



NORTHERN CORRIDOR TRANSPORT OBSERVATORY REPORT

TOWARDS EFFICIENT CORRIDOR PERFORMANCE

Issue No. 8 | May, 2016



**TRANSPORT
OBSERVATORY**
RELIABLE NORTHERN CORRIDOR PERFORMANCE DATA



Northern Corridor
Transit and Transport
Co-ordination Authority



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ACRONYMS

ABT	Association of Burundi Transporters
ACPLRWA	Rwanda Long Distance Truck Drivers Association
ASYCUDA	Automated System for Customs Data
BBS	Burundi Bureau of Statistics
BI	Burundi
CBR	Central Bank of Rwanda
CFS	Container Freight Station
DGDA	Direction Générale Des Douanes Et Accises
DPC	Document Processing Center
DRC	Democratic Republic of Congo
DR Congo	Democratic Republic of Congo
DWT	Dead Weight Ton
EAC	East African Community
ECTS	Electronic Cargo Tracking System
FEC	Fédération des Entreprises du Congo
GDP	Gross Domestic Product
GPS	Global Positioning System
HSWIM	High Speed Weigh in Motion
IABT	International Association of Burundi Transporters
ICD	Inland Container Depot
ICT	Information Communication Technology
IRI	International Roughness Index
KE	Kenya
KeNHA	Kenya National Highway Authority
KM	Kilometer
KNBS	Kenya National Bureau of Statistics
KPA	Kenya Ports Authority
KPC	Kenya Pipeline Company
KRA	Kenya Revenue Authority
KTA	Kenya Transporters Association
KWATOS	Kilindini Waterfront Automated Terminal Operations System
MAGERWA	Magasins Généraux du Rwanda
NC	Northern Corridor

ACRONYMS

NCIP	Northern Corridor Integration Projects
NCTTA	Northern Corridor Transit and Transport Agreement
NCTTCA Authority	Northern Corridor Transit and Transport Coordination Authority
NTB	Non Tariff Barrier
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
OSC	One Stop Center
RRA	Rwanda Revenue Authority
RTDA	Rwanda Transport Development Agency
RVR	Rift Valley Railways
RW	Rwanda
SCT	Single Customs Territory (East African Community)
SPSS	Statistical Package for Social Science
SSBU	South Sudan Business Union
SSFEBAA	South Sudan Federation of Employers and Business Association
TEU	Twenty Feet Container Equivalent Unit
TMEA	TradeMark East Africa
TO	Transport Observatory
TOP	Transport Observatory Portal
UBOS	Uganda Bureau of Statistics
UFFA	Uganda Freight Forwarders Association
UG	Uganda
UNRA	Uganda National Roads Authority
UNTA	Uganda National Transporters Association
URA	Uganda Revenue Authority
URC	Uganda Railways Corporation
USD	United States of America Dollar
WBLPI	World Bank Logistics Performance Index

FOREWORD

I am pleased to present to you the 8th issue of the Transport Observatory report which is part of the monitoring framework of the Northern Corridor; a critical instrument in informing policies formulation and orientation.

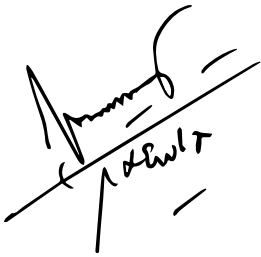
This year marks the 4th anniversary since the launch of the Northern Transport Observatory in 2012. It is hard not to be struck by how much this noble initiative has evolved over the last four years. Currently we are reporting on more than 31 key performance indicators up from the initial 25 indicators. This report provides a snapshot of the outcome of the intensive efforts made by our stakeholders in making measurable progress towards improvement of the Corridor.

The 8th issue of the Transport Observatory report recognizes the Corridor as a Development Corridor and deliberately highlights the extent of intraregional trade with focus on both formal and informal trade. Member States have invested in transport infrastructure and ICT and continue to implement various recommendations and initiatives being championed by the NCTTCA as well as the Heads of States through the Northern Corridor Integration Projects (NCIP) Summit and it is therefore not surprising that we can see an impact on the time it takes to clear goods and the time to transport goods from one transit node to another. We see this concretely not only from the electronic data from the stakeholder's systems, but also from the periodic surveys carried out along the Corridor.

The transit, border crossing and clearance time by various agencies have reduced in the recent past.

The Northern Corridor Transit and Transport Coordination Authority is committed to the implementation of the Port Community and Vehicle Load Control Charters and continues to support the Port Community in keeping track of the Key Performance Indicators at the port of Mombasa and along the Northern Corridor.

Finally, the Transport Observatory reports should not be read on their own, but as part of our comprehensive monitoring and reporting system. The Transport Observatory online tools (www.top.ttcanc.org and www.kandalakaskazini.or.ke) will provide more data and information on the performance of the Corridor. Weekly and monthly performance indicator-focused publications are also produced and disseminated and also available online. Our reporting is designed to be accessible to all our stakeholders and strategically focused to serve our policy audience. We hope that this report will increase your understanding of the Northern Corridor performance and inform policies and responses for improvement.



Donat M. BAGULA
Executive Secretary

ACKNOWLEDGEMENT

It is important to recognize that this report is a collaborative achievement, and we express our appreciation to all those who have contributed to its production. In particular, this report is only possible because of the data received from our stakeholders. As we all know, the Transport Observatory relies on raw data from the stakeholders to ensure its continuity.

We are also indebted to the Council of Ministers, the Executive Committee and all the Policy Organs of the NCTTCA who have provided immense support towards the Transport Observatory. Special thanks go to Trademark East Africa (TMEA) for the financial contribution and support of the Northern Corridor Transport Observatory Project.

Lastly, the NCTTCA acknowledges the hard work and dedication of experts across the Region who have contributed to its analysis and refinement. The Secretariat appreciates the invaluable contributions and comments made by the stakeholders gathered during the workshop to validate this report.

**The Secretariat
NCTTCA.**

1. INTRODUCTION

This report is based on information provided to NCTTCA by stakeholders from the Member States of Burundi, DR Congo, Kenya, Rwanda, South Sudan and Uganda.

The statistical data reported here relate to the period October, 2015 to March, 2016. However, prior information for previous periods has also been included for comparison.

Graphics and tables in this report may reflect a subset of the Northern Corridor Countries; the selection may be made on the basis of those countries from which data are available for the period of interest, or to highlight certain trends.

Analysis of trends is based on indicators where sufficient data is available to describe changes over the period specified.

The report provides both quantitative and qualitative evaluations of the Northern Corridor logistics chain.

It includes detailed information on the logistics environment with indicators ranging from Productivity and Efficiency, Volume and Capacity, Transit Time and Delays, and Transport Cost and Rates along the Northern Corridor transport infrastructure

Figure 1: Northern Corridor Transport Infrastructure



The largest share of goods to the East African region pass through the Northern Corridor.

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

The Northern Corridor Transit and Transport Coordination Authority was established to coordinate relevant institutions in the Northern Corridor Member States to facilitate trade and transport through the Corridor with the aim to support development and alleviate poverty.

Table 1: Key Economic Indicators and projections for Northern Corridor Member States

	Population ('000,000') Projections (2016):	WB LPI (2014)	Real GDP Growth		
			2014	2015	2016
Burundi	9.65	2.57	4.7	-4.1	3.4
DRC	84.13	-	9.2	7.7	4.9
Kenya	45.48	2.81	5.3	5.6	6
Uganda	41.09	-	4.9	5	5.3
Rwanda	11.59	2.76	7	6.9	6.3
South Sudan	12.5	-	2.9	-0.2	-7.8

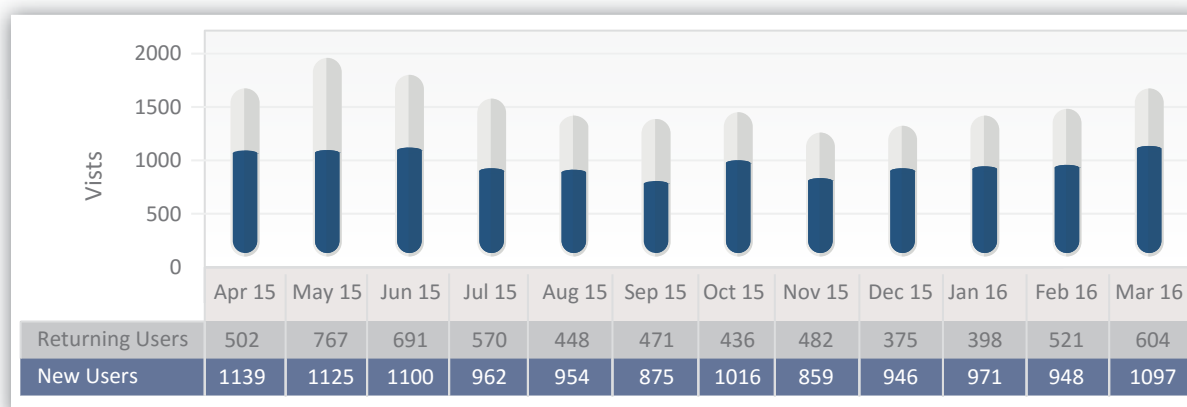
Source: International Monetary Fund, World Economic Outlook Database, April 2016 and World Bank Logistics Performance Index (WB-LPI) 2014

The Northern Corridor region projected to have a combined population of over 200 Million by the end of 2016 continues to draw greater development as Corridor efficiency improves.

1.1 Northern Corridor Performance Monitoring

The Northern Corridor Transport Observatory is attracting increasing attention as it provides a rich source of information on the Corridor performance. The Observatory is a performance monitoring tool with an online portal that is accessed via <http://top.ttcanc.org>

Figure 2 below shows that the number of visitors to the Observatory has been steady with total visits to the portal ranging from 1,321 to 1,892 visits for the period April 2015 to March 2016.

Figure 2: Online visits to the online TOP portals

Source: Northern Corridor Transport Observatory, April, 2016

The objective of the Observatory is to provide reliable statistics to support transport policy interventions in the region. To optimize the use of the Observatory in policy interventions, data on key selected indicators are collected, collated and presented as actionable at-a-glance information to the stakeholders on a weekly basis through the Northern Corridor Dashboard (www.kandalakaskazini.or.ke). The weekly reports are discussed during the Port Community meetings every Friday at the Port of Mombasa. The Dashboard is mainly used in monitoring the implementation of the Port Community Charter that commits both public and private sector to undertake measures geared towards enhancing efficiency of the Port and the Northern Corridor.

1.2 Methodology

The Transport Observatory process involves data collection, analysis and generation of reports. The reports and the processed data are then availed online on the transport Observatory database.

Northern Corridor Transport Observatory data come from various sources which include:

- i. Official data from computerized systems from Stakeholders that are automated,
- ii. Global Positioning System (GPS) devices,
- iii. Road transport surveys and the Trade and Transport Logistics Surveys.

The GPS and road surveys are run concurrently whereby the field supervisor randomly issues GPS kits and survey forms to road transporters. The Kits capture geo codes and time stamps for all the stops made by a truck during its transit journey, transit time and delays at various nodes are extracted from the kits using geo-location methods. Initial preparations for these surveys involve geo zoning to map possible stop locations. The questionnaire is administered alongside the kits for drivers to capture qualitative information such as reasons for stopping, fees, and other charges being paid along the Corridor.

The main objective of the Trade and Transport Logistics Surveys is to identify the Non-Tariff Barriers and bottlenecks along the Northern Corridor and come up with measures to overcome them. The Survey is conducted by a multi-disciplinary Survey Team comprising of public and private sector stakeholders involved in handling and clearing goods along the Corridor and it involves making observations on physical transport infrastructure and facilities in place, and procedures for handling and clearance of goods along the Corridor

The analysis involves both descriptive and quantitative techniques using various statistical tools to generate graphs and tables for interpretation.



FINDINGS

In this report, data was obtained from Customs business systems, Electronic Cargo Tracking Systems, GPS surveys and the traditional road transport surveys. The indicators have been categorized into: Volume and Capacity, Transit Time and Delays, Cost and Rates, Efficiency and Productivity.

Findings in this report are categorized based on the indicators being measured. The descriptions of trends summarize changes during the reporting period.

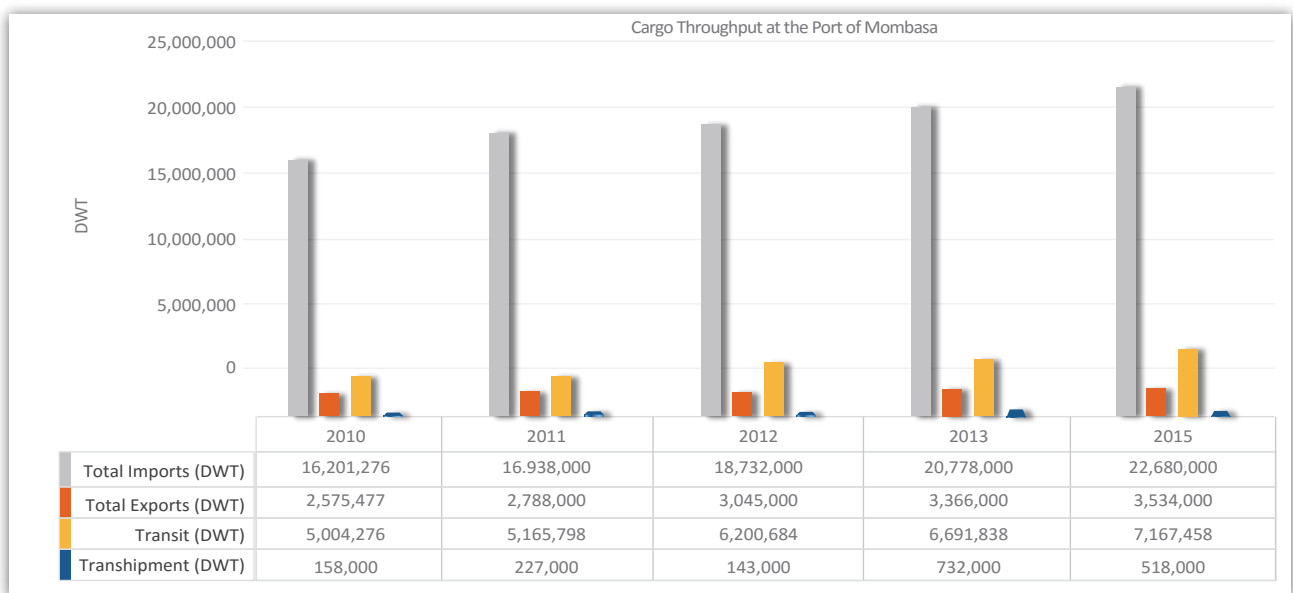
2. VOLUME AND CAPACITY INDICATORS

2.1 Cargo throughput at Mombasa Port

This indicator gives imports, exports and volume of transit cargo to Member States of Northern Corridor.

Figure 3, based on data from KPA, shows the imports, exports and transit cargo by weight in tones handled at the port of Mombasa during the period 2010- 2015.

Figure 3: Cargo Throughput at the Port of Mombasa



Source: KPA, 2010-2015

From the figure above, total imports have been increasing over time with the Port registering 22.68 Million tons which includes 7.17 Million tons of Transit Imports in 2015.

In 2015, exports were 3,534,000 DWT which represents an increase of 5% compared to the previous year. In 2015, the port handled 518,000 DWT of transshipment cargo.

Table 2 gives a comparison for imports and exports per Country within the Northern Corridor during the period 2010-2015.

Table 2: Cargo Volumes from Mombasa Port to other Destinations

Country	Cargo Type	TRAFFIC (DWT)					
		2010	2011	2012	2013	2014	2015
Burundi	Imports	5,785	1,201	38,917	66,227	79,961	75,690
	Exports	1,204	688	243	682	139	121
DR Congo	Imports	401,703	339,287	464,989	491,367	383,461	362,976
	Exports	28,714	16,004	17,369	20,346	24,267	33,156
Uganda	Imports	3,942,242	4,028,361	4,499,302	4,508,118	5,132,276	5,592,914
	Exports	290,492	347,314	346,193	404,198	389,844	384,418
Kenya	Imports	11,197,000	11,772,202	12,531,316	12,954,060	14,086,162	15,512,542
	Exports	2,198,000	2,357,631	2,620,042	2,469,703	2,857,722	3,034,280
Rwanda	Imports	275,559	216,306	247,730	223,127	221,323	273,815
	Exports	12,564	9,787	12,508	16,972	14,589	18,109
S. Sudan	Imports	190,468	375,897	736,266	716,470	696,816	652,513
	Exports	32,999	41,135	30,390	58,679	64,520	50,018
Others	Imports	188,519	204,746	213,480	190,631	178,001	209,550
	Exports	11,504	15,441	18,255	12,420	14,919	13,898
Total (DWT)	Imports	16,201,276	16,938,000	18,732,000	19,150,000	20,778,000	22,680,000
	Exports	2,575,477	2,788,000	3,045,000	2,983,000	3,366,000	3,534,000
	Transshipment	158,000	227,000	143,000	174,000	732,000	518,000
	Total throughput	18,934,753	19,953,000	21,920,000	22,307,000	24,876,000	26,732,000

Source: KPA, 2010-2015

The table above shows that imports have been growing over time from 2010 with an annual percentage growth rate of 9% registering a total of 22,680,000 DWT in 2015. Comparing 2014 and 2015, total exports went up from 3,366,000 DWT to 3,534,00 DWT.

Principal exports from the region are Tea, Soda Ash and Coffee which declined in 2015. Uganda is the largest transit Country followed by South Sudan and DR Congo.

The total throughput recorded in 2015 was 26,732, 000 DWT up from 24,875,000 DWT in 2014.

NORTHERN CORRIDOR INTRA-REGIONAL TRADE

The objective of this section is both to showcase the level of trade between Northern Corridor Member States and provide policy recommendations to realize more gains and maximize the full potential of NC in the area of regional trade, cooperation and integration.

The data was obtained mainly from institutions in charge of national statistics in every Member State. This means the methodology on how data was collected conforms to every Member State and hence not harmonized for this report. This therefore means there is difference in frequencies as per every Member State where some provided data on monthly basis while others provided on semi-annual or annual basis. Also, some member states provided data on both informal and formal trade while others provided only for formal trade

2.2 Trade between Burundi and the other Northern Corridor Member States

Table 3: BURUNDI Trade for period April – September 2015 (in USD)

IMPORTS (USD)						
ORIGIN	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
DR Congo	318,762	315,539	437,107	219,099	254,391	76,077
Kenya	2,843,035	3,915,373	5,981,376	2,506,004	3,899,248	4,121,553
Rwanda	531,533	531,493	345,741	488,356	534,402	929,361
South Sudan		-	-	-	-	4,795
Uganda	1,439,067	3,495,950	3,061,444	2,123,764	4,399,568	2,189,688
Total	5,132,397	8,258,355	9,825,668	5,337,223	9,087,609	7,321,474
EXPORTS (USD)						
DESTINATION	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
DR Congo	1,887,574	2,258,487	2,189,733	3,058,962	2,362,504	3,295,999
Kenya	1,197,741	951,664	764,439	792,479	921,677	1,127,193
Rwanda	230,475	407,669	546,962	425,020	139,141	390,302
South Sudan	199,565	282,356	192,917	168,628	175,130	245,631
Uganda	146,333	124,789	223,230	542,225	419,241	573,292
Total	3,661,688	4,024,965	3,917,281	4,987,314	4,017,693	5,632,417

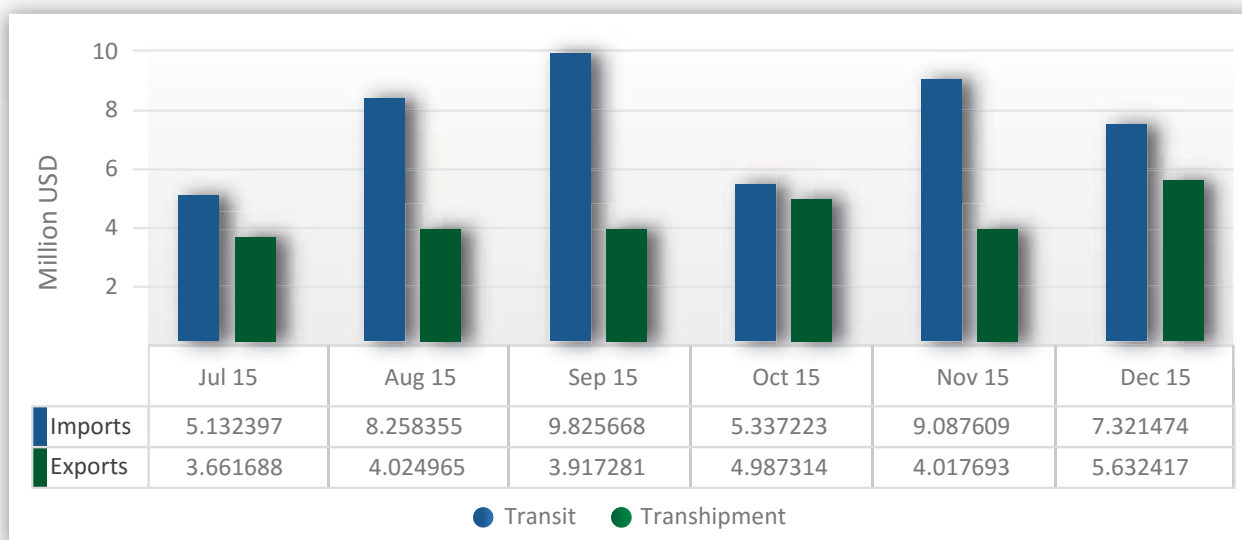
Source: Burundi Bureau of Statistics, July – Dec 2015

The table (3) above shows that Burundi imports more from Kenya and Uganda.

Main imports to Burundi include; Super Motor Spirit, fertilizers, gas/petroleum, exercise books of paper or paperboard, products of iron or non-alloy steel, medicines, tobacco, pipes and tubes of iron or steel.

Burundi exports more to DR Congo than other Northern Corridor Member States. Exports from Burundi include black fermented tea, beer made from malt, soaps, wheat flour, cigarettes, bottles, flasks, pots, vials, glass, jars, boxes, cases, crates and similar articles coffee Arabica hides and skins of bovine animals, waste and scrap metals.

Figure 4: Burundi's Total Imports/Exports to/from the Northern Corridor Member States (USD)



Source: Burundi Bureau of Statistics, July – Dec 2015

The graph indicates Burundi's imports from the Northern Corridor Member states are more than exports to the Northern Corridor Member states

2.3 Trade between DRC and other Northern Corridor Member States

Table 4: DRC Intra-Regional Trade with the other Northern Corridor Member States (USD)

IMPORTS				
	April-September, 2015		October 2015-March, 2016	
ORIGIN	Volume (KG)	Value (USD)	Volume (KG)	Value (USD)
Burundi	1,161,572	380,907	88,583	388,688.86
Kenya	71,700,427	379,512,448	564,448,268	1,226,284,996
Rwanda	23,170,152	13,891,235	276,620,430	493,242,223
South Sudan	-	-	-	-
Uganda	147,841,525	253,806,623	977,660,802	785,894,901
EXPORTS				
	April-September, 2015		January-March, 2016	
DESTINATION	Volume (KG)	Value (USD)	Volume (KG)	Value (USD)
Burundi	2,478,638	6,089,948	552,538	150,614
Kenya	27,155,957	7,617,432	7,200,614	2,141,599
Rwanda	4,980,500	1,518,260	1,027,179	939,376
South Sudan	-	-	12,000	6,194
Uganda	11,971,772	4,899,328	1,525,718	520,129

Source: Ministry of Commerce, DRC Apr 2015 – March 2016

Uganda and Kenya are the biggest trading partners with DR-Congo

Most imports (57.8 %) to DRC from Northern Corridor Member States include: diesel, timber products, cement, cigarettes, chlorine, cotton canvas, drugs, new motorcycles, parts and accessories of vehicles, sodium cyanide, automobiles, and clothing.

75.1% of exports from Jan-March, 2016 comprised of tropical wood and wood products, yachts, and boats, plants, parts of plants used in perfumes and medicines, coffee beans, palm oil, antennas and antenna reflectors.



2.4 Trade between Kenya and the other Northern Corridor Member States

The table below provides trade statistics between Kenya and the other Northern Corridor Member States for the period July to December, 2015.

Table 5: Intra-regional trade by Kenya with the Other NC Member States (USD)

IMPORTS (USD) July - December 2015						
ORIGIN	July	August	September	October	November	December
Burundi	237,064	366,268	248,619	162,606	212,627	50,594
DRC	57,833	160,125	83,994	197,441	209,374	101,261
Rwanda	508,908	300,797	746,141	575,163	1,136,292	776,363
S. Sudan	0	82	5,773	0	0	11,491
Uganda	14,380,919	14,370,569	21,110,209	17,363,878	28,266,714	13,480,556
Total	15,184,723.74	15,197,842.03	22,194,736.72	18,299,088.96	29,825,007.00	14,420,266.08
EXPORTS (USD) July - December 2015						
DESTINATION	July	August	September	October	November	December
Burundi	5,515,950	8,411,526	7,980,177	3,888,976	4,353,752	5,226,983
DRC	14,230,455	17,199,844	19,877,425	16,475,393	18,221,813	19,955,359
Rwanda	22,447,512	19,749,328	17,289,033	13,694,428	12,889,489	14,758,002
S. Sudan	10,429,628	11,149,184	12,400,332	10,319,286	10,944,144	15,451,372
Uganda	103,284,304	82,131,230	56,107,399	54,020,610	47,486,952	45,502,498
Total	155,907,849.75	138,641,112.77	113,654,365.92	98,398,692.14	93,896,150.19	100,894,212.77

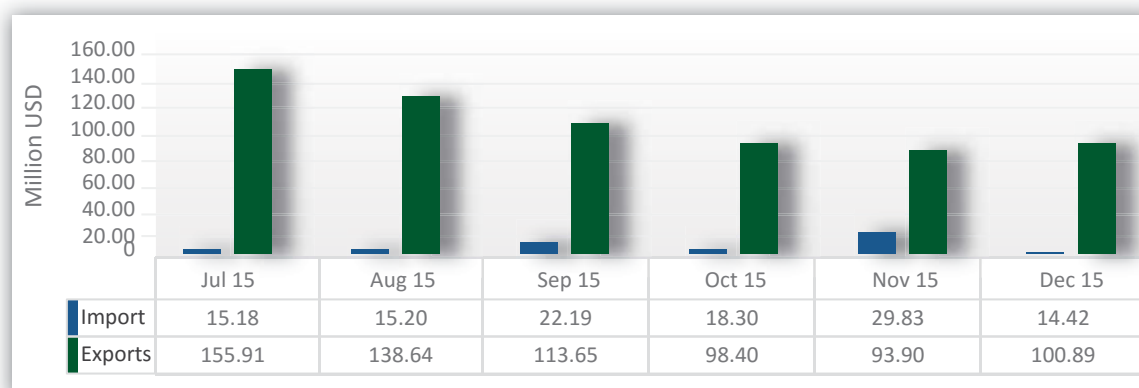
Source: KNBS, July- Dec 2015-

Imports from the region include; tobacco, maize, beans, milk and cream, sugar, cereals, tea, pigeon peas.

Main exports from Kenya during the period included: cement, medicaments, kerosene type jet fuel, lubricants in liquid form, salt, rolled iron/steel, cigarettes, palm oil, sacks and bags, washing and cleaning agents, foot wears, sugar confectionary and sorghum.

The table indicates that there was more export trade between Kenya and Uganda, followed by DRC and South Sudan.

Figure 5: Kenya's Total Imports/Exports to/from the Northern Corridor Member States (USD)



Source: KNBS, July - December, 2015

Kenya exports to the region have been declining while imports have been increasing since July 2015 to November, 2015. December 2015 registered the reverse with exports slightly decreasing while imports increased. Kenya is the largest exporter among the six Northern Corridor member States.

2.5 Trade between Rwanda and the other Northern Corridor Member States

a) Rwanda Formal Intra-Regional Trade

The table below provides a summary of intraregional trade between Rwanda and the Northern Corridor Member States from October, 2015 to March 2016.

Table 6: Rwanda Formal Intra-Regional Trade (USD) with the other Northern Corridor Member States

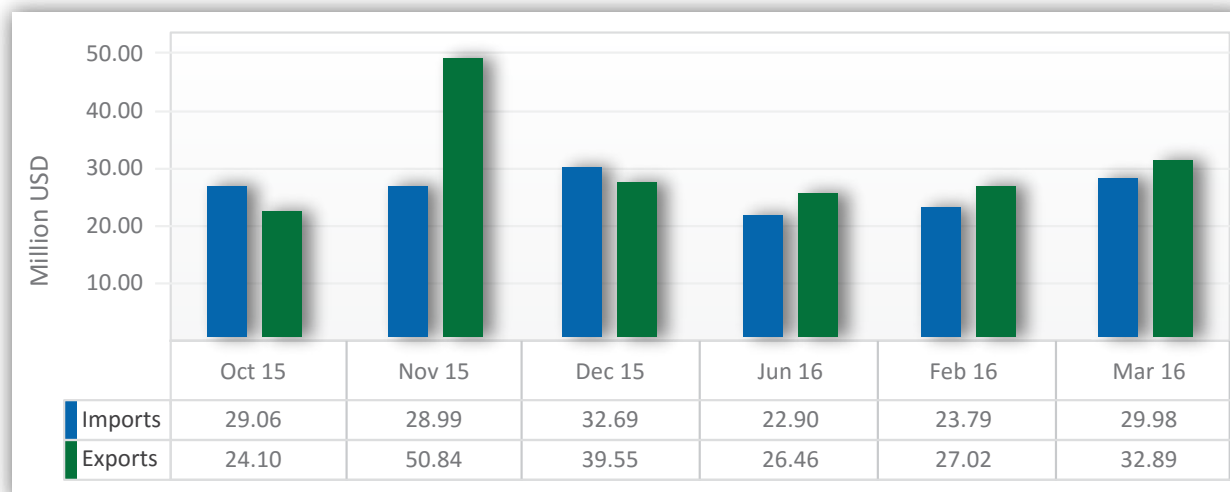
IMPORTS (USD)						
Burundi	732,125	508,960	3,812,638	623,374	445,282	487,072
DR Congo	628,788	613,158	664,162	449,376	457,465	507,971
Kenya	10,460,213	11,196,687	12,213,732	9,828,094	10,805,431	12,647,254
South Sudan	0	0	546	0	0	51
Uganda	17,238,572	16,674,244	15,994,263	11,995,835	12,077,591	16,335,968
Total	29,059,698	28,993,049	32,685,341	22,896,680	23,785,769	29,978,315
EXPORTS (USD)						
DESTINATION	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16
Burundi	2,930,543	1,438,530	2,126,392	1,116,882	2,820,750	4,379,658
DR Congo	14,610,329	40,910,528	15,834,393	12,663,153	14,071,379	16,808,002
Kenya	5,811,313	7,841,158	10,926,755	9,603,399	9,278,766	10,854,424
South Sudan	0	0	29,578	23,469	110,377	0
Uganda	752,560	652,061	632,316	3,048,552	738,279	851,915
Total	24,104,745	50,842,277	29,549,433	26,455,455	27,019,551	32,893,999

Source: RRA, October – March 2016

From the results, much of the formal trade is between Rwanda and Uganda followed by Kenya.

Petroleum oils, tea, rice, oil-cake, wheat flour, mattress, cereal flours, animal and vegetable fats, palm oil, live animals, Portland cement, raw hides and skins account for 26.6% of the total value of exports in 2015. Other exports include motor cars, dried leguminous vegetables, coffee, vegetables, milk and cream, fish, raw hides and skins etc.

Main imports include; cement, vegetable fats and oils, soap, palm oil, fish, maize, packing containers, products of iron or non-alloy steel, salt, paints and varnishes, footwear, sugar, soap, scrap metals, beauty or make-up and cigarettes.

Figure 6: Rwanda's Formal Trade (Imports/Exports) to/from the Northern Corridor Member States (USD)

Source: RRA, October – Mar 2016

The graph above shows the trends of total imports and exports of formal trade between Rwanda and other Northern Corridor Member states

b) Rwanda Informal Cross Border Trade

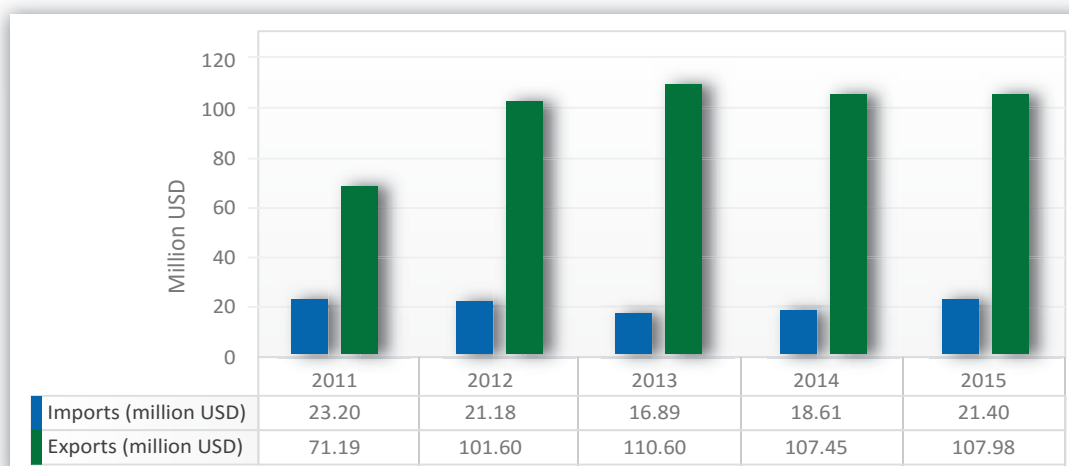
Table 7: Rwanda Informal Cross Border Trade (USD)

IMPORTS (USD)					
ORIGIN	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16
Burundi	480,474	412,474	506,183	718,830	847,880
DR Congo	188,919	198,158	275,585	166,850	109,218
Uganda	996,411	1,093,497	1,026,783	1,349,544	1,248,864
EXPORTS (USD)					
DESTINATION	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16
Burundi	410,373	411,651	467,004	1,190,638	808,866
DR Congo	5,892,312	6,886,054	8,839,362	15,483,009	10,720,838
Uganda	4,602,527	3,166,091	2,042,831	1,443,497	3,493,762

Source: Central Bank of Rwanda, October, 2015-February, 2016

Main informal cross border exports from Rwanda to neighboring countries were; telephonic apparatus, live cattle, beef meat, maize flour, fishery products, raw milk, live poultry, cassava flour and second-hand clothing while top ten informal cross border imports for Rwanda were “coltan”, coffee, sorghum, Irish potatoes, dried beans, “cassiterite”, husked rice, live poultry, live goats and cassava flour.

Figure 7: Rwanda Informal Cross Border Trade Value (Million USD)



Source: Central Bank of Rwanda, 2011-2015

From the figure 7 above, total informal exports from Rwanda to the neighboring countries have remained constant while informal trade volumes for imports increased slightly from 18.6 million to 21.5 million USD from 2014 to 2015.

Comparing the volume of formal intra-regional trade with informal cross-border trade, informal cross border trade contributed 9% and 2% of total exports and total imports respectively of Rwanda in 2015.

2.6 Trade between South Sudan and the other Northern Corridor Member States

Table 8: South Sudan Intra-Regional Trade to the other Northern Corridor Member States (USD)

IMPORTS (USD)						
ORIGIN	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Burundi	199,565	282,356	192,917	168,628	175,130	245,631
DR Congo	-	-	-	-	-	-
Kenya	10,429,628	11,149,184	12,400,332	10,319,286	10,944,144	15,451,372
Rwanda	27,725	24,312	2628	-	-	29578
Uganda	19,156,355	14,636,726	15,924,740	14,162,675	13,501,300	15,133,688
Total	29,813,273	26,092,578	28,520,617	24,650,589	24,620,574	30,860,269
EXPORTS (USD)						
DESTINATION	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
Burundi	-	-	-	-	-	4,795
Kenya	-	82	5,773	-	-	11,491
Rwanda	-	-	-	-	-	546
Uganda	190,156	20,305	171,249	35,390	62,456	108,547
Total	190,156	20,387	177,022	35,390	62,456	125,379

Source: KNBS/UBOS/BBS/GBR, July - December 2015

Exports to Uganda include: waste scrap of tinned iron or steel, DC motors and generators, bulldozer or angle dozer blades, mechanical shovels, excavators and shovel loaders.

Imports from Uganda include: sugar, maize flour, wheat flour, sorghum, cement, Iron/steel bars, palm oil, rice, beans, sweets, biscuits, mineral water, tubes and pipes, beer, soap. Imports from Kenya include tea, kerosene type jet fuel, roses, coffee, medicines, titanium ores and concentrates, cement, pineapples, carbonates, lubricants in liquid form.

2.7 Trade between Uganda and the other Northern Corridor Member States

a) Formal trade in Uganda

Table 9 below provides a summary of Formal intraregional trade volumes between Uganda and the other Northern Corridor Member States.

Table 9: Uganda Formal Intra-Regional Trade (USD)

IMPORTS (USD)					
ORIGIN	2011	2012	2013	2014	2015
Burundi	2,188,178	1,420,913	452,904	4,116,861	3,379,011
DRC	6,353,933	12,222,650	6,750,550	5,917,323	3,640,612.66
Kenya	644,574,901	590,194,814	562,818,613	593,887,653	554,530,352
Rwanda	7,879,547	5,359,589	7,398,153	10,882,919	9,371,983
S. Sudan	-	7,792	266,428	1,485,691	836,313
Total	660,998,570	609,207,769	577,688,661	616,292,461	571,758,271
EXPORTS (USD)					
DESTINATION	2011	2012	2013	2014	2015
Burundi	41,450,916	46,082,374	48,722,080	43,454,016	46,283,700.33
DRC	182,411,269	240,880,829	268,174,521	181,680,327	152,560,885.45
Kenya	226,581,503	254,060,878	314,430,423	297,435,925	427,011,915.28
Rwanda	193,500,360	226,103,518	216,301,046	245,334,653	237,571,281.68
S. Sudan		17,754,401	175,432,492	280,294,992	265,026,694.35
Total	643,944,048	784,882,001	1,023,060,563	1,048,199,913	1,128,454,477

Source: UBOS, 2011 - 2015

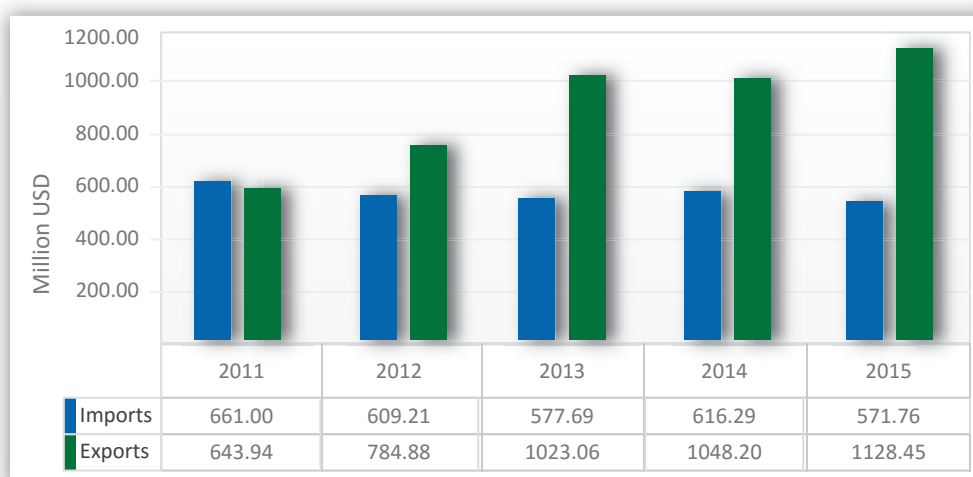
The results clearly indicate more exports to Kenya and South Sudan and more imports are from Kenya and Rwanda.

Main Exports include: cement, maize, tea, sugar, beans, tobacco, vegetable fats and oils, sorghum. Others include; palm oil, maize flour, iron/steel bars, cereals, broken rice, carboys, bottles, flasks, jars, pots of kind used for parking goods, wheat flour, boring

or sinking machinery, milk and cream, soap, boxes, cases, crates and similar articles of plastics, Sweet biscuits and electricity.

Main imports include; cement, lubricants, salt, medicaments, iron and steel, unfeatured ethyl alcohol, chewing gum, plastics, organic surface-active agents, margarine, motor vehicles for the transport of more than 28 persons and footwear.

Figure 8: Uganda formal Intra-Regional Trade (Million USD) of imports and exports with the other Northern Corridor Member States, 2011-2015



Source: UBOS, 2011 - 2015

The Figure above shows that on average, total formal values for exports from Uganda to Member States have been growing over time while imports have remained constant. In 2015 Uganda exported to the Northern Corridor region about twice as much as it imported from the same Region.

b) Informal trade in Uganda

Table 10: Informal trade in Uganda, 2011-2015

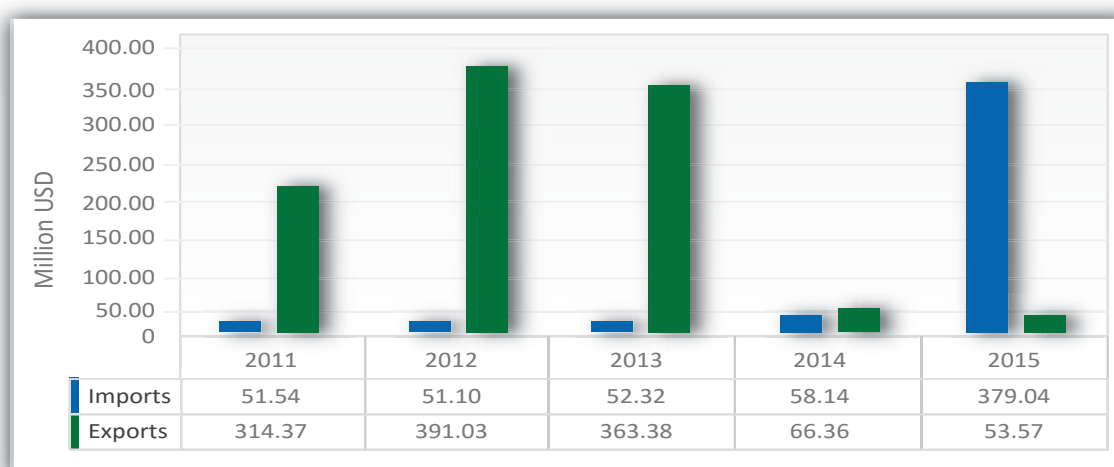
IMPORTS (USD)					
ORIGIN	2011	2012	2013	2014	2015
DR Congo	21,472,829	20,308,816	17,729,354	21,306,421	181,354,533
Kenya	27,032,823	24,528,428	26,494,426	30,754,956	96,435,136
Rwanda	1,663,813	3,061,894	2,541,143	2,230,071	21,751,086
South Sudan	1,373,140	3,204,531	5,558,680	3,846,582	79,498,052
Total	51,542,606	51,103,669	52,323,603	58,138,031	379,038,807
EXPORTS (USD)					
DESTINATION	2011	2012	2013	2014	2015
DR Congo	126,134,562	157,908,625	135,004,317	39,458,206	18,271,178
Kenya	69,457,410	79,965,672	69,692,355	2,885,014	31,871,945
Rwanda	35,067,736	38,095,420	27,868,076	4,549,802	1,163,755
South Sudan	83,712,302	115,061,586	130,818,834	19,470,637	2,267,568
Total	314,372,010	391,031,302	363,383,582	66,363,659	53,574,445

Source: UBOS, 2011 - 2015

Most informal cross border exports are to Kenya and DR Congo while most Informal cross border imports are from DR Congo, Kenya and South Sudan respectively.

From the table 10 above, there is a drastic increase in value of trade between Uganda and other member states.

Figure 9: Uganda's Informal Intra-Regional Trade (Million USD) of imports and exports with the other Northern Corridor Member States, 2011- 2015



Source: UBOS, 2011 - 2015

In 2015, about 67.6% of the total value of informal cross border exports products comprised export of fish, clothes, shoes, maize grains, beans, sandals, timber, alcohol/spirits, maize flour, cattle, fruits, eggs, salt, wheat flour, goats, motorcycle parts, textile materials, bicycle parts, soda, and bananas.

Rice, wheat flour, coffee, groundnuts, beans, cassava, cooking oil, salt, palm oil, bananas, onions, yeast, cement, clothes, fruits, maize grains, sorghum grains, juice, perfume, and fertilizers accounted for about 74.1% of the total informal cross border import value.

Countries in the region specialize in similar goods. Lower border costs will allow them to more easily obtain raw materials and intermediate inputs from their neighbors. Sizeable volume of goods under informal cross border trade is agricultural produce, animal and animal products and goods manufactured within the region.

Eliminating NTBs in the region will boost greater intraregional trade that further contributes to expanding exports and regional growth.

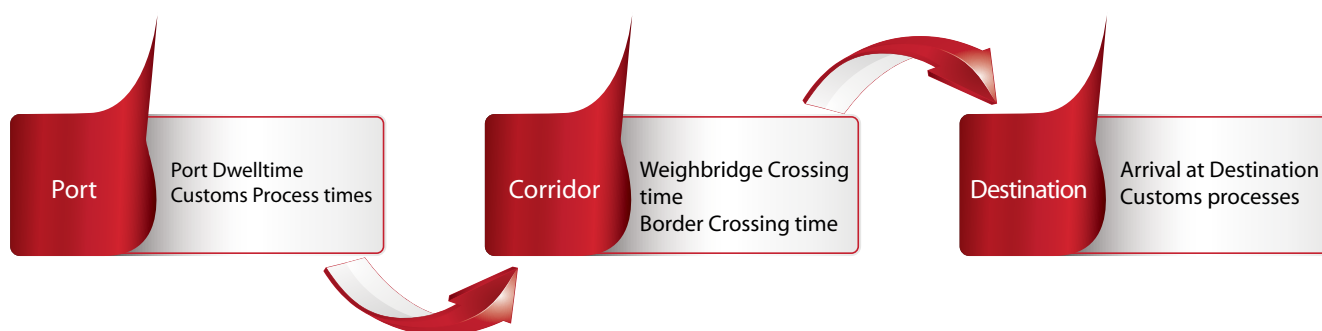
Boosting intra-regional trade through regional integration is supposed to benefit Northern Corridor economies by providing, among others, larger markets and greater economies of scale.

Removal of Visa Fees that negatively affect trading activities across the borders and mutual recognition of quality standards inspection certificate will also boost intra-regional trade.

It is recommended that all the Member States record intra-regional trade data on monthly basis for both formal and informal trade. This will help in improving consistencies of data across all the Member States.

3. TRANSIT TIME AND DELAYS

NCTTCA measures transit time and time taken for business processes, border crossing and delays time at major nodes. This section presents some key findings on time related indicators. Transit time and delays within the Northern Corridor is obtained from electronic data sources i.e. Customs business systems, ECTS systems and the GPS survey results.

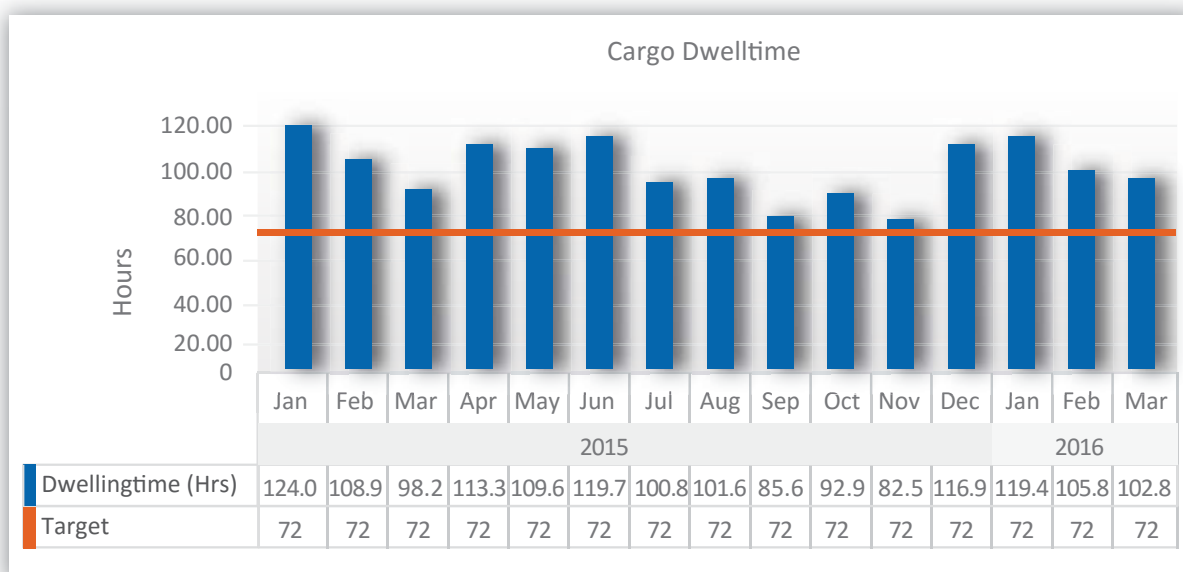


3.1 Dwell Time at Mombasa Port

Port dwell time refers to the time cargo spends within the port or its extension such as the Container Freight Stations. Port Dwell Time is measured by the time that elapses from the time goods are discharged from the vessel and landed at the Port to the time they leave the Port after clearance to exit the Port. Delays and unpredictability of the time spent at the Port increase inventories and prevent integration into global supply networks thereby contributing to the increase in the cost of doing business. The average Port Dwell Time is a relative indicator of efficiency of the port of Mombasa.

The figure below gives the average container cargo dwell time at the Port of Mombasa.

Figure 10: Containerized Cargo Dwell Time at the Port, January 2015 - March 2016



Source: KPA, January, 2015 - March 2016

From the figure above, there was a seasonal increase in Port Dwell Time in December, 2015 and January 2016. The average port dwell time for Oct-15-March, 2016 was 103.24 hours (4.3 days).

Streamlining container nomination and evacuation to CFS are some of the measures that need to be undertaken to reduce the dwell time in order to achieve the 72- hour’s target.

There are various activities which contribute to the Port Dwell Time. These include; preparation

and logging of entries by clearing agents; passing of entries by Customs at DPC; processing of clearance by cargo interveners at One Stop Centre; time taken after customs release by the traders/agents/transporters to collect cargo from the port which may also be affected by infrastructure issues and payment of KPA dues by the trader/Agent.

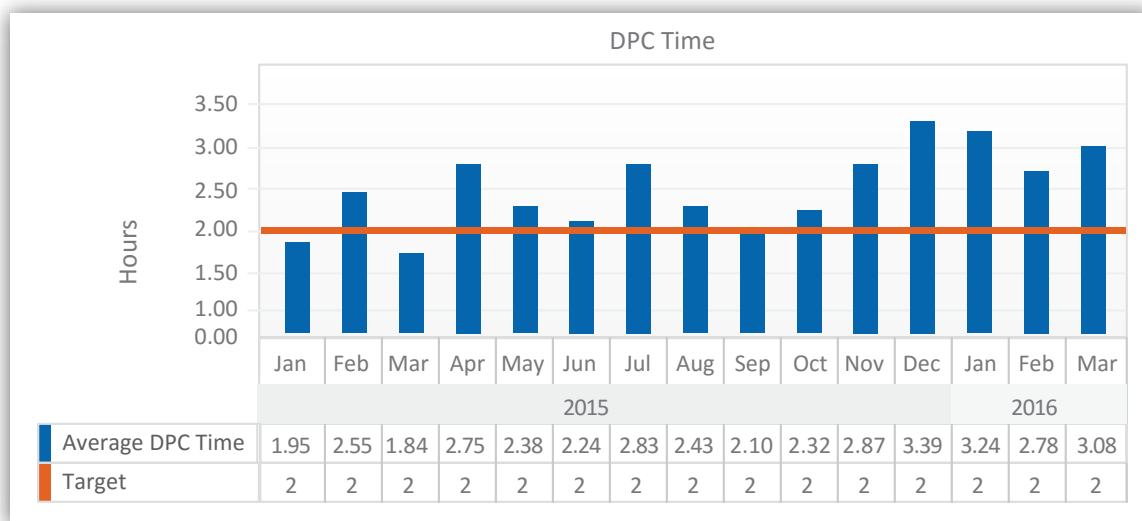
The following indicators look at processes within the port which affect the Port Dwell Time

3.2 Time for Customs Clearance at the Document Processing Centre (DPC) by KRA

This is the time taken by customs to pass an entry lodged by a clearing agent. This time contributes to the total Port Dwell Time. The process involves: Approval of the Customs Value, Classification of goods and taxes paid/bond security by the Customs officer. The clearing agent has to submit all the proper required documents.

The figure below shows the average clearance time taken at the document processing center in Kenya. Customs are not primarily responsible for delays during this process as the clearing agent has to make sure all the documents are in order before Customs release by the DPC.

Figure 11: Customs Clearance at DPC, January 2015 - March 2016



Source: KRA, January-2015 - March 2016

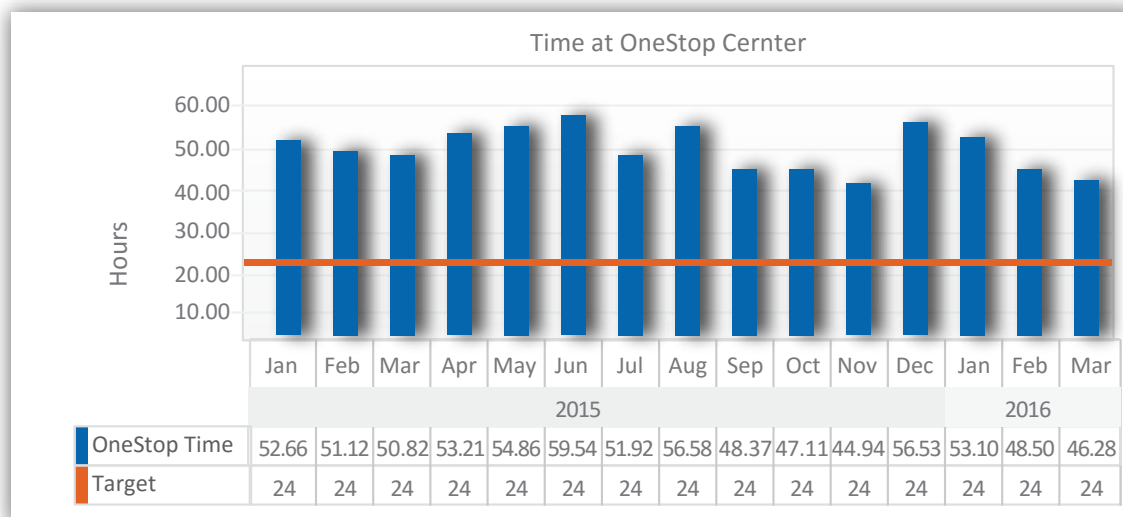
From January, 2015 to March 2016, DPC time has shown an increasing trend. Sensitization of clearing Agents on proper document submission and late amendments are some of the issues that need to be addressed to achieve the two hours’ target.

3.3 Time Taken at Mombasa One Stop Centre

The indicator is measured by subtracting the time when an entry is passed from the release time i.e. the time when a release order is generated. The One Stop Center clearance time is often attributed

to the procedural requirements by multiple cargo interveners. The one stop center involves a number of processes undertaken by different agencies involved in the cargo clearance..

Figure 12: Time Taken at One Stop Centre, January 2015 - March 2016



Source: KPA, January, 2015-March, 2016

From the above results, the lowest registered average time was 45 hours which is higher than the 24 hours' target. Factors affecting this indicator include; last minute changes to import documents by clearing agents; Some Agencies not working 24/7; and delays in physical verification/ joint inspection of cargo

It is recommended that a lead agency be designated to coordinate joint inspection of goods at the port to minimize multiple inspections. Secondment of staff from other Government agencies to work with Customs will ease problems of coordinating the different agencies to conduct the physical inspection of goods, since all the staff will now be under one command.

3.4 Delay after Customs Release

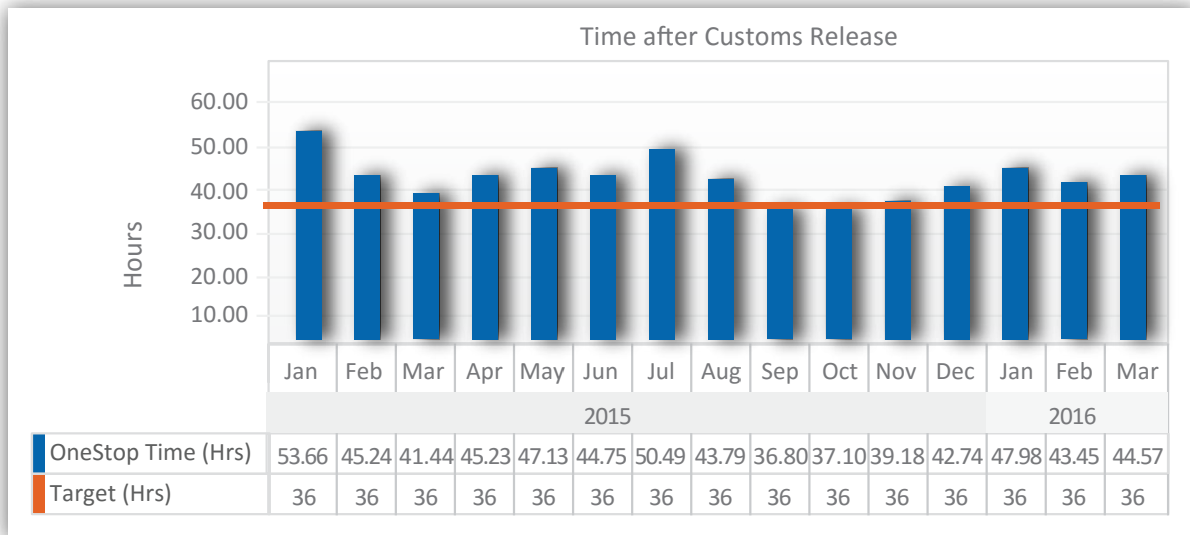
After Customs releases cargo on the system, KPA is notified electronically to produce a Gate Pass. The trader/ Agent enlists a transporter (truck) and applies for a Gate Pass from KPA. Truck enters the Port, it is loaded with cargo and thereafter the truck proceeds to exit Gate.

Delay after Customs Release refers to the period it takes to evacuate the cargo from the port after it is officially released by Customs. It involves the following processes:

- i. Agent creates pick up order in the KWATOS system
- ii. Payment of port charges
- iii. Release note issued on KWATOS
- iv. Endorsement of pick up order by KPA and issuance of Port gate Pass.
- v. Truck loading
- vi. Gate checks and issuance of exit note

The figure below shows the trend of time taken to evacuate cargo from the Port after Customs Release for the period January, 2015 -March, 2016.

Figure 13: Time Taken after Customs Release, January, 2015 -March, 2016



Source: KRA, January-2015 - Mar 2016

Between March, 2015 and March, 2016, the average time ranged between 36.8 hours and 50.5 hours accounting for about 42% of the Port Dwell Time.

There is need to improve infrastructure /roads leading to the port to reduce congestion and

streamline the procedures for gate clearance and loading of trucks. Transporters /Clearing and Traders should also make advance preparations to expedite cargo pick up from the Port.

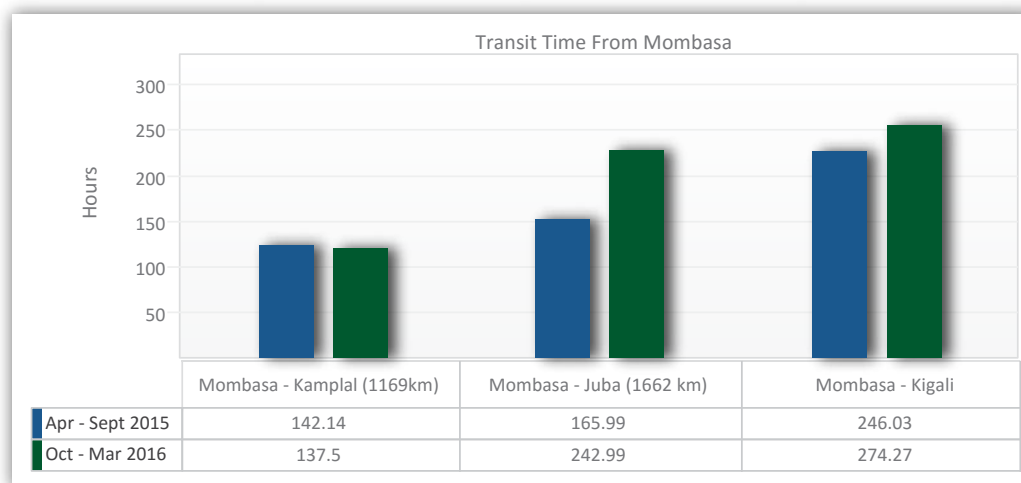
3.5 Transit time from Mombasa to various destinations

The Observatory tracks transit time from Mombasa to various destinations as well as from one border to another border station or transit node along the Corridor using Customs electronic data, Revenue Authorities Electronic Cargo Tracking Systems and GPS surveys.

This report features data from the GPS survey that was carried out from October, 2015 to February, 2016.

The figure below gives transit times from Mombasa to various destinations from the GPS survey.

Figure 14: Average Transit Time from Mombasa to Kampala, Juba and Kigali, April – September 2015, compared to October 2015 – March 2016



Source: GPS survey April-2015 - March 2016

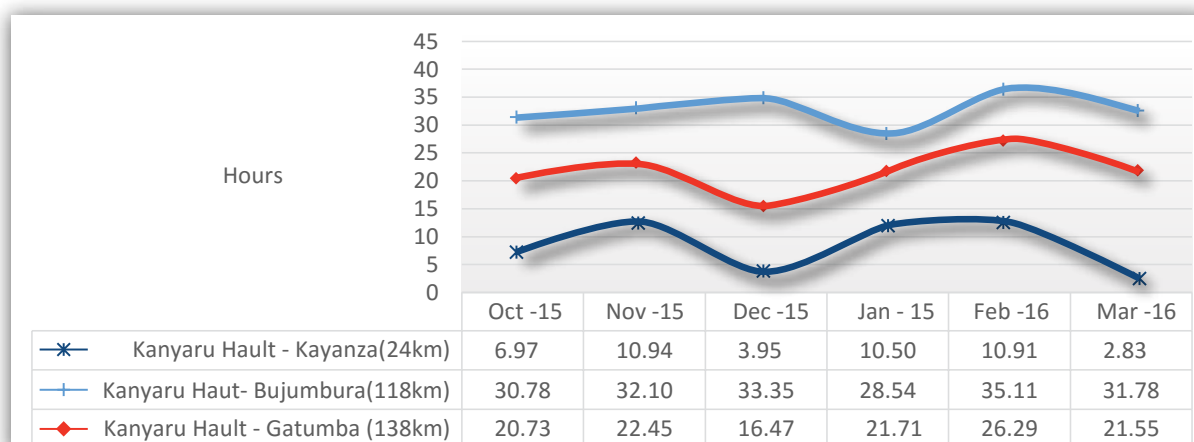
From the figure above, the average transit time from Mombasa to Kampala slightly decreased by 4.6 hours to register 5.7 days The Average transit time

from Mombasa to Juba increased from 7 days to 10 days while that to Kigali increased from 10.3 days to 11.4 days.

3.6 Transit Time in Burundi

Transit time in Burundi was measured from Kanyaru Haut and Gasenyi to the major nodes and customs border points of Bujumbura Port, Kayanza and Gatumba.

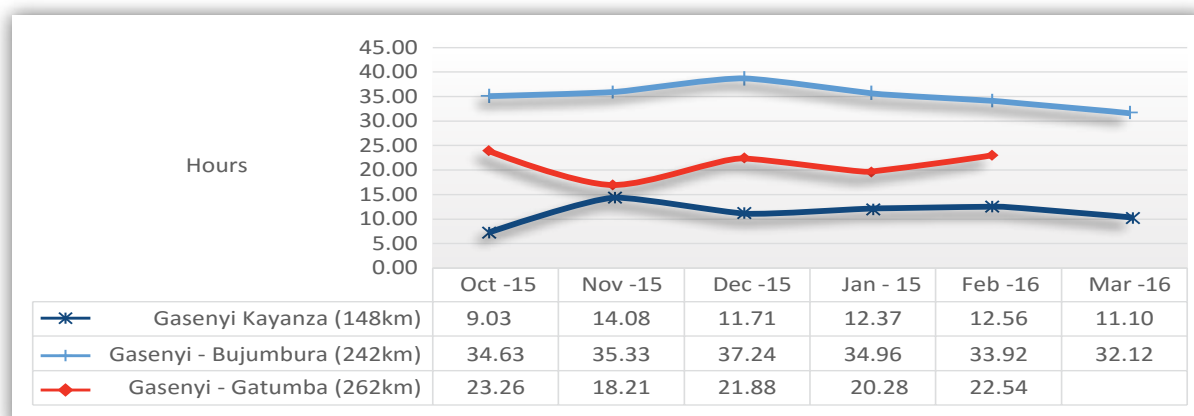
Figure 15: Transit Time from Kanyaru Haut to Bujumbura, Kayanza and Gatumba, October 2015 – March 2016



Source: OBR, October, 2015–March, 2016

It takes between 28 and 35 hours to move cargo from Kanyaru Haut to Bujumbura, a distance of only 118 km. It takes more time to Bujumbura than to Gatumba which is farther due to the delay to receive the goods in the ICD's after a truck has arrived at Bujumbura.

Figure 16: Transit Time from Gasenyi to Bujumbura, Kayanza and Gatumba, October 2015 – March 2016



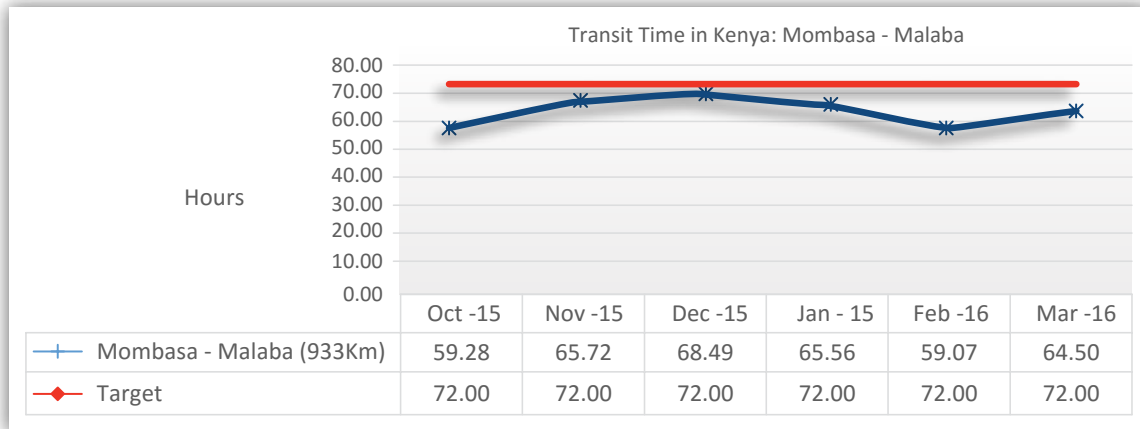
Source: OBR, April, 2015–March, 2016

The average time taken from Gasenyi to Bujumbura has slightly reduced during the period to register 32.12 hours in March 2016. Gasenyi to Kayanza registered 11 hours in march, 2016.

3.7 Transit Time in Kenya

The Observatory tracked Transit Time in Kenya from Mombasa to Malaba border using a GPS survey that was carried out from October, 2015 to February, 2016. Figure 17 below shows transit time in Kenya from Mombasa to Malaba.

Figure 17: Average Transit Time in Kenya - Mombasa to Malaba, October 2015-March 2016



Source: GPS survey, October 2015-March 2016

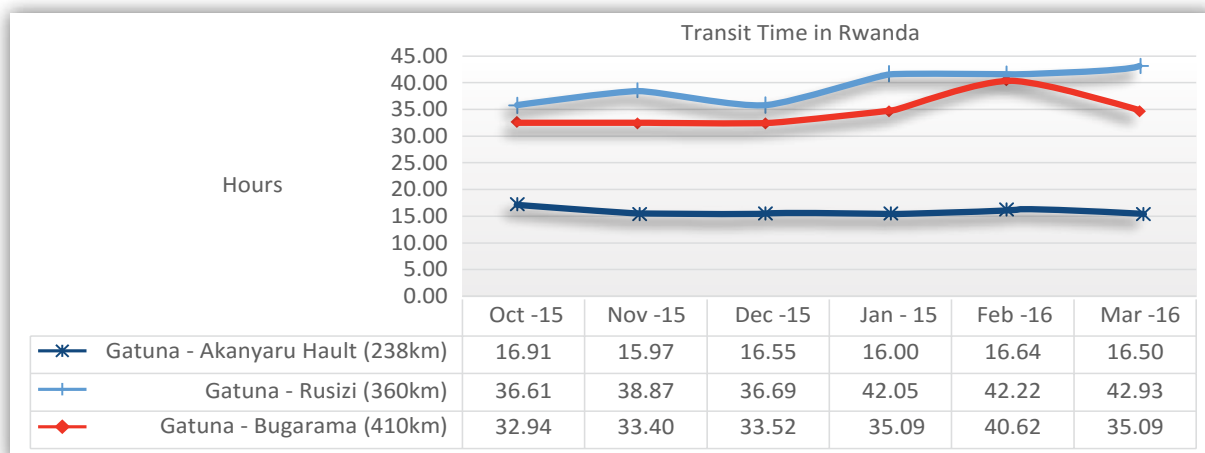
The transit time was measured from the time the truck started the journey in Mombasa to the time it reached the border at Malaba, a distance of about 933 km. The average transit time from Mombasa to Malaba was between 2.5 days (59.3 hours) and 2.9 days (68.5 hours). Basing on the GPS Survey, on average, it took less than three days target to transit through Kenya.

3.8 Transit Time in Rwanda

The Northern Corridor major transit sections in Rwanda include: Gatuna to Akanyaru Haut, Gatuna to Gikondo/MAGERWA, Gatuna to Nemba and Gatuna to Rubavu/Goma.

The figure below shows transit time in Rwanda between Gatuna and Akanyaru-Haut, Nemba, Bugarama, Rubavu and Rusizi border posts. Transit time is measured by the difference between the time when cargo enters Rwanda to the time when it reaches final destination (ICD for local cargo) or exits the Country. 98% of transit traffic originates from Gatuna Border.

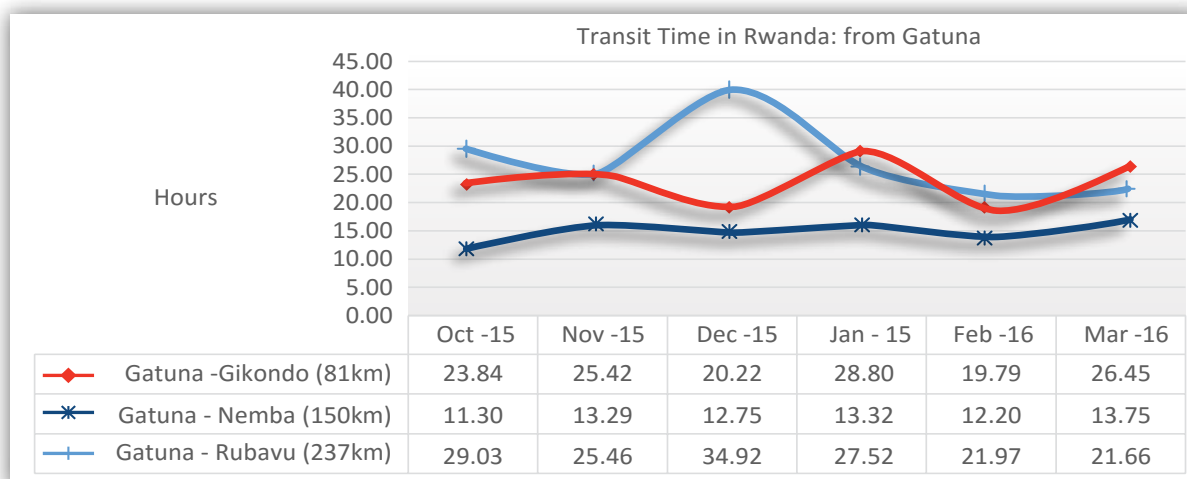
Figure 18: Rwanda Transit Time from Gatuna to Akanyaru Haut, Rusizi and Bugarama Borders, October 2015 - March 2016



Source: RRA, October, 2015 - March 2016

Figure 18 indicates that average time taken from Gatuna to Akanyaru- Haut was fairly constant (about 16 hours). Time to Rusizi and Bugarama has been increasing slightly from October 2015 to February 2016

Figure 19: Rwanda Transit Time from Gatuna to Gikondo, Nemba and Rubavu, October 2015 – March 2016



Source: RRA, October, 2015–March, 2016

The time taken from Gatuna to Kigali (Gikondo / MAGERWA) varied between 19.8 hours and 28.8 hours. MAGERWA is an inland Container terminal in Gikondo and being located in town means delays are partly due to traffic congestions and time it takes to offload fuel at GATSATA fuel depot.

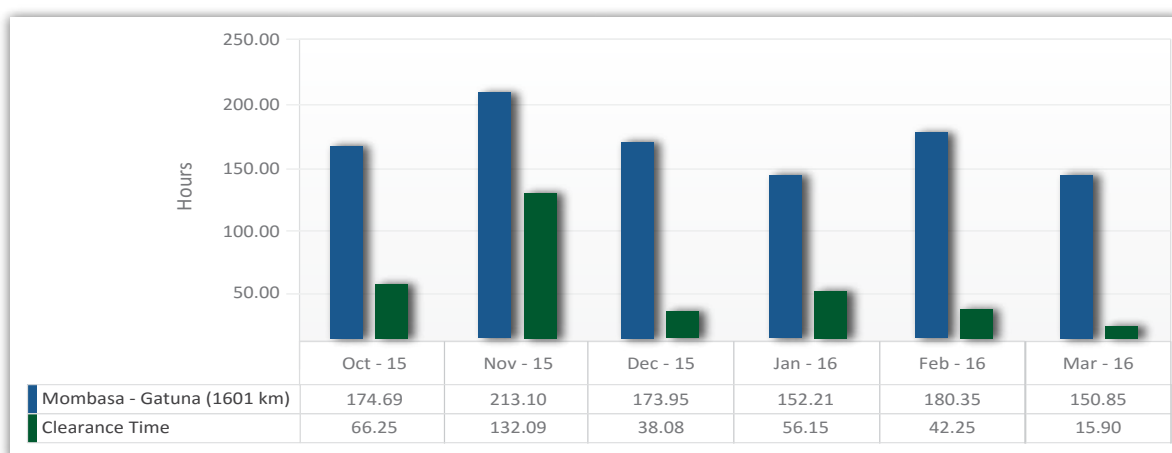
Also, MAGERWA doesn't operate 24/7, meaning that additional delays are registered from 2200hrs (close of business) to 0700hrs when operations start.

Transit time for goods cleared under Single Customs Territory (SCT)

The transit time for goods cleared under Single Customs Territory (SCT) was measured from the time the truck was released to start its journey from Mombasa to the time it reached the Rwanda border at Gatuna, a distance of about 1601 km. This time includes delays after customs release which averaged 31.5 hours (1.3 days) during the reporting period and the Kenya-Uganda border crossing time.

Also, the graph below shows the clearance time for goods under the Single Customs Territory. Clearance time is from entry registration time to release time.

Figure 20: Transit time from Mombasa to Gatuna - Rwanda for goods under SCT, October 2015 – March 2016



Source: RRA, October, 2015–March, 2016

Transit time (time from exit at Mombasa to entry time at Gatuna Border) shows a slight decline with March, 2016 registering 150.85 hours (6.3 days).

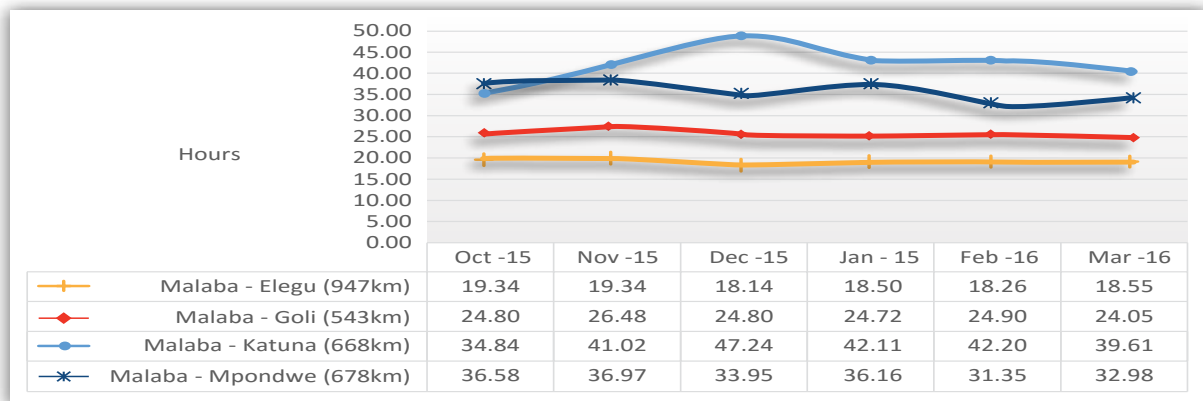
The clearance time for goods under Single Customs Territory (SCT) shows a fluctuating trend with the month of November 2015 registering the highest clearance time of 132 hours (5.5 days) and the month of March 2016 registering the lowest clearance time of 15.9 hours.

3.9 Transit Time in Uganda

Transit time in Uganda is measured by the difference between the time when cargo enters the country, to the time when it reaches the final destination or exits the Country as per the ECTS data.

The figure below shows transit time in Uganda from Malaba border to Katuna, Elegu, Mpondwe and Goli. About 48% of the trucks monitored through ECTS from Malaba exited through Elegu, whilst 16%, 11% and 9% of trucks monitored exited through Goli, Katuna and Mpondwe borders respectively.

Figure 21: Average Transit Time in Uganda (Hrs.) from Malaba, October 2015 – March 2016



Source: URA ECTS, October – March 2016

Transit time from Malaba to Goli, Katuna, Mpondwe has been below the 48 hours' target.

Malaba to Elegu with a distance of about 497 Km recorded an average Transit time of 18 to 19 hours during the reporting period which shows a consistent trend.

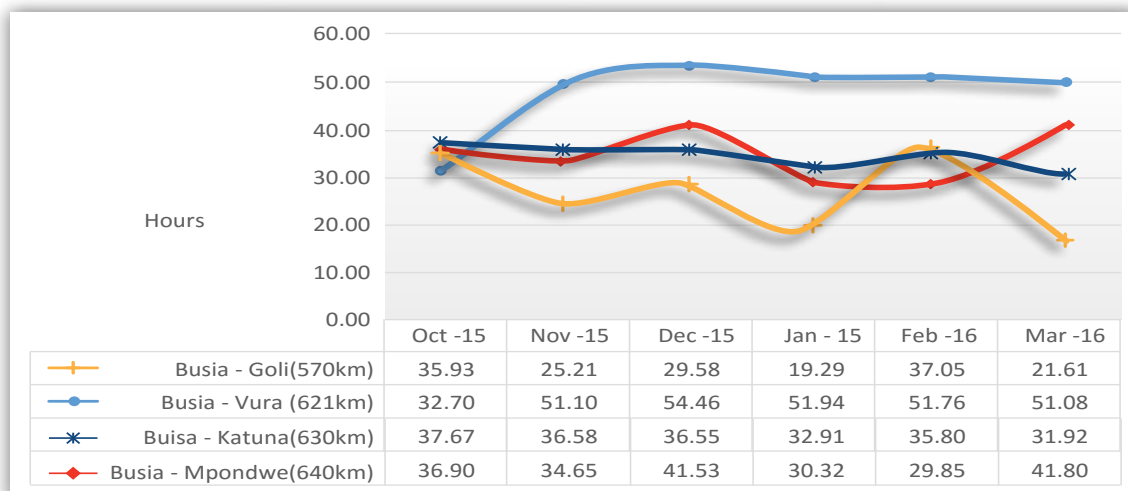
Malaba to Goli with a distance of about 543 Km shows transit time of between 24 to 26 hours. Transit time from Malaba to Goli recorded a much higher time than Transit time between Malaba and Elegu despite Goli being only 46km further than Elegu from Malaba. This is likely attributed to Goli Bridge which is under construction as well as a section of the road between Pakwach and Goli which is in Bad condition.

Malaba to Katuna (668 Km) recorded transit time of between 34 hours and 47 hours, with the month of December 2015 recording the highest transit time of 47.2 hours (1.9 days) while the month of October 2015 recorded the lowest transit time of 34.84 hours (1.5 days).

Malaba to Mpondwe transit time averaged from 31.35 hours (1.3 days) in February 2016 to 36.97 hours (1.5 days) in November 2015.

The figure below shows transit time in Uganda from Busia border to Mpondwe, Vura accounts for about 31%, whilst towards Mpondwe, Katuna and Goli borders account for 16%, 29% and 9% respectively of the trucks monitored through ECTS from Busia to the borders.

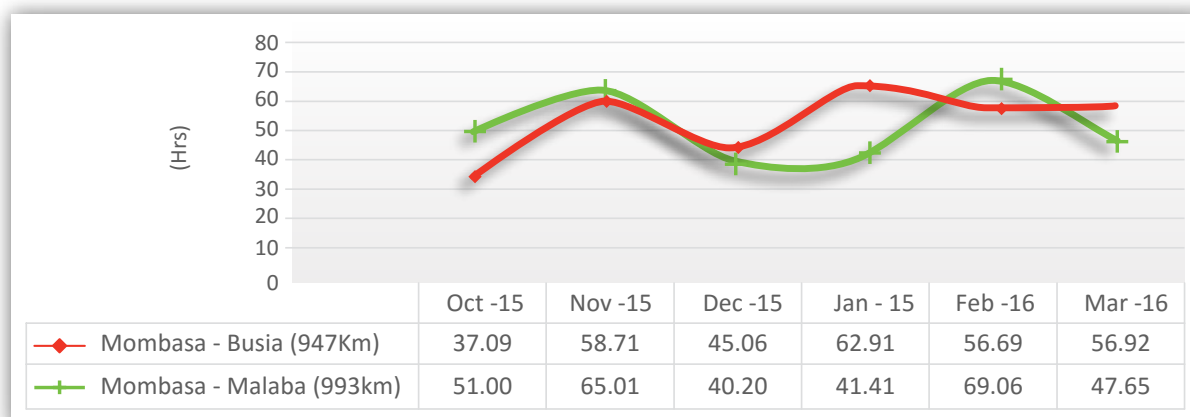
Figure 22: Average Transit Time in Uganda (Hrs.) from Busia, October 2015 - March 2016



Source: URA ECTS, October 2015 - March 2016

Most of the traffic to Vura originates from Busia. From November, 2015 to March, 2016, transit time to Vura ranged between 51 to 54.5 hours. The target is 48 hours.

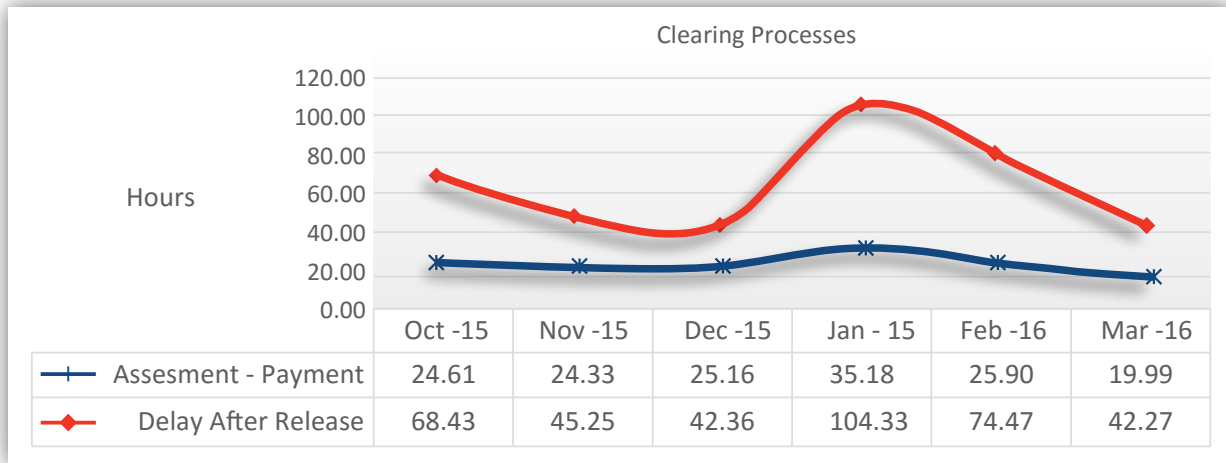
Figure 23: Transit time from Mombasa to Malaba/Busia - Uganda for goods under SCT, October 2015 - March 2016



Source: URA ECTS, October 2015 -March 2016

Transit time from Mombasa to Malaba varied between 40 and 65 hours while Mombasa to Busia ranged between 37 hours and 63 hours. This corroborates the findings from the GPS survey which registered transit time of less than 72 hours. An increase/decrease in transit time affects both destinations.

Figure 24: Clearance time for goods under SCT destined to Uganda, October 2015 – March 2016



Source: URA, October 2015 –March 2016

Traders take more time after assessment to pay taxes. The figure 24 above indicates it takes between 19 hours to 35 hours for traders to pay taxes after the assessment of taxes for goods has been done, with the month of January 2016 recording the highest time of 35 hours and the month of March 2016 recording the shortest time of 19 hours during the reporting period.

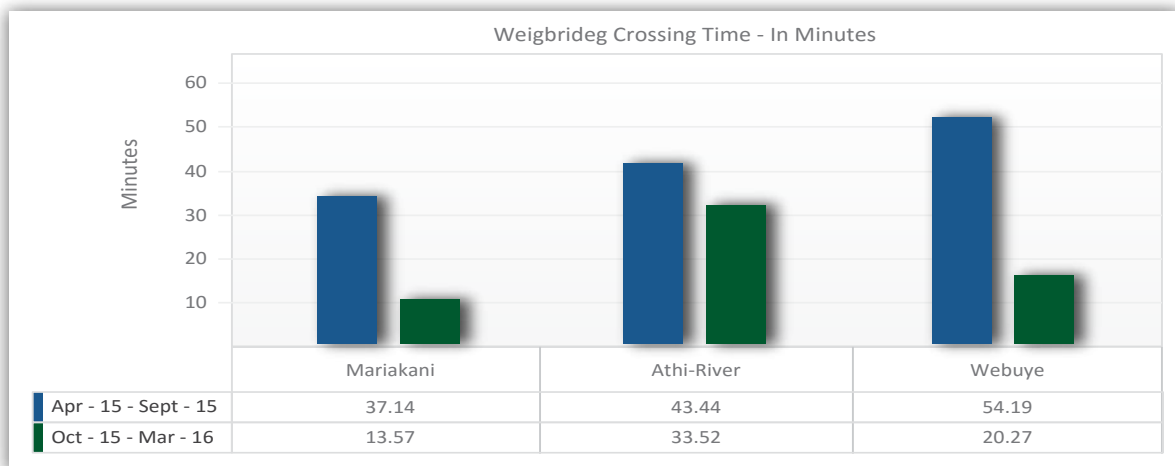
The figure 24 above also shows that it took between 1.7 days (42 hours) up to 4.3 days (104 hours) for traders to exit goods from Mombasa Port after customs clearance.

3.10 Weighbridges Crossing Time in Kenya

The findings in this section are from the GPS road survey which was carried out between April and September, 2015 and from October 2015 to March 2016. Weighbridge crossing time is measured by subtracting arrival time at the weighbridge from departure time of a truck from the weighbridge using the Road/GPS based Surveys data for the trucks that stopped or diverted to the fixed scale. The weighbridges have been geo-zoned such that a vehicle is deemed to be at the weighbridge when it is at distance of 1.5km when approaching a weighbridge station and a distance of 0.5km when leaving a weighbridge station.

The figure below gives average crossing time at the various weighbridges in Kenya from April-September, 2015 and October, 2015-March, 2016.

Figure 25: Average Weighbridge Crossing Time (in Minutes) in Kenya, April-September 2015 compared to October 2015 – March 2016



Source: Road GPS based Survey, April-2015 - March 2016

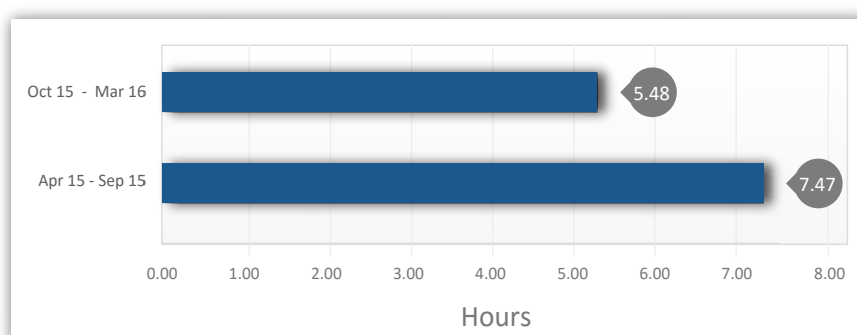
The results in Figure 25 above are indicative of the average weighbridge crossing time. It shows that all the three weighbridges have improved their performance with Mariakani weighbridge crossing for trucks having reduced from 37.14 minutes to 13.57 minutes.

All the weighbridges in Kenya have high speed weigh in motion installed except Busia weighbridge and only trucks that fail the HSWIM are diverted to the static weighing scale.

3.11 Border Post Crossing Time at Malaba

The indicator is measured by taking the difference between the time of arrival and the time of departure of a truck at the border station. Data used in populating this indicator is obtained from the Road/GPS survey. The figure below shows the average time it takes a truck to cross Malaba border post.

Figure 26: Malaba Border Post Crossing Time (in Hours), April-September 2015 compared to October 2015 - March 2016



Source: Road GPS based Survey, April 2015 - March 2016

From the GPS estimates, trucks on average took shorter time to cross Malaba border during the period October, 2015 - March, 2016 compared to April-September, 2015. Crossing time has decreased from 7.47 hours to 5.48 hours. The border post experiences network down time which sometimes results in delayed clearing of goods and validation of records in the customs business systems.

3.12 Delays along the Northern Corridor

The Secretariat carried out the road transport survey and the GPS survey during the period October, 2015 to March, 2016 in order to determine the reasons for the stops along the Corridor. The Road Transport survey and the GPS road surveys were run concurrently. The methodology involved randomly issuing truck drivers from various transport companies with a hard copy of the questionnaire and a GPS kit to capture the reasons for stopping and the stop duration and location.

The table below summarizes the responses per Country of destination.

Table 11: Questionnaires Returned by Country of Destination

Cargo Destination	Contact Sample	Responses	Response Rate (%)
Burundi	2	0	0
DRC	25	15	60
Rwanda	26	18	69.2
South Sudan	18	10	55.7
Uganda	153	117	76.5
Total	224	160	71.43

Source: Road Transport Survey, October 2015 - March 2016

A total of 224 drivers were contacted and issued with questionnaires out of which 160 gave responses (71.43 %). The aim of the survey was to monitor transit time and delays along the Northern Corridor, the reasons for stopping as well as the fees paid by truck drivers for the various reasons.

3.13 Average Stops per trip

The table below gives the average number of stops per trip to various destinations from Mombasa and the return journey (inbound)

Table 12: Average stops per trip, October 2015 – March 2016

Trip	Outbound Stops per trip	Inbound Stops per trip
Mombasa-Uganda	13	9
Mombasa-Rwanda	13	8
Mombasa-DRC	19	9
Mombasa-South Sudan	15	6

Source: Road Transport Survey, October 2015 – March 2016

The trip to Rwanda attracted the least stops (13 stops per trip for outbound) despite being located further away from the Mombasa port compared with Uganda which also recorded an average of 13 stops per trip for outbound.

Other than the expected stops at border posts, the following locations accounted for about 22% of all the outbound stops

Table 13: Average stops per location between Mombasa and other NC locations, October 2015 – March 2016

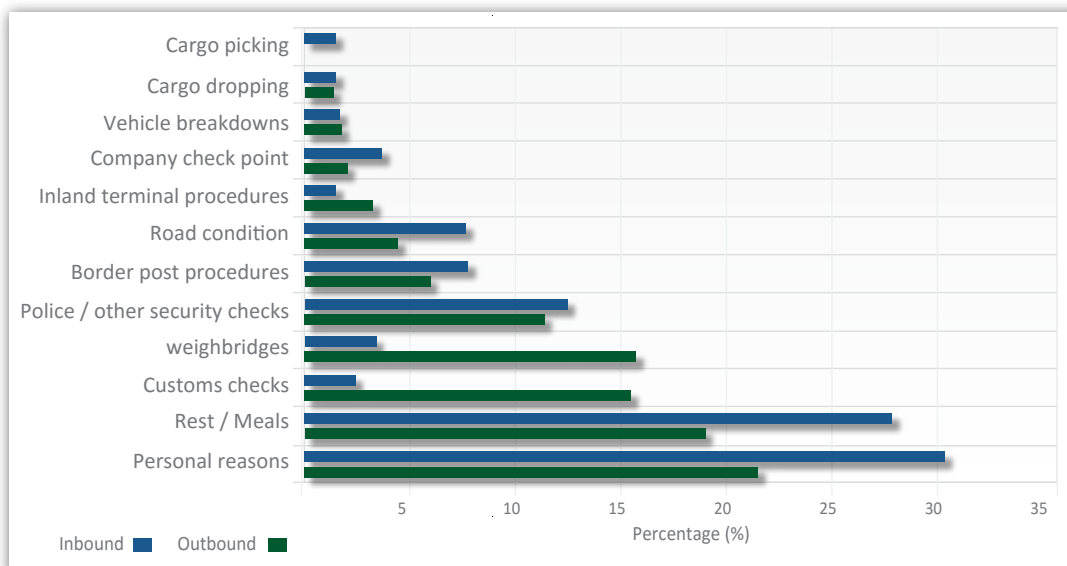
Stop Location	Total Number of stops (outbound)	Total Number of stops (inbound)
Mtitoandei	88	57
Mariakani	79	17
Maungu	77	42
Athiriver	67	0
Gilgil	67	35
Salgaa	67	0
Kampala	57	36
Busitema	55	10
Magamaga	55	0
Machakos Junction	54	39

Source: Road Transport Survey, October 2015 – March 2016

From the table 13 above, Mtito Andei recorded the highest number of stops for both inbound and outbound trips. Mtito Andei is a location along Mombasa Road, about 248 Km from the Mombasa Port and is known to be the main Stoppage point where truckers stop for rest and meals.

All stop locations recorded more number of stops for outbound trips compared with inbound trips

Figure 27: Stop reasons percentage Distributions



Source: Road Transport Survey, October 2015 – March 2015

Most of the stops are for personal reasons followed by rest and meals, customs check, weighbridges and Police/ Other security checks.

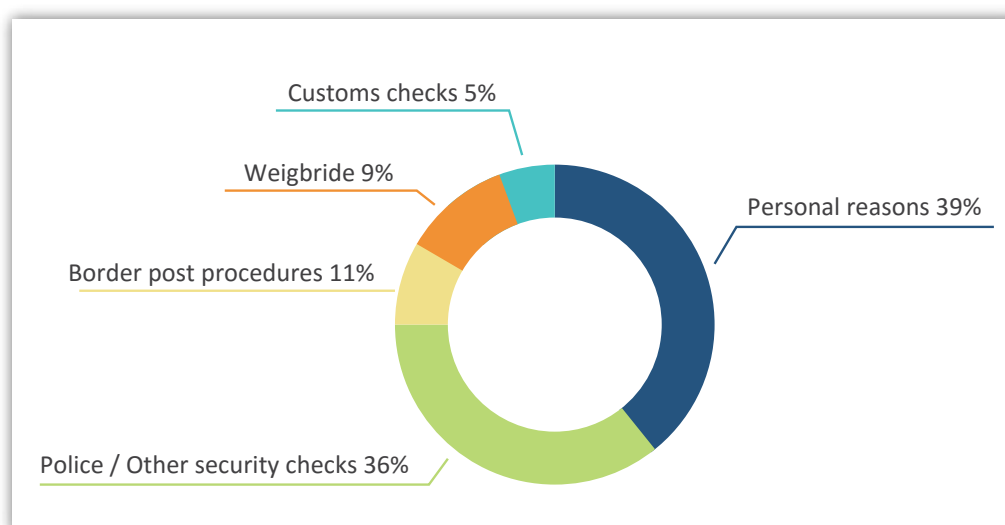
Stop reasons that recorded minimum stop duration includes; Cargo picking, Cargo dropping, vehicle breakdowns, company checkpoints, and inland terminal procedures.

Out of the 2,927 stops, only 19.5 % were reported to have involved payment of charges. The following chart shows the distribution of incidences where it was reported that some payments were made for outbound. However, further specialized surveys are required to be done in order to differentiate between legal and illegal payments.

3.14 Fees Paid by Truckers during the Survey (USD)

Figure 28 below provides a summary of the service fee paid by truck drivers while on transit within the Northern Corridor

Figure 28: Distribution of fee payment incidences



Source: Road Transport Survey, October 2015 – March 2015

The figure 28 above shows that Personal charges take the larger share of the expenditure along the Corridor. Those who indicated that they paid Police fee only recorded 196 incidences of which about 84 recorded 0.5 USD while 47 paid one US Dollar. At Malaba, the common charges recorded were border charges of 52 USD and packing fees of 2.5 USD

3.15 Inland Container Depots (ICDs)/Inland Ports

The Kenya Ports Authority operates Inland Container Depots (ICDs)/dry ports at Nairobi and Kisumu for handling of containerized cargo and empty containers. This service gives inland customers faster and more reliable service. The ICDs are directly linked to the container terminal at the port of Mombasa by railway.

Table 14 below summarizes the Inland Container Depots (ICDs) traffic from 2009 to 2014 (in TEUs).

Table 14: Inland Container Depot/Dry Port Traffic (TEUs)

ICD	Container Status	ICD Traffic (TEUs)					
		2010	2011	2012	2013	2014	2015
Nairobi	Imports Full	14,185	14,494	15,319	14,811	10,263	9,343
	Exports Full	5,157	4,607	4,848	5,261	5,319	5,165
	Empty	18,659	21,830	19,737	26,816	22,138	14,595
Kisumu	Imports Full	131	66	102	111	32	-
	Exports Full	2	-	-	-	1	-
	Empty	95	74	55	93	41	-

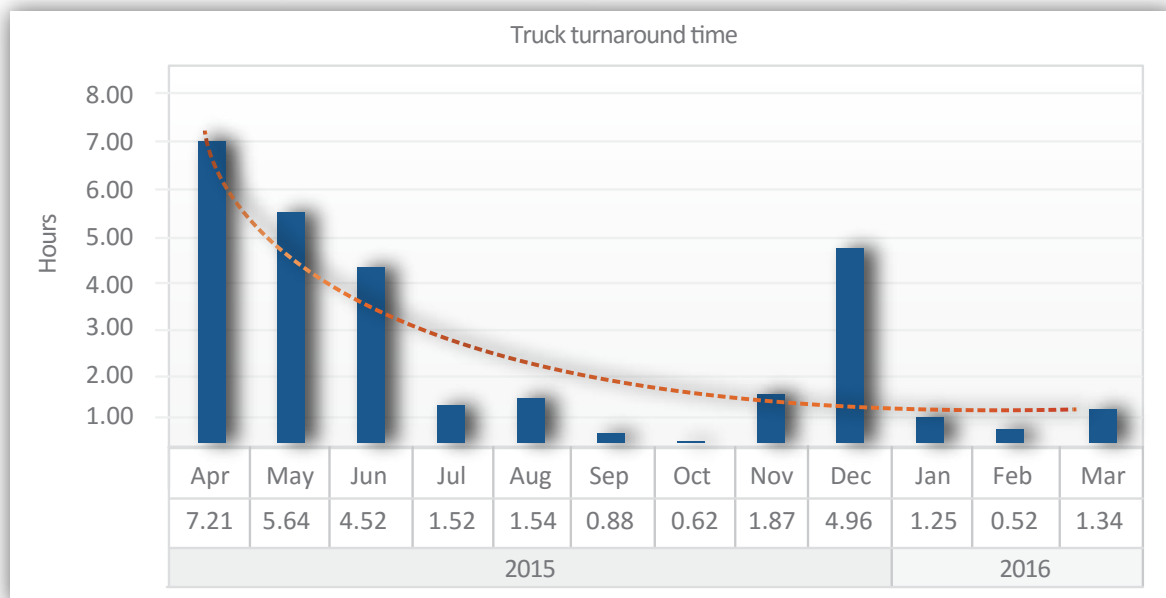
Source; KPA 2010-2015

The Nairobi ICD is located within an area of 18.7 ha at Embakasi and has a capacity of 180,000 TEU per annum. There was a decline in import containers as well as exports in 2015. The Nairobi ICD is still being served by the meter gauge railway which has not been functioning optimally. The throughput of the ICD is expected to increase once the SGR railway currently under construction becomes operational.

3.16 Truck Dwell Time within MAGERWA in Rwanda

Truck dwell time is measured from the time the driver of the vehicle receives authorization to enter the MAGERWA gate to departure of the truck from the terminal exit gate.

Figure 29: MAGERWA ICD Dwell Time - Rwanda, April 2015 - March 2016



Source: MAGERWA, Apr 2015 -March 2016

The figure 29 above shows that the trend for Truck Dwell time within MAGERWA is positive during the reporting period.

Between October, 2015 to March, 2016, the average time spend at the inland depot was 1.9 hours. Though the trend is positive, truck dwell time at MAGERWA is still high at the inland port compared to the target of one hour.

4. TRANSPORT COST AND RATES

Transport rates are the price of transportation services paid by users of the corridor. Transport cost is the amount the transporter must incur to provide transportation services. The cost is determined by fixed (transport equipment) and variable (operating) costs depending on various conditions related to location, infrastructure, administrative barriers, energy and how the freight is carried. Determination of transport cost is beyond the scope of this report instead it features the rates charged by various transporters across the region during the period October, 2015- March, 2016.

4.1 Road Freight Charges and Number of Round Trips per month.

Data on freight charges were collected from transporters associations across the region. The indicator captures the average tariff charges by transporters per road and/or per section. Freight charges act as a basis to study cost recovery of road infrastructure by relating all the various taxes and charges levied on transport activities to costs. They can also inform modal shift.

Table 15 gives a summary of the average transport tariff for moving a container (20' or 40' not exceeding 27 tons) from Mombasa to main destinations along the Northern Corridor

Table 15: Average Transport rates from Mombasa to main cities in Northern Corridor Member States

Average Transport rates per Route						
Route	Distance (Km)	Nov- 14 (USD)	Mar-15 (USD)	Sep- 15 (USD)	Mar- 2016 (USD)	Tariff/KM
Mombasa-Nairobi	480	1,023	1,057	1,076	900	1.9
Mombasa-Kampala	1,169	2,867	2,800	2,200	2,300	2
Mombasa-Kigali	1,682	4,800	4,200	4,700	4,700	2.8
Mombasa-Bujumbura	1,957	5,400	6,291	5,400	4,995	2.6
Mombasa-Goma	1,840	5,875	6,000	5,800	6,500	3.5
Mombasa-Juba	1,662	6,000	6,000	7,000	7,000	4.2

Source: ATB, FEC, KTA, ACPLRWA, SSBUS/SSFEB, UNTA Apr, 2016

From Mombasa, the most expensive roads per kilometer is Mombasa-Goma (3.5USD/Km) followed by Mombasa-Juba (4.2USD/Km) and Mombasa - Bujumbura (2.6USD/Km) whereas the longest route is Mombasa - Bujumbura (1957 Km), followed by Mombasa - Goma (1840Km) and Mombasa - Juba (1662Km) respectively

Transport Rates decreased for cargo destined to Nairobi and Kampala. The rates have remained high for longer distances and are partly affected by security concerns. The number of round trips has decreased as to all destinations as shown in the table below. The Average Distance covered per Truck is 100,224 Km per year in Kenya in the year 2015

Table 16: Number of Round Trips per month made by Truckers in Kenya

Route	Distance (Km)	Round Trips (Mar-2015)	Round Trips (Sept-2015)	Round Trips (Mar-2016)
Mombasa-Nairobi	480	11	10	8.7
Mombasa-Kampala	1,169	4	4	3
Mombasa-Kigali	1,682	3	2	2
Mombasa-Bujumbura	1,957	3	3	1.4
Mombasa-Goma	1,840	2	2	1.6
Mombasa-Juba	1,662	2	4	1.8

Source: Road Transport Survey, March 2016

4.2 Transport Rates in Burundi

The z below summarizes transport charges per container to and from Bujumbura in USD (\$). The table indicates that transport rates charged by Burundi transporters have been reducing over time for both imports and exports to and from Bujumbura.

Table 17: Average Transit Tariff applied in Bujumbura – Burundi (USD)

	Route	Distance (KM)	Tariff in USD (\$) per Container				
			Nov-14	Mar-15	Sep-15	Mar-16	Tariff/KM
Imports	Mombasa - Bujumbura	1,957	5,400	6,291	5,400	4,995	2.6
	Nairobi - Bujumbura	1,476	4,860	4,860	4,860	4,590	3.1
	Kampala - Bujumbura	788	3,510	3,510	3,510	4,320	5.5
	Goma - Bujumbura	431	2,700	1,890	1,890	2,700	6.3
	Kigali - Bujumbura	275	2,160	1,350	1,350	2,160	7.9
Exports	Bujumbura -Mombasa	1,957	4,185	4,320	4,320	4,320	2.2
	Bujumbura-Nairobi	1,476	3,240	3,240	2,700	3,510	2.4
	Bujumbura-Kampala	788	2,430	2,160	2,025	2,700	3.4
	Bujumbura-Kigali	275	1,620	1,350	1,080	1,620	5.9
	Bujumbura -Goma	431	2,160	1,890	1,350	2,160	5.0

Source : Association des Transporteurs Internationaux du Burundi, Apr. 2016

Transport tariffs for imports from Kampala to Bujumbura and from Nairobi to Bujumbura have slightly reduced. Currently the tariff of transporting cargo from Mombasa to Bujumbura has dropped from USD5400 per container in September 2015 to USD 4995 per container in March 2016. Shorter distances such as Bujumbura – Kigali (275Km) and Bujumbura – Goma (431 Km) attract higher transport tariff in Burundi.

The table 18 below summarizes the average number of Round trips for trucks for Burundi Transporters.

Table 18: Number of Round Trips per month made by Truckers in Burundi

Route	Distance(Km)	Mar-15	Sep-15	Mar-16
Bujumbura -Mombasa	1,957	1	1	1
Bujumbura- Nairobi	1,476	2	2	1
Bujumbura- Kampala	788	2	2	2
Bujumbura- Kigali	275	3	3	3
Bujumbura -Goma	431	2	2	2

Source : Association des Transporteurs Internationaux du Burundi, March. 2016

The number of trips made by transporters from Burundi have remained constant compared to September 2015 except to Nairobi which reduced to one trip per month.

The average distance covered per truck per annum for the busiest route is 19,800 Km far below the target of 120,000km per annum an indication of inefficient utilization of trucks.

4.3 Transport Rates in DR Congo

The table 19 below summarizes transport charges per container (40 feet) to and from Goma in USD (\$). The table indicates that transport rates charged by transporters have been fluctuating over time for both imports and exports to and from Goma.

Table19: Number of Round Trips per month made by Truckers in Goma

	Route	Distance (KM)	Tariff in USD (\$) per Container				Tariff/KM
			Nov-14	Mar-15	Sep-15	Mar-16	
Imports	Mombasa - Goma	1,840	5,875	6,000	5,800	6,500	3.5
	Nairobi - Goma	1,360	5,750	4,500	3,000	3,360	2.5
	Kampala -Goma	669	1,925	3,000	1,900	2,500	3.7
	Bujumbura - Goma	431		3,800		2,500	5.8
	Kigali - Goma	156	2,500	2,700		2,000	12.8
	Juba - Goma	1,322	4,500	7,300			0.0
Exports	Goma -Mombasa	1,840	5,875	3,500	3,250	3,640	2.0
	Goma-Nairobi	1,360	5,750	3,000	3,000	3,360	2.5
	Goma-Kampala	669	1,925	2,200	2,000	2,240	3.3
	Goma -Kigali	156	2,500	2,500		2,000	12.8
	Goma - Bujumbura	431	4,375	2,000		2,240	5.2
	Goma - Juba	1,322					

Source; FEC, March 2016

Transport tariffs for imports for all the main Northern Corridor routes to Goma have slightly increased over time. The cost of transporting cargo from Mombasa to Goma in March 2016 was USD 6500 per container which is an increase of USD 700 from USD 5800 in September 2015. The tariff is high between Kigali and Goma with cost per kilometer recording USD 12.8 despite being short distance.

The table 20 below summarizes the average number of Round trips per month made by truckers in Goma.

Table 20: Number of Round Trips per month made by Truckers in Goma

Route	Distance(Km)	Mar-15	Sep-15	Mar-16
Goma -Mombasa	1,840	1	2	1
Goma- Nairobi	1,360	1	3	1
Goma- Kampala	669	2	6	2
Goma- Kigali	156	-	5	3
Goma -Bujumbura	431	-	7	2
Goma- Juba	1,322	-	1	-

Source : Source; FEC, April 2016

The number of round trips made by transporters from Goma in March 2016 has drastically decreased compared to September 2015

4.4 Transport Rates in Rwanda

Table 21 below provides a summary of transport rates charged in Rwanda to and from Kigali per trip to and from Mombasa, Nairobi, Kampala, Bujumbura, Goma and Jinja.

Table 21: Average Transit Tariff in Kigali – Rwanda (USD)

		Distance	Nov-14	Mar-15	Sep-15	Mar-16	Mar-16
	Imports	(Km)	(USD)	(USD)	(USD)	(USD)	Tariff/KM
Imports	Mombasa-Kigali	1,682	4,800	4,200	4,700	4,700	2.8
	Nairobi -Kigali	1,201	3,800	3,900	3,500	3,500	2.9
	Juba-Kigali	1,166	--	6,200	--	-	
	Kampala-Kigali	513	2,000	2,400	2,000	2,000	3.9
	Bujumbura -Kigali	275	--	3,200	--	1,800	6.5
	Goma-Kigali	156	--	3,200	--	1,000	6.4
Exports	Kigali-Mombasa	1,682	3,000	3,200	3,000	3,000	1.8
	Kigali-Nairobi	1,201	2,000	2,200	2,000	2,000	1.7
	Kigali-Juba	1,166	7,000	6,400	7,000	6,000	5.1
	Kigali-Kampala	513	1,600	1,800	1,600	1,600	3.1
	Kigali-Bujumbura	275	--	2,200	--	1,800	6.5
	Kigali-Goma	156	--	3,200	--	1,000	6.4

Source; ACPLRWA March 2016

Transport rates by Rwanda transporters have remained constant for most destinations with only tariff export to Juba reducing by 1,000USD to 6,000USD. The rates are irrespective of the container size.

Table 22: Average Number of Round Trips made per truck by Rwanda Transporters

Route	Distance(km)	Mar-15	Sep-15	Mar-16
Kigali-Mombasa	1,682	2	2	2.5
Kigali-Nairobi	1,201	3	3	4
Kigali-Juba	1,166	1	1	2
Kigali-Kampala	513	6	6	7
Kigali-Bujumbura	275	5	5	
Kigali-Goma	156	7	7	10

Source; ACPLRWA, April 2016

Trucks from Rwanda have shown an increase in the number of round trips per month between March, 2015 and March, 2016. Trucks from Kigali to Goma do on average 37,440 km per year in the year 2015.

4.5 Transport Rates in South Sudan

The tables below provide a summary of rates charged by transporters in South Sudan.

Table 23: Average Transit Tariff in Juba – South Sudan (USD)

	Route	Distance	Mar - 2015	Mar - 2015	Sep-2015	Mar-2016	Tariff
			(20')	(40')	(40')	(40')	
		(km)	(USD)	(USD)	(USD)	(USD)	(USD)//KM
Imports	Mombasa-Juba	1,662	6,000	6,000	7,000	7,000	4.2
	Bujumbura -Juba	1,441	10,000	15,000	-	-	-
	Goma-Juba	1,322	15,000	20,000	-	-	-
	Kigali -Juba	1,166	6,000	12,000	-	-	-
	Nairobi -Juba	1,145	5,500	5,500	-	6,000	5.2
	Kampala-Juba	653	4,500	4,500	850	3,000	4.6
Exports	Juba-Goma	1,322	6,000	10,000	-	-	-
	Juba-Mombasa	1,662	4,000	4,000	3,500	3,000	1.8
	Juba-Bujumbura	1,441	5,000	12,000	-	-	-
	Juba-Kigali	1,166	4,000	8,000	-	-	-
	Juba-Nairobi	1,145	3,000	3,000	-	3,000	2.6
	Juba-Kampala	653	2,000	2,000	-	1,500	2.3

Source: SSBU/SSFEB, Apr 2016

The most expensive routes per kilometer are Nairobi – Juba (5.2 USD/KM) followed by Kampala – Juba (4.6 USD/Km) and Mombasa – Juba (4.2 USD/Km).

Table 24: Number of Round Trips made by South Sudan Transporters

Route	Distance(Km)	Mar-15	Sept-2015	Mar-16
Juba-Goma	1,322	1	-	-
Juba-Mombasa	1,662	3	3	2
Juba-Bujumbura	1,441	2	-	-
Juba-Kigali	1,166	2	-	-
Juba-Nairobi	1,145	3	-	2
Juba-Kampala	653	4	3	3

Source: SSBU/SSFEB, Apr 2016

During the survey period under the study, movement of cargo was mostly between South Sudan, Uganda and Kenya. Transport rates for exports were half the rates for imports, in some cases transporters targeted to recover only the fuel costs when transporting exports. Total distance covered annually by the trucks between South Sudan and Uganda is 47,016 km.

4.6 Transport Rates in Uganda

Freight charges in Uganda are presented in the table below for a truck load whether transporting a 20 or 40-foot container.

Table 25: Average Transit Tariff in Kampala (USD per Container)

	Route	Distance(Km)	Mar-15	Sep-15	Mar-16	Tariff/KM
		KM	USD	USD	USD	
Imports	Mombasa -Kampala	1,169	2,800	2,200	2,300	2
	Bujumbura -Kampala	788	1,800	1,200	1,200	1.5
	Nairobi -Kampala	688	1,500	1,000	1,700	2.5
	Goma -Kampala	669	1,500	500	1,000	1.5
	Juba -Kampala	653		-	600	0.9
	Kigali -Kampala	513	1,200	350	600	1.2
Exports	Kampala -Mombasa	1,169	900	800	800	0.7
	Kampala -Bujumbura	788	4,480	3,800	3,500	4.4
	Kampala -Nairobi	688	500	800	700	1
	Kampala -Goma	669	3,200	2,400	2,400	3.6
	Kampala -Juba	653	3,200	1,800	2,200	3.4
	Kampala -Kigali	513	2,080	1,650	1,600	3.1

Source: UNTA, Apr 2016

The results in the table above indicate that rates are based on container load irrespective of the size. Imports from Nairobi and Mombasa attract higher tariff per kilometer as opposed to exports to Kenya which in most cases is return cargo thus attracting lower freight rates. Exports from Kampala to Goma, Juba, Kigali and Bujumbura attract higher freight charges. Bujumbura has the highest freight charges of up to 4.4 USD per kilometer.

Table 26: Number of Round Trips made by Truckers in Uganda

Route	Distance (Km)	Mar-15	Sep-15	Mar-16
Kampala -Mombasa	1,169	4	5	5
Kampala -Bujumbura	788	4	5	3
Kampala -Nairobi	688	6	4	7
Kampala -Goma	669	4	4	4
Kampala -Juba	653	5	5	4
Kampala -Kigali	513	6	7	6

Source: UNTA, March 2016

From the table above, most trips by transporters from Uganda are made on Kampala-Nairobi section as compared to other destinations. Average distance covered per year per truck is about 115,584 KM in the year 2015.

4.7 Summary of Annual Total Average Distances per truck

The table below gives summary of the average total distances covered per truck in year 2015 by trucks owned by transporters in each Northern Corridor Member State.

Table 27: Summary of the average total distance covered by a truck owned by transporters in each country in 2015

Country	Annual Average Distance per truck (Km)
Burundi	19,800
DR Congo	-
Kenya	100,224
Rwanda	37,440
South Sudan	47,016
Uganda	115,584

Source: Transport Associations

Generally, the transport rates have been going down in the recent past which can be attributed to a number of reasons which include: Reduction in the non-tariff barriers along the Corridor such as road blocks, reduction in transit time (time spent at border stations, weighbridges and transit sections), improvement in the road infrastructure and reduction in the prices of fuel. All these contribute to lowering the cost of transport and hence the transport rates.

A specialized study should be undertaken to clarify large discrepancies as highlighted in the table above.



5. PRODUCTIVITY AND EFFICIENCY

Productivity is the quantitative relationship between the output per unit input such as labour and capital while efficiency involves quality of services being offered.

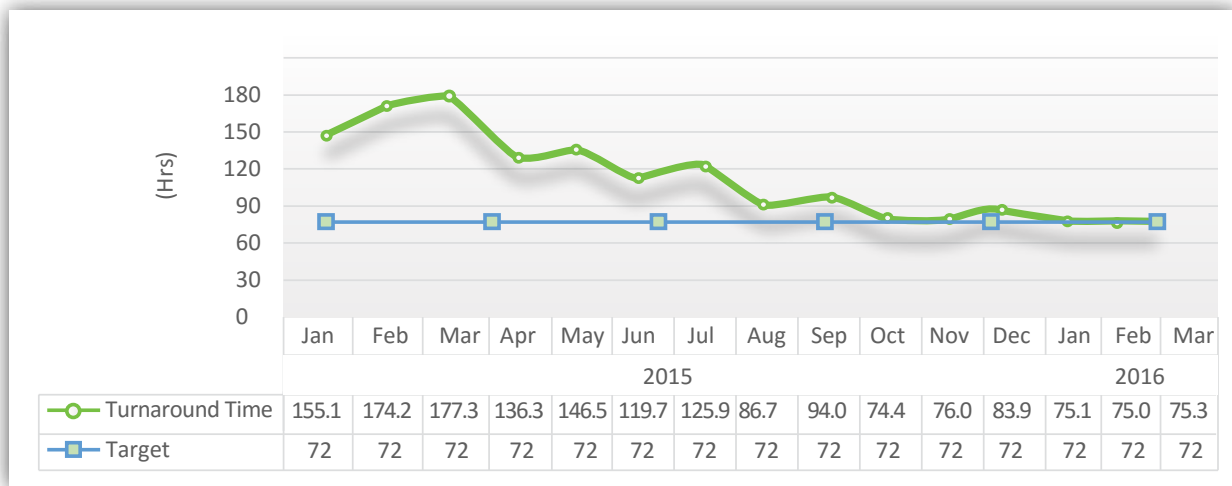
Finding the right combination of productivity and efficiency at the port of Mombasa will optimize the performance of the port thereby attracting more shipping lines. The following indicators measure the productivity and efficacy of the Port of Mombasa and the Corridor at large

5.1 Ship Turnaround Time at Mombasa Port

This indicator is measured from the time the vessel arrives at the Mombasa Port Area (Fairway Buoy) to the time it leaves the Mombasa Port Area to other destinations. The time comprises the waiting time before berth the time when the ship is being offloaded or loaded. The time depends on the quantity and type of cargo a vessel has to discharge or load, the type and characteristics of a vessel, the type of equipment and other resources used at berth.

The figure 30 below shows average turnaround time for the vessels at the port of Mombasa.

Figure 30: Mombasa Port Ship Turnaround Time



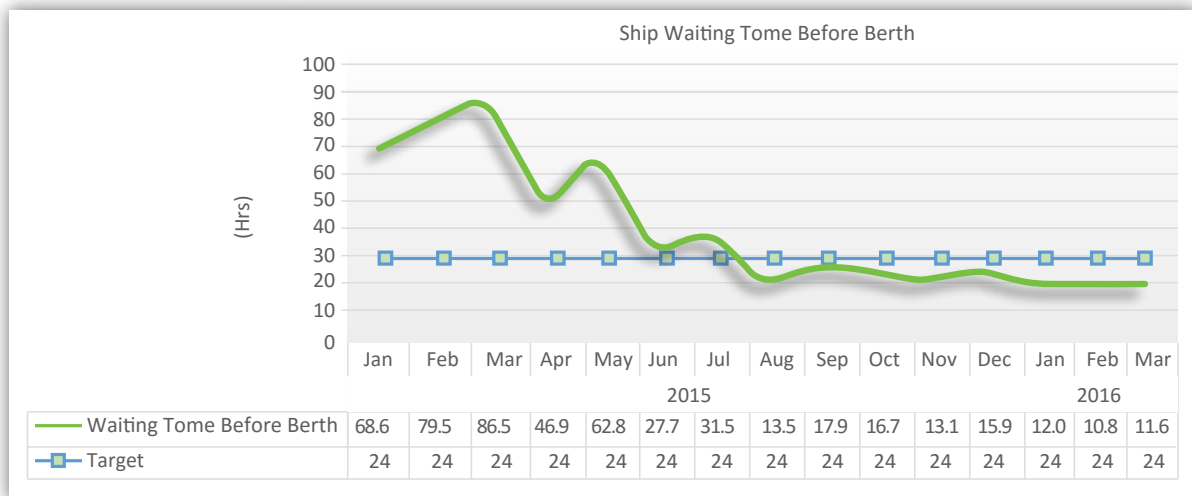
Source: KPA, Jan-2015 - Mar 2016

Stable performance was observed for the last 6 months and is within the neighborhood of the target of 3 days (72 days). The performance is partly attributed to availability of equipment, improved productivity of the gangs and the implementation of Fixed Berthing Window by KPA from August 2015 to date.

5.2 The Vessels Waiting Time before Berth

It is a component of ship turnaround time and is the period from the time the ship enters the Port Area (Fairway Buoy) to the time at its first berth.

Figure 31: Vessel Waiting Time before Berth



Source: KPA, Apr-2015 - Mar 2016

The target has been achieved since August, 2015. This calls for the review of the target.

February 2016 registered an average of 10.8 hours of ship waiting time before first berth. The performance is attributed to various operational reasons e.g.: availability of berthing space and implementation of the Fixed Berthing Window Initiative.

5.3 Weighbridge Indicators

The Northern Corridor Transit and Transport Coordination Authority monitors the efficient performance of the weighbridges and the level of implementation of the vehicle load control charter that commits users of the Corridor to comply with vehicle load control limits in order to protect the Corridor roads from premature damage as a result of overloading. Weighbridges are mainly installed along the Corridor to help protect roads from these damages but also can serve to measure traffic counts that inform road expansion developments.

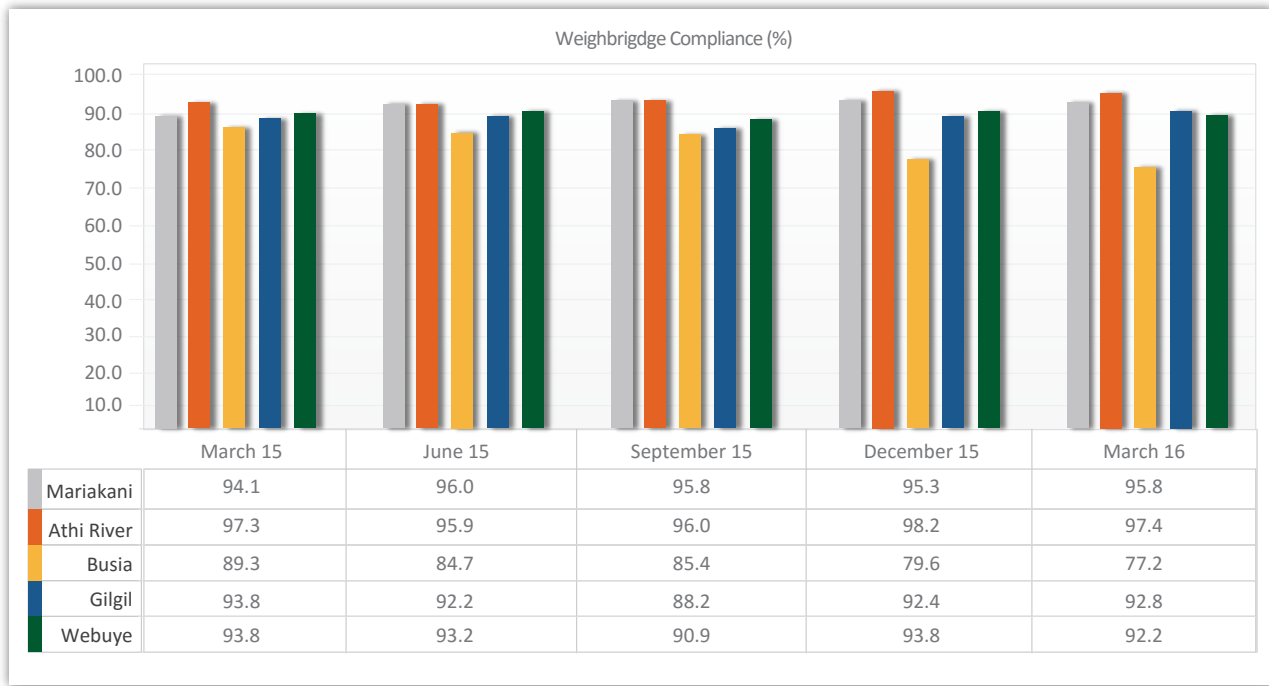


5.4 Weight Compliance in Kenya

This measures the percentage of trucks that comply with the gross vehicle weight and the vehicle axle load limits before and after re-distribution of cargo as stipulated in the EAC Vehicle Load Control Act.

Through the Northern Corridor Dashboard, the NCTTCA monitors compliance at weighbridges on a weekly basis.

Figure 32: Weight Compliance Level at weighbridges in Kenya



Source: KeNHA, Mar 2015 - Mar 2016

Except at Busia weighbridge (compliance 77.23% in March, 2016), which has no HSWIM, compliance to vehicle load limits ranged from above 90% at Mariakani, Athi- River, Gilgil and Webuye; The target for vehicle load compliance is 100 %.

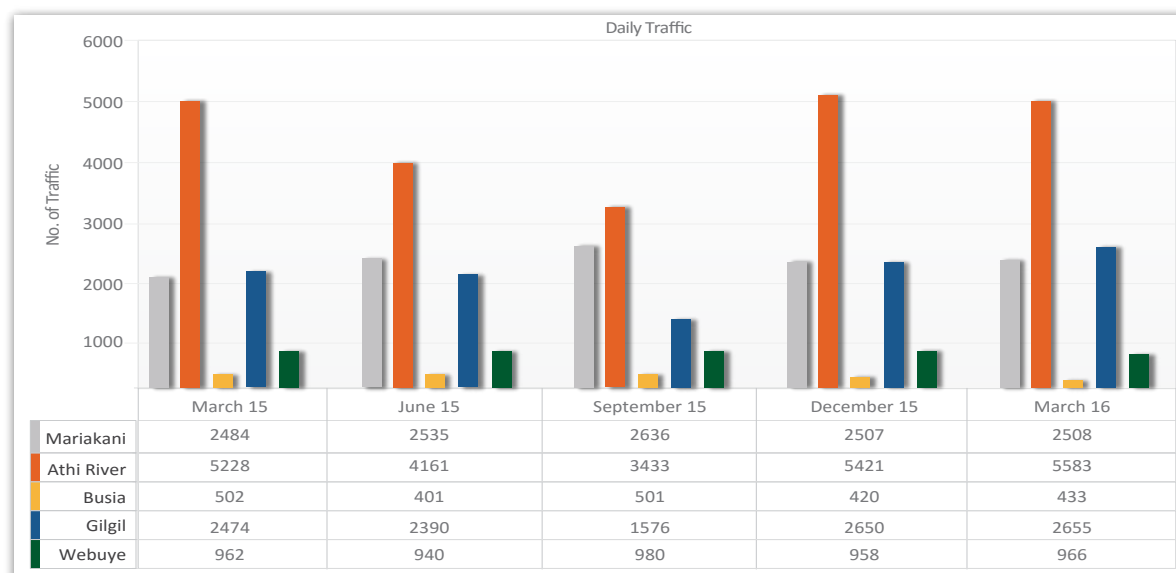


5.5 Weighbridge Traffic in Kenya

This indicator measures the average number of trucks weighed per day at the various weighbridges in Kenya.

The figure below provides a summary of the average daily traffic weighed at Athiriver, Mariakani, Gilgil, Webuye and Busia weighbridges in Kenya.

Figure 33: Monthly Average Daily Traffic Volume



Source: KeNHA, Mar-2015 - Mar 2016

The figure above shows that on average, Athi River registers the highest number of vehicles weighed followed by Mariakani, Gilgil, Webuye and Busia. The high traffic weighed at Athi River and Gilgil is due to additional cargo that are originating from Nairobi and its environs being the capital City and the main business hub in the Country.

All the weighbridges in Kenya (except Busia) along the Northern Corridor are implementing High Speed Weigh-In-Motion (HSWIM) and only trucks that fail HSWIM are diverted to the static scales. Interconnection of these weighbridges should be prioritized to inform decisions making in case of variation of weights at the different weighbridge stations.

5.6 Quality of Transport Infrastructure within the Northern Corridor Road Network

The designated Northern Corridor road network in all six Member States is approximately 14,108Km in length. The Road Network handles in excess of 96% of goods from the port of Mombasa and is fast reaching its designed capacity to handle the traffic volumes. The remaining goods are transported through the railway mode, inland waterways and pipelines.

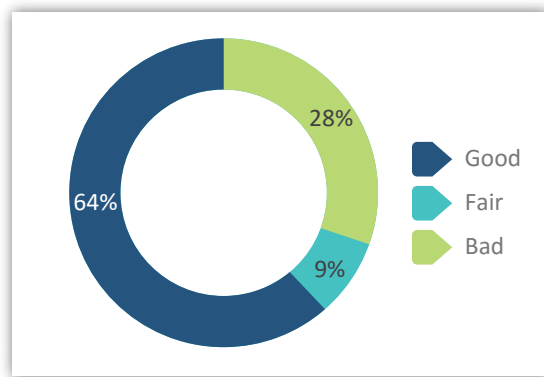
The Northern Corridor Secretariat provides Member States with data to enable them to implement an economic Corridor-based approach to reduce costs of cross-border trade within the region. The quality of the infrastructure is a key consideration in the achievement of these goals.

The table below provides a summary per country of condition of the road network along the Northern Corridor

Table 28: Condition of the Northern Corridor Road as of April, 2016

	Condition	Burundi	DR Congo	Kenya	Rwanda	S Sudan	Uganda	Total	Total %
Condition	Good (Km)	171	767	698	703	-	*1667	4006	28.4
	Fair (Km)	188	203	359	-	192	*369	1311	9.3
	Bad (Km)	104	4,206	653	78	3499	*251	8971	63.6
Total length (km)		463	5,176	1,710	781	3,691	*2,287	14,108	100.0

Source: Road Authorities, April, 2016 (* figures for Uganda last updated in September 2015).

Figure 34: Percentage distribution of the road condition

Only 28% of the total road network is in good condition. Member States to prioritize improvement of the quality of rail freight transport infrastructure as it will contribute greatly to protecting our roads from pre-mature damage through transportation of heavy containers and also spur economic development of the region.

The tables below summarize the condition of various road sections along the Northern Corridor per country

5.7 Road Condition in Burundi

The figure below provides the summary of road condition in Burundi

Table 29: Road conditions in Burundi

Route / Road	Pavement type	Length (Km)	Works Status	Planned	Road condition (Km)		
					Good	Fair	Bad
Gasenyi - Kirundo - Gashoho	Paved	68			68		
Ngozi - Ngozi - Kayanza	Paved	72				72	
Kanyaru Haut - Kayanza	Paved	22		widening		22	
Kayanza - Bugarama - Bujumbura	Paved	94		widening		94	
Bujumbura - Gatumba	Paved	23	Rehab ongoing		23		
Bujumbura - Ruhwa	Semi paved	81		51km Paving Completed			81
Akanyaru bas - Ngozi	Unpaved	23		Rehabilitation			23
Ngozi to Nyangungu - Gitenga	Paved	80			80		
Total (Km)		463			171	188	104
Total (%)		100			37	41	22

Source: Office De Routes, Burundi, April, 2016

From the data, 37%, 41% and 22% of the roads are in good, fair and poor state respectively. The total length of the Northern Corridor road network in Burundi is about 463 KM.

5.8 Road Condition in DR Congo

Table 30: Road conditions in DR Congo

Route / Road	Pavement type	Length (Km)	Works Status	Planned	Road condition (Km)		
					Good	Fair	Bad
Kavimvira - Bukavu	Unpaved	148	Upgrading to paved ongoing		25	123	
Bukavu - Shabunda - Kindu	Unpaved	521	Works stopped				521
Bukavu - Walikale - Kisangani	Unpaved	716			716		
Bukavu - Sake	Unpaved	184					184
Goma - Sake	Paved	26			26		
Sake - Walikale	Unpaved	213					213
Goma - Beni	Unpaved	331					331
Beni - Kasindi	Unpaved	80				80	
Beni - Mambasa - Niania - Bafwasende - Kisangani	Unpaved	672					672
Mambasa - Kopmanda - Bunia - Mahagi	Unpaved	370					370
Niania - Isiro - Faradge - Aba	Unpaved	642					642
Isiro - Bambili - Buta - Kisangani	Unpaved	803					803
Beni - Rutshuru - Bunagana	Unpaved	407					407
Rutshuru - Ishasha	Unpaved	63					63
Total (Km)		5176			767	203	4206
Total (%)		100			15	4	81

Source: Office De Routes, DR Congo, Apr, 2016

From the information, 15% of the total road network (5,176 km) is in good state, 4 % in fair and 81% in bad state. It is highly recommended that urgent intervention by relevant players be provided to improve on the road conditions in DR Congo.



5.9 Road condition in Kenya

Table 31: Kenya Road Condition

Route / Road	Pavement type	Length (Km)	Works Status	Planned	Road condition (Km)		
					Good	Fair	Bad
Mombasa - Mariakani	Paved	38	Ongoing improvement interventions	Dualing with procurement of contractor ongoing			38
Mariakani - Voi - Mtito Andei	Paved	199	Routine Maintenance of Mtito Andei-Voi	Concessioning: Transaction Advisor engaged & feasibility studies under review.		199	
Mtito Andei - Kibwezi - Athi River - Nairobi	Paved	244	Routine Maintenance of Mtito Andei - Sultan Hamud		244		
Nairobi - MaiMahiu	Paved	26	Maintenance				26
MaiMahiu - Naivasha - Gilgil	Paved	48		Concessioning: Transaction Advisor engaged & feasibility studies under review.	48		
Gilgil - Nakuru	Paved	40				40	
Nakuru- Mau Summit	Paved	56			56		
Mau Summit - Eldoret	Paved	73	Timboroa- Eldoret (A104) recently completed.		73		
Eldoret - Webuye - Malaba (Uganda)	Paved	119	Ongoing Rehabilitation. >90% complete		119		
Eldoret - Lodwar - Lokichogio (South Sudan)	Unpaved	589	Upgrading				589
Mau Summit - Kericho	Paved	58	Rehabilitation completed		58		
Kericho - Nyamasaria - Kisumu	Paved	100	Rehabilitation substantially complete		100		
Nyamasaria - Majengo - Maseno - Busia (Uganda)	Paved	120	Rehabilitation			120	
Total (Km)		1710			698	359	653
Total (%)		100			41	21	38

Source: Kenha, Apr, 2016

The total Northern Corridor road network in Kenya is approximately 1,710 KM. 41%, 21% and 38% of the total Northern Corridor road network is in good, fair and bad state respectively

5.10 Road Condition in Rwanda

Table 32: Road Condition in Rwanda

Route / Road	Pavement type	Length (Km)	Status	Planned	Road condition (Km)		
					Good	Fair	Bad
Kagitumba - Kayonza - Kigali - Nemba	Paved	252			252		
Cyanika - Ruhengeri	Paved	25		Rehab			25
Musanze - Kigali - Gitarama - Butare - Akanyaru Haut	Paved	244			244		
Musanze - Rubavu	Paved	64			64		
Huye - Kitabi	Paved	70	Rehab to commence in Jan 2017		17		53
Kitabi - Ruzizi 1 & 2	Paved	87			87		
Ruzizi 1 & 2 - Ruhwa	Paved	39			39		
Total (Km)		781			703		78
Total (%)		100			90	0	10

Source: RTDA, Rwanda, April 2016

Of the total 781KM of the NC road network, 90%, 0% and 10% are in good, fair and bad state respectively.

5.11 Road condition in South Sudan

Table 33: Road Condition in South Sudan

Route / Road	Pavement type	Length (Km)	Works Status	Planned	Road condition (Km)		
					Good	Fair	Bad
Nimule - Nesitu - Juba	Paved	192		Rehabilitation		192	
Nadapal - Kapoeta - Torit - Nesitu	Unpaved	335		Upgrading to Paved			335
Juba - Lainya - Yei - Kaya	Unpaved	225		Upgrading to Paved			225
Yei - Maridi	Unpaved	282		Upgrading to Paved			282
Juba - Mundri - Maridi - Yambio - Nabiapai	Unpaved	444		Upgrading to Paved			444
Yambio - Tambura - Wau - Aweil	Unpaved	611		Upgrading to Paved			611
Wau - Kwacjok - Agok - Mayom - Bentiu	Unpaved	500		Upgrading and some new sections			500
Juba - Bor - Ayod - Malakal	Unpaved	643		Upgrading to Paved			643
Mundri - Rumbek - Wau	Unpaved	459		Upgrading to Paved			459
Total (Km)		3691				192	3499
Total (%)		100			0	5	95

Source: Ministry of Roads and Bridges, South Sudan, April 2016

The total length of the Northern Corridor road network in South Sudan is 3,691 KM. 5% is in fair state while the rest is in poor state. It is highly recommended that urgent intervention by relevant players be provided to improve on the road conditions in South Sudan.

5.12 Road Condition Summary

Table below gives a brief percentage summary of the road conditions in member states

Table 34: Summary of Road Conditions in Member States

Country	Road condition (%)			Total
	Good	Fair	Bad	
Burundi	37	41	22	100
DR Congo	15	4	81	100
Kenya	41	21	38	100
Rwanda	90	0	10	100
S. Sudan	0	5	95	100
Uganda	*72.9	*16.1	*11	*100

Source: Road Authorities, April, 2016

(*) Information on road conditions in Uganda was obtained in September 2015 and the latest updates had not been availed to NCTTCA Secretariat by the time this report was published.

INDICATIVE ROAD DISTANCES IN KILOMETERS BETWEEN THE NORTHERN CORRIDOR TRANSIT SECTIONS

	Bujumbura	Bukavu	Busia	Eldoret	Gasenyi	Goma	Gulu	Juba	Kampala	Kanyaru Haut	Katuna	Kaya	Kigali	Kisangani	Kisumu	Lasu	Mahagi	Malaba	Mariakani	Mbarara	Mombasa	Mpondwe	Nadapal	Nairobi	Nimule	Yambio	Yei
Bujumbura		165	990	1149	252	435	1134	1445	792	128	360	1373	279	864	1105	1496	1059	1028	1925	525	1961	700	1740	1480	1249	1761	1451
Bukavu	165		991	1150	349	184	1135	1446	793	157	361	1163	280	699	1170	1286	894	1029	1926	526	1962	701	1770	1481	1250	1551	1241
Busia	990	991		148	780	867	409	720	198	862	630	686	711	1495	119	809	585	33	905	465	941	640	768	460	524	1074	764
Eldoret	1149	1150	148		939	1026	503	963	357	1021	789	780	870	1654	158	903	519	121	776	624	812	799	620	331	618	1168	858
Gasenyi	252	349	780	939		225	924	1235	582	172	150	1163	69	1345	899	1286	1062	818	1715	315	1751	490	1559	1270	1039	1551	1241
Goma	435	184	867	1026	225		1011	1322	669	307	237	979	156	1114	986	1102	710	905	1802	402	1838	419	1617	1357	1126	1367	1057
Gulu	1134	1135	409	503	924	1011		311	342	1006	774	367	855	1162	528	490	266	382	1279	609	1315	784	606	834	115	755	445
Juba	1445	1446	720	963	1235	1322	311		653	1317	1085	234	1166	1399	839	201	577	693	1626	920	1662	1095	343	1145	196	466	156
Kampala	792	793	198	357	582	669	342	653		664	432	581	513	1297	317	704	480	236	1133	267	1169	442	948	688	457	969	659
Kanyaru Haut	128	157	862	1021	172	307	1006	1317	664		232	1245	151	1427	987	1368	1023	900	1797	397	1833	572	1612	1352	1121	1633	1323
Katuna	360	361	630	789	150	237	774	1085	432	232		1013	81	1195	749	1136	791	668	1565	165	1601	340	1380	1120	889	1401	1091
Kaya	1373	1163	686	780	1163	979	367	234	581	1245	1013		1094	1165	805	123	269	659	1556	848	1592	1023	577	1111	430	388	78
Kigali	279	280	711	870	69	156	855	1166	513	151	81	1094		1276	830	1217	872	749	1646	246	1682	421	1461	1201	970	1482	1172
Kisangani	864	699	1495	1654	1345	1114	1162	1399	1297	1427	1195	1165	1276		1608	1288	896	1533	2430	1030	2466	855	2245	1985	1277	1553	1243
Kisumu	1105	1170	119	158	899	986	528	839	317	987	749	805	830	1608		928	704	134	792	584	828	759	778	347	643	1193	883
Lasu	1496	1286	809	903	1286	1102	490	201	704	1368	1136	123	1217	1288	928		392	782	1679	971	1715	843	544	1234	397	355	45
Mahagi	1059	894	585	519	1062	710	266	577	480	1023	791	269	872	896	704	392		558	1455	747	1491	451	872	1010	381	657	347
Malaba	1028	1029	33	121	818	905	382	693	236	900	668	659	749	1533	134	782	558		897	503	933	678	741	452	497	1047	737
Mariakani	1925	1926	905	776	1715	1802	1279	1626	1133	1797	1565	1556	1646	2430	792	1679	1455	897		1400	36	1575	1396	445	1394	1944	1634
Mbarara	525	526	465	624	315	402	609	920	267	397	165	848	246	1030	584	971	747	503	1400		1436	175	1215	955	724	1236	926
Mombasa	1961	1962	941	812	1751	1838	1315	1662	1169	1833	1601	1592	1682	2466	828	1715	1491	933	36	1436		1611	1432	481	1430	1980	1670
Mpondwe	700	701	640	799	490	419	784	1095	442	572	340	1023	421	855	759	843	451	678	1575	175	1611		1390	1130	899	1108	798
Nadapal	1740	1770	768	620	1559	1617	606	343	948	1612	1380	577	1461	2245	778	544	872	741	1396	1215	1432	1390		951	491	809	499
Nairobi	1480	1481	460	331	1270	1357	834	1145	688	1352	1120	1111	1201	1985	347	1234	1010	452	445	955	481	1130	951		949	1499	1189
Nimule	1249	1250	524	618	1039	1126	115	196	457	1121	889	430	970	1277	643	397	381	497	1394	724	1430	899	491	949		662	352
Yambio	1761	1551	1074	1168	1551	1367	755	466	969	1633	1401	388	1482	1553	1193	355	657	1047	1944	1236	1980	1108	809	1499	662		310
Yei	1451	1241	764	858	1241	1057	445	156	659	1323	1091	78	1172	1243	883	45	347	737	1634	926	1670	798	499	1189	352	310	

6. KEY OBSERVATIONS AND RECOMMENDATIONS

1. High Port Dwell Time:

It should be noted that in the recent past there has been a reduction in the Port Dwell Time, nevertheless, it is still high. There are many activities that contribute to the high Port Dwell Time the key ones being:

Delays in lodgment of entries by Clearing Agents;

the Port Community Charter has a target to have 70% of cargo pre-cleared before arrival at the Port of Mombasa. This target has not been achieved mainly due to late approval of manifests. In some instances, approval of manifests is done after the cargo has been offloaded from the vessels. Clearing agents cannot lodge entries before approval of manifests by Customs.

Recommendation: *Customs should approve ship manifests (partial manifests) before arrival of the vessels at Mombasa Port to facilitate pre-declaration of goods by Traders/Clearing Agents.*

Delays at the One Stop Center (OSC); The OSC brought together all the cargo interveners in one place but did little to reduce the procedures, documentary and reporting requirements, thus the delays that persist at the OSC. Each cargo intervener retained the procedural and documentary requirements for clearance of goods as well as authority over the goods in regard to his/her area of discipline. There are also challenges to assemble all the cargo interveners to inspect a consignment jointly. Furthermore, the trader/agent has to answer separately to each of the intervening authorities before Customs Release of goods from the Port.

Recommendation: *The intervening Government Agencies should second staff to work at the OSC under one lead agency (e.g. Customs).*

Delays to remove the cargo from the Port after Customs Release; This has been attributed to a number of factors which includes: late preparation by the traders/agents with the transporters to collect their cargo, delays in payment of Port Charges, infrastructure deficiencies in and around the Port causing delays for trucks to access and leave the Port.

Recommendation: *Traders/Clearing Agents should make advance preparations to pick their cargo from the Port (pay their port charges and arrange transport for their cargo in advance).*

It is noted that there are several ongoing transport infrastructure developments in and around the Port expected to improve accessibility to the Port. These include dualling of Mombasa - Mariakani road section, construction of the Dongo- Kundu road and commencement of operations of the new Mombasa Port Container Terminal and increasing the number of lanes at the Port Entry/Exit Gates.

2. Traffic Congestion as you approach Weighbridge Stations:

It has been generally observed that as you approach most of the weighbridges along the Northern Corridor there is congestion of traffic. In Kenya implementation of the HS-WIM weighbridges had eased the congestion at weighbridges, but over time with the ever increasing volume of traffic along the Northern Corridor the length of queues at weighbridges is increasing. Congestion of traffic is also experienced during peak hours at the static and slow speed weigh in motion weighbridges in Uganda. The congestion of trucks at weighbridges queuing along the main road to be weighed unduly inconveniences other road users and will soon lead to delays.

Recommendation: *Put in place multiple weighing lanes at busy sections of the Corridor such as at Athi-river and Mariakani to reduce traffic congestion at these weighbridge stations. Member States should expedite the implementation of use of HS-WIM weighbridges along the Northern Corridor roads. Furthermore, the weighbridge stations should have at least one weighing scale on each side of the road.*

3. Longer Transit Time for Inbound Cargo than Through Transit Cargo:

It was observed that transit time for inbound cargo from the border stations in Rwanda and Burundi was higher than the transit time for through transit cargo; it took more time for cargo to move from Gatuna to Gikondo-MAGERWA (Kigali) than from Gatuna to Nemba (Border with Burundi) which is much farther than Kigali. It also took more time for cargo to move from Kanyaru Haut to Bujumbura than from Kanyaru Haut to Gatumba which is also farther than Bujumbura.

The implication of is that there are delays in receiving of cargo in the inland cargo storage areas (ICD's and bonded warehouses) and delays in cancellation of transit bonds for goods which have reached their destinations. The delays are a sign of inefficiencies at the ICD's and bonded warehouses which causes delays in offloading goods from trucks thereby affecting their turnaround time.

Recommendation: *Improve on the cargo handling facilities and procedures for receipt of goods at ICD's and bonded warehouses.*

4. Challenge in exchanging information and tracking of cargo:

The Revenue Authorities and other Stakeholders involved in the handling and clearance of cargo along the Northern Corridor each generates a unique identify to monitor clearance of cargo within their jurisdiction. In case of cargo crossing borders there is a break in audit trail and difficult in tracking a consignment across the region from the point of first entry of goods in the region to their final destination. This situation has led to multiple submissions of the same data by traders/agents across the borders at times even within the same country.

Recommendation: *To promote exchange of information across the borders the Northern Corridor Member States should expedite the implementation of a Regional Unique Consignment Reference (R-UCR).*

5. High Transport rates in the region

Transport rates are going down albeit slowly and a lot needs to be done including (i) boosting exports to guarantee return cargo; (ii) Government supporting empty container depots initiatives and quick container repatriation back to the port using the railway.

6. Higher percentage of Roads in poor condition in the region

As of April 2016, about 64% of the Northern road network was in poor condition, 9% in fair condition and only 29% in good condition.

Recommendation: *Member States to prioritize the road infrastructure development along the corridor. Development partners to support South Sudan and DR Congo in developing/improving the road network where 95 % and 81% of the networks are in bad conditions respectively.*

7. VISA requirement hampering Trade in the region.

VISA fees limits movement of traders within the member states which hinder intra-regional trade between member states.

Recommendation: *Visa fees requirement should be abolished in all the Northern Corridor Member States to facilitate free movement of people.*

ANNEXES.

ANNEX 1: INDICATOR GLOSSARY

CORRIDOR PERFORMANCE INDICATORS



VESSEL WAITING TIME BEFORE BERTH

Description:
The average time taken by the ship before Berthing. It is measured from the time the vessel arrives at the fairway buoy to the time at its first berth.

Formula:
Time at Berthing minus Time of Arrival at Port Area.



SHIP TURNAROUND TIME

Description:
The average time spent by the ship in the port area. It is measured from the time the vessel arrives at the fairway buoy to the time it is piloted off when departing the port.

Formula:
Time at Exit minus Time at Entry in the Port Area.

TIME FOR CUSTOMS CLEARANCE AT THE DOCUMENT PROCESSING CENTER(DPC)

Description:
This is the time it takes to have an entry lodged by a clearing agent passed by customs.

Formula:
Time of Passing of Entry Minus Time of Registration of Entry.



TIME TAKEN AT MOMBASA ONE STOP CENTER

Description:
Average time of document processing at One Stop Center.

Formula:
Time at Entry Release Order generation minus Time at Passing Entry.

AVERAGE CARGO DWELL TIME AT THE PORT

Description:
It is the measure of time that elapse from the time cargo is offloaded from the vessel at the port to the time it leaves the port premises after all permits and clearances have been obtained.

Formula:
Exit Date Time from the port Minus Arrival Date Time from the port.

TRANSIT TIME WITHIN THE INLAND CONTAINER DEPOT(ICD)/ INLAND PORT

Formula:
Departure Date Time from the ICD minus Arrival Date Time at the ICD

TRANSIT TIME PER ROUTE PER MODE OF TRANSPORT

Description:
Time taken by transit cargo to move from one node to another e.g. from Mombasa to Malaba
Nodes are points along the corridors like weighbridges, border-posts, ports.

Formula:
Time of arrival (Destination Node) minus time of departure (Node of Origin).



DELAY AFTER CUSTOMS RELEASE AT THE PORT OF MOMBASA

Description:
Refers to the period it takes to evacuate cargo from the port after it is officially released.

Formula:
Time at exit of cargo at the Port gate minus Time of Entry Release Order generation.



WEIGHBRIDGE CROSSING TIME

Formula:
Departure Date Time from the weighbridge minus Arrival Date Time at the weighbridge.

BORDER POST CROSSING TIME

Description:
Time taken by transit cargo to cross the Border

Formula:
Departure Date Time from the border minus Arrival Date Time at the border.



TIME FOR CUSTOM PROCEDURE AT DESTINATION

Description:
It's the average time taken to complete custom process at the destination after cargo arrival.

Formula:
End Date Time of the last process minus start Date Time of the first process.



TRANSIT TIME

Description:
Time taken by transit cargo to move from origin (Port) to destination country e.g Uganda, Rwanda etc.

Formula:
Time of arrival minus time of departure (Based on Road/GPS based Surveys data)





RATES AND COST

TRANSPORT COST PER ROUTE AND PER MODE

Description:

Summation of charge by transporter and other cargo handling charges incidental to transportation per Route and/or per section.

PORT TRANSIT CHARGES

Description:

Published tariffs by Stakeholders.

ROAD FREIGHT CHARGE

Description:

The indicator captures the different tariff charges by transporters per road and/or per section.

RETURN OF EMPTY CONTAINERS (GRACE PERIOD, PENALTIES, AND DEPOSIT)

Description:

Published tariffs by Stakeholders.

RAIL FREIGHT CHARGE

Description:

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



VOLUME AND CAPACITY

MOMBASA PORT TOTAL CARGO THROUGHPUT VS TRANSIT TRAFFIC

Description:

Mombasa Port Total Cargo throughput = Summation of weight of all cargo transported through the Port;

Transit Traffic = Summation of weight all cargo transported through the Port destined to other countries. (It includes imports to and exports from other countries). Transit Traffic is part of the total Cargo throughput of the Mombasa port.

VOLUME PER COUNTRY OF DESTINATION

Description:

Summation of weight of all cargo (imports/exports) handled by the Port per country of destination/origin.

RATE OF CONTAINERIZATION OF TRANSIT TRAFFIC AT THE PORT OF MOMBASA

Description:

Total weight of containerized transit cargo divided by Total weight of all transit cargo.

EVOLUTION OF LICENSED FLEET OF TRUCKS PER COUNTRY

Description:

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

AVERAGE ANNUAL DISTANCE PER TRUCK IN KM PER YEAR

Description:

Average distance travelled per truck per year.

TRANSPORT CAPACITY BY RAIL (LOCOMOTIVE AND WAGONS)

Description:

Total number of operational locomotives and wagons
Proportion of total cargo carried by railway.



PRODUCTIVITY AND EFFICIENCY

NUMBER OF CHECK POINTS PER COUNTRY PER ROUTE

Description:

Summation of checkpoints (weighbridge, police, customs, Road Toll), by country, by route.

VOLUME OF CONTAINERIZED AND GENERAL CARGO HANDLED PER DAY/MONTH/QUARTERLY AT THE PORT OF MOMBASA

Description:

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

RATE OF FRAUD OR DECLARED DAMAGE FOR GOODS IN TRANSIT

Description:

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

Formula:

$\frac{\text{Number of Fraud or Declared Damage cases}}{\text{Total of Fraud or Declared Damage cases at a node}}$

WEIGHT COMPLIANCE

Description:

The percentage of trucks that comply with the axle load limits before and after re-distribution.

Formula:

$\frac{\text{Total compliant trucks in a weighbridge}}{\text{Total trucks traffic in a weighbridge}} \times 100$

NUMBER OF ACCIDENTS PER ROUTE

Description:

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

WEIGHBRIDGE TRAFFIC

Description:

Average number of trucks passing a weighbridge in a day

GROSS MOVES PER SHIP PER HOUR AT THE PORT OF MOMBASA





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