a 20-foot stripped container of cooking oil and takes about 5.5 days, including customs formalities and delays at the Ghana-Burkina Faso border.

As discussed in the introduction, a World Bank report and a West Africa Trade Hub study both agree that it is essential that the West Africa road transport market be deregulated in order to dismantle the institutional mechanisms that promote queuing, rather than free-market contracting for regional trucking. Deregulation of regional trucking markets will have the effect of benefiting the owners of better maintained and more roadworthy trucks at the expense of those with trucks in poor condition. Those benefitting are more likely to be in the formal sector, rather than the informal sector. Deregulation would therefore push the trucking sector to become more professional and more formal. Average truck speeds would rise; average rotation times would fall: trucking would become more efficient. Clearly, such a system would provide a better quality of service to the shipper and reduce his costs.

In order to support a more efficient West African road-transport industry, the same reports also recommend changes to the vehicle-tax structure and truck-import duties in order to encourage a renewal of the trucking fleet.

There is also a need for a more transparent system to allocate cargo to trucks that would compete with, and likely outperform, the *coxeurs*. Ancillary services might include the possibility of advance booking of trucks, choices of payment options, ratings of trucking companies, information about shippers' payment history, and insurance services. The *coxeurs* represent the cost efficiency trade-off that any new clearing house must beat. Some *coxeurs* may become part of the new system; others will remain to compete with it and provide a benchmark for the new system.

Most transporters request payments in CFA francs. This causes a problem because Ghanaian banks cannot transact business in CFA francs and much time and effort is therefore spent obtaining the currency.

#### *Recommendations (trucking Tema-Ouagadougou):*

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- Deregulate the West Africa trucking markets.  
**Benefits:** This may reduce transport prices by 30% or more (based on the road-transport deregulation experience in Rwanda). Deregulation should introduce competition based on cost and service, which should lead to more a professional trucking industry with newer and better trucks able to make more trips and provide faster and more reliable services at lower and competitive prices.
- Introduce a new vehicle-tax structure, possibly by transferring the fiscal burden on trucking firms from fuel to truck ownership and registration.  
**Benefits:** Promote the use of newer, safer trucks that can cover higher annual distances and thus be more competitive.

- Institute an import tax on trucks that increases with truck age.  
Benefits: Encourage the importation of newer trucks that are efficient and safer.
- Develop an electronic trading platform for trucking services that quickly provides full details of truck availability, and is easily accessible to traders, to match transit cargo bound for Burkina Faso to trucks available at Tema port.  
Benefits: Reduced costs of allocating freight to trucks should result: Improved quality of available trucks and trucking services, improved truck rotation times, and improved transparency of available services for traders.
- Make it possible for Ghanaian banks to do transactions in CFA francs.  
Benefits: Reduce waiting time and cost related to obtaining CFA francs.

### *Border crossing*

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Alignment of Ghana and Burkina Faso customs working hours at the Paga (Ghana)–Dakola (Burkina Faso) border crossing would reduce delays, particularly overnight stays that many truckers have to endure because they cannot be cleared in time during the Burkinabé customs’ restricted opening hours.

The informal clearing agent at the Paga border post should be eliminated as there is no need for the service offered. Many people believe customs officers give priority to the informal agents in order to collect a share of their commissions.

Burkinabé customs convoys accompanying trucks from Dakola to Ouagarinter constitute another bottleneck on the northbound route. The Burkinabé customs service acknowledges the success of the Ghanaian I-transit system and plans are underway to extend this service up to the final destination in Burkina Faso (Ouagadougou or Bobo Dioulasso). To this effect, Burkina Faso and Ghana have signed a memorandum of understanding that will enable satellite tracking of individual consignments across the border to the final destinations. However, final approval for implementation awaits approval by both governments. In addition, UEMOA is planning the implementation of a regional cargo-tracking system.

The lack of forwarder access to customs ASYCUDA system causes unnecessary delays at both the Dakola border crossing and at Ouagarinter.

### *Recommendations (Paga-Dakola border crossing):*

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- Implement fully the ISTR convention in regard to the logbook and guarantee fund.  
Benefits: Eliminate the costs of duplicating the ISTR guarantee fund and the ISTR logbook.
- Alignment of Ghana and Burkina Faso customs working hours at the Paga-Dakola border crossing  
Benefits: Speed up border crossings and reduce the number of overnight stays.
- At Paga: Eliminate the informal clearing agent at the Paga border post.  
Benefit: Eliminate the cost charged by this informal agent: XOF 10,000 (USD 23.80).
- At Dakola: Support UEMOA’s plans for implementation of a regional GPS-based cargo-tracking system  
Benefits: Extending the GPS satellite-tracking system to the Dakola-Ouagadougou leg will save time waiting for escort and convoys at Dakola (an average of 4 hours) and eliminate formal and informal escort fees (USD 16.25 per truck).

## 4.4 Imports: Ouagadougou, final destination clearance procedures

The Ouagarinter terminal in Ouagadougou is the centralized location under customs' authority where all Burkinabé import cargo is cleared. The customs office is open from Monday to Friday, 8:30 am to 12:00 pm and 3:00 pm to 5:00 pm.

### Process

Upon arrival at Ouagarinter, the escort agent gives all documents (ISRT logbook, invoice, packing list, bill of lading, certificates, etc.) to a customs-house agent to process the customs clearance.

Table 18 below summarizes the number of processing steps, costs and time involved in clearing goods being imported to Burkina Faso through the Dakola border post. For a detailed description of the steps, costs and times please see Annex E.

**Table 18: Summary process, costs, and times at Ouagarinter**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time	Delay	Causes of delays
Clearing procedures	17	\$943	\$205	24hrs (3 days)	24 hrs (3 days)	The main delay is caused by the customs-inspection requirement.

Source: freight forwarders

The Burkinabé government has contracted Cotecna Inspection SA<sup>31</sup> to inspect cargo destined for consumption in Burkina Faso to ensure that goods meet quality norms and that their nature and number are correctly declared to customs. Goods valued above XOF 3 million (USD 7,140) are inspected by Cotecna in the country of origin before shipment to Burkina Faso. In such cases, the exporter gives the importer the relevant Cotecna inspection number which he sends to Cotecna Burkina for local issuance of the inspection certificate. This process takes 1-3 working days.

In February 2008, the Burkinabé government introduced mandatory local Cotecna inspections for all goods valued below XOF 3 million<sup>32</sup>. This inspection takes at least 32 hours<sup>33</sup> (4 working days) from the time the inspection request is made until the certificate is delivered.

In 2007, Cotecna demonstrated a mobile scanner at the customs office at Ouagarinter to stimulate the Burkinabé government's interest in providing its customs administration with such equipment to save time and improve security in the customs clearance process. The demonstration was successful and Cotecna plans to install a permanent scanner by the end of 2009.

### Fees and costs

In addition to formal customs payments, including a formal payment for customs overtime, the forwarder usually pays between XOF 50,000 and XOF 70,000 (USD 119.00 - USD 166.60) per truck in informal payments to customs officers to speed up the process. The actual amount depends on how urgently the importer needs

<sup>31</sup> For more information on Cotecna see [www.cotecna.com](http://www.cotecna.com)

<sup>32</sup> Prior to the introduction of Cotecna inspection, customs agents cleared shipments based on the invoices that traders presented to them. The government introduced local Cotecna inspections because traders were suspected of under-declaring values. If after inspection, Cotecna finds the declared value to be inaccurate, customs will use a Cotecna reference value as the basis for calculating the duties and taxes to be paid.

<sup>33</sup> The authors feel that this process has "built-in" delays and as a standard it shouldn't take more than 3 days.

the goods. In addition, the importer usually pays an informal fee to the escort agents at the final destination of the goods.

During customs clearance and Cotecna inspections, the goods remain on the truck. The trucking price includes 3 days for clearing at Ouagarinter. However, starting 72 hours after the arrival of the truck the importer pays the transporter a truck demurrage fee of about XOF 75,000 per truck per day (USD 178.50), although sometimes a lower rate is negotiated.

### *Time taken and delays*

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The average standard time to clear a shipment through customs at Ouagarinter should not be more than 24 working hours (3 working days), provided the forwarder has all the required documents in hand, including the Cotecna inspection certificate. However, the total clearance process usually takes 6 days, if all goes well.

The forwarder can only enter the customs declaration into the ASYCUDA system when the goods have physically arrived at Ouagarinter. In order to save time, some forwarders have developed a template for their own use so that available details can be updated prior to their goods' arrival in order to gain 1 to 2 hours in the process.

### *Causes of delays*

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An insufficient number of computers dedicated to ASYCUDA customs declarations sometimes results in time lost through queuing of forwarders. Customs has been trying to solve this problem by installing the system at some forwarders' offices. This is, however, still in the implementation and test phase.

The inspection process is very slow and the number of files sometimes appears to overwhelm the Cotecna agents, as well as the sole customs cashier. Also, the fact that cargo has to have physically arrived at Ouagarinter before the Cotecna certificate can be printed adds undue delay to the process. Ordering the certificate when cargo reaches the border at Dakola would save importers 1 to 2 days.

The customs clearance process is further delayed by the fact that the head of the customs office and his deputies, whose signatures are required for the clearance process, are not always available.

### *Customs transit bond and cargo insurance*

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Burkinabé customs calculates duties, taxes and the guarantee fund premium (customs bond) based on the CIF value of the cargo as delivered at destination. As cargo is seldom shipped CIF to destination, the Burkinabé customs has a method whereby a fixed amount is added to the importers invoice to arrive at a CIF value of the goods in Ouagadougou. Different amounts are applied depending upon whether the cargo arrived in Tema on a FOB or CIF basis.

The non-reimbursable guarantee fund premium is a bond issued by a Burkinabé insurance company as an affirmation that it guarantees to pay the duty on the goods, should the importer fail to do so. It is calculated as 0.25% of the CIF cargo value.

In addition, Burkinabé customs requires the cargo to be insured separately by a Burkinabé insurance company in order to complete the cargo clearance process. The insurance companies usually charge premiums of between 0.2% and 0.7% of the cargo value, depending on factors such as the value of the cargo, packaging of the cargo, and the age of the truck.

As this insurance premium is usually not paid until the goods arrive in Ouagarinter, the cargo is in reality not insured during the transit journey. Insurance of the truck itself (by the truck operator) does not cover damage to the cargo, in case of an accident.

With through bill of lading cargo, the shipping line arranges cargo insurance all the way to the final destination in Ouagadougou. However, the local Burkina Faso insurance is still required in order to clear the goods at Ouagarinter.

## *Ouagarinter terminal operations – analysis and recommendations*

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Clearing import goods through the Ouagarinter terminal takes on average 3 days which frequently extends to 6 days due to delays. This represents 22% of the total standard and 34% of the total average delays.

The Ouagarinter clearing process costs on average USD 1,148 including informal payments (USD 205). This represents 24% of total T&L costs for imports and 34% of the total informal payments

The Cotecna inspection at Ouagarinter is a major source of delay for Burkinabé imports, causing significant formal and informal costs. Burkinabé importers lose considerable time waiting for Cotecna's inspection of import consignments worth less than 3 million XOF (USD 7,140) and awaiting the issuance of inspection certificates. It currently takes Cotecna an average of 5 days to inspect and issue the inspection certificate, and 1-3 days to issue a certificate when the inspection has been done at origin. In the latter case the Burkinabé process is only initiated when the truck arrives at Ouagarinter. This adds considerably to the total processing time at Ouagarinter, and increases the likelihood that the importer will have to pay the transporter truck demurrage charges up to 75,000 XOF (USD 178.50) per day, after the grace period of 3 days.

After a 10-day grace period, Ouagarinter charges a demurrage fee based on the type of goods and the number of days, plus 18% VAT. The minimum fee is the equivalent of USD 11.79 per tonne.

### *Recommendations (Ouagarinter):*

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- Implement the ECOWAS vision:

*"ECOWAS of Peoples: A borderless, prosperous and cohesive region where people have the capacity to access and harness its enormous resources through the creation of opportunities for sustainable development and environmental preservation. The vision is of a developed and integrated West Africa where Community citizens perceive all the fifteen national economies as one integrated, competitive and resilient market, and operate freely anywhere within the region."*<sup>34</sup>

**Benefits:** This has the potential of creating a single borderless region which automatically will eliminate many of the current barriers to transport and trade.

- In Ouagadougou: Increase the number of Burkinabé customs computers available at the border and Ouagarinter for ASYCUDA documentation and make the ASYCUDA system available at freight forwarder premises in Burkina Faso.

**Benefits:** Time saved in waiting for access to computers for ASYCUDA documentation.

- At Ouagarinter: Speed up the Cotecna inspection. Organize information workshops on how to handle and obtain the Cotecna inspection certificates for all imports. Advocate for the preprinting of certificates by Cotecna for inspections conducted at origin prior to cargo arrival at Ouagarinter (for cargo valued above XOF 3 million). Further analyze the use of a scanner for more efficient inspections.

**Benefits:** Reduced truck demurrage cost from 3 days to 1 day, (XOF 75,000 per day).

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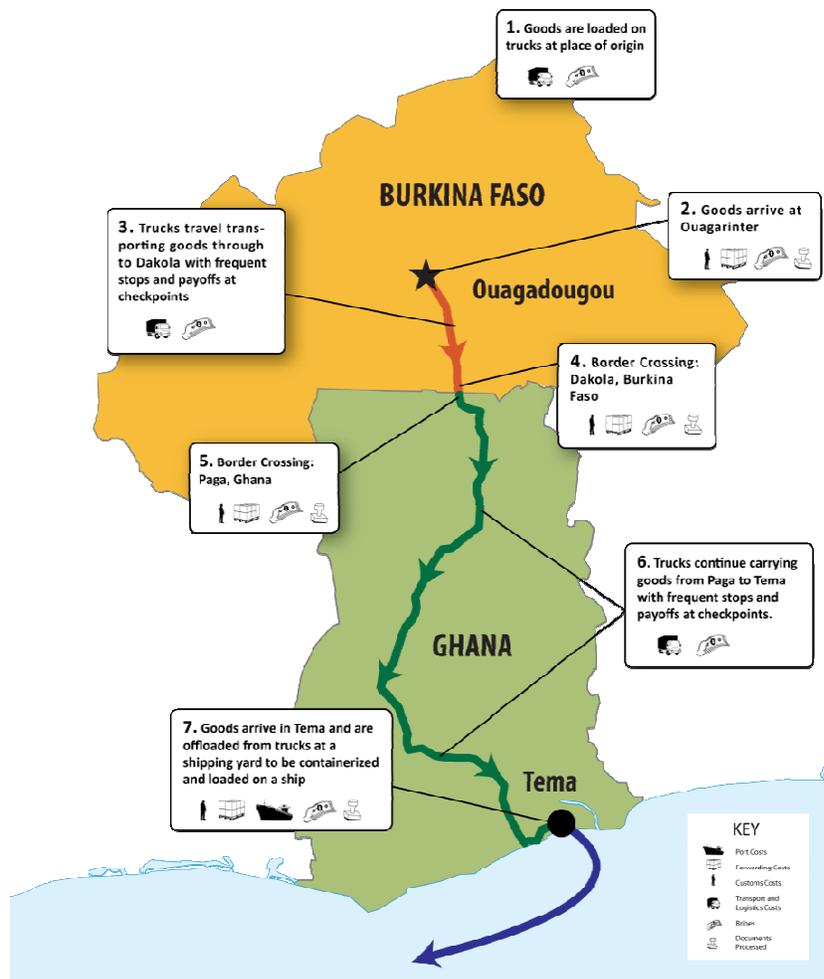
<sup>34</sup> ECOWAS Vision Document, March 2009, See <http://www.comm.ecowas.int/>

## 5 Exports: Logistics procedures, costs and delays

In this section we review and analyze the cost and delays experienced when exporting a standard 20-foot container of cashew nuts.

The costs of logistics for the export of goods begin in Ouagarinter where officials process the paperwork for the shipment (invoice, packing list, etc.). After the shipment is cleared, the truck starts its journey to the Burkina Faso-Ghana border. The truck passes through checkpoints along the route operated by police, customs, *gendarmes* and transport unions, among others. At the border, the truck is inspected and its paperwork processed by both the Burkina Faso and Ghanaian customs before it continues southward through Ghana where it again encounters checkpoints causing delays and payment of bribes. At Tema, the truck reports to the shipping-line terminal or warehouse where the cargo will be offloaded. When the cargo is ready to be shipped, the shipping line reviews the paperwork and submits it to customs for export clearance. After this the container is loaded onto a ship for transport to the final destination. Figure 20 illustrates the process.

**Figure 20: Exports: the movement of cargo from Ouagadougou to Tema**



## 5.1 Exports: main cost components for southbound traffic

The main costs and delays for exports occur on the road-transport leg and in Tema port. Distinct from imports, Burkinabé exports do not incur many costs and delays at the Ouagarinter terminal.

For the purpose of this analysis, the study team considers the costs and delays involved in transporting a shipment of a standard 20-foot container loaded with cashews from the time the container is loaded and cleared from the Ouagarinter terminal until it is loaded onto a vessel in Tema port. The main components of the export process are summarized in Table 19.

**Table 19: Main cost components for southbound transit traffic – 20' container of cashew nuts**

Activity	Total cost (USD/TEU)	Of which informal cost (USD/TEU)	Normal time, without delays (hrs)	Average delays (hrs)
Export procedures at Ouagarinter - customs	\$38.55	Included in formal forwarding costs	2.5	5
Export procedures at Ouagarinter - forwarding	\$130.90	\$11.90		
Export procedures at Ouagarinter subtotal	\$169.45	11.90	2.5hrs	5hrs
Road transport to Tema	\$758.09	\$35.09	29	4.2
Border crossing at Dakola (Burkina)	\$20.92	\$9.52	2	0
Border crossing at Paga (Ghana), including customs escort to Tema	\$272.00	\$0.00	6	8.5
Road transport subtotal	\$1,051.01	\$44.61	37 hrs (4.6 days)	12.7 hrs (1.6 days)
Tema customs processing	\$4.50	\$4.50	7.25	4.0
Tema forwarding	\$347.78	\$0.00		
Port	\$23.72	\$5.40		
Shipping agency	\$159.00	\$0.00		
Tema Port subtotal	\$535.00	\$9.90	7.25 hrs	4.0hrs
<b>Total – West Africa</b>	<b>\$1,755.46</b>	<b>\$66.41</b>	<b>46.75 hrs (5.8 days)</b>	<b>21.7 hrs (2.7 days)</b>

**The big picture: The overseas T&L portion – export from West Africa (Ouagadougou-Tema-Chicago)**

Transit cost/ time, maritime Tema-US*	\$3,200		32 days
Transit cost/time, US land (Newark – Chicago)	\$654		5 days
Total transit cost/ time Ouaga-Chicago	\$5,610		43-46 days
Cost/time of WA leg, % of total			15-20%
<b>US landside Chicago-Newark (1,130 km) - benchmark for WA export landside portion</b>	<b>\$765</b>	<b>Benchmark - export</b>	<b>2.4 days – export from US**</b>
WA landside as % of benchmark	230%		240-350%

\* Source: Maersk website, January 2010. The distance Ouagadougou-Chicago via Tema is approx. 10,360 km;

\*\* the US landside export leg, Chicago-Newark, is the benchmark for the WA export landside leg; \*\*\* Calculated as "Total, WA" – "benchmark"

Exporting using the Ouagadougou-Tema southbound corridor is faster, costs less and incurs fewer informal costs, than importing to Ouagadougou through Tema. This can largely be explained by the stiff competition for southbound traffic as many trucks otherwise have to make the trip to Tema empty.

Compared to the landside benchmark, i.e. Ouagadougou-Tema versus Chicago-Newark, one notes that although export from Ouagadougou is much faster than import to Ouagadougou, the West Africa export still takes twice as long as the benchmark, i.e. almost 6 to 9 days in West Africa versus a total of 2.4 days in the US with little or no uncertainty. The inefficiency cost - i.e. the saving possible if the West Africa transport efficiency equaled the North American one - is close to USD 1,000 or almost 20% of total door-to-door cost.

The following description and analysis is divided into three sections:

- The clearing processes at the Ouagarinter terminal in Ouagadougou.
- The road-transport leg, which includes the border crossing between Ghana and Burkina Faso.
- The Tema port operations.

## 5.2 Exports: Ouagarinter terminal procedures

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Exporters from Burkina Faso through Ghana either put their goods in containers or load them as break-bulk on trucks destined for Tema. When containers are used, they are predominantly 20-foot containers. Exporters load cargo on trucks at any location within Ouagadougou. In the case of containerized cargo, the exporter, or his agent, makes a booking with the shipping line that will eventually ship the cargo from the port of Tema. The shipping line provides the container, which is stuffed by the exporter and sealed by customs.

Transport by container from Ouagadougou to Tema is about two-thirds the cost of transport as break-bulk because shipping lines usually contract for the return trip from the outset which allows the transporters to offer a lower price as there is no waiting for the return cargo. However, only goods travelling on a through bill of lading can take advantage of this.

The exporter prepares the invoice declaring the value of the cargo and engages the services of a forwarding agent to prepare the documents needed for the transit journey. These include the customs declaration and an interstate waybill from CBC. In addition, the Burkina Faso Chamber of Commerce issues a certificate of origin, a loading note and, if necessary, a phyto-sanitary certificate. A forwarder typically charges XOF 50,000 (USD 119.00) per truck for this service.

Exports are declared at the Burkina Faso-Ghana border either as intended for “re-export” or for “direct transit.” In the case of re-exports, exporters declare that the cargo is destined for an interim destination (which must be a bonded warehouse in Tema, as no import duty will be paid) to be consolidated and shipped by container at a later date, sometimes together with cargo originating from Ghana. Direct transits are declared as destined for Tema port for immediate export. This study considers only direct-transit cargo.

### *Customs processing and forwarding procedure and costs*

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The following documents are needed to process the export declaration: the sales invoice, packing list, certificate of origin, and *état de chargement* (a loading note from the Chamber of Commerce). Customs requires a phyto-sanitary certificate for exports of agricultural products. The forwarder prepares the export declaration through the ASYCUDA customs information system.

### *Fees*

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Procedures for clearing export cargo are much less rigorous than those for import cargo, which means that informal costs at Ouagarinter and Tema port are considerably reduced. Formal fees at Ouagarinter include the ASYCUDA fee (payable to customs) and the formal customs overtime fee. Informal fee payments total approximately XOF 5,000 (USD 11.90) per declaration and consist of various payments made to customs officers including payments to the customs agents responsible for tallying and verifying entrance and exit of cargo. At Dakola, informal payments are XOF 10,000 (USD 23.80).

Table 20 below summarizes the procedure while Table 1 in Annex F describes in detail the eight steps involved.

**Table 20: Summary of export procedures at Ouagarinter (southbound cargo)**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Main causes of delays
Export procedures	8	157.55	11.90	150	300	Unavailability of customs officers during normal working hours, ASYCUDA network connectivity problems, and limited availability of computers at the customs office

### *Time taken and delays*

Forwarders reported that they spend an average of about 2.5 hours on customs procedures when there are no snags. Delays however normally result in an additional 5 working hours being added to the process.

### *Causes of delays*

As the main causes of delays, forwarders cited the unavailability of customs officers during normal working hours, ASYCUDA network connectivity problems and limited availability of computers at the customs office which results in the forwarders queuing to enter their customs declarations.

### *Ouagarinter terminal operations – analysis and recommendations (Export)*

Clearing export goods through the Ouagarinter terminal only takes about a day including delays (2.5 hrs standard time and up to 5 hrs delay). This represents 5% of the total standard time and 2% of the total average delays for export.

The Ouagarinter export clearing process costs on average about USD 170 including informal payments (USD 12). This represents 10% of total T&L costs for exports and 18% of the total informal payments.

## **5.3 Trucking of cargo to the Burkina Faso-Ghana border**

The trucking of export freight from Burkina Faso constitutes a much less controlled than the import market as no cargo-truck allocation rules apply (cotton is an exception; its export is handled almost exclusively through OTRAF).

Traders have the option of managing their freight shipments themselves and employing freight forwarders at origin, at the borders and at destination for documentation purposes. Shipping agencies offer exporters a door-to-door service through the agencies' own forwarders. Though a relatively expensive option, the advantage to the exporters is that the shipping agency provides a "receipt for shipment" within 24 hours of receiving the sealed container. This allows the exporter to receive early payment for the cargo if the export is financed using an irrevocable letter of credit.

Exporters arrange trucking of their cargo directly with transporters in approximately 80% of cases. This is about USD 100 to 200 cheaper than the service offered by the shipping agency, depending on the commodity. Exporters who find this difficult may arrange trucking through a transport agent or "coxeur" who charges about XOF 50,000 (USD 119.00) for his services. Transporters' associations do not play any role in securing southbound freight for transporters (except for cotton).

Truck operators quote road-haulage costs from Burkina Faso to Tema at between XOF 700,000 and 900,000 per truck (USD 1,666 to USD 2,142) with a cost per tonne typically quoted at XOF 15,000 to 18,000 (USD 36 to USD 43).

During the months of December to May, cotton haulage provides keen competition for carriage of other exports, which makes it more difficult to find trucks to carry cargo to Tema though the price is not significantly affected. SOFITEX, Burkina Faso's largest cotton company pays from XOF 26,000 to 44,000 per tonne for trucking cotton to Tema depending on the loading location within Burkina Faso. Because of cotton's low density, only 25 to 26 tonnes can be loaded per truck. As SOFITEX pays transporters about two months after the trip, truck owners must have enough credit to finance the transit journey to compete for this business.

Exporters generally insure their cargoes for the trucking journey to Tema although there is no obligation to do so.

### 5.3.1 Trucking of exports from Ouagarinter to Dakola

After truckers complete formalities at Ouagarinter in Ouagadougou, they travel 176 km to Dakola at the Burkina Faso-Ghana border. The Trade Hub and UEMOA's 5<sup>th</sup> quarterly report on road corruption documented 3.38 checkpoints per 100 km on this section of the corridor, which led to 48 minutes delay per 100 km and bribes of the equivalent of about USD 11.76 per 100 km in bribes<sup>35</sup>. Figure 17, shows the IRTG map of checkpoints on the corridor with statistics on bribes and delays.

**Figure 21: A variety of documents to haul transit cargo**



### 5.3.2 Export border crossing procedures: Dakola, Burkina Faso

The border is operational from Monday to Friday, 7:00 am to 12:30 pm and 3:00 pm to 5:30pm. On weekends and bank holidays it is open from 8:00 am to 3:00 pm. The short Burkinabé customs working day is less of a problem on the southbound than on the northbound trip as the trucks have to be cleared at Dakola first, the clearance process is faster, and the Ghanaian customs stays open longer.

#### Process

The four-step export process at Dakola is summarized in Table 21 below while Annex F gives a detailed explanation of each step in the process. Forwarders complete the clearing process on behalf of the exporter.

<sup>35</sup> Source: 5th Improved Road Transport Governance report published by UEMOA and the West Africa Trade Hub, See [http://www.watradehub.com/images/stories/fifth\\_report\\_english.pdf](http://www.watradehub.com/images/stories/fifth_report_english.pdf)

## Fees

Export procedures at Dakola are relatively simple but the informal fee paid to customs, XOF 4,000 (USD 9.52), is almost as much as the formal fee of XOF 5,000 (USD 11.90).

## Time spent and causes of delays

The simple four-step export process at Dakola is usually completed in 2 hours if the truck arrives at the border early enough. If not, the truck has to wait overnight.

**Table 21: Summary of export procedures at Dakola (southbound cargo)**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Causes of delays
Export procedures	4	11.14	9.52	120	0	If the truck arrives after 3:30 pm, it will stay parked until the following day.

### 5.3.3 Export border crossing procedures: Paga, Ghana

The border is open from 6:00 am to 6:00 pm daily, weekends inclusive. However, the office often opens later, or closes earlier, than these official times.

#### Customs processing and forwarding procedure and costs

At Paga, the exporter uses a licensed forwarding agent<sup>36</sup> to process transit documents at Ghana customs because customs requires a guarantee - at no cost - for the cargo that only the licensed agents can provide. The forwarding agent prepares his declaration manually. Ghana plans to install GCNet at the Paga border so that declarations will be recorded electronically. This may not save much time at Paga but will eliminate the need to re-enter the information when the goods arrive in Tema.

Customs officers physically check the truck to verify the registration and the cargo seal, and to prepare the transit documents for the onward journey. They open a file referred to as a “landing account” and issue a so-called *Trans1* document covering the entire consignment under the export declaration. This declaration may cover a single or several trucks. In the case of several trucks, these may be grouped into various sub-consignments dispatched from Burkina Faso at different times. The *Trans1* document specifies the total number of trucks that will be crossing the border under a single declaration.

As an escort must accompany trucks to Tema, customs decides when the escort officer should join a truck since it is not always possible to wait for all trucks to form a convoy before departure because they arrive at the border at different times.

The cargo is also inspected by – and bribes are paid to – customs officers at the various checkpoints along the corridor who stamp the copy of the *Trans1* document for each sub-consignment that passes.

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<sup>36</sup> This is an official economic operator and quite different from the informal middlemen who “facilitate” the clearing task of the drivers when a truck arrives at Paga on the way to Burkina Faso.

## Fees

Ghanaian customs levies a formal transit fee of USD 200, paid in Ghana cedis, per consignment under a single declaration regardless of the number of containers or trucks it covers. There is no corresponding fee charged by customs at the Burkina Faso-Cote d'Ivoire or Burkina Faso-Togo borders. The fee violates the New York Convention of 1967 on transit trade for landlocked countries which states that transit countries should not levy taxes on exports, and by extension the ECOWAS ISRT convention and a related ECOWAS resolution<sup>37</sup>.

## Time taken and delays

Customs processing is normally completed within 5 hours, but various delays could add an additional hour. Obtaining the temporary entry permit and waiting for the escort add additional time for a total of 14.5 hours including delays.

## Reasons for delays

There is no GPS tracking on the Paga-Tema leg of the journey, so customs agents physically accompany the trucks to Tema. Escort agents prefer to have several trucks in a convoy before embarking on the journey to Tema. This can delay a given export shipment for several hours.

Another major source of delay at Paga is caused by the processing of the temporary entry permit called the "laissez passer C59A form." This form allows non-Ghanaian trucks to enter the country. A similar process exists in other countries and is consistent with ECOWAS treaties. After the police has entered the truck details online, these need to be approved by their counterparts in Accra before the document is issued. System failure or lack of a quick response from Accra results in this process usually lasting up to 5 hours.

The process is summarized in Table 22 below while Table 3 in Annex F, gives a detailed narrative of the process.

**Table 22: Summary of export procedures at Paga (southbound cargo)**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Main causes of delays
Export procedures	5	272.00	0.00	360	510	Organizing the customs escort can delay an export shipment for several hours; processing the temporary truck entry permit for non-Ghanaian trucks takes up to 5 hours

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<sup>37</sup> (ECOWAS) hereby resolves "That Member States (a) shall show strict compliance with the principles of the UNCTAD Convention on transit trade for land-locked countries referred to in the Preamble to the Inter State Road Transit Convention (ISRT), which stipulates as follows in Article 3: "Transit transport shall not, within the territory of the transit State, be subject to any customs duties, import or export duties, or any special transit taxes levied by the said State". (ECOWAS Resolution C/RES.1/12/88 on the Implementation of the Higher Committee on Land Transport)

### 5.3.4 Trucking of exports from Paga to Tema

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The customs escort from Paga to Tema attracts a fee averaging USD 54.00, which in this study is considered a formal fee although no receipt is issued. Road barriers involve informal payments amounting to the equivalent of USD 35.10.

Trucks traveling from Paga to Tema face delays and extortion at checkpoints along the way. The Trade Hub and UEMOA's quarterly reports<sup>38</sup> on road corruption show that from June to September 2008, drivers encountered on average 15 checkpoints operated primarily by police and customs agents along the roads in Ghana, including the border at Paga. Per 100 km, these barriers caused about 19 minutes delay and required USD 1.33 in bribes.

### 5.3.5 Trucking of exports from Paga to Tema - analysis and recommendations (exports)

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Trucking goods from Ouagadougou takes about 4.6 days which may extend to 6.2 days due to delays at the border crossings and at road barriers along the corridor. This represents about 80% of the total standard time and 60% of the total average delays for export.

The trucking leg costs on average about USD 1,050, including informal payments (USD 45). This represents 60% of total T&L costs for exports and 67% of the total informal payments.

There are several areas for improvement on the southbound corridor. First, the USD 200 fee per consignment is a tax on transit. Road maintenance is paid through the fuel tax, which every road user pays whether import, export, transit or local traffic. The transit fee is unfair, affects negatively Tema port's competitiveness as a transit port and goes against the ECOWAS ISRT convention and related resolutions. It should be abolished.

Second, the working hours of customs and other agencies on the Ghana and Burkina Faso side of the border should be aligned.

Third, the GCNet satellite-tracking system should be applied also on the southbound journey so as to avoid the costs and delays of the escort system.

#### *Recommendations (trucking Ouagadougou-Tema):*

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- Ghana customs should abolish the USD 200 transit fee per consignment, which is unfair and goes against international principles in regard to transit traffic.  
Benefits: Reduce the cost and paperwork related to export from Burkina Faso; provide an incentive for exports from the Sahel via Tema.
- Alignment of Ghana and Burkina Faso customs working hours at the Paga-Dakola border crossing.  
Benefit: Reduce delays at the border crossing.
- Extend the GCNet satellite tracking system to include the southbound traffic.  
Benefits: Eliminate formal and informal costs and delays related to the escort system.

## 5.4 Tema port procedures for export

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Shipping lines may receive container cargo in their yards outside Tema port. Alternatively, containers may go directly to the port, if the port is ready to receive cargo for the designated vessel<sup>39</sup>. The exporter makes the

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<sup>38</sup> See <http://www.watradehub.com/irtgreports> for all IRTG reports

<sup>39</sup> The MPS terminal allows the entry of containers for a designated vessel from 72 hours before the vessel is scheduled to arrive up to 24 hours before the vessel berths. In the case of the GPHA terminal, containers can be delivered up to a week before the sailing, and there is no cut off time for entry of containers into the port area.

booking with the shipping agency in Burkina Faso before the container is released to the exporter for loading. From the manual declaration prepared at the border and other accompanying documents, the Tema-based forwarding agent prepares a new customs declaration via GCNet. This forwarding agent then presents the GCNet export declaration and all accompanying documents to customs officers at the port who check them for compliance. After the forwarder has paid the port handling charges, customs endorses a release document which the forwarder takes to the shipping agency to enable it to authorize the loading of the container onto the vessel.

The procedure for cargo arriving in Tema as either bulk or break-bulk is similar to that for the handling of cargo in containers, with the following variations:

Customs issues a release note and a customs officer monitors the offloading of the cargo and checks the relevant details against the landing account issued at the Paga border (if already received) or otherwise crosscheck details with their counterparts at the border.

If a truckload of non-containerized goods arrives in Tema from Burkina Faso for onward transport in containers, the forwarder requests a container from the shipping agency when he makes a booking. The shipping agency arranges the unloading of the trucks for stuffing into containers by “stripping gangs” at the shipping-agency terminals at a cost of approximately USD 80.00 per 20’ container.

Alternatively, when large quantities of bulk cargo are involved, the cargo is first offloaded into a bonded warehouse until it is ready to be exported. After preparing the GCNet export declaration with the required supporting documents (Paga custom declaration, invoice, certificate of origin and, if necessary, a phyto-sanitary certificate), the forwarder sends it to the customs compliance officer.

In the case of warehoused cargo, the forwarder arranges the delivery of empty containers to the warehouse and cargo is stuffed into the containers under customs supervision. The truck then takes the loaded container back to the shipping agency’s export yard (or port terminal) for loading onto a vessel.

At the port of Tema, the equivalent of about USD 5.40 is paid informally to customs officers who check the details of the container against the “landing account” upon its arrival in Tema.

The process is summarized in Table 23 below while Table 4, Annex F provides a step-by-step description of the procedures.

**Figure 22: Delays are common for truckers plying the Ouagadougou-Tema corridor**



**Table 23: Summary of Tema port procedures for export transit cargo**

Description	Number of steps	Formal costs (USD)	Informal costs (USD)	Standard time (working minutes)	Delay (minutes)	Main Causes for delays
Export procedures	9	525.00 per 20'	9.90 per container	435	240	Unavailability of the GCNet computer system; time spent waiting to process documents or make payments

### *Fees*

The forwarder charges a lump sum to cover all expenses from the discharge of the cargo from the truck in Tema until the container is ready for loading. The average fee for the service is usually quoted in XOF and lies in the range of XOF 200,000 to XOF 250,000 (USD 476.00 to USD 595.00) per 20-foot container. This includes the shipping agency and the port charges which amount to XOF 75,000 (USD 177.32) per 20-foot container plus the informal payment of approximately XOF 4,000 (USD 9.90) paid to customs agents per container to expedite the process. The shipping line pays the port authorities for loading the container onto the vessel as part of its stevedoring costs.

### *Time spent and delays*

Ghanaian customs processing for export cargo takes about 7 hours. The bill of lading needed to complete final customs documentation after the vessel departs is usually available to the forwarder from the shipping line 48 hours after vessel departure. The bill of lading is evidence of shipment of the cargo and allows the exporter to collect payment through the banks when goods are sold on the basis of a letter of credit.

### *Reasons for delays*

Forwarders may experience a delay of up to 4 hours due to the unavailability of the GCNet computer system or in queues at the shipping lines, and may spend time waiting within the port to process documents or make payments for handling charges. But these delays do not affect the cargo which, at this time, is already loaded on board the vessel and en route to its final destination.

### *Tema port procedures – analysis and recommendations*

Clearing export cargo through Tema port takes about one day (7.5 hrs) which may extend to a day and a half due to delays. This represents about 16% of the total standard time and 18% of total average delays for export.

The port clearing process costs on average about USD 535, including informal payments of USD 10. This represents 30% of total T&L costs for exports and 15% of total informal payments.

## 6 Conclusions and recommendations

This study looked at the cost and time incurred in West Africa when importing and exporting a number of important commodities to and from Burkina Faso using the Tema-Ouagadougou corridor, employing three handling modes: Container all the way from origin to destination, container on the maritime leg to or from Tema port but as break-bulk on the road transport leg to or from Ouagadougou to Tema, and as bulk or break-bulk from origin to destination. In all cases West African imports and exports have to deal with four major handicaps:

1. High costs
2. Long transit times
3. Uncertainty in both costs and transit times; and
4. High level of corruption

### 6.1 Costs

In order to establish the West Africa cost disadvantage the study compared the cost and time it takes to import or export a 20-foot container between Ouagadougou and Chicago, via Tema port. Chicago was chosen because it is approximately the same distance from the US port of landing, Newark, New Jersey (1,130 km), as Ouagadougou is from Tema port (1,050 km). In other words, the study uses the landside transport costs and transit time in the US as the benchmark for what the landside cost and transit time on the Tema-Ouagadougou corridor could be if West Africa transport efficiency reached the US efficiency level where labor costs are about twenty-five times as high as in West Africa.

To put the transport costs and times incurred in West Africa in perspective, we have summarized the total door-to-door costs, transit times and bribes from Ouagadougou to Chicago for a 20-foot standard container, i.e one TEU, in Table 24 below.

**Table 24: Summary of costs, transit times and bribes per TEU - Ouagadougou to Chicago**

Import to Ouagadougou						
	Total door-to-door cost and time Ouagadougou-Chicago*	Of which			Bribe component of West Africa T&L costs	Bribes as%age of total WA T&L costs
		US landside transport	Maritime leg	West Africa T&L** costs		
<b>Total</b>	USD 8,128 48-55 days	USD 765 2.5 days	USD 2,560 32 days	USD 4,803 13.5-22 days	USD 399	8.3%
Export from Ouagadougou						
<b>Total</b>	USD 5,618 43-46 days	USD 654 5 days	USD 3,209 32 days	USD 1,755 6-9 days	USD 66	3.6%

Notes \*Chicago is about the same distance from port as Ouagadougou (1130 km versus 1050 km);

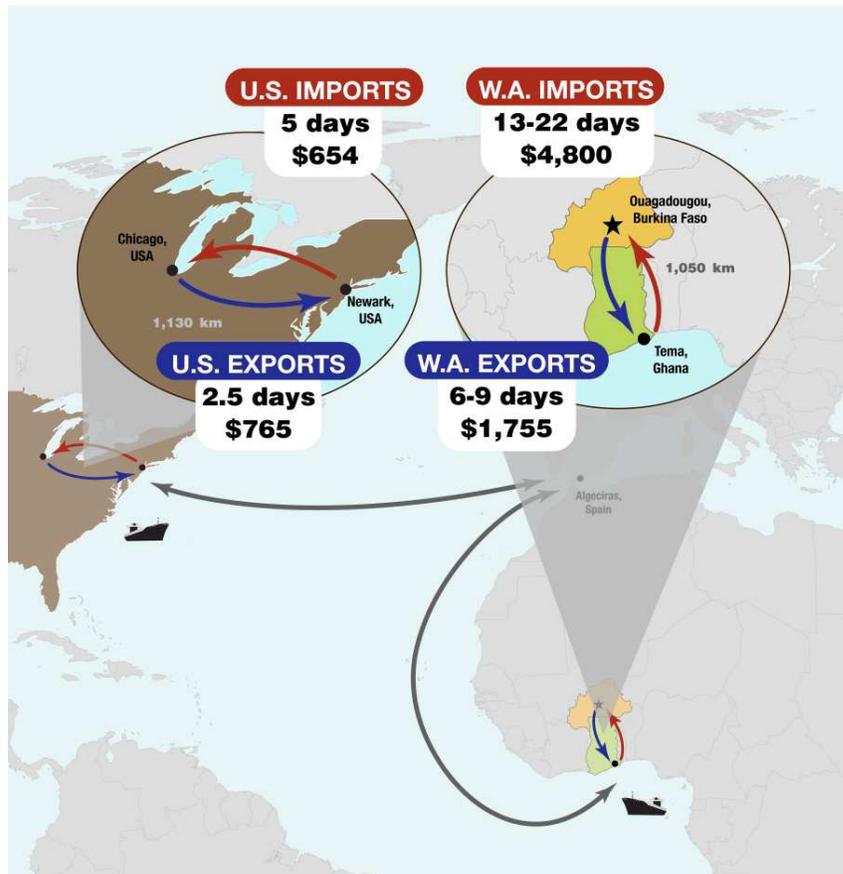
\*\* Transport and Logistics

More specifically, we compare inland transport and logistics costs in the US and West Africa for moving a 20-foot container a similar distance to and from a port as illustrated in figure 23.

The comparison is only slightly exaggerated by the fact that the time and cost of clearing goods in Chicago is not included in the comparison. However, it is striking that, under ideal circumstances, West Africa transport and logistics costs could be reduced by almost 85% for imports and 55% for exports, and there is no natural law preventing this from one day becoming the reality, considering that US labor costs are 25 times higher than those in West Africa<sup>40</sup>.

The comparison of the import and export transport cost on the Tema to Ouagadougou corridor against the benchmark, import and export on the Newark to Chicago corridor, is summarized in table 25 below.

**Figure 23: The Big Picture – Transport Costs in the US and West Africa**



Note: Importing and exporting a standard 20' container

**Table 25: Comparison of West Africa import/export costs per TEU against the benchmark**

Routing	Distance	Imports		Exports	
		Costs	Time	Costs	Time
Ouagadougou, BF via Tema	1050 km	USD 4,803	13.5-22 days	USD 1,755	6-9 days
Chicago, IL via Newark, NJ	1130 km	USD 654	5 days	USD 765	2.5 days
<b>WA indicative inefficiency costs/times</b>		<b>USD 4,150</b>	<b>8.5-17 days</b>	<b>USD 990</b>	<b>3.5-6.5 days</b>
<i>Indicative potential savings<sup>41</sup></i>		<i>USD 189/tonne</i>		<i>USD 46/tonne</i>	

<sup>40</sup> Whereas West Africa has a labor cost advantage, it is disadvantaged by the lack of economy of scale and the imbalance between import and export trade

<sup>41</sup> Imports 22 tonnes per TEU, exports 16 tonnes per TEU

## 6.2 Transit times, delays and unpredictability

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Costs in this report have referred to actual money changing hands with receipts (formal costs) or without receipts (informal costs/bribes). However the extensive transit times and delays involved in moving goods from the vessel in Tema port to its final destination in Burkina Faso, or vice versa, and the unpredictability of this factor, also represent important costs to importers and shippers.

As we saw above, the time to import a standard 20-foot container to Ouagadougou via Tema port is approximately 13.5 - 22 days and for export 6 - 9 days which is the same time and delays experienced by an average truck load of cargo, be it containerized, breakbulk or bulk, as shown in Table 25 below.

### *Time is more than an opportunity cost*

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The cost incurred by the time it takes to trade goods represents a financial cost to the trader who needs credit to finance his transactions. The longer the goods are in transit, the longer it takes for the trader before he can sell the merchandise and repay the bank. If the trader is self-financing, delays represent an opportunity cost, in that the capital locked up while the goods are in transit could have been put to better use elsewhere. This cost is factored into the price the importer has to pay and the revenue the exporter receives for his goods, whether the actual opportunity cost is incurred by the buyer or the seller.

Based on an annual interest rate of 11%, the average 2008 borrowing rate in Burkina Faso, the opportunity cost per day and USD 1,000 is USD 0.30. Thus a 40-foot container of shea butter valued at USD 39,000 incurs an opportunity cost of USD 11.70 per day. This is the opportunity cost we use in calculating benefits related to time gains in section 6.5 below.

The importance of high transport costs, long transit times, and unpredictability as barriers to trade, has gained much attention in the last decade or so, and many analysts have concluded that the cost of time and uncertainty is much higher than simply the opportunity cost as calculated above.

For example, a 2006 World Bank study, *Trading on Time*<sup>42</sup>, found that “...on average each additional day of delay reduces trade by at least one percent. We find larger effect on time-sensitive agricultural and manufacturing products....” Furthermore, a 2007 USAID-sponsored study calculated the time delays as the tariff equivalents for import and export from sub-Saharan Africa to be equal to an increase in tariff of 0.9% per day<sup>43</sup>. This conclusion is based on the observation that many importers and exporters are willing to pay high air freight costs, thereby illustrating the value buyers and sellers put on timely deliveries, and that this trend is growing<sup>44</sup>.

Table 26 below shows the estimated opportunity costs based on interest costs, and the tariff-equivalent cost, which is approximately 30 times (!) higher.

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<sup>42</sup> Djankov, Simeon et al, 2006, “Trading on Time”, World Bank *Doing Business* document

<sup>43</sup> Hummels, David (USAID/Nathan Associates Inc), 2007, “Calculating Tariff Equivalents for Time in Trade” pg 9

<sup>44</sup> Air freight tonnes grew by 41% between 2001 and 2008 (IATA December 2009 Factsheet Industry Statistics)

**Table 26: Transit traffic - summary of time and delays**

	Import		Export	
	Average load: 32 tonnes* Average value: USD 25,530*		Average load: 22 tonnes* Average value: USD 53,890*	
	Standard time	Average delays	Standard time	Average delays
Total WA transit times	13.5 days	9 days	6 days	3 days
Opportunity costs	USD 3.2/tonne	USD 2.2/tonne	USD 4.3/tonne	USD 2.1/tonne
“Time as cost” tariff equivalent: 0.9%	USD 97/tonne	USD 65/tonne	USD 130/tonne	USD 63/tonne

Notes: \* This is a straight average of the 8 commodity/handling-mode combinations studied

The tariff-equivalent penalty, caused by the long transport times and delays, applies particularly to time-sensitive goods, which include perishable agricultural product, but also goods used in manufacturing. So, whether or not this “cost” applies to the specific commodities studied in this report, it illustrates the importance of having an efficient transport and logistics system in order for a country to be able to take advantage of global trade for economic development. Many opportunities for trade involve importing semi-finished goods, adding value and re-exporting, or selling locally as input to other industries. Low T&L costs for imports are therefore critical for the competitiveness of export.

Uncertainty also adds costs. There is as yet no agreed approach to calculating this cost, but the issue was the subject of a recent study commissioned by the US International Trade Commission, which noted that uncertainty engenders costs “...such as scheduling costs, information costs, suboptimal inventory levels, supply chain redundancy, and reduced orders. ... Operators need to hedge in view of the unreliable service delivery - either through increasing inventories or through switching towards alternative but more expensive transport modes; ... companies in landlocked developing countries frequently maintain three months or more of inventory to compensate for delays and uncertainty, and safety stocks can reach one year of expected sales”<sup>45</sup>.

In this study, “average delays” is a measure of the uncertainty of the time element on the Tema-Ouagadougou corridor and is equivalent to 67% and 50% of the standard time for imports and exports respectively.

### 6.3 Informal costs

Informal costs, also known as bribes, represent 8.2% and 2.9% of the transport cost for imports and exports respectively for an average truck load on the Tema-Ouagadougou corridor. The lower level of corruption for exports is primarily due to the fact that exports are subject to much less rigorous customs procedures than imports.

Informal costs are a much bigger problem than the costs of the bribes themselves because of the delays and uncertainty they generate. In particular, it is a common strategy for uniformed officials to delay the processing of a particular transaction in order to extract bribes to speed up the process and thereby increase the unpredictability of the transaction in terms of overall cost and time.

Informal costs are offered and/or demanded all along the transport and logistics chain. Most informal payments/bribes are paid by forwarders and truckers and are included in the prices they quote to traders.

<sup>45</sup> Christ and Ferrantino, April 2009, Land Transport for Exports: The Effects of Cost, Time, and Uncertainty in Sub-Saharan Africa, US International Trade Commission

Informal payments are also made to, or demanded by, transportation workers in Tema port and the Ouagarinter terminal to speed up the work flow.

Table 27 below summarizes the formal and informal payments made to various officials at different points in the import and export logistics chains.

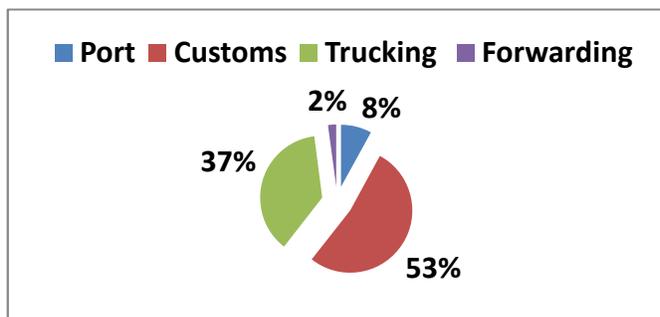
**Table 27: Average total T&L and informal costs per truckload, all cargoes**

Service	Import (average load: 35 t)			Export (average load: 22 t)		
	Total T&L costs	Of which informal costs	Informal as % of total informal	Total T&L costs	Of which informal costs	Informal as % of total informal
Port costs	\$233	\$35	8%	\$296	\$6	7%
Customs	\$588	\$231	53%	\$380	\$40	46%
Trucking	\$3,366	\$164	37%	\$1,619	\$40	47%
Forwarding	\$1,184	\$9	2%	\$719	\$0	0%
<b>Total</b>	<b>\$5,371</b>	<b>\$438</b>	<b>100%</b>	<b>\$3,014</b>	<b>\$86</b>	<b>100%</b>

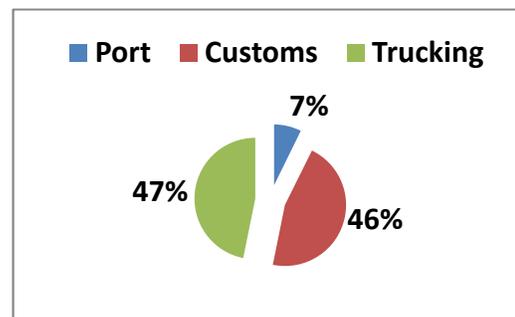
Customs collects the highest bribes, particularly for import cargo. This is probably due to the many and complex control procedures that customs administer and which offer plenty of opportunities to demand or offer bribes. The distribution of bribes paid to the various services is illustrated in Figure 24 below.

**Figure 24: Breakdown of informal costs per truckload among uniformed services and others**

**Import: total informal cost USD 438**



**Export: total informal cost USD 86**



Of the informal payments collected by customs for imports, 90% are collected by customs agents in Burkina Faso (see Tables 6 and 18 above). This does not necessarily mean that the Burkinabé customs is more corrupt than the Ghanaian customs. What it does suggest is that corruption is highest where payments are largest, which is at the point of clearance where duties and taxes are paid. In Tema port goods are only cleared for transit (import) or for export, which involve few if any customs duties or taxes.

A total elimination of unofficial costs is a difficult challenge considering its traditional and widespread use. Significant reduction of unofficial costs will require a combination of (a) advocacy, public awareness and pressure, and political will, (b) information systems that transfer decision making to agents who do not have face-to-face interactions with traders, forwarders and transporters, (c) strong enforcement measures and (d) severe and visible penalties for corrupt behaviour.

### *Informal costs and delays – road barriers*

On the road between Tema and Ouagadougou, in both directions, truckers will be stopped at about 36 control points where they will be delayed for a total of 4 hours on average and pay a total of USD 32 in bribes, as shown in Table 28 below. There are often several uniformed services, government agencies and municipal representatives at each road block, each responsible for its own “inspections” and each collecting bribes. The number of control points is therefore much larger than the number of road blocks.

The number of control point is large: 16 in Ghana and 20 in Burkina Faso. However as a percentage of total time spent on the corridor, the delays at road blocks amount to only 2 % and 6 % of the total time spent on the corridor for imports and exports respectively.

The levels of bribes collected at roadblocks are the same for imports and exports and represent about 7 % and 43 % of total bribes paid for Burkinabé imports and exports respectively.

Still, the road blocks and control points are a great nuisance to legal truck drivers who have all their papers in order. It is also very visible and contributes to creating distrust between the uniformed services and the public.

Precisely because of its visibility, fighting corruption at roadblocks is possibly the most effective way to create public awareness and pressure for action, generate debate and build political will to fight other forms of corruption.

**Table 28: Summary of control points and bribes paid at road barriers, including the border**

Number of control points/road barriers					Bribes at control points/road barriers (USD)			
	Tema-Paga	Dakola - Ouaga	Total	Percent	Tema-Paga	Dakola - Ouaga	Total	Percent
Police	5.8	3.9	9.7	27.3%	\$4.00	\$3.89	\$7.89	24.5%
Immigration	1.0	3.6	4.6	12.9%	\$0.17	\$3.60	\$3.77	11.7%
Customs	8.4	8.8	17.2	48.2%	\$7.30	\$8.79	\$16.09	50.0%
Gendarmerie	0.0	4.0	4.0	11.2%	\$0	\$3.99	\$3.99	12.4%
Civil gov't and unions	0.1	0.0	0.1	0.4%	\$0.37	\$0.04	\$0.41	1.3%
<b>Total</b>	<b>15.3</b>	<b>20.3</b>	<b>35.6</b>	<b>100.0%</b>	<b>\$11.84</b>	<b>\$20.31</b>	<b>\$32.15</b>	<b>100.0%</b>

	Tema-Paga	Dakola - Ouaga	Total
Delays (minutes)	160	89	249.0 (4.2 hrs)

## 6.4 The problems on the Tema-Ouagadougou corridor

The high formal and informal costs, the time it takes to move the cargo through each transport leg, and the uncertainty in both costs and times are all important factors that determine the competitiveness of the Tema-Ouagadougou corridor.

Figure 25 shows the major T&L legs on the Tema Ouagadougou corridor (Tema port, the road transport leg and Ouagarinter terminal) and table 29 shows the distribution of costs, times and delays among these.

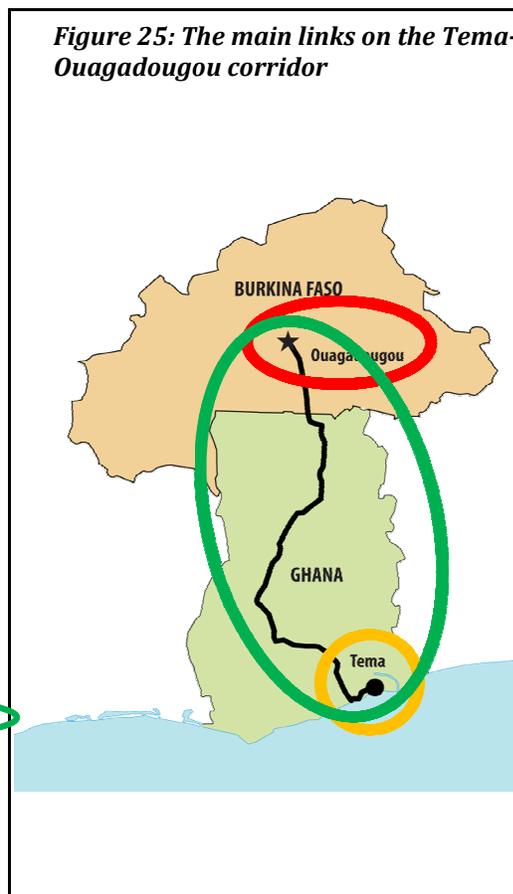
The study found that Tema port is the major bottleneck on the import side, as almost half the standard processing time and more than half the additional delays occur there. The trucking leg for imports represents more than 60% of the total West Africa T&L costs, while more than 50% of informal costs are incurred in Ouagarinter. That most bribes are paid in Ouagarinter is not surprising as that is where duties and taxes are paid and thus where most money change hands.

Exports attract much less official attention and intervention from customs, in particular, since there are few if any duties and taxes to be paid. The result is that the exporter is faced with fewer costs, and shorter times and delays in Ouagarinter and Tema port. The trucking leg thus presents the biggest opportunities for improving all costs and time components.

**Table 29: Distribution of cost and time for an average truckload on the Tema-Ouagadougou corridor**

Transport leg	Costs distribution %		Time distribution %	
Imports	Total T&L	Of which informal	Standard	Delays
Tema port	13	14	45	53
Trucking Tema-Ouaga	63	34	32	12
Ouagarinter	24	51	22	34
Total	100%	100%	100%	100%
<b>Total average</b>	<b>\$5,371</b>	<b>\$438</b>	<b>13.5 days</b>	<b>8.7 days</b>
Exports	Total T&L	Of which informal	Standard	Delays
Ouagarinter	10	18	5	22
Trucking Tema-Ouaga	60	67	80	60
Tema port	30	15	15	18
Total	100%	100%	100%	100%
<b>Total average</b>	<b>\$3,014</b>	<b>\$86</b>	<b>5.8 days</b>	<b>2.8 days</b>

**Figure 25: The main links on the Tema-Ouagadougou corridor**



The problems at Tema port require addressing the issues of (a) congestion and (b) streamlining port and customs procedures. The high cost related to the trucking leg for both import and export is best resolved by deregulating the trucking market in the ECOWAS region, while the high level of informal payments incurred

during the clearance process at Ouagarinter would be greatly reduced if ECOWAS governments were successful in establishing a single market with no internal borders.

Section 6.6 provides a full set of recommendations.

## 6.5 Compared with other developing world transport corridors

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The USAID-funded companion study “*West Africa Transport Logistics Analysis Using FastPath: Tema-Ouagadougou Corridor*”, using the data collected by the West Africa Trade Hub for this study and its own research, the authors compared the Tema-Ouagadougou corridor with similar transport corridors in Mozambique, Laos, and Bangladesh using the FastPath model, a transport logistics diagnostic tool developed with USAid funding<sup>46</sup>.

The FastPath model assesses the variables of cost, time, and predictability of key infrastructure components along a corridor in a consistent and replicable fashion. Each variable represents an indicator of performance by itself, but the three variables are also used to generate a summary performance measure, or logistics score. In the case of the Tema-Ouagadougou corridor, the *FastPath* team assessed Tema port, the road network between Tema and Ouagadougou, and the border crossings at Paga, Ghana and Dakola, Burkina Faso.

Logistics scores are computed by comparing the performance of a component of the transport/logistics chain to international standards and rating it as good, fair, poor, or very poor. This rating is then converted to a numeric score (80 for good, 60 for fair, 40 for poor, and 20 for very poor). Then the scores for price, time, and uncertainty are averaged to get the total score for a component. These scores are then given a time-weighted average to compute the sub-chain total, with uncertainty treated as variance with a special calculation of the sub-chain total. A logistics score between 70 and 80 indicates that time, cost, and uncertainty in the total supply chain are efficient and competitive according to global standards. Uncertainty<sup>47</sup> is measured in terms of average transit time, which accounts for 90 percent of the variation in transit times.

### 6.5.1 Import: Compared with other transport corridors – containerized traffic

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#### *Port performance*

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Tema port received a score of 55 (fair-poor). This reflects issues regarding berth throughput, occupancy, and dwell times leading to lower port productivity. The total time in the yard of 352 hours exceeds by far the normal value for container storage at a port. If 56 hours of Customs clearance time is added to the storage time, the average dwell time for inbound transit containers is 408 hours (17 days). Similarly, waiting time at the channel (41 hours) and total berthing time (20.5 hours) are relatively high, which reflects the port’s congested environment. The fair-poor score may also reflect Tema port’s policy of allowing transit containers to remain in the yard for 21 days free of charge. Compared with corridors in Asia and Africa (including Chittagong, Bangladesh—a relatively poor performer), Tema port lags considerably behind in average channel wait time and in average unloading time.

Table 30 shows the performance of Tema port compared with other selected ports for containerized imports. Tema port lags considerably behind in average channel wait time and in average unloading time compared with the other ports, including Chittagong, a relatively poor performer in Asia. Customs time, total port costs, and average dwell time (storage plus customs) are also high when compared with other ports. However, average customs costs for imports and the reliability are relatively low compared with other ports.

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<sup>46</sup> Nathan Associates (2010) *West Africa Transport Logistics Analysis Using FastPath - Tema-Ouagadougou Corridor*, USAid

<sup>47</sup> “Uncertainty” is calculated as  $(T_{\max} - T_{\min}) / 2 * T_{\text{avg}}$ . This means the higher the number, the higher the uncertainty and the lower the reliability

**Table 30: Port Performance in selected corridors for containerized imports**

Port Component	CORRIDOR				
	Tema-Ouagadougou	Danang-Mukdahorn	Dacca-Chittagong	Durban-Nelspruit	Maputo-Nelspruit
	Tema Port	Danang	Chittagong	Durban	Maputo
Av. channel wait time	41 hrs	N/A	30 hrs	4hrs	8 hrs
Av. unloading time at berth*	20.5 hrs	12 hrs	16 hrs	8 hrs	16 hrs
Total port handling costs	US\$492***	US\$107	US\$302***	US\$750	US\$350
Stripping costs	US\$108	n/a	n/a	n/a	n/a
Stripping time	8 hrs	n/a	n/a	n/a	n/a
Customs costs	US\$129	US\$462	US\$294	–	US\$285
Customs time	56 hrs	24 hrs	48 hrs	16 hrs	24 hrs
Average dwell time (including Customs)	17 days****	3 days	12 days	3 days (est.)	3 days
Unofficial costs (%)	7.8%	5% (est.)	15%	5% (est.)	10% (est.)
Uncertainty **	93%	125%	45%	100% (est.)	268%
Logistics score	55	55	49	60	51

\* Average unloading time per container is half the average time for ship berthing time.

\*\* The percent of average transit time that would include 90% of shipments.

\*\*\* Including a port surcharge for delays to ships in channel (\$140 for Tema and of \$190 for Chittagong).

\*\*\*\*Dwell time for inbound transit cargo

## Road performance

Surface transport for inbound traffic as has an intermediate rating with road travel times rated as fair in some sections and good in others. Reliability for road transit time is rated fair in the majority of the segments. Nevertheless, price in the majority of the road segments is rated very poor (e.g., high unit costs per TEU-km). This is due to several factors, including the fact that there is lack of backhaul cargo for the returning trip and hence most of the trucks return empty, the relatively older trucks used for this transport, and the poor condition of some road links. Inbound prices also incorporate all associated expenses for the return trip.

The average cost per container-km in the Tema-Ouagadougou corridor up to the Ghana border shown in Table 31 is higher than all the comparators except for the Maputo-Mozambique border road, is a much shorter haul distance (60km) which raises the price. There are several factors which contribute to the high price for Tema-Ouagadougou corridor, including the old age of the trucks used for transit traffic and the lack of sufficient backhauls, among others. These and other factors, however, represent opportunities for improvement.

**Table 31: Comparison of inbound road transport performance in selected corridors**

Performance Component	CORRIDOR				
	Tema-Ouagadougou	Laem Chabang-Vientiane	Dacca-Chittagong	Durban-Nelspruit	Maputo-Nelspruit
	Tema- Ghana Border	Laem Chabang-Thai Border	Dacca-Chittagong	Durban-Nelspruit	Maputo-Mozambique Border
Av. cost per TEU-km	US\$2.4	US\$1.2	US\$1.2	US\$2.0	US\$2.5**
Av. speed	40 kph	51 kph	35 kph	100 kph	60 kph
Av. delay time	4 hrs	1 hr	1 hr	2 hrs	1 hr
Unofficial costs (%)	1%	10% (est.)	15%	5% (est.)	10% (est.)
Uncertainty *	110%	29%	83%	100% (est.)	105%
Logistics score	55	70	58	65	51

\* The percent of average transit time that would include 90% of shipments.

\*\* Very short haul distance (60km). This drops to \$2 per TEU-km for longer distances.

The average speed of 40 km/h is relatively low and compares with Dacca-Chittagong, also a poor performer. Average delay times are substantially higher than for other corridors, although this is partially explained by the length of the corridor. Unofficial costs are relatively low in the corridor. The uncertainty measure is worse than all the other corridors in this table. The overall logistics score is 55 which is close to a fair-poor rating, and comes in lower than the other corridors.

### Border post performance

The inbound operations at the border post are assessed separately for Paga and Dakola. The performance at Paga is relatively good with a score of 73. The performance at Dakola is fair to good with a score of 67 but activities performed there only include a review of immigration documents, a preliminary review of clearing documents and the introduction of import data into the Customs system. All import cargo entering Burkina Faso must proceed to Ouagarinter, the Customs facility located in Ouagadougou, to undergo Customs clearing process. Therefore, to properly compare performance of the Customs clearing process with other corridors' border posts, it is necessary to make an adjustment of time and cost taking into consideration that the process starts in Dakola and continues in Ouagarinter. The adjustment combines the operations of each node, adding the time, cost, and reliability variables. The combined results and logistics scores are presented in Table 32.

**Table 32: Customs clearance and border post operations - Dakola-Ouagarinter, imports**

Component	Price (US\$/TEU)	Price Score	Time (Hours)	Time Score	Reliability %	Reliability score	Logistics Score
Ouagarinter+Dakola	442	20	89.7	20	245	20	20

*Performance based on 2008 data*

The combined performance is very poor, with a logistics score of 20. The price per TEU is high even though it does not include a second guarantee fund charge equivalent to 0.25 percent of the value of the goods paid when entering Burkina Faso. Because this charge varies depending on the value of the products being imported, it is not included in our price calculations. The average time for customs clearance combining Dakola and Ouagarinter exceeds 4 days, and the uncertainty of this time is also very high with a value of 244 percent. The average cost per container to cross the Ghana-Burkina Faso border for inbound traffic shown in Table 33 is significantly higher than for the selected comparison corridors. This is due to the fact that the customs operations at Burkina Faso are performed partially at the border post and later continue at Ouagarinter.

**Table 33: Comparison of border post performance in selected corridors for imports**

Performance Component	Corridor		
	Tema-Ouagadougou	Laem Chabang-Vientiane	Maputo-Nelspruit
Av. cost per container *	US\$457	US\$180	US\$200
Av. transit time *	90.7 hrs	3 hrs	4 hrs
Unofficial costs (%) *	25%	20% (est.)	10% (est.)
Uncertainty *	250%	125%	56%
Logistics score border post 1, inbound	73 (Ghana)	67 (Thailand)	73 (Mozambique)
Logistics score border post 2, inbound	20 (Burkina Faso)	63 (Laos)	73 (South Africa)

\* Numbers include border posts on each side of border.

\*\* The percent of average transit time that would include 90 percent of shipments.

## 6.5.2 Export: Compared with other transport corridors – containerized traffic

### Port performance

The port has a better logistics score than the inbound direction with a total score of 72 (out of 80), which is in the good-fair range for international ports. The higher score is due to the fact that Customs processing time is short, and there is no waiting time at the channel. In Table 34, we compare the performance of Tema port with other ports for containerized exports. Tema port lags considerably behind in average loading time at berth compared with the other ports. Total handling costs are about average for exports. If consolidation costs are added in, these costs are higher than average. Stripping time is also significant at 8 hours. Unofficial costs are high compared to others; while dwell time is relatively low. Note that dwell time for domestic cargo is distinguished from dwell time for transit cargo. Transit cargo in Ghana, which require additional staging for compliance with truck/cargo allocation agreements, experience a dwell time of 17 days for inbound transit containers.

**Table 34: Comparison of border post performance in selected corridors for imports**

Port Component	Corridor				
	Tema-Ouagadougou	Laem Chabang-Vientiane	Dacca-Chittagong	Durban-Nelspruit	Maputo-Nelspruit
	Tema Port	Laem Chabang	Chittagong	Durban	Maputo
Av. loading time at berth	20.5 hrs	8 hrs	16 hrs	8 hrs	8 hrs
Total port handling costs	US\$349.7*	US\$70	US\$390*	US\$750	US\$350
Consolidation costs	US\$55.96	n/a	n/a	n/a	n/a
Consolidation time	6 hrs	n/a	n/a	n/a	n/a
Customs costs	US\$4.5	US\$180	US\$60	–	US\$146
Customs time	3.5 hrs	3 hrs**	24 hrs	4 hrs	6 hrs
Average dwell time (including Customs but not consolidation)	1.5 days	3.5 days	2.5 days	1.5 days	1.5 days
Unofficial costs (%)	2.9%	10% (est.)	15%	5% (est)	10% (est.)
Uncertainty ***	58%	125%	45%	100% (est.)	268%
Logistics score	72	65	52	60	51

\* Including a port surcharge for delays to ships in channel (\$140 for Tema and of \$190 for Chittagong).

\*\* Inland Customs facility

\*\*\* The percent of average transit time that would include 90 percent of shipments.

### Road performance

Road transport time and delays are similar to those in the inbound direction but prices are considerably lower given that backhaul is likely. Road transport logistics score for the outbound direction is rated fair compared with international standards.

### Border post performance

The border crossing activities in Burkina Faso again include a combination of the activities undertaken at Ouagarinter with those performed at Dakola. Table 35 presents the adjusted scores for the Customs clearing process in Burkina Faso and Table 36 shows the indicators to cross the Ghana-Burkina Faso border in the outbound direction. In Paga, the outbound direction has a lower score than in the inbound direction with a fair-poor performance (53). This is due to the Government of Ghana's policy that trucks entering Ghana from Burkina Faso with transit cargo must be escorted by Customs until it reaches the final destination in Tema. The formation of these convoys increases the amount of time required to clear Customs in the outbound direction. Also, the associated Customs payments must be made at the border at Paga in the outbound direction.

**Table 35: Customs clearance and border post operations adjusted for Ouagarinter-Dakola - exports**

Component	Price (US\$/TEU)	Price Score	Time (Hours)	Time Score	Reliability %	Reliability score	Logistics Score
Ouagarinter+Dakola	247	20	3.5	80	173	60	53

Performance based on 2008 data

**Table 36: Comparison of border post performance in selected corridors - exports**

Performance Component	Corridor		
	Tema– Ouagadougou <sup>48</sup>	Laem Chabang– Vientiane	Maputo–Nelspruit
Av. cost per container *	US\$389	US\$180	US\$200
Av. transit time *	10.3 hrs	3 hrs	8 hrs
Unofficial costs (%) *	11%	20% (est.)	10% (est.)
Uncertainty **	186%	125%	77%
Logistics Score Border Post 1—Outbound	53 (Burkina Faso)	63 (Laos)	63 (South Africa)
Logistics Score Border Post 2—Outbound	53 (Ghana)	67 (Thailand)	67 (Mozambique)

\* Numbers include border posts on each side of border.

\*\* The percent of average transit time that would include 90 percent of shipments.

### 6.5.3 Import: Compared with other transport corridors – non-containerized traffic

Table 37 presents the performance characteristics of the components that constitute the logistics chain for noncontainerized transit cargo. General or breakbulk cargo arrives at Tema port and is handled at the Multipurpose Terminal.

**Table 37: Performance of main subcomponents of non-containerized transit traffic, 2009**

Component	Official Costs US\$/Ton	Unofficial Costs US\$/Ton	Time (hours)	Reliability (%)
Av. channel operations	0.42	–	47.6	78.9
Av. unloading at berth	1.08	–	78.7	52.8
Total yard handling	9.12	1.50	352.0	2.1
Customs w/o guarantee fund (0.5% of dutiable cargo value) for inbound	3.39		56.0	8.5
Transit Yard	–	–	6.5	15.4
Road Transport	71.91	1.09	26.50	Varies per Segment
Border Crossing at Paga	–	0.79	1.0	50.0
Border crossing at Dakola w/o guarantee fund (0.25% cargo value) for inbound	2.27	0.56	2.0	72.9
Ouagarinter	15.09	4.52	87.7	234.0

Performance based on 2008 data

\* The percent of average transit time that would include 90 percent of shipments.

Because handling of non-containerized cargo at the port varies according to the type of cargo and the equipment used, establishing a standard measure for performance comparing it among different subchains are difficult. Logistics scores are not generated for non-containerized cargo. The road transport price and time along the corridor are the same as for containerized stripped cargo.

<sup>48</sup> In order to compare the Customs operations with other corridors where clearance is undertaken at the border, the border post in Burkina Faso was combined for the operations at Dakola and Ouagarinter.

The performance of the Tema-Ouagadougou corridor for noncontainerized cargo is compared to only one other corridor where FastPath data for non-containerized cargo are available: the Maputo-Nelspruit corridor in Mozambique. Only inbound freight flows are considered.

### Port performance

Table 38 compares Tema port to the Port of Maputo for noncontainerized imports. Tema port rates much worse in waiting time for a berth and in average unloading time than Maputo port. Total handling costs and average Customs costs for imports, however, are lower in Tema. The average Customs time of 56 hours is somewhat higher than Maputo. The average dwell time for Tema is very high at 17 days for imports. However, the reliability (variation in transit time) is about average. Of course average variation percent for a large dwell time is still relatively unreliable. Unofficial costs are significant, but not much higher than Maputo.

**Table 38: Comparison of port performance in selected corridors for non-containerized imports**

Port Component	Corridor	
	Tema-Ouagadougou	Maputo-Nelspruit
	Tema Port	Maputo
Av. Channel Wait Time	48 hrs	8 hrs
Av. Unloading Time at Berth	78 hrs	24 hrs
Total Port Handling Costs/Ton	US\$10.62	US\$29
Customs Costs/Ton	US\$4.89	US\$22
Customs Time	56 hrs	48 hrs
Average Dwell Time (including Customs)	17 days	6 days
Unofficial costs (%)	12%	10% (est.)
Uncertainty *	94%	300%

\* The percent of average transit time that would include 90 percent of shipments.

### Road performance

The average cost per ton-km for non-containerized freight in the Tema-Ouagadougou corridor shown in Table 39 is lower than for the Maputo-Mozambique border road which is a much shorter haul distance (60km) which raises the price. The same factors affect the price for road transport for non-containerized freight as for containerized freight. Many of these factors represent opportunities for improvement. The average speed of 40 km/h is only two-thirds the speed in the Maputo corridor, which is poor performance. Average delay times are substantially higher than for the Maputo Corridor, although this is explained partially by the length of the corridor. Unofficial costs are considerably lower in the Tema-Ouagadougou corridor. The reliability measure is about the same as for the Maputo corridor.

**Table 39: Comparison of road transport performance in selected corridors for non-containerized freight**

Performance Component	Corridor	
	Tema-Ouagadougou	Maputo-Nelspruit
	Tema-Ghana Border	Maputo-Mozambique Border
Av. Cost per Ton-km	US\$0.07	US\$0.13**
Av. Speed	40 km/h	60 km/h
Av. Delay Time	4 hrs	1 hr
Unofficial costs (%)	1.5%	10% (est.)
Uncertainty *	110%	105%

\* The percent of average transit time that would include 90 percent of shipments.

\*\* Very short haul distance (60km). This drops to \$0.10 per cont-km for longer distances.

### Border post performance

The average cost, transit time, and reliability per ton to cross the Ghana-Burkina Faso border shown in Table 40 are significantly higher than for the Maputo corridor because of the clearance operations at Ouagarinter, which are added to the border post operations.

**Table 40: Comparison of border post performance in selected corridors for non-containerized freight**

Performance Component**	Corridor	
	Tema-Ouagadougou	Maputo-Nelspruit
Av. Cost per Ton	US\$23.22	US\$10
Av. Transit Time	90.7 hrs	4 hrs
Unofficial costs (%)	25%	10% (est.)
Uncertainty *	250%	56%

\* The percent of average transit time that would include 90 percent of shipments.

\*\* Numbers include border posts on each side of border.

## 6.5.4 Conclusions about performance – corridor comparison

Table 41 summarizes how the performance of the Tema-Ouagadougou transport corridor compares to other transport corridors in the developing world.

**Table 41: Comparison of corridor performance - logistics scores for containerized freight**

Logistics Component	Tema-Ouagadougou	Laem Chabang-Vientiane	Dacca-Chittagong (a)	Durban-Nelspruit (a),(b)	Maputo-Nelspruit
<b>INBOUND</b>					
Overall logistics chain	51	64	59	63	62
Port	55	55	49	60	51
Road transport	55	70	58	65	51
Border post 1	73 (Ghana)	67 (Thailand)	n/a	n/a	73 (Mozambique)
Border post 2	20 (Burkina Faso <sup>49</sup> )	63 (Laos)	n/a	n/a	73 (South Africa)
<b>OUTBOUND</b>					
Overall logistics chain	62	66	54	68	60
Port	72	65	52	70	57
Road transport	70	70	58	65	51
Border post 1	53 (Ghana)	67 (Thailand)	n/a	n/a	67 (Mozambique)
Border post 2	53 (Burkina Faso)	63 (Laos)	n/a	n/a	63 (South Africa)

(a) Overall logistics score does not include border post node scores

(b) Estimated from partial data in Maputo Corridor analysis

On the one hand, the performance of the Tema-Ouagadougou corridor lags significantly behind other developing country corridors used for comparison here with respect to

- Ship waiting times in the port;
- Average unloading and loading times in the port;
- Dwell time for transit cargo in the port;
- Share of inbound containers stripped in port and consequent low containerization rate;
- The cost of road transport;
- The performance of the border post in Burkina Faso; and
- The average speed of road transport

On the other hand, the Tema-Ouagadougou corridor compares favorably with other corridors in:

- The total cargo handling costs in the port;
- Customs costs at the port; and
- Border post costs and transit time in Ghana in the inbound direction.

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<sup>49</sup> Dakola and Ouagarinter

For other aspects of performance, such as uncertainty, the Tema-Ouagadougou corridor is about average compared with other corridors. The percent of unofficial payments is better than the worst countries but can be improved.

The Tema-Ouagadougou corridor's overall logistics score is lower than the other corridors in the inbound direction, but performs better in the outbound direction.

Overall, the Tema-Ouagadougou corridor may be neither better nor worse than other transport corridors in Sub-Saharan countries but, of all regions in the world, Sub-Saharan countries incur the longest time to import and export<sup>50</sup>.

## 6.6 Summary of recommendations

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The most important actions that would reduce transport and logistics costs, transit times, delays and uncertainty on the Tema-Ouagadougou transport corridor include the following:

### **Creating a single market in the ECOWAS region**

This would solve many problems as it would remove borders, and thus eliminate the landlocked status of Burkina Faso and other Sahelian countries for transport and trade.

### **Deregulating the West African trucking market**

This would result in more competition based on price and quality of service and thus lead to a more professional trucking industry with newer and better maintained trucks, making the Tema-Ouagadougou road-transit link faster and less costly.

### **Fighting corruption**

This may be easier said than done, but is essential for reducing costs, transit times and uncertainties and also for building faith in the rule of law and thus encourage investments.

### **Improving the capacity and efficiency of Tema's container terminal**

Port operating times and delays depend on port-berth and terminal efficiency, as well as the complexity and efficiency of customs cargo-clearance procedures. In Tema port, the study identified the need to expand berthing and terminal capacity. Also, the entire port community has to work together to make the sum of its parts a more efficient institution which will make Tema port more attractive as a gateway for landlocked countries.

### **Further automating and streamlining Ghanaian and Burkinabé customs procedures**

This would speed up processes and reduce the need for direct contact between customs agents and forwarders/importers which should result in fewer opportunities to offer/demand bribes.

### **Promoting the use of containers for all transit cargo on the Tema Ouagadougou corridor**

This would reduce the frequency of container stripping, and thus improve speed and security from the perspective of both customs and the cargo owners. It would also reduce the occurrence of heavily overloaded trucks and it would make it more difficult for dishonest traders or transporters to engage in fraudulent practices.

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<sup>50</sup> Quoted in Nathan Associates Inc (David Hummels), 2007, "Calculating Tariff Equivalents for Time in Trade" pg 5. Note: In the World Bank's *Doing Business* report, export procedures range from packing the goods at the warehouse to their departure from the port of exit. For importing goods, procedures range from the vessel's arrival at the port of entry to the cargo's delivery at the warehouse.

### **Aligning the Ghanaian and Burkinabé customs working hours to better suit trucking efficiency**

This would reduce delays at the Ghana-Burkina Faso border crossing.

### **Extending the GPS tracking system to the Dakola-Ouagadougou, Ouagadougou-Dakola and Paga-Tema legs**

This would eliminate the need for the costly and time-consuming customs-escort systems.

### **Streamlining the cumbersome customs-inspection regime in Ouagadougou**

This would reduce the current long delays, heavy bribes and truck demurrage costs.

### **Eliminating the Ghanaian transit fee of USD 200 per consignment for southbound transit cargo**

This would remove a tax on transit cargo that is contrary to international conventions related to transit traffic, illegal under ECOWAS conventions and resolutions, unfair to Burkina Faso exporters, and detrimental to the competitiveness of the corridor.

### **Improving the trust between the public and private sector**

Transporters and traders are known to engage in fraudulent practices in order to avoid duties and taxes, or to shift costs to the public sector by overloading trucks, for example. In response, governments institute complex, time-consuming and costly inspection procedures which offer plentiful opportunities to offer, or demand, bribes to speed things up or to encourage official agents not to enforce rules and regulations. Better trust

#### **Authorized Economic Operators**

The AEO concept is one of the main building blocks within the World Customs Organization (WCO) SAFE Framework of Standards. SAFE (not an acronym) is the WCO Framework of Standards to secure and facilitate global trade. SAFE sets out a range of standards to guide international customs administrations towards a harmonized approach based on customs to customs cooperation and customs to business partnerships. SAFE is based on four core elements:

(1) Harmonization of the advance electronic cargo information. (2) Commitment by each country joining SAFE to employ a consistent risk-management approach to address security threats. (3) At the request of the customs administration of the receiving nation, the customs administration of the sending nation will perform an outbound inspection of high-risk containers and cargo. (4) Definition of benefits that customs will provide to businesses that meet minimal supply chain security standards and best practices.

The essence of the AEO concept can be found in the customs to business partnerships. Customs can accredit operators as AEOs when they prove themselves to have high quality internal processes that will prevent goods in international transport to be tampered with. This means: (a) Ensure the integrity of the information, i.e. that a container contains what its declaration asserts; nothing else, more, or less; (b) Ensure the integrity of its employees, that they will not put goods in the container that should not be there; (c) Secure access to its premises, to prevent unauthorized persons from putting goods in the container.

As a result, customs will trust the operator and perform fewer or no inspections on goods imported or exported by or via the AEO. This system benefits the operator as goods are available more quickly, which means lower transport costs. The customs service benefits, as scarce inspection capacity can be better targeted at the cargo of unknown and potentially unsafe operators. (From *Wikipedia*)

between the private and public sectors may be achieved by introducing and promoting the World Customs Organization concept of “Authorized Economic Operator (AEO)” as well as promoting legal trucking and trading, and offer AEO operators preferential treatment.

## Benefits from efficiency improvements

Burkinabé import and export traffic through Tema port in 2006 amounted to 320,000 tonnes and 130,000 tonnes respectively<sup>51</sup>. Potential savings from the recommendations have been tabulated in Table 30 below. With savings of USD 77.31 per tonne for imports (a 46% reduction in the West Africa import T&L cost ) and USD 45.54 per tonne for exports (a 33% reduction in the West Africa export T&L costs) respectively, the total possible savings for Burkina Faso are USD 24.7 million on imports and USD 5.9 million on exports.

If T&L efficiencies reached the level found in the US, potential savings could reach USD 189 per tonne for imports and USD 46 per tonne for exports. At 2006 trade levels, this would mean savings for Burkina Faso of USD 60 million on imports and USD 6 million for exports.

The impact on trade would be significant in helping West African companies compete more successfully on world markets and lowering the prices of goods for consumers within the region. Based on the linkage between transport costs and trade volumes established by the 2001 World Bank study<sup>52</sup>, which found that a 10% increase in transport cost typically reduces trade volumes by approximately 20%, imports could be expected to grow by more than 50%<sup>53</sup>.

Table 42 summarizes in decreasing order of estimated importance the recommendations for how to improve the efficiency of imports and exports on the Tema-Ouagadougou transport corridor.

**Table 42: Summary of recommendations in order of decreasing benefit per tonne**

No.	Description	Benefits	Estimated benefit in USD/tonne
1	Deregulate West Africa trucking markets	Reduce transport prices by 15%. Deregulation in Rwanda yielded 30% reduction in transport prices. See section 1.5 for a discussion	USD 25.20 import USD 20.55 export (speculative)
1a	Introduce new domestic vehicle-tax structure	Encourage the renewal of the trucking fleet for greater safety and efficiency and lower operating costs	
1b	Design truck import duties/tax that increase with truck age		
2	Fight corruption	Reduce costs, time and uncertainty	USD 13.69 import USD 3.91 export
3	Speed up customs inspections at Ouagarinter	Reduce truck demurrage cost from 3 days to 1 day @ XOF 75,000 per day	USD 11.16
4	Implement a single market in ECOWAS countries with no internal border control – like the European Union	Reduce customs processing cost and related corruption by 50%	USD 9.19 import USD 8.63 export

<sup>51</sup> According to statistics from CBC

<sup>52</sup> Limao, N., and A. J. Venables. 2001. "Infrastructure, Geographical Disadvantage and Transport Costs." *World Bank Economic Review* 15 (3): 451–79

<sup>53</sup> 46% and 33% reduction in West Africa T&L costs for import and export respectively, result in about 25% reduction in door-to-door transport costs for both import and export and can thus be expected to result in an increase in trade of 54%

5	Abolish the Ghanaian USD 200 transit fee at the border	Reduce costs and paperwork related to export from Burkina Faso	USD 9.09
6	Create more berth space for the Tema container operations	Reduction in vessel waiting time before berthing and elimination of the port surcharge	USD 7.78
7	Reform cargo and trucking allocation system in Tema port	Reduce costs of allocating freight to trucks and improved transparency and truck rotation times.	USD 3.35
8	Introduce GPS tracking from Paga to Tema	Eliminate formal and informal costs and delays related to the escort system	USD 2.25
9	Prevent overloaded trucks from exiting Tema port	Reduce road maintenance costs and/or better quality roads. Safer roads and faster travel times. Avoidance of bribes paid at weighbridges (USD 36.00 to USD 54.00 per truck)	USD 1.42* (bribe only – does not estimate the value of improvement of road surfaces)
10	Simplify cargo clearance procedures at Tema port	Reduce port clearance from 5 to 2 days. A reduction of the amount of bribes paid to customs and others by about 60%	USD 0.88
11	Introduce GPS tracking from Paga to Ouagadougou	Eliminate formal and informal escort fees (USD 16.66 per truck) plus time saved in waiting for escort and convoys at Dakola (an average of 4 hours)	USD 0.88
12	Eliminate the informal clearing agent at the Paga border post	Eliminate the cost charged by the informal agent XOF 10,000 (23.80 ) per truck	USD 0.74
13	XOF convertibility in Ghana	Time saved in waiting for CFA francs to be secured. Avoidance of loss of money resulting from double conversion (CFA francs to another currency and back to CFA francs).	USD 0.72 (import) USD 0.37 (export)
14	Eliminate the PMD taxation at Tema port	Remove a source of double taxation.	USD 0.71
15	Implement the ECOWAS ISRT Convention and adopt a single ISRT logbook (carnet TRIE) for cargo in transit from cargo origin to final destination	Regional recognition of the ISRT logbook will reduce double charging, thus reducing bureaucracy , saving time and money spent on double acquisition of logbook	USD 0.53
16	Publish shipping agencies' charges with mandatory notification period of at least one month	Improve planning and management of resources for shippers. Time saved where additional money is requested from traders by forwarders in midshipment due to sudden changes of agencies' charges.	Import: USD 0.24 Export: USD 0.74

17	Replace the container deposit fee with an insurance/guarantee scheme	Reduce the amount of money shippers have to mobilize before containerized cargo is released to them	USD 0.32
18	Improve management of container handling equipment in Tema port. Extend the container terminal permit from 24 to 48 hrs	Save time lost in the container stripping area, e.g. shed 10 at Tema port. The lack of terminal handling equipment makes it difficult to complete the container moves on within the allotted time.	USD 0.28
19	Increase the number of Burkinabé customs computers available at the border and at Ouagarinter. Make ASYCUDA system available at freight forwarder premises	Save time in waiting for access to computers for ASYCUDA documentation (A saving of about 4 hours)	USD 0.12
20	Align Ghana and Burkina Faso customs working hours at the Paga/Dakola border crossing	Improve service and reduce delays at the border crossing.	USD 0.08
21	Implement the ECOWAS ISRT Guarantee Scheme (customs bond) - Adoption of a single guarantee premium for cargo in transit from cargo origin to final destination	Replace the national guarantee schemes with a regional one and thus reduce double charging. Reduced bureaucracy - Save time and money spent on double payment of premium	USD 0.02
22	Improving the trust between the public and private sector	Faster clearance for Authorized Economic Operators and legal traders/transporters. Customs can focus more resources on riskier traders/transporters.	Not available
23	Simplify the Tema port fee schedule for stripping containers – flat fee per container (best) or a true fee per tonne	Increases clarity and predictability in regard to port fees	Revenue neutral

Notes: \* Eliminating overloaded trucks offers tremendous additional benefits to society from reduced road maintenance costs and fewer accidents. Savings to transporters also include fewer breakdowns and lower maintenance costs.

Table 42 above lists recommendations in order of their impact per unit weight of cargo. In contrast, Table 43 below regroups these recommendations by the direction of trade (imports and exports). This enables us to calculate total savings per tonne for both import and export and thus the total annual benefit to Burkinabe trade (“Number” refers to the numbering system in table 42)

**Table 43: Recommendations grouped by direction of trade**

Direction of trade	Number	Category	Estimated savings in USD/t	
<b>Northbound</b>	1	Deregulate West Africa trucking markets	25.20	
	2	Fight corruption	13.69	
	3	Speed up customs inspections at Ouagarinter	11.16	
	4	Implement a single market in ECOWAS countries	9.19	
	6	Create more berth space for the Tema container operations	7.78	
	7	Reform cargo and trucking allocation system in Tema port	3.35	
	9	Prevent overloaded trucks from exiting Tema port	1.42	
	10	Simplify cargo clearance procedures at Tema port	0.88	
	11	Introduce GPS tracking from Paga to Ouagadougou	0.88	
	12	Eliminate the informal clearing agent at the Paga border	0.74	
	13	XOF (FCFA) convertibility in Ghana	0.72	
	14	Eliminate double PMD tax	0.71	
	15	Implement the IST Convention and adopt a single logbook	0.53	
	16	Publish shipping agencies' charges with mandatory notification period of at least one month	0.24	
	17	Replace the container deposit fee with an insurance/ guarantee scheme	0.32	
	18	Improve management of container handling equipment	0.28	
	19	Increase the number of customs computers available at the border and at Ouagarinter	0.12	
	20	Align Ghana and Burkina Faso customs working hours at the Paga/Dakola border crossing	0.08	
	21	Implement the ECOWAS ISTR Guarantee scheme	0.02	
	23	Simplify the Tema port fee schedule for stripping containers		
	<b>Total</b>			<b>USD 77.31</b>
	<b>Southbound</b>	1	Deregulate West Africa trucking markets	20.55
		4	Implement a single market in ECOWAS countries	8.63
5		Withdrawal of USD 200 transit fee at Paga	9.09	
2		Fight corruption	3.91	
8		Introduce GPS tracking from Paga to Tema	2.25	
16		Publish shipping agencies' charges with mandatory notification period of at least one month	0.74	
13		XOF convertibility in Ghana	0.37	
<b>Total</b>			<b>USD 45.54</b>	

Table 44 below groups the recommendations by country and responsible agency.

**Table 44: Recommendations grouped by country**

<b>Country</b>	<b>Responsible Agency</b>	<b>Number</b>	<b>Category</b>	<b>Estimated savings in USD/t</b>	
	Customs	5	Withdrawal of USD 200 transit fee at Paga	9.09	
	GPHA	6	Create more berth space for the Tema container operations	7.78	
	Customs	8	Introduce GPS tracking from Paga to Tema	2.25	
	GPHA	9	Prevent overloaded trucks from exiting Tema port	1.42	
	Ghana Shippers' Council	16	Publish shipping agencies' charges with mandatory notification period of at least one month (imp/exp)	0.98	
	GPHA	10	Simplify cargo clearance procedures at Tema port	0.88	
	Customs	12	Eliminate the informal clearing agent at the Paga border	0.74	
	Ghana Shippers' Council	17	Replace the container deposit fee with an insurance/guarantee scheme	0.32	
	GPHA	18	Improve management of container handling equipment	0.28	
	All	22	Improving the trust between the public and private sector		
	GPHA	23	Simplify the Tema port fee schedule for stripping of containers		
		<b>Total</b>			<b>23.74 USD</b>
	<b>Burkina</b>	Customs	3	Speed up customs inspections at Ouagarinter	11.16
Chamber of Commerce		14	Eliminate double PMD taxation	0.71	
Customs		19	Increase the number of customs computers available at the border and at Ouagarinter	0.12	
		<b>Total</b>			<b>11.99 USD</b>
<b>Regional / Bilateral</b>	ECOWAS	1	Deregulate West Africa trucking markets (imp/exp)	45.75	
	ECOWAS	4	Implement a single market in ECOWAS countries (imp/exp)	17.82	
	National Governments	2	Fight corruption	17.60	
	National Governments	7	Reform cargo and trucking allocation system in Tema port	3.35	
	ECOWAS	13	XOF convertibility in Ghana (imp/exp)	1.09	
	National Governments/ ECOWAS	11	Introduce GPS tracking from Paga to Ouagadougou	0.88	
	ECOWAS	15	Implement the IST Convention and adopt a single logbook	0.53	
	ECOWAS	20	Align Ghana and Burkina Faso customs working hours at the Paga/Dakola border crossing	0.08	
	ECOWAS	21	Implement the ECOWAS ISTR Guarantee scheme		
		<b>Total</b>			<b>USD 87.10</b>

## 6.7 Recommendations for further studies

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- 1 **Regulation of West African trucking markets:** Document and analyze the legislation, regulations and practices that govern local, bilateral and regional trucking in West Africa. Review the barriers to entering the trucking markets in ECOWAS countries for locals, ECOWAS/UEMOA citizens and international persons and companies. Also evaluate the impact and potential benefits to shippers and transporters of a free and open trucking market in West Africa, including cabotage in any ECOWAS country by any qualified ECOWAS transporter.
- 2 **Development of an alternative system for transit-cargo allocation:** Study alternative systems for allocation of transit cargo bound for Burkina Faso to trucks at Tema port. This would include an electronic trading platform for trucking services that provides details of truck availability and is easily accessible to traders, and the feasibility of an electronic clearing house.

## 7 Epilogue

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The cost of transport and logistics is a critical factor in the competitiveness of companies and countries, no matter where they are in the world. This study, the first in a series to focus on different transport corridors, is intended to help public and private-sector stakeholders better understand what is driving West Africa's high cost of exporting and importing and then guide them towards (a) policies to reduce the inefficiencies leading to high costs and (b) investments in the transport sector that make moving goods less expensive, time-consuming and unpredictable.

During analysis of the data gathered for this study in late 2008, USAID granted the Trade Hub additional funds to expand its Transport Infrastructure work. The new funding will allow the Trade Hub to extend its reporting on road corruption, which is implemented in close collaboration with UEMOA, to new corridors connecting Dakar to Bamako, Abidjan to Bamako, Abidjan to Ouagadougou, and Cotonou to Niamey. In parallel, the Trade Hub will also carry out road-transport cost studies on these new corridors. Comparison of the results of these different studies will allow governments in coastal countries to judge how competitive their ports are, allow governments of landlocked countries to assess how much their policies and infrastructure are thwarting trade, and allow the private sector to better compare trucking corridors in order to reduce their costs.

The issues are complex and the gaps in this study are many. The West Africa Trade Hub hopes that publication of this report will inspire others to offer further insights. The authors will receive all feedback with profound appreciation.

One issue that seems likely to play an important role in the development of policy in transport and logistics along West Africa's trucking corridors is enforcement of axle weights. By mid 2010, all UEMOA countries and Ghana should have started implementing UEMOA's axle-load restrictions. In the short run, enforcing these rules will increase the cost of trucking; but, in the long run, the states will save millions of dollars on road maintenance and repair costs. The cost of trucking should eventually fall. As older, less roadworthy trucks are effectively forced off the roads and newer trucks last longer, the sector will become more competitive. Attempts to reduce the costs of transport and logistics in these nine countries will play out against the backdrop of a trucking market adjusting to this major change.

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## Annex A: Transit-corridor analysis (institutions and policies)

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### Regional organizations

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The principal international institutions active in West Africa are the Economic Community of West African States (ECOWAS) and the *Union Economique et Monétaire Ouest Africaine* (UEMOA)<sup>54</sup>. Burkina Faso is a member of both organizations; Ghana is a member only of ECOWAS.

### The Economic Community of West African States (ECOWAS)

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Created in 1975, ECOWAS aims to promote co-operation and development in all fields of economic activity. As part of that goal, ECOWAS has established several conventions for regional integration and interstate transport and transit facilitation.

#### *ECOWAS multilateral transit and transport agreements*

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ECOWAS multilateral conventions regulating interstate road transport and transit include the Interstate Road Transit Scheme (ISRT), the Interstate Road Transport Convention (IST), and the convention on the creation of the ECOWAS 'Brown Card' vehicle insurance scheme. Both ECOWAS and UEMOA have adopted these conventions.

#### *ECOWAS' Interstate Road Transit Scheme (ISRT) – Convention A/P4/5/82 and Supplementary Convention A/SP.1/5/90*

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ECOWAS' 1982 ISRT regime, together with its related guarantee scheme, stipulates that the transport of all transit goods should take place under the cover of an Inter State Road Transit Declaration booklet from the point of departure in one country to the final destination in another country. The 1990 ISRT supplementary convention specifies that the guarantee should be provided by a financial establishment or an institution ('national guarantor') of the transit country and should cover at least the sum of duties and taxes payable on the goods and any penalties that might be incurred. In this way, each member country should be able to recover its losses through this guarantee in case goods are fraudulently diverted into its local market.

In practice, problems of trust and of divergent interests of different national guarantors mean that the guarantee provided by each guarantor covers only its national territory, ending at the border of the state where the declaration originates. At this point, a new declaration is prepared and a new guarantee obtained. Cumulative payments made in successive countries exceed what the convention intended. The segmented system also generates additional paperwork and delays.

For several years, Ghana, Burkina Faso and Mali have been negotiating modalities for the application of a single guarantee premium on the Tema–Ouagadougou–Bamako corridor, including details of how the countries would share it. The document is pending signature.

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<sup>54</sup> UEMOA member states: Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal & Togo. ECOWAS member states: UEMOA member states + Cape Verde, Ghana, Guinea, Liberia, Nigeria, Sierra Leone & The Gambia. More info can be found at [www.uemoa.int](http://www.uemoa.int) and at [www.ecowas.int](http://www.ecowas.int).

### *ECOWAS Interstate Road Transport (IST) – Convention A/P.2/5/82*

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Often confused with the ISRT convention, the 1982 IST convention regulates the conditions of interstate road transport within ECOWAS states, particularly the number of road checkpoints, lorry loading, road safety, and allocation of road freight between trucks from different countries.

ECOWAS member states have not yet fully implemented the axle-load limits embodied in the convention. Overloading trucks is a widespread practice, resulting in accelerated deterioration of roads, many accidents and mechanical breakdowns. ECOWAS and UEMOA have recently made efforts to enforce axle-load regulations through the use of weighbridges. Ghana and Burkina Faso play a key role as pilot countries.

Compliance by trucks embarking on interstate transport operations along the recognized routes with required documentation as defined by each member state was expected to prompt the member states to reduce the number of checkpoints to the barest minimum so as to ensure unconstrained trucking along the interstate corridors. However these routes still suffer from numerous official and unofficial road barriers erected by customs, police and *gendarmes*. Officers manning these checkpoints often harass drivers and extort bribes. Customs agents and unions of truck operators also participate in the extortion.

IST also provides the framework for bilateral agreements on sharing haulage between ECOWAS member states. Usually these bilateral agreements specify that two-thirds of cargo imported by sea through coastal countries to landlocked countries is allocated to trucks registered in the landlocked countries, leaving one-third for trucks registered in the coastal country, except for government cargo which is all allocated to trucks from landlocked countries.

### *ECOWAS Brown Card insurance scheme (Convention A/P1/5/82)*

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The 1982 ECOWAS Brown Card motor-vehicle insurance scheme facilitates the free movement of persons and goods among ECOWAS member countries through a common insurance cover. Claims and compensation for victims of motor-vehicle accidents shall be handled swiftly with the objective of ensuring fair and prompt compensation. Twelve countries currently adhere to the scheme, including Burkina Faso and Ghana.<sup>55</sup>

Implementation problems include delays in settlement of claims between the various bureaus of the scheme, disputes among insurers on the issue of liability and amount involved on third-party injury and property damage claims, delay or non-payment of annual contribution by some National Bureaus to the permanent secretariat, and differences in motor-vehicle third-party liability insurance laws and compensation regimes within the sub-region.

Instead of benefiting from the card as insurance for resolution of issues involving the bearer from another country, vehicles owners are often called upon to pay direct compensation to victims. There are also reported cases of harassment and of abusive and arbitrary arrest of foreign drivers in case of accidents, which suggests that the card is not recognized and accepted as evidence of a valid insurance coverage by the police and other relevant authorities in certain countries within the region.

Delays in settlement of claims are another major complaint. The official time limit of one year as specified by the secretariat is seen as too long a waiting period for the settlement of claims.

The process of establishing a common fund that could help in reducing settlement times continues. This is expected to make funds readily available for claim settlements by a National Bureau whilst awaiting fund transfers between the bureaus.

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<sup>55</sup> Member countries applying the ECOWAS Brown Card scheme: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Guinea Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

## Union Economique et Monétaire Ouest Africaine (UEMOA)

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The *Union Economique et Monétaire Ouest Africaine* (UEMOA) comprises eight member states : Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali, Niger, Senegal and Togo. The 1994 treaty establishing UEMOA defines a two-stage plan for the development of transportation that calls for a harmonized approach to the improvement of transport infrastructure and the implementation of a regional transportation policy for the benefit of all member states.

In this context, the UEMOA action program on infrastructure and road transport was drawn up and approved by the Council of Ministers of the union in Lomé on 23 June 1997. In addition, the implementation of a UEMOA customs union will, among other things, increase trade within the community, driven by the free movement of persons, goods, capital and services, and the elimination of tariff and non-tariff barriers. This requires efficient road infrastructure and ease of transport and interstate transit.

The most important trade and transit-related convention signed under UEMOA's aegis is the 2005 **Axle Load Limit Policies** (Regulation No. 14/2005/CM/UEMOA). Overloaded trucks cause accelerated deterioration of roads and bridges and necessitate large government spending on road maintenance and repair. UEMOA's axle-load regulations outline permissible load limits for various types of truck. These regulations are in line with the relevant provision of the ECOWAS IST convention. As a member of ECOWAS but not of UEMOA, Ghana has pragmatically adopted these same standards in its axle-load policy program.

### *The ECOWAS/UEMOA Regional Trade Facilitation Program*

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In August 2003, ECOWAS and UEMOA defined a joint Regional Facilitation Programme based on their existing projects to develop synergies for the facilitation of interstate road transport and the transit of goods. The program aims to:

- remove physical and non-physical barriers to ensure better flow of traffic and facilitation of trade
- improve maintenance of priority regional infrastructure
- harmonize technical standards and safety regulations
- create regional facilitation infrastructures.

Border crossings contribute to transit delays because of duplication of paperwork and procedures and time lost through differences in working hours. The Ghana–Burkina Faso border at Paga-Dakola is one of the sites earmarked for the establishment of a joint border post where officials from both countries will work together, rather than in tandem, to process transit shipments. In cooperation with the governments of Burkina Faso and Ghana, UEMOA has undertaken a number of crucial preparatory steps towards the construction of this joint border post. Land has been acquired for the project and work on the site has commenced.

ECOWAS and UEMOA are also pursuing the integration of customs automated systems within member countries with the use of a uniform and unique customs document. This concept was first recommended by UEMOA and later endorsed by ECOWAS within their common facilitation program.

## In Ghana

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### *Ghana Ports and Harbours Authority*

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As part of its privatization policy, the Government of Ghana has leased Tema port assets to Meridian Port Services (MPS), a joint-venture consortium that began operations on March 1<sup>st</sup> 2007.

MPS is a 70/30 joint venture between UK-registered Meridian Port Holdings limited and the Ghana Ports and Harbours Authority (GPHA). Meridian Port Holdings Limited is a joint-venture company owned by AP Møller Finance (46.75%), the Bolloré Group (46.75%) and Sutton Investments (6.5%). The concession agreement grants MPS the exclusive right to the stevedoring and related shore handling of any vessel entering the port carrying more than 50 containers for a period of 20 years. The concessionaire is required to construct

approximately 165,000 m<sup>2</sup> of heavy-duty paving plus offices, gates, workshops and ancillary buildings; and invest in container handling and other equipment, and IT systems.

MPS currently handles about 70% of import/export cargo through the port of Tema whilst GPHA handles the remaining 30%. GPHA handles all bulk cargo shipments.

GPHA and the customs authorities have licensed five shipping lines and port operators to operate off-dock terminals as a means of easing congestion in the port. However, these terminals generally do not handle import transit cargo.

GPHA has privatized 75% of stevedoring activities to nine private operators to introduce competition. GPHA controls the remaining 25%.

### *Port facilities*

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The port of Tema<sup>56</sup> handles approximately 75% of Ghana's import/export traffic. The port serves as one of the key gateways to the landlocked countries of Mali, Niger and Burkina Faso.

With a total land area of 3.9 km<sup>2</sup>, the main infrastructure of the Tema port comprises 5 km of breakwaters, 12 deepwater berths, an oil-tanker berth, a dockyard, warehouses and transit sheds. A dedicated container terminal can accommodate over 8,000 20-foot containers at any given time.

Available storage includes a total of 53,270 m<sup>2</sup> of covered and 92,200 m<sup>2</sup> of open storage of which 9,000 m<sup>2</sup> is dedicated to transit cargo. The port has also created a car park to cater for loaded transit trucks while they complete transit customs procedures. GPHA has installed two scanning machines, one using X-ray technology and the other gamma-ray technology in 1998 and 2004 respectively. The purpose of these scanners is to reduce bottlenecks in the clearing and forwarding of goods at the port.

The port authority is planning to invest USD 500 million to improve the container-handling capacity of Tema port, which is currently operating above its maximum capacity of 500,000 TEU per year. In the last ten years container traffic in the port has almost tripled from 197,900 TEU in 2000 to 555,009 TEU in 2008<sup>57</sup>.

### *Ghana Shippers' Council (GSC)*

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GSC<sup>58</sup> was established in March 1974. GSC's Governing Board comprises representation from various importers and exporters, as well as from government agencies responsible for maritime trade and transport.

GSC promotes the interests of shippers in Ghana in port, ship and inland transport through the provision of logistics and infrastructure and it undertakes research to boost Ghana's shipping industry. Topics that interest GSC include port procedures, tariff structures and port congestion. GSC trains shippers in the rules and practices of international trade, provides information through toll-free phone lines, and makes available sailing schedules.

### *The Ghana Community Network (GCNet) Services Ltd.*

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In 2000, the Ghana Government created GCNet<sup>59</sup> as a private-public sector partnership to develop and operate a customized electronic system for processing trade and customs documents. The shareholders include CEPS<sup>60</sup>, Ghana Shippers' Council, Ecobank Ghana Limited, Development Finance Holdings (a subsidiary of Ghana Commercial Bank) and *Société Général de Surveillance* (SGS). GCNet started work in Tema in June 2003.

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<sup>56</sup> See [www.ghanaports.gov.gh/GPHA/tema/index.html](http://www.ghanaports.gov.gh/GPHA/tema/index.html) for more details

<sup>57</sup> See GPHA website: [http://ghanaports.gov.gh/GPHA/tema/more\\_stats.php?cartid=2008&move=next&newsid=14](http://ghanaports.gov.gh/GPHA/tema/more_stats.php?cartid=2008&move=next&newsid=14)

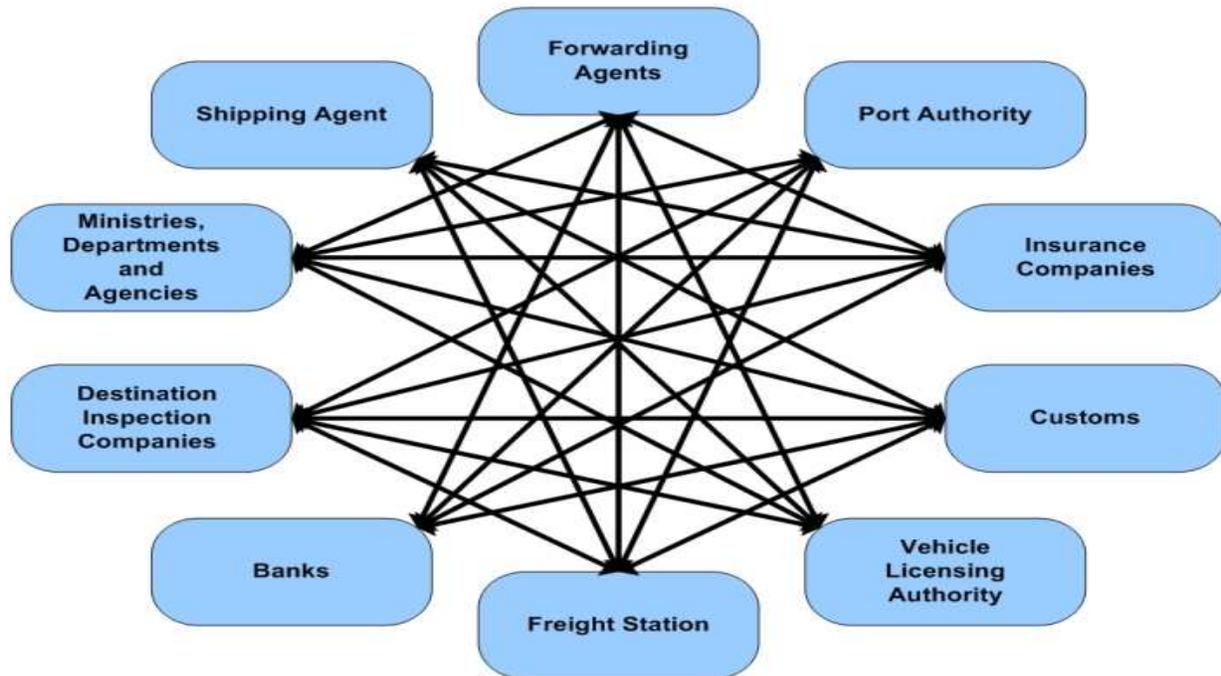
<sup>58</sup> Ghana Shippers Council maintains a website at <http://www.ghanashipperscouncil.org/>

<sup>59</sup> GCNet maintains a website at [www.ghanatradenet.com](http://www.ghanatradenet.com).

<sup>60</sup> Ghana Customs Excise and Preventive Service (CEPS) maintains a website at <http://www.mofep.gov.gh/customs.cfm>

GCNet operates an information system that links all the major players in the customs-clearing process. It enables processing of all customs-clearance documentation online thus facilitates clearance of goods through the ports. It also enables stakeholders to have access to up-to-date statistics on trade. The figure below indicates the different trade-related organizations that GCNet connects.

### GCNet Stakeholders



GCNet Services Ltd has developed, and operates, an electronic platform (its 'TradeNet' system) that links all stakeholders on a common platform for processing trade and customs declarations. TradeNet is made up of two main components:

**The Ghana Customs Management System (GCMS)** which provides Ghana's Customs, Excise and Preventive Services with a fully integrated computerized system for the processing and management of customs declarations and related documents. GCMS receives and automatically processes electronic manifests and customs declarations, referred to as Single Administrative Documents (SADs). It also allows electronic payment of duties and taxes, and the audit of warehousing and transit operations.

**Ghana Community Network (GCNet)** which is a platform enabling GCMS to share data with all the parties involved in the processing of trade documents and customs clearances.

### *Burkina Faso Chamber of Commerce in Ghana (BFCC)*

BFCC promotes trade activities along the Tema-Ouagadougou corridor for Burkina-based transit cargo mobilizing funds and facilities, by building warehouse facilities rented to shippers at highly subsidized rates near Tema port, making it a key player in the increased volume of trade on the Tema-Ouagadougou corridor. BFCC serves as an information and support centre in Ghana for Burkina-based importers and exporters. It has just completed building 6,000 m<sup>2</sup> of covered warehousing in Tema with a capacity of 30,000 - 40,000 tonnes for imported goods destined for Burkina Faso. These privately managed warehouses will be fully operational by the end of 2009. BFCC collects a tax on all cargo destined for Burkina Faso known as '*passage magasin douane*' (PMD), based on the cargo weight indicated on the bill of lading, first in Tema and then again in Ouagadougou.

## *Burkina Shippers' Council representation in Ghana*

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The Burkinabé government has mandated the *Conseil Burkinabé des Chargeurs* (CBC) to negotiate with the Ghanaian organizations, including the Ministry of Transport and GPHA, to obtain special conditions for cargo in transit to Burkina Faso. For a complete list of CBC responsibilities refer to the discussions on CBC activities later in this annex under *In Burkina Faso*. CBC plays a key role in the implementation of IST transit cargo sharing rules, described above.

## *Shipping-line agencies*

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Several agencies in the Tema port area represent international shipping lines with services to Ghana. These agencies receive cargo for export and issue an original bill of lading to shippers. In exchange for the original bills of lading for import cargo, they also issue delivery orders submitted to port officials for the release of cargo to the named importer.

## *Truckers' Unions in Ghana*

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Of several associations of transporters in Ghana, only one is of significant interest to this study.

### *Joint Association of Port Transport Unions (JAPTU)*

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JAPTU emerged in 2007 at GPHA's request because GPHA felt it faced disorganized transport within and around the port. The main aim was to bring together, regulate and organize the numerous transporter and driver unions working within the port. JAPTU has assigned itself the role of assisting vehicles and drivers during their journey to and from landlocked countries whilst they are within Ghanaian territory. JAPTU membership includes executives of transport associations like the Ghana Private Road Transport Union, the *Organisation des Transporteurs Routiers du Faso* (OTRAF), *Entrepôts Maliens au Ghana* (Malian warehouses in Ghana), and the Niger truckers' union, amongst others.

Since July 2008, JAPTU charges a fee of GHS 6.00 (USD 5.40) levied on all trucks involved in transit trade leaving the Tema Transit Parking Yard, within the port. GPHA has authorized the collection of this fee, despite the fact that it includes the assistance to drivers when they encounter problems on the road, a service which OTRAF also offers and for which OTRAF charges XOF 10,000 (USD 23.80) fee per truck, as discussed later in this annex under *Truckers' Unions in Burkina Faso*. Some dispute GPHA's power to authorize such payments.

In addition, since 2007, JAPTU and OTRAF have been levying a fee for a 'loading advice' as a prerequisite for a truck to enter the port. GPHA has made this procedure mandatory prior to the loading of cargo within the port, forcing all trucks to go through these unions and make payments regardless of whether their owners or drivers are members or not.

## *Freight forwarders*

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Customs requires that importers through Ghanaian ports use certified brokers, popularly known as "clearing agents" or forwarders. Importers hand over all documents to the forwarders who handle the cargo clearance process on their behalf. As part of the certification process, customs require all brokers to be members of one of three national freight forwarders' associations.<sup>61</sup> These associations maintain standards within the profession. Additionally, each association periodically publishes recommended tariffs for its members as a guide for the freight forwarding market. There is, however, a free market in freight forwarding services.

The freight forwarders' associations carry out regular training for members to keep them abreast of developments within the industry. They also conduct examinations and award certificates to individuals and institutions who have demonstrated their knowledge and ability to practice the profession.

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<sup>61</sup> Ghana's three associations of freight forwarders are: the Ghana Institute of Freight Forwarders (GIFF), the Customs Brokers Association of Ghana (CUBAG) and the Freight Forwarders Association of Ghana (FFAG).

## In Burkina Faso

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### *Gare routière internationale de marchandises de Ouagadougou - OUAGARINTER*

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OUAGARINTER is a clearance and transit complex for international road traffic in Ouagadougou, managed by the *Chambre de Commerce, d'Industrie et d'Artisanat du Burkina Faso*. It is the last link in the transport chain for imported products arriving by road in Ouagadougou.

The complex covers an area of 26 hectares with three 5,000 m<sup>2</sup> warehouses, including one under customs bond; offices for forwarders, customs administration and related activities; a weighbridge with a capacity of 50 tons; and a 10,000 m<sup>2</sup> area for maneuvering and parking trucks.

### *Le Conseil Burkinabé des Chargeurs (CBC)*

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Created in January 1978, CBC<sup>62</sup> is a public entity placed under the technical supervision of the Ministry of Transport and under the financial supervision of the Ministry of Finance. As a shippers' council for a landlocked country, it aims to:

- Ensure that Burkina Faso receives a regular, secure and timely supply of commodities and products from world markets in good condition and at low-cost, by assisting Burkinabé importers and coordinating the transport chain
- Contribute to the competitiveness of Burkinabé exports in international markets
- Protect its members' interests in the transport of goods by sea, river, road, rail and air.

CBC is officially recognized in Tema, and also in the ports of Cotonou, Lomé and Abidjan, as the organization responsible for implementing the transit-cargo sharing regulations. For this purpose, the CBC port representative manages transit transport.

### *La Chambre de Commerce, d'Industrie et d'Artisanat du Burkina Faso (CCIA-BF)*

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CCIA-BF<sup>63</sup> is the only body empowered to represent private sector interests – including trade – to the Burkinabé government. It incorporates all professional bodies, offers professional training, carries out studies and collects statistics. The Ministry of Trade and Industry provides technical supervision.

The CCIA-BF is Burkina Faso's designated national guarantor under ECOWAS' ISRT. As such it receives and manages the ISRT guarantee fund. It also has responsibility for warehousing and for managing Ouagadougou. CCIA-BF plans to build dry ports in Burkina Faso for better container management and to improve truck rotation times, with the aim of reducing trucking costs. One dry port was scheduled to be in operation early 2009 in Bobo-Dioulasso and another is planned to be built soon in OUAGARINTER. CCIA-BF promotes trucking in containers in order to limit stripping of cargo within the ports, which is a potential source of overloading of trucks and under-declaration of cargo<sup>64</sup>.

The CCIA-BF charges a '*Passage magasin douane*' (PMD) tax on all imported cargo upon arrival at OUAGARINTER.

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<sup>62</sup> For more information see CBC's website: <http://www.cbcbesc.com/>

<sup>63</sup> For more information see CCIA's website: <http://www.ccia.bf/>

<sup>64</sup> A truck may carry the contents of up to three 20-foot containers at a time when stripped, but can only carry a maximum of two 20-foot containers if not stripped. Stripping cargo into a truck also offers opportunities to under-declare the weight of the cargo (in the absence of reliable weighbridges) in order to pay less customs duties and taxes

## *Truckers' Unions in Burkina Faso*

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In December 1995, two Burkinabé truckers' unions were united, thus putting an end to incessant bickering that had undermined the professional transport environment.

### *L'Organisation des Transporteurs Routiers du Faso (OTRAF)*

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When OTRAF was established, it became the only truckers' union in Burkina Faso. It opened an office in Tema port but lacked legal existence in Ghana because the jurisdiction of the union was limited to Burkina Faso. OTRAF's main role in Ghana is to find cargo for Burkinabé trucks and to represent the interests of all Burkinabé truckers.

OTRAF remains the largest transport union in Burkina Faso. Moreover, OTRAF has significant political weight because some of its executive members are important players in the national economy of Burkina Faso. It also has strong relationships with the highest officials within the Ministry of Transport.

In Ghana, OTRAF assists Burkinabé truckers in negotiating freight rates for cargo with freight forwarders. It receives and transmits requests for trucks from CBC and assists Burkinabé trucks in case of problems with the Ghanaian authorities.

Each truck carrying transit cargo to Burkina Faso pays a fee per trip of XOF 10,000 (USD 23.80) to the OTRAF representative of the port. This entitles the trucker to assistance in case of problems on the road. GPHA made this fee compulsory when it accepted that only vehicles with the OTRAF '*Autorisation de Chargement*' can obtain a *laissez-passer* to enter the port to load cargo destined for Burkina Faso. This compulsory fee brought about complaints from other unions.

Several other organizations exist representing professional Burkinabé transporters, but OTRAF is the biggest.

### *Organisation Nationale des Transporteurs Terrestres du Burkina (ONTTB)*

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The *Organisation Nationale des Transporteurs Terrestres du Burkina* (ONTTB) was founded in 2005. ONTTB is not represented in the Tema port. However all Burkinabé trucks pay fees at ONTTB checkpoints within Burkina Faso if they have no proof of membership in another union. The amounts involved are:

- freight vehicles returning empty to ports = XOF 2,000 (USD 4.76)
- full vehicle with Burkinabé nationality = XOF 10,000 (USD 23.80)
- full vehicle with foreign nationality = XOF 25 000 (USD 59.50) though foreign carriers negotiate this amount down, and often pay only XOF 10,000 (USD 23.80). When foreign trucks pay the OTRAF fee they do not have to pay the ONTTB fee, and vice versa. OTRAF also has checkpoints within Burkina Faso.

Initially, OTRAF was the only transport union representing Burkinabé truckers, however the establishment of additional unions such as ONTTB over the years has led to complaints about non-representation in the various ports of the sub-region, including Tema. They believe that the representative of trucking unions being dealt with by CBC at the port should represent all unions, not only OTRAF.

## Annex B: Cargo clearance procedure in Tema port - Imports

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
1	List of documents required: commercial invoice (translated into English), packing list, copy or original Bill of Lading	shipper/ forwarder				
2	Rotation number to be provided by carrier when vessel at berth (needed for the customs declaration)	shipping line			15	
3	Invoice and packing list sent to customs valuation officer	customs		6.3	120	240
4	In transit electronic declaration through GCNet	forwarder			60	
5	Receive GCNet electronic entry ready to be printed send all documents to bond seat to assess the SIC insurance bond: (0.5% of the exempted dutiable value) + GHS 5 for the satellite tracking box	customs			30	120
6	Pay premium at the bank for SIC situated at the long room	bank	45 (GHS 50) for GPS transponder plus 0.50 % of the dutiable customs value		15	30
7	Return to the bond seat, with the bank receipt to be presented to the customs officer for system update	customs		1.80	60	

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
	Go to SIC with the bank receipt to print the bond	SIC	according to entry but with a minimum of 9.00		60	
8	Go to the customs compliance officer, where the set of documents is verified. This officer assigns an examination officer at the freight station	customs		1.80	60	
9	With the declaration number, the forwarder goes to the shipping line for the exchange of documents and pays for the shipping charges. A Delivery Order (DO ) is given back to forwarder	shipping line	102.30/204.60 per 20' /40'		120	
10	With the declaration number, the forwarder goes to CBC, to establish the 'freight declaration' then gets back the 'CBC loading note' or ' <i>bon de chargement</i> ' (needed for the truck ' <i>laisser passer</i> ' to enter the port) and pays for the CBC way bill and goes to OTRAF for the loading advise .	CBC	Declaration de fret, loading note+ OTRAF loading advice: 23.80/truck (XOF 10,000 /truck) + CBC way bill: 29.75 (XOF 12,500)		60	
	Burkina Faso Chamber of commerce: payment of PMD ' <i>Passage Magasin Douane</i> ' (based on Bill of Lading)	Burkina Chamber of Commerce	20' /40' container: 30.94 (XOF 13,000 ) / 49.98 (XOF 21,000 ) & bulk 0.92 (XOF 385 ) per tonne		60	

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
11	Go to the freight station (GPHA, MPS, Golden Jubilee) with the shipping company's DO and the Burkina Chamber PMD ( <i>Passage Magasin Douane</i> ), pay the handling charges and obtain an entry permit (a payment receipt)	freight station	27.9/20' 55.8/40'		60	
12	With this handling charges payment receipt, entry permit, CBC ' <i>bon de chargement</i> ' the forwarder and the driver enter the freight area and see the customs examiner to proceed to the examination (seal checking, car chassis number, cargo and number of package if container to be stripped...)---> GCNet on line released and issue a delivery allowance	customs		9.00	360	60
13	Truck is loaded	GPHA		2.70	60	60
14	At the exit gate, GPHA security checks on system if all is OK and writes the waybill	GPHA		0.9	60	
15	At the exit gate, a customs official checks if the cargo has received the delivery approval by a customs examination officer	customs		0.9	60	
16	Escorted by GPHA security to the Transit Parking Yard but need a certain amount of trucks before departure in a convoy	GPHA		1.80	60	60

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
17	Go to SIC, at the port and buy a log book plus a sticker filled by a customs agent. Information to be filled and given back to SIC for stamp and signature	GPHA	log book : 2.25; sticker : 0.9		60	
18	Buy a customs seal at transit park customs office. The seal number is written on the entry	customs			60	
19	Go at the parking yard GCNet office to get the satellite device (paid on steps 5). The officer keys the satellite device number and the seal number into the system	customs		1.80	60	
20	Go to the National Securities at the main port with all documents (GCNet entry, log book, commercial invoice, packing list) to vet the documents and sign the logbook	customs		1.80	60	
21	At transit park, a customs official detaches the copy of the documents	customs			60	
22	At transit park exit, customs check the seals	customs		0.90	30	30
23	At the exit gate GPHA security verify the waybill	GPHA		1.80	15	15
24	At exit gate National Security verifies that log book has been signed by their colleague at the port.	customs			15	60

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
25	Transporter union fee (JAPTU)	JAPTU	5.40		15	15
26	Truck is allowed to leave and has 5 days to reach the border.					
		TOTALS	277.24 per 20' 427.02 per 40'	22.5 per 20' 31.5 per 40'	28 hrs (3.5 days)	11.5 hrs (1.5 days)

## Annex C: Import procedures at Ghana's Paga border post

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (min)	Observed average delay (min)
1	Driver/border middleman sends the documents (customs entry, sub-consignment note, ISRT logbook, freight station waybill) to customs office for verification & registration.	Driver / border middleman	0.00	11.90 (XOF 5,000) to 'border middleman' 4.76 (XOF 2,000) (customs)	10	15
2	Customs officer physically checks the truck, container or cargo corresponding to the customs entry copy and the GCNet officer removes the GPS tracking device.	Customs/ GCNet	0.00	4.76 (XOF 2,000)	15	15
3	Customs and GCNet verify in the system if the documents are in line with the information entered at Tema.	Customs / GCNet	0.00	0.00	15	15
4	If OK, the customs officer electronically approves the shipment in GCNet.	Customs	0.00	0.00	15	15
5	Driver and/or border middleman send the truck documents to customs for manual registration. Customs allows the truck to cross the border after removing the SIC sticker.	Customs	0.00	2.38 (XOF 1,000)	5	0
		Total	0.00	23.80	60	60

## Annex D: Import procedures at Burkina Faso's Dakola border

Steps	Process description	Responsibility	Formal Fee (USD)	Informal fee (USD)	Average standard (minutes)	Observed average delay (minutes)
1	The driver goes to the police for registration with his driver's license, ECOWAS Brown Card certificate, international permit or ' <i>Carte grise</i> ' and roadworthiness certificate. He then hands the customs documents over to the forwarder.	Driver	N/A	N/A	10	30
2	The forwarder checks the truck, cargo or container and documents (invoice, packing list, bill of lading, Ghana customs declaration, CBC interstate way bill issued at Tema).	Forwarder	N/A	N/A	5	10
3	The forwarder gives the waybill to the ' <i>Garde Magasin</i> ' (warehousing customs officer) for registration, who assigns an entry number to the truck.	Customs	N/A	4.76 (XOF 2,000)	10	20
4	With this entry number the forwarder fills and pays for the ISRT logbook issued by the chamber of commerce.	Forwarder	6.87	N/A	20	20
5	The forwarder submits the declaration for online entry into the Burkinabé customs system (computer available at customs office).	Forwarder	N/A	N/A	10	45
6	The customs declaration is issued and the file is sent to the compliance officer.	Customs	N/A	4.76 (XOF 2,000)	10	20
7	After these checks, the forwarder sends the file for approval by the head of the customs office.	Customs	N/A	N/A	30	60
8	After acknowledgement by the head of the customs office, documents are sent to a cashier	Customs	(1) 0.25% of cargo value, (2)	2.38 (XOF 1,000)	15	15

	for the payment of (1) the 'guarantee fund premium' <sup>65</sup> (0.25% of the cargo value), (2) customs overtime and (3) the IT fee.		13.14 per file (VAT inclusive), (3) Flat fee per file of 11.90 (XOF 5000) plus 2.38 (XOF 1,000) per additional cargo type			
9	<i>Garde Magasin</i> sends the file to the escort agent.	Customs	N/A	4.76 (XOF 2,000 )	10	10
10	Customs escort receives file, including the ISRT logbook, for the escort to Ouagadougou, and the truck waits for the escort to depart.	Customs	Escort fee: 11.90 (XOF 5,000) + Road taxes of 11.90/truck (XOF 5,000)	N/A	120	120
	Totals		67.99 (exclusive of guarantee fund premium)	16.66	250	325

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<sup>65</sup> See Annex A for a discussion of the guarantee fund premium, which is an ECOWAS mandate.

## Annex E: Import procedures at Ouagarinter

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delays (minutes)
1	Upon arrival, the escort agent gives the ISRT books to the <i>Brigade de Recherches et d' Intervention (BRI)</i> .	customs			10	0
2	BRI checks that all escorted vehicles have arrived and parked in the arrival yard. BRI sends the ISRT books to the <i>Brigade Commerciale (BC)</i> .	customs			10	0
3	BC sends a copy of all ISRT books to the chamber of commerce for the <i>Passage Magasin Douane (PMD)</i> invoicing and the originals to the <i>Garde Magasin (GM)</i> .	customs			10	0
4	The GM assigns a unique number (manually given from a register, needed for the customs declaration) and enters into the ASYCUDA system details from the ISRT logbooks, such as weight, value, consignee, etc. The file is then sent to the customs head.	customs		Garde Magasin : 5.95 (XOF 2,500)	30	60 -120
5	Consignee and forwarder may meet the customs head ( <i>chef de bureau</i> ) for authorization to keep the cargo on the truck if immediate delivery to the importer is desired.	customs / forwarder		5.95 (XOF 2,500)	60	1,440 (24H)
6	The forwarder collects the original ISRT book from the office of the customs head. If cargo value is less than 3 million XOF, the forwarder sends the invoice and packing list to Cotecna for inspection; if value is greater, forwarder requests the inspection certificate from Cotecna.	forwarder / importer			Official time for preparation of the Cotecna inspection report is between 480 (8 H) to 1440 (24 H.)	960 (16h) to 1440 (24H) or up to 2 weeks

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delays (minutes)
7	The forwarder can enter the import declaration into the ASYCUDA system at the customs office if he has the Cotecna inspection certificate. Only accredited forwarders have access to the system. ASYCUDA automatically calculates duties and taxes and issues a printout.	forwarder			30- 60 depending on the number of people waiting	60 – 180 depending on number of people waiting
8	With the duties and taxes entered, the forwarder pays the customs cashier who issues a pre-payment receipt.	forwarder	50 <sup>66</sup> (XOF 21,000)		30 – 60 depending on the number of people waiting	60 - 180 depending on number of people waiting
9	With the pre-payment receipt number, the forwarder electronically validates the file on the ASYCUDA system and prints the declaration. ASYCUDA automatically decides whether to physically check the cargo, which the customs compliance officer may override.	forwarder			30	30
10	The forwarder sends the file to the GM for clearance; GM sends the file to the compliance officer designated by ASYCUDA.	forwarder		GM : 5.95 (XOF 2,500)	10	60-180 depending on number of people waiting.
11	The compliance officer analyses the file, asks questions to the forwarder and may ask for a physical check. If goods are wrongly declared, the cargo value can change and thus increase the duties to be paid. File is sent to the head of customs.	forwarder		Between 23.80 and 119.00 (XOF 10,000 and 50,000) per file	60-480	420

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<sup>66</sup> ASYCUDA IT fee : 11.90 (XOF 5,000 ) for one cargo type + 2.38 (XOF 1,000 per additional cargo type), custom duties and taxes + custom overtime : 35.70 (XOF 15,000 )

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delays (minutes)
12	The head of customs checks whether the customs goods number is right and if the value is OK. File is stamped and sent to the cash office.	customs		5.95 (XOF 2,500)	60	420-840
13	Cashier receives the additional payment (if value has been adjusted by compliance officer and/or head of customs) and prints the final receipt.	customs	additional duties & taxes if value has changed		20	10
14	With this final receipt the forwarder takes the delivery order ( <i>bon à enlever</i> - BE) from the compliance officer and returns to BC.	forwarder			10	10
15	BC registers the BE and designates an officer for the physical check (on stripped cargo only) prior to exit.	customs		4.76 (XOF 2,000)	30	60
16	The forwarder pays the PMD and warehousing fees (if any), at the Burkina Chamber of Commerce office.	forwarder	Tariff details in (2) below.		30	30
17	The forwarder goes to the 'Ecor' officer who physically verifies the goods at the warehouse exit or goes to the consignee's warehouse to check goods at truck unloading.	Forwarder/ customs	Tariff details in (3) below	Tariff details in note 4 below	20	30
	Total			52.36 + tariff (see note 4)	Average 3 days	Average 3 days

Notes:

1. *Burkinabé customs duties and taxes applicable for selected commodities are: edible oils: 36.61%, sugar: 30.59% and textiles: 28.64%*
2. *Tariff for stripped goods: PMD: US\$ 11.23 (XOF 4,720)/t (VAT inclusive), and tariff for unloaded cargo: US\$ 2.95 (XOF 1,239)/t (VAT inclusive) + warehousing fee / type of goods/ number of days /t plus 18% VAT, 10-day grace period. Minimum fee USD 11.79 (XOF 4,956) /t, VAT inclusive. The warehousing fee applies to all goods, even those on a truck that never enter a warehouse. Truck demurrage begins to apply 72 hours after truck arrival – the average charge on this is XOF 75,000 (USD 178.50) per truck.*
3. *Escort fee: in town - USD 18.93 (XOF 7,956 ) per 20-foot container and USD 37.87 (XOF 15,912 ) per 40-foot container; out of town from USD 59.00 to USD 178.00 (XOF 25,000 to 75,000 ) per truck*
4. *Escort fee USD 11.00 (XOF 5,000), in town delivery custom escort fee USD 35.70 (XOF 15,000) per 20-foot container and USD 47.60 (XOF 20,000) per 40-foot or two 20-foot containers. Out of town delivery customs escort fee USD 71.40 (XOF 30,000 ) to USD 178.50 (XOF 75,000) per truck*

## Annex F: Export procedures on the Ouaga-Tema corridor

**Table 1: Export procedures at Ouagarinter (southbound cargo)**

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
1	The shipper gives all documents to the forwarder to do the export declaration. These include the invoice, packing list, certificate of origin and, if necessary, phyto-sanitary certificate.	shipper		N/A		
2	The forwarder goes to the customs office to enter the export declaration on the ASYCUDA customs IT system that displays the amount of the ASYCUDA tax payable to the customs cashier.	forwarder	ASYCUDA tax = 11.90 (XOF 5,000) for one type of good and 2.38 per additional type of good + customs overtime: 26.65 (XOF 11,200 )		30	60
3	The cashier validates the payment online and issues a receipt. The forwarder returns to the customs ASYCUDA office to print the declaration and then sends it to the <i>Garde Magasin</i> (GM) along with export documents: invoice, packing list, certificate of origin.	forwarder	N/A	4.76 (XOF 2,000)	30	60
4	GM stamps its visa on the declaration and sends the file to the customs compliance officer who checks if all inputs in the ASYCUDA system are in line with the documents given by the forwarder, and if the file is validated online, manually registered and transferred to the head of customs for approval.	customs		2.38 (XOF 1,000)	30	60

Steps	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
6	After being checked by the customs head, the file is sent back to the cashier who prints the final customs receipt for the forwarder.	customs	N/A	N/A	15	60
7	The forwarder goes to the customs compliance officer with the final customs receipt to obtain the release note and proceeds to the customs officer who physically checks the cargo involved in the shipment and stamps the export declaration.	customs	N/A	Customs inspection 4.76 (XOF 2,000)	15	60
8	After being registered at the customs inspection office, the forwarder gives the export declaration and other documents to the driver who can leave for border. A customs escort is not needed.	forwarder				
	Totals		157.55	11.9	150	300

**Table 2: Export procedures at Dakola (southbound cargo)**

Steps	Process description	Responsibility	Formal Fee (USD)	Informal fee (USD)	Standard time (minutes)	Observed average delay (minutes)
1	The driver enters the export parking lot and gives the documents (invoices, packing list, export declaration, cargo details notes) to the forwarder.	Driver/police	0.00		30	The border closes at 6:00 pm; if the truck arrives after 3:00 pm, it will stay parked until the following day.
2	The border middleman registers the file at <i>Garde Magasin</i> who allocates a <i>Garde Magasin</i> exit file number.	forwarder	Customs overtime 11.14 (XOF 4,682)		30	N/A
3	After registration, the forwarder sends the file to the customs agent, assigned to inspect the goods, who stamps the exit visa on the cargo detail notes.	customs		9.52 (XOF 4,000 ) per truck	30	N/A
4	The forwarder gives all documents (packing list, invoice, export declaration, way bill, and customs-stamped cargo detail notes) to the driver, who can cross the border to Paga in Ghana.	forwarder	0.00	0.00	30	N/A
	Totals		11.14	9.52	120	The border closes at 6:00 pm; if the truck arrives after 3:00 pm, it will stay parked until the following day.

**Table 3: Export procedures at Paga (southbound cargo)**

Steps	Description	Responsibility	Formal Fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
1	The driver gives the truck papers to the police (vehicle registration document, insurance documentation). The police issues a <i>laissez passer</i> with the driver's name. The driver goes through immigration controls with his passport. He takes the truck, goes to the export parking yard and gives all documents (invoice, packing list, Burkina Faso export declaration) to the forwarder	Driver/police	32.40 (for non Ghanaian trucks)	N/A	240	120
2	The forwarder prepares the manual declaration and gives all documents to customs. Customs agents physically check the vehicle for truck, container numbers, etc.)	customs	N/A	N/A	15	30-60 depending on number of persons waiting.
3	Customs prepares the <i>Trans 1</i> form. (In cases where the cargo is destined for the local Ghanaian market, customs makes a GCNet entry). No duties are charged for export cargoes in transit through Ghana.	customs/ forwarder	Transit fee 200.00 per declaration (can be more than one truck)	N/A	60-120	60
4	Customs agents send the file to their compliance officer and then to the customs escort agents.	customs	Customs Escort fee: USD 54.00; Police: USD 18.00 per truck	N/A	60	30
5	Truck leaves the border for Tema.	driver	N/A	N/A	N/A	Up to 240 min if waiting for customs escort
	Totals		272	N/A	360 (due to the overlap of some simultaneous activities)	510

**Table 4: Tema port procedures for export transit cargo**

	Process description	Responsibility	Formal fee (USD)	Informal fee (USD)	Average standard time (minutes)	Observed average delay (minutes)
1	Forwarder makes booking with shipping line.	forwarder	N/A	N/A	30	15
2	Goods arrive by truck in Tema in container at shipping- agency yard or in bulk at warehouse and are offloaded from the truck after customs checks details against the landing account.	driver	N/A	4.50 per container	60	60
3	Forwarder prepares GCNet export declaration (with the needed documents: Paga custom declaration, commercial invoice, certificate of origin and phyto-sanitary certificate, if any).	forwarder	N/A	N/A	60	60
4	Forwarder presents the GCNet export declaration to customs to check compliance.	customs	N/A	N/A	60	30
5	Forwarder pays port handling to GPHA or MPS and customs endorses the release note upon proof of payment of port handling charges .	forwarder	Handling : 18.32 /20' and 36.64 /40' (GHS 20.35/20' and GHS 40.70/40')	5.40 per container	30	15
6	The forwarder presents the customs release to the export department of the shipping line for approval to load cargo on nominated vessel.	forwarder	N/A	N/A	15	N/A
7	When the vessel sails, the forwarder pays operational and administrative charges to shipping agencies.	forwarder	Operational : Lift on/ lift off : 29.70/20' and 59.30/40' and yard - port transfer: 41.8/20' and 79.20 / 40'; Administrative: 87.50		60	

			/20' and 169.00/40'			
8	The shipping line issues the bill of lading (2 working days after the vessel's departure).	shipping agency			60	30
9	The forwarder goes to the customs export department with the copy of the bill of lading to have the file approved in the GCNet system.	forwarder			60	30
		Totals	177.32 per 20' and 344.14 per 40'	9.9 per Container	435	24 0

## Annex G: Model assumptions

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### General

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Rates quoted per truck converted to per container basis: The shipment, be it one or two 20-foot containers or a single 40-foot container, on a single truck attracts the same amount of costs and delays. In the case of bulk cargo, it is assumed that a truck loads up to 40 tonnes of import cargo. It is however a fact that some trucks, particularly heavily reinforced Ghanaian trucks, load as much as 75 tons, regardless of axle capacity and axle-load restrictions, in order to gain more revenue per trip.

### Port

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Containerized Cargo: Direct handling and indirect handling of cargo by GPHA/MPS: The model assumes that all imported cargo is first received into the port prior to onward carriage by truck (indirect handling). In reality, importers load some shipments (approximately 30-40%) onto trucks directly from the vessels (direct handling), saving GHS 11.35 (USD 10.22) per 20-foot container on port handling charges. But indirect handling is more common.

Bulk Cargo: The model considers indirect handling costs where the importer must temporarily warehouse bulk cargo discharged from a vessel before expediting it to Ouagadougou. If the importer loads the truck for the transit journey directly from the quayside, the port applies a direct handling charge, resulting in savings of GHS 2.11 (USD 1.90) per tonne.<sup>67</sup>

Receipt and handling of cargo at the port: It is assumed in the cost analysis that MPS receives all imported cargo; MPS actually handles about 75% of incoming cargo. Therefore the model includes the transfer fee from the temporary stacking area at the quayside to the MPS yard.

Actual cost of container deposits made to shipping lines: The model uses a figure based on interest that would have been earned if this money had instead been banked for the period it remains with the shipping line (i.e. 15 days on average for cargo that is trucked to Ouagadougou in containers).

### Trucking and logistics

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Bribes paid at checkpoints along the corridor: These are borne by the truck owner and not included directly in the model analysis. This cost will be counted as part of the trucker's operating cost which would influence his final tariff quotation to the trader.

Ghana trucking rates: Assumptions were made on the basis of OTRAF tariffs as these were found to be the most representative of the wide range of trucking rates quoted.

Truck journey times: A truck takes 3 days after departure from the Transit Yard in Tema to reach Paga, and takes 8 hours after completing formalities at Dakola to travel to Ouagadougou.

### Ouagarinter

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Length of truck stays: We estimate this to be 6 working days which includes 2 weekend days when truck demurrage still applies. Truck demurrage starts after 72 hours. Therefore, a 3 day demurrage period was applied. We also assume that cargo remains on the truck (rather than being discharged into a warehouse) for the duration of the clearance process as this is the way it is commonly done.

Shipment terms for cargo arriving in Tema: Burkinaabé customs adds a standard value to all cargo arriving in Tema on a CIF basis, regardless of origin, which it uses to generate a total CIF price (that includes trucking

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<sup>67</sup> The port charge for direct handling is less than in the case of indirect handling because the port is less involved in direct handling.

costs from Tema to Burkina Faso) in order to calculate customs duties. The fixed add-on is XOF 576,000/864,000 (USD 1,370.88/USD 2,056.32) per 20-foot/40-foot container for cargo arriving in Burkina Faso in containers, and XOF 360,000/720,000 (USD 856.80/USD 1,713.60) for cargo arriving on trucks stripped from 20-foot/40-foot containers.

In the case of cargo arriving in Tema on a FOB basis, the add-on differs for each region of origin.

## **Annex H: Trucking to West Africa's landlocked countries**<sup>68</sup>

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Sahelian landlocked countries – Mali, Burkina Faso and Niger – suffer from high costs of road haulage due to long distances to ports, poor roads, unroadworthy trucks, poor logistics and corruption. High costs limit the competitiveness of their transit trade through West Africa's ports. The resulting low volumes of trade limit their prospects for economic development and thus limit growth in employment and incomes.

A 2008 World Bank report by Teravaninthorn & Raballand (T&R) – *Transport prices and costs in Africa: a review of the international corridors* – makes even more gloomy reading. T&R find that the transport of freight between Sahelian countries and their ports, and thus the world market, features prices that significantly exceed the underlying costs. This finding suggests large profits, which T&R attribute to rent-seeking road-transport cartels benefitting from oligopolies. T&R argue that, unless governments take steps to remove the structural distortions of the trucking market, there is no point in investing to reduce road-transport costs because the cartels will capture the benefits from lowered costs: prices will remain the same and cartel members will benefit from higher profits. If true, this represents a fundamental constraint to the economic development of three of the poorest countries in the world.

### Aim

In the light of T&R's findings, the purpose of this study is to document and analyze trucking procedures along a sample of the transit corridors linking the ports to destinations in the landlocked countries, in order draw conclusions and make recommendations to policy makers, the private sector and donors.

### Methodology

Research took place in the third quarter of 2009. Desk research preceded interviews with key informants from the private and public sectors in the ports of Abidjan, Tema, Lomé and Cotonou through which Sahel-bound transit freight from the world market passes *en route* to the landlocked countries. The research concerned 11 transit corridors between the four ports and three Sahelian countries (except Abidjan-Niger).

### Summary of findings

The study finds that Malian, Burkinabe and Nigerien transit oligopolies exist, but unevenly across corridors. Although some corridors, particularly those leading to Niger, suffered from exactly the problems T&R describe, in other cases, particularly corridors emanating from Abidjan and Tema, the problems had limited impact. Nonetheless, on all corridors the oligopolies operate at least partially, limiting the benefits from cost-reducing investment and serving as an unnecessary brake on the rate of growth of exports from, and imports to, the Sahelian countries. Regional organizations and governments should prioritize removing them. They should also simultaneously change other regulations that underpin the oligopolies.

### Detailed findings

The main legal basis for the oligopolies lies in one of two Economic Community of West African States (ECOWAS) treaties of 1982 laying down the regional approach to transport and transit activities: the Interstate Transport (IST) Convention. All ECOWAS member states are IST

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68 This annex contains the executive summary of a 2009 West Africa Trade Hub commissioned study by Dr. Sadok Zerelli Trucking to West Africa's landlocked countries: market structure and conduct, USAID West Africa Trade Hub

signatories. The convention allows pairs of member states (one coastal, one landlocked) to enter into bilateral treaties regulating the sharing of transport rights for imported transit goods from the port to the destination in the landlocked country. These “freight sharing” treaties seem all to have (a) reserved the haulage of all “strategic” freight to trucks registered in the country of destination (b) allocated 1/3 of “non-strategic” freight to the coastal country and 2/3 to the landlocked country. The underlying goal is a fair allocation of lucrative transit freight from port to Sahelian country. However, this fixed division of the spoils limits the competition that would otherwise take place. In practice, Sahelian countries’ fleets are generally less roadworthy than coastal countries’ fleets, so these northbound allocations are skewed against technical efficiency. Sahelian countries’ shippers’ councils oversee the application of these rules.

Moreover, each country’s truckers’ association allocates its fraction of the “non-strategic” haulage rights using a “first come, first served” queuing system: each trucker registers when he arrives at the port and waits for his turn to carry a load north, creating the conditions for cartels. In each case the result is a second oligopoly that also limits competition: roadworthy trucks must endure the same waits – sometimes of weeks – as the unroadworthy to get a load, whereas allocation by the market would favour the roadworthy over the unroadworthy. Better trucks – capable of delivering goods more quickly and with less uncertainty – get no more freight, which provides no incentive for investment in a technically superior fleet. By contrast, incentives clearly exist for the organisations running these allocation systems to become oligopolistic bureaucracies that derive revenue from a share of the trucking receipts and to take bribes to allow trucks to jump the queue.

This double oligopoly is the feature that most observers mention when discussing transit-trade trucking inefficiencies, but there are others.

First, national security ostensibly justifies limiting the haulage of “strategic” goods from port to Sahel to trucks registered in the country of destination. However, some such goods appear not to fall into this category (e.g. building materials), suggesting that interest groups have broadened this category principally to provide economic protection to the trucking sector within their country.

Second, if there are not enough trucks from the landlocked country in the port, the landlocked country’s transporters’ association has to sell the right to carry the northbound freight to a trucker with a truck registered in another country. This sale adds no value to the importer but boosts his transport bill, which is ultimately borne by end users of the imported goods.

Third, for southbound exports from Sahelian countries to the port (destined for the world market), transporters’ associations in each landlocked country enforce a ban on trucks registered in other countries picking up loads in that country. The Sahelian exporter can only choose from among trucks registered in that country. This protectionist, non-market allocation of freight lowers the average efficiency of southbound road haulage along that corridor. It also dissuades trucks registered elsewhere from carrying loads to landlocked countries because – without a backhaul load – their profits are lower. Alternatively, in some landlocked countries, the transporters’ association may allow trucks registered in another country to pick up a southbound load for a fee, which increases the haulage cost to the end user, with no extra added value to the end user. This fee contributes to high average haulage rates that render uncompetitive (a) exporting from the Sahelian countries and (b) production using imported inputs.

This set of misguided arrangements frustrates the creation of a flexible region wide market for trucking and increases the prices along already high cost trucking corridors, which are paid for by the Sahelian countries, among the poorest in the world. Their consumers pay higher prices for imported goods. Their industries, producing import substitutes using imported intermediate goods, find their final products uncompetitive against imports. Aspiring exporters to the global economy immediately face a huge competitive disadvantage due to the additional transport costs that the

double oligopoly generates for them. Thus raised costs and lowered efficiency severely limit economic development in the Sahelian countries.

Case study: Niger

Niger provides an archetypal example. Its institutions are keenest on non-market allocation of transit goods. In the ports of Cotonou and Lomé, the *Conseil Nigérien des Utilisateurs des Transports Publics*, Niger’s shippers’ council, rigorously enforces the 1/3-2/3 quota system and the queuing rule thereby protecting Niger’s old trucking fleet, which is too small to take full advantage of its rights under the quota system and less efficient than the fleets of Benin or Togo. It collects fees from trucks registered outside Niger for each load in its 2/3 share that Nigerien trucks cannot carry. In Cotonou, Benin truckers can undercut Nigerien truckers but they cannot win extra market share by doing so because they are limited to their maximum 1/3 share of the market. Nigerien truckers have no incentive to increase the size or efficiency of their fleet or to reduce their rates, as they would under competition. Further, within Niger, the transporters’ associations charge fees to non-Nigeriens who want to haul freight within or from Niger. The net effect is that Nigerien consumers of imported goods and manufacturers using imported inputs face higher prices and its exporters have greater difficulty exporting to the world market than they otherwise would.

However, there is some cause for hope.

- First, this study finds trucking profits on transit corridors to be reasonable: around 20%, rather than the 80% that T&R suggest.
- Second, it finds that enterprising truckers and freight forwarders already resist the oligopolistic and bureaucratic strictures. In different degrees, varying by port and destination, they seek directly negotiated alternatives. The adjacent table shows the number of corridors on which the two oligopolies are implemented. Although some corridors, particularly those leading to Niger, faced exactly the problems T&R describe, in other cases, particularly corridors emanating from Abidjan and Tema, the problems had more limited impact.
- Third, a freight forwarder can refuse an unroadworthy vehicle that the “first come, first served” rule allocates to him, redressing the advantage that this system offers to unroadworthy trucks. However, as so many of the trucks are of low quality, in practice the forwarder’s scope for choosing a better-quality vehicle is severely limited.

**Table 1: No of corridors applying quantitative controls to different degrees**

<b>Degree of application</b>	<b>Quotas (1/3-2/3)</b>	<b>Queuing: “first come, first served”</b>
Fully	2	3
Partially	1	4
Scarcely		4
Uncertain	2	
Not applied	6	
<b>Total</b>	<b>11</b>	<b>11</b>

- Fourth, although the formal sector accounts for only an estimated 10% of all truckers, by contracting directly with importers it is largely able to bypass quotas and queues. Similarly, Sahelian importers with their own trucks can load their cargoes without queuing, avoiding much of the inefficiency described.

### Recommendations

The study finds that blatant inefficiencies, stemming from the transit oligopolies that T&R identified, remain in place, undermining the benefits from investments made to reduce the cost of trucking along these corridors. The oligopolies constitute an unnecessary brake on the rate of growth of exports from, and imports to, the Sahelian countries and they hinder regional integration. The study recommends that they should be dismantled. To achieve this, pairs of countries could renegotiate their agreements under IST piecemeal. However, revision of ECOWAS' Interstate Transport Convention would more efficiently liberate West African trucking.

For all corridors, port terminal delays and costs, border-crossing delays and procedures and terminal delays during the clearing of goods represent a high proportion of the total transport costs including transit time and delays. The harmonization and simplification of customs procedures and documents, the construction of joint border facilities and the implementation of ECOWAS' transport and transit facilitation strategy<sup>69</sup> are therefore vital for minimizing the logistic costs for the landlocked countries and constitute a prerequisite for market liberalization.

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<sup>69</sup> See ECOWAS Transport and Transit Facilitation Strategy document developed under EU project Ref. 9 ACP.ROC.008 and validated during Abuja workshop in December 2008.

## Annex I: Calculations of benefits

No.	Description	Benefits	Estimated net benefit in USD/tonne	Net benefit calculation in USD per tonne
1	Deregulate the West Africa trucking markets	Reduce transport prices by say 15% – half the benefit recorded in Rwanda see section 1.5 for a discussion	USD 25.20 import	Estimated saving 15% Average trucking costs and loads; Import - \$3,202/32 t = 25.20 per tonne
1a	Introduce a new vehicle-tax structure	Encourage the renewal of the trucking fleet for greater safety and efficiency	USD 20.55 export (speculative)	Export – \$1,579/22 = 20.55 per tonne
1b	Design truck import duties/tax that increases with truck age	Encourage the renewal of the trucking fleet and thus reduce truck operating costs		SPECULATIVE BASED ON RWANDAN DEREGULATION EXPERIENCE
2	Fight Corruption (easier said than done)	Reduce costs, time and uncertainty	USD 13.69 import USD 3.91 export	IMP: Total informal cost \$438/32 = \$13.69 per tonne EXP: Total informal cost \$86/22 = \$3.91 per tonne
3	Speed up customs inspections at Ouagarinter	Reduce truck demurrage cost from 3 days to 1 day @ XOF 75,000 per day	USD 11.16	Truck demurrage for two days = \$357/32t = \$11.16 per tonne
4	Implement a single market in ECOWAS countries with no internal border control – like the European Union	Reduce customs processing cost and related corruption by 50%	USD 9.19 import USD 8.63 export	Import : 50% of average customs processing costs (table5) = 50% (\$257+231) = 294/32 = \$9.19 per tonne Export : 50% of average customs processing costs (table7) = 50% (\$340 + 39.5) = 189/75/22 = \$8.63 per tonne
5	Abolish the Ghanaian USD 200 transit fee at the border	Reduce costs and paperwork related to export from Burkina Faso	USD 9.09	200USD/22t = \$9.09 per tonne

6	Create more berth space for the Tema container operations	Reduction in vessel waiting time before berthing and elimination of the port surcharge	USD 7.78	SOURCE : FASTPATH REPORT Ref Fastpath report pg 46/47. Elimination of \$140/TEU congestion surcharge; Avg TEU weight for our selected goods (textiles, oil) = 18 tonnes Net savings = \$140/18 = \$7.78 per tonne
7	Reform cargo and truck allocation system in Tema port	Reduce costs of allocating freight to trucks and improved transparency and truck rotation times	USD 3.35	Reduce payment to trucking middlemen by 75% = $0.75 \times \$142.80 / 32t = \$3.35$ per tonne
8	Introduce GPS tracking from Paga to Tema	Eliminate formal and informal costs and delays related to the escort system	USD 2.25	Customs escort/police fee = $\$72 / 32 = \$2.25$ per tonne
9	Prevent overloaded trucks from exiting Tema port	Reduce road maintenance costs and/or better quality roads. Safer roads and faster travel times. Avoidance of bribes paid at weighbridges (USD 36.00 to USD 54.00 per truck)	USD 1.42	$\$(36+54) / 2 \times 32MT = \$1.41$ per tonne
10	Simplify cargo clearance procedures at Tema port	Reduce port clearance from 5 to 2 days. A reduction of the amount of bribes paid to customs and others by about 60%	USD 0.88	50% of max port informal fee ( $\$56.50$ ) = $0.5 \times \$56.5 / 32MT = \$0.88$ per tonne
11	Introduce GPS tracking from Paga to Ouagadougou	Eliminate formal and informal escort fees (USD 16.66 per truck) plus time saved in waiting for escort and convoys at Dakola (an average of 4 hours)	USD 0.76	$\$16.66 / 22 MT$ = \$0.76 per tonne Opportunity cost = \$0.12 per tonne Total = \$0.88 per tonne

12	Eliminate the informal clearing agent at the Paga border post	Eliminate the cost charged by the informal agent XOF 10,000 (23.80 ) per truck	USD 0.74	$\$23.8/32 \text{ MT} = \$0.74 \text{ per tonne}$
13	XOF convertibility in Ghana	Approximately 3 days saved in waiting time for CFA francs to be secured for imports and half a day for exports.  Avoidance of loss of money resulting from double conversion (CFA francs to another currency and back to CFA francs).	USD 0.72 USD 0.37	VALUE OF DELAYS Northbound opportunity cost = 0.24 USD per/t /day $\$0.24 \times 3 = \$0.72 \text{ per tonne (import)}$ Southbound opportunity cost = 0.74 USD per/t/day $\$0.74/2 = \$0.37 \text{ (export)}$
14	Eliminate the double PMD taxation	Elimination of PMD taxes paid in Tema.	USD 0.71	Average of PMD taxes paid in Tema per tonne of cargo ( ref. table 12) = $0.50+0.92 = 1.42/2 = \$0.71 \text{ per tonne}$
15	Implement the ECOWAS IST Convention and adopt a single logbook (Carnet TRIE) for cargo in transit from cargo origin to final destination	Replace the national logbooks with a regional one and thus reduce double charging. Reduced bureaucracy - save time and money spent on double acquisition of logbook	USD 0.53	$\$16.87$ is current cost of logbook at the Burkina border. Estimated savings $\$16.87/32 = \$0.53 \text{ per MT}$
16	Publish shipping agencies' charges with mandatory notification period of at least one month	Improve planning, management of resources for shippers. Time saved where additional money is requested from traders by forwarders due to misinformation on existing charges.	Import: USD 0.24  Export: USD 0.74	Opportunity cost of delays  Estimated savings of one work day: IMPORT = $\$0.24 \text{ per tonne}$ EXPORT = $\$0.74 \text{ per tonne}$

17	Replace the container deposit fee with an insurance/ guarantee scheme	Reduce the amount of money shippers have to mobilize before cargo is released to them	USD 0.32	<p>VALUE OF DELAYS</p> <p>(Avg interest on deposit of 1500 US\$ per day container) = <math>0.11 \times 1500/365 = 0.45</math></p> <p>Total interest for 23 days = <math>0.45 \times 23 = 10.35</math> per container</p> <p>= <math>10.35 / 32t = \\$0.32</math> per tonne</p>
18	Improve management of container handling equipment. Extend the container terminal permit from 24 to 48 hrs	Save time lost in the container stripping area, e.g. shed 10. The lack of terminal handling equipment makes it difficult to complete the container moves within the allotted time.	USD 0.28	<p>\$9 average paid to equipment operators / 32t = \$0.28 per tonne</p>
19	Increase the number of customs computers available at the border and at Ouagarinter. Make ASYCUDA system available at freight forwarder premises	Save time in waiting for access to computers for ASYCUDA documentation (A saving of up to 4 hours)	USD 0.12	<p>VALUE OF DELAYS</p> <p><math>\\$0.24/2 = \\$0.12</math> per tonne</p>
20	Align Ghana and Burkina Faso customs working hours at the Paga/Dakola border crossing	Improve service and reduce delays at the border crossing	USD 0.08	<p>VALUE OF DELAYS</p> <p>Time saved on northbound cargo approximately 0.34 days (see detailed description below)</p> <p><math>\\$0.24 \times 0.34 = \\$0.08</math> per tonne</p>
21	Implement the ECOWAS ISTR guarantee scheme (Customs bond) - Adoption of a single guarantee premium for cargo in transit from cargo origin to final destination	Replace the national guarantee schemes with a regional one and thus reduce bureaucracy and save time and money. A single scheme may also open the door for competition and thus lead to lower premiums in the future.	Likely revenue neutral or negative	<p>Please see below ** for calculation of net benefit in money terms and a discussion as to why it is</p>

22	Improving the trust between the public and private sector	Faster clearance for Authorized Economic Operators and legal traders /transporters. Customs can focus more resources on riskier traders /transporters	N/A	N/A
23	Simplify the Tema port fee schedule for stripping containers – flat fee per container (best), or a true fee per tonne	Increases clarity and predictability in regard to port fees	Revenue neutral	Revenue neutral

\* Estimates are unavailable at this time.

**Assumptions used in net benefit estimates:**

1. Northbound cargo: average cargo weight 32 tonnes , average cargo value US\$ 798 per tonne
2. Southbound cargo: average cargo weight 22 tonnes , average cargo value US\$ 2,450 per tonne
3. Annual interest rate of 11%
4. Northbound opportunity cost =  $0.11 \times 798/365$   
= USD 0.24 per tonnes/day
5. Southbound opportunity cost =  $0.11 \times 2,450/365$   
= USD 0.74 per tonne/day

**\*\* Recommendation #21 (Implement the ECOWAS ISTR Guarantee scheme):**

40 foot container of textiles (30 tonnes): CIF value = USD 17,200; FOB value = USD 13,217(estimated):

**Current System - example**

CIF Tema:	USD 17,200
Import Duty - (20% CIF):	3,440.00
VAT* - (15% CIF):	2,580.00
ECOWAS Levy - (0.5% CIF):	86.00
EDV Levy** - (0.5% CIF):	86.00
GCNet Charge - (0.4% FOB):	52.86
GCNet VAT - (12.5% Net Charge):	6.60
Import NHIL*** - (2.5% CIF+Duty):	516.00
Net NHIL - (2.5 % Net Charge):	1.32
<b>Total Dutiable Value:</b>	<b>6,768.78</b>
Guarantee fund premium GH (0.5% of dutiable value) =	USD 33.84
CIF Burkina: USD 17,200 + 1,370.88 = USD 18,570.88	

Guarantee fund premium BK (0.25% of CIF) =	USD 46.42
<b>Total guarantee fund payment =</b>	<b>USD 80.26</b>

### ***New system being discussed between Burkina Faso, Ghana and Mali***

CIF Tema – 17,200 USD

<b>Single guarantee fund premium (0.5% CIF) =</b>	<b>USD 86.00</b>
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\* VAT: Value Added Tax

\*\*EDV: ECOWAS Development

\*\*\*NHIL: National Health Insurance Levy

The joint system being discussed for Ghana, Burkina Faso and Mali is much simpler than the current system, but may actually be costlier to Burkinabé importers. The savings of the implementation of the single guarantee scheme is expected to be more evident for Tema to Bamako cargo as currently three separate premium payments are involved, including 0.5 % of CIF upon entry into Mali. Putting a single system in place saves on time and bureaucracy and if competition is introduced, may lead to lower premiums.

### *Inefficiencies at the Ghana-Burkina Faso border*

At the Ghana-Burkina Faso frontier, there are two border posts: Paga (Ghana) and Dakola (Burkina Faso). Paga is open every day from 6:00 am to 6:00 pm; Dakola is open 7:00 am to 12:30 pm and 3:00 pm to 5:30 pm on weekdays and 8:00 am to 3:00 pm on weekends and public holidays. Northbound trucks reach Paga individually, tracked by GCNet; the same trucks leave Dakola under customs escort for Ouagadougou twice daily, normally at 12:00 pm and 4:30 pm.

The lack of 24-hour posts on both sides of the borders creates delays because, each day, some trucks will complete some of the formalities and then find one border or the other closes before they can complete all of them. They must then wait until the other border re-opens to complete the formalities and leave. However, nocturnal banditry, impaired headlights and normal sleep patterns mean that most of the 6:00 pm to 6:00 am period is not currently a useful driving period.

The shorter opening hours on the Burkinabé side of the border bring about additional delays more frequently for south-north traffic than for north-south traffic. The Ghanaian side opens before the Burkinabé side opens and closes before the Burkinabé side closes. The 12-hour-long daily opening period on the Ghanaian side contrasts with two open periods of 5.5 and 2.5 hours (a total of 8.0 hours) on weekdays and a single period of 7.0 hours on weekends and public holidays on the Burkina Faso side. There is thus a significantly greater chance of completing the Burkinabé formalities and finding the Ghanaian side open than vice versa. Burkina Faso has 16 public holidays while Ghana has 13. Thus the Burkinabé border offices are open for a total of 2,804 hours, compared to Ghana's 4,380 hours, i.e. 64% of the Ghanaian total.

### *Northbound*

The northbound delays due to the shorter hours Burkinabé border openings are of two types: "siesta delays" and overnight delays.

Northbound siesta delays to Burkinabé imports occur on weekdays that are not public holidays in cases where a lorry finishes its Ghanaian formalities after 10:30 am, i.e. without enough time to complete the two-hour Burkinabé formalities before 12:30 pm. In these cases there is a 2.5-hour delay before the Burkinabé offices open again at 3:00 pm for a period long enough to get the Burkinabé paperwork done before the end of the working day at 5:30 pm. However, the second of two customs escorts that northbound trucks must join to Ouagadougou leaves at 4 pm, so these trucks must wait for the first customs escort at 12:30 pm the next day, arriving in Ouagadougou by the end of the business day. In this way, this category of northbound trucks loses approximately one business day in Ouagadougou.

What does this represent in terms of delay to the average truck? If the trucks travel up to 14 hours daily, the siesta delay will occur to 1 in 7 of them. The average effect per truck is thus  $1.0/7 = 0.143$  business days = 1.14 hours. There are 193 “siesta effect” days each year, so the average daily impact is  $193*0.143/365 = 0.08$  business days.

Northbound “afternoon delays” occur after either an eight-hour “siesta day” (a weekday) or a seven-hour non-siesta day.

A northbound truck arriving at the border after 12:00 pm on a weekday will not be able to join the second (and last) customs escort to Ouagadougou that day. A truck that makes it just in time to join this convoy will get to Ouagadougou that day and unload its cargo at the start of the next business day. One that misses the convoy will join the first customs escort at 12:00 pm the next day and arrive at the end of the next business day, adding a delay of one business day if the truck just misses the deadline or only half a day if the truck arrives at Paga at the end of the day (at, say, 7:00 p.m.). Thus the mean delay is approximately 0.5 of a business day. This delay affects half the northbound trucks, i.e. those arriving after 12:00 p.m. There are 250 such days annually. Thus the mean delay is  $0.5*0.5*250/365 = 0.17$  days.

A northbound truck arriving at the border after 11:00 am on a weekend day or a public holiday will not be able to join the second (and last) customs escort to Ouagadougou that day. A truck that makes it just in time to join this convoy will get to Ouagadougou that day and unload its cargo at the start of the next business day. One that misses the convoy will join the first customs escort at 12:00 p.m. the next day and arrive at the end of the next business day, adding a delay of one business day. This delay affects 57% of northbound trucks. There are 115 such days annually. Thus the mean delay is  $0.57*0.5*115/365 = 0.09$  days.

Thus the net effect of the siesta delay and the two types of afternoon delay =  $(0.08 + 0.17 + 0.09) = 0.34$  working days. This is an average figure for every northbound truck. It is largely due to the binding constraint of the two customs escorts and their timing in the day. If the Burkinabé customs authorities were to make customs escorts more frequent and across a wider period of the day, particularly at the end of the day just after the Burkinabé border post has closed, this would reduce delays significantly. Even better would be the introduction of satellite tracking of trucks so that each could set off for Ouagadougou unconstrained by the need for a customs escort.

In the analysis above, we have assumed that trucks arrive at Paga at random during the day. It may be argued that this is unrealistic because drivers will do their utmost to arrive so as to give themselves enough time to minimise the effect of these delays. However, on the other hand, key informants note that Burkinabé customs officers at Dakola are not always available, meaning that there are additional sources of delay not factored into the analysis.

### *Southbound*

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Loaded southbound trucks are in the minority: most travel empty. Those loaded undergo customs formalities that take an average of one hour at Dakola and 8.5 hours at Paga. Thus a truck has to arrive at Dakola before by 9:30 a.m. to stand a chance of being able to finish the formalities at Paga and leave the same day.

In contrast to the northbound border crossing, there are no key deadlines that largely determine the delays a truck experiences. Rather, there are two or three long concatenated procedures that collectively absorb most of a day.

A large part of this delay is assembling a convoy of trucks for the customs escort because the GCNet satellite-tracking system does not yet operate in the north-south direction. There do not seem to be specific times for the departure of convoys of trucks with Ghanaian customs escorts, contrary to the case in Burkina Faso. In contrast, they seem to set off during daylight hours when the number of southbound loaded trucks that have completed formalities reaches a certain threshold. However, other delays are also remarkable: 4 – 6 hours for the driver to get a *laissez passer* and 2–4 hours to prepare the customs *Trans 1* form.