



Impact Assessment of the Northern Corridor Performance Improvement Activities

Prepared for:

Northern Corridor Transit and Transport Coordination Authority (NCTTCA)



Quality Assurance

Impact Assessment of the Northern Corridor Performance Improvement Activities

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Final Report

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Acronyms/Abbreviations

ASYCUDA Automated System for Customs Data

BRN Big Results Now

CCTTFA Central Corridor Transit Transport Facilitation Agency

CDS Corridor Diagnostic Study

CFS Container Freight Station

COMESA Common Market for East and Southern Africa

CPCS CPCS Transcom International Limited

CPI Consumer Price Index

DRC Democratic Republic of Congo

DWT Deadweight Tonnage

EABC East African Business Council

EAC East African Community

EACMA East African Community Customs Management Act 2004

ECTS Electronic Cargo Tracking System

FEAFFA Federation of East African Freight Forwarding Association

Ft Foot

GIS Geographic Information System

HS-WIM High Speed Weigh In Motion (Scale)

ICD Inland Customs Depot

IMO International Maritime Organization

KeNHA Kenya National Highway Authority

Kg Kilogram

Km Kilometer

KMA Kenya Maritime Authority





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KPA Kenya Ports Authority

KPC Kenya Pipeline Company

KRA Kenya Revenue Authority

KTA Kenya Transporters Association

M³ Cubic Meters

MOT Ministry of Transport

MOU Memorandum of Understanding

NC Northern Corridor

NCIP Northern Corridor Integration Projects Summit

NCTTCA Northern Corridor Transit and Transport Coordination Authority

NTB Non-Tariff Barriers

OSBP One-Stop Border Post

RADDEX Revenue Authority Data Donation Exchange

RRA Rwanda Revenue Authority

RVR Rift Valley Railways

SADC Southern African Development Community

SCT Single Customs Territory

SIMBA Electronic Business System used in Kenya

SOLAS International Convention for the Safety of Life at Sea

TANCIS Tanzania Customs Integrated System

TEU Twenty-foot Equivalent Unit

TICTS Tanzania International Container Terminal Services

TMEA TradeMark East Africa

TOR Terms of Reference

TPA Tanzania Ports Authority

TRA Tanzania Revenue Authority

URA Uganda Revenue Authority







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US United States

US\$ United States Dollar

USD United States Dollar





Executive Summary

The objective of this Assignment is to enable the Northern Corridor Integration Projects Summit (NCIP) and the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) to understand the current transport cost structure along the Northern Corridor and reformulate policy that would result in further reduction transport cost along the Corridor and to guide investment in the transport infrastructure. Specifically, the study provides the following information, to guide shippers, logistics providers and policymakers in implementing further improvements throughout the corridor.

- 1. Description of the evolution of traffic volumes over the Northern Corridor since 2009;
- Quantification of changes in costs throughout the logistics chains along the Northern Corridor, showing the evolution of the transport cost along the corridor for the last five years;
- 3. Attribution of specific improvements to key policy initiatives, where possible;
- 4. Comparison of the current Northern Corridor costs and freight rates to the recent performance of the Central Corridor; and
- 5. Development of a prioritized list of policy actions to improve the corridor efficiency and further reduce transport costs.

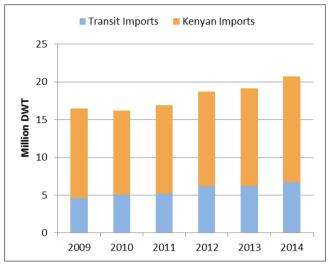
The approach combines data gathering from existing reports and online data sources with extensive consultations with freight forwarders, transporters, shippers' councils, Revenue agencies/Customs, and Transport and Trade ministry officials in all six Member States of NCTTCA.

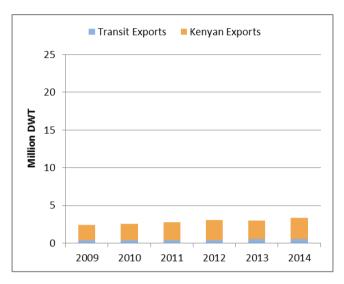
The volume of cargo at the Port of Mombasa has grown steadily over the past five years. Traffic along the Northern Corridor has also grown steadily over the period, with more growth seen in imports, as the region continues to import substantially more goods than it exports. Kenya, which is providing the primary transit corridor, is the largest economy in the East African region. Kenya thus provides the largest market for cargo coming through the Port of Mombasa (imports and exports). Furthermore, Kenya exports (or re-exports) account for a significant volume of the goods transported throughout the region.





Figure E-1: Kenyan Imports/Exports vs Transit Imports/Exports via Port of Mombasa, 2009-2014

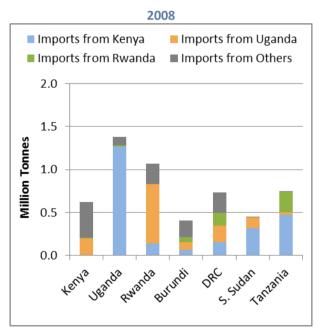


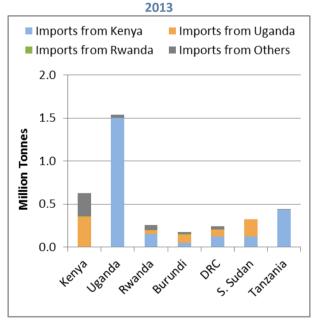


Source: KPA

However, the total value of intra-regional trade (defined here as trade between Kenya, Tanzania, Uganda, Rwanda, Burundi, the Democratic Republic of Congo (DRC), and South Sudan) has also grown since 2008, from an estimated 3.6 million tonnes to 5.4 million tonnes in 2013.

Figure E-2: Intra-regional Trade, 2008 vs. 2013





Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper. <>"> thttp://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188&Itemid=160>> the company of the c

Corridor performance can be measured in terms of average transit time, direct cost (trucking, rail or pipeline from Mombasa to inland destinations, and clearance charges) and indirect cost (including both demurrage charges paid and the hidden cost of additional trucking capacity





required because of en-route delays and additional inventory required to be held by shippers because of the unreliability of the logistics chain).

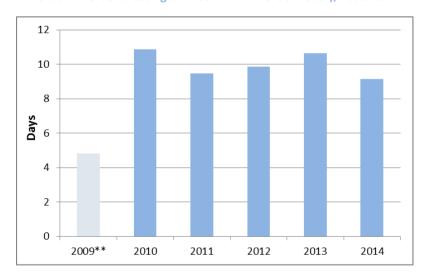
Average dwell time for cargo inside the port has been substantially reduced over the past five years. Transit time between the port gate and Malaba showed little change through 2013, but has recently been reduced.

8 7 6 5 Days 4 3 2 1 0 2009 2012 2010 2011 2013* 2014

Figure E-3: Average Cargo Dwell Time at the Port of Mombasa, 2009-2014

Figure E-4: Average Transit Time in Kenya by Road (Mombasa-Malaba, including part of dwell time at Mombasa

Port and border crossing time at Malaba Border Post*), 2009-2014



^{*} The figure shows the "average time between issuance of release order and issuance of certificate of export at border crossing", thus it includes the time for cargo to be waiting to be loaded at the port and the time for cargo to obtain the certificate of export at the border crossing.



^{* 2013} data covers January through August only. Source: NCTCCA Transport Observatory

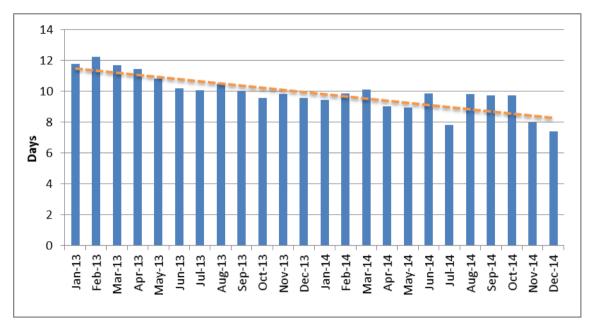
^{**} The 2009 data is likely skewed – The data only covers from May to December, with a very small sample size compared to the 2010-2014 data.

Source: NCTTCA Transport Observatory



The transit time within Kenya shown above is presented with further details below the average monthly data. While there are some fluctuations by month, the data over the two years clearly indicates the decreasing trend.

Figure E-5: Average Monthly Transit Time in Kenya by Road (Mombasa-Malaba, including part of dwell time at Mombasa Port and border crossing time at Malaba Border Post*), 2013-2015



^{*} The figure shows the "average time between issuance of release order and issuance of certificate of export at border crossing", thus it includes the time for cargo to be waiting to be loaded at the port and the time for cargo to obtain the certificate of export at the border crossing.

Source: NCTTCA Transport Observatory and Dashboard (online) as of 2 April 2015

The eight NCIP initiatives taken to date include:

- Multiple security bonds not required under Single Customs Territory (SCT);
- 2. Multiple customs declarations not required under SCT;
- 3. Differences in customs laws and instruments eliminated;
- 4. Customs systems interfaced;
- 5. Multiple Customs verification replaced by joint verification;
- 6. Road, police and customs roadblocks eliminated;
- 7. Multiple weighbridges en-route reduced to two + high speed weigh-in-motion system; and
- 8. Congestion at the port and border posts eliminated.

Institutional change under the SCT is substantially complete (initiatives 1, 2 and 3). Implementation of those changes at the port (initiatives 4 and 5) and at border posts (initiative 5) are ongoing at the Kenya/Uganda, Uganda/Rwanda, and Rwanda/Burundi borders, but have not yet been introduced at the Uganda/South Sudan border. Delays within the port (initiative 6) have been substantially reduced, with about half of the current 6 day dwell time being accounted for by delays that are the responsibility of shippers. Delays between the port gate and final destination, in Kenya or beyond the Kenya/Uganda border (initiatives 6, 7 and 8) have been reduced, but further initiatives in this area are needed.





A number of these NCIP initiatives have in fact been undertaken through the East African Community (EAC). They thus apply equally to both the Northern and Central Corridors, and do not apply directly to DRC and South Sudan, who are not members of EAC. Improvements in the Northern Corridor, in terms of both the time that cargo rests inside the port and the time taken in transit from the port gate to final destination, have been greater in absolute terms than improvements on the Central Corridor.

Current ocean freight rates are virtually unchanged from 2009, while the cash cost of moving cargo along the corridor (including trucking costs and official and unofficial payments, particularly at weigh stations) has fallen. The combined effect of the initiatives taken since June 2013 has already been a very real reduction in reducing:

- The time from the arrival of cargo through delivery to final inland destination;
- · The cash or direct cost of transport along the Northern Corridor; and
- The indirect or hidden costs of transport arising from transit delays.

Indirect costs of movement between arrival of the cargo at Mombasa and delivery at final destination, including the cost of providing additional fleet capacity because of delays en-route and the cost of holding additional inventory because of the unreliability of the logistics chain, have in most cases fallen further than direct or cash costs.

The following two figures illustrate the change in direct cost of transport to major destinations along the Northern Corridor, in terms of both cost per truckload and cost per vehicle-km.

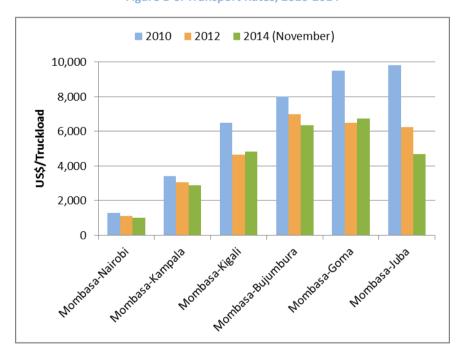


Figure E-6: Transport Rates, 2010-2014

Source: NCTTCA, Northern Corridor Transport Observatory Report (December 2014), p. 14.





■ 2010 ■ 2012 ■ 2014 (November) 6 5 4 US\$/Vehicle-km 3 Mondasa Kesali Mondasa Bujundura 1 Morbasakamala Mornbasaluba w. Monthasa coma

Figure E-7: Transport Rates per Vehicle-Km, 2010-2014

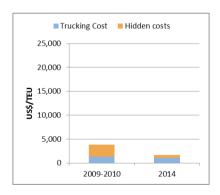
Source: NCTTCA, Northern Corridor Transport Observatory Report (December 2014), p. 14.

The final series of figures shows the change in both direct and indirect costs to the six capitals or main distribution centres. In most cases, both the direct cost of trucking and the hidden cost of delays have been reduced between 2009-10 and 2014.

Figure ES-8: Principal Elements of Direct and Indirect Cost (US\$/TEU), 2009/10 vs. 2014

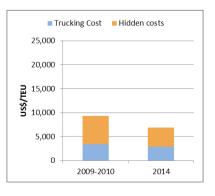
Mombasa-Nairobi

	2009-2010	2014	% change
Trucking Cost	1,300	1,023	-21%
Opportunity Cost for Truck	297	247	-17%
Extra Inventory for Cargo	2,219	411	-81%
Subtotal - Hidden Costs	2,516	658	-74%
Total: Trucking Cost + Hidden Cost	3,816	1,681	-56%



Mombasa-Kampala

	2009-2010	2014	% change
Trucking Cost	3,400	2,867	-16%
Opportunity Cost for Truck	1,738	2,276	31%
Extra Inventory for Cargo	4,142	1,726	-58%
Subtotal - Hidden Costs	5,880	4,002	-32%
Total: Trucking Cost + Hidden Cost	9,280	6,869	-26%

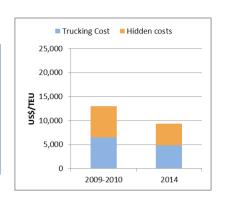






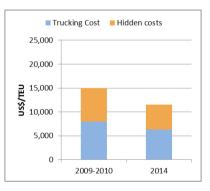
Mombasa-Kigali

	2009-2010	2014	% change
Trucking Cost	6,500	4,833	-26%
Opportunity Cost for Truck	2,107	2,542	21%
Extra Inventory for Cargo	4,405	1,973	-55%
Subtotal - Hidden Costs	6,512	4,515	-31%
Total: Trucking Cost + Hidden Cost	13,012	9,348	-28%



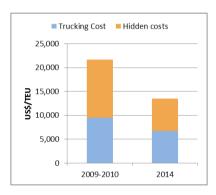
Mombasa-Bujumbura

	2009-2010	2014	% change
Trucking Cost	8,000	6,350	-21%
Opportunity Cost for Truck	1,898	2,750	45%
Extra Inventory for Cargo	5,079	2,466	-51%
Subtotal - Hidden Costs	6,977	5,216	-25%
Total: Trucking Cost + Hidden Cost	14,977	11,566	-23%



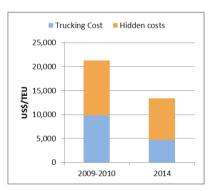
Mombasa-Goma

	2009-2010	2014	% change
Trucking Cost	9,500	6,750	-29%
Opportunity Cost for Truck	1,630	2,203	35%
Extra Inventory for Cargo	10,486	4,507	-57%
Subtotal - Hidden Costs	12,116	6,710	-45%
Total: Trucking Cost + Hidden Cost	21,616	13,460	-38%



Mombasa-Juba

	2009-2010	2014	% change
Trucking Cost	9,800	4,678	-52%
Opportunity Cost for Truck	2,581	3,285	27%
Extra Inventory for Cargo	8,877	5,425	-39%
Subtotal - Hidden Costs	11,458	8,709	-24%
Total: Trucking Cost + Hidden Cost	21,258	13,387	-37%



Source: CPCS Estimates

There was general agreement among stakeholders throughout the region that many changes were triggered by the introduction in 2014 at both Dar es Salaam and Mombasa of joint processing at the port by Customs from both the port (Kenya or Tanzania) and the country of final destination (Uganda, Rwanda, Burundi, DRC or South Sudan). This permits selected





commodities to move in transit in a 'duty paid' status, since duties at final destination will have been paid before the goods are cleared from the port. It is the combined impact of the initiatives, rather than any particular initiative, that is critical. There is also a consensus that the fact the initiatives were taken at the highest political level and were announced publically has enforced the message; all participants in the logistics chain are now fully aware of the high national and regional priority attached to the initiatives.

It is equally clear, regardless of the improvements, that much remains to be done. There remain critical areas where actions need to be taken, including:

- 1. Delays within the port arising from factors under the control of shippers;
- 2. The continuing movement of overweight vehicles along the Corridor, despite weighing shortly after leaving the port and at each border;
- 3. Delays at borders related to incomplete implementation of One Stop Border Posts;
- 4. Delays related to incomplete links between SIMBA (used by Kenya Revenue Authority, KRA) and ASYCUDA (used by all other member countries except South Sudan); and
- 5. Delays in fully integrating DRC and South Sudan into the EAC SCT.

The following Action Items are proposed for further discussion, to deal with outstanding issues related to the recent initiatives:

General: Region-wide

- 1. Develop 'culture of compliance' among shippers, logistics chain providers, and Government entities. Broad initiatives such as the signatories to the *Port Community Charter* at Mombasa or the *East Africa Business Council (EABC)* would provide appropriate forums.
- 2. Further develop information collection on critical issues not currently fully documented on an ongoing basis Increased port dwell time due to late filing of documents (or amending of documents) at port; delays within the Port and container freight stations (CFSs) arising from factors under shippers' control, delays en-route beyond the Kenya/Uganda border, and incidence of unofficial payments.
- 3. Expand the list of commodities that can be moved in transit under the SCT using the warehousing regime (i.e. without paying of duties prior to removal from the port).

General: Bilateral

- 1. Expand One-Stop Border Posts and associated regulation, including extended hours. Consider paying of final destination duty at first border post, starting with Malaba (particularly for regional trade).
- 2. Enter into SCT agreements on a country-by-country basis (for DRC and South Sudan, not members of EAC).





Specific to Shippers

- 1. Assist shippers to understand the impact of last minute changes, including late lodging or amendment of manifests, on overall logistic chain performance.
- 2. Improve both initial weighing and blocking of cargo to reduce shifting, in order to reduce incidence of both vehicle overload and axle-specific overload en-route (and resultant potential damage to infrastructure).







Introduction

Impact Assessment of Corridor Initiatives

The stated objective of the Assignment is to enable the Northern Corridor Integration Projects (NCIP) Summit and the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) to understand the current transport cost structure along the Northern Corridor and reformulate policy that would result in further reduction transport cost along the Corridor and to guide investment in the transport infrastructure. A Draft Final Report was circulated to stakeholders in early March 2015, in both English and French and reviewed at a Workshop organized in Nairobi on March 13, 2015, attended by public and private sector stakeholders from all six NCTTCA member countries.





1.1 Authority of the Assignment

This report is prepared under the authority of the contract signed between the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) and CPCS Transcom International Limited (CPCS) on December 22, 2014, to carry out a study entitled "Impact Assessment of the Northern Corridor Initiatives" ("The Assignment").

The Assignment's Terms of Reference (TOR) and the CPCS description of the services to be provided are provided as Appendices 1 and 2, respectively.

1.2 The Assignment

1.2.1 Background and Context

The Northern Corridor is a multi-modal transport corridor consisting of road rail, inland waterways and pipeline. More than 75% of the regional imports via the port of Mombasa are carried by truck, so this report concentrates on trucking sector performance. The Corridor links Burundi, eastern part of the Democratic Republic of Congo (DRC), northern Tanzania, South Sudan, Uganda, Rwanda and Ethiopia to the Mombasa Sea Port. NCTTCA is a regional intergovernmental organization that is mandated to facilitate trade and transport in its Member States served by the Northern Corridor transport infrastructure. The current Member States are Burundi, DRC, Kenya, Rwanda, South Sudan and Uganda. CPCS completed the 'Analytical Comparative Transport Cost Study along the Northern Corridor' study in 2010, which included detailed recommendations for further action to improve the corridor performance. Many of the changes proposed in that report have already been implemented.

The Heads of States Summits for the Northern Corridor have committed to bringing down the cost of doing business and to promoting economic integration of the region. Among the directives that have been issued to this effect are the removal of check points along the corridor, elimination of multiple weighing of tracks on transit, implementation of the single customs territory (SCT). As part of this initiative, the Northern Corridor Integration Projects Summit (NCIP), under the leadership of the Heads of States, committed to addressing bottlenecks along the Corridor.

During the 7th NCIP held on the 8th of October 2014, NCTTCA was tasked to undertake an impact assessment of all the initiatives along the Northern Corridor. This led to the engagement of CPCS for this Assignment to assess the impact of the corridor initiatives taken over the last five years, with emphasis on the period since June 2013, when the first Summit was held. Fieldwork in the region began January 12 in Nairobi. A Draft Final Report was circulated to stakeholders in early March 2015, in both English and French. It was reviewed at the Validation Workshop, organized in Nairobi on March 13, 2015 by the NCTTCA Secretariat and attended by public and private sector stakeholders from all six NCTTCA member countries¹.

¹ The list of participants is provided in Appendix 5 to this Report.





1.2.2 Assignment Objectives

Specifically, the study is intended to provide the following components, as guidance to shippers, logistics providers and policymakers in implementing further improvements throughout the corridor:

- 1. Description of the evolution of traffic volumes over the Northern Corridor since 2009 (Section 3);
- 2. Quantification of changes in costs throughout the logistics chains along the Northern Corridor, showing the evolution of the transport cost along the corridor for the last five years (Section 4);
- 3. Attribution of specific improvements to key policy initiatives, where possible (Sections 4 and 5 for overall performance, attribution not practical);
- 4. Comparison of the current Northern Corridor costs and freight rates to the recent performance of the Central Corridor (Section 6); and
- 5. Development of a prioritized list of policy actions to improve the corridor efficiency and further reduce transport costs (Section 7).

1.3 Purpose of This Final Report

This Final Report summarizes our analysis of changes in the Corridor performance since 2008-2010, based on both data review and extensive fieldwork conducted in every NCTTCA Member State in January and February 2015. It incorporates clarification and additional analysis based on comments received following the Workshop held in March 2015 to review the Draft Final Report. Chapter 3 is constrained by the non-availability of intra-regional trade data for 2014, while Chapter 6 is constrained by the fact that the Central Corridor Transit Transport Facilitation Agency (CCTTFA) has not yet finalized their 2014 Annual Report².

1.4 Structure of This Final Report

The remainder of this Report is structured as follows:

• Chapter 2: Approach and Methodology describes our approach, incorporating review of recent reports and studies, review of available databases, and extensive interviews in all six Member States of NCTTCA plus Dar es Salaam (for CCTTFA).

² The CCTTFA does not currently provide current or historic data on-line but does provide a detailed annual report analyzing similar data for the Central Corridor, currently available only for 2013. CCTTFA advised in January 2015 that the Draft Report for 2014 will be completed by the end of March 2015, but must be validated before release. The validation workshop is currently scheduled for late April, so the 2014 Report will not be released until sometime after that.





- Chapter 3: Evolution of Traffic describes the evolution of traffic movement; including both transit imports and exports via Mombasa and Dar es Salaam and trade among the countries of the East African region.
- Chapter 4: Evolution of Corridor Performance summarizes recent performance of the main elements of the Northern Corridor in terms of transit time, direct costs, and indirect costs.
- Chapter 5: The Impact of Current Corridor Initiatives summarizes changes in performance relative to the initiatives or targets arising from the eight Joint Summits held between June 2013 and December 2014.
- Chapter 6: Comparison with the Central Corridor describes changes in performance of the Central Corridor over the same time period, comparing relative and absolute improvements to Northern Corridor performance.
- Chapter 7: Remaining Issues and Policy Priorities provides our observations on current issues and suggestions for policy priorities relating specifically to the eight policy initiatives under consideration.

Supporting material is provided in the Appendices, including:

- Assignment TOR;
- Description of services;
- Origin-destination matrices relating to intra-regional trade;
- · List of stakeholders consulted; and
- List of participants at the Workshop held in Nairobi on March 13, 2015.





Approach and Methodology

Extensive Consultation to Gather Up-to-Date Information

Our approach combines data gathering from existing reports and online data sources with extensive consultations with freight forwarders, transporters, shippers' councils, revenue agencies, and Transport and Trade ministry officials in all six Member States of NCTTCA.

Meetings were held in early 2015 in Kenya (January 14-February 25), Burundi (January 16-20), Rwanda (January 20-22), Uganda (January 21-24), Tanzania (January 23), DRC (February 5-20) and South Sudan (February 12-18). In many cases, initial interviews were followed up with emails and exchanges of data. Additional material was received during and after the March 13 Validation Workshop.





2.1 Approach and Methodology

Our approach combines data gathering from existing reports and online data sources, with extensive consultations with freight forwarders, transporters, shippers' councils, revenue agencies, and Transport and Trade ministry officials in all six Member States of NCTTCA. These consultations/information interviews are the key to developing a view of the current situation, in an environment where the situation is evolving rapidly, as an increasing volume of transit traffic has duty paid before it clears the port.

In our experience with studies such as this, rigidly structured survey form questionnaires do not work well, because such questionnaires tend to restrict the information obtained and fail to provide insights into issues that were not anticipated ahead of the meetings. Further, it needs to be kept in mind that different stakeholders (private and public) view issues differently, thus leading the discussions into in greater depth in the areas of specific interest and concern to the individuals being interviewed³.

Thus, during the inception mission team members agreed in advance on the areas of discussion topics/questions to be targeted during the stakeholder consultations. This permitted keeping the consultation process flexible and open to new insights that stakeholders may have. Each meeting began with the eight regional initiatives or targets arising from the NCIP Summits discussed in Section 5.1 below⁴, concentrating on issues relevant to the specific entity/individual and then moved on to a much more open-ended discussion, concentrating on issues viewed as critical by the individual or entity. Meeting notes were circulated among all members of the team, to ensure that all were aware of the evolving list of issues and concerns and the different perspective of each country and of the private and public sectors.

2.2 Stakeholder Consultations

Meetings were held in early 2015 in Kenya (January 14-February 25), Burundi (January 16-20), Rwanda (January 20-22), Uganda (January 21-24), Tanzania (January 23), DRC (February 5-20) and South Sudan (February 12-18). In many cases, initial interviews were followed up with emails and exchanges of data. Additional material was provided by a number of participants during and following the March 13 Validation Workshop.

The list of stakeholders consulted and their contact details is provided in Appendix 4. The list of participants in the March workshop is provided in Appendix 5.

⁴ Section 5 provides a detailed discussion of these initiatives. The eight initiatives or targets are: 1. Multiple security bonds not required under SCT; 2. Multiple customs declarations not required under SCT; 3. Differences in customs laws and instruments eliminated; 4. Customs systems interfaced; 5. Multiple Customs verification replaced by joint verification; 6. Road, police and customs roadblocks eliminated; 7. Multiple weighbridges en-route reduced to two + high speed weigh-in-motion system (at port); and 8. Congestion at the port and border posts eliminated.



³ For example, the Single Customs Territory (SCT) initiative originates with EAC, so is not directly relevant to transit traffic to South Sudan (which has applied for a membership in EAC but is not a member as yet) or to DRC (which has not yet applied).



2.3 Review of Available Data and Documents

We also reviewed available data and documents. Among those, the key documents reviewed included:

- NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010
- NCTTCA Transport Observatory and Dashboard
- NCTTCA, Northern Corridor Trade and Transport Logistics Stakeholders' Survey: Mombasa Kampala Transit Section, October 2014
- NCTTCA, Northern Corridor Transport Observatory Report, December 2014
- NCTTCA, Quarterly Port Community Charter Report (October-December 2014)
- CCTTFA Transport Observatory Report, 2013
- CPCS, EAC Rail Sector Enhancement Project: Traffic Working Paper, 2014
- Shippers Council of Eastern Africa, East Africa Logistics Performance Survey, 2014
- Kenya Ports Authority, Annual Review and Bulletin of Statistics, 2013 & 2014
- Tanzania Ports Authority Annual Reports
- Nathan Associates, Corridor Diagnostic Study, 2011
- East Africa Rising: Experiential Survey on non-tariff barriers Kigali-Mombasa, conducted and published by Hope Magazine with financial assistance from TradeMark Esta Africa (TMEA), 2013







The Northern Corridor Traffic Has Grown Steadily

The volume of import and export cargo at the Port of Mombasa has grown steadily over the past five years. Traffic along the Northern Corridor has also grown steadily over the period, with more growth seen in imports, as the region continues to import substantially more goods than it exports. Kenya is the largest economy in the East African region. The country provides the largest market for cargo coming through the Port of Mombasa (imports and exports). Furthermore, Kenya's exports (or re-exports) account for a significant volume of the goods transported throughout the region. However, the total value of intra-regional trade (defined here as trade among Kenya, Tanzania, Uganda, Rwanda, Burundi, DRC, and South Sudan) has grown since 2008 from an estimated 3.6 million tonnes to 5.4 million tonnes in 2013.





3.1 The Evolution of Northern Corridor Traffic

The Port of Mombasa saw a total throughput of about one million TEUs in 2014, up from 900,000 TEUs in 2013,⁵ destined for/originated from Kenya, Uganda, Tanzania, Burundi, Rwanda, South Sudan, DRC, Somalia and others. Most Kenya-destined containers arriving at the Port of Mombasa are taken to bonded container freight stations (CFSs) by the port authority, clear Customs at the CFSs, then are picked up by trucks to be further transported. Transit cargo does not go through the CFSs, except for the cargo destined for South Sudan, which goes through one or more dedicated CFSs under a South Sudan government directive.

Figure 3-1 and Figure 3-2 below illustrate the import, export and transit traffic through the Port of Mombasa for the years 2009 to 2014. Volume of cargo at the Port of Mombasa has grown steadily. Similarly, traffic along the Northern Corridor has grown steadily over the last four years, with more growth seen in imports, as the region continues to import more goods than it exports.

Kenya provides the primary transit corridor and is also the largest economy in the East African region, providing the largest market for cargo coming through the Port of Mombasa (imports and exports). Furthermore, Kenya exports (or re-exports) account for a significant volume of the goods transported throughout the region.

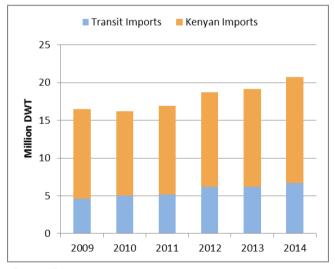


Figure 3-1: Kenyan Imports/Exports vs Transit Imports/Exports via Port of Mombasa, 2009-2014



Source: KPA

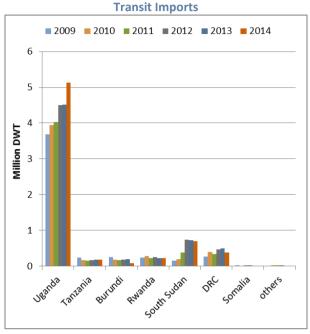
While Uganda has historically received the largest share of transit traffic through the Port of Mombasa, South Sudan and the DRC have also seen a significant increase in import traffic through that port. The traffic to South Sudan via Mombasa grew from 155,691 DWT in 2009 to 696,816 DWT in 2014. Traffic destined to the DRC grew from 263,110 DWT to 383,461 DWT.

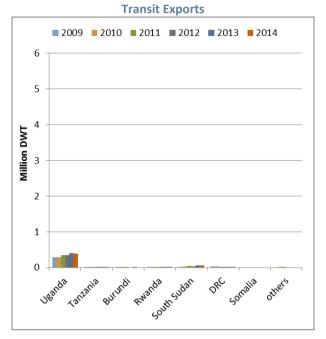
⁵ KPA Performance Data 2014.





Figure 3-2: Port of Mombasa Transit Traffic by Destination/Origin, 2009-2014





Source: KPA

3.1.1 Pipeline

The landlocked countries of the Northern Corridor, who like Kenya are net importers of petroleum products, relying on the Kenyan pipeline to transport petroleum products from the Port of Mombasa to terminals at Nairobi, Eldoret, and Kisumu. Kenya Pipeline Company (KPC) maintains three lines namely: Mombasa-Nairobi; Nairobi-Eldoret; and Sinendet-Kisumu. The major pipeline (Mombasa-Nairobi) has a current throughput that translates to an average flow of 670m³/hr.

Movement of petroleum products from Mombasa to inland points via the pipeline have grown steadily, with an increase of total throughput of an estimated 4.2 million m³ in 2010 to over 5 million m³ in 2014, of which 1.9 million m³ subsequently moved in transit to other countries. Transit traffic showed both a substantial growth in absolute volume since 2010 and an increase in pipeline market share, from 27% to 36%.

Figure 3-3: Total Throughput of Kenya Pipeline (m³), 2010-2014

Market	STATION	2010	2011	2012	2013	2014
Uganda	Eldoret	433,290	438,916	755,831	821,574	871,948
and	Kisumu	432,439	376,952	492,553	550,571	568,835
beyond	Nairobi Terminal	n.a.	132,834	131,330	122,908	66,878
	Nakuru	287,44	224,041	441,653	469,821	477,917
	TOTAL	1,153,173	1,172,743	1,821,367	1,964,874	1,985,579
Kenyan Local Market	Eldoret	204,418	218,254	267,730	306,956	352,987
	Jomo Kenyatta	689,368	782,426	771,600	720,123	799,436
	Kisumu	212,228	212,182	235,667	256,787	291,316





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Market	STATION	2010	2011	2012	2013	2014
	Konza	n.a.	n.a.	n.a.	n.a.	179,279
	Moi Airport	83,866	96,033	78,651	72,551	67,062
	Nairobi Terminal	1,628,547	1,536,310	1,377,878	1,518,669	1,522,788
	NAKURU	232,117	239,477	302,677	326,780	359,460
	TOTAL	3,050,544	3,084,682	3,034,204	3,201,866	3,572,327
GRAND TOTAL		4,203,718	4,257,425	4,855,571	5,166,739	5,557,906

Source: KPC

The KPC pipeline network is not currently fully utilised and thus still has capacity to carry more volumes. A directive by Kenya Revenue Authority (KRA) that all petroleum products leaving the Port of Mombasa should be transported via pipeline to Nairobi is apparently either not being enforced or no longer in effect⁶. With an aging pipeline infrastructure, KPC has embarked on construction of new pipelines to complement the existing lines, namely:

- A new 20 inch (diameter) pipeline from Mombasa to Nairobi; and
- A new 10 inch (diameter) pipeline from Sinendet to Kisumu.

3.2 Intra-Regional Trade

For purposes of this report, intra-regional trade volumes cover Kenya, Uganda, Rwanda, Burundi, DRC, South Sudan and Tanzania.⁷ The total value of intra-regional trade has grown since 2008 by about 50%, from an estimated in 3.6 million tonnes to 5.4 million tonnes in 2013.

As the region's largest economy, Kenya is not only the largest importer through Mombasa but also the largest exporter to other countries in the region. Kenya is a key supplier of manufactured goods, chemicals, and machinery to the landlocked countries. Uganda dominates as the largest importer from the region (Figure 3-4). The dramatic increase in trade between Uganda and Rwanda is evident from Figure 3-5 and Figure 3-6).

<<http://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188&Itemid=160.

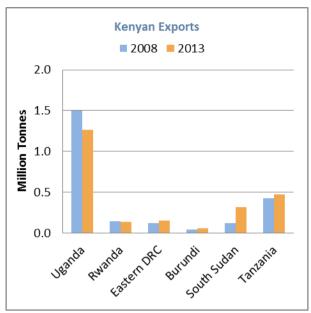


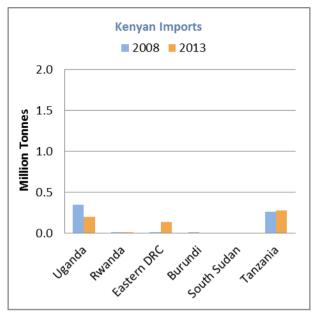
⁶ As of 2014 Q2, It was reported by one of the major Ugandan petroleum distributors that it was still picking up substantial volume of petroleum products at the Port of Mombasa. It was also reported that, while Kenyan pipeline infrastructure capacity might be sufficient on an annual basis, there might be occasional operational issues, so that the amount actual being transported by pipeline to the terminals in western Kenya was not always sufficient to meet current needs.

⁷ The evolution of intra-regional trade volumes described in this section is based on the data summarized in *EAC Rail Sector Enhancement Project: Traffic Working Paper*, which provides 2008 and 2013 intra-regional data estimates. In the report, 2008 data are originally from the Corridor Diagnostic Study (CDS) by Nathan Associates, 2011, and the 2013 data were established from various Revenue Authorities' trade volume data. Thus the two data sets may not be perfectly comparable. However, they do provide enough data to show the growth trend in intra-regional trade. The Traffic Working Paper is available at:



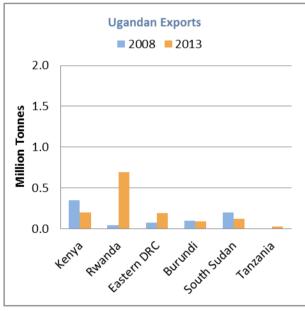
Figure 3-4: Kenya Exports vs Imports to the Region, 2008 vs. 2013

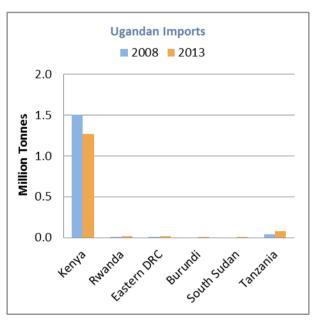




Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper <>

Figure 3-5: Uganda Exports vs Imports to the Region, 2008 vs. 2013



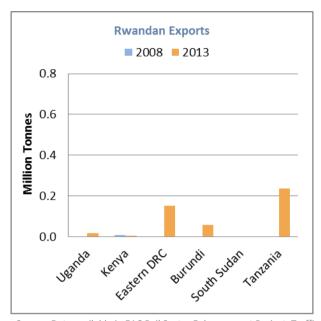


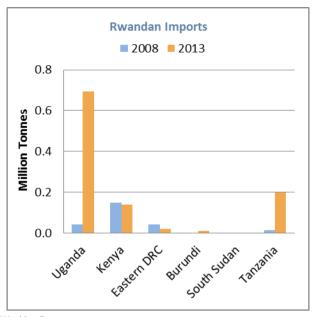
Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper <>>





Figure 3-6: Rwanda Exports vs Imports to the Region, 2008 vs. 2013





Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper <<http://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188&Itemid=160.>>

Figure 3-7 below shows the domination of the volumes of imports traded within the region by transit through Mombasa and Dar es Salaam in 2013. Figure 3-8, which emphasizes trade within the region by removing transit traffic through the two ports from regional traffic flows, clearly illustrates the significant overall growth of trade among the countries in the region. While Kenya continues to dominate, the relatively low level of Kenyan imports from the region is apparent, as is as the increased importance of Rwandan imports from Uganda and DRC and Burundian imports from both Uganda and Rwanda⁸.

⁸ The reduction in Ugandan imports from Kenya over the period is also striking. It likely results from a combination of the differing sources of data used for the two series and the growth of the manufacturing sector in Uganda, which provides an alternative source for products formerly exported to both Uganda and Rwanda from Kenya.



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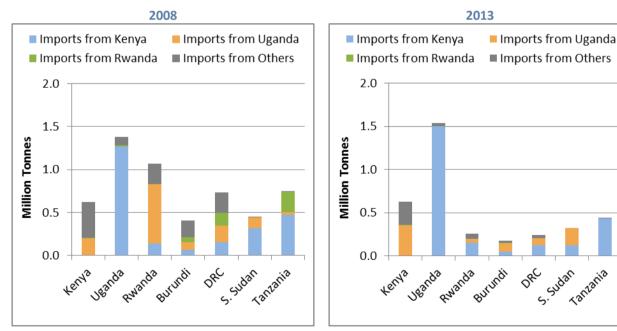


■ Transit via Mombasa ■ Transit via Dar es Salaam ■ Imports from Kenya ■ Imports from Uganda ■ Imports from Other 16 14 Million Tonnes 12 10 8 6 4 2 0 Uganda DRC South Tanzania Rwanda Burundi Kenya Sudan

Figure 3-7: Regional Imports, 2013

Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper; KPA Annual Review and Bulletin of Statistics (2013) and CCTFA TOP Annual Report 2013. <<a href="http://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188<emid=160">http://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188<emid=160





Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper. <<http://www.infrastructure.eac.int/index.php?option=com_docman&task=doc_download&gid=188&Itemid=160>>





Evolution of Corridor Performance

Evolution of Corridor Performance

Corridor performance can be measured in terms of average transit time, direct cost (line-haul from Mombasa to inland destinations, clearance charges) and indirect cost (including both demurrage charges paid and the hidden cost of additional trucking capacity required because of en-route delays and additional inventory required to be held by shippers because of the unreliability of the logistics chain.

Average dwell time for cargo inside the port has been substantially reduced over the past five years. Transit time between the port gate and Malaba shows little change until quite recently.

Current ocean freight rates are about 10% higher than in 2009, while the cash cost of moving cargo along the corridor (including both trucking costs and official and unofficial payments, particularly at weigh stations) has fallen. Indirect costs of movement between arrival of the cargo at Mombasa and delivery at final destination, including the cost of providing additional fleet capacity because of delays en-route and the cost of holding additional inventory because of the unreliability of the logistics chain, have fallen further than direct or cash costs.





4.1 Corridor Performance

Corridor performance can be measured in terms of average transit time, direct cost (trucking, rail or pipeline from Mombasa to inland destinations, and clearance charges) and indirect cost (including both demurrage charges paid and the hidden cost of additional trucking capacity required because of en-route delays and additional inventory required to be held by shippers because of the unreliability of the logistics chain).

4.2 Transport Logistics Time

Interviews with shippers, transporters and policymakers throughout the Northern Corridor Member States confirm that with the implementation of the NCIP Initiatives there has been a marked reduction in the cargo transit times along the Northern Corridor, including within the Port of Mombasa itself. While trucking costs paid by shippers have also declined, the change is direct cost to date has been substantially less than the change in transit time.

4.2.1 Port Dwell Time

Average time within the Port of Mombasa (cargo dwell time) is now 3-6 days⁹, compared with 12 days in 2007-2008 for most transit traffic. For cargo destined for Kenya, the average cargo dwell time is typically two days.

Figure 4-1 shows a steady decline since in annual average dwell time (time from unloading of the vessel through exit of cargo from the port gate) at the Port of Mombasa since 2012.

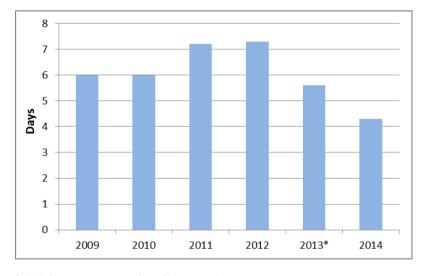


Figure 4-1: Average Cargo Dwell Time at the Port of Mombasa

⁹ Kenya Ports Authority, 2015



^{* 2013} data covers January through August only. Source: NCTCCA Transport Observatory



There has been a marked reduction in transit times for cargo from Mombasa to Juba. However, additional delays for transit cargo bound for South Sudan at the Port of Mombasa result from a South Sudan government directive to have cargo bound for South Sudan: a) cleared by a clearing agent appointed by the Government of South Sudan; and b) undergo a verification processes at one of the only two designated CFSs in Mombasa.

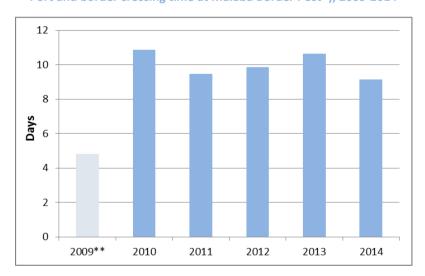
4.2.2 Transit Time along the Northern Corridor

Average transit times for trucks along the Northern Corridor have decreased significantly for all the hinterland countries. For Uganda, transporters make on average of three trips a month between Mombasa and Kampala. There is an even greater reduction in turnaround of trucks on the Kampala-Rwanda route, with the time now down to three days per a roundtrip. Prior to interventions along the Northern Corridor, average transit time between Kampala and Kigali was five days per a roundtrip.

Figure 4-2 shows that transit time within Kenya (the average time between issuance of release order at Mombasa Port and issuance of certificate of export at Malaba border crossing, thus includes the part of port dwell time and part of border crossing time), which is also the longest route within any single country of the Northern Corridor, shows little change between 2010 and 2013, with a noticeable decline in 2014.

Figure 4-2: Average Transit Time in Kenya by Road (Mombasa-Malaba, including part of dwell time at Mombasa

Port and border crossing time at Malaba Border Post*), 2009-2014



^{*} The figure shows the "average time between issuance of release order and issuance of certificate of export at border crossing", thus it includes the time for cargo to be waiting to be loaded at the port and the time for cargo to obtain the certificate of export at the border crossing.

The transit time within Kenya shown above is presented with further details below the average monthly data. While there are some fluctuations by month, the data over the two years clearly indicates the decreasing trend.



^{**} The 2009 data is likely skewed – The data only covers from May to December, with a very small sample size compared to the 2010-2014 data.

Source: NCTTCA Transport Observatory



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Figure 4-3: Average Monthly Transit Time in Kenya by Road (Mombasa-Malaba, including part of dwell time at Mombasa Port and border crossing time at Malaba Border Post*), 2013-2015

Source: NCTTCA Transport Observatory and Dashboard (online) as of 2 April 2015)

4.2.3 Delays at Border Posts

There continue to be reports from truckers of occasional congestion on the Malaba border post between Kenya and Uganda, although the existence of such delays is contested by some Ugandan sources. It is understood that while the joint verification committee is working together, full implementation of the one stop system is still incomplete, in part because of infrastructure limitations.

Cargo to South Sudan spends on average 3-5 days at the Nimule border post, as a result of the combination of:

- Manual Customs clearance systems at Nimule, combined with a need for professionalization (training) of clearance agents active at the border;
- Slow (manual) transfer of import documents between Uganda and South Sudan border stations; and
- The introduction of the verification and monitoring processes for inbound goods undertaken by the *South Sudan National Bureau of Standards*, which both came into effect in mid-2014.



^{*} The figure shows the "average time between issuance of release order and issuance of certificate of export at border crossing", thus it includes the time for cargo to be waiting to be loaded at the port and the time for cargo to obtain the certificate of export at the border crossing.



4.2.4 Total Time from Port Arrival to Malaba

In 2014, transit traffic typically spent 3-6 days in port. The latest figure available for the road transit time within Kenya as of early 2015 shows an average of 3.2 days¹⁰, which is largely consistent with the information obtained from stakeholder consultations. This puts the average transit time in Kenya for traffic to Uganda and beyond at under nine days from Mombasa to Malaba¹¹, compared to 18 days in 2007-2008.

This is also largely consistent, although not directly comparable given the different definition of the data, with the data provided in Figure 4-2 and Figure 4-3 above, which show the average time between issuance of release order at Mombasa Port and issuance of certificate of export at Malaba border crossing.

4.3 Key Elements of Total Transport Logistics Cost

4.3.1 Ocean Freight Rates

Container freight rates are a major component of overall transport logistics costs from overseas origin to East Africa. However, for the purposes of this study, ocean freight rates are not a significant <u>variable</u> factor of the transport costs, as they are set by the market (competition driven). Ocean freight rates are affected only to a limited extent by most of the initiatives undertaken at the regional or country level. Interventions along the Northern Corridor that do not impact vessel turnaround times or cargo unloading time have little or no bearing on the ocean freight rates¹².

It is important to understand the basic pricing strategy for the major line-haul container operators serving multiple markets. Typically, overall costs of a voyage on a multi-stop route are assigned on the basis of one 'slot' per TEU per voyage, rather than on the basis of distance actually travelled by that container. That is, as with many municipal bus routes, there is a fixed price for the use of a 'slot' on a particular route, which is not dependent on the distance actually travelled by a particular container. This 'slot' charge can vary substantially in the short-term, due to competitive pressures, but in the long run must at least cover variable costs for all carriers that remain active in the market, to ensure commercial viability. Absent changes in a port such as the ability to handle larger vessels, rates on any one route generally vary over an extended period of several years within a band of 50%-150% of the average rate. Observation of the range of rates for a particular route thus give an indication of the probable location of the average, but there can be extended 'interim' periods of instability during which the average or sustainable rate is in fact observed only infrequently. Because the rate charged is for a 'slot'

¹² Major sustained increases in vessel waiting or unloading time at a port can however lead to 'liner surcharges'. These surcharges are imposed by all carriers on traffic to a particular port when major delays occur, and removed once the delay issues are resolved.



¹⁰ Spot data for 25-31 March 2015 only, provided by NCTTCA.

¹¹ Transit time from Malaba to Kampala is only available through March 2014, when it reached 2.6 Days. The average for 2013 was 2.7 days, and that for January to March 2014 was 2.2 days.



on a voyage, not for movement between two specific points (Salalah to Mombasa, for example), comparisons with rates on routes involving similar distances moved but different levels of traffic or different competitive pressures are thus of limited direct relevance.

Ocean freight rates, however, do however fluctuate regularly and significantly according to changes in the fleet or available port facilities¹³. Obtaining an 'average' for ocean freight rates from (for example) Singapore to the Port of Mombasa is difficult. Nevertheless, a current ocean freight rate of US\$ 1,900 all in from Singapore up to the Port of Mombasa per TEU in early 2015 was provided by a major shipping line.¹⁴ This can be compared with the estimate of US\$ 1,700 for the same route utilized in the 2010 Study¹⁵. In view of the discussion above, this can only be considered as evidence that there has not been a significant change in ocean rates to Mombasa over the period.

4.3.2 Trucking Costs

Interviews with shippers, particularly in Uganda, indicate that while transport costs to shippers have steadily decreased over the last five years, the change has not been as significant as the change in transit time in terms of the overall direct cost of transporting goods by truck from the Port of Mombasa to the hinterland. It should be noted that trucking costs vary substantially, at a point in time or over an extended time period, because of short-term competitive pressures, and this may mask efforts to identify medium- or long-term trends.

Figure 4-4 shows average trucking costs from Mombasa to Kampala, exclusive of clearing and handling fees. These figures are based on current information obtained from truckers and freight forwarders during January and February 2015.

Figure 4-4: Sample of Average Trucking Costs by Road (Mombasa-Kampala) in USD, 2010-2014

Year	2010	2011	2012	2013	2014
20ft Container	2,338	1,752	1,522	1,884	2,084
40ft Container	3,369	2,524	2,193	2,715	3,003

Source: Provided by a Trucking company during CPCS field interviews conducted in January/February 2015

Figure 4-5: Sample of Average Transport Charges (Mombasa-Kampala) in USD, 2010-2014

Year	2010	2011	2012	2013	2014
20ft Container (Light)	2,600	2,400	2,500	2,200	2,200
20ft Container (Heavy)	3,700	3,600	3,400	3,300	3,300
40ft Container	4,500	4,000	3,900	3,800	3,700

Source: Provided by a Shipper during CPCS field interviews conducted in January/February 2015

Note: Rates are +/- USD 100 due to negotiation dynamics. Charges inclusive of clearing charges / port charges/shipping Line charges / Agency fees / Bond Fees, etc. where applicable.

¹⁵ NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010.



¹³ For example, Mombasa can now handle 15 m draft vessels at the new section of the container berth, while Dar es Salaam remains limited to about 10 m.

¹⁴ Rate as of February 20, 2015.



To provide a point of comparison, these can be compared with the rates provided by regional road transport organizations in November 2014 and included in the most recent NCTTCA Observatory Report¹⁶. These also show a consistent reduction in total cost for all destinations between 2010 and 2012, with a further reduction through late 2014 except for movements to Kigali and Goma (see Figure 4-6).¹⁷

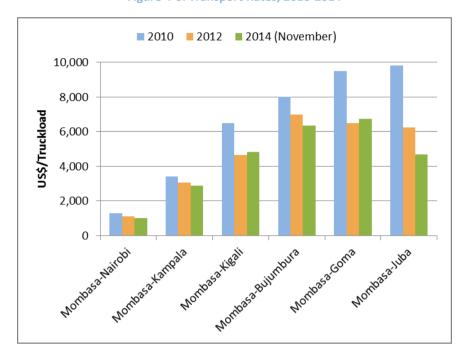


Figure 4-6: Transport Rates, 2010-2014

Source: NCTTCA, Northern Corridor Transport Observatory Report (December 2014), p. 14.

Figure 4-7 below shows the same information converted to USD per vehicle-km. This shows that while there has been a reduction in unit cost on all routes, the change has been much smaller for Kenya and Uganda than for the longer trips. The gap in unit costs between the most expensive route in 2010 (Mombasa-Juba) and the least expensive routes (Mombasa-Kampala) has therefore been reduced substantially. The same slight increase between 2012 and 2014 is apparent for Mombasa-Kigali and Mombasa-Goma.

¹⁷ The reasons for this anomaly are not clear. It may arise in part from the fact that this is a point estimate for the (peak) month of November, rather than an annual average rate.



 $^{^{16}}$ Northern Corridor Transport Observatory Report, December 2014, p. 14.



2010 2012 2014 (November)

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Figure 4-7: Transport Rates per Vehicle-Km, 2010-2014

Source: NCTTCA, Northern Corridor Transport Observatory Report (December 2014), p. 14.

Data from other sources confirms the general pattern of trucking cost reduction over time. There has been a significant decrease in transport costs from Mombasa to South Sudan. The figure below shows trucking costs from Mombasa to Juba from 2010 to 2014; there has been a steady decrease of costs since 2010. However, between 2013 and 2014, there was little change. It should be noted that for cargo to Juba, trucking costs do not vary between a 20ft and 40ft container, since the maximum gross vehicle weight limit of 56 tonnes for Kenya and Uganda limits most six-axle vehicles to carrying either one 20ft or one 40ft container¹⁸.

Figure 4-8: Sample of Average Trucking Costs by Road (Mombasa-Juba) in USD, 2010-2014

Year	2010	2011	2012	2013	2014
20ft Container	10,000-11,000	9,000-10,000	8,000-9,000	6,000-7,500	6,000-7,000
40ft Container	10,000-11,000	9,000-10,000	8,000-9,000	6,000-7,500	6,000-7,000

Source: CPCS field interviews conducted in January/February 2015.

There has been a corresponding reduction in trucking costs to Kigali; one forwarding/clearing agent in Kigali estimated that cost to be US\$ 5,050 as of late 2014, compared with US\$ 6,500 in 2009-10. This takes into account both the reduced demand for informal payments en-route and the recent imposition by the shipping lines of a container return guarantee on Rwandan freight forwarders now based in Mombasa, with whom the lines have no direct experience. While the

¹⁸ Most containerized imports to South Sudan are relatively heavy, so a truck typically cannot carry two 20ft containers. Therefore, the pricing is done for a truckload (i.e. the same price for 20ft and 40ft containers). For Uganda and Rwanda, there are some lighter containers, so a truck can sometimes carry two 20ft containers, and this is reflected in the cost per container.





cost is indeed an additional burden on the forwarders, (generally containers are covered for US\$ 2,000-4,000), this charge does not represent the actual magnitude of the cost increase, since it is credited as soon as the container is returned. The additional cost is in fact the cost of financing the bond until the container is returned, typically 4-8 weeks after pickup at the port. At a 20% cost of short-term financing, a US\$ 4,000 bond valid for two months would lead to an additional cost of about US\$ 125 per TEU.

It should be kept in mind that the most trucks operating along the Northern Corridor are Kenyan-registered. Because of reduced transit delays, over the past several years, leading to an increased handling capacity per vehicle per year, there is currently an oversupply of trucks (cargo volumes are growing, but not as rapidly as truck fleet capacity). The *Competition Act* in Kenya prevents truckers from getting together to set a rate ceiling¹⁹. Perhaps more important in the present environment, trucking companies (particularly well-run medium and large companies) are 'hungry' and competitive, so an attempt by the trucking industry to fix prices is unlikely to be sustainable. In addition, larger transporters with established clients generally have long-term contracts that are indexed to inflation, fuel costs, corridor performance, etc. In this dynamic environment, quoted 'current' trucking charges are at best 'anecdotal'; the concept of 'average trucking charge' at any point in time is of limited applicability.

4.3.3 Cost of Unofficial Payments (Bribes)

The cost study completed in 2010²⁰ showed cash payments in 2009 of US\$ 864.23 between Mombasa and Kigali, based on direct observations of an observer riding a truck between Mombasa and Kigali. A similar study conducted in January 2013 on the same route²¹ shows total payments of US\$ 847, 93% of which were paid at weighbridges. Two NCTTCA reports dated 2014²² make no explicit mention of 'unofficial payments', but some truckers continue to report continuing requests for such payments in early 2015, particularly at weighbridges. Since the HS-WIM weighbridges only expose truckers to such practices who are set aside for reweighing at fixed scales because they have been identified as non-compliant, this continuing problem, while real, likely relates only to a small proportion of commercial vehicles.²³

4.3.4 Hidden Costs

In the 2010 Report, CPCS estimated hidden costs per additional day of transit time between Mombasa and each major destination. These vary substantially by country and have been utilized for this study.

²³ The most recent data from the *Northern Corridor Transport Observatory* shows non-compliance in 2014 ranging between 19% and 28% at Mariakani but only 8-18% at Athi River, 1-11% at Busia, and 8-15% at Gilgil.



¹⁹ KTA once tried setting a ceiling and had to apologise in the national newspapers

²⁰ NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010.

²¹ See footnote 38 below.

²² The Northern Corridor Transport Observatory Report (December 2014), Northern Corridor Trade and Transport Logistics Stakeholders' Survey: Mombasa – Kampala Transit Section (October 2014)



Vehicles Cargo

450
400
350
300
250
200
150
100
50
0

Montasa tuan ala Montasa tuan ala Montasa tuan ala Montasa tuan ala montasa di unnuna ala montasa di

Figure 4-9: Hidden Costs per Day for Additional Transit Time for Vehicles and Cargo, 2009/10

Source: NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region

4.4 Change in Overall Logistics Cost (Direct + Indirect)

Based on the 2010 unit costs cited above, current key cost elements for transit traffic, particularly hidden costs, can be directly related to observed improvement in Corridor performance, both reduction in delays at the port (which reduce the cost of holding cargo inventory) and reduction of time in transit from the port to inland destination (which reduces both the cost of holding inventory and the cost of providing additional truck fleet capacity). In most cases, direct costs (trucking costs, including unofficial payments) have declined since 2009-10, and the decline in hidden costs has been much greater. This difference occurs because 40-60% of trucking costs in the corridor are accounted for by fuel costs, which are unaffected by delays within the port and are minimally affected by delays en-route (for extended delays the engine is normally shut down). Indirect or hidden costs, on the other hand, are directly related to delays in transit (from landing of the cargo through delivery to the inland destination for cargo costs), from loading of the truck at the port to return of the truck to the port, for transit vehicles).

Throughout this Report, costs are expressed in current USD. Adjusting to reflect current purchasing power in each country would affect each country differently, both because of the inflation of the USD over time (which reduces the real cost expressed in USD) and because of the shift in each NCTTCA Member State currency relative to the USD. Between 2010 and the end of 2014, regional deflation of the currencies relative to the USD ranged from 3.3% (DRC) to more than 300% (South Sudan). For year-end 2010 through year-end 2014 the US City average consumer price index (CPI) increased by 7.4%. The combined impact of these two shifts would





reduce the real cost relative to the nominal cost by 4.1% in DRC between 2010 and 2014, but increase real costs by 5.8% in Kenya, and by more than 300% in South Sudan. Because of this complex pattern of changing relative prices in the region, all analysis in the balance of this Report has been limited to current costs or prices.

Figure 4-10: US Inflation and Regional Exchange Rate Changes 2010-2013

	2010	2011	2012	2013	2014	2014-2010
US Inflation (CPI)	1.5%	3.0%	1.7%	1.5%	0.8%	107.4%
Kenya shilling per USD	76	87	83	85	86	113.2%
Uganda shilling per USD	2,153	2,492	2,469	2,555	2,567	119.2%
Rwanda franc per USD	573	590	599	638	674	117.6%
South Sudan pound per USD	2.2	2.9	4.2	5.8	7.2	327.3%
DRC franc per USD	879	909	905	906	908	103.3%
Burundi franc per USD	1,209	1,218	1,385	1,529	1,530	126.6%

Source: Year-end Exchange rates from OANDA.com, except for South Sudan, from Tradingeconomics.com (for 2010 rate relates to Sudan pound). US Inflation from US Bureau of Labour Statistics, US City Average CPI.

Notes on Hidden Cost Estimation

To emphasize the cost elements that are sensitive to policy changes, and given the limited budget and urgency of conducting a rapid assessment of impacts, the methodology of the 2010 CPCS Report has been simplified to estimate the overall logistics costs presented in this Sections 4.4.1-4.4.6. A number of elements, which show little or no change over time, have been eliminated, thus the total value of indirect charges shown here are slightly different from those presented in the 2010 study.

The opportunity cost for trucks is estimated as a function of: 1) the hidden costs per day for additional transit time for vehicles; and 2) cargo transit time on road. The cost of extra inventory for cargo is estimated as a function of: 1) the hidden costs per day for additional transit time for cargo; 2) dwell time in port; and 3) cargo transit time on road.

The above definitions of hidden costs are somewhat difference from those used in the 2010 Report, thus are not directly comparable to the figures presented in the 2010 report.

Hidden costs, theoretically, can be defined in various different ways. Whatever the selected definition is, however, the key is to make them directly comparable between 2009/2010 and today. This has been done for this study in order to meet the ultimate objective of this Assignment, which is to assess the impact of the corridor initiatives over the last five years, in a practical manner. Should there be Phase 2, more comprehensive updates of 2009/2010 report (or updates with further refined methodology) will be done.





4.4.1 Mombasa to Nairobi

Figure 4-11 summarizes the estimated changes in port delays and transit time for containerized Mombasa to Nairobi transit traffic:

Figure 4-11: Corridor Performance Mombasa to Nairobi (days), 2009/2010 vs. 2014

	2009-2010	2014
Dwell Time in Port	15	2
Cargo Transit Time	1.2	1
Total	16.2	3

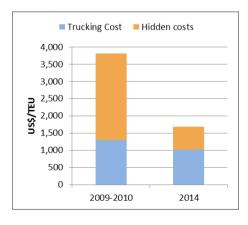
Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-12 summarizes the changes in the cost of key components resulting from improvements in these components of the corridor for Mombasa-Nairobi traffic. For Kenyan traffic, trucking cost in current USD has fallen by 21%, while hidden costs fell by 74%.

Figure 4-12: Principal Elements of Direct and Indirect Cost (Mombasa-Nairobi in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	1,300	1,023	-21%
Opportunity Cost for Truck	297	247	-17%
Extra Inventory for Cargo	2,219	411	-81%
Subtotal - Hidden Costs	2,516	658	-74%
Total: Trucking Cost + Hidden Cost	3,816	1,681	-56%

Source: CPCS Estimates



Source: CPCS Estimates

Owners of the trucks will eventually receive the indirect benefit of reduction in cost of owning vehicles for additional time (although in the short term it leads to an increase in the effective fleet size, which does not necessarily lead to a benefit until cargo growth absorbs surplus





capacity). Cargo owners receive both immediate and long-term benefits from the reduction in total time that cargo takes to reach its final destination, leading to a reduced inventory requirement.

4.4.2 Mombasa to Kampala

Figure 4-13 summarizes the estimated changes in port delays and transit time for containerized Mombasa to Kampala transit traffic.

Figure 4-13: Corridor Performance Mombasa to Kampala (days), 2009/2010 vs. 2014

	2009-2010	2014
Dwell Time in Port	21	5
Cargo Transit Time	4.2	5.5
Total	25.2	10.5

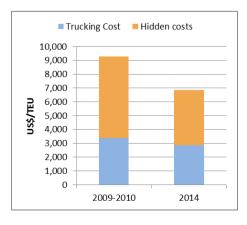
Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-14 summarizes the changes in the cost of key components resulting from improvements in these components of the corridor for Mombasa-Kampala traffic. Trucking cost has fallen by 16%, while hidden costs fell by 32%.

Figure 4-14: Principal Elements of Direct and Indirect Cost (Mombasa-Kampala in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	3,400	2,867	-16%
Opportunity Cost for Truck	1,738	2,276	31%
Extra Inventory for Cargo	4,142	1,726	-58%
Subtotal - Hidden Costs	5,880	4,002	-32%
Total: Trucking Cost + Hidden Cost	9,280	6,869	-26%

Source: CPCS Estimates







4.4.3 Mombasa-Kigali

Figure 4-15 summarizes the changes in port and transit time for Mombasa-Kigali, while Figure 4-16 summarizes total cost changes. Cash costs have fallen by 26% while hidden costs have fallen by 31%.

Figure 4-15: Corridor Performance Mombasa to Kigali (days), 2009/2010 vs. 2014

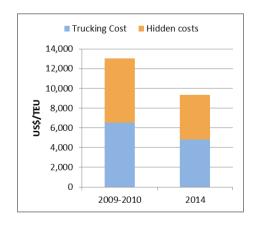
	2009-2010	2014
Dwell Time in Port	21	5
Cargo Transit Time	5.8	7
Total	26.8	12

Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-16: Principal Elements of Direct and Indirect Cost (Mombasa-Kigali, in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	6,500	4,833	-26%
Opportunity Cost for Truck	2,107	2,542	21%
Extra Inventory for Cargo	4,405	1,973	-55%
Subtotal - Hidden Costs	6,512	4,515	-31%
Total: Trucking Cost + Hidden Cost	13,012	9,348	-28%

Source: CPCS Estimates







4.4.4 Mombasa to Bujumbura

Figure 4-17 summarizes the changes in port and transit time for Mombasa to Bujumbura, while Figure 4-18 summarizes total cost changes. Trucking costs have fallen by 21% while hidden costs have increased by 25%.

Figure 4-17: Corridor Performance Mombasa to Bujumbura (days), 2009/2010 vs. 2014

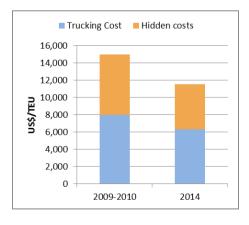
	2009-2010	2014
Dwell Time in Port	24	5
Cargo Transit Time	6.9	10
Total	30.9	15

Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-18: Principal Elements of Direct and Indirect Cost (Mombasa-Bujumbura in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	8,000	6,350	-21%
Opportunity Cost for Truck	1,898	2,750	45%
Extra Inventory for Cargo	5,079	2,466	-51%
Subtotal - Hidden Costs	6,977	5,216	-25%
Total: Trucking Cost + Hidden Cost	14,977	11,566	-23%

Source: CPCS Estimates







4.4.5 Mombasa to Goma

Figure 4-19 summarizes the changes in port time and transit time from the port of Mombasa to Goma in Eastern DRC.

Figure 4-19: Corridor Performance Mombasa to Goma (days), 2009/2010 vs. 2014

	2009-2010	2014
Dwell Time in Port	27.5	5
Cargo Transit Time	7.4	10
Total	34.9	15

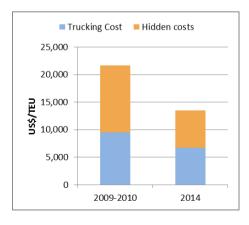
Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-20 summarizes the changes in the cost of key components resulting from improvements in these components of the corridor for Mombasa-Goma traffic. Trucking costs have decreased by 29% while hidden costs have fallen by 45%.

Figure 4-20: Principal Elements of Direct and Indirect Cost (Mombasa-Goma in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	9,500	6,750	-29%
Opportunity Cost for Truck	1,630	2,203	35%
Extra Inventory for Cargo	10,486	4,507	-57%
Subtotal - Hidden Costs	12,116	6,710	-45%
Total: Trucking Cost + Hidden Cost	21,616	13,460	-38%

Source: CPCS Estimates







4.4.6 Mombasa-Juba

Figure 4-21 summarizes the changes in port time (including use of CFS, still required for cargo to South Sudan) and transit time from the port to Juba. Both dwell time in the port (including CFS) and transit time en-route have decreased significantly. Trucking costs have fallen by 52%, or more than US\$ 5,000. The reduction in hidden costs is 24%.

Figure 4-21: Corridor Performance Mombasa to Juba (days), 2009/2010 vs. 2014

	2009-2010	2014
Dwell Time in Port*	25	8
Cargo Transit Time	11	14
Total	36	22

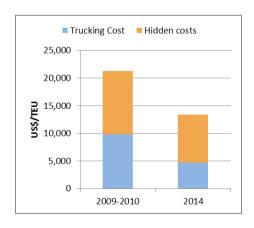
^{*} For South Sudan-destined goods, an additional three days have been added for 2014 to account for the time at the dedicated CFSs as per a South Sudan Government directive.

Sources: The 2009-2010 data from NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor Region, 2010. The 2014 data from Northern Corridor Observatory and truckers and forwarders active in this market. NC Observatory data does not separate transit and domestic or Kenyan cargo, but KPA staff estimated in early 2015 that during 2014 the average port dwell time for domestic (Kenyan) cargo was about two days, compared with five days for transit traffic.

Figure 4-22: Principal Elements of Direct and Indirect Cost (Mombasa-Juba in US\$/TEU), 2009/2010 vs. 2014

	2009-2010	2014	% change
Trucking Cost	9,800	4,678	-52%
Opportunity Cost for Truck	2,581	3,285	27%
Extra Inventory for Cargo	8,877	5,425	-39%
Subtotal - Hidden Costs	11,458	8,709	-24%
Total: Trucking Cost + Hidden Cost	21,258	13,387	-37%

Source: CPCS Estimates







The Impact of Current Corridor Initiatives

The Impact of Corridor Initiatives

Institutional change under the SCT is substantially complete (initiatives 1, 2 and 3). Implementation of those changes at the port (initiatives 4 and 5) and at border posts (initiative 5) are ongoing at the Kenya/Uganda, Uganda/Rwanda, Rwanda/DRC, and Rwanda/Burundi borders, but have not yet been introduced at the Uganda/South Sudan border. Delays within the port (initiative 6) have been substantially reduced, with about half of the current day dwell time being accounted for by delays that are the responsibility of shippers). Delays between the port gate and final destination, in Kenya or beyond the Kenya/Uganda border (initiatives 6, 7 and 8) have been reduced, but further initiatives in this area are needed.





5.1 Review of Joint Summit Communiques

The 1st Summit, held in June 2013 in Entebbe, was attended by Kenya and Uganda, later joined by Rwanda. The 2nd Summit, held in Nairobi in August 2013, added South Sudan, with Burundi as an observer. The 3rd Summit, held in Kigali in October 2013, added Rwanda, Burundi and South Sudan as full participants. The 4th Summit, held in Kampala in February 2014, added Tanzania, while the 6th added Ethiopia. The 8th Summit took place in December 2014 in Nairobi, and was attended by Kenya, Uganda, Rwanda and South Sudan, with observers from Burundi, Ethiopia, Tanzania and the East African Community (EAC). The 9th Summit took place in March 2015 in Kigali.

At the first meeting, facilitation issues were essentially limited to an agreement to strengthening the single customs territory (SCT) and implement all the provisions therein, where taxes will be collected at the entry points (specifically, implementing a programme for Uganda to collect customs duties before goods are released from Mombasa port). Clearance of transit cargoes at the Mombasa Port, which includes allowing clearing agents to pay duties due at final destinations at the port, began in late 2013 on a trial basis, for a limited list of commodities.

The 2nd Summit added a number of elements relating to the SCT:

- i) Introduction of electronic tracking (ECTS) by the end of 2014;
- ii) An agreement that transit cargo will be weighed once within each country, at the point of entry, and
- iii) A request to Ministers to remove all none-tariff barriers (NTBs).

The latter request has been repeated a number of times, most recently at the 8th Summit. Key facilitation issues discussed at the 8th Summit included "recent disruption on movement of goods on Northern Corridor", the need to fully train and accredit clearing agents on the two computer systems (the ASYCUDA World and SIMBA systems mentioned below) and again reiterated the need to remove all NTBs.

As of January 2015, Uganda and Rwanda have Customs officers and clearing agents within the Mombasa port, connected with both ASYCUDA WORLD (utilized by the inland countries for Customs control and SIMBA (utilized by Kenya). Within the first quarter of 2015, they will be joined by representatives from Burundi²⁴. South Sudan and DRC are not members of the Customs Union and have not yet made provision for payment of duties due at final destinations within Mombasa port.²⁵

²⁵ DRC has had a Customs Office at Nairobi for some years and added one at Dar es Salaam port in March 2013, under a memorandum of understanding (MOU) signed in 2012. Although paying of DRC duty prior to clearing the port does not yet take place at either port, there is a link for Customs use between the computer systems used by



²⁴ Directorate of Customs and Excise, DRC, 2015. Because imports to Burundi from Kenya via the Northern Corridor exceed imports via Mombasa, Burundi is considering requesting the addition of processing at the Malaba border post, which would permit imports from Kenya to move through Kenya and Uganda to Rwanda on a dutypaid basis, as happens now for select commodities imported through Mombasa.



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All NCTTCA members who are also EAC members (Kenya, Uganda, Rwanda, and Burundi) now have harmonized Customs legislation, based on the *EAC Customs Management Act*. In addition, South Sudan gazetted a new 'harmonized' Customs Law in July 2014. DRC Customs law has not yet been harmonized to the EAC model. Although the DRC Director of Customs in Kinshasa confirmed that becoming a member of the Customs Union was a priority, providing joint processing of goods in Mombasa port would require both bridging the French/English language gap (for staff and for the computer systems) and bridging the gap between computer systems used for Customs processing and control.²⁶

Since the first Summit, a number of additional specific regional initiatives or targets have been agreed upon. The current list includes:

- 1. Multiple security bonds not required under SCT;
- 2. Multiple customs declarations not required under SCT;
- 3. Differences in customs laws and instruments eliminated;
- 4. Customs systems interfaced;
- 5. Multiple Customs verification replaced by joint verification;
- 6. Road, police and customs roadblocks eliminated;
- 7. Multiple weighbridges en-route reduced to two + high speed weigh-in-motion system; and
- 8. Congestion at the port and border posts eliminated.

This initiatives or targets can be grouped, in terms of breadth of applicability to NCTTCA members:

• Initiatives 1, 2, 3, and 5 derive directly from the creation of an EAC Customs Union. They thus apply directly and equally to the Northern Corridor and the Central Corridor, and do not apply directly to DRC and South Sudan, who are not currently members of the Customs Union²⁷. However, DRC has signed Mutual Assistance Protocols with the Revenue Authorities of Uganda, Tanzania, Rwanda, Kenya, and Burundi (as well as Zambia). In 2015 DRC expects to sign an agreement with Tanzania Revenue Authority to create a SCT and is ready to sign a similar agreement with Kenya. Efforts have already been made to harmonize

both Rwanda Revenue Authority (RRA) and Tanzania Revenue Authority (TRA), to assist DRC Customs with tracking of goods in transit. In 2014 Tanzania replaced ASYCUDA++ with a new system known as TANCIS (Tanzania Customs Integrated System), which is compatible with ASYCUDA WORLD used by the landlocked countries. Cf. <http://allafrica.com/stories/201411120851.html>

²⁷ South Sudan has applied for membership in EAC, while DRC has not yet formally applied.



²⁶ DRC currently uses ASYCUDA WORLD (SYDONIA in French), with French as the operational language for data inputs and outputs. Except for translation, inter-face with SIMBA using the protocols already developed for other users of ASYCUDA WORLD should therefore be straightforward.



DRC Customs duties with trading partners, including regional initiatives through EAC, the Common Market for East and Southern Africa (COMESA), and the Southern African Development Community (SADC). DRC proposes to convert to *Revenue Authority Data Donation Exchange* (RADDEX), utilized for data exchange between Kenya and Uganda. There are also plans to open DRC Revenue Authority Offices in all countries of EAC.²⁸

- Initiative 4 is a critical technical step in the implementation of Initiative 5.
- Initiatives 6 and 7 apply within the borders of a single country. The longest portion of the Northern Corridor lies within Kenya, although Uganda also provides a major transit corridor for traffic between Mombasa and South Sudan, Rwanda, and DRC (and to a lesser extent Burundi), Rwanda provides a corridor through which goods transit to DRC and Burundi, and Burundi provides a corridor for transit to DRC.
- Initiative 8 is primarily a Kenyan responsibility in as far as it applies to the port, but border
 posts increasingly involve the co-operative development of One-Stop Border Posts (OSBP),
 permitting joint inspection at a single point by the two countries represented at each
 border. This requires ongoing joint agreements, both at a general level and for each border
 post, relating to staffing levels, working hours, and other site-specific operational
 parameters.

5.2 An Overview of the Process of Trade and Transport Facilitation

Senior officials in the ministries responsible for Trade Infrastructure and for EAC relations within each Member States advised that there are two essential characteristics to the initiatives taken under the NCIP Summits:

- The first is that the initiatives are broad-based, covering many ministries and agencies, including Customs/Revenue Authority, the Police, the port (KMA and KPA), and highways including weighbridges (MOT, KeNHA [Kenya National Highway Authority]). The initiatives began to have an observable impact over the last six months of 2014 precisely because they have reached a critical mass, directly involving a large number of participants involved in trade and transport.
- The second is that Directives for specific actions are coming from the highest level, within a
 public framework (the communiqués covering the 7th and 8th summits can be readily found
 on the internet) so that all involved in the logistics chain understood the need to work
 together.

This view of the importance of the high-level and public nature of the initiatives was reiterated by senior officials of the CCTTFA in Dar es Salaam, who confirmed that many of the reforms, including the ability to pay duties due at final destination at the port and reduction of transit vehicle inspection points en-route are EAC initiatives and thus have also been implemented in Tanzania. However, the absence of a regular multi-country platform with support of the

²⁸ Directorate of Customs and Excise, DRC, 2015.





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highest-level decision-makers applicable explicitly to CCTTFA limits the ability of that Agency to develop and promote a common agenda for all participants in the logistics chain linking Dar es Salaam to Uganda, Rwanda and Burundi²⁹.

In devising strategies for dealing with delays or other shortfalls in implementation of trade facilitation measures, it is essential to keep in mind the responses of each entity to system-wide changes. To entities such as Customs/Revenue Authorities, protecting revenue may be a more critical short-term goal as an agency than facilitating trade. Highway authorities regard both increased vehicle weight limits and overloading as imposing an undue burden on their maintenance budgets and thus put a higher priority on enforcing weight limits than facilitating trade.

Stop-gap measures to deal with specific issues often risk becoming permanent, and thus adding unintended time and cost to the logistics chain – the CFSs provide an obvious example, as do the inland weighbridges (initially necessary because while cargo leaving the port was weighed, there were not scales at each CFS to weigh vehicles re-loaded there). While there has been some discussion of the merits of creating secure service centres spaced regularly along the transit corridor, so that drivers could have a break while leaving their vehicle in a secure area, some worry that after they are introduced their use might become compulsory, effectively creating a 'cash cow' for their national operators, whether located in Kenya or further inland.

Duty levels are not identical across the region. For cargo in transit for which duties are higher in Kenya, the risk that cargo destined for an inland country is diverted en-route to the Kenyan economy increases, although it is much reduced if duty at final destination has already been paid at the port. While Kenya has actively participated in the corridor initiatives and certainly does not want to be seen as inhibiting the movement of cargo between Mombasa and inland countries, there remains a need to minimize 'leakage' of transit cargo on which duty has not been paid into the Kenyan economy. With the exception of petroleum products, where leakage is believed to be substantial, leakage problems and incorrect use of transit bonds are reported to be much more severe with 'one-off' or project cargo than with regular shippers and their agents³⁰. Regular transit cargo shippers and their agents understand the process and need to comply to minimize delay, ensuring that their cargo continues to be flagged (by ASYCUDA WORLD) as 'yellow line' (subject only to inspection of documents prior to clearance) or 'green line' (subject to neither physical inspection nor inspection of documents prior to clearance).

³⁰ One report indicated that a number of major petroleum distributors no longer operate retail service stations in Western Kenya because they are unable to compete with 'diverted' fuel that enters the market without paying Kenyan taxes and excises.



²⁹ It should be kept in mind that, for Burundi, the Northern Corridor is strictly an alternate or secondary route for imports from overseas, with most traffic using the Dar es Salaam Port and the Central Corridor, because of the substantially shorter trucking distance between the port and Burundi. In fact, Burundi utilizes the Northern Corridor more for regional imports than for imports from overseas; Burundi's imports from Kenya alone exceed Burundi's imports from overseas transiting via Mombasa. Recent changes in performance of the Central Corridor are discussed in Section 6, but 2014 performance data for that Corridor is not yet available.



The ultimate aim of transport facilitation within the region has been and continues to be trade facilitation³¹. The reduction of the 'friction of distance' throughout the region through reduced direct and indirect costs on the corridor will have the immediate effect of increasing disposable income throughout the region. This is particularly apparent for Rwanda, which ranks third on the widely-used 'Ease of Doing Business' Index among the 47 sub-Saharan African countries considered, but 33rd under the 'Trading across Borders' component of that Index, in large part because of the 'friction of distance'. The low ranking under that component is even more apparent for Burundi, DRC and South Sudan, who remain even more isolated by distance.³²

Figure 5-1: Ranking of NCTTCA Members under the 'Ease of Doing Business' Index

	Ease of Doing Business Index: Worldwide	Ease of Doing Business Index: Sub-Saharan Africa	Trading across Borders Component: Sub-Saharan Africa
Kenya	136	15	25
Uganda	150	22	30
Rwanda	46	3	33
South Sudan	186	45	47
DRC	178	43	44
Burundi	152	24	36

Source: www.doingbusiness.org

The elimination of unproductive (in some cases counter-productive) elements of the logistics chain may of course have a short-term negative impact on local economic activity along the corridor. Throughout the region versions of a story were repeated, describing how a small temporary village that grew up around one weigh station in Kenya (bars, restaurants, etc.) disappeared when the weigh station was closed. Loss of some work formerly done by Kenyan forwarding agents relating to transit traffic due to the introduction of the SCT was also frequently cited; this work has simply shifted to others from neighbouring countries/trade partners. Regardless, it was the clear vision of Trade Ministries throughout the region that the long-term positive impact on disposal income and trade facilitation, particularly trade within the region (primarily exports from Kenya, but also from Uganda to Rwanda, Burundi and DRC, and to a lesser extent from Rwanda to Burundi and DRC) will far outweigh the potential localized and temporary negative impacts of transport facilitation initiatives.

5.3 Observations on Performance against the Eight Initiatives

Interviews, data review, the February 2015 Inception Report, and the Draft Final Report (and workshop) concentrated on the above working list of eight initiatives³³. There is general

³³ Section 5.4 below provides additional observations on issues specific to those countries not members of EAC (South Sudan and DRC).



³¹ The trade data presented in Section 3.2 above makes it clear that the desired increase in intra-regional trade is fact already occurring.

³² See www.doingbusinesss.org for the mid-2014 rankings.



agreement both in Kenya and in the inland countries that the institutional changes arising from initiatives 1, 2 and 3 have been substantially completed. While Customs laws have been harmonized with the *EAC Customs Management Act* and much cargo does move under a single declaration, only a limited number of shippers are in fact making use of the single security bond. Only a limited set of commodities are currently permitted to move under the SCT warehousing regime (where duty is not paid until the cargo is cleared in the country of final destination). There is a joint verification process in place at the port³⁴ and throughout Kenya, including the Kenya-Uganda border and at most Uganda/Rwanda and Rwanda/Burundi border posts. In November 2014, because of a concern with leakage of transit cargo in the Kenyan economy, four commodities were removed from the list of seven commodities eligible for transit under the warehousing regime, on a temporary but indefinite basis³⁵. More detailed discussion of each initiative follow.

Initiative 1 - Use of Single Security Bond

While there has been an agreement on the introduction of a single Customs bond for transit (for transit cargo moving under the warehousing regime, where duty is paid only upon removal from a bonded storage at final destination), KRA reports that less than half of the transit consignees are currently using such a bond, since the use of the single bond based on the COMESA standard is not obligatory. In some instances, a bond appearing to match the proforma has been issued in Kenya, but there have been difficulties with collection because the bond is not in fact 100% compliant with the agreed regional format.

Initiative 2 – Multiple Customs Declarations Not Required

Goods can now move throughout the region on a single Customs declaration.

Initiative 3 – Differences in Customs Laws and Instruments Eliminated

All members of NCTTCA except DRC now have Customs laws fully harmonized with the *East African Community Customs Management Act 2004 (EACMA)*. DRC is working primarily through regional organizations such as EAC, COMESA and SADC to harmonize with regional trading partners.

Initiative 4 – Customs Systems (SIMBA and ASYCUDA WORLD) Interfaced

There were significant initial problems with the interface between the SIMBA and ASYCUDA World systems, some of which led to additional delay of cargo for several days (during which the cargo incurred demurrage charges within the port, initially for the account of the freight forwarder. KMA/KPA advised that an agreement has been reached to reimburse demurrage charges which arose in 2014 because of system implementation issues.

³⁵ Under the warehousing regime, goods move in bond (now under a single bond), and duties are paid only when the goods are cleared at final destination. Four of the commodities initially on the list for such treatment were temporarily removed from that list in November 2014, so implementation of this regime remains incomplete.



³⁴ For transit cargo where duties due at final destinations are paid prior to release of cargo from the port of Mombasa, KRA involvement in cargo clearance is minimal, generally limited to verifying the seals on containerized cargo and issuing the release note.



While most of the initial problems have been resolved, KRA, Uganda Revenue Authority (URA), and Rwanda Revenue Authority (RRA) confirmed that problems continue to occur from time to time, creating random but occasionally significant delays. KRA has advised that arrangements have been made to process entries manually in the event of extended system delays.

Because of the nature of the two computer systems, forwarders and other users of the two systems need to be registered and entered separately into each system. Inland forwarders report that while Kenyan forwarders have been registered in ASYCUDA, there have been delays in registering forwarders from Rwanda and Uganda with SIMBA³⁶. Kenyan forwarders, on the other hand, are concerned that transit cargo clearing activities at the port, which were previously undertaken exclusively by them, can now be done by agents from the inland countries, reducing the services provided by Kenyan forwarders.

There is no link between Ugandan and South Sudanese computer systems at the Uganda/South Sudan border, nor is there a link at the Rwanda/DRC border at Goma³⁷. The computer system currently in use in South Sudan began operation in 2013, and the harmonized Customs law was gazetted less than a year ago, so import/export data is available only for 2013 and 2014. Freight forwarders and clearing agents in Juba estimated that it currently takes an average of 3-5 days to clear goods manually at Nimule.

Initiative 5 – Multiple Customs Verification Replaced by Joint Verification

Joint verification now takes place at Mombasa and at the main Kenya/Uganda border post used by truckers (Malaba), as well as at most Uganda/Rwanda and Rwanda/Burundi border posts. There is no provision for joint inspection at the Uganda/South Sudan border posts or at the main Rwanda/DRC truck crossing point.

Initiative 6 - Road, Police and Customs roadblocks eliminated

The number of police checks en-route, particularly within Kenya, apparently remains an issue. The issue has been raised more than once by Kenya Transporters Association (KTA) and others at Mombasa Port Committee meetings. It was anticipated that introduction of the electronic cargo tracking system (ECTS) by KRA within Kenya would improve cargo security, by being linked directly to Kenyan police. However, the rapid response teams that would be needed are reportedly not yet in place.

Within Kenya, Mombasa and at least seven other county governments have proposed to charge transit fees on goods transiting their territory. These would lead not only to increased additional delays for collection along the corridor, but of course also to increased out-of-pocket costs for truckers and shippers. While the Kenyan Attorney-General has ruled that such charges would impede trade, they remain a threat both to trade and transit facilitation initiatives already taken and to future initiatives.

South Sudan sources report that road delays between Juba and the border posts with Uganda (Nimule and Kaya) were substantially eliminated in mid-2014. However, the border post at Nimule was closed for several days in October 2014 by a dispute over the number of clearing

³⁷ A one-stop border post is under development at the Rwanda/DRC border, financed by the Buffet Foundation.



³⁶ This is likely an interim or transition issue rather than a long-term problem.



agents authorized to operate at the border. Paving of the road between Nimule and Juba in 2011 was identified by both Ministry of Transport and local forwarders as a major contributor to reduced transit time between Mombasa and Juba.

Initiative 7 - Number of Weighbridges

Truckers operating within Kenya and in the inland countries continue to report that there remain multiple weighbridges and multiple checks of weight documents on the roads linking Mombasa to the Ugandan border³⁸. In fact, the NCTTCA Dashboard continues to report on number of vehicles weighed and average delay not only at Mariakani, but also at Athi River, Gilgil, Busia, and Webuye. The dashboard indicates that 70-90% of the vehicles re-weighed inland of Mariakani are in fact compliant with weight limit regulations, so there is only limited enforcement impact from repeated weighing.

It should be kept in mind that the use of High Speed Weigh-in-Motion (HS-WIM) scales reduces vehicle delays arising from multiple weighing, but does not always eliminate them. Trucks that have been within the allowable limit at Mariakani need to line up to proceed through each HS-WIM scale further inland, and occasionally get a red light, requiring them to pull off and wait for-re-weighing at a static weighbridge. Kenyan truckers (both individual truckers interviewed and through KTA, their association) indicate that most of the truckers getting a red light at the HS-WIM scales are subsequently found to be compliant. This is confirmed by the weekly data available on the NCTTCA Dashboard, although the compliance rate shows considerable variation week-to-week and between weigh stations. At present, the HS-WIM and automation at Mariakani/Mtwapa, Athi River/Isinya/Juja, Webuye and Busia/Rongo are operational, while the process at Gilgil is still under development. Construction of stations at Athi River and Mariakani is currently underway and are expected to be operational in June 2015.

Although the maximum gross vehicle weight is 56 tonnes, the actual limit for 6-axle vehicles is in some cases less, depending on vehicle configuration³⁹. Some suggest that there are discrepancies in calibration between locations. While domestic cargo can be off-loaded to reduce vehicle weight, for containerized transit cargo, this is not practical, as the seal can only be broken by Customs or a representative of the owner of the cargo. This is consistent with the observation the overweight transit vehicles occasionally reach the Rwanda or even Burundi borders, despite having been stopped repeatedly for weighing within Kenya. However, this means that while repeated weighing of transit vehicles delays cargo movement, it in fact does little or nothing to reduce the road damage, particularly in Kenya, that results from excess

³⁹ Allowable maximum vehicle weight depends on the number of wheels per axle, the number of axles and their configuration. Under the *Traffic (Amendment) Rules 2013* the maximum weight for a six-axle vehicle thus ranges between 46,500 kg for a vehicle and semi-trailer and 52,000 kg for a vehicle and drawbar trailer, depending in each case on the number of wheels per axle.



³⁸ For a detailed review of weighbridge and other delays and sources of corruption between Mombasa and Kigali, see *East Africa Rising: Experiential Survey on non-tariff barrier (Kigali-Mombasa)* conducted and published by Hope Magazine with financial assistance from TMEA. When the authors rode trucks between Mombasa and Kigali in early 2013, there were five weighbridges in Kenya and three in Uganda. This study concluded that "corruption was the major factor that affected transport costs", affecting 11 out of 26 roadblocks, seven out of eight weighbridges and 50% of border crossing points. 93% of the average corruption cost of US\$ 847 was at weighbridges.



loads. One source in Uganda estimated that 70% of vehicles arriving at the Kenya/Uganda border are over the 56-tonne limit.

The Minutes of the Port Community Meeting dated 30 January 2015 confirm that development of electronic linkages between weighbridge stations to address the problem of multiple weighing was in-hand; the contract with the World Bank has been awarded and the whole system will be overhauled, involving Mariakani and Athi River Weighbridge Stations and infrastructure inter-connectivity. KeNHA remains optimistic that the projects will commence in June 2015.

The Port Community Minutes also noted that 55 containers were recently detained within the port for an extended period because they were consigned to Rift Valley Railways (RVR) but were loaded beyond the 33-tonne maximum weight allowed by the RVR, to whom they had been consigned⁴⁰. In many cases container weight has been under-declared by the shipper, which creates a potential safety risk for vessels as well as rail or road carriers and can result in under-collection of revenue by revenue authorities.⁴¹

Initiative 8 – Congestion at the Port and Border Posts Eliminated

KPA estimates that average dwell time within the port is currently about 3-6 days. KPA also estimates that 55% of this time is accounted for by delays that are in the hands of consignees or their agents, including late lodging of the manifests (the manifest section of KRA has been relocated from Nairobi to Mombasa to facilitate timely processing), and last-minute changes by the consignee or his agent to delivery location or other details. While consignees are represented at the weekly Port Committee meetings, it appears that not all fully appreciate the importance of all participants in the logistics chain taking all possible steps to reduce delays.

There are also reports of occasional extended delays at the Kenya/Uganda border for both truck and rail traffic, despite the ongoing development of OSBPs, permitting joint (simultaneous) inspection by representatives of Kenya and Uganda. Some of these delays are as a result of the not-yet-complete 'one-stop' infrastructure at Malaba, being developed under an EAC initiative to develop up to 14 OSBPs in the region.

Except for traffic to South Sudan, escorts are no longer required for transit traffic, as a result of the implementation of the ECTS⁴². Despite initial objections from truckers at the imposition of

⁴² In Uganda, URA fully subsidizes the cost of ECTS. Elsewhere in the region the cost, which varies substantially between countries, is born by the truck owner. It should be noted that although it is a regional initiative, ECTS has been implemented nationally, not regionally. That is, at each border the tracking device used within the country is removed before the vehicle moves on, and is replaced by another by the Revenue Agency (or its agent) for the next country. This means that it is not possible to obtain consistent data on the movement of a particular vehicle from



⁴⁰ They greatly exceed the allowable road limit.

⁴¹ The nominal ISO rating for a standard 20ft container (maximum gross weight including contents) is 24,000 kg, or about 26.5 t. Over-loading of containers at source has become a serious issue world-wide issue for both oceangoing vessels and land carrier. In November 2014 the *International Maritime Organization* (IMO) approved mandatory weight declaration under the International Convention for the Safety of Life at Sea (SOLAS), to come into effect in mid-2016. This will forbid loading a container whose verifiable weight exceeds limits onto a vessel, but will probably require amendment to national regulations to become fully effective.



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an additional cost, truck fleet owners have accepted that the tracking information available to them have enabled them to more closely monitor un-anticipated stoppage and delay on-route. However, the fleet owners have also reported that obtaining driver acceptance of this ability to continuously monitor vehicle movement has been problematic.

In many cases border, posts do not operate 24/24 – the main posts between Burundi and Rwanda or Tanzania are open 12-14 hours per day, while the Uganda/South Sudan border is open less than 12 hours per day and portions of the 200-km road between Nimule and Juba are closed between dusk and dawn because of security risks. South Sudan indicated that development of an OSBP at Nimule is a priority⁴³. While South Sudan has implemented computerization of data summarizing import and export activity since 2013, the country has not yet implemented a centralized system for Customs processing that could be interfaced with SIMBA at Mombasa or with Uganda or Kenya at the border post.

the port to final destination in an inland country, and of course imposes an additional small delay on the vehicle at each border.

⁴³ Department of Road Transport and Safety, South Sudan Ministry of Transport confirmed that the border post project is at the design stage and remains a high priority. There is a general expectation among freight forwarders that completion of this facility, currently expected for late 2016, will significantly reduce border delays and thus reduce overall transit time to Juba, potentially by several days.





Comparison with the Central Corridor

Both Corridors Have Improved, with More Significant Improvement Realized in the Northern Corridor

Improvements in the Northern Corridor, in terms of both the time that cargo rests inside the port and time taken in transit from the port gate to final destination, have been greater than improvements on the Central corridor. However, as of 2013, the Central Corridor continued to have a marginal advantage for Rwanda, Burundi, and DRC in terms of the cash cost of transport, primarily because of the shorter distance from the port to Kigali, Bujumbura, or Goma.





6.1 Overview

"The main challenges facing the (Central) corridor in terms of effectiveness and productivity are ... activities around the port of Dar-es-Salaam and the border posts". 44

The Central Corridor Transport Observatory Project was launched in 2013 and has, to date, issued an annual report only for 2013, in which the above statement is made. This confirms that while delays continue to exist along the corridor linking Dar es Salaam to the Rwanda and Burundi borders, the main sources of delay for transit cargo continue to be at the port, at the border crossing points, and at final destination. The Observatory Project collects data on cargo movement from the time it is landed in the port until it is released for delivery at final destination, but does not tabulate information on delays arising from vessels waiting to unload. It is likely that the 2014 Central Corridor Observatory data, when available, will show reductions in time at each of these locations for transit traffic, as a result of the mid-2014 introduction (for select commodities) of the paying of duties prior to clearing the goods from the port, so that transit goods move as duty-paid.

6.2 Performance of the Central Corridor over Time

Total imports via Dar es Salaam have exceeded 10 million tonnes for the past several years, while exports through the port remain below 200,000 tonnes.

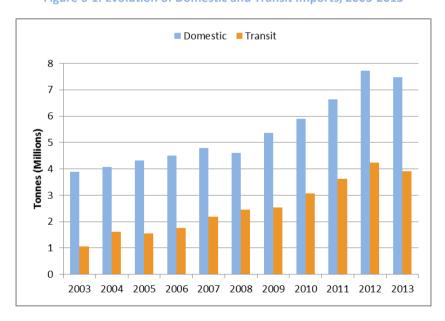


Figure 6-1: Evolution of Domestic and Transit Imports, 2003-2013

Source: CCTTFA Transport Observatory Project Annual Report 2013

⁴⁴ Transport Observatory Project Annual Report 2013, CCTTFA. This is based on sampling from the ECTS used by truckers, as well as port data from both Tanzania Ports Authority (TPA) and Tanzania International Container Terminal Services (TICTS).



44



As in Mombasa, dwell time in the port has been reduced significantly in recent years, particularly for local traffic, which increasingly make use of private Inland Customs Deports (ICDs)⁴⁵. However, dwell time in the port of Dar es Salaam remain significantly higher than at Mombasa.

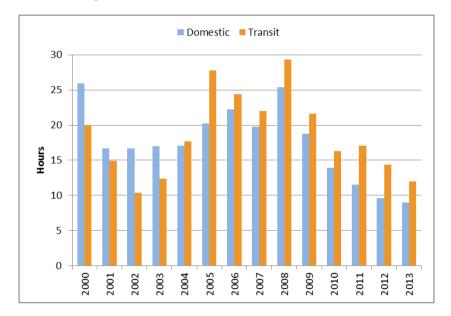


Figure 6-2: Evolution of Port Dwell Time, 2000-2013

Source: CCTTFA Transport Observatory Project Annual Report 2013

6.3 Performance of the Central Corridor in 2013

While containerized, liquid (mainly petroleum products) and break-bulk cargo account for similar shares of domestic traffic, liquid cargo tends to dominate transit movement to the landlocked countries.

⁴⁵ While the use of an ICD reduces both port dwell time for the container and congestion within the port, it does not necessarily reduce delivery time to final destination.





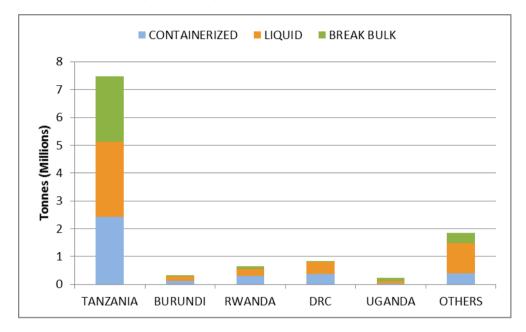


Figure 6-3: Cargo Composition by Country, 2013

Source: CCTTFA Transport Observatory Project Annual Report 2013

Delays at the Port of Dar es Salaam

The Government of Tanzania, under the *Big Results Now* (BRN) programme, has set a target of reducing the dwell time at the port for containers to five days by 2015. The 2013 values were 11-14 days for transit traffic (lowest for Rwanda and Uganda, and highest for DRC) and nine days for domestic traffic (not including time spent at the ICDs outside the port).

Delays between Dar es Salaam and Border Posts

As of December 2013 seven weighbridges were in operation along the Central Corridor. Average delay at each weighbridge was just under 24 minutes, so in total they account for about two hours of transit time. At the same time there nine police checkpoints. If police checkpoints were abolished (or combined with weighbridge stops) transit time could thus be reduced by about 3.3 hours.

There are six points at which truckers stop regularly for breaks, often at night⁴⁶. Average stopping time per one-way trip totals just over 5 hours. As of early 2013 all vehicles have been equipped with ECTS, at a fee of US\$ 30 per load, so transit vehicles are no longer required to stop at intermediate Customs checkpoints.

Delays at Border Posts

Most transit traffic passes through Rusumo (to Rwanda, or via Rwanda to DRC) or through Kabanga (to Burundi, or via Burundi to DRC). The third post (Mutukula) accounts for less than

⁴⁶ While vehicles could operate 24 hours per day within Tanzania using two drivers, most operate with a single driver. Drivers continue to use their preferred stopping places.





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2% of transit traffic. Average border post delay during 2013 was about 3.9 hours at Kabanga and 4.6 hours at Mutukula.

Total time in Tanzania (from port through the border post) is just under two days to either post, of which the vehicle is in motion about two-thirds of the time.

Delays at Destination

Transit time from the border to unloading in Kigali is about 0.85 days, compared with 1.61 days to Bujumbura, with most of the difference being an extra 0.75 days spent in Bujumbura waiting to unload.

6.4 Current Performance of the Central Corridor versus the Northern Corridor

While the Central Corridor Transport Observatory currently provides data only up to the end of 2013, interviews in Rwanda and Burundi in January 2015 confirm anecdotally that performance of both corridors improved somewhat in 2014. Rwanda has had agents in Dar es Salaam port since the pilot project began in late 2013. Rwandan freight forwarders dealing with traffic utilizing both Mombasa and Dar es Salaam ports indicate that transit time from Mombasa for cargo where duty has been paid prior to release from the port is now 5-6 days, compared with about three days via Dar es Salaam. For both the Dar es Salaam/Central Corridor and Mombasa/Northern Corridor routes, delays at borders are much less significant than before, particularly for goods where duty has already been paid. For both Rwanda and Burundi, import via Dar es Salaam means a single border, versus two borders for Rwanda or three for Burundi for imports via Mombasa and the Northern Corridor.

It was noted that for both corridors a critical change is the reduction in the length of the logistics chain permitted by payment of duty prior to commencing transit movement. Once these goods have cleared the entry point of country of destination they are domestic cargo, and can be delivered directly to final destination. If duty not yet paid, then they must go to a central Customs-controlled area, where they are held until they have been cleared. Thus payment of duty at the port eliminates two links of the chain – one container handling plus delivery from the Customs depot to final destination.

One Burundi forwarder indicated that recent changes in total transit time along the Central Corridor to Burundi had been negligible. While there was some reduction in transit time on the Northern Corridor route, the traffic split for imports remained at about 70% via Dar es Salaam, 10% via Mombasa, and 20% imports from Kenya and Uganda. This pattern could shift significantly if in future petroleum products were sourced from the refinery to be developed in Uganda rather than from Eldoret, Mombasa, or Dar es Salaam.





Figure 6-4 summarizes the observed changes between 2010 and 2013 for both the Northern and Central Corridors for transit movement to Kigali⁴⁷:

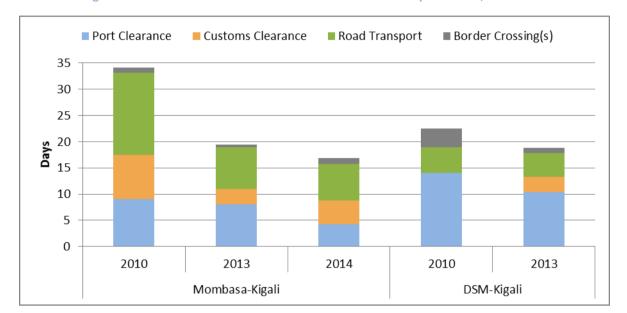


Figure 6-4: Northern and Central Corridors – Performance Improvement, 2010-2014

As noted earlier in this report, annual data for 2014 is not yet available for the Central Corridor. However, Figure 6-4 illustrates a number of key points:

- The reduction in road transport time for the Northern Corridor through 2013 was much greater than for the Central Corridor. Thus total time from ship arrival at the port to cargo arrival in Kigali via the Northern Corridor was more than 10 days longer in 2010 (in part because of the longer distance), but was comparable in 2013, despite the longer time taken for road transport;
- Time in the port (port clearance plus Customs clearance) has been significantly reduced for Mombasa but shows little overall change at Dar es Salaam (Customs clearance at Dar es Salaam was included under port clearance time in 2010, so the blue segment in 2010 is comparable to the sum of the blue and orange segments in 2013 – the sum of the two shows little change);

⁴⁷ Kigali is used as example, because it is the only point which consistently utilizes both corridors for a significant volume of traffic, and for which comparable data is available. Even this comparison is incomplete, as crossing time information is only available for the Kenya-Uganda border. This value of 0.5 days has been doubled to allow for time at the Uganda/Rwanda crossing.



^{*} For Dar es Salaam- Kigali 2010, the Customs clearance time is included in the port clearance time.

Sources: NCTTCA Transport Observatory; NCTTCA, Northern Corridor Transport Observatory Report (December 2014), p. 12; CPCS Market Analysis Report, EA Freight Logistics Market Study 2013; Fitzmaurice, Mike, and Olivier Hartmann, Border Crossing Monitoring along the Northern Corridor, SSATP Africa Transport Policy Program, Working Paper No. 96, World Bank, April 2013; World Bank, Tanzania Economic Update: Opening the Gates: How the Port of Dar es Salam Can Transform Tanzania, May 2013; and NCTTCA/CPCS, Analytical Comparative Transport Cost Study along the Northern Corridor, October 2010.



Performance Improvement Activities

The reduction in border crossing time was substantially greater for the Central Corridor, so in 2013 total border crossing time to Kigali is about the same for the two routes, despite that fact that there is only a single border to cross between Dar es Salaam and Kigali. Thus, as Figure 3-7 above shows, the transit traffic to Kigali via Dar as Salaam substantially exceeded transit traffic via Mombasa, but Rwandan imports from Kenya exceeded imports from elsewhere in the region by a substantial margin.



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Conclusions and Recommendations

The Combined Effect of the Initiatives Taken Since June 2013 Has Already Created Very Real Improvements

Improvements are seen in reduction in:

- The time from the arrival of cargo through delivery to final inland destination;
- The cash or direct cost of transport along the Northern Corridor; and
- The indirect or hidden costs of transport arising from transit delays

There was general agreement among stakeholders throughout the region that many changes were triggered by the introduction in 2014 at both Dar es Salaam and Mombasa of joint processing at the port by Customs from both the port and the country of final destination. This permits selected commodities to move in transit in a 'duty paid' status, since duties at final destination will have been paid before the goods are cleared from the port.

However it is the combined effect of the initiatives, rather than any particular initiative, that is critical. There is also a consensus that the fact the initiatives were taken at the highest political level and were announced publically has meant that all participants in the logistics chain are aware of the high national and regional priority attached to the initiatives.

It is, however, also clear that much remains to be done.





7.1 Conclusions

From the data available up to the end of 2013 and the limited current hard data available, combined with our extensive interviews in early 2015 with stakeholders throughout the region, it is clear that the combined effect of the initiatives taken since 2013 has led to very real reductions in:

- The time from the arrival of cargo through delivery to final inland destination;
- The cash or direct cost of transport along the Northern Corridor; and
- The indirect or hidden costs of transport arising from transit delays.

There was general agreement among stakeholders throughout the region that many changes were triggered by the introduction in 2014 at both Dar es Salaam and Mombasa of joint processing at the port by Customs from both the port (Kenya or Tanzania) and the country of final destination (Uganda, Rwanda, Burundi, DRC or South Sudan). This permits selected commodities to move in transit in a 'duty paid' status, since duties at final destination will have been paid before the goods are cleared from the port. It is the combined impact of the initiatives, rather than any particular initiative, that is critical. There is also a consensus that the fact the initiatives were taken at the highest political level and were announced publically has enforced the message; all participants in the logistics chain are now fully aware of the high national and regional priority attached to the initiatives.

7.2 Continuing Challenges

It is equally clear, regardless of the improvements, that much remains to be done. There remain critical areas where actions need to be taken, including:

- 1. Delays within the port arising from factors under the control of shippers (delays in lodging of the manifest, changes to the manifest after lodging, changes to final destination). While shippers are present at the Port Community meetings, it is evident that not all shippers are fully aware of the impact that last-minute changes to the manifest or other documentation can have on port dwell times. Last minute delays on port clearance can affect performance of the balance of the chain, when for example trucking capacity is re-scheduled to handle other traffic.
- 2. The continuing movement of overweight vehicles along the Corridor, despite weighing shortly after leaving the port and at each border. In some cases, this arises from conscious overloading of vehicles at the port, but in many cases, it arises because the weight of import containers in transit has been intentionally under-declared at origin, leading to both road damage along the corridor and under-collection of duty by the country of final destination.
- 3. The continuing incidence of multiple non-productive stops for trucks in transit (non-tariff barriers, or NTBs), whether for security checks, for verification of transit documents, or for verification of vehicle gross weight. In all cases, these add to vehicle transit time (and to the variability of transit time, and in many cases they provide the opportunity for a request for unofficial payments (bribes), without having a noticeable positive impact on security, document validity, or overloading.





- 4. Delays at borders related to incomplete implementation of One Stop Border Posts. In some cases, the required infrastructure has not been completed, at other borders working hours are little more than 12 hours per day, or opening and closing hours are not fully synchronized because of time zone differences. This can require vehicles arriving late in the day to wait until morning for clearance, adding 8-12 hours to total transit time for the goods (and occasionally the same time twice for the vehicle, which in most cases returns empty to Mombasa or Dar es Salaam).
- 5. Delays related to incomplete links between SIMBA (used by KRA) and ASYCUDA (used by all other member countries except South Sudan).
- 6. Delays in fully integrating DRC and South Sudan into the EAC Single Customs Territory (SCT). Note that this does not necessarily require prior membership in EAC; DRC expects to implement a SCT with Tanzania by the end of March 2015.

7.3 Priority Policy Initiatives

The following Action Items are proposed for further discussion, to deal with outstanding issues related to the recent initiatives:

General: Region-wide

- 1. Develop 'culture of compliance' among shippers, logistics chain providers, and Government entities. Broad initiatives such as the signatories to the *Port Community Charter* at Mombasa or the *East Africa Business Council (EABC)* would provide appropriate forums.
- Further develop information collection on critical issues not currently fully documented on an ongoing basis – Increased port dwell time due to late filing of documents (or amending of documents) at port; delays within the Port and CFSs arising from factors under shippers' control, delays en-route beyond the Kenya/Uganda border, and incidence of unofficial payments.
- 3. Expand the list of commodities that can be moved in transit under the SCT using the warehousing regime (i.e. without paying of duties prior to removal from the port).

General: Bilateral

- Expand One-Stop Border Posts and associated regulation, including extended hours. Consider paying of final destination duty at first border post, starting with Malaba (particularly for regional trade).
- 2. Enter into SCT agreements on a country-by-country basis (for DRC and South Sudan, not members of EAC).

Specific to Shippers

1. Assist shippers to understand the impact of last minute changes, including late lodging or amendment of manifests, on overall logistic chain performance.





2. Improve both initial weighing and blocking of cargo to reduce shifting, in order to reduce incidence of both vehicle overload and axle-specific overload en-route (and resultant potential damage to infrastructure).





Appendix 1: Assignment TOR

TERMS OF REFFERENCE

IMPACT ASSESSMENT OF THE NORTHERN CORRIDOR PERFORMANCE IMPROVEMENT INITIATIVES

1. BACKGROUND

The Northern corridor is a multi-modal transport Corridor consisting of surface transport modes which include road rail, inland waterways and pipeline. The Corridor links Burundi, Eastern Part of DR Congo, Northern Tanzania, South Sudan, Uganda, Rwanda and Ethiopia to the Mombasa sea Port.

The Northern Corridor Transit and Transport Coordination Authority (NCTTCA) is a regional intergovernmental organization that is mandated to facilitate trade and transport in its Member States served by the Northern Corridor transport infrastructure. The Member States include Burundi, DRC, Kenya, Rwanda, South Sudan and Uganda.

Less than 4% of goods leaving Mombasa port go by Railway. Railway network is currently inefficient with poor maintenance regimes and low capacity to transport goods. However, the Standard gauge railway linking Mombasa and Nairobi and later to Kampala, Kigali and South Sudan will have a positive impact on this. The project, which is one of the Northern Corridor integration projects, is expected to have the largest impact on efficiency of the transport chain in EAC and the Northern Corridor region.

By the year 2020, Mombasa port capacity is expected to be 2.5 million TEUs and the port is expected to handle 23.9 million TEUs per annum.

Recent developments at the Mombasa Port have dramatically reduced the time goods spend at the port; namely the Single Customs Territory initiatives, the removal of road blocks; the implementation of high speed weigh in motion at weighbridges; the signing of the port performance charter; the expansion of port infrastructure; New Container Terminal, E-SWS, etc.

In order to meet the needs of their Member States, the Northern Corridor need to provide efficient and competitive connections based on rail, road, inland waterway services and inland Container depots which ensure that port services are closer to the shippers in the member States. The Northern Corridor integration projects summit under the leadership of the Heads of States have committed to address bottlenecks along the Corridor.

The Head of States Summit for the Northern Corridor have committed to bring down the cost of doing business and promote integration of the region. Among the directives that have been issued to this effect is the removal of check points along the corridor, elimination of multiple weighing of tracks on transit, implementation of the single customs territory etc.





FINAL REPORT | Impact Assessment of the Northern Corridor Performance Improvement Activities

During the 7th Northern corridor Integration Projects summit that was held on 8th October 2014, NCTTCA was tasked to undertake an impact assessment of all the initiatives along the Northern Corridor.

2. PROBLEM STATEMENT

The Northern Corridor has been reported to be one of the expensive Corridors in the world with high logistics cost resulting in high cost of doing business. This affects the Country's ability to be competitive in the global market and mitigates against eradication of poverty.

Traders have faced an array of different direct and indirect logistics costs with previous studies estimating indirect (hidden) cost of delays contributing to about 41% of the transport cost. The Corridor inefficiencies resulting to high transport cost along the Northern Corridor have been identified as a major cause of high costs of production and marketing of goods resulting in high consumer prices and the escalation of poverty. In addition, the international trade competitiveness of the sub-region is impacted negatively.

However, in spite general reference to previous studies that portray transport costs to be unreasonably high, there is need to have an up-to date data on the actual status on the ground given that a lot has been done in the resent past notably the Presidential directives to remove all non-tariff barriers.

There is therefore a need to fully understand the impact of resent reforms and to quantify the benefits in terms of costs with a view of strengthening or designing programs to address the current or anticipated issues.

In addition to the current transport costs, the Northern Corridor summit would like to understand expected impact of planned Northern Corridor integration projects to cost of doing business in the region.

In fulfillment of the recommendation of the 7th Northern Corridor integration summit, the study should provide guidance on policy formulation and provide quick wins on areas where focus should be directed to realize optimum impact in the shortest time possible.

This study is wide and will entail the following areas in the logistics costs structure but for the purposes of reporting to the 8th Northern Corridor summit which will be held in two-month time, the Consultant will prioritize on the following areas that have a greatest bearing by the previous decisions of the summit:

- (i) Shipping cost (maritime);
- (ii) Transshipment cost;
- (iii) Port terminal costs (Handling, documentation, etc.);
- (iv) Inland route cost (Freight);
- (v) Inland Terminal costs;
- (vi) Vehicle operating costs along the Corridor;
- (vii) Inventory costs due to unreliable delivery systems or inefficiencies along the Corridor logistics chain;
- (viii) Any other costs affecting the movement goods and traffic along the Corridor





3. OBJECTIVE OF THE STUDY

The Objectives of the study are as follows:

a) Overall Objective.

To enable the Northern Corridor Integration Projects Summit and the Northern Corridor Transit Transport Coordination Authority to understand the current transport cost structure along the Northern Corridor and reformulate policy that would result in further reduction transport cost along the Corridor and to guide investment in the transport infrastructure, the study will:

- (i) Determine the impact of reforms by the Northern Corridor Projects integration Summit on transport cost in the region.
- (ii) Determine the references of the total transport cost, including the invisible costs, along the Northern Corridor,
- (iii) Undertake a comparative assessment of transport costs by comparing different
- (iv) Transport Corridors in Africa and elsewhere
- (v) Develop different strategies and necessary measures to improve the performances of the Corridor.

b) Specific Objectives.

The Study will have the following specific objectives:

- (i) To quantify costs throughout the logistics chain along the Northern Corridor
- (ii) Provide an evolution of the transport cost along the corridor for the last 5 years and clearly specify the reason for changes and reforms attributed to changes and by whom.
- (iii) Provide comparison of the costs and freight rates in relation to the Central Corridor and other Corridors in Africa, Asia and Latin America.
- (iv) To Conduct an analytical study of total logistics costs along the Northern Corridor including internal costs to carriers and external costs (mainly public facilities costs) but also with consideration to congestion, delays, storage, inventory and accidents.
- Based on the assessment, to propose a prioritized set of policy, institutional, financial and investment measures to reduce transport costs and improve efficiency along the corridor,
- (vi) To quantify vehicle operating costs, as well as other factors contributing to transit costs along the Northern Corridor in comparison with the Central Corridor;
- (vii) Benchmarking of costs for the purposes of monitoring changes as result of policy reforms and the implementation of Northern Corridor Programs and activities;
- (viii) To Compile and analyze data on intra-regional trade freight volumes and logistics costs;
- (ix) To carry out an analysis in terms of relative reliability and safety of the road/rail and pipeline modes of transport.
- (x) To use the findings of the study to propose necessary policy changes with the view to cutting down costs.





4. SCOPE OF WORK

The following gives the scope of activities to be undertaken:

- (a) Develop an origin-destination flow and tariff matrix. For the dominant export and import commodities, collect information on volume of movement, by mode, by time, through the logistics chain (including origin, points of transshipment, delivery to warehouses and the final consumption destination). For each link in the chain, collect information on freight tariff charged by different operators and forwarding agents. Examine cost of operation for domestic and international operators (including sea freight charges, port charges, rail and road transport charges, storage charge, financial cost of tied capital, handling cost, etc.). The information should be collected for:
 - International freight-volume and cost from point of origin to the port and from the port to the warehouse at destination;
 - Domestic movement-volume and cost of delivery and storage from warehouse to the ultimate consumer.

The data on cost of operation should reflect "generalized cost" and include (besides tariff): cost imposed due to delays at ports, border posts, transshipment, storage and handling, reliability of service and other cost involved in moving goods from the supplier/producer to the point of final consumption.

- (b) Analyze traffic flows and volumes along the Northern Corridor Transport Chain:
- Shipping Lines (Maritime lines);
- Ports in the region;
- Railways;
- Roads (Northern Corridor Road network);
- Inland ports and Inland Container Depots;
- Bonded Warehouse;
- Pipeline transport;
- (c) Collect information on operational characteristics and operating cost by vehicle type and railway locomotives.
- (d) Examine relative share and the level of competition within and among different road transport operators from different countries of Northern Corridor Countries and how this affects freight costs.
- (e) Compare external cost of rail and truck freight transport to estimate the price changes that would result from full-cost pricing and provide a rationale for policy measures for a level-field rail-truck competition.





- (f) Review the policy framework transport sector and identify measures to capture full benefits of the movements using the Northern Corridor. Assess the direct and indirect impact of Governments on transport industry through regulatory and licensing bodies.
- (g) Analyze traffic and trade flows (current and projection) concerning intraregional (Inter-state) trade among the Northern Corridor Countries and international trade through main regional ports gateway.
- (h) Determine regional and international trade imbalance as well as the movement of container and its related cost (demurrage charges) and specify how this affect transport cost and tariffs.
- (i) Analyze and quantify various en-route delays on operating cost and determine its impact on the freight cost.
- (j) Separate in-bound and out-bound costs.
- (k) Quantity the cost of delays (In this case the Study will show the impact on transit time and vehicle operating cost).
- (I) Provide an analytical report on hidden transport costs along the Northern Corridor
- (m) Based on the above, develop a prioritized list of measures to reduce transport costs and improve efficiency and reliability along the corridor. Make specific reference to the role of trade and transport facilitation, technology and improvements in communications in mitigating transport constraints and containing high costs.

METHODOLOGY

The study will be implemented in phases;

PHASE 1:

The first phase will only cover the impact of reforms initiated by the Northern Corridor integration projects summit.

The Consultant will refer to the Summit reports and Joint Communiqué by the Heads of States for all the seven sessions from 2013 up to October 2014.

PHASE 2:

The second phase will cover the entire scope of work including what will have been captured in phase 1.

The Consultant should propose a working methodology detailing main stages of the study. This should include among others;





- (i) The Northern Corridor transport observatory (http://:top.ttcanc.org) and the Northern Corridor performance dashboard (www.kandalakaskazini.go.ke) for statistics along the Northern Corridor.
- (ii) Review the existing literature on the subject, at the NTTCA, from Member States, National parastatals Institutions /companies. Consultations with Ministries of Trade and Commerce and specialized organizations are required.
- (iii) The Consultant is expected to undertake field visits within Member States and other relevant sites during the study.

A workshop should be organized by the Consultant after submitting the draft final report in order to widely disseminate the findings and recommendations of the study and to review the draft final Report. The workshop should be attended by at least thirty (30) participants from the Northern Corridor Member States;

The Final deliverables of the Study will comprise the following (hard copies and electronic) in quantities indicated in the section on reporting requirements:

- Northern Corridor integration projects impact Assessment study;
- Northern Corridor impact Assessment study.

6. DURATION OF THE STUDY AND ESTIMATED KEY PROFESSIONAL STAFF

The Consultant shall avail services of well qualified, experienced and competent personnel for carrying out the study. The estimated input in terms of manpower is fourteen (14) man/months and should include at the minimum, the following key professional staff:

- (i) Transport Specialist (Team Leader);
- (ii) Transport Economist;
- (iii) Logistics Expert;

The Consultant shall commence provision of services within 14 calendar days of the effective services date of the contract. The effective date shall be the date of signature of consultancy contract agreement and completed within seven (8) months from the date of the signature of contract.

The following tentative time schedule shall be observed in carrying out the study.

Phase 1	Signature of the Contract Commencement of Services Inception report Final report	D D+ 14 days D+ 28 days D+ 60 days	
Phase 2	Interim Report Draft Final Report Workshop and Comments Final Report	D+4 months D+6 months D+7 months D+8 months.	





7. REPORTING REQUIREMENTS

The Consultant shall submit the following reports. All reports shall be submitted in both English and French language.

(i) Inception report

An inception shall be submitted within 28 days of the date of signature of the contract

The Inception Report shall give a brief description of staff deployment, methodology employed in undertaking the assignment, programs of works of all major activities, summary of initial findings, problems and details of works to be executed and such comments deemed necessary.

(ii) Phase 1 Final report

This report will be an improvement of the interim report and shall specifically focus on the impact of reforms initiated by the Northern Corridor projects integration summit and shall be submitted in six (6) hard copies and six (6) soft copies in PDF format.

(iii) Interim Report

After submission of phase one final report, the Consultant shall prepare progress report in two month time to the Northern Corridor Secretariat. The report shall contain progress achieved in each milestone, difficulties in the progress of the study and remedial measures suggested to overcome the difficulties. The report should clearly show how to incorporate areas not covered in phase 1 and provide way forward to incorporate suggestions that will come from the 8th Northern Corridor projects integration summit.

(iv) Draft Final Report

Six months after the commencement of services the Consultant shall submit a draft final report. In addition to the Executive Summary of all findings and recommendations, the draft final Report shall contain all the outputs in terms of findings analyses' results and recommendations and shall also contain all supporting materials. These reports will be submitted in thirty (30) copies (hard and soft).

The Northern Corridor Transit and Transport Coordination Authority shall submit comments on the report to the Consultant within thirty (20) days from the receipt of the report.

The Consultant will also be required to organize within the same period, a workshop in order to receive comments directly from key Stakeholders, as well as the Member States.

(v) Final Report

After incorporating the comments, the Consultant shall submit the final report within one month from the date of receiving the comments. These reports which include 30 hard copies offset color printing and thermal binding and thirty (30) soft copies on CD ROM's in formats acceptable shall be submitted to the NCTTCA at the end of the assignment. The reports shall be in fully publishable format.

8. ORGANIZATION AND MANAGEMENT OF THE STUDY

(a) Implementing Organ

The study will be undertaken under the supervision of the NCTTCA Secretariat, which is the Implementing agency. The Northern Corridor Secretariat in collaboration with Ministries in





charge Trade, Commerce and Transport in all Member States and the Northern Corridor integration Project Coordinators within Member countries will provide the overall direction to the project.

(b) Parties obligations

(i) Scope of the Consultant's Service

The Consultants shall perform the Services and carry out diligence, efficiency, and economy, in accordance with generally accepted professional techniques and practices, and shall observe sound management practices, appropriate advanced technology and safe methods. The Consultants shall always act, in respect of any matter relating to this Terms of Reference or to the services, as faithful advisers to the Client, and shall at all times support and safeguard the clients legitimate interests in any dealings with Sub-consultants or third parties.

(ii) NCTTCA Obligations

The NCTTCA Secretariat in collaboration the Northern Corridor Member Stares and the Northern Corridor integration Project Coordinators will put to the disposal of the Consultant any existing documentation and/or reports pertaining to the modes of transportation, likely to facilitate the smooth accomplishment of the mission. The NCTTCA shall also facilitate the organization of the workshops.

The Member States Authorities will endeavor to intervene whenever possible in order to facilitate the gathering of information as well as the access into technical and Administrative offices concerned in view to supporting the Consultant in his work.





Appendix 2: Description of Services

Description of CPCS services as extracted from the Assignment contract.

This contract covers the Terms of Reference provided in Annex 1 of the Contract signed. Using detailed costs developed in the 2009-10 Study as a baseline, provide a description of the evolution of overall transport costs (including the indirect costs of delays and extra inventory) along the Northern Corridor during the intervening five years, and an attribution of the observed changes in performance to policy actions taken to date as a result of the seven Northern Corridor Integration Projects summit meetings held to date. We understand these to be limited to the following:

- 1. Multiple security bonds not required under Single Customs Territory (SCT);
- 2. Multiple customs declarations not required under SCT;
- 3. Differences in customs laws and instruments eliminated;
- 4. Customs systems interfaced;
- 5. Multiple Customs verification replaced by joint verification;
- 6. Road, police and customs roadblocks eliminated;
- Multiple weighbridges en-route reduced to two + high speed weigh-in-motion system (at port);
- 8. Congestion at the port and border posts eliminated.

It should be kept in mind that while average delays have almost certainly been reduced in most cases, along with the variability of delays, the cost of delay per container-day is likely to have risen, as a result of the increasing value per container of the dominant cargo (imports). It is noted that while all seven countries using the Northern Corridor are member states of NCTTCA, the Summits are signed by Kenya, Uganda, Rwanda and Burundi, with DRC, South Sudan, and Tanzania having observer status. We propose to limit fieldwork to the geographic limits of the signatories (Kenya, Uganda, Rwanda and Burundi). Traffic volume and limited logistics performance data on the evolution of flows to and from northern Tanzania, South Sudan, and DRC can be obtained from port data and from Customs posts in the countries bordering on them (Kenya, Uganda, and Rwanda).

Given the limited timeframe proposed for this phase, we propose that fieldwork will be limited to the key operators and modal interfaces: targeted transport service providers (e.g. Bollore Group, MAERSK, MSC, PIL), the port of Mombasa (including Container Freight Stations (CFSs





and other associated facilities), border posts, Inland Customs Depots (ICDs), and key trade- and transit-related organization, such as Customs, Ministries of Trade/Commerce and trade associations such as national shippers councils, including the Shippers Council of East Africa⁴⁸. Current performance data is provided at the NCTTCA dashboard, introduced earlier this year (including data from 2009 to the present in many cases) and in the Annual Logistics Performance Survey of the Shippers Council (the 2014 Report is now available — in future the Report is expected to make full use of the NCTTCA database behind the dashboard). The purpose of the interviews will be to verify that the patterns that emerge from data review are consistent with current experience of those actually providing and using logistics services within the corridor. A key verification mechanism during the previous study involved assigning staff to ride a heavy vehicle for the entire journey from the port to a major inland destination, to provide first-hand confirmation of delays and unofficial costs actually incurred. We propose to repeat this for at least one route.

Methodology

The following presents the consultant's methodology for carrying out the work, by task.

Task 1: Project Inception

The aim of Task 1 is ensure that our proposed plan and timetable are consistent with the Client's expectations and to agree on a detailed timetable and work plan going forward.

Task 1-1: Mobilization

The Study Team includes both staff based in Canada and individuals based in our Nairobi office. The Team Leader will circulate preliminary lists of documents to be reviewed and meetings to be arranged, and team members will meet internally by video-conference immediately after the contract is signed.

Task 1-2: Kick-Off Meeting

A kick-off meeting between the Study Team and NCTTCA will be held by video-conference within five days of contract signing and receipt of the mobilization payment. This meeting will permit us to better understand the client's expectations for the project and provide an opportunity for both parties to agree on a final methodology, work plan and schedule.

· Additional matters to discuss will include:

⁴⁸ As against Phase 2, where the information gathering efforts will be expanded to include direct discussions with transport/logistics operators and users/shippers, as well as a broader cross-section of freight forwarders and others involved in trade facilitation, including Border posts, to develop a comprehensive picture of the ongoing changes in cost and time of transport that would likely arise from ongoing and planned Corridor projects. This will re-confirm the information/data collected during Phase 1, fill any data gaps arising from Phase 1, and refine the analysis of Phase 1. This will also include an updating of the country-specific 'value of time' estimates developed and utilized previously, based on recent data on value of imports for each country.





- Overarching objectives and goals of the study;
- Availability of and access to additional studies, literature sources and data not yet available to the team;
- · Protocols for engaging with stakeholders;
- The process for identifying and agreeing on the list of relevant stakeholder contacts;
- Preparation of a letter of introduction from NCTTCA to facilitate the stakeholder consultation process; and
- Other matters, as appropriate.

This project work plan will be revised as appropriate and finalized to incorporate changes agreed upon at the kick-off meeting

Task 1-3: Literature Review

We are already familiar with most of the literature and sources of data relevant to evaluating the past, present and future performance of logistics chains utilizing the Northern Corridor.

The aim of this literature review will be to draw out relevant material and analysis specific to this study. The initial list of studies to be reviewed will be discussed with NCTTCA at the kick-off meeting. In addition to making full use of the Dashboard and other databases overseen by NCTTCA we will also extract appropriate traffic, network and cost information from the proprietary CPCS GIS [Geographic Information System] database for East Africa. This will provide the basis for a graphic presentation of both evolution since 2009.

Task 1-4: Develop List of Stakeholders to Consult

Based on the initial data collection and with input from NCTTCA, we will develop a list of key stakeholders with whom to consult, by email and in person. We anticipate that this list will include government departments and agencies, large private and public sector stakeholders, such as Rift Valley Railways (RVR), Kenya Railways Corporation (KRC), Uganda Railways Corporation (URC), Kenya Pipeline Company (KPC), major trucking companies and shipping lines, as well as other interested parties, including the Central Corridor Transit Transport Facilitation Agency (CCTTFA). The list of stakeholders to consult will be refined and augmented further during the course of the study. We anticipate that 20-30 of the most relevant stakeholders will be contacted, during January/February 2015. Interviews will be conducted throughout Kenya, Uganda, Rwanda and Burundi.

Task 2: Evolution of Traffic

The aim of Task 2 is to develop a clear picture of the evolution of traffic by country and by segment of the corridor over the past five years.

Since considerable data is available, our emphasis will be on developing a systematic and consistent graphic presentation format, so that the pattern of evolution over the period 2009-2014 can be easily seen by shippers, logistics operators, and policy makers. This will





concentrate on the changes made since mid-2013 as a result of the decisions taken at the first seven Summits.

Task 3: Evolution of Corridor Performance (Logistics Costs)

The aim of Task 3 is to develop a clear picture of the evolution of corridor performance (operating costs, service and other fees, and indirect costs) by country for the past five years.

Data from the Dashboard on corridor performance and from the CPCS database on traffic origin and destination and the infrastructure network will be supplemented by interviews throughout the region with shippers, transports, and policymakers. Estimation of hidden costs will make use of the metric developed in the previous study.

Task 4: Inception Report

The aim of Task 4 is to Report briefly on progress and identify any problem areas.

The Inception Report will provide include a list of interviews completed and interviews planned, identifying both key issues arising from the interviews and potential problem areas.

Task 5: Benchmarking

The aim of Task 5 is to benchmark current performance of the Northern Corridor against the Central Corridor. We propose to meet with CCTTFA staff in Dar es Salaam to obtain data current performance data.

While the central corridor does not yet post 'real time' indicators of corridor activity levels and performance comparable with the maritime, port and corridor information provided on the Dashboard, we understand CCTTFA does monitor performance regularly. A less formal performance comparison between the two corridors is also made regularly by shippers, since relative performance has an impact on relative market shares of each corridor for the inland countries, particularly Rwanda and Burundi.

Task 6: Development of Prioritized Action List

The aim of Task 6 is to provide a preliminary action list, based on our evaluation of recent performance improvements and their relationship to actions already taken. While causality can never be 'proven', the sequencing of policy changes and perceived improvements can be observed and illustrated on a set of time-lines.

Based on our evaluation of the impact of policy actions taken to data at the level of the Northern Corridor Integration Projects summit meetings will we identify and prioritize follow-up actions for discussion at this forum.

Task 7: Draft Final Report

The aim of Task 7 is to provide a stand-alone document summarizing work to date and preliminary recommendations for further action.





The Draft Final Report will summarize work to date, with emphasis on the Action Plan. This will form the basis for the Phase 2 work, and in the event that Phase 2 does not immediately proceed will provide guidance to the Summit on successes to date and areas that may require further action.

The following figure provides the details for which tasks of the Annex 1 Terms of Reference will be covered and to what extent under this contract, followed by list of deliverables and the consultant's team composition.

Figure App 2-1: TOR Task Coverage by This Contract

тоі	R Task	Phase 1	Phase 2 (i.e. not covered in Phase 1 Scope)
a)	Develop an origin-destination flow and tariff matrix.	Task 2 covers 2009-2014, based on data available from the KPA (for Mombasa traffic),	Filling gaps in the data collected during Phase 1 by direct and more in-depth
	For the dominant export and import commodities, collect information on volume of movement, by mode, by time, through the logistics chain (including origin, points of transshipment, delivery to warehouses and the final consumption destination).	trade data (from statistics agencies and revenue agencies), and other recent studies, cross-referencing the data available from the Dashboard and the Observatory.	interviews with selected key shippers, transports, and logistics service providers.
	For each link in the chain, collect information on freight tariff charged by different operators and forwarding agents.		
	Examine cost of operation for domestic and international operators (including sea freight charges, port charges, rail and road transport charges, storage charge, financial cost of tied capital, handling cost, etc.).	Cost refers to 'cost faced by shippers'. Port charges will be obtained from KPA, rail charges from rail operators, truck charges from national carrier organizations. As in the 2010 Report, sea freight charges will be limited to a single route. For compatibility, we propose the route used in the 2010 report (Singapore-Mombasa). Financial or indirect elements of 'generalized cost' will be based on estimating structure from CPCS 2010 report.	Collection of future port charges from KPA. Discussion of sea freight charges will be limited to a single route. For computability we propose the route used in the 2010 report. (Singapore-Mombasa). Financial or indirect elements of 'generalized cost' to be updated based on discussions with shippers.
	The data on cost of operation should	Cost of delays will include	Updating of the unit cost of





TO	R Task	Phase 1	Phase 2 (i.e. not covered in Phase 1 Scope)
	reflect "generalized cost" and include (besides tariff): cost imposed due to delays at ports, border posts, transshipment, storage and handling, reliability of service and other cost involved in moving goods from the supplier/producer to the point of final consumption.	value of time lost in transit, based on the unit cost provided in the 2010 report.	time value based on changes in unit value of imports and exports (from port data), which will be applied to further update the value of time lost in transit. It will be expanded to include both cost of additional inventory required and transport cost increases resulting from increased equipment cycle times.
b)	Analyze traffic flows and volumes along the Northern Corridor Transport Chain.	Discussed under a) above.	Discussed under a) above.
c)	Collect information on operational characteristics and operating cost by vehicle type and railway locomotives.	Under Task 3, this information will be collected from the data available from national and regional shipping and logistics providers, plus interviews with rail and pipeline operators.	Expansion of Task 3 of Phase 1 to include interviews with key shippers and transport/logistics service providers.
d)	Examine relative share and the level of competition within and among different road transport operators from different countries of Northern Corridor Countries and how this affects freight costs.	Under Task 3, interviews will be conducted with rail and pipeline operators, as well as Mombasa port (KPA), to gather the information for analysis.	Expansion of Task 3 of Phase 1 to include interviews with major logistics providers providing service along the corridor (truckers and terminal operators) in order to more indepth understanding and insights and further refine the data and analysis.
e)	Compare external cost of rail and truck freight transport to estimate the price changes that would result from full-cost pricing and provide a rationale for policy measures for a level-field rail-truck competition.	None	Will be covered in Phase 2 if it goes ahead.
f)	Review the policy framework transport sector and identify measures to capture full benefits of the movements using the Northern Corridor.	Task 6 will include consideration of a limited number of policy alternatives (see item I) below.	Provision of a more complete list of policy alternatives (see task I) below.
	Assess the direct and indirect impact of	Task 6 will include analysis	Expansion of the analysis





то	R Task	Phase 1	Phase 2 (i.e. not covered in Phase 1 Scope)
	Governments on transport industry through regulatory and licensing bodies.	based on interviews with shipper and carrier organizations and Ministries (Transport, Trade)	conducted under Task 6 of Phase 1 to provide more detailed analysis. This will involve direct interviews with major shippers and logistics providers to confirm the information received during Phase 1 and also to refine the analysis.
g)	Analyze traffic and trade flows (evolution from 2009, current and projection) concerning intraregional (Inter-state) trade among the Northern Corridor Countries and international trade through main regional ports gateway.	Evolution from 2009 to today will be covered by Task 2.	Projections up to 2024.
h)	Determine regional and international trade imbalance as well as the movement of container and its related cost (demurrage charges) and specify how this affects transport cost and tariffs.	Will be preliminarily covered by Task 2, with the data/information sources limited to discussions with shippers associations (and other relevant industry associations, if any) in the six countries, based on available 2009/2014 data.	Expanding consultations to include discussions with major shippers and transport/logistics providers to refine the data and obtain more in-depth insights.
i)	Analyze and quantify various en-route delays on operating cost and determine its impact on the freight cost.	Task 3 will be limited to data on delays available from the dashboard and observatory, as well as discussions with shippers' organizations.	Expanding consultations to involve direct discussions with shippers and transporters to confirm the information gathered during Phase 1, fill gaps of Phase 1 data and refine analysis.
j)	Separate in-bound and out-bound costs.	Included in a) and b) above	Included in a) and b) above
k)	Quantity the cost of delays (In this case the Study will show the impact on transit time and vehicle operating cost).	Task 3 estimate time value of delay of cargo, which will be converted to monetary cost utilizing the metric described in the CPCS 2010 report.	Updating of the measures of the unit value of cargo by country to improve the estimate of the monetary value of the cost of delays. Will





то	R Task	Phase 1	Phase 2 (i.e. not covered in Phase 1 Scope)
			also include quantification of impact of vehicle delays on vehicle operating cost, based on interviews with trucking and rail operators.
I)	Provide an analytical report on hidden transport costs along the Northern Corridor	As with the 2010 report, this will be included in the draft final report (rather than a separate report) based on discussions with national and regional organizations of shippers and logistics providers.	As with the 2010 report, this will be included in the draft final report. Incorporation of an updated estimate based on current data from transports operators plus on direct observation of one or two specific routes.
m)	Based on the above, develop a prioritized list of measures to reduce transport costs and improve efficiency and reliability along the corridor. Make specific reference to the role of trade and transport facilitation, technology and improvements in communications in mitigating transport constraints and containing high costs.	Under Task 6 this will be limited to an attribution of the observed changes in performance to policy actions taken to date as a result of the seven Northern Corridor Integration Projects summit meetings held to date. We understand these to be limited to the following: 1. Multiple security bonds not required under Single Customs Territory (SCT); 2. Multiple customs declarations not required under SCT; 3. Differences in customs laws and instruments eliminated; 4. Customs systems interfaced; 5. Multiple Customs verification replaced by joint verification; 6. Road, police and customs roadblocks eliminated; 7. Multiple weighbridges enroute reduced to two + high speed weigh-in-motion system (at port); 8. Congestion at the port and border posts eliminated.	Expansion of the Action List developed for Phase 1 will be expanded to include both initiatives to be taken at the individual country level and those involving broader groupings of active participants.





TOR Task	Phase 1	Phase 2 (i.e. not covered in Phase 1 Scope)
	will be limited to identifying areas from this list where further action is needed.	





Appendix 3: Origin and Destination Matrices

The tables below show the distribution of import and export tonnages for 2008 and 2013.

Figure App 3-1: Consolidated Estimates of Import and Export Volumes, 2008 (000 tonnes)

Dest. Origin	Burundi	Eastern DRC	Kenya	Rwanda	Southern Sudan	Tanzania	Uganda	Total
Burundi		1	1	2				4
Eastern DRC	2		10	42		2	3	59
Kenya	45	123		150	120	430	1,500	2,368
Rwanda	3	3	9				1	16
Southern Sudan								0
Tanzania	22	33	260	14			37	366
Uganda	102	80	350	44	200	7		783
Total	174	240	630	252	320	439	1,541	3,596

Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper

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Figure App 3-2: Estimates of Import and Export Volumes, 2013 (000 tonnes)

Dest. Origin	Burundi	Eastern DRC	Kenya	Rwanda	Southern Sudan	Tanzania	Uganda	Total
Burundi		17		11		3	1	32
Eastern DRC	4		135	22			15	176
Kenya	63	155		139	320	473	1,267	2,417
Rwanda	59	152	5			237	19	472
Southern Sudan							3	3
Tanzania	191	220	280	200	3		77	971
Uganda	89	190	202	694	121	28		1,324
Total	406	734	622	1,066	444	741	1,382	5,395

Source: Data available in EAC Rail Sector Enhancement Project: Traffic Working Paper.

 $<< http://www.infrastructure.eac.int/index.php?option=com_docman\&task=doc_download\&gid=188\<emid=160>> the control of the c$





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