



# BACKHAUL FOR THE LIVESTOCK CORRIDOR

## USAID AGRIBUSINESS AND TRADE PROMOTION (ATP) PROJECT



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Cover picture: Trucks waiting at the port of Tema for freight, Laura Jane Busch, March 2013

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### **DISCLAIMER**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government



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# ACRONYMS

<b>ATP/EATP</b>	USAID Agribusiness and Trade Promotion/Expanded Agribusiness and Trade Promotion
<b>USAID</b>	United States Agency for International Development
<b>CBC</b>	Conseil Burkinabe des Chargeurs (Burkinabe Shippers' Council)
<b>OTRAF</b>	Organisation des Transporteurs Routiers du Faso (Burkina Transporters' Union)
<b>UNATROT</b>	Union Nationale des Transporteurs Routiers du Togo (Togolese Transporters' Union)
<b>FENAPFIBVTO</b>	Federation Nationale des Professionels de la Filiere Betail et Viande de Togo (National Federation of Livestock and Meat Professionals of Togo)
<b>EMABE</b>	Entrepots Malien au Benin (Malian Port Authority of Benin)
<b>CNCB</b>	Conseil National des Chargeurs du Benin (Benin Shipper's Union)
<b>DTT</b>	Direction General des Transports Terrestes du Benin (Directorate General of Land Transport of Benin)
<b>CNUT</b>	Conseil Nigerien des Utilisateurs des Transports Publics (Niger Shippers' Union)
<b>WATH</b>	USAID West Africa Trade Hub



# EXECUTIVE SUMMARY

This study examines trucking operations on the West African livestock corridor running from Fada N’Gourma/Pouytenga in Burkina Faso to Parakou in Benin, and how truckers on this corridor find backhaul for their return journey. This study analyses how backhaul problems play into transport costs, and describes the specific issues for finding backhaul at each of the ports studied.

Key findings:

- After delivering livestock in Parakou, drivers travel empty to the ports Cotonou, Lomé or Tema to find a backhaul load to return to the Sahel. Their choice of port depends on their perceived ability to find freight at the port.
- At the ports of Tema, Lomé and Cotonou, the “first come first served” queuing system has been dismantled. At Lomé, freight is still mostly allocated by the transport unions, although it is not obligatory to go through them. The following table summarizes how freight is allocated at each port, the associated cost to the trucker of arranging backhaul and waiting times observed:

Port	Waiting time for general 40T truck	How is freight allocated?	Associated cost for 40T truck
Tema	2-3 weeks, often up to 2 months	Informally, through agents or “cozers”	50,000 FCFA paid to coxer
Lomé	3-4 weeks	Through transport associations/union	Nominal fee paid to transport association/union
Cotonou	4-7 days, up to 1 month	Informally, through agents or “cozers”	100-150,000 FCFA paid to coxer

- Out of all trucks arriving at the port from the Sahelian countries, most of these southbound journeys are made empty as a result of the trade imbalance. They are willing to make this journey because they know that eventually they will find backhaul at the port, and can charge a price to cover their costs of empty fronthaul.
- As shown in the table, trucks are waiting several weeks or more at the port to find freight. As a result of delays on the road combined with port waiting times, trucks are only able to complete an average of one round trip per month. Interviewees reported that in an optimized scenario they would be able to complete three round trips per month.
- Drivers do not generally arrange backhaul in advance. There is simply not enough

information about freight availability to make this possible.

- Although transporters consistently state that their biggest concerns are road harassment and problems they encounter along the road with uniformed officials, this study showed that inefficient backhaul should actually be a far greater concern for transport companies. The direct costs of empty journeys and idle capital sitting at the ports, combined with the opportunity cost which arises as the trucks wait for a load at the port, are far more significant than the cost of road harassment, relative to overall transport costs. Trucks could be making three times as many round trips than is currently possible if an efficient system for allocating backhaul was in place.
- An analysis of transport prices observed along this corridor shows that on southbound routes, prices are comparable to other global markets. However, on northbound routes, prices are significantly higher than global benchmarks. The lower prices on the southbound routes reflect the relative high supply and low demand for transport in this direction. However, high northbound prices are high and reflect the costs of inefficiency of backhaul and freight allocation on this corridor.

The only real solution to the key problems observed in this study is to improve information about available freight and transport on both the shippers' and transporters' sides, as well as a put in place integrated communication system for matchmaking freight to available transport. If this information and system was available, transporters would be better able to plan their trucking operations, arrange backhaul in advance, and avoid their human and physical capital sitting idle at ports. Implementing this type of system would require the buy-in of the private sector, and the first step in gaining this is to inform transport companies of how this problem is affecting them.

This study also recommends that the roles of transporter/shippers unions and association at the ports be clarified and streamlined, and that conditions for drivers waiting at ports be improved.

# I. INTRODUCTION

## I.1 PROJECT OVERVIEW AND STUDY RATIONALE

The Agribusiness and Trade Promotion (ATP) project is a four-year regional initiative funded by the United States Agency for International Development (USAID). Launched in 2008, USAID ATP has focused on three agricultural value chains: maize, onion, and ruminant livestock/red meat. (Onion value chain activities were phased out in December 2011.) The Expanded Agribusiness and Trade Promotion (E-ATP) project is a three-year regional initiative launched in 2009. Building on the success of USAID ATP, USAID E-ATP has focused on three additional value chains: poultry, rice and millet/sorghum.

Both USAID ATP and E-ATP aim to increase the value and volume of intra-regional agricultural trade in their respective value chains and their associated activities along the major commercial corridors linking Senegal, Mali, Burkina Faso, Benin, Togo, Ghana, Côte d'Ivoire, and Nigeria. The two projects are designed to contribute to achieving the 6 percent annual agricultural growth target set under the Comprehensive Africa Agriculture Development Program (CAADP) of the African Union's New Partnership for Africa's Development (AU-NEPAD).

Livestock rearing contributes to nearly 44% of the agricultural GDP in West Africa, driven by a strong demand. In 2008, the OECD<sup>1</sup> estimated that the West African demand for livestock is growing by 4% annually and expects it to increase by more than 250% by 2025. West African trade in the livestock generally flows from the Sahelian landlocked countries (Mali, Burkina Faso, and Niger) down to the coastal countries. Urban hubs are the main source of demand for Sahelian livestock, especially in the coastal countries (Benin, Cote d'Ivoire, Nigeria, and Ghana)<sup>2</sup>.

Early on, the project identified an important West African livestock corridor which runs North-South beginning in Pouytenga, close to the major livestock market of Fada N'Gourma, then on to Parakou livestock market in Benin for onward sale to coastal consumer markets and, in particular, to Nigeria. The project has been studying this corridor to understand its market and road infrastructure, transport cost drivers along it, as well as monitoring road harassment on the corridor.

However, an important element of transport costs along this corridor which has not been studied in detail is how the ease of finding backhaul plays into transport operations. During our work on the corridor and in speaking with drivers and transporters it was noted that often they have difficulty in finding backhaul commodities for the

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<sup>1</sup> "Livestock and Regional Market in the Sahel and West Africa: Potentials and Challenges". OECD.2008.

<sup>2</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

return journey north. Returning empty is very inefficient and adds to transportation costs for the end user. The study examines these backhaul problems and their consequences, and proposes strategies to resolve them in order to improve the efficiency of trucking operations and costs for transporting livestock along this corridor.

## **1.2 OVERVIEW OF BACKHAUL ISSUES IN WEST AFRICA**

Transport in West Africa is characterized by a low transport quality and high prices. Along with fuel prices, road harassment, and maintenance costs, inefficient hauling is a major factor contributing to higher transport costs<sup>3</sup>. An efficient hauling system would significantly contribute to the reduction of transport costs along West Africa's trade corridors and translate into lower transport prices.

West Africa has one of the highest transport prices despite the relative low labor costs. In comparison, in Pakistan, where labor costs are also cheap and road infrastructure is also in need of improvement, prices are more competitive and vehicle utilization is greater than found on most West African corridors<sup>4</sup>. The probability of finding backhaul directly affects transport prices. The higher the probability, the lower the prices will be for both fronthauls and backhauls<sup>5</sup>. When truckers are able to arrange or ensure backhauling they can better maximize vehicle and labor utilization, reduce fuel costs and mileage usage, offer lower prices, and make a profit<sup>6</sup>. Whenever a truck is running empty it is only incurring costs without generating any revenue- both physical and human capital are idle. If a trucker makes a trip with the knowledge and assumption that he will be returning empty, the added costs will be reflected in transport and customer prices. Also, the longer the trucker must wait to find backhaul also increases cost and therefore end-user prices. Transporters who do not expect to find backhaul or are prohibited by law to pick up backhaul for transport back to their country of origin will naturally charge higher prices to clients to compensate for the fuel and labor costs and match the opportunity cost of making the delivery.

A trucker's probability of finding goods for his or her inbound trip depends on supply and demand patterns for goods along the corridor served. Demand is highly seasonal and positively correlated to population density<sup>7</sup>. It follows that in West Africa, trade flows from landlocked countries to the major ports are much less important than the flows coming from the coasts and destined to the hinterland. This important difference creates a trade imbalance and makes it difficult for trucks making the southbound trip to find a load, except during seasons of high export from Sahelian countries (religious holidays for livestock or cotton season). Most truckers end up travelling south with an empty or partial back-load, adding up to transport costs and reducing trucking

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<sup>3</sup> Nathans Associates Inc. "Impact of Road Transport Industry Liberalization in West Africa". USAID. February 2012

<sup>4</sup> Teravaninthorn, S and G. Raballand. "Transport Prices and Costs in Africa: A Review of the Main International Corridors". World Bank. July 2008

<sup>5</sup> Jones, John Travis. "The Economic Impact of Transborder Trucking Regulations".

<sup>6</sup> "Make Back-Loading Work for You". Transport Energy Best Practice Programme – UK. August 2005.

<sup>7</sup> "Measuring World Transport Performance". Annex 1. World Bank.

efficiency. To make up for the potential loss in profits truckers charge higher prices for northbound trips to bear the costs of both trips.<sup>8</sup>

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<sup>8</sup> WATH (September 2010). "Trucking to West Africa's Landlocked Countries: Market Structure and Conduct".

## 2. METHODOLOGY

This study was undertaken in March 2013. A team consisting of the Research Team Leader (Laura Jane Busch), the ATP Transport and Logistics Advisor (Kossi Dahoui) and a Data Collection Assistant travelled to Tema, Lomé, Cotonou and Parakou in order to collect information and data. This team focused on gathering data at the “end” of the livestock corridor. The team visited the ports of Tema, Lomé and Cotonou as well as the livestock markets of Tema, Lomé and Parakou. The team spent approximately 2 weeks in the field and met with the following organizations and persons:

- Conseil Burkinabe des Chargeurs (Burkinabe Shippers' Council)
- OTRAF: Organisation des Transporteurs Routiers du Faso (Burkina Transporters' Union)
- UNATROT : Union Nationale des Transporteurs Routiers du Togo (Togolese Transporters' Union)
- FENAPFIBVTO: Federation Nationale des Professionels de la Filiere Betail et Viande de Togo (National Federation of Livestock and Meat Professionals of Togo)
- Union Nationale des Commerçants de Betail du Togo (Livestock Traders' Union of Togo)
- EMABE : Entrepôts Malien au Benin (Malian Port Authority of Benin)
- CNCB : Conseil National des Chargeurs du Benin (Benin Shipper's Union)
- Direction General des Transports Terrestes du Benin (Directorate General of Land Transport of Benin)
- CNUT : Conseil Nigerien des Utilisateurs des Transports Publics (Niger Shippers' Union)
- More than 100 drivers, transporters and livestock traders

Concurrently, a second team consisting of the EATP Transport and Logistics Advisor (Daouda Moussa) and a Data Collection Assistant traveled to the livestock markets of Ouagadougou, Pouytenga and Fada N'Gourma. This team focused on gathering data at the “beginning” of the livestock corridor. This team spent 1 week in the field and met with the following organizations and persons:

- 8 drivers and 17 livestock traders

Preceding field research, a thorough literature review was undertaken<sup>9</sup>, in order to evaluate existing knowledge on the issue, identify key issues and inform the field research. Through this a survey instrument<sup>10</sup> was designed in order to capture the information required. Three separate survey instruments were designed pertaining to the different type of actors to be interviewed during the field research:

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<sup>9</sup> Please see annex A

<sup>10</sup> Please see annex B

- Traders and livestock producers who procure transport for their animals
- Transporters and drivers at the beginning of the corridor (Pouytenga, Fada)
- Transporters and drivers at the end of the corridor (Tema, Lome, Cotonou, Parakou)

Please see Annex B for these survey instruments. These instruments were primarily used as a guide to the interviewer, and to ensure the most important information was captured.

Furthermore, the large majority of the interviews conducted with transporters/drivers and traders were conducted in a "town hall" format, which did not lend itself to collecting multiple data points from each respondent that could be aggregated and analyzed. When it came to costs, delays, waiting times and prices, the group conferred amongst itself to give their joint answers to the research team. These answers were corroborated by the team with other interviewees at different points along the corridor. After discarding anomalies, the simple average of these group answers is given in this report.

## 3. STUDY FINDINGS

This section provides an overview of trucking operations on the corridor, analyses how backhaul problems play into transport costs and prices, and describes the specific issues for finding backhaul at each of the ports studied. The structure of the West African trucking market has already been evaluated in detail by several studies in recent years. For example, the USAID West Africa Trade Hub's 2010 report "Trucking to West Africa's landlocked countries: market structure and conduct" and USAID's 2012 report "Impact of Road Transport Industry Liberalization in West Africa", along with several corridor-level studies. Therefore, this study focuses in on the specific backhaul issues observed for the corridor and value chain in question.

### 3.1 DESCRIPTION OF CORRIDOR OPERATIONS

According to a large majority of the drivers and transport operatives we spoke to, livestock is transported from Pouytenga or Fada N'Gourma in Burkina Faso, to Parakou in Benin. The livestock are mostly carried in 40T trucks, with 40-50 cattle per truck. The trucks used are "general" trucks and are not specifically designed for transporting live animals. We observed that the large majority of trucks are owned by informal operators, from small companies with maximum 2-3 trucks. The trucks may be registered of any of the following countries: Burkina Faso, Niger, Benin, Togo.

Trucks generally arrive in Parakou during the night after the market days in Fada and Pouytenga, and are offloaded into the market. There the vast majority of cattle are sold to traders who then walk them over the border into Nigeria to be sold at Ilesha market, for onward sale to Lagos and other large Nigerian consumer markets.

Cattle destined for Cotonou will be trucked there from Parakou. Cattle destined for the livestock markets of Lomé or Tema are generally trucked there directly from Burkina Faso without bypassing Parakou.

Drivers are not able to find backhaul in Parakou to return north. All of the drivers we spoke to in Parakou reported that they travel to the port cities in order to find a load. At the time this study took place, the most popular port to go to from Parakou was Lomé, however some driver did report going to Cotonou or Tema to find loads. The choice of port depends on the drivers' perceived ability to find backhaul at the port. They may get this information from hearsay, through their connections or it may simply be their habit to go to a particular port.

The drivers almost always travel to the port cities from Parakou empty. Depending on which port, this is approximately a 500-600km journey and takes at least a day to complete.

Once at the port, waiting times for loads vary, as do the systems for finding loads. Trucks wait anywhere from 1 week to several months at the port for their load, before travelling back north to Burkina Faso or Niger. As the trucks used to carry livestock are general trucks, they can carry a variety of commodities on the northbound journey. The most common products are cement, manufactured import goods, rice, flour, oil, machinery, and sugar, mostly destined for Ouagadougou or Niamey.

There is an important trade imbalance between the landlocked countries of Burkina Faso and Niger, which means that there is much greater demand for northbound transport than southbound transport. The main commodities transported from the landlocked countries to the coastal countries are cotton, cashew, livestock, shea, sesame, minerals and metals. However, the volume of trade flowing in this direction is much lower than from the coastal cities to the north. Drivers reported that at certain times of the year, up to 80% of the trucks arriving at the ports have made the journey from Burkina Faso or Niger empty. This is, however, highly dependent on the season. During the cotton season, as well as during particular holidays (Christmas and Tabaski, which greatly increase demand for livestock in the south), demand for southbound transport is much greater and far more trucks will be travelling southbound and fewer will be empty. The drivers are willing to make the southbound journey empty, because they know that they will, eventually, find a load at the port.

The seasonality in demand for southbound transport is a major determinant of waiting times at ports and the ease of finding backhaul. The more trucks arriving at the port, the greater the supply of trucks for northbound transport and the longer the drivers will have to wait to find a load.

Drivers reported that as a result of the difficulty of finding backhaul at the port, as well as the delays and harassment they face on the road, they are only able to make an average of just one round trip per month between the port cities and Burkina Faso/Niger. For a round trip journey of approximately 2000-2500km, this is a very low amount of monthly journeys. Most interviewees stated that three round trips per month would be possible if journeys were smooth and backhaul was efficient. The opportunity cost of the inefficient backhaul is thus extremely low asset turnover for the transport companies operating along the corridor.

Drivers do not generally arrange backhaul in advance, there is simply not enough information about freight availability to make this possible. Overall, it was surprising to the research team that drivers and transporters did not consider the difficulty in finding backhaul or waiting times at ports to be a major problem in their business, and appeared to just accept it as normal. On the whole, drivers and transporters are far more concerned about road harassment and the problems they face along the corridor roads.

### 3.2 TRANSPORT PRICES AND RELATIONSHIP TO BACKHAUL

The following tables and figure shows the average reported transport prices for livestock, as well as a comparison with other global transport markets.

**TABLE 1: TRANSPORT PRICES OBSERVED FOR LIVESTOCK AND BACKHAUL FROM PORT CITIES**

Southbound: Livestock	Transport for 40T Truck, approximately 45 heads of cattle (FCFA)	Transport for 40T Truck, approximately 45 heads of cattle (USD) <sup>11</sup>	Transport cost per head of cattle (USD)	Approximate distance (KM)	Transport price per 40T truck per KM (USD)	Transport price per ton per km (USD)
Fada N'Gourma-Tema	900,000	1,797	40	1120	1.60	0.04
Fada N'Gourma-Lome	600,000	1,198	27	780	1.54	0.04
Fada N'Gourma-Parakou	468,750	936	21	470	1.99	0.05
Pouytenga-Parakou	525,000	1,048	23	565	1.86	0.05
Northbound: all products	Transport for 40T Truck (FCFA)	Transport for 40T Truck (USD)		Distance (KM)	Transport price per 40T truck per KM (USD)	Transport price per ton per km (USD)
Lome -Niamey	1,425,000	2,845		1070	2.66	0.07
Lome-Ouagadougou	1,400,000	2,795		950	2.94	0.07
Cotonou-Niamey	1,600,000	3,194		1040	3.07	0.08

**TABLE 2: TRANSPORT PRICES PER TON PER KM IN COMPARISON TO OTHER COUNTRIES**

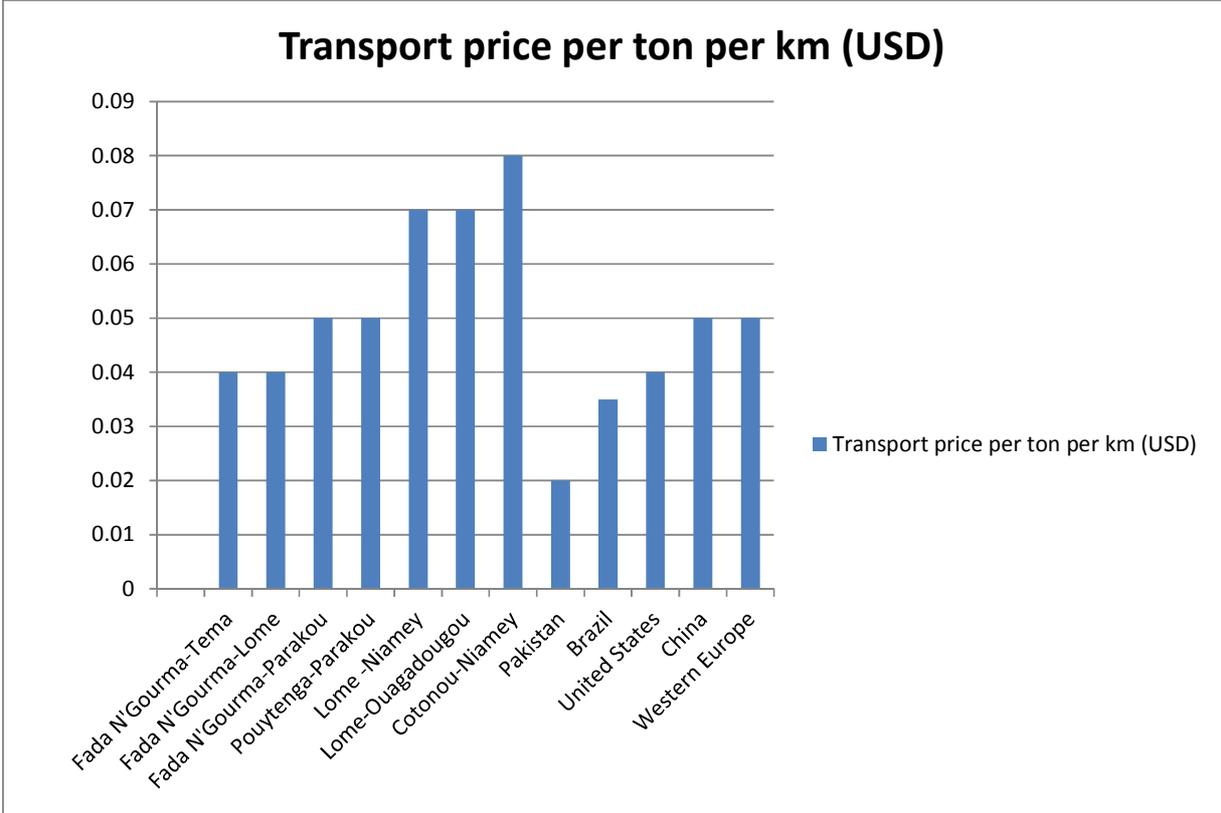
Route	Transport price per ton per km <sup>12</sup> (USD)
Fada N'Gourma-Tema	0.04
Fada N'Gourma-Lome	0.04
Fada N'Gourma-Parakou	0.05
Pouytenga-Parakou	0.05
Lome -Niamey	0.07
Lome-Ouagadougou	0.07

<sup>11</sup> Exchange rate Usd/XOF: 500.86, mid market as at 4/12/13

<sup>12</sup> Transport prices for Pakistan, Brazil, United States, China and Western Europe are taken from "Transport Prices and Costs in Africa, Teravanithorn and Rallaband. The World Bank"

Cotonou-Niamey	0.08
Pakistan	0.02
Brazil	0.035
United States	0.04
China	0.05
Western Europe	0.05

**FIGURE 1: TRANSPORT PRICES PER TON PER KM IN COMPARISON COUNTRIES**



The analysis of transport prices observed along this corridor shows that on southbound routes, prices are comparable to other global markets. However, on northbound routes, prices are significantly higher than global benchmarks, more than double those in comparable developing country markets such as Brazil and Pakistan.

The lower prices on the southbound routes reflect the relative supply and demand for transport in this direction. As a result of the trade imbalance, there is an oversupply of trucks, and, as noted, drivers reported that at certain times of the year, up to 80% of the trucks arriving at the ports have made the journey from Burkina Faso or Niger empty. The drivers are willing to make the southbound journey empty, because they know that they will, eventually, find a load at the port to travel northbound. *The price on the northbound leg is increased to take account of the lack of demand for transport on the southbound leg.*

Our data reflects this: northbound prices are high. In all cases, interviewees (both transporters and livestock traders) agreed that the inefficiency of backhaul and freight

allocation was a major determinant of costs for transport companies operating on this corridor. Transport companies have to charge high prices for northbound journeys to cover their costs of empty front hauls and idle time at ports.

Put starkly, most of the southbound journeys are made empty, trucks are waiting several weeks or more at the port to find freight, and as a result of delays on the road combined with port waiting times, trucks are only able to complete an average of one 2000-2500km return trip per month. Interviewees reported that in an ideal scenario they would be able to complete three round trips per month.

The direct cost of the empty journeys and opportunity cost of the idle labor and physical assets sitting at the port waiting for a load is extremely significant. While the main cause of the empty southbound journeys is the trade imbalance between the coastal countries and the Sahel, the waiting times at ports represent a major inefficiency in the West African transport system.

It is difficult to assign an accurate number to the opportunity costs of the idle assets as interviewees were unable to accurately estimate their operating costs and profits along the corridor, particularly taking into account fixed costs like amortized truck cost. However, WATH<sup>13</sup> estimates that trucking profits on West African transit corridors are around 20%. This means that if transport companies were able to increase their asset turnover through more efficient backhaul and do three round trips per month per truck, they could potentially triple their profits without any further investment, as well as reducing prices.

However, transporters did not seem to realize the extent of this opportunity cost. Although they agreed that waiting times at ports were too long, they do not think of it in terms of a cost. Every transporter/driver we spoke with was furious about road harassment, stating that port waiting times and backhaul was the least of their concerns when the harassment issues on the road were so terrible. Transport cost studies undertaken by the ATP and EATP projects show that road harassment costs are actually rather insignificant in terms of overall transport costs: only 2-7% of total transport costs for staple foods travelling along West African corridors. This study suggests that the opportunity costs of port waiting times are much more significant than road harassment costs, and should be viewed by transport companies as a far more pressing problem.

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<sup>13</sup> WATH (September 2010). "Trucking to West Africa's Landlocked Countries: Market Structure and Conduct".

### 3.3 SPECIFIC ISSUES AND WAITING TIMES AT PORTS

At a broad level, the problems faced by drivers waiting for loads at the ports of Tema, Lomé and Cotonou are the same:

- Long waiting times, drivers and trucks idle at ports often for many weeks;
- Lack of information on available freight and upcoming loads; and
- Complete informality both in the system for arranging freight and in the transport itself.

Previously, these ports operated a “first come first served” queuing system, managed by the truckers unions and associations at the port. Under this system, each arriving driver registered with his transport association, joined the back of the queue, and waited his turn to receive a load. However, numerous research studies recommended that this system be dismantled because in the absence of a free market to allocate freight, there was no incentive for trucking companies to improve service, productivity and efficiency.<sup>14</sup> As a result, this system no longer operates at any of the ports and freight is now mostly allocated on an informal basis through agents, or “cozers” for a fee. While the shippers unions and transport associations still get involved, the allocation of freight is largely done between the drivers waiting at the port and the agents. The tenacity of the driver and his connections to agents at the port all play into the speed he will be able to arrange a load. It is important to note that general trucks (used to transport livestock) are able to find freight more easily than flat-bed container trucks.

Another consideration is the freight sharing rules/quota system which emanate from the bilateral trading agreements between West African nations. They dictate that cargo destined for Sahelian countries should be shared on a 2/3 and 1/3 basis. 2/3 of all cargo destined to the Sahelian country should be reserved for trucks from that destination country and the other third can be claimed by the port country truckers.<sup>15</sup> The truckers associations and shippers councils in the ports try to enforce this rule. However, they all stated that it is hard to enforce in practice as the supply and demand for trucks for certain destinations constantly varies, therefore they have to have flexibility in how they apply the rules. Secondly, with the high degree of informality in arranging freight (directly through agents at the port), this rule is not well respected.

Waiting times vary from a few days to several months. While the drivers wait for a load, both they and their trucks sit idle at the port. The drivers simply camp in makeshift tents under and between their trucks. The conditions are not ideal for these men, there are few sanitary facilities. Prostitution and petty crime are common.

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<sup>14</sup> WATH (September 2010). “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”.

<sup>15</sup> “Organised Chaos”: Analysing Governance in the Private Transport and Trucking Sector, Ghana”. The IDL Group.

**TABLE 3: SUMMARY OF PORT WAITING TIMES**

Port	Waiting time for general 40T truck	How is freight allocated?	Average reported service fee for 40T truck
Tema	2-3 weeks, often up to 2 months	Informally, through agents or "cozers"	50,000 FCFA
Lomé	3-4 weeks	Through transport associations/union	Nominal fee paid to transport association/union
Cotonou	4-7 days, up to 1 month	Informally, through agents or "cozers"	100-150,000 FCFA

### 3.3.1 TEMA

The worst waiting times were observed in Tema. Trucks spend a minimum of 2-3 weeks and often up to 2 months waiting for freight. Thanks to the trade imbalance between Burkina Faso and Ghana, an average of 60% of the trucks arriving in Tema have travelled from Burkina empty to find freight at the port. However, this is seasonal. Between November and January (Tabaski, Christmas, plus the harvests of Cotton, Cashew, and Shea) this reduces to 40%, but also means there are many more trucks waiting at the port to find backhaul and waiting times get longer. The trucks simply wait at the port until they find a load, and are never willing to leave the port empty handed.

Previously, a "first come first served" queuing system was in place at the port, which included a fixed price list for transport and was operated in conjunction with the transport unions at the port. However, this has been dismantled as a result of study recommendations to liberalize the system. There is no formal system in place for finding and allocating backhaul now. The truckers associations and shippers council, in most cases, have minimal involvement. The transporters rarely even declare their arrival at the port to the authorities and CBC has no official visibility over the trucks and/or the goods coming in and out of the port.

Now, the drivers themselves arrange the backhaul themselves, mainly through the "cozers" or agents who match-make the goods (via freight forwarders) to the available trucks. Occasionally this is still done through the truckers associations at the port, but rarely. The fee paid by the drivers to the "cozer" is usually FCFA 50,000 per load at Tema. Transport prices are negotiated between the driver and the shipper via the cozer and freight forwarder.

The lack of information on availability of trucks and availability of freight is absolutely crippling to efficient freight allocation. This is precipitated by the informality and unprofessionalism of the drivers, who no longer even make official declarations of their arrival at the port. The port authorities and transport associations/shippers unions do not have any visibility on trucks at the port. The transporters are unable to arrange any backhaul in advance and information is hard to come by even on arrival at the port. Arranging backhaul depends on the driver's tenacity and connections, which means they are often waiting at the port for up to 2 months.

### **3.3.2 LOMÉ**

The freight allocation at Lomé is more formal than in Tema and as a result the system appears to run more smoothly. However, waiting times can still be long, depending on the availability of freight at the port and the supply of trucks.

At the time of this study (March 2013), the wait time was reported to be 3 to 4 weeks. However, it can reportedly be as short as 1 week at times when there are fewer trucks and more freight. According to interviewees, for around 5 months out of each year there is sufficient freight to keep waiting times down to 1-2 weeks. As in Tema, the truckers camp at the port while they are waiting.

According to interviewees at the port, the main reason for the lack of freight at the moment is that Lomé is poorly competing with the other ports on the West African Coast, in particular with Cotonou and Tema, which now getting more freight because they have a functional "guichet unique".

Thanks to the trade imbalance, 10-50% of the trucks arrive in Lomé empty, the figure depends on the season. When trucks arrive in Lomé, they make a declaration to the transporters union (for example, OTRAF or UNATROT) who allocate the freight. The transport union then works with the various shippers councils to allocate freight. Prices are negotiated between the shipper/freight forwarder and the transport union. They do not have a fixed price list.

Previously they used a strict first in first out queuing system, and although this is no longer officially in operation, they realize that it is really the only fair way to allocate freight in practice. So, OTRAF and UNATROT base the allocation on first in first out in principle, but there is some flexibility now. There are no fixed prices, prices are all negotiated by the shipper and the shipper can choose which truck he wants to take (they are no longer obliged to accept poor quality vehicles). In theory they try to stick to the "1/3 2/3 rule", but in reality it is not well respected.

Because the unions arrange the freight and negotiate prices on behalf of the truckers, there is no real competition between the trucks to find freight; it is all allocated by the union. However, the trucks are not obliged to take part in this system, and can arrange their own backhaul privately. Larger companies, for example, operate outside this allocation system and arrange everything themselves. However, larger companies feel that the unions control the system too heavily, that it is not liberal enough and that there is not enough information available to them to encourage competition in the market.

### **3.3.3 COTONOU**

The situation for freight allocation in Cotonou is similar to Tema, except that the waiting times are lower. Waiting times observed during this study were 4-7 days for general trucks. However, it was reported that waiting times can go up to 1 month. Longer waiting times are caused by seasonal patterns of more trucks arriving at the port

leading to oversupply. Also, interviewees complained that competition between the West African ports led to these longer waiting times.

As in the other ports, Cotonou no longer operates a queuing system for freight allocation, and the formal system for arranging freight has been dismantled. It is now a system of "free allocation": all freight is arranged informally through agents or "cozers", for an average fee of 100-150,000 FCFA per 40T truck. The cozers work with freight forwarders to organize freight. The unions play only a small role in allocating freight, and although they are ostensibly there to provide assistance to drivers and shippers, the drivers saw little value in them. In speaking with the transport unions at the port, they had very little knowledge of how freight was allocated, how long waiting times were, or the conditions of the drivers awaiting freight.

Other problems raised by interviewees at Cotonou include a complete lack of formality and lack of any type of formal contracting, and lack of respect for rules at the port like parking areas and times. There is a pervasive sense at Cotonou of a massive top-heavy bureaucracy consisting of the various unions, associations and government departments, all of which add very little value. While further investigation of this pattern is outside of scope of this study it would be interesting to evaluate the value addition by these organizations and recommend ways in which to streamline the bureaucracy.

## 4. RECOMMENDATIONS

### 4.1 INFORMATION SYSTEM/FREIGHT EXCHANGE

It is clear that the main cause of inefficient backhaul allocation and port waiting times is a complete lack of information on both the shippers' and transporters' sides, as well as a lack of integrated communication system for matchmaking freight to available transport. Particularly now that formal freight allocation systems at the ports have largely been dismantled, this lack of information is absolutely crippling to trucking operations.

If this information and system was available, transporters would be better able to plan their trucking operations, arrange backhaul in advance, make an informed decision about which port to go to or whether to go to the port at all, and avoid their human and physical capital sitting idle at ports. Many previous studies have recommended the implementation of a freight exchange system in West Africa, and the need remains extremely relevant. The CBC has been trying to get a freight exchange system "bourse de fret" off the ground for many years, but lack the technical capacity and financial resources to implement it. Establishing a West-Africa-wide freight exchange system is extremely challenging, particularly given that several different countries are implicated. Aligning incentives for information and price sharing in a multi country, multi-language, multi-port, multi-destination situation will be very difficult. Furthermore, physical IT infrastructure and end user IT literacy are also major considerations in West Africa. The CBC recently commissioned a report (October 2012) "Mise en place d'une bourse physique de fret au sein du Conseil Burkinabe des Chargeurs", which details the need for a *bourse de fret* (reflecting many of the findings of this study) and how it could operate. It is clear that large scale, long term intervention including both technical assistance and financial resources, is needed to get a workable system off the ground.

There exists an operational system in other parts of Africa, which could be emulated. In Zambia, a web based system, TransZam, has been developed to allow truckers to arrange for freight and backhaul in advance and share information with other transporters<sup>16</sup>. The system also caters to farmers and allows registered transporters to share information on their truck availability to farmers looking to get their products to and from markets<sup>17</sup>.

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<sup>16</sup> USAID/Southern Africa Trade Hub. "Technical Report: Road Freight Transport Service Diagnostic Study". December 2011

<sup>17</sup> "Zambia National Farmers Union Launches e-transport System". Zambia Daily Mail. 6 July 2011. Web. 3 March 2013.

## **4.2 INFORM TRANSPORT COMPANIES OF THE OPPORTUNITY COST**

Although transporters consistently state that their biggest concerns are road harassment and problems they encounter along the road with uniformed officials, this study showed that inefficient backhaul should actually be a far greater concern for transport companies.

Transporters and drivers seem to accept the current backhaul situation as the norm, whilst they are totally furious about road harassment. However, the direct costs of empty journeys and idle capital sitting at the ports, combined with the opportunity cost during waits for a load at the port, are far more significant than the cost of road harassment, relative to overall transport costs. Trucks could be making three times as many round trips than is currently possible if an efficient system for allocating backhaul was in place.

Support from the private sector is essential if any large scale changes are to be made to the system for allocating backhaul. For instance, a region-wide freight exchange could only be implemented with support from regional transport companies and their willingness to share information.

Informing the private sector of how this problem affects them is the first step in building advocacy and support to change the status-quo.

## **4.3 CLARIFY ROLES OF UNIONS AT PORTS, REDUCE BUREAUCRACY**

Now that the "first in first out" queuing system has been dismantled, the transport associations and shippers unions have less well- defined roles at the ports. This is particularly true in Tema and Cotonou, where the transport unions now play a minimal role in freight allocation. At Cotonou especially, it was unclear to drivers and transporters (as well as the research team), what purpose the transport unions were playing in terms of freight allocation and helping transporters to find backhaul. The bureaucracy at the port appeared overbearing.

It is important to evaluate the role of these various associations and determine their value-addition. There is clear scope for streamlining these organizations and clarifying their role.

## **4.4 IMPROVE FACILITIES FOR TRUCKERS WAITING AT PORTS**

Port waiting times are long, drivers are sometimes waiting up to 2 months at the ports to find a backhaul load. While they wait, many of them simply camp at the port in makeshift tents beside their trucks. There are few sanitary facilities and problems like petty crime and prostitution are common. The Abidjan-Lagos Corridor organization is working to reduce STI/HIV/AIDS targeting mobile populations at the ports. This initiative

remains extremely relevant. Improving lodging and sanitary facilities at the ports would also be beneficial.



# ANNEX A: DESK REVIEW

## LITERATURE REVIEW: BACKHAUL ISSUES FOR LIVESTOCK IN WEST AFRICA

Transport in West Africa is characterized by a low transport quality and high prices despite relatively low fixed costs (wages). Along with fuel prices, bribes, fees, and maintenance costs, inefficient hauling contributes to higher transport costs<sup>18</sup>. The literature on backhaul, the transport of goods on a return journey, and trucking efficiency in West Africa has mostly focused on northbound transport, from coastal countries to the landlocked Sahel countries. However, it is a problem faced by both truckers moving goods from coastal countries and truckers moving good from landlocked countries, although to a lesser degree. In West Africa, truckers' ability to find backhaul is affected by trade flows and demand patterns, transport regulations, and cumbersome ports procedures.

An efficient hauling system would significantly contribute to the reduction of transport costs along West Africa's trade corridors and translate into lower transport prices. West Africa has one of the highest transports prices despite the relative low labor costs. In comparison, in Pakistan, where labor costs are also cheap and road infrastructure is also in need of improvement prices manage to be more competitive and vehicle utilization is greater than found on most West African corridors<sup>19</sup>. The probability of finding backhaul directly affects transport prices. The higher the probability, the lower the prices will be for both fronthauls and backhauls<sup>20</sup>. When truckers are able to arrange or ensure backhauling they can better maximize vehicle and labor utilization, reduce fuel costs and mileage usage, offer lower prices, and make a profit<sup>21</sup>. Whenever a truck is running empty it is only incurring costs without generating any revenue. If a trucker makes a trip with the knowledge and assumption that he will be returning empty, the added costs will be reflected in transport and customer prices. Transporters who do not expect to find backhaul or are prohibited by law to pick up backhaul for transport back to their country of origin will naturally charge higher prices to clients to compensate for the fuel and labor costs and match the opportunity cost of making the delivery. On the other end, transporters who do find goods to transport back often offer a discount on their return leg. In 2011, transporters along the Bamako – Abidjan corridor generally offered a 30 FCFA (6.0 cents) to avoid empty backhauls.

Finding backhaul can be eased by planning and scheduling return legs in advance. Developing and deepening partnership with other transporters goes a long way towards improving the probability of finding backhaul. Other mechanisms include relying on return load operations, online freight exchanges, freight forwarders and

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<sup>18</sup> Nathans Associates Inc. "Impact of Road Transport Industry Liberalization in West Africa". USAID. February 2012

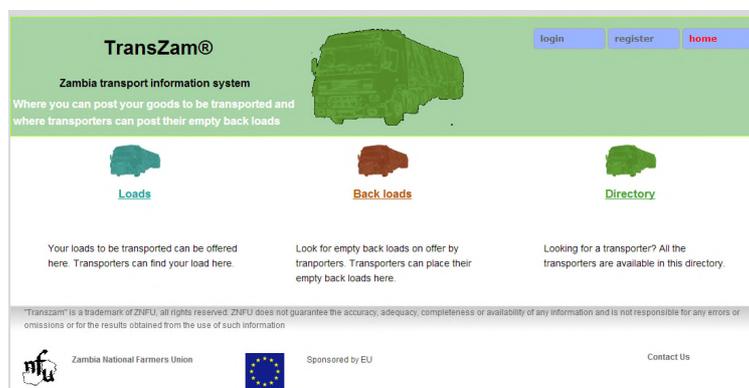
<sup>19</sup> Teravaninthorn, S and G. Raballand. "Transport Prices and Costs in Africa: A Review of the Main International Corridors". World Bank. July 2008

<sup>20</sup> Jones, John Travis. "The Economic Impact of Transborder Trucking Regulations".

<sup>21</sup> "Make Back-Loading Work for You". Transport Energy Best Practice Programme – UK. August 2005.

pallet networks are used in Europe to arrange for backhaul but the West African transport system might not be ready for that yet<sup>22</sup>. Given the penetration of telecommunications in West Africa, mobile-based rather than web-based freight exchange platforms could be used to facilitate information sharing between transporters.

In comparison to West Africa, East and Southern African countries, although they still face issues with hauling, have made strides towards improving hauling. In Zambia, a web based system, TransZam, has been developed to allow truckers to arrange for freight and backhaul in advance and share information with other transporters<sup>23</sup>. The system also caters to farmers and allows registered transporters to share information on their truck availability to farmers looking to get their products to and from markets<sup>24</sup>.



**TransZam**

## TRADE IMBALANCE

A trucker's probability of finding goods for his or her inbound trip depends on demand patterns along the corridor served. Demand is highly seasonal and positively correlated to population density. Truckers are generally less concerned about finding backhaul when they serve destinations with high population densities or within a short distance<sup>25</sup>. It follows that in West Africa, trade flows from landlocked countries to the major ports are much less important than the flows coming from the coasts and destined to the hinterland. This important difference creates a trade imbalance and makes it difficult for trucks making the trip back to Burkina Faso or Benin to find backhaul, except during seasons of high export from Sahelian countries (religious holidays for livestock). Most truckers end up travelling back with an empty or partial back-load, adding up to transport costs and reducing trucking efficiency. Due to the imbalanced demand between the two ends of the Bamako – Abidjan corridor, only 20% of transporters are usually able to find backhaul for the trip back from Bamako. To make up for the

<sup>22</sup> Make back-loading work for you (Transport Energy Best Practice Programme – UK)

<sup>23</sup> USAID/Southern Africa Trade Hub. "Technical Report: Road Freight Transport Service Diagnostic Study". December 2011

<sup>24</sup> "Zambia National Farmers Union Launches e-transport System". Zambia Daily Mail. 6 July 2011. Web. 3 March 2013.

<sup>25</sup> "Measuring World Transport Performance". Annex 1. World Bank.

potential loss in profits truckers charge higher prices for northbound trips. The fronthaul load has to bear the costs of both trips.<sup>26</sup>

## TRANSPORT REGULATIONS and PORT PROCEDURES

Efficient hauling along the West African corridors, both for goods leaving the Sahel countries for the port cities and for goods destined to the landlocked countries, is also hindered by policy regulations, especially regarding cabotage<sup>27</sup>, and port and clearance procedures such as the “first come, first served” queuing systems. Cabotage allows a foreign country truck to transport goods domestically, thus enabling foreign truckers to transport goods within that country until they find goods to backhaul to their country of origin. The interdiction to partake in cabotage increases the incidence of trucks making their empty return trips. This contributes to higher transport costs, since fuel and labor is used but no profit or commission is made, and discourages truckers from making trans-border trips in the first place. An anti-cabotage can be circumvented by paying a fee but this also racks up haulage rates and renders exporting from Sahelian countries uncompetitive<sup>28</sup>.

In the presence of anti-cabotage rules, if the only available commodities are meant for the country of destination country’s domestic market or a third country, the foreign trucker can either make an empty return trip home or wait and hope for goods destined to his home country to be available for transport<sup>29</sup>. This hinders transport efficiency. The trucker has to either drive empty, waste time and labor waiting at ports or other points of sale, or pay a fee which will also translate into higher transport costs.

Truckers who are not affected by rules against cabotage still face delays at ports when looking for loads to transport back. The delays are most often caused by the implementation of quota systems and the “first come, first served” queuing system<sup>30</sup>. The quota systems come from bilateral trading agreements and they dictate that cargo destined for Sahelian countries should be shared on a 2/3 and 1/3 basis. 2/3 of all cargo destined to the Sahelian country should be reserved to that country and the other third can be claimed by the port country truckers<sup>31</sup>. Even if the foreign truckers offer better prices and better service they either have to wait at the port for more loads to come, pay a fee in order to transport goods to that country, or return home empty.

In the ports of Cotonou and Lome, the Conseil Nigerien des Utilisateurs des Transports Pubic (CNUT) enforces both a 1/3 – 2/3 quota system and the “first come, first served” queuing system. Trucks registered outside Niger have to pay a fee for each load in its 2/3 share in order to carry them to Niger. Non-Nigerien trucks could offer lower rates than the Nigerien fleet but are limited to their 1/3 maximum share of the market, that is if they are not third-country truck. Because the Nigerien fleet does not have to

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26 WATH (September 2010). “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”.

27 Nathan Associates Inc. “Impact of Road Transport Industry Liberalization in West Africa”. USAID. February 2012.

28 WATH (September 2010). “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”.

29 Jones, John Travis. “The Economic Impact of Transborder Trucking Regulations”. Routledge. June 1999

30 West Africa Trade Hub/USAID. “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”. September 2010.

31 “Organised Chaos”: Analysing Governance in the Private Transport and Trucking Sector, Ghana”. The IDL Group.

compete to obtain 2/3 of the loads destined to Niger, they have no incentives reduce their prices or improve their fleet<sup>32</sup>.

However, most ports operate abide by freight quota agreements to different degrees. Whereas they are rarely observed at the port of Tema, for instance 50 % of cargo destined to Burkina Faso is often carried by Ghanaian truckers<sup>33</sup>, they are more strictly observed on the Lome to Ouagadoudou leg<sup>34</sup>. Still, the agreements tend to be ignored when it comes to southbound trade. The allocation of southbound cargo is not regulated and a third country truck, from Ghana for example, can sometimes haul export freight from Burkina Faso to Lome.

The “first come, first served” queuing system is often implemented along with the quota system. It is as detrimental to efficient trucking because it:

- Increases costs and reduces profitability since all trucks, even poorly maintained ones, have access to the port, which increases waiting time.
- Reduces truckers' incentives to invest in better trucks or ensure better maintenance, since cargo is not allocated on performance.
- Encourages bribes paid to bypass the queue.

## TRANSPORT COSTS AND TRANSPORT PRICES IN WEST AFRICA

According to Teravaninthorn and Raballand<sup>35</sup> reductions in fuel costs and road infrastructure improvement have the highest impact on transport costs. However, in West Africa, reductions in transport costs do not always translate into a reduction of transport prices due to the presence of strong cartels. Teravaninthorn and Raballand suggest that the focus should be on the deregulation of transport in Africa and pursuing policies that would reduce the variable costs related to transport, mainly fuel, by reducing fuel taxes. A 2012 study by Nathan Associates<sup>36</sup> also supports the idea that trucking and trucking association cartels in the landlocked countries drive prices for transporting strategic goods higher. The existence of those cartels makes the transport market deregulation problematic since they would resist efforts to lower prices.

Although the consensus seems to be that the existence of cartels and oligopolies along West African corridors lead to high prices that do not reflect actual transport costs, a WATH<sup>37</sup> report found that this was not a rule along all corridors. Although some corridors suffer from this problem (mostly those leading to Niger), they did not find a significant difference between costs and price along the corridors emanating from Abidjan and Tema. Instead, the profit margin made by transporters on most corridors averaged to

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<sup>32</sup> West Africa Trade Hub/USAID. “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”. September 2010.

<sup>33</sup> West Africa Trade Hub/USAID. “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”. September 2010.

<sup>34</sup> West Africa Trade Hub/USAID. “Regional Agricultural Transport and Trade Policy Study”. March 2011.

<sup>35</sup> Teravaninthorn, S and G. Raballand. “Transport Prices and Costs in Africa: A Review of the Main International Corridors”. World Bank. July 2008.

<sup>36</sup> Nathan Associates Inc. “Impact of Road Transport Industry Liberalization in West Africa”. USAID. February 2012.

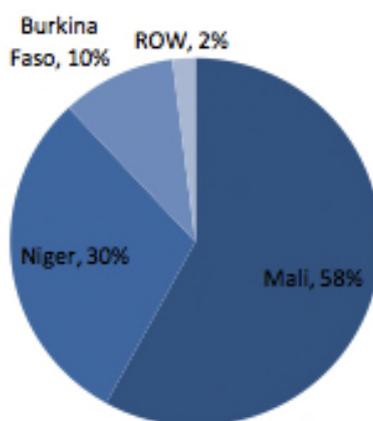
<sup>37</sup> West Africa Trade Hub/USAID. “Trucking to West Africa’s Landlocked Countries: Market Structure and Conduct”. September 2010.

20%. In addition, freight forwarders and independent truckers are also increasingly circumventing oligopolies by directly negotiating alternatives. Reducing this differential remains crucial because it undermines any savings that comes from efforts to reducing transport costs, be it by focusing on road improvement, tackling bribes, or improving hauling efficiency.

The deregulation and liberalization of the West African trucking market and the creation of a single ECOWAS region would facilitate backhauling, especially for northbound trade, at the very least.

#### BACKHAUL ISSUES AND TRADE IN LIVESTOCK

Livestock rearing contributes to nearly 44% of the agricultural GDP in West Africa and driven by a strong demand. In 2008, the OECD<sup>38</sup> estimates that the West African demand for livestock is growing by 4% annually and expects it to increase by more than 250% by 2025. West African trade in the livestock generally flows from the Sahelian landlocked countries (Mali, Burkina Faso, and Niger) down to the coastal countries. Urban hubs are the main source of demand for Sahelian livestock, especially in the coastal countries (Benin, Cote d'Ivoire, Nigeria, and Ghana)<sup>39</sup>. Given the constraints of the market, WATH reports that the livestock value chain still manages to operate efficiently. Most of the transport is done by truckers from informal-sector and involves multiple intermediaries, which adds to the cost of trade<sup>40</sup>.



Average Imports of Livestock into ECOWAS countries: 2005-2009<sup>41</sup>

Traders usually rent high-walled 40-ton trucks to transport about 35 cattle. One of the shortest journeys is the one from Burkina Faso to Ghana and it usually takes 27 – 30 hours. However the length of journeys is highly dependent on whether the cattle fall sick, the mortality rate, and the number of stops for grazing. Depending on how well the journey is organized, all cattle can arrive at their destination alive.

<sup>38</sup> "Livestock and Regional Market in the Sahel and West Africa: Potentials and Challenges". OECD. 2008.

<sup>39</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

<sup>40</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

<sup>41</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

Information on prices is shared and circulated via social trading networks and mostly via phone or in person. Traders often use Sahel-based 'brokers' who link southbound freight to southbound trucks (Andy Cook). In Niger, livestock producers and traders do have access to a livestock market-information system that collects, processes, and disseminates national livestock prices<sup>42</sup>. A regional market-information system does not exist and could be too complex to attempt to set up now. Difficulties that could arise include ensuring that the cattle compared have the same reproductive value or state of health. WATH<sup>43</sup> suggests that a regional information system would have to wait for the addition of commercial processed-meat as a commodity to the livestock value chain.

Suggestions to improve the efficiency of livestock transport include using trucks built purposely for the freight of livestock cattle. However, this would affect the potential use of those trucks to transport other goods on return trips or alongside cattle during outbound trips, and further lower the probability of finding backhaul.

Because finding backhaul is more difficult to do for truckers from coastal countries, actors involved in the transport of livestock should be less affected by the backhaul problem. According to a WATH 2012 study on the Lome-Ouagadougou corridor<sup>44</sup>, transport and logistics costs for southbound trade is less than 57%. Trips from Lome to Ouagadougou are more frequent and expensive because they account for an empty trip from Ouagadougou back to Lome. Because the trade in livestock is mostly southbound, it should suffer less for higher transport costs tied to backhaul. In fact, truckers returning to the port cities and who are familiar with who are familiar with livestock and livestock handlers are more likely to be attracted to livestock as a backhaul. They know the livestock markets and their days of operation and can check towards the end of the market day to see if there are commercial herds going south<sup>45</sup>. This is especially during periods of high demand for livestock (religious holidays) when the competition for and higher demand southbound cargo reduces transport costs.

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<sup>42</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

<sup>43</sup> West Africa Trade Hub/USAID. "Regional Agricultural Transport and Trade Policy Study". March 2011.

<sup>44</sup> West Africa Trade Hub/USAID. "Transport and Logistics Costs on the Lome-Ouagadougou Corridor". January 2012

<sup>45</sup> Cook, Andy. "Research on Backhaul and Transport Costs in West Africa". E-mail to Hadiatou Barry. 5 March 2013.

# **ANNEX B: SURVEY INSTRUMENTS**

## LIVESTOCK TRANSPORTATION AND BACKHAUL SURVEY

This survey is being carried out by CARANA Corporation under the Agribusiness and Trade Promotion (ATP) Project. The ATP project is a West Africa regional project funded by USAID. The purpose of the survey is to measure the impact of port waiting times and the difficulties in finding backhaul commodities on transportation costs associated with moving Livestock from production zones to consumer markets in West Africa. By identifying the current practices, the project aims to identify ways of reducing excess transport and logistics costs, and thereby increasing sales product value to producers and reduce costs to consumers.

Thank you

### Livestock Transporters: End of Corridor

Family Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Date: \_\_\_\_\_

Gender: Female Male

1. Identification Number : \_\_\_\_\_
2. Type of truck: \_\_\_\_\_
3. Country of vehicle registration: \_\_\_\_\_
4. # of trips in the last four months? \_\_\_\_\_
5. # of trips with trucks returning empty in last four months? \_\_\_\_\_
6. Route followed for transporting livestock from corridor origin city to destination city: \_\_\_\_\_

1. Who are your main clients requesting transport of livestock?  
Small livestock producers  
Large livestock producers  
Traders  
Other (please specify): \_\_\_\_\_

2. Where did you initially load your truck? \_\_\_\_\_

3. How much do you charge (per kilo/per head/per ton: specify unit) for transporting livestock?  
\_\_\_\_\_

4. When are you paid by the producer/trader using your services?  
Upon loading of the goods  
Upon return  
Other (please specify): \_\_\_\_\_

5. What are the most frequent final destinations for sale?  
\_\_\_\_\_

6. How easy is it to find commodities for your return trip (backhaul)?  
 Very easy  Somewhat easy  Difficult  Very difficult

7. Where do you find commodities for your return trip (backhaul)?  
Port  
Local markets

Other (please specify): \_\_\_\_\_

8. How long does it take to find backhaul (please indicate in hours or days and specify port or market)? \_\_\_\_\_

9. What goods do you transport back most often?  
\_\_\_\_\_

10. How far away (in km) from your main destination/point of sale do you have to travel to find backhaul? \_\_\_\_\_

11. Do you arrange backhaul for return trips in advance?  
 If no, why? \_\_\_\_\_  
 If yes, how? \_\_\_\_\_

12. If you wait at the port, how long does it take to find backhaul? Please specify which port:  
\_\_\_\_\_

13. Do you use dispatchers or a network of transporters to find backhaul?  
 No  
 If yes, how much do you pay them? \_\_\_\_\_

14. What do you estimate is the added cost of searching and waiting for backhaul?  
\_\_\_\_\_

15. Do you factor in the delays caused by the search for backhaul in the costs given to your clients?  
 No  
 If yes, by how much?  
\_\_\_\_\_

16. Do you ever travel back with an empty truck?  
 No  
 If yes, how often within the past year? \_\_\_\_\_

17. Do you expect your client to pay for the transport costs when returning with an empty truck?  
 Yes                       No

18. If yes, how much do you charge (per kilo/per head/per ton: specify unit) when you expect to return with an empty truck?  
\_\_\_\_\_

19. Which factors' impact transport costs the most? Write down 3 for a very important impact, 2 if somewhat important, and 1 if not important.  
\_\_ Delays in transit  
\_\_ Bribes  
\_\_ Delays from waiting for commodities to backhaul

Fuel costs

Other (please specify): \_\_\_\_\_

Thank you

## LIVESTOCK TRANSPORTATION AND BACKHAUL SURVEY

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Thank you

### Livestock Producers and Traders

Family Name: \_\_\_\_\_ First Name: \_\_\_\_\_ Date: \_\_\_\_\_

Gender: Female Male

20. How do you contract for transporting your livestock to the point of sale?

Use my own truck. Please ignore questions 5, 6, and 7.

Sell to traders who have their own trucks

Pay agent to find trucks

Ask for cost quotations from different freight companies

Other (please specify): \_\_\_\_\_

21. What are the peak sales price for your livestock (per kilo/per head/per ton: specify unit)

\_\_\_\_\_

22. What are the low sales price for your livestock (per kilo/per head/per ton: specify unit)

\_\_\_\_\_

23. Do you factor in costs related to port delays and search for backhaul in the price of your livestock?

No

If yes, by how much? \_\_\_\_\_

24. Are you responsible for arranging backhaul for the transporters you use?

Yes

No

25. Are you expected to pay an additional fee if your transporter returns with an empty truck?

No

If yes, what fee do you pay (per kilo/per head/per ton: specify unit):

\_\_\_\_\_

26. Are you responsible for additional transport costs incurred by transporters while waiting or searching for commodities to backhaul?

No

If yes, how much do you pay (per kilo/per head/per ton: specify unit):

\_\_\_\_\_

27. Which factors' impact transport costs the most? Write down 3 for a very important impact, 2 if somewhat important, and 1 if not important.

- Delays in transit
- Bribes
- Delays from waiting for commodities to backhaul
- Fuel costs
- Other (please specify)

Thank you

## LIVESTOCK TRANSPORTATION AND BACKHAUL SURVEY

This survey is being carried out by CARANA Corporation under the Agribusiness and Trade Promotion (ATP) Project. The ATP project is a West Africa regional project funded by USAID. The purpose of the survey is to measure the impact of port waiting times and the difficulties in finding backhaul commodities on transportation costs associated with moving Livestock from production zones to consumer markets in West Africa. By identifying the current practices, the project aims to identify ways of reducing excess transport and logistics costs, and thereby increasing sales product value to producers and reduce costs to consumers.

Thank you

### Truckers: Beginning of Corridor

Family Name: \_\_\_\_\_ First Name \_\_\_\_\_ Date: \_\_\_\_\_

Gender:  Female  Male

1. Type of vehicle and size: \_\_\_\_\_

2. Do you?  Own your truck  Work for a company  Other: \_\_\_\_\_

3. What are your peak and low prices for transporting livestock (for the whole truck and per cattle head)? Please provide your price for each of your destinations:

Destination	Peak Price		Low Prices	
	Whole Truck	Per cattle head	Whole truck	Per cattle head

4. # of return trips made in the last four months? \_\_\_\_\_

5. # of trips going (aller) made empty in last year, or % of trips made empty? \_\_\_\_\_

6. # of return (retour) trips made empty in the last year or % of trips made empty? \_\_\_\_\_

7. Where do you go to find backhaul after you have delivered your cargo? \_\_\_\_\_

8. Have you arranged backhaul for your return trip? \_\_\_\_\_

9. If yes how and how much did it cost? \_\_\_\_\_

10. If not previously arranged, how do you arrange backhaul at your destination? How much does it cost? \_\_\_\_\_

11. How long do you expect to wait at your final destination for cargo before making your trip back home? Seasonality? \_\_\_\_\_

12. What was the average wait at the destination to find backhaul cargo over the last year?

13. What are the main causes of the delays? \_\_\_\_\_  
\_\_\_\_\_

14. How many trips could you make every month if you weren't delayed by looking or waiting for backhaul? \_\_\_\_\_

15. What are the costs incurred while waiting to arrange backhaul? Please specify nature, amount, and unit (per km/per kilo/per head/per ton): \_\_\_\_\_  
\_\_\_\_\_

16. What are the costs of operating your truck on the return trip? Please specify the amount and nature of these costs: \_\_\_\_\_  
\_\_\_\_\_

17. How are these costs factored in your transport prices? \_\_\_\_\_

Thank you