TRANSIT TRANSPORT COORDINATION AUTHORITY OF
THE NORTHERN CORRIDOR (TTCA-NC)

April 2013

TRANSPORT OBSERVATORY PROJECT

RELIABLE NORTHERN CORRIDOR PERFORMANCE DATA

SCALING UP CORRIDOR MONITORING FOR INFORMED DECISIONS

TABLE OF CONTENTS

A. LIST OF ACRONYMS

ASYCUDA	Automated System for Customs Data
BI	Burundi
DGDA	Direction Générale Des Douanes Et Accises
DRC	Democratic Republic of Congo
DWT	Dead Weight Tonne
ECTS	Electronic Cargo Tracking System
FEAFA	Federation of East African Freight Forwarders Association
FERI	Fiche Electronique De Renseignement A L'importation
GPS	Global Positioning System
IABT	International Association of Burundi Transporters
IRI	International Roughness Index
KE	Kenya
KeNHA	Kenya National Highway Authority
KPA	Kenya Ports Authority
KPC	Kenya Pipeline Authority
KRA	Kenya Revenue Authority
KRB	Kenya Roads Board
KTA	Kenya Transporters Association
MAGERWA	Magasins Généraux Du Rwanda
NCTA	Northern Corridor Transport Agreement
OBR	Office Burundais des Recettes
OCC	Office Congolais de Contrôle
ODR	Office Des Routes
OGEFREM	Office De Gestion Du Fret Multimodal
OSBP	One Stop Border Post
PPP	Public Private Partnership
PSF	Private Sector Federation
RRA	Rwanda Revenue Authority
RSS	Road Side Station
RTDA	Rwanda Transport Development Authority
RVR	Rift Valley Railways
RW	Rwanda
TIMS	Transport Information Management System
TOP	Transport Observatory Project
UG	Uganda

UNRA	Uganda National Roads Authority
URA	Uganda Revenue Authority
URC	Uganda Railways Corporations
SSATP	Sub-Saharan African Transport Policy Programme
CPI	Corridor Performance Indicators
TMEA	TradeMark East Africa
GPS	Global Positioning Systems
KTA	Kenya Transporters Association
NC	Northern Corridor
NCTTA	Northern Corridor Transit and Transport Coordination Agreement
IPUO	Import Pick Up Order
ICD	Inland Container Deport
ICT	Information Communication Technology
KWATOS	Kilindini Waterfront Automated Terminal Operations System
THC	Terminal Handling Charges
DOF	Delivery Order Fee
CSC	Container Service Charge

B. INTRODUCTION

It has been a continuous desire to make the Northern corridor the most competitive corridor in the region. The Secretariat's vision, "*To be a seamless Transport Corridor with the most efficient trade and transport logistics chain in the Region*" and mission "*To Transform the Northern Corridor into an economic development Corridor that offers internationally competitive transit transport services, promotes regional integration*" have played a key role in shaping the desire.

The Transit and Transport Co-ordination Authority of the Northern Corridor (TTCA-NC) as established under the legal framework of Northern Corridor Transit and Transport Coordination Agreement (NCTTA) to co-ordinate implementation of the Agreement and to carry out decisions and resolutions made by policy organs of the Authority, comprises of the transport infrastructure, facilities and services in East and Central Africa linked to the Maritime Port of Mombasa Kenya. These primary transport network and facilities link the Port of Mombasa to Uganda, Rwanda, Burundi, the Democratic Republic of Congo and to South Sudan.

The recently launched Transport Observatory Project (TOP) is a key tool for the Secretariat in the monitoring the performance of the Northern Corridor that uses set Corridor Performance indicators (CPI). It is primarily set up to enhance the process of making informed decision through reliable evidence. Having multiple stakeholders and data sources, including electronic data and surveys, the TOP has been setup to measure various areas including time and related delays that has remained a key concern of many players in the logistics industry. Other areas include Volume and Capacity, Rates and Costs, Efficiency and Productivity.

Being available online, the Observatory has a very important platform to reach a considerable high number of users as it can be accessed by anyone from anywhere in the world as long as there is internet connectivity. In addition, periodical reports will be disseminated to complement the online platform. The first report has already been circulated. It is, therefore, important that this tool is adequately and effectively used.

This is the second report for the Transport Observatory since the online database was established. It is one of the planned series of periodical reports that will be released for the common goal of providing current and reliable corridor monitoring information. The theme for this report, "*Scaling up Corridor Monitoring for Informed Decisions*" is inspired by the desire to provide better results that is more informative.

C. BACKGROUND

This fundamental Monitoring tool has taken shape over the years with various inputs from different stakeholders and forums. The journey of the Transport Observatory Project at the Northern Corridor Secretariat dates back to 2003 when multiple studies and surveys were undertaken with various partners supporting the initiatives. In 2011 the Transit and Transport Coordination Authority of the Northern Corridor (TTCA-NC) received more support on the project from SSATP and TradeMark East Africa (TMEA) as the key funding partners to rejuvenate the activities of the Observatory work. Emphasis on this support was to develop an online database and a sustainable way to collect, pre-process and repurpose data for the Transport Observatory.

The CPIs have equally been evolving over the years gaining shape as well incorporating emerging areas of interest. The monitoring of the set indicators measuring the performances of the Northern Corridor is playing a key role in:

a. Providing assistance in identifying the areas where improvements are required in comparison to agreed targets (or benchmarks).

b. Providing a set of tools for diagnosing problems.

c. Measuring the change in the situation, leading eventually to the measure of the efficiency of the programmes designed to address the issues identified during the diagnosis phase.

A list of indicators has been developed and classified. Most of the indicators were developed from previous work on the Transport Observatory as well as recommendations from various stakeholders and the governing body of the Secretariat. Each of these indicators require data; in some cases similar and other different. Data requirements and sources for each of the indicators have been identified. The data requirements are classified into three, thus, electronic data, survey data (road and GPS) and data from specialized audits like the border audit.

Through data collection missions, the Secretariat experts have met various stakeholders primarily to source for Transport Observatory data, establish contact and take the opportunities to foster sustainable data collection mechanisms. It is through these missions that data requirements are reviewed and emerging issues relating to the Transport Observatory discussed.

From the 4th Technical Committee Meeting on Transport Policy and Planning of the Northern Corridor Secretariat, held from 14th to 16th November 2011 in Bujumbura, the following recommendations were made:

i. The stakeholders to fast track the development process of the Transport Observatory system and the establishment of the required infrastructure and equipment.

ii. TTCA-NC Secretariat to continue with negotiations with stakeholders, especially the Ports and Customs Administrations of Member States to ensure a continuous flow of data to the Observatory through an automated data exchange.

iii. Stakeholders working in the Northern Corridor logistic chain and operating information systems to facilitate the integration of their systems with that of the

TTCA-NC Transport Observatory in order to make available the required data for the production of Northern Corridor performance indicators.

iv. Stakeholders to facilitate the integration of their information systems with that of the Northern Corridor Transport Observatory for automatic data exchange regarding selected performance indicators.

v. TMEA and TTCA-NC to consider as a matter of urgency appropriate solutions for the implementation of the GPS project with the support of the Carriers' Associations operating along the Northern Corridor, in order to feed the Observatory with the necessary data for the production of road transport performance indicators.

There have also been other recommendations from various sources that have also provided inputs into the TOP work. Notably, during the recent Launch held in Mombasa on 16th December 2012, it was recommended that the reporting should incorporate benchmarks against which the results can be reported.

D. CURRENT STATUS OF IMPLEMENTATION

The year 2012 marked one of the most important times of the corridor in regards to the TOP. It is in 2012 that the online database was fully developed and implemented. The Secretariat with the support of Trademark East Africa contracted a consultant to develop the Transport Observatory based on the internally developed System Specifications documentations. The first online database version was commissioned in April 2012 having the 2009, 2010 historical data.

TTCA-NC experts on the observatory took a data collection mission among the Member States. Data collected from the missions were re-purposed and later uploaded and updated on the online database. This has ever since been a continuous process as envisioned in the past work of the observatory. Currency the online database has information up to March 2013 for some indicators.

With the help of KTA and through the support of TMEA and SSATP two surveys were conducted. The Road Transport Industry supported by SSATP was conducted in April – May 2012 to establish the full capacity of the industry as well as other revenue issues. The main beneficiaries on information on the Road Transport Industry are:

- The road transport associations that need fact-based evidence to support position papers for advocacy purposes when engaging public regulators;
- Transport operators that need to benchmark their activities versus their competition; and,
- Policy and planning organs and public agencies such as Port Authorities, Corridor Authorities in Government Ministries that need evidence to identify and address problems and monitor effectiveness of their policies.

In August – October 2012, a road survey was conducted with the help of KTA and through the current TMEA support. Objectives of the survey included:

- Collect data on the root causes of delays for the transit traffic.
- Collect data on the total time delays.
- Establish the nature of the fee paid and the type of service for which the fee is paid.

KTA acquired 100 GPS kits through TMEA's support in October 2012. The GPS kits purposed to facilitate data collection for KTA'S GPS and the TOP are currently being utilized after recent recruitment of a survey supervisor who will assist in the management of the kit inventory on the ground. Moreover, data samples from the GPS had been collected for testing. Looking forward this is an area where interest will be growing.

November 2012 began with a TTCA-NC, TMEA, and KTA join workshop to deliberate on various aspects of the TOP. The objectives of the workshop were to:

i. Get a status update on various aspects the Transport Observatory Project;

ii. Look at all data available and propose what to prioritize in the report for the launch ; and

iii. Develop a work plan for the next steps before and after the launch

The meeting was successfully closed with all the objectives being met as desired.

As the year 2012 came to a close, the TOP was officially launched in Mombasa on 6th December 2012 in a colourful event graced by the Members of the Council of Ministers. It is at this time the first report themed "Evidence-based policy decisions for a competitive corridor" was released.

In January 2013, all stakeholders involved and (or) relating to directly or indirectly with the Transport Observatory work received a hard copy report. This is an important step towards reaching out to users of the information for the designed purpose.

February and March 2013 was the period when the TTCA-NC Secretariat experts took another round of mission to meet stakeholders to:

- Further sensitize them on the importance of the project and gain their commitment to collaborate in providing reliable data for the Transport Observatory.
- Establish a permanent link between the TTCA-NC and the Stakeholder providing data relating to transport and transit along the NC through the designated focal point.
- Re-explore the possibilities of sharing the data through automated data transfer to ease the collection process.
- Introduce and deliberate on a data sharing agreement that is geared towards automation.
- Find out the way of enabling widespread dissemination of the results from the analysis of the Transport Observatory in each Member State of the NC.
- Brief the stakeholders on the progress made so far to enhance the buy-in in supporting the project.
- Discuss the datasets requested by TTCA-NC and what the stakeholders will have provided so as to get clarifications on any discrepancies as well as explanations on any further inclusions.
- Collect historical data for the next period up to March 2013.
- Discuss the way forward on making the data collection process through automated data transfer.
- Assess the motivation factor for each Stakeholder in creating an environment for an automated database exchange.

E. THE ONLINE DATABASE

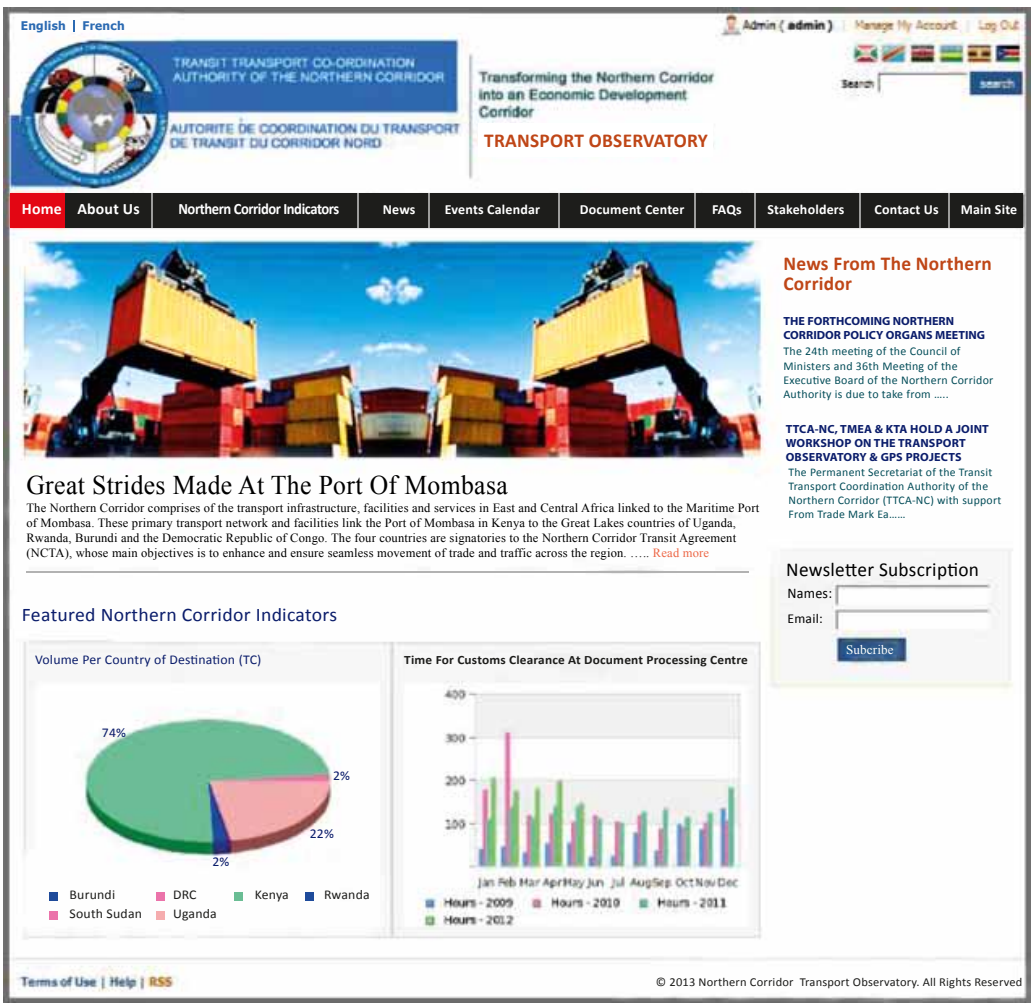


Figure 1: The online database

The Transport Observatory online database is accessible through the internet from any location in the world. This is accessible on http://top.ttcanc.org.

For the period 6th December 2012 to 31st March 2013 this online portal has had 1,641 visitors accessing the database. Each visitor has accessed an average of about 4 Pages/Visit for an average duration of 04:16 minutes. Out of the total number of visitors 62.58% were new visitors.

45.03% of visitors to the online database accessed the portal through search engines like Google, Yahoo etc. On the other hand, 17.98% accessed by referral websites while direct traffic by visitors who are familiar with the address were 36.99%. Below is these preview of the sources of traffic for the database:

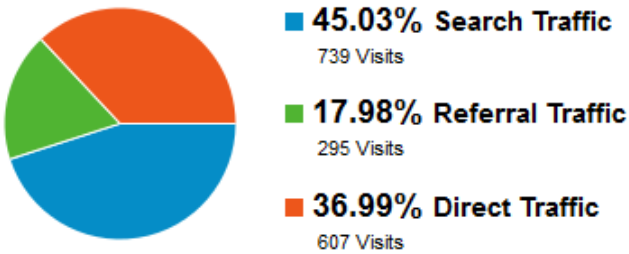


Figure 2: The online database traffic sources

F. PERFORMANCE INDICATORS

A list of 25 indicators grouped into four main classifications (*Volume and Capacity, Rates and Costs Indicators, Efficiency and Productivity* then *Transit Time and Delays*) has been developed after years of review of Northern corridor performance indicators. Most of the indicators were developed from previous work on the observatory as well as recommendations from various stakeholders and the governing body of the Secretariat. Each of these indicators require data; in some cases similar and other different. Data requirements for each of the indicators were identified, so are their sources. The data requirements were then classified into three, thus, electronic data, survey data (GPS-based and Road Surveys) and data from specialized audits like the border audit.

Below are the are the classifications and their respective indicators:

i. Volume and Capacity

1. Total cargo throughput of the port of Mombasa vs. transit traffic in tonnes.
2. Volume per country of destination
3. Rate of containerization of transit traffic in percentage, annual basis at the Port of Mombasa.
4. Transport capacity by rail (locomotives and wagons).
5. Evolution of licensed fleet of trucks per country.

ii. Efficiency and Productivity

6. Average annual distance per truck in km per year.
7. Number of check points, NCP (Weighbridge, Police, Customs, Road Toll) per country per route.
8. Rate of Fraud or Declared Damage for goods in transit, (percentage of total transit).
9. Quality of the transport infrastructure.
10. Volume of containerized and general cargo handled per day/month/quarterly at the Port of Mombasa.
11. Number of accidents per route.

iii. Rates and Costs

12. Transport costs per route and per mode (including transit charges).
13. Rail Freight Charge.
14. Road Freight Charge.
15. Port Transit Charges.
16. Return of empty containers (grace period, penalties, and deposit).

iv. Transit Time and Delays

17. Transit Time per route per mode of transport (by country).
18. Transit time origin to destination by country.
19. Average cargo dwell time in Mombasa port.
20. Time for Customs Clearance at the Document Processing Center.
21. Transit time within the port (IPUO: Import Pick Up Order Process).
22. Border Post Crossing Time.
23. Time for Customs procedures at destination.
24. Transit time within the ICD/Inland Port.
25. Weighbridge crossing time.

v. From various forums, recommendations have been made to include new indicators. They are:

i. Inclusion for import and export volumes

ii. Weigh bridge compliance levels

For the full glossary of the indicators, See Annex 2: *Indicators Glossary*

G. DATA REQUIREMENTS, SOURCES AND STAKEHOLDERS

Based on the indicators highlighted, data requirements have been set as the basis to source for data. Having a cargo consignment (containerized or loose) as the principle basis of building the Transport Observatory, the data sourced mainly relates to:

- The volumes of the consignments
- Processing times of the consignments
- Transit times recorded by various stakeholders as the consignments move
- Descriptive quality of the infrastructure used to move the consignments
- Efficiency information like rate of undertaking various activities
- Safety and security data
- Tariffs
- Transit road and rail vehicles/equipment capacity

The Transport Observatory has three main data sources are:

1. **Secondary data from stakeholder ICT systems**

   The data is sourced from stakeholders' operations systems like ASYCUDA, SIMBA, KWATOS etc. Data is requested based on set data requirements.

2. **Surveys**

a. Road Survey – Primary data collected using classical questionnaires filled by truck drivers on transit along the corridor.

b. GPS Based Survey – Primary data collected using GPS loggers carried by truck drivers along the corridor.

c. Specialized Survey – Primary source of data initiated on case by case basis as need may arise wherever deemed necessary. Example, Border Audit.

All these information is sourced from various players who have consistently supported the initiatives. These stakeholders are:

- Ministries in charge of transport
- Revenue authorities
- Ports Authorities and related organizations
- Authorities in charge of road and rail infrastructure development and maintenance
- Transporters Associations
- Private Sector Organizations
- Organizations operating rail transport

For the full list of stakeholders, see Annex 3: *List of Stakeholders*

H. GPS BASED SURVEY

KTA has now fully rolled out the GPS based survey data collection that would feed into the observatory. With the support of TradeMark East Africa, the association recruited in March 2013 a field survey supervisor whose role among other responsibilities includes distributing and collecting the GPS kits on the field. From 18th March to 11th April 2012, 29 GPS kits had been released to the field. In the same period, 5 kits had made a complete round trip and returned back to KTA. This is an ongoing process that is planned to run all round the year.

A brief overview of the collected GPS data has been done on traffic that is mainly destined for Uganda. Below are some of the findings. This is an indication of the approach that is being built on as substantial data is being collected.

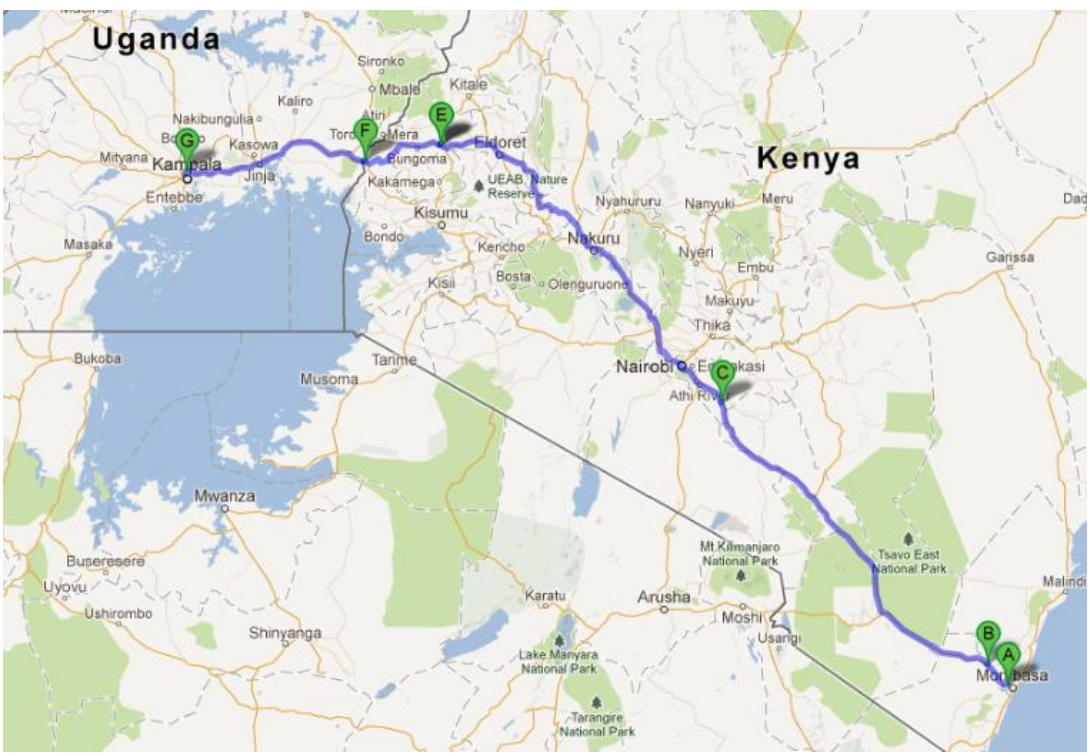


Figure 3 : Sample GPS Journey (Mombasa to Kampala via Malaba)

The *Figure 3* above illustrates the journey for a truck that left Mombasa (Point A) through Mariakani (Point B) where the truck stopped for weighing, then Athi River (Point C) and point E which is Webuye. The point F shows Malaba border and finally Kampala is on point G. This is an indication of the various possibilities once the collection process receives a substantial sample to do the analysis for these specific nodes to measure indicators on time. This illustration in the map above was retrieved from the GPS data below:

Date	Departing Location	Arrival at Next Location	Duration of the Journey	Distance Covered	Maximum Speed
Thursday, March 28, 2013	4.014658 S 39.624588 E	3.846255 S 39.451548 E	1 hours, 19 minutes, 42 seconds	31.4 km	77.0 kmh
Friday, March 29, 2013	3.846201 S 39.451407 E	1.601356 S 37.167174 E	7 hours, 51 minutes, 14 seconds	213.7 km	84.0 kmh
Saturday, March 30, 2013	1.601356 S 37.167174 E	0.607508 N 34.754375 E	39 hours, 13 minutes, 32 seconds	614.6 km	102.0 kmh
Sunday, March 31, 2013	0.607249 N 34.754318 E	0.465945 N 34.098773 E	3 hours, 33 minutes, 29 seconds	104.0 km	101.0 kmh
Tuesday, April 02, 2013	0.474174 N 34.094938 E	0.377777 N 32.566250 E	4 hours, 57 minutes, 5 seconds	19.5 km	75.0 kmh
Wednesday, April 03, 2013	0.377777 N 32.566250 E	0.377956 N 32.566276 E	25 hours, 26 minutes, 13 seconds	183.7 km	16.0 kmh

Table 1 : Sample GPS Journey (Mombasa to Kampala via Malaba)

The GPS data collected, so far, provides some measures of monitoring performance like transit time. See the table below for the illustration:

Sample	From	Departure	To	Crossing Border	Days	Final Destination
1	Mombasa (4.035684 S 39.618900 E)	Wednesday, April 03, 2013	Busia Border (0.638674 N 34.263269 E)	Sunday, April 07, 2013	4	Jinja(0.437702 N 33.213670 E)
2	Mombasa (4.014658 S 39.624588 E)	Thursday, March 28, 2013	Busia Border (0.607249 N 34.754318 E)	Sunday, March 31, 2013	3	Kampala (0.377956 N 32.566276 E)
3	Mombasa (4.004056 S 39.598900 E)	Saturday, February 16, 2013	Busia(0.465558 N 34.098146 E)	Tuesday, February 19, 2013	3	Busia-UG(0.524737 N 33.967442 E)
4	Mombasa (4.022180 S 39.620691 E)	Saturday, March 30, 2013	Malaba(0.639179 N 34.255472 E)	Wednesday, April 03, 2013	4	Kampala (0.339215 N 32.629133 E)

Table 2: Four samples from the complete round trips

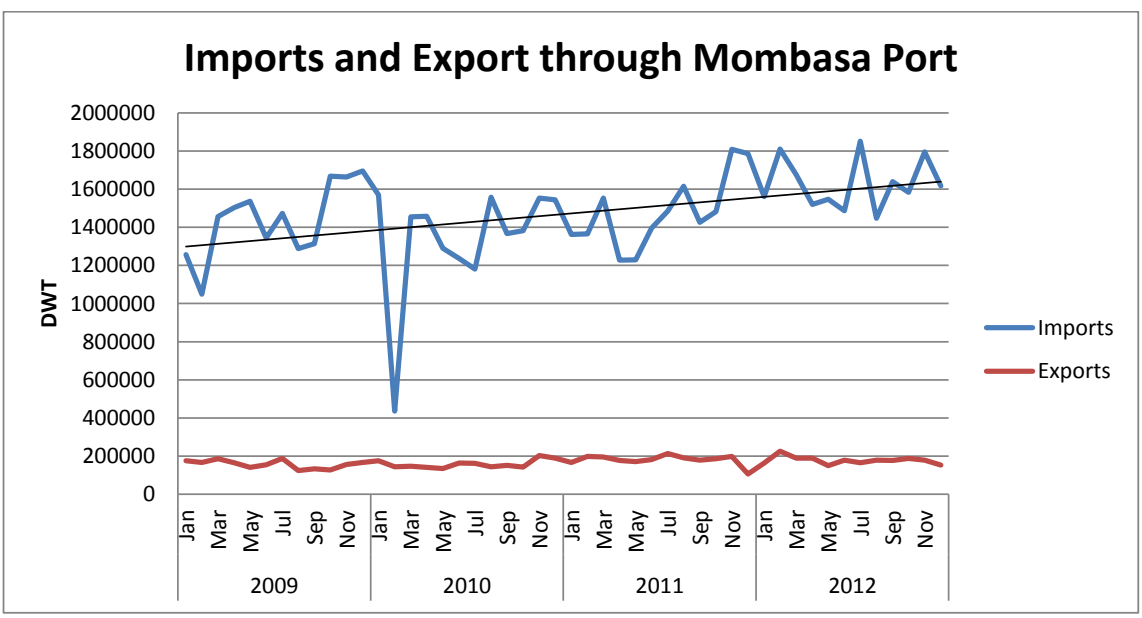
I. RESULTS

The data used for the following results is from the Revenue Authorities, road agencies and other organizations. In order to gauge the progress towards trade facilitation, we must establish a clear picture of the present transport indicators and the impact of the measures/ intervention being taken by various players in the industry. Similar to the first TOP report publication in Dec 2012, this report also features some of the 25 indicators which are crucial in identifying areas where we are successful and where challenges are still presenting themselves. A clear picture of the northern corridor gives a foundation for comparison with other corridors in the region and internationally.

1. VOLUME AND CAPACITY INDICATORS

a. Imports and exports through Mombasa Port

This graph shows the total volume of imports and exports through the Mombasa port.

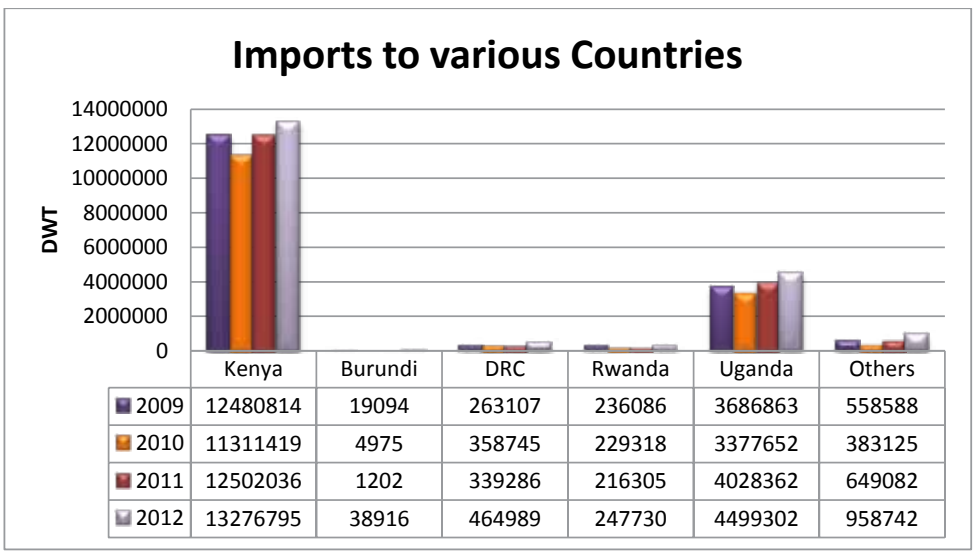


Source: *Electronic Data, Kenya Ports Authority (KPA), 2009 - 2012*

Export to various countries through Mombasa port still remains constant while imports are increasing by about 10.4 % per annum since 2010. Need to address trade imbalance.

b. Volume of Imports to various Countries

The graph below shows the total volume of imports to Northern Corridor Countries through the Mombasa port. Data for South Sudan is included among "Others" countries since disaggregation of South Sudan and Sudan Data began in April 2013.

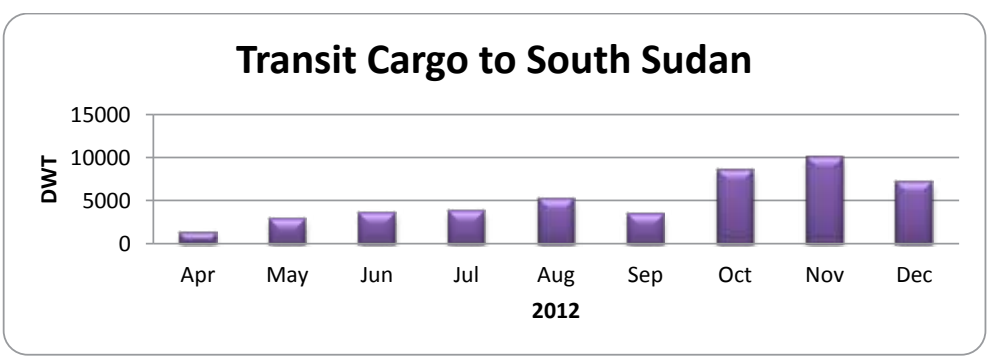


	Kenya	Burundi	DRC	Rwanda	Uganda	Others
2009	12480814	19094	263107	236086	3686863	558588
2010	11311419	4975	358745	229318	3377652	383125
2011	12502036	1202	339286	216305	4028362	649082
2012	13276795	38916	464989	247730	4499302	958742

Source: *Electronic Data, Kenya Ports Authority (KPA), 2009 - 2012*

All the countries registered an increase in imports in 2011 and 2012 .Other countries in the chart include South Sudan, Somalia, Ethiopia, Tanzania and Sudan.

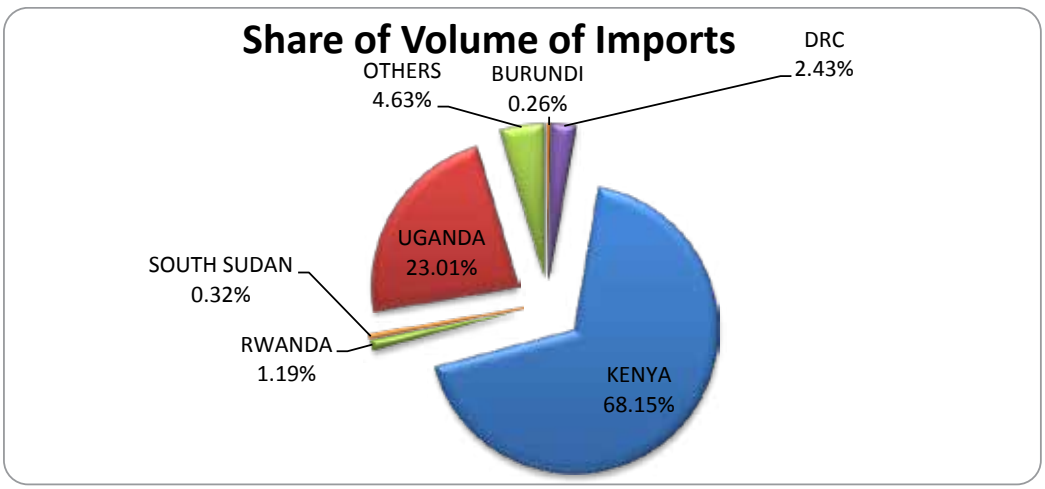
c. Volume of transit cargo to South Sudan



Source: *Electronic Data, Kenya Ports Authority (KPA) April-December, 2012.*

There is a general increase in transit cargo to South Sudan.

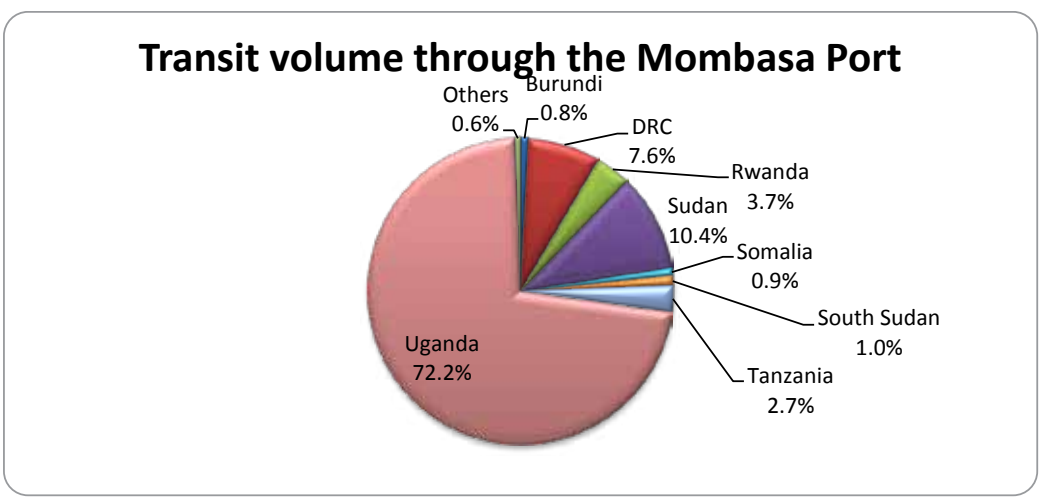
d. Share of Volumes to various countries to Northern Corridor Member Countries.



Source: *Electronic Data, Kenya Ports Authority (KPA) April - December[1], 2012.*

Kenya accounts for 68.15% of all imports through the Mombasa port while Uganda, DRC, Rwanda, South Sudan and Burundi account for 23%, 2.4%, 1.3%, 0.32% and 0.26% respectively.

e. Share of Transit volume through the Mombasa Port in 2012.



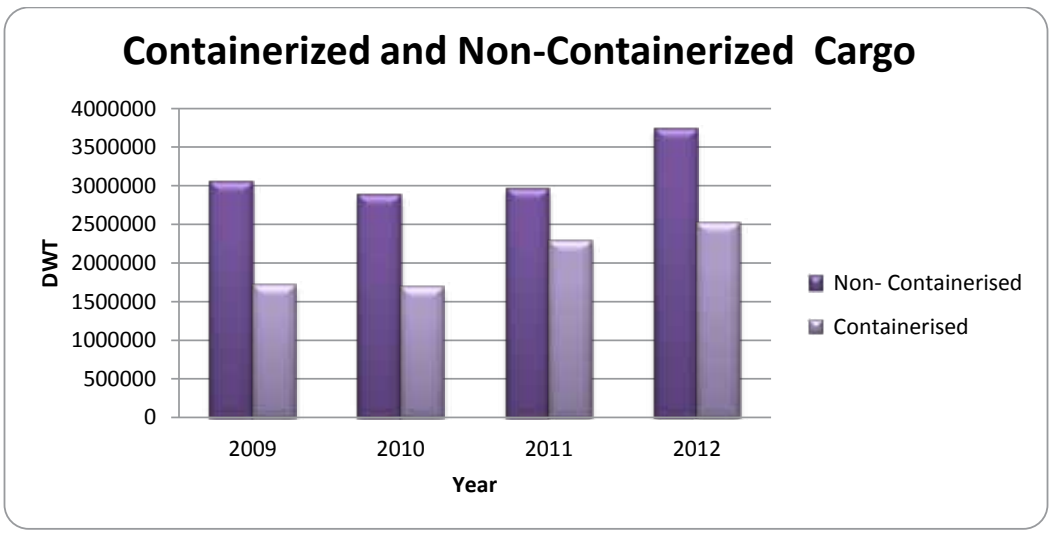
Source: *Electronic Data, Kenya Ports Authority (KPA) April - December, 2012.*

Uganda accounts for about 72.2% of the transit cargo through the port of Mombasa while volume to DRC is 7.6 %, Rwanda 3.7 %, Southern Sudan 1.0 % and Burundi 0.8 % during the period from April to December 2012.

[1] The months of April - December 2012 are featured based on the time KPA started capturing the data for South Sudan.

f. Volume of Containerized and Non Containerized Transit Cargo.

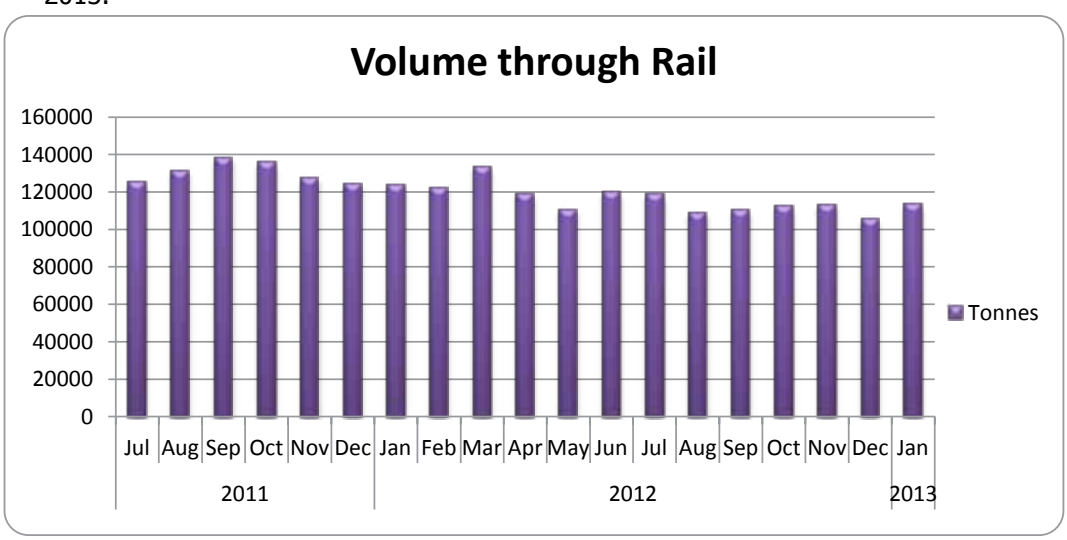
This indicator compares containerized and Non-containerized cargo on transit through the port of Mombasa.



Source: *Electronic Data, Kenya Ports Authority (KPA) 2009 - 2012*

g. Volume of Cargo going through rail.

The chart below shows the volume of cargo through rail between July 2012 and Jan 2013.



Source: *Rift Valley Railways (RVR), July 2011 – January 2013*

The graph shows a general decrease in the volume of Cargo ferried by Rail.

h. Licensed trucks in Kenya and Uganda

COUNTRY	2010	2011	2012	2013
KENYA	6,282	6,282	12,217	15,207
UGANDA	-	-	1658	-

Source: *Kenya Revenue Authority (KRA), 2010- January 2013;*

Uganda Revenue Authority (URA), 2012

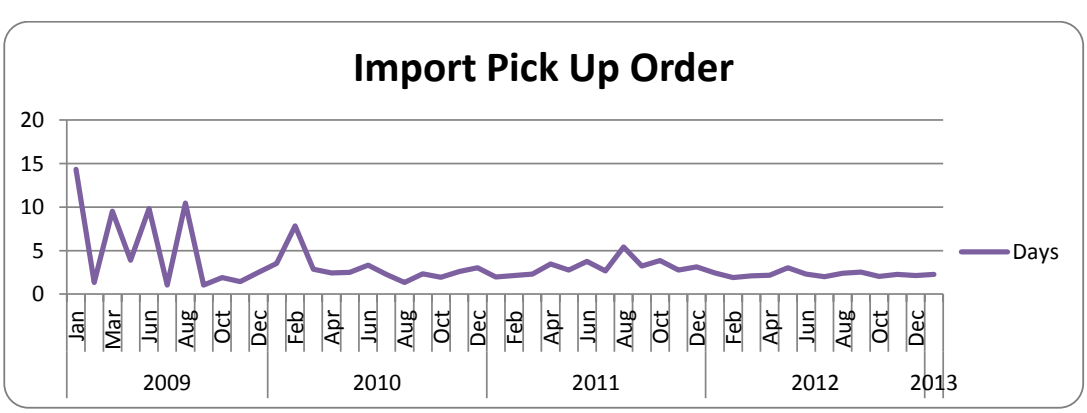
2. TRANSIT AND DELAYS TIME INDICATORS

Transit time within the port of Mombasa.

Several processes are undertaken by different players within the port with different players. It is therefore necessary to break the transit time within the port into several distinct processes so that it's easier to identify the areas that need to improve.

a. Import pick up order

This shows the time when the Release Order is issued from customs to the time the cargo leaves the port. During this entire period, the cargo is the hands of the owners and their undertaking processes to evacuate their containers from the port. Maritime sector standards require that the generation of pick up order and payment of port charges be done within 4 hours and evacuation of containers from the port be done within 48 hours from the discharge of a container.

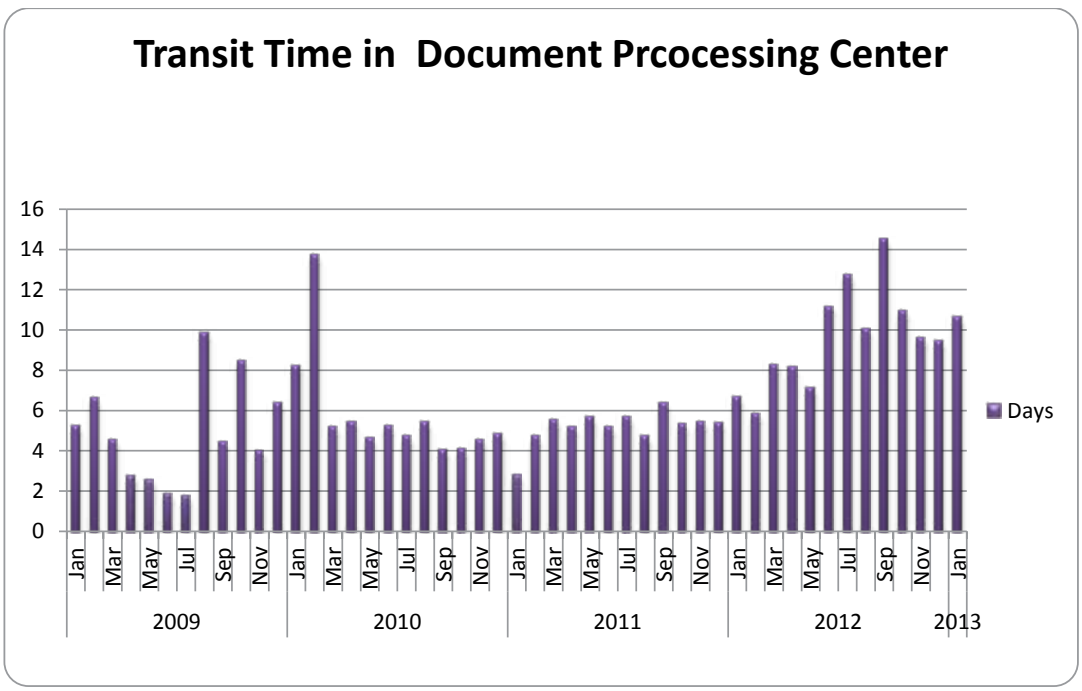


Source: *Electronic Data, Kenya Ports Authority (KPA) 2009 - January 2013*

Since the year 2010, the timescales have remained fairly constant averaging 2 days.

i. Time for Customs clearance in the Document processing Centre.

This is the Time from when the customs officer issues a Long Room Pass at Document Processing Centre to the time when the customs officer issues a Release Order



Source: *Electronic Data, Kenya Ports Authority (KPA) January 2009 - January 2013*

Though there is a general increase in the trend, the average monthly transit time in the document processing centre varies considerably.

Many documentation processes occur at the Document Processing Center and the transit time is affected by the delay and interaction of these processes lodged by ship agents, freight forwarders and Cargo consolidators. The 2012 data exhibits a variation of about 4 days from the trimmed average of 5 days in the transit time within the Document Processing center.

The Kenya Maritime Authority has identified obligations of interveners in the cargo clearance processes in their Industry Maritime Standards. The table below highlights some of the processes and the set minimum service levels.

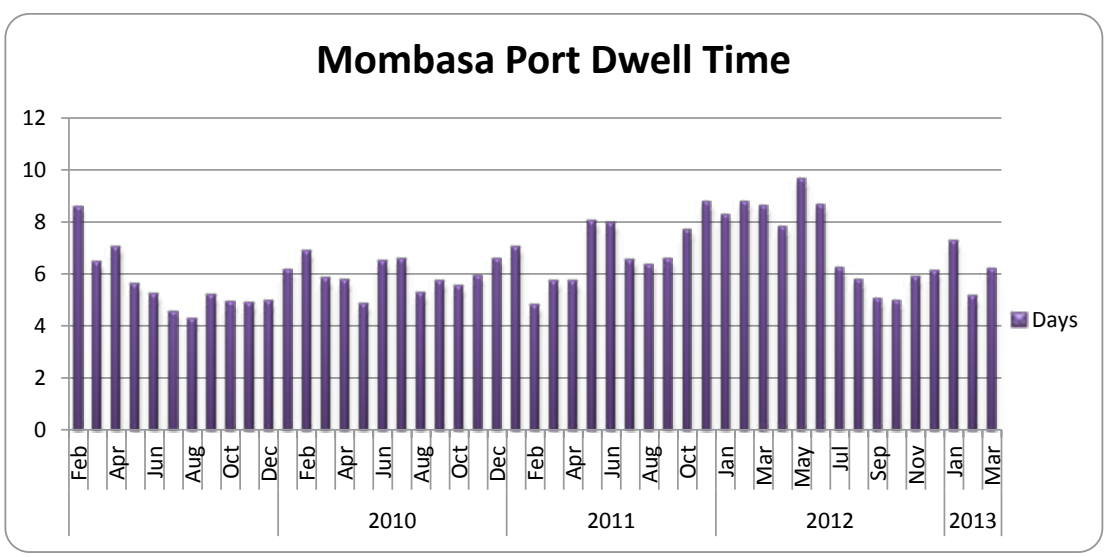
Process	Maritime industry service level standards
Receipt, registration and issuance of manifest number through the SIMBA system	Within one (1) hour
Registering customs entry	Real Time
Confirmation of payment of the relevant duties and taxes from the clearing and forwarding agent	Real Time
Passing/Rejection of Customs Entry	Within 2 hours upon confirmation of

	receipt of payment.
Determination of targeting regime and online notification to KPA/CFS	Real time
Physical cargo verification/Scanning and inputting examination account into SIMBA System	Within three (3) hours upon receipt of folder from the C&F Agents
Online issuance of customs release order to KPA/CFS	Real time after verification/ or scanning
KEBS clearance of Cargo, KEPHIS clearance of Cargo, Anti counterfeit Agency, port Health	Each Agency if involved should take almost 2 hours

Source: *Kenya Maritime Authority (KMA), March 2013*

Compliance with the set minimum service levels will hasten the process reducing transit times at the port of Mombasa.

ii. Port Dwell Time

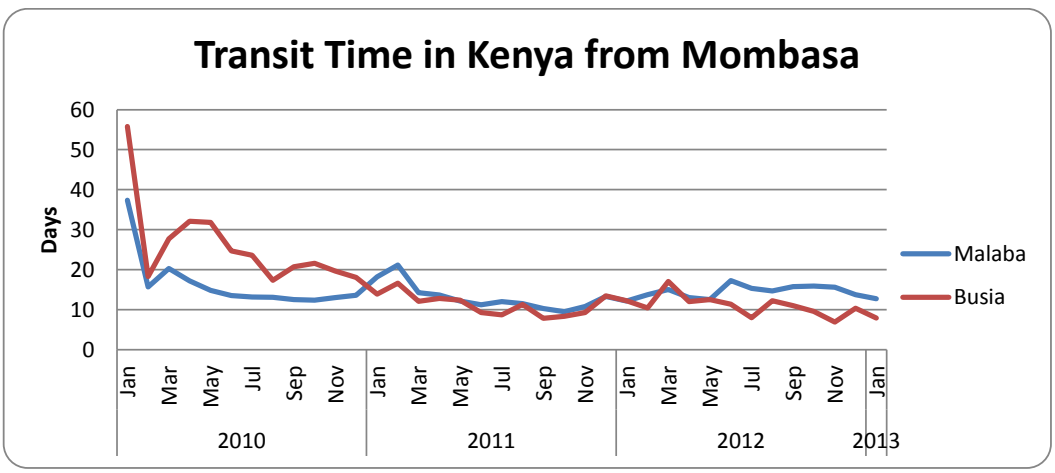


Source: *Electronic Data, Kenya Ports Authority (KPA) 2009 - March 2012*

Average Port dwell time ranges from 5 to 7 days between June 2012 and February 2013.

Though the port dwell time is higher than the recommended time of 4 days, KPA is not exclusively responsible for the delays. Other players' i.e. KRA, the private sector (importers, clearing agents) and other Government Agencies are also involved. Solutions to decreasing dwell time at Mombasa port require all the players to adhere to the set minimum service level agreements. Breaking the private sector collusion and striking equilibrium between KPA, KRA, logistical operators and importers will also reduce port dwell time.

iii. Transit time in Kenya: Mombasa to Malaba and Mombasa to Busia Border Posts



Year	Frequency of Trucks to Busia	Frequency of Trucks to Malaba
2010	37,619	407,254
2011	40,200	441,187
2012	23,271	458,807

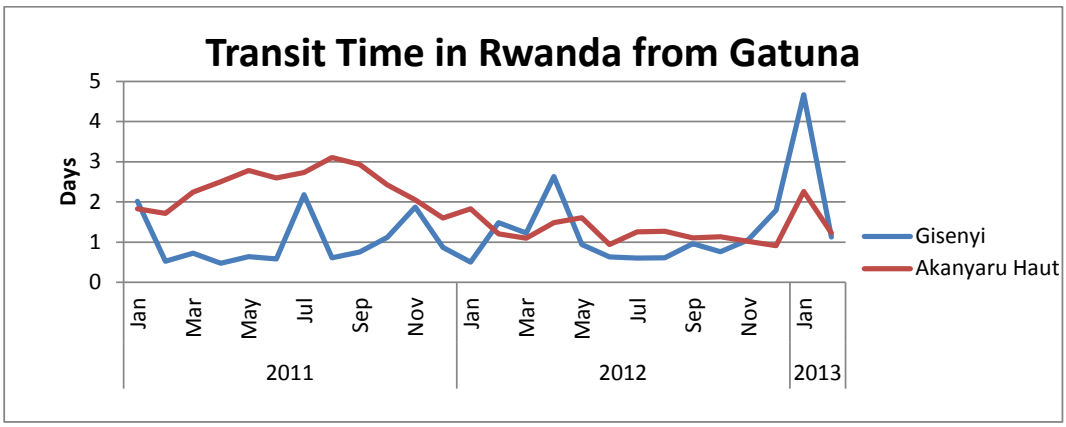
Source: *Electronic Data, Kenya Revenue Authority (KRA) 2010 – January 2013*

There is a general decrease in transit time[2] from Mombasa to Busia. The average transit time from Mombasa to Malaba was between 12 and 17 days in the year 2012. This time is computed using KRA's operation electronic data and it's the difference between the time when the release order is issued to the time the electronic Certificate of Export is issued. Therefore, this means some part of port dwell time and the border crossing time is factored in.

It is worth noting that the frequency of trucks to Malaba is higher than that of Busia as shown in the table. Busia has seen the frequency of trucks drop significantly by almost half to 23,271 from 40,200.

[2] Transit time – includes the delays by customs officials to capture data into the customs system due to various reasons including systems breakdowns, congestion at the border calling handling the processing documentation manually then updating in the system later.

iv. Transit Time in Rwanda: From Gatuna to Gisenyi and Gatuna to Akanyaru - Haut



Year	Frequency of Trucks to Gisenyi	Frequency of Trucks to Akanyaru-Haut
2011	23,677	4,765
2012	22,058	6,209

Source: *Electronic Data, Rwanda Revenue Authority (RRA) 2009 – January 2013*

This is the transit time[3] from the time truck is allowed (electronically in RRA's system) to commence the transit journey to the time the bond is cancelled on the exit border. In this transit time, the exit border crossing time is factored in.

High transit times in were noted in the months of January and February 2013. Frequency of trucks traffic to Akanyaru-Haut increased from 4,765 to 6,209 in 2012 while traffic to Gisenyi slightly decreased from 23,677 to 22,058 in 2012.

3. RATES AND COST INDICATORS

i. Shipping line charges ($):

Charges	Maersk line		Ocean freight		CMA CGM (k) ltd	
	20'	**40'**	**20'**	**40'**	**20'**	**40'**
Terminal Handling charge	90	135	90	135	90	135
Terminal Handling charge (out of gauge)	200	240	180	270	180	270
Delivery order fee	70	70	60	60	70	70
Lift on/off	40	40	30	30	30	40

Source: *Kenya Maritime Authority (KMA), March 2013*

[3] Transit time - includes the delays by customs officials to capture data into the customs system due to various reasons including systems breakdowns, congestion at the border calling handling the processing documentation manually then updating in the system later.

ii. Transport Tariff and General Information (Burundi)

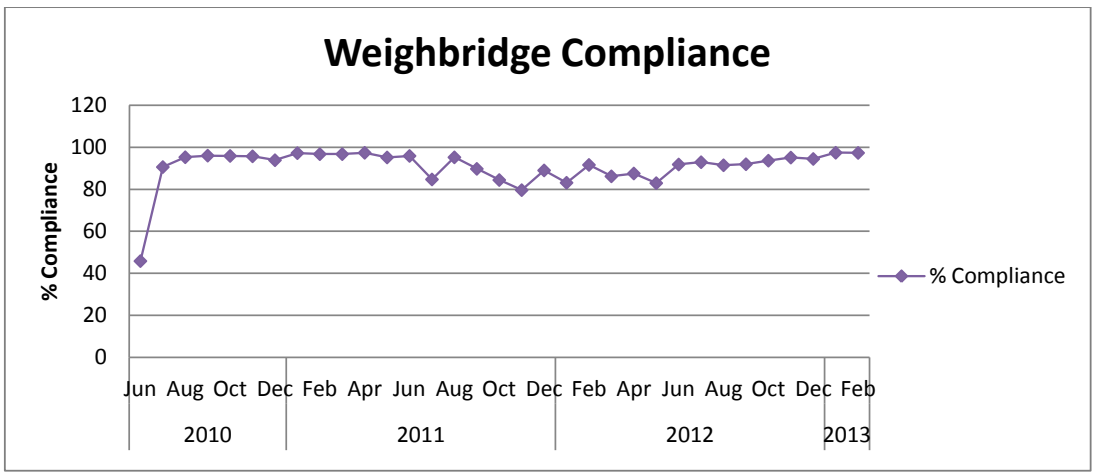
Imports				
From	**To**	**Unit**	**2012 ($)**	**2013 ($)**
Mombasa (KE)	Bujumbura (BI)	Tonne	235	220
Nairobi (KE)	Bujumbura (BI)	Tonne	200	180
Kampala	Bujumbura (BI)	Tonne	160	140
Kigali (RW)	Bujumbura (BI)	Tonne	50	50
Goma (CD)	Bujumbura (BI)	Tonne	**-**	70
Bukavu (CD)	Bujumbura (BI)	Tonne		35
Exports				
Bujumbura (BI)	Bukavu (CD)	Tonne	-	35
Bujumbura (BI)	Goma (DRC)	Tonne	-	70
Bujumbura (BI)	Kigali (RW)	Tonne	-	50
Bujumbura (BI)	Kampala (UG)	Tonne	-	140
Bujumbura (BI)	Nairobi (KE)	Tonne	-	160
Bujumbura (BI)	Mombasa (KE)	Tonne	-	180

Source: *International Association of Burundi Transporters, 2012 - 2013*

Slight reduction to the cost of transportation to Burundi in 2013

4. EFFICIENCY AND PRODUCTIVITY

i. Weighbridge Compliance Reported In Uganda Weighbridges



Source: *Uganda National Roads Authority (UNRA), June 2010 – February 2013*

The line graph identifies the historical progress on weighbridge regulations compliance by transporters in Uganda. Compliance rate is high and continues to increase.

ii. Quality of Infrastructure

For the detailed infrastructure quality for Uganda, Rwanda, Burundi and Democratic Republic of Congo, See Annex 3: *Quality of Road Infrastructure*

J. RECOMMENDATIONS

Stakeholders who have been very supportive but not very open to share data to consider providing the requested information as the objectives and use of the data is clearly defined and known. All Stakeholders already providing data are urged to continue doing so and to consider taking a further step in making the sharing process more consistent and permanent by discussing and agreeing on possible technical modalities.

The reviews on the indicators list from various forums to be officially adopted for the purpose of improving the monitoring and reporting of the corridor performance. Also, to be adopted is the use of benchmarks in the reporting of results so as to make them more objective.

The availability of information may remain as untapped resource if it is not utilized. The stakeholders are therefore requested to use the Transport Observatory information in their policy change processes as well in diagnosis processes of the various bottlenecks in the corridor logistics. Taking not of indicators that have highlighted key areas of concern.

Analysis and presentation of this information can be made effective by use of benchmarks; making it very easy and clear to identify areas of concern. The Secretariat need stakeholders support to establish benchmarks relating to the various indicators.

Setting up the online database was a major step towards making information available from anywhere at any time. The online portal, however, has had minor interface challenges for users in regards to navigation. Therefore, a review of the portal interface design to enhance navigation should be considered as an important step towards enhancing the efficiency of this valuable tool.

i. Uganda

Road Link	Length (km)	Road Classification	Last intervention	Surface Type	IRI[4]	Condition	Planned Intervention
Tororo - Mbale - Soroti	149	Class A	Under Rehabilitation	Surface dressed			Under Rehabilitation
Soroti - Lira	122	Class A	2009 upgrading from gravel	Surface dressed	3	Good	
Namutere - Busia	17	Class B	2013 rehabilitation	Asphalt concrete	2	Good	2013 rehabilitation
Lira - Aboke - Kamdini	71	Class A	2010 periodic maintenance	Surface dressed	5	Fair	
Malaba - Bugiri	58	Class A	2013 rehabilitation	Asphalt concrete	2	Good	2013 rehabilitation
Bugiri - Jinja	81	Class A	2010 rehabilitation	Asphalt concrete	3	Fair	2015 rehabilitation
Jinja - Mukono	55	Class A	Under periodic maintenance				Under periodic maintenance
Mukono - Kampala	18	Class A	2007 periodic maintenance	Asphalt concrete/Surface dressed	5	Fair	
Kampala - Masaka	128	Class A	2012 rehabilitation	Asphalt concrete	2.5	Good	
Masaka - Mbarara	135	Class A	2011 rehabilitation	Asphalt concrete	2.5	Good	
Mbarara - Kabale	136	Class A	Under Reconstruction				Under Reconstruction

Kabale - Katuna	22	Class A	Under Reconstruction				Under Reconstruction
Kabale - Kisoro	76	Class B	2012, upgrading from gravel	Asphalt concrete	2	Good	
Kisoro - Bunagana	12	Class B	2012, upgrading from gravel	Asphalt concrete	2	Good	
Kisoro - Kyanika	9	Class C	2012, upgrading from gravel	Asphalt concrete	2	Good	
Ntungamo - Kagamba	15	Class B	2005 upgrading from gravel	Surface dressed	4	Good	
Kagamba - Rukungiri	34	Class C	2006 upgrading from gravel	Surface dressed	4	Good	
Rukungiri - Kanungu - Katojo - Kihihi - Ishasha	68	Class C	2011 regraveling	Gravel	12	Poor	

[4] A roughness parameter determined from a measured road profile. The IRI scale generally ranges from 0 to16. For paved roads in a good to moderate condition the measured IRI generally ranges from 1.5 to 3.5. For unpaved roads the measured IRI generally ranges from roughly 4 to 12. The smaller the number the better the road quality.

Ntungamo - Kafunzo - Kakitumba	36	Class C	2011 regraveling	Gravel	13	Poor	
Busega - Muduma	30	Class A	2012 Rehabilitation	Asphalt concrete	2	Good	
Muduma - Mityana	27	Class A	2012 Rehabilitation	Surface dressed	3	Good	
Mityana - Mubende	80	Class A	2002 upgrading from gravel	Surface dressed	5	Fair	
Mubende - Kyegegwa	44	Class A	2002 upgrading from gravel	Surface dressed	6	Fair	
Kyegegwa - Kyenjojo	56	Class A	2005 upgrading from gravel	Surface dressed	4	Good	
Kyenjojo - FortPortal	48	Class A	2007 upgrading from gravel	Surface dressed	6	Poor	
FortPortal - Hima	55	Class A	2008 Rehabilitation	Surface dressed	7	Poor	
Hima - Kasese	20	Class A	2007 Rehabilitation	Surface dressed	5	Fair	
Kasese - Kikolongo	21	Class A	2007 Rehabilitation	Surface dressed	5	Fair	
Kikolongo - Bwera - Mpondwe	38	Class A	2007 upgrading from gravel	Surface dressed	5	Fair	

Kampala Luweero - Kafu	168	Class A	2009 rehabilitation, 2012 asphalt concrete overlay	Asphalt concrete	2.5	Good	
Kafu - Karuma	86	Class A	1996 rehabilitation	Surface dressed	7	Poor	2014 rehabilitation
Karuma - Kamdini	12	Class A	1996 rehabilitation	Surface dressed	4.5	Fair	
Kamdini - Gulu	62	Class A	1996 rehabilitation	Surface dressed	6.5	Poor	2014 rehabilitation
Gulu - Atiak	68	Class A	2011 regraveling	Gravel		Poor	2013, upgrading from gravel
Atiak - Nimule	37	Class A	2011 regraveling	Gravel		Poor	2013, upgrading from gravel
Karuma - Olwiyo	52	Class A	2006, upgrading from gravel	Surface dressed	4	Good	
Olwiyo - Pakwach	54	Class A	2007, upgrading from gravel	Surface dressed	4.5	Fair	
Pakwach - Nabbi - Arua	129	Class A	2002, upgrading from gravel	Surface dressed	5	Fair	
Arua - Oraba	76	Class A	2012, upgrading from gravel	Gravel	12	Poor	Under upgrading from gravel

ii. Rwanda

Road	ID	Sections	Length (Km)	IRI[5]	Condition			Period	Road Classification	Future Plan
					Good	*Fair*	*Poor*			
Kicukiro-Nyamata-Nemba	NR 15	Sonatube-Kumugendo	12.284	1.23 - 5.53	12.200	0.200			Regional	PM
		Kumugendo-Kugahembe	18.772	1.1 - 3.44	18.772			2008		
		Kugahembe-Nemba	29.197	1.1 - 1.6	29.197					
			60.253							
Kigali-Butare-Akanyaru	NR 1	Kigali-Gitarama	47.319	0.8 - 4.35	46.919	0.400		1998	Regional	PM
		Gitarama -Akanyaru	109.95	0.8 - 3.3	109.947			2003		
			157.27							
Butare-Cyangugu	NR 6	Butare-Kitabi	53	2.73- 6.03	43.200	9.400	0.400		Regional	2014 - 2015
		Kitabi - Crete Congo Nil	30		*					2012 - 2014
		Crete Congo Nil-Ntendezi	30		*			2012		PM(2015 - 2016)
		Cyangugu - Bugarama	38.246	1.54 - 8	36.846	0.600	0.800			PM
			151.25							
Kigali- Ruhengeri-Gisenyi	NR4	Kigali- Ruhengeri	87.989		*			2012	Regional	PM(2015-2016)
		Musanze-Rubavu	61.932	1.1- 2.09	61.932			2010		PM(2013 - 2014)
			149.92							
Kigali-Kayonza-Rusumo	NR 3	Kigali-Kayonza	57.341	1.1 - 4.43	56.941	0.400		2006	Regional	PM
		Kayonza-Rusumo	92	1.1 - 4.18	91.200	0.800		1992		2015 - 2016
			149.34							
Kayonza-Kagitumba	NR 5	Kayonza-Kagitumba	116.24	1.84 - 4.55	100.242	15,400	0.600	1988	Regional	2015 - 2016
			116.24							
Kigali - Gatuna	NR 2	Kigali - Gatuna	**77.97**		Not surveyed			1988	Regional	UR (2012 - 2014)

[5] A roughness parameter determined from a measured road profile. The IRI scale generally ranges from 0 to16. For paved roads in a good to moderate condition the measured IRI generally ranges from 1.5 to 3.5. For unpaved roads the measured IRI generally ranges from roughly 4 to 12. The smaller the number the better the road quality.

iii. Burundi

Route	Classif. Itinér.	Segment/Tronçon	Classif. Route	Construite /Rénovée	Type Rev	Ind. rug. international	Etat	Proj./Plan d'amél
Bujumbura-Bugarama-Kayanza-Kanyaru Haut (115km)	RN1	Bujumbura-Bugarama (35km)	Régionale	Etudes de rénovation en cours	Revêtue	Pas disponible	Assez Bon	Etudes de rénovation en cours (réhab. et agrandissement à 7m)
		Bugarama-Kayanza (65km)			Revêtue	«	Assez Bon	
		Kayanza-Kanyaru Haut (15km)			Revêtue	«	Assez Bon	
Bujumbura-Gatumba-Frontière RDC (19km)	RN4	Bujumbura-Gatumba (15km)	Régionale	Travaux de rénovation en cours	Revêtue	«	Assez Bon	Travaux de rénovation en cours (réhab. Et agrandissement à 7m)
		Gatumba-Frontière RDC (4km)			Revêtue	«	Bon	
Bujumbura-Nyamitanga-Ruhwa (80km)	RN5	Bujumbura-Nyamitanga (30km)	Régionale	Travaux de rénovation pou 2013-2014	Revêtue	«	*Mauvais*	Travaux de rénovation pou 2013-2014
		Nyamitanga-Ruhwa (50km)		Travaux de rénovation terminés	Rénovée	«	Excellent	Sans objet
Kayanza-Ngozi-Gashoho (72km)	RN6	Kayanza-Ngozi (32km)	Liaison	Travaux d'entretien uniquement par les PME/ACD	Revêtue	«	Assez Bon	Pas encore
		Ngozi-Gashosho (40km)	Liaison		Revêtue	«	Assez Bon	Pas encore
Gashoho-Kirundo-Gasenyi (67km)	RN14	Gashoho-Kirundo (32km)	Régionale	Travaux d'entretien uniquement	Revêtue	«	Assez Bon	Pas encore
		Kirundo-Gasenyi (35km)		Rénovée	Revêtue	«	Bon	Sans objet

iv. Democratic Republic of Congo

Designation de la route	Classification RDC	Type de Revêtement		Travaux executés	Projection/Plan d'amelioration	Etat de la route			Etat de la route			Etat de la route			Etat de la route			Etat de la route		
						Bon	moyen	mauvais	Bon	moyen	mauvais	Bon	moyen	mauvais	Bon	moyen	mauvais	Bon	moyen	mauvais
		RR	RT																	
1.AXE BUKAVU-KINDU-KISANGANI																				
BUKAVU - BURHALE	RN2		RT	Réhabilitation	-	55			55			55			55			55		
BURHALE - KALIMA	RP503		RT			117	122	177	119	127	170	119	127	170	119	127	170	74	165	175
KALIMA - MALI	RN32	RR		-	Réhabilitation		64			64			64			64			64	
MALI - KINDU	RN31	RR		-	Réhabilitation	36			36			36			36			36		
MALI - LUBUTU	RN31		RT	-	Réhabilitation	122	170	26	122	170	26	102	155	61	139	43	136	139	43	136
LUBUTU - KISANGANI	RN3	RR		-	Réhabilitation	135	52	110	91	165	41	91	165	41	45	211	41	45	211	41
2.AXE BUKAVU-UVIRA																				
BUKAVU - KAMANYOLA	RN5		RT	Entretien mecanisé	Bitumage/contrat chinois	30	22		15	33	4	26	20	6	15	33	4	22	26	4
KAMANYOLA - UVIRA	RN5	RR		-	Renforcement/contrat chinois	86			86			86			86			86		
UVIRA - KAMVIVIRA - FRONT BURUNDI	RN30	RR		-	-	7				7			7			7			7	
3.AXE KISANGANI - BENI -KASINDI																				
KISANGANI - KOMANDA	RN4		RT	Réhabilitation	Modernisation	496	76	78	355	264	31	355	268	30	425	162	63	394	183	73
KOMANDA - LUNA	RN4		RT	Réhabilitation	Modernisation	65			65			65			65			65		
LUNA - BENI	RN4	RR		Bitumage		60			60			60			60			60		
BENI - KASINDI	RN4		RT	Réhabilitation	Modernisation	53		27	66		14	65		15	72	8		68	12	

4.AXE KOMANDA - BUNIA - MAHAGI																				
KOMANDA - BUNIA	***RN27***		***RT***	***Réhabilitation***	***Modernisation***	**71**			**71**			**71**			**71**			**71**		
BUNIA - MAHAGI	***RN27***		***RT***	***Réhabilitation***	***Modernisation***	**49**	**61**	**65**	**49**	**61**	**65**	**49**	**61**	**65**	**57**	**99**	**19**	**85**	**90**	
MAHAGI - GOLI - FRONT OUGANDA	***RN27***		***RT***	***Réhabilitation***	***Modernisation***	**15**			**15**			**15**			**15**			**15**		
5.AXE KISANGANI - ISIRO - FARADJE - ABA																				
KISANGANI - NIANIA	***RN4***		***RT***	***Réhabilitation***	***Modernisation***	**293**	**36**	**17**	**180**	**163**	**3**	**185**	**158**	**3**	**200**	**113**	**33**	**186**	**120**	**40**
NIANIA - ISIRO	***RN26***		***RT***	***Réhabilitation***	***Modernisation***	**118**		**114**	**102**	**79**	**51**	**122**		**110**	**121**		**111**	**134**		**98**
ISIRO - FARADJE - ABA - FRONT SUD SOUDAN	***RN26***		***RT***	**-**	***Réhabilitation***	**100**	**30**	**348**	**56**	**50**	**372**	**100**	**30**	**348**	**100**	**30**	**348**	**100**	**30**	**348**
6.AXE BENI - BUTEMBO - GOMA																				
BENI - GOMA	***RN2***		***RT***	***Réhabilitation***	***Modernisation/ Réhabilitation***	**108**	**152**	**71**	**108**	**152**	**71**	**105**	**152**	**71**	**119**	**212**		**119**	**212**	
RUTSHURU - BUNANGANA	***RN28***		***RT***	***Réhabilitation***	**-**	**27**			**27**			**27**			**27**			**27**		
RUTSHURU - ISHASHA	***RP1535***		***RT***	***Réhabilitation***	**-**	**33**	**30**		**33**	**30**		**33**	**30**		**33**	**30**		**33**	**30**	

ANNEX 2: INDICATOR GLOSSARY

1. Total cargo throughput of the port of Mombasa (TCPMsa) vs transit traffic (TTPMsa) in tonnes.

TCPMsa = Summation of all cargo's weight handled within the Port (Tonne); TTPMsa = Summation of all cargo handled within the port and which cargo have another destination than local market (or the port's country)

2. Volume per country of destination (TC).

TC per Country of destination = Summation of all cargo's weight handled within the Port per Country of destination (Tonne)

3. Rate of containerization of transit traffic in percentage (RcTT), annual basis at the Port of Mombasa.

RcTT = (Summation of the Transit containerized Cargos Weight divided by TTPMsa) multiply by 100

4. Evolution of licensed fleet of trucks per country (TF).

TF = Summation of registered (Licensed) vehicles used for international/transit cargo transportation per year and per country.

5. Average annual distance per truck in km per year (AvanDist).

AvanDist = Average distance achieved per truck per year (or Average number of trip achieved by truck during the year).

6. Transport capacity by rail (locomotives and wagons).

Railway Capacity = Total number of operational locomotives and wagons (or the proportion of total cargo carried by railway).

7. Transport costs per route and per mode (including transit charges) (TraCstRd).

TraCstRd = Summation of tariff charge by transporter, transit and other charges per Route and/or section.

8. Rail Freight Charge.

Freight = Tariff charged by railway operator per section and/or per route.

9. Road Freight Charge.

Freight = Tariff charged by transporter per section and/or per route.

10. Port Transit Charges.

Published tariffs by Stakeholder

11. Return of empty containers (grace period, penalties, deposit).

Published tariffs by Stakeholder

12. Number of check points, NCP (Weighbridge, Police, Customs, Road Toll) per country per route.

NCP = Summation of checkpoints by country, by route

13. Rate of Fraud or Declared Damage for goods in transit, RFDD (percentage of total transit).

RFDD=Number of Fraud or Declared Damage cases divide by total of Fraud or Declared Damage cases at a node

14. Quality of the transport infrastructure.

Defined qualitative descriptions of state of infrastructure, Defined routes, Defined routes sections, Qualitative state of each section

15. Volume of containerized and general cargo handled per day/month/quarterly at the Port of Mombasa.

Summation of volume of Containerized Cargo Handled per day/month/year; Summation of volume of General Cargo Handled per day/month/year

16. Number of accidents per route.

Summation of the number of Accidents, Injuries and Fatalities by Category and Sub Category

17. Transit Time per route per mode of transport (by country).

TT per route = Arrival DateTime at the node minus departure DateTime from the destination node.

i. **Transit Time in Uganda, Rwanda, Burundi, DRC (Road).**

TT = Cargo Exit border DateTime minus Entry border DateTime (Based on IM8, T1)

ii. **Transit time in Kenya (Road).**

TT = Certificate of Export DateTime minus Release DateTime at port (Based on KRA's T812)

18. Transit time origin to destination by country.

TT = Arrival DateTime at the destination minus departure DateTime from the origin (entry port).

19. Average cargo dwell time in Mombasa port.

DT = Exit DateTime from the port minus Arrival DateTime at the port.

20. Time for Customs Clearance at the Document Processing Center.

TCC = Released DateTime of process minus Passed DateTime (Based on KRA's T812)

21. Transit time within the port (IPUO: Import Pick Up Order Process).

TT = Cargo removal time at the gate from port minus Release Order time (Based on KRA's T812)

22. Border Post Crossing Time.

TT = Departure DateTime from the border minus Arrival DateTime at the border.

23. Time for Customs procedures at destination.

TT = End DateTime of the last process minus Start DateTime of the first process.

24. Transit time within the ICD/Inland Port.

TT = Departure DateTime from the ICD minus Arrival DateTime at the ICD.

25. Weighbridge crossing time.

TT = Departure DateTime from the weighbridge minus Arrival DateTime at the weighbridge.

ANNEX 3: LIST OF STAKEHOLDERS

A. Kenya

- Ministry of Transport
- Kenya Revenue Authority
- Kenya Ports Authority
- Kenya National Highway Authority
- Kenya Pipeline Corporation
- Rift Valley Railways

B. Uganda

- Ministry of Works and Transport
- Uganda Revenue Authority
- Uganda National Roads Authority
- Uganda Railways Corporation
- Uganda Freight Forwarders Association.

C. Rwanda

- Ministry of Infrastructure, Rwanda
- Magasins Généraux du Rwanda
- Rwanda Revenue Authority
- Private Sector Federation/Association
- Private Sector (Transporter and Clearing and Forwarding Associations)
- Rwanda Transport Development Authority

D. Burundi

- Ministère des Transports, Travaux Publics et de l'équipement
- OBR (Office Burundais des Recettes).
- Office de Routes
- International Association of Burundi Transporters

E. DRC

- Ministère des Transports et Voies de Communication
- Direction Générale des Douanes et Accises (DGDA)
- Cellule des Infrastructures
- Office Congolais de Contrôle (OCC).
- Office de Gestion du Fret Multimodal (OGEFREM).
- Office des Routes.

For further information, kindly get in touch with us at:
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