



Northern Corridor Transit and  
Transport Coordination  
Authority

# NORTHERN CORRIDOR TRANSPORT OBSERVATORY REPORT

14<sup>TH</sup> Edition

June 2019



Enhanced Transboundary Trade





**Northern Corridor Transit and  
Transport Coordination  
Authority**

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## Abbreviations

**ACPLRWA**

Rwanda Long Distance Truck Drivers Association

**AEO**

Authorized Economic Operators

**ASYCUDA**

Automated System for Customs Data

**BI**

Burundi

**CCTFA**

Central Corridor Transit Transport Facilitation Agency

**DGDA**

Direction Générale des Douanes Et Accises

**DRC**

Democratic Republic of Congo

**DWT**

Dead Weight Ton

**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

**ICBT**

Informal Cross Border Trade

**ICD**

Inland Container Depot

**ICMS**

Intergrated Customs Management System

**ICT**

Information Communication Technology

**IRI**

International Roughness Index

**KE**

Kenya

**KeNHA**

Kenya National Highways Authority

**KPA**

Kenya Ports Authority

**KPC**

Kenya Pipeline Company

**KRA**

Kenya Revenue Authority

**KTA**

Kenya Transporters Association

**LPI**

Logistics Performance Index

**KWATOS**

Kilindini Waterfront Automated Terminal Operations System

**MAGERWA**

Magasins Généraux du Rwanda

**NEPAD**

New Partnership for Africa's Development

**NC**

Northern Corridor

**NCTTA**

Northern Corridor Transit and Transport Agreement

**NCTTCA**

Northern Corridor Transit and Transport Coordination Authority

**NICD**

Nairobi Inland Container Terminal

**OBR**

Office Burundais des Recettes

**OCC**

Office Congolais de Contrôle

**ODR**

Office Des Routes

**OGEFREM**

Office de Gestion Du Fret Multimodal

**OBSP**

One Stop Border Post

**RECTS**

Regional Electronic Cargo Tracking System

**RRA**

Rwanda Revenue Authority

**RTDA**

Rwanda Transport Development Agency

**RVR**

Rift Valley Railways

**RW**

Rwanda

**SGR**

Standard Gauge Railway

**SCT**

Single Custom Territory

**SSFEDA**

South Sudan Federation of Employers and Business Association

**TBL**

Through Bill of Lading

**TEUs**

Twenty Feet Container Equivalent Units

.....  
**TMEA**  
Trade Mark East Africa

.....  
**TO**  
Transport Observatory

.....  
**TOP**  
Transport Observatory Portal

.....  
**UFFA**  
Uganda Freight Forwarders Association

.....  
**UG**  
Uganda

.....  
**UNRA**  
Uganda National Roads Authority

.....  
**URA**  
Uganda Revenue Authority

.....  
**URC**  
Uganda Railways Corporation

.....  
**WEO**  
World Economic Outlook

## Foreword



**Mr. Omae Nyarandi**  
Executive Secretary- NCTTCA

The Northern Corridor Transit and Transport Agreement (NCTTA) was ratified in 1985 to facilitate interstate and transit trade among the Member States. The initial contracting States to the Agreement were: Burundi, Democratic Republic of Congo, Kenya, Rwanda, and Uganda. The Agreement was revised in 2012 to include the Member State of South Sudan. The main objective of the Agreement is to provide a mechanism for facilitating transit trade for the Member States passing through the port of Mombasa.

Before the Agreement, transit trade in the East Africa region operated on the bilateral basis, which never offered a coherent framework for standardized services and transit trade procedures across the different Member States. Since the implementation of the Agreement, various initiatives have been undertaken which have resulted into a considerable improvement in trade facilitation in the region.

Some of the notable achievements include; enhanced efficiency of the port of Mombasa and expansion of the container terminals at the port; that have led to increased cargo throughput. In addition, improvement of infrastructure and reduction of barriers to transport and trade have led to enhanced efficiency along the Northern Corridor.

Key among the initiatives undertaken are: development of Standard Gauge Railway, installation of High-Speed Weigh in Motion, construction of One Stop Border Posts, automation of business processes and improvement of quality of road conditions along the Corridor.

However, more efforts are still needed to ensure trade potential of the region is maximized. To track performance and implementation of the various initiatives, the Northern Transport Observatory was established in 2011. The Northern Corridor Transport Observatory is a monitoring tool that measures 36 indicators which tracks the performance of the port of Mombasa as well as the performance of the Corridor.

The Northern Corridor Transit and Transport Coordination Authority has the pleasure to present this 14th issue of the Transport Observatory Report. The report features the annual performance for the year 2018 and for the first quarter of 2019. This report was generated through a comprehensive process of data collection, and analysis. The qualitative data was collected through stakeholder's consultative forums, trade logistics surveys and road-based surveys.

I further wish to reiterate the commitment of the Northern Corridor Secretariat to coordinate and support stakeholders from all the Member States towards providing an enabling environment for smooth trade and transport facilitation. I call upon all partners to support the actualization of the programmes envisaged in the Northern Corridor Transit and Transport Agreement.

A handwritten signature in black ink, appearing to read 'Omae Nyarandi', written over a large, stylized oval shape.

**Omae Nyarandi**  
Executive Secretary

## Acknowledgement

The NCTTCA is deeply indebted to the Council of Ministers of the Northern Corridor Member States for their continued support to the Transport Observatory. Profound appreciation also goes to the Executive Committee, the various Specialized Technical Committees, the Stakeholders Forums and the Experts involved in the drafting and validation of this 14th issue of the Transport Observatory performance report. These valuable players have often impacted positively on the implementation of this key initiative of the Corridor.

The Secretariat would like to extend its sincere appreciation and gratitude to all stakeholders who provided information and essential data that made the development of this report a success. We also wish to acknowledge those who provided reviews to this report and indeed all stakeholders who participated in the validation and adoption of this report. Special thanks go to Trade Mark East Africa (TMEA) for the continued financial contribution and technical support that have been key to the development and improvement of the Transport Observatory Project.

We specifically wish to acknowledge the Executive Secretary, **Mr. Omae Nyarandi** for providing the overall leadership in preparation of the report. We would also like to thank the entire Transport Observatory technical team comprising of **Mr. Aloys Rusagara, Mr. Gideon Chikamai, Ms. Melap Sitati, Mr Noah Kipyegon, Mr. Alex Ruzindana, Mr. Fred Paul Babalanda, Mr. Emile Sinzumusi, Prof. Lievin Chirhalwirwa, Mr. Fred Tumwebaze, Mr. Philip Mwanthi, Mr. Elias Leju Leonardo, Mr. Cezzy Kanionga, Mr. John Deng, Ms. Clarisse Biraronderwa, Mr. Jean Ndayisaba, Mr. Desire Buconyori, Mr. David Abiero** and **Mr. Kennedy Njoroge** for the unwavering dedication and commitment to the project.

NCTTCA Secretariat

## Executive Summary

The 14<sup>th</sup> issue of the Transport Observatory report provides an analysis of performance for indicators that are tracked by the Northern Corridor Transport Observatory. The report presents annual performance for the year 2018 and the first quarter of 2019. The Northern Corridor Transport Observatory tracks 36 performance indicators grouped under 7 categories: **Volume and Capacity, Tariff and Rates, Time and Delays, Efficiency and Productivity, Intra-regional Trade, Road Safety** and **Green Freight**.

The Transport Observatory methodology for corridor performance monitoring involves data collection, data processing and analysis; as well as reporting and dissemination. Qualitative data is often collected through stakeholders' visits, and road-based questionnaires administered to transporters.

Key analysis involves both descriptive and quantitative techniques using various statistical tools to summarize data and results for interpretation. Validated information containing findings and recommendations is published and uploaded to the Northern Corridor online transport observatory portal as reports and widely disseminated among the Member States.

The Northern Corridor is a multi-modal corridor encompassing road, rail, pipeline and inland waterways transport. The Northern Corridor was established via the Northern Corridor Transit and Transport Agreement (NCTTA). The NCTTA is a treaty comprising 11 protocols signed in 1985 and was last revised in 2007 for regional cooperation with a view of facilitating interstate and transit trade among Member States. The signatories to the NCTTA are: **Burundi, Democratic Republic of Congo, Kenya, Rwanda, South Sudan** and **Uganda**.

The agreement is anchored on the following protocols: **Maritime Port Facilities; Routes and Facilities; Customs Control and Operations; Documentation and Procedures; Transport of Goods by Rail; Transport of Goods by Road; Inland Waterways Transport; Transport by Pipeline; Multimodal Transport of Goods; Handling of Dangerous Goods** and **Measures of Facilitation for Transit Agencies, and Employees Traders**.

The combined population of the Northern Corridor Member States was estimated at **215 million people** in 2018. The economic performance for the Northern Corridor Member States was strong and robust at an estimated **3.98%** average real GDP in 2018 compared to **2.33%** in 2017 and is expected to continue in 2019 according to forecast.

Key indicators Northern Corridor member states.

Total Area

**3,842,598 Km<sup>2</sup>**

Combined population

**215 million**

Real GDP growth 2018

**3.98%**

Real GDP growth 2017

**2.33%**

Population Growth rate (%)

**3.0%**

The Agriculture sector is generally the main driver of East Africa's growth, followed by industry. For instance, in 2018; average real GDP for Burundi stood at **0.1%**, **3.9%** for DRC, **6.3%** for Kenya slightly higher than **4.9%** in 2017, **8.6%** for Rwanda, **(-1.2%)** for South Sudan and **6.2%** for Uganda.

It is therefore worth noting that the region witnessed positive economic growth in 2018. Kenya and Rwanda have continued to make impressive progress in strengthening the investment climate for regional integration. Kenya improved significantly in its ranking in the World Bank Doing Business 2019 Indicators; moving **19 places** to position **61** from **80** out of **190** countries in the 2019.

Figure 1: Map showing NC Member States and Key Statistics

Source: NCTTCA- Transport observatory



Country	GDP Growth % 2018	Population 2018 '000,000	Area Km <sup>2</sup>	Population Growth Rate %
Burundi	0.1	11.22	27,834	3.3
DRC	3.9	84	2,345,000	3.3
Kenya	6.3	50.92	582,644	2.5
Rwanda	8.6	12.5	26,338	2.4
South Sudan	-1.2	12.92	619,745	2.7
Uganda	6.2	44.27	241,037	3.3

## One stop border points

Since the enactment of the East African Community One Stop Border Post Act, 2016, East African countries have since developed and operationalized **13 One Stop Border Posts (OSBPs)**. This is a key milestone in regional integration and trade in the East African Community. Out of the (17) OSBPs, **9** of them serves the Northern Corridor Member States. This report presents a special feature on the progress in the implementation of the OSBPs.

Preliminary evaluation shows that OSBPs have significantly reduced the time taken to cross border points. This has potential positive domino effect on cost for logistics, border security and revenue collection. In addition, improved experience by traders and travelers at border is expected to bring a large portion of informal cross border trade into the formal systems, encourage participation of women in trade and boost tourism. A detail outcome evaluation is recommended to assess the impact of OSBPs on trade in the region.

## Volume and Capacity

Total cargo throughput at the port of Mombasa has been increasing steadily for the last five years. The growth is attributable to an increase in dry bulk and containerized cargo. Data shows that countries using the Port of Mombasa are net importers with imports accounting for **83%** of total port cargo throughput compared to **13%** for exports in 2018. In addition, the volume of transshipment cargo increased significantly. Transit cargo has also grown significantly. This growth signifies expansion of trade in transit countries particularly Uganda which commands more than **80%** of the regional transit traffic through the Port of Mombasa.

Another key finding is that the volume of containerized cargo is increasing significantly within the region. Also notable is the statistics on empty container volume which shows a proportion of over **36%** in empty containers in 2018. Most of the empty containers are in-bound to the Port suggesting that most of trade along export route is still low.

The port of Mombasa relies on road, rail, pipeline and inland waterways as the main modes of transport that run along the Northern Corridor transport system which is the

main link to the landlocked countries. The development of the Standard Gauge railway has sharply increased the volume of cargo evacuated through rail from the port of Mombasa. Statistics show that the total SGR throughput has been increasing steadily over the months.

The number of trains leaving Mombasa Port for Nairobi increased steadily to a high of **214 train trips** in January 2019 carrying a total of **22,624 TEUs** from a low of **36 trains** in February 2018. The extension of the SGR to Naivasha in Kenya and the revamping of the meter gauge railways in Uganda provide an impetus to the increasing importance of rail in the regions freight logistic chain. A key notable feature is the rise of empty containers that are railed back to Mombasa without cargo.

More than **90,000 empty containers** were carried from Nairobi Inland Container Depot to the port of Mombasa representing **87%** of total export TEUs. The haulage of empty containers by the SGR does not only affect the economic aspect of the shipping line business but has a positive environmental effect by reducing multiple trucks ferrying empties on the road.

## Transport Rates and Costs

The transport rates are determined by factors such as: distance, location, infrastructure, administrative barriers, energy and how the freight is carried and other indirect (hidden) costs. As a result, there is a wide dispersion of transport costs across countries. Data shows that transport rates were highest in South Sudan, Congo and Burundi. Some of the factors driving transport costs include cross border logistics and other concerns including security which have an impact on the cost of cargo transportation to different destination. It is notable that the cost for long distances remains high. Transport rates for imports by road to Nairobi were cheaper possibly because most of the counterpart competition from SGR freight cargo.

Port/border post procedures and documentation are the biggest hindrances to high turnaround time while non-availability of cargo was ranked the second contributor. The report recommends a qualitative survey to determine inefficiencies and bottlenecks along the corridor and recommend ways that could lead to increased roundtrips, truck turnaround and hence operational efficiency for transporters.



## Efficiency and Productivity

Port productivity and efficiency are important for improved logistics environment that will support trade facilitation and competitiveness initiatives. Generally, the indicators on efficiency and productivity have shown a positive growth. This is a reflection that the concerted efforts by stakeholders are bearing fruit. The port of Mombasa, for instance, recorded average annual ship turnaround time of **3.4 days** in 2018; the set target of **3 days**. This is an improvement from the average turnaround time of **4.4 days** that was recorded in 2017.

Vessel turnaround time in 2016 was the best at **4 hours** and surpassed performance for similar period in 2017 and 2018. The performance for this target over the years exceeds the set target of **24 hours**. It is attributed to the implementation of fixed Berthing Window to allow shipping lines plan their time, improved crane productivity and enough terminal capacity. Similarly, Productivity in Gross Moves Per hour has improved **two-fold** compared to the port charter baseline of **16.7 Gross Moves per hour** in 2013.

Other indicators that have shown positive improvement are; Containerized Cargo Dwell Time at the Port of Mombasa, Time for customs clearance at the Document Processing Center (DPC), Time taken after customs release at the port of Mombasa, One Stop Centre Clearance Time, Truck turnaround time at the port.

## Quality of infrastructure

The Northern Corridor Member States have made good progress in improving the quality of transport infrastructure on designated road routes for use in inter-state trade along the Corridor. This has seen the status of road conditions improved compared to the previous periods. Majority of the roads in Burundi are paved and have a good tarmac status except for some sections of about **93 km (19%)** which is still in bad condition.

The Northern Corridor road network in Rwanda is paved and in good condition at approximately **83%**; whereas only **17%** is in a fair condition. The road network in Uganda consists of approximately **2,162.75 km** designated to the Northern Corridor. Out of which, about **79%** of the road sections are

paved and in good status **13%** in fair condition and **8%** in bad condition. **80%** of the roads in Kenya along the NC are in good condition paved and tarmac, **8%** in fair condition and **12%** in bad condition. The ongoing roads infrastructure upgrading is expected to bring more improvements.

South Sudan is facing challenges related to repairing aging roads with limited resource allocation. Around **95%** of the corridor road in South Sudan is in bad condition and **5%** is in fair condition. The country is hoping to get more support from international partners to help improve its roads as is seen in other Member States. In DRC, **48%** of the Northern Corridor road is in a good state, **26%** in fair condition and the rest **26%** in bad condition.

More investments in development and maintenance are required to ensure quality infrastructure. The continued investment in the railway, weighbridges and OSBPs is a welcome trend that will raise the quality of transport infrastructure in the region.

## Intraregional trade

Trade is a crucial part of a country's growth. The elimination or reduction of Non-Tariff Barriers (NTBs) will improve and facilitate trade among the Northern Corridor Member States. All the Member States have embraced initiatives that are geared towards boosting intra-regional trade. For instance, being part of African Continental Free Trade Area (ACFTA) provides an opportunity for Northern Corridor Member States to access a large and dynamic market.

The Northern Corridor Member States' economies are agriculture dominated and dependent on manufactured goods which are currently being met through imports from the rest of the world rather than by local and regional firms; suggesting that all of the Northern Corridor Member States trade deficits are driven by manufactured imports. This may be attributed to limited value addition capacity.

The trade indicators demonstrate that Northern Corridor Member States largely import from China, India, United Arab Emirates and Saudi Arabia; whereas United States of America and Pakistan provides market for their exports. It was also notable that the Northern Corridor Member States export similar products.





## Chapter 1

# Introduction

The 14<sup>th</sup> transport observatory report provides an analysis of performance for indicators that are tracked by the Northern Corridor Transport Observatory.



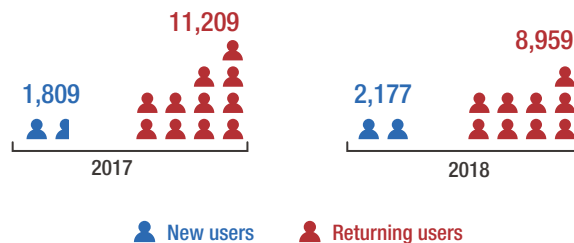
## 1.1 Background

The Northern Corridor Transport Observatory a diagnostic tool being used to monitor the performance trends of the Corridor. The Transport Observatory methodology involves data collection, data processing and analysis, as well as report dissemination. The findings of these reports are used to inform policy directions and in setting strategic interventions aimed at improving efficiency of the corridor.

The performance of the Corridor is tracked through a range of indicators whose data is obtained from multiple sources. The main sources for the Transport Observatory report include: **Electronic data from stakeholders’ business systems**; **Mobile phone Road Transport Surveys** and **secondary data from existing reports and policy documents**. Both qualitative and quantitative data are processed and analyzed to develop the report. Analysis often involves both descriptive and quantitative techniques using various statistical tools to generate graphs and tables for interpretation. Validated information is uploaded to the Northern Corridor online transport observatory portal and report on findings and recommendations are disseminated to the Member States.

Qualitative data is collected through stakeholders’ visits, The Mobile phone survey use a smart phone pre-installed with the road transport survey questionnaire on and android application. Drivers use the application to capture stop reasons, fees and charges paid among other information.

A further analysis of the report reveals stakeholders needs proxied by the number of users of the online transport observatory portal for 2017 and 2018. The observatory portal has been enhanced with the GIS component to graphically map the indicators to the map thereby improving user experience and access to information and data.



The 14<sup>th</sup> Transport Observatory report contains data gathered from all the six Member States of the Northern Corridor. The report is organized as follows: Chapter one provides a summary review of the macroeconomic and demographic features, and a special feature on One Stop Border Post, Chapter two presents indicators on volume and capacity through the port of Mombasa. Chapter three to seven analyses the status and progress report for the indicators that gauge performance of the Northern corridor as stipulated in the transport observatory portal.

## 1.2 The Northern Corridor

The Northern Corridor is a multi-modal corridor consisting of road, rail, pipeline and inland waterways transport connecting the Member States of Burundi, Democratic Republic of Congo, Kenya, Rwanda, South Sudan and Uganda to the Port of Mombasa. The Northern Corridor was through the **Northern Corridor Transit and Transport Agreement (NCTTA) was first signed 1985** and revised in 2007. The Objective of the Agreement is to facilitate trade, the movement of persons, vehicles and goods in domestic, regional and international transport; stimulate economic and social development in the territories of the contracting parties; transform the Corridor into a Development Corridor which, in addition to offering safe, fast and competitive transport and transit services that secure regional trade, will stimulate investment, encourage sustainable development and reduce poverty.

In accordance with the NCTTA, the Member States undertook to establish Northern Corridor Transit and Transport Coordination Authority (NCTTCA). The mandate of NCTTCA is to oversee the implementation of the Agreement, to monitor its performance and to transform the Northern Corridor trade route into an economic development corridor; making it a seamless, efficient, smart and green Corridor. The Transport Observatory was therefore established in 2012 to address the need for an organized performance measurement tool with an online portal that generates evidence-based information for policy interventions. Currently, the Northern Corridor Transport Observatory tracks **36 performance indicators** grouped in 7 categories: **Volume and capacity, Tariff and Rates, Time and Delays, Efficiency and Productivity, Intra-regional trade, Road Safety** and **Green Freight**.

## 1.3 Demographic and Macroeconomic Indicators for Northern Corridor Member States

The section provides the economic performance, demographic and ease of doing business in the six Member States of the Northern Corridor. Through this analysis, key development challenges and policy recommendations will be proposed for easing trade and transport along the Northern Corridor and beyond.

The Northern Corridor Member States combined population was estimated at **215 million people** in 2018 as shown in **table 1** below. The economic performance for the Northern Corridor Member States was strong and robust at an estimated **3.98%** average real GDP in 2018 compared to **2.33%** in 2017 and is forecast to continue in 2019.

The agriculture sector is generally the main driver of the region's growth, followed by industry. For instance, in 2018; average real GDP for **Burundi stood at 0.1%, 3.9% for DRC, 6.3% for Kenya slightly higher than 4.9%** in 2017, **8.6% for Rwanda, (-1.2%) for South Sudan** and **6.2% for Uganda**.

It is worth noting that the region witnessed positive economic growth in 2018. The growth of the region economies will benefit from deepening regional integration and the expansion of the existing markets. Regional integration facilitates implementation and harmonization of legal and regulatory frameworks that reduce the cost of doing business, increases productivity, thereby promoting trade.

**Table 1: Demographic and Economic Indicators**

Source: World Bank, World Economic Outlook Database, April 2019 and Regional Economic Outlook- various issues

Country	Growth in Real GDP (%)			Population (Million)		Area KM <sup>2</sup>	Population Growth rate (%)
	2016	2017	2018	2017	2018		
Burundi	-1.0	0	0.1	10.86	11.22	27,834	3.3
DRC	2.4	3.4	3.9	81.34	84.00	2,345,000	3.3
Kenya	5.9	4.9	6.3	49.7	50.92	582,644	2.5
Rwanda	6.0	6.2	8.6	12.21	12.50	26,338	2.4
South Sudan	-16.7	-5.5	-1.2	12.58	12.92	619,745	2.7
Uganda	2.3	5.0	6.2	42.86	44.27	241,037	3.3
	Average (0.18)	Average 2.33	Average 3.98	Total 209.55	Total 215.83	Total 3,842,598	Average 3.0

## 1.4 Ease of Doing Business Vis-à-vis trading across Borders

Doing Business presents quantitative indicators on business regulation and the protection of property rights that can be compared across 190 economies over time.

The computation of the score combines measures with different units related to time and cost which are categorized into the following indicator sets: **Starting a business** (also including the minimum capital requirement indicator), **Dealing with construction permits**, **Getting electricity**, **Registering property**, **Paying taxes**, **Trading across borders**, **Enforcing contracts** and **Resolving insolvency**.

The scores range from 0 (worse) to 100 (best) and help us to analyze economic outcomes and identify what reforms of business regulation have worked, where and why. The economies with the most notable improvement in Doing Business 2019 are Kenya and Rwanda as shown in table 2.

**Table 2: Ease of doing business for NC member states**

Source: World Bank, 2018/2019

Economy	Ease of Doing Business score	EODB score change	Global Rank out of 190
Rwanda	77.88	+4.15	29
Kenya	70.31	+5.25	61
Uganda	57.06	+0.65	127
Burundi	47.41	+0.73	168
DRC	36.85	+0.67	184
South Sudan	35.34	+2.04	185

Kenya and Rwanda have continued to make impressive progress in strengthening the investment climate for regional integration. Kenya improved significantly in its ranking in the World Bank Doing Business 2019 Indicators moving 19 places to position 61 from **80** out of **190** countries in the 2019.

The performance implies that Kenya and Rwanda implemented the most regulatory reforms for instance digitization; Kenya simplified the process of providing value added tax information by enhancing its existing online system, iTax. Rwanda streamlined the process of starting a business by replacing its electronic billing machine system with new software that allows taxpayers to issue value added tax invoices. DRC and South Sudan enhance their regulatory reforms to improve on their score.

## 1.5 The Logistics Performance Index (LPI)

The Logistics Performance Index (LPI) scores countries on how efficiently they move goods across and within borders. Rwanda had the best score among the Member States ranking position **57** worldwide with a score of **2.97** in 2018 followed by Kenya ranking position **68** worldwide. DRC was ranked position **120** while Burundi was ranked among the bottom five i.e. position **158** out of **160**. Furthermore, Rwanda, Kenya and Uganda scored above average in improved trading across borders which is a key trade indicator.

Improvements on quality of infrastructure that support logistics and level of efficiency and quality of logistics service are some of the drivers of improvement performance.

**Table 3: LPI for NC member states**

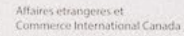
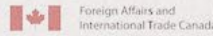
Source: World Bank, 2018/2019

Economy	Overall LPI score 2018	Overall LPI rank out of 160
Rwanda	2.97	57
Kenya	2.81	68
Uganda	2.58	102
Burundi	2.06	158
DRC	2.43	120
South Sudan	--	--

Note: South Sudan was not included in the 2018 international global survey on LPI by World Bank



# WELCOME TO BUSIA ONE STOP BORDER POST-KENYA





## Chapter 2

# Special Feature On Implementation Of One Stop Border Posts (OBSP)

## One Stop Border points (OSBPs)

refers to an integrated border system that brings together all the border agencies for improved efficiencies through streamlined, coordinated and harmonised operations.



The goal of OSBP is to improve trade and access to markets in the region.  
The main objectives of the OSBPs are:

1. To improve competitiveness for goods in the region
2. To reduce processing times at the border
3. To reduce transit times for traders and transporters
4. To improve sharing and exchange of information among agencies
5. To enhance border security
6. To enhance the reliability of the supply chain through streamlined and harmonised procedures



**Figure 2: Map Showing OSBP locations**

Source: NCTTCA

In 2016, the East African community enacted the East African Community One-Stop Border Posts Act. The objective of the Act is to provide for the establishment and implementation of One-Stop Border Posts in the EAC in

order to facilitate trade through the efficient movement of goods and people. The Act has designated the following OSBPs as follows;

**Table 4: Common Border Posts Designated as OSBPs**

Source: East African Community One-Stop Border Posts Act

No.	Country A	Country B	Name in Country A	Name in Country B	Note
1.	Kenya	Uganda	Busia	Busia	Northern Corridor
2.	Kenya	Uganda	Malaba	Malaba	Northern Corridor
3.	Burundi	Rwanda	Gasenyi	Nemba	Northern Corridor
4.	Burundi	Rwanda	Ruhwa	Ruhwa	Northern Corridor
5.	Burundi	Rwanda	Kanyaru-Haut	Akanyaru-Haut	Northern Corridor
6.	Rwanda	Uganda	Kagitumba	Mirama Hills	Northern Corridor
7.	Rwanda	Uganda	Gatuna	Katuna	Northern Corridor
8.	Uganda	South Sudan	Elegu	Nimule	Northern Corridor
9.	Rwanda	DRC	Rubavu	Goma	Northern Corridor
10.	Kenya	Tanzania	Taveta	Holili	On both corridors
11.	Kenya	Tanzania	Isebania	Sirari	On both corridors
12.	Kenya	Tanzania	Namanga	Namanga	On both corridors
13.	Kenya	Tanzania	Lungalunga	Horohoro	On both corridors
14.	Tanzania	Uganda	Mutukula	Mutukula	Central Corridor
15.	Burundi	Tanzania	Mugina	Manyovu	Central corridor
16.	Burundi	Tanzania	Kobero	Kabanga	Central corridor
17.	Rwanda	Tanzania	Rusumo	Rusumo	Central Corridor

To simplify and expedite border controls, EAC countries are required to implement one border stop processing arrangements by providing structures and facilities which must be harmonized across the borders, adequate staff, harmonized security operations, control zones, electronic and automated systems and other requirements as provided for in the Act. The OSBPs are supposed to be arranged so that, for each direction of travel, border controls shall be carried out in the State of arrival to reduce the number of stops by combining border control activities at a single location.

## 2.1 Status of implementation of OSBPs on the Northern Corridor routes

Since the enactment of East African Community One-Stop Border Posts Act (2016), 17 OSBPs have been established and some are operational. Out of the 17 OSBPs, 9 lie on the Northern corridor routes. The fully functional and complete OSBPs are: **Busia KE/Busia UG, Malaba KE/Malaba UG, Gasenyi BU/ Nemba RW, Kagitumba RW/Mirama Hills UG, Ruhwa BU/Ruhwa RW, Taveta KE/ Holili TZ, Namanga TZ/ Namanga TZ, Mutukula TZ/ Mutukula UG, Kobero BU/ Kabanga TZ** and **Rusumo RW/ Rusumo TA**. On the other hand, Elegu/Nimule La Corniche in Rubavu in Rwanda was completed but on the other side of Goma in DRC works is still ongoing. Katuna/Gatuna OSBPs are under construction as shown in table 5.

**Table 5: Implementation status for OSBPs**

Source: East African Community One-Stop Border Posts Act

No.	Country A	Country B	Name in Country A	Name in Country B
1	Kenya	Uganda	Busia	Busia
2	Kenya	Uganda	Malaba	Malaba
3	Burundi	Rwanda	Gasenyi	Nemba
4	Burundi	Rwanda	Ruhwa	Ruhwa
5	Burundi	Rwanda	Kanyaru-Haut	Akanyaru-Haut
6	Rwanda	Uganda	Kagitumba	Mirama Hills
7	Rwanda	Uganda	Gatuna	Katuna
8	Uganda	South Sudan	Elegu	Nimule
9	Rwanda	DRC	Rubavu	Goma
10	Kenya	Tanzania	Taveta	Holili
11	Kenya	Tanzania	Isebania	Sirari
12	Kenya	Tanzania	Namanga	Namanga
13	Kenya	Tanzania	Lunga	Horohoro
14	Tanzania	Uganda	Mutukula	Mutukula
15	Burundi	Tanzania	Mugina	Manyovu
16	Burundi	Tanzania	Kobero	Kabanga
17	Rwanda	Tanzania	Rusumo	Rusumo

■ Completed
 ■ Ongoing
 ■ Not started

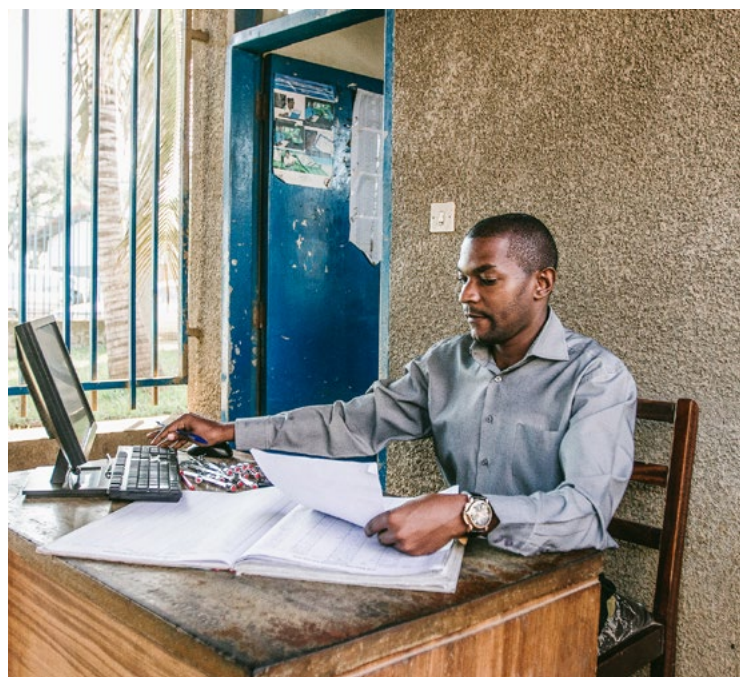
However, **Katuna-Gatuna One-Stop Border Post** is 96% complete and is expected to be ready by July 2019. The OSBP was closed in March 2019 to heavy vehicles which were directed to cross through Kagitumba and Cyanika borders as construction activities are ongoing. The border is expected to improve cross border trade upon completion and reduce the time spent at the border during clearance processes.



## 2.2 Measuring border processing time using the SCT data from Uganda

Knowing border delays at the various entry/exit points helps policy makers to make informed decision on challenges and improvements that should be implemented. Data from Single Customs Territory provides estimated wait times at Malaba and Busia Borders which are the first exit points from the port of Mombasa along the Northern Corridor.

The general process at the border include: first the driver remits the documents to the agent, then the agent submits the declaration to customs with supporting documents; customs declaration process (Start time and end time); additional customs and other border agencies checks (Start Time and end time) and finally the release of the truck by the Customs once all formalities are completed. The scope of this section is limited to Malaba and Busia borders.

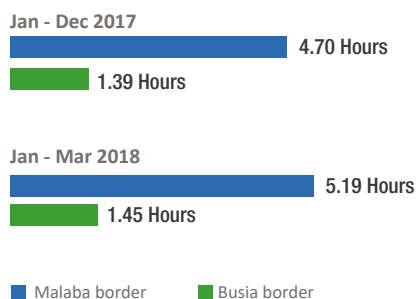


### 2.2.1 Border clearance time for goods under SCT

Figure 3 gives the time taken at the border which is measured from the time trucks arrive at the border to the time they are cleared after customs/ border process for goods under SCT.

**Figure 3: Median Border clearance time**

Source: SCT-UG 2018/2019



Both borders (Malaba and Busia) show a slight decline in performance when compared to 2018. For instance, the median clearance time for Malaba increased from **4.7 hours** in **2018** to **5.19 hours** in **2019**. Similarly, Busia border time increased from **1.39 hours** in **2018** to **1.45 hours** in **2019**. The time includes the total time spent by trucks queuing and parking at the Border point.

However, there is still a lot of concern on the congestion at Malaba border. A deeper analysis on the causes of delays and congestion and give measures to address them is proposed.

The implementation of the one stop border posts was mandated **to reduce the processing time at the border and transit time** taken to cross border points.



## Chapter 3

# Volume and Capacity

This chapter presents analysis of the volume and capacity of cargo handled at the port of Mombasa and along the Northern Corridor.

The section looks at the following indicators:

- i. Cargo throughput through Mombasa port
- ii. Volume through the port of Mombasa per country destination
- iii. Container traffic (TEUS) through Mombasa port
- iv. Cargo throughput by mode of transport - Railways/ Pipeline/Road



### 3.1 Cargo Throughput through the Mombasa Port

Cargo throughput is the quantity of cargo that passes through the port of Mombasa. Table 6 provides volume of cargo in metric tons from **2013** to **2018**. Total cargo throughput at the port of Mombasa has been increasing steadily annually from **22.3 million tons** in **2013** to **30.8 million tons** in **2018** as shown in the table below.

The growth is attributable to an increase in dry bulk and containerized cargo, which recorded an increase

of **3.5 million tons** and **3.8 million tons** respectively. Furthermore, analysis reveal that countries using the port of Mombasa are net importers with imports accounting for **83% of total port cargo throughput** compared to **13% for exports** in **2018**. Volume of transshipment cargo increased significantly in 2018. The main destination for transshipment cargo was: Dar-es-salaam, Pemba, Mogadishu and Mauritius. Transshipment of cargo refers to off-loading of cargo from one ship and loading it onto another ship for transportation to the final destination. The increase of throughput and container traffic is an indication of vibrant economic activities in the region.

**Table 6: Cargo throughput in MT '000'**

Source: Kenya Ports Authority (KPA), 2013- 2018

Type of Cargo	2013	2014	2015	2016	2017	2018
Dry Bulk	4,978	5,638	6,928	7,053	8,467	8,456
Liquid Bulk	6,637	7,237	7,272	7,728	8,259	7,871
Conventional	1,854	1,938	2,256	1,968	2,209	1,815
Containerized	8,838	10,047	10,276	10,615	11,410	12,637
<b>TOTAL</b>	<b>22,307</b>	<b>24,860</b>	<b>26,732</b>	<b>27,364</b>	<b>30,345</b>	<b>30,779</b>
Imports	19,150	20,777	22,680	23,116	25,604	25,389
Exports	2,983	3,366	3,534	3,659	3,794	4,067
Transshipment	174	732	518	589	874	1,247
Restows	-	-	-	-	73	76
<b>Throughput '000' MT</b>	<b>22,307</b>	<b>24,875</b>	<b>26,732</b>	<b>27,364</b>	<b>30,345</b>	<b>30,779</b>
<b>Annual % change</b>		<b>11.4</b>	<b>7.5</b>	<b>2.4</b>	<b>10.9</b>	<b>1.4</b>
Container Traffic (TEUs)	894,000	1,012,002	1,076,118	1,091,371	1,189,957	1,303,862



Table 7 describes volume of cargo in tones through the port of Mombasa. Total cargo throughput at the port of Mombasa for the period January to March 2019 stood at **8,527,007 tones** with liquid bulk witnessing higher growth.

**Table 7: Cargo throughput in DWT January to March 2019**

Source: Kenya Ports Authority (KPA), 2013- 2018

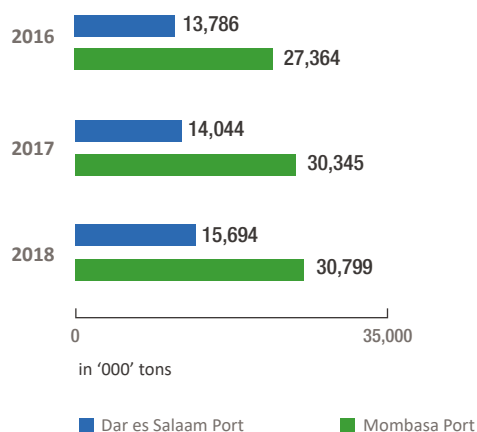
Type of Cargo	Jan-19	Feb-19	Mar-19**
<b>Non - Containerized</b>			
Dry Bulk	786,901	609,575	694,368
Liquid Bulk	732,631	607,651	848,421
Conventional	147,335	108,532	122,824
Sub- Total	1,666,867	1,325,758	1,665,613
Containerized	1,299,199	1,257,987	1,311,583
<b>TOTAL</b>	<b>2,966,066</b>	<b>2,583,745</b>	<b>2,977,196</b>
Imports	2,369,004	2,065,346	2,396,904
Exports	386,877	319,352	405,008
Transshipment	200,870	187,365	165,169
Restows	9,315	11,683	10,115
<b>TOTAL</b>	<b>2,966,066</b>	<b>2,583,745</b>	<b>2,977,196</b>

\*\*Data for March is still provisional

Imports took a lion's share of the throughput at **80%**, while exports registered **13%** over the same period. Transshipment cargo was **6.5%** of the total traffic. Kenya handles slightly above **66%** of the regional transit traffic on the ports annually, while Dar es Salaam port handles the remaining **34%** as shown in figure 4, Throughput has been increasing steadily over the years.

**Figure 4: Total cargo throughput for Mombasa and Dar es Salam Port in 2016 to 2018**

Source: Kenya Ports Authority (KPA), 2013- 2018



Both corridors serve similar markets. The market for Dar- Es Salaam port is Burundi, DRC, Rwanda, Uganda, Zambia and Malawi. The transit market for Mombasa port is Burundi, DRC, Rwanda, South Sudan and Uganda suggesting that corridors must be efficient to attract the landlocked countries. It is also important to note the size capacity of the two ports. For instance, Dar es Salaam port has a rated capacity of **4.1 million (dwt) dry cargo** and **6.0 million (dwt) bulk liquid cargo**. The Port has a total quay length of about **2,600 meters** with **11 deep-water berths**.

Generally, the intrinsic capacity of the port of Dar es salaam is to handle more than **10 million tons of cargo** as follows: General cargo **3.1 million tons**, Container **9,619,876 TEUs** **1.0 million tonnes**; and Liquid bulk **6.0 million tons**.

Whereas the port of Mombasa is equipped with **2 container terminals** 1 and 2. Terminal 1 has **3 berths** (No. 16,17 and 18) with a yard handling around **555,000 TEU's** annually. On the other hand, Terminal 2 has **2 berths** (No. 20 and 21) with a yard of annual capacity of **450,000 TEU's**.

Other facilities and equipment include; **2 bulk oil jetties**, **2 bulk cement berths** with **3 silos** and **10 Conventional Cargo berths**.

### 3.2 Transit Volume through the Port of Mombasa per Destination Country

This indicator is obtained by summation of all cargo's weight handled at the Port of Mombasa per Country of destination. Table 8 gives the total movement of cargo that is discharged and destined outside Kenya from the port of Mombasa from 2014 to 2018. Over 90% of transit traffic is destined to all the Northern Corridor Member States, while the remaining (less than **10%**) goes to Tanzania, Somalia and Ethiopia.

Total transit volume has been increasing significantly over the years from **7,199,116 tons** in **2014** to **9,604,561 tons** in **2018**. This growth signifies expansion of trade in transit countries particularly Uganda which commands more than **80%** of the regional transit traffic through the port of Mombasa. The port of Mombasa remains a port of choice to Uganda due to a difference in distance of about **600 km** compared to the port of Dar es Salaam. Dar es Salaam is the preferred port in the transit traffic for Burundi, Rwanda and D.R. Congo because Tanzania has absolute advantage on distance from the coast to these countries. Moreover, there is only one border crossing between these neighboring countries. This translates to cost advantage as well as time utility. Imports accounted for **93%** of the total transit traffic implying that transit countries are net importers.

Table 8: Transit Traffic in MT

Source: Kenya Ports Authority (KPA), 2014- 2018

Country	2014	2015	2016	2017	2018
Uganda	5,522,120	5,977,332	6,346,715	7,112,971	7,889,119
South Sudan	761,336	702,531	597,852	673,752	734,132
D.R.C.	407,728	396,132	376,935	360,124	470,968
Rwanda	235,912	291,924	194,022	179,555	230,734
Burundi	79,100	75,811	35,794	21,621	22,233
Tanzania	187,849	204,778	182,557	271,698	248,025
Somalia	4,611	11,697	3,975	3,820	1,989
Others	460	6,973	10,687	13,065	7,361
<b>Imports/ Exports</b>					
Imports	6,690,838	7,167,458	7,217,094	7,902,850	8,873,456
Exports	508,278	499,720	531,443	733,756	731,105
<b>Total Transit Traffic</b>	<b>7,199,116</b>	<b>7,667,178</b>	<b>7,748,537</b>	<b>8,636,606</b>	<b>9,604,561</b>

From January to March 2019, transit traffic reduced from **859,981 tons** to **678,897 tons** and then increased to **842,394 tons** in **March 2019** as illustrated in table 9.

The report recommends that in addition to improving the competitiveness of the port of Mombasa, Kenya needs to focus on encouraging the improvement of Trans-Africa transit traffic and trans-shipment infrastructure to reach out beyond the EAC region.

Tanzania and Kenya are serving some similar landlocked countries through their ports. Figure 5 shows proportion of transit traffic through the port of Dar es Salaam and the port of Mombasa from 2016 to 2018. Burundi and Rwanda prefer to use Dar es Salaam port for most of her cargo whereas Uganda prefers to use Mombasa port. Some of factors that affect transit volumes include; inefficiencies at the port, delays of cargo to and from the port as well as unrest in some countries.

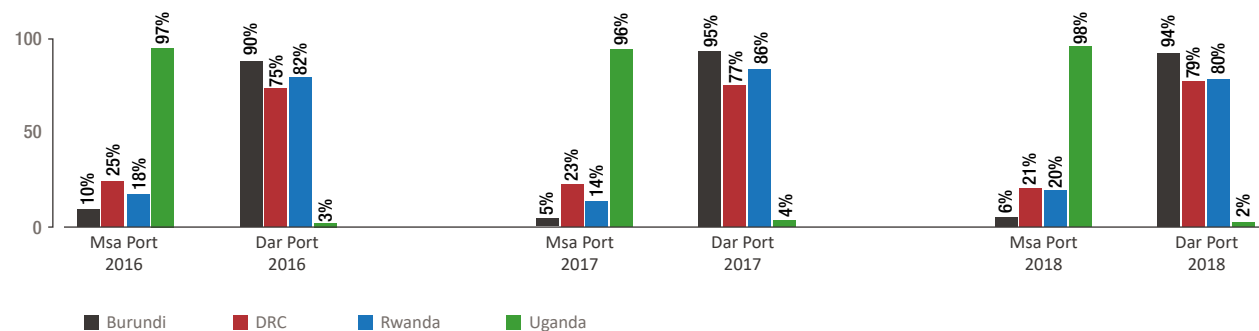
Table 9: Traffic through the port of Mombasa per country destination from January to March 2019

Source: Kenya Ports Authority (KPA), 2014- 2018

Country	Jan-19	Feb-19	Mar-19
Uganda	711,103	552,777	682,513
South Sudan	60,111	45,637	66,209
D.R.C.	49,378	38,338	51,119
Rwanda	18,983	20,936	19,105
Tanzania	20,191	17,043	21,207
Somalia	50	14	60
Burundi	45	323	181
Ethiopia	78	-	0
Others	42	3,829	2000
<b>Total</b>	<b>859,981</b>	<b>678,897</b>	<b>842,394</b>

Figure 5: Comparing Mombasa Port and Dar Port in metric tones

Source: Kenya Ports Authority (KPA), Tanzania Port Authority (TPA) 2016- 2018



### 3.3 Rate of Containerization through the Port of Mombasa

The indicator is total weight of containerized transit cargo divided by total weight of all transit cargo. Containerized cargo has been growing over time hence putting much pressure on the demand of container freights internationally. Containerization of cargo enhances standardization for efficient shipping and handling of cargo. Containerized shipment: ensures cargo safety; reduces transit time; and minimizes financial expenses during loading, discharging and trans-shipment.

Figure 6 shows cargo types in Twenty Foot Equivalent's (TEUS) at the port of Mombasa between 2014 and 2018. In 2018, the port of Mombasa registered **1,303,862 TEU's** compared to **1,012,002 TEUs** handled in a similar period in 2014 posting an increase of **29%**, suggesting that containerized cargo volume is increasing significantly within the region. Another notable statistic is empty container volume which shows over **36%** of empty containers in 2018.

Most of the empty containers are in-bound to the port of Mombasa suggesting that most of trade along export route is still low. Transshipment container traffic rose by **49.72%** when compared to 2017 signaling the increasing importance of the port of Mombasa in the region.

### 3.4 Cargo throughput by mode of transport

An effective intermodal connectivity ensures flexibility in cargo flow and provides connections along corridors and major inland and international freight gateways. The port of Mombasa relies on road, rail, pipeline and inland waterways as the main modes of transport that run along the Northern Corridor which is the main link to the landlocked countries. This section analyses cargo movement by these modes of transport.

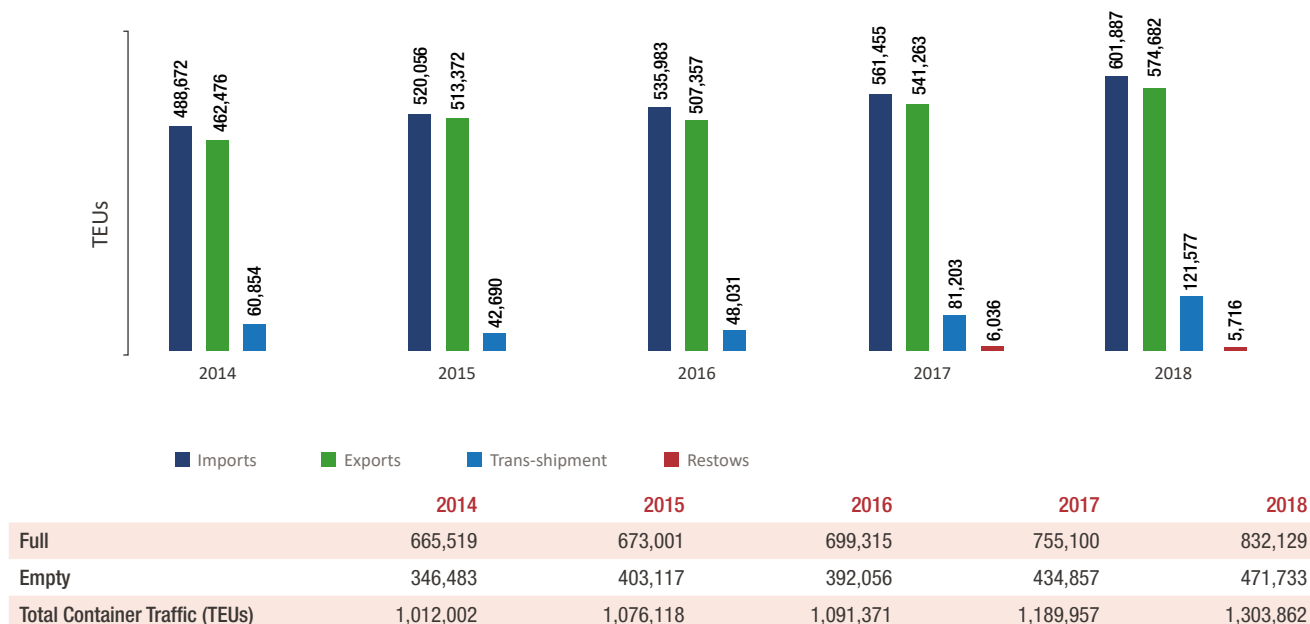
#### 3.4.1 Cargo Throughput by Railways SGR and MGR

The Meter Gauge railway line connects the port of Mombasa to **Nairobi - Nakuru - Kenya - Uganda** border at Malaba. A branch route leaves the main railway line at Nakuru and extends to Kisumu on Lake Victoria. The rail track from **Mombasa to Kampala via Malaba (1,330 km)** is currently the principal route for rail transport between Kenya and Uganda. On the other hand, the **485 km long Standard Gauge line** from the port of Mombasa to Nairobi Inland Container Depot (ICD) is complete and in full use.

The Mombasa-Nairobi SGR is the first step in the grand plan to build an East Africa railway network that will eventually link Kenya with Uganda, Rwanda, Burundi and South Sudan. Work on the extension of the SGR line to Naivasha from Nairobi is underway. Commercial operations of the Standard Gauge Railway (SGR) freight train service began cargo operations in January 2018.

Figure 6: Container traffic (TEUS) through Mombasa port

Source: Kenya Ports Authority (KPA)



The Mombasa Port Community Charter target is to increase cargo off take by rail to **40%**. Kenya Railways has put in place various measures to raise cargo take-off by rail to **40%** including:

- An inter-agency marketing committee has been put in place comprising of Kenya Ports Authority, Kenya Revenue Authority and Kenya Railways to resolve issues affecting cargo uptake.
- Bulk cargo rates for SGR have been noted to be higher than road and MGR. The Corporation has made a request for reduction of tariff to allow SGR to be competitive.
- Development of Athi River logistics to increase efficiency and reduce congestion at the ICD which will be strategically located in Athi River industrial area.

Other initiatives that have been implemented include; Extension of the SGR to the conversional cargo section. The connection exists with SGR's connection to Nairobi Freight Terminus. The Port Relief line II connecting SGR to conversional cargo berths (1-10) was completed in December 2018. Plans for linkages between meter gauge and SGR for 1st and last mile connectivity – The 1st and last mile transshipment is ongoing in Nairobi from ICD to client premises or the MGR yard.

#### 3.4.1.1 Equipment/SGR assets locomotives and wagons

Table 10 presents SGR Freight assets (locomotives and wagons) as at March 2019. With **56 locomotives** operational, 8 are used for shunting, **43 for freight services** and 5 are used for passenger services.

**Table 10: SGR assets as at March 2019**

Source: KRC March 2019

Locomotive Specification	Series	Loco use	No.
DF7 G- Model CCD5D1	5501 - 5508	Shunting Services	8
DF8 B- Model CCD5B1	5001 - 5043	Freight Services	43
DF 11- Model CCD5C1	5301 - 5305	Passenger Services	5
<b>TOTAL</b>			<b>56</b>
Wagon Asset Type	Quantity	Product	Container (TEUs) Per Wagon
X 70 (Flats – Normal)	820	Containers	2
NX 70 (Flats-long)	150	Containers	2
X2K (D-Stack)	80	Containers	4
C 70 (High Open)	490	Containers / Conventional	2
P 70 (Covered)	80	Conventional	-
<b>TOTAL</b>	<b>1620</b>		

Table 11 presents Meter Gauge Rail (MGR) Freight assets (locomotives and wagons) as at March 2019. With **1,147 MGR freight assets**, 7 locomotives are used for shunting, 27 for freight services. In addition, MGR has a total of **1,107 wagons** and **6 brake vans**.

**Table 11: MGR assets as at March 2019**

Source: KRC March 2019

Locomotives	Number
Main line	27
Shunting	7
Wagons	1,107
Brake vans	6
<b>Total</b>	<b>1,147</b>

From the qualitative information, it was found that the MGR infrastructure comprising of the railway line and selected stations were scheduled for renovation from Mombasa to Malaba and from Nakuru to Kisumu.

The renovation program main objective is to supplement the SGR operations especially beyond Nairobi to facilitate a seamless cargo haulage service for transit cargo from Nairobi ICD. As at June 2019, Kenya Railways Corporation was awaiting approval of the renovation concept from the Ministry of Infrastructure Kenya.

#### 3.4.1.2 Volume of cargo haulage by SGR

Table 12 presents cargo haulage by SGR between Mombasa and Nairobi ICD. Statistics show that the total SGR throughput has been increasing steadily over time. The number of trains leaving Mombasa Port for Nairobi increased steadily to a high of **214 train trips** in January 2019 carrying a total of **22,624 TEUs**.

Similarly, the number of trains leaving Nairobi for Mombasa Port also increased to a high of **134** in January 2019 carrying a total of **12,920 TEUs**. Overall total TEUs moved by SGR was approximately **323,158** for the period January 2018 to February 2019, out of which exports constituted **33%** and imports recorded a share of **67%**. Another key notable feature is the rise of empty containers that are railed back to Mombasa without cargo.

Table 12: Number of trains vs volume of cargo by type in TEUS

Source: Kenya Railways Corporation (KRC) 2017-2019

Month	Number of trains		Export		Total TEUS- Type		Grand Total TEUS
	Mombasa to Nairobi	Nairobi to Mombasa	Export TEUS	Export (Empty)	Export TEUS	Import TEUS	
Jan-18	14	17	316	442	758	924	1,682
Feb-18	36	26	526	610	1,136	2,582	3,718
Mar-18	92	36	1,211	1,183	2,394	9,108	11,502
Apr-18	120	37	893	2,437	3,330	12,422	15,752
May-18	127	72	1,209	5,815	7,024	12,752	19,776
Jun-18	167	68	1,119	5,525	6,644	17,244	23,888
Jul-18	181	95	1,055	8,458	9,513	18,882	28,395
Aug-18	183	90	896	8,539	9,435	19,236	28,671
Sep-18	184	81	1,119	7,073	8,192	19,052	27,244
Oct-18	192	101	1,140	8,778	9,918	21,232	31,150
Nov-18	195	111	976	10,542	11,518	20,848	32,366
Dec-18	205	104	986	9,836	10,822	21,584	32,406
Jan-19	214	134	1,122	11,798	12,920	22,624	35,544
Feb-19	172	127	1,234	11,636	12,870	18,194	31,064
<b>TOTAL</b>	<b>2,082</b>	<b>1,099</b>	<b>13,802</b>	<b>92,672</b>	<b>106,474</b>	<b>216,684</b>	<b>323,158</b>
<b>Proportion</b>				<b>87%</b>	<b>33%</b>	<b>67%</b>	<b>100%</b>

More than **90,000 empty containers** were carried from Nairobi Inland Container Depot to the port of Mombasa representing **87%** of total export TEUs. The haulage of empty containers by the SGR does not only affect the economic aspect of the shipping line business but has a positive environmental effect by eliminating multiple trucks ferrying empties on the road.

A total of **47,331 tons** of conventional cargo has been hauled by SGR since August 2018 to January 2019 collecting revenue of **772,598.57 USD**. Conventional cargo currently handled includes; Steel coils, Wire coils, Steel billets and Bagged cargo (Rice).

Haulage of conventional cargo has been boosted with the opening of the Port Relief line when the Nairobi Freight Terminal started operations in August 2018. The volume of convention cargo is shown in table 13.

Table 13: Conventional cargo haulage

Source: Kenya Railways Corporation (KRC) August 2018 - January 2019

Month	Commodity	Tonnage	Total Revenue-USD
Aug-18	Rice	2,967	48,534
	Steel Coils	1,578	24,177
Sep-18	Rice	3,588	58,693
	Steel Coils	2,404	39,332
	Wire Coils	1,288	21,069
Oct-18	Steel Coils	2,320	37,947
	Steel Billets	1,920	31,407
Nov-18	Steel Billets	3,748	61,304
	Fertilizer	9,798	160,276
	Steel Coils	417	6,821
Dec-18	Wire Coils	1,085	17,745
	Steel Coils	7,360	120,398
Jan 2019	Wire Coils	1,038	16,974.74
	Rice and Fertilizer	2,208	36,119
	Steel Billets	731	11,961
	Steel Coils	517	8,462.83
	Wire Coils	4,364	71,378
<b>TOTAL</b>		<b>47,331</b>	<b>772,598.57</b>

### 3.4.1.3 Standard tariff rates for containers by SGR

Total haulage by rail has witnessed tremendous increase registering **20%** share of the total throughput since the launch of SGR freight services in January 2018. Rail tariff is a key performance parameter to measure the efficiency of SGR. Table 14 refers to the standard charges for cargo haulage by SGR to and from Kilindini (Port Reitz) – ICD Nairobi/Nairobi Freight Terminus. Rates are not inclusive of last mile cost.

**Table 14: SGR standard tariff rates**

Source: Kenya Railways Corporation (KRC) 2018 - 2019

Size	Weight Range in Tons	Rate - Loaded Container (USD)		Rate - Empty Container (USD)	
		Up direction	Down Direction	Ex Movement by Rail	Ex Movement by Road
20 -foot container	Full range	500	250	100	150
40-foot container	Up to 20 Tonnes	700	350	100	150
	21- 30 Tonnes	750	375	100	150

Statistics show that those transporting cargo from Nairobi to Mombasa will pay **USD250** for a 20-foot container while a 40-foot container weighing up to 20 tonnes will cost **USD350** and **USD375** for those weighing to between **21-30 tons**. Kenya Railways has been charging **Ksh30,000** to transport a 40-foot container from Nairobi to Mombasa irrespective of weight.

On the other hand, hauling the 20-foot container from Mombasa to Nairobi will cost **USD500** while a larger 40-foot container will cost up to **USD700** from the promotional cost of **USD400** reflecting a **79.9%** rise in bid to raise more revenue to pay the Chinese operator. The promotional tariffs were introduced in January 2018, when cargo ferrying kicked off, and were meant to end in April 2018 before being extended twice to June 2018 and December 2018. For volume discounts in the up direction, the maximum allowed is **20%** of the cumulative payable based on the standard authorized tariff per unit and is only applicable for Kilindini as origin to ICD Nairobi/ Nairobi Freight Terminus as destination.

### 3.4.1.4 Last mile tariff from Nairobi ICD and its environs

Since the Standard Gauge Railway (SGR) freight service was launched in January 2018, a number of trucks have opted to offer last mile connection as significant business moved from roads to the railway.

The average cost of transporting cargo by road as aforementioned from the port of Mombasa to Nairobi is **USD800** for a 20-foot container compared with the new SGR charges of **USD500**. Average charges for last mile are shown in table 15. Whereas it takes about 10 hours to ferry cargo from Mombasa to the ICD in Embakasi, it takes over 24 hours to clear the consignment at the depot.

**Table 15: Last mile tariff from ICD Nairobi- To Nairobi and its environs**

Source: KTA, data 2019

From/To	Cost
Industrial area, Mombasa road	\$250
Outering, Mlolongo, Parklands, Karen	\$300
Ruiru, Athi River	\$350
Thika	\$400
Kikuyu	\$300
Juja	\$300

### 3.4.1.5 Nairobi Inland Container depot

The Nairobi ICD was established in 1984, mainly to handle cargo transported between Mombasa and Nairobi by railway. The ICD is equipped with **4 Railway Mounted Gantry cranes, 8 Rubber Tyred Gantry cranes, 10 Reach Stackers, 30 Terminal Tractors, 67 Trailers** and **16 Fork lifts** to support loading and offloading operations at the ICD.

In preparation to handle increased volumes of cargo, developments were undertaken at ICDN and its capacity was increased from **180,000 TEU's** to **450,000 TEU's** per year. Following the commencement of SGR operations, the cargo handled by the ICD increased from an average of **30 TEU's** per day to currently **800 TEU's** per day.

### 3.4.1.6 SGR Passenger services

Passenger services were officially inaugurated in 1<sup>st</sup> June 2017. The service operates between Mombasa and Nairobi and vice versa. Currently there are **2 passenger trains** departing both Mombasa and Nairobi daily.

Table 16 shows that number of passengers using the SGR has been increasing steadily since its inception. From July 2017 to February 2019 a total of **2,590,709 passengers** travelled using train between Mombasa and Nairobi cities. It can be noted that the month of December 2018 registered the highest number of **passengers (186,718)** due to people travelling for festive seasons. Total revenue collected from this service for the same period amounted to **USD 24,897,856**.

**Table 16: Number of Passengers using SGR**

Source: Kenya Railways Corporation (KRC) 2017- 2019

Month	No. of Passengers	Total Revenue-USD
Jun-17	74,691	795,507
Jul-17	89,718	872,731
Aug-17	83,344	743,393
Sept-17	84,748	582,521
Oct-17	87,756	799,266
Nov-17	133,618	1,414,142
Dec-17	145,180	1,069,066
Jan-18	135,772	1,102,006
Feb-18	118,360	1,019,311
Mar-18	131,698	1,255,332
Apr-18	140,581	919,728
May-18	116,171	1,294,642
Jun-18	127,381	1,323,692
Jul-18	137,676	1,940,257
Aug-18	165,971	1,207,521
Sep-18	122,958	1,217,321
Oct-18	128,456	1,654,360
Nov-18	153,885	2,208,655
Dec-18	186,718	972,901
Jan-19	113,061	1,254,435
Feb-19	112,966	1,251,069
<b>Total</b>	<b>2,590,709</b>	<b>24,897,856</b>

#### 3.4.1.7 Volume of cargo from the port of Mombasa by Meter Gauge Rail (MGR)

Total volume haulage in tonnage (net) by MGR for the period April 2018 to March 2019 was recorded as **414,598 net tons** as shown in table 17. It can be noted that volume of cargo over the months was inconsistent. July 2018 and March 2019 had the highest volume of about **41,244** and **40,826 net tons** respectively; while February 2019 registered the lowest volume nearly **26,187 net tons**.

**Table 17: Volume of cargo transported by meter gauge rail from April to September 2018**

Source: Kenya Railways Corporation (KRC) 2017- 2019

Month	Net Tonnes MGR
Apr-18	36,521
May-18	31,849
Jun-18	28,864
Jul-18	41,244
Aug-18	35,639
Sep-18	39,011
Oct-18	33,514
Nov-18	32,339
Dec-18	33,755
Jan-19	34,849
Feb-19	26,187
Mar-19	40,826
<b>Total</b>	<b>414,598</b>

#### 3.4.2 Meter gauge railway in Uganda

In addition to the Meter Gauge line between Kenya and Uganda through Malaba, Uganda Railways Corporation (URC) has re-opened the railway line to Dar es Salaam. This connection to Dar es Salaam is via railway wagon ferries plying between Port Bell and Mwanza. The wagon ferries can also be used on the **Kisumu – Port Bell** route if the Kisumu Port is revamped for wagon ferry operations.

Other ongoing projects regarding improvement of railway transport by URC include: **Repair of the Port Bell – Kampala MGR line, renovation of warehouses at Port Bell and Kampala MGR railway terminal**. Rehabilitation of the MGR line from Kampala to Malaba, secured funding from the European Union for rehabilitation of the **Tororo – Gulu MGR line**, conducting feasibility studies in process for passenger railway transport services for Greater Kampala with initial routes taking advantage of the existing MGR line; **Kampala – Mukono, 30 km** and **Kampala – Bujuuko, 27 km**. The revamping the railway in Uganda is expected to improve efficiency in cargo haulage.

#### 3.4.3 Pipeline Transport Capacity

Pipeline transport provides a complementary mode of transport for transporting petroleum products within Kenya. Pipeline transport in Kenya is managed by the Kenya Pipeline Company (KPC). The KPC is mandated with transporting petroleum products from Mombasa to the hinterland. The pipeline infrastructure consists of a pipeline network, storage and loading facilities for transportation, storage and distribution of petroleum

products. The current installed system consists of **1,342 kilometers** of pipeline with capacity to handle about **6.9 billion liters** of petroleum products annually.

There are 8 depots on the network and these are: **Moi International Airport, Nairobi Terminal Station, Jomo Kenyatta International Airport, Kipevu Oil Storage Terminal, Nakuru Terminal Station, Eldoret Terminal Station** and the **Kisumu Terminal Station**. The Sinendet – Kisumu line is the latest addition to this network. Table 18 provides detailed information on pipeline network in Kenya. KPC successfully completed the construction of the Kisumu Oil Jetty on the shores of Lake Victoria in 2018.

**Table 18: Pipeline Network in Kenya**

Source : <https://www.kpc.co.ke/pipelinenetwork>

Line Section	Length (Km)	Pipe Diameter (Inches)	Installed Flow Rate (M3/Hr)	Number of Pumping Stations
Mombasa – Nairobi (Line I)	450	14	830	8
Nairobi – Nakuru – Eldoret (Line II)	325	8/6	220	4
Sinendet – Kisumu (Line III)	121	6	100	-
Nairobi – Eldoret (Line IV)	325	14	311	2
Sinendet – Kisumu (Line VI)	121	10	350	-
Spur Line from KOSF to Shimanzi Oil Terminal	2.8	12	450	1
Changamwe – Moi International Airport	3.8	6	120	1

The jetty is expected to start operations this year following completion of similar facilities and storage in Uganda. This initiative will open up maritime transport and help further unlock key export markets in Northern Tanzania, Uganda, Rwanda, Burundi and Eastern DRC. The jetty, and the KPC's Kisumu depot, supported by the newly constructed Sinendet Kisumu pipeline, which has already boosted throughput to Kisumu to over **460,000 liters** per hour has the potential to turn Kisumu into a focal point for oil and gas commerce in the region.

### 3.4.3.1 Total pipeline volumes throughput in M3 by Destination

Table 19 provides the volumes of fuel dispatched to the Northern Corridor Member States per type of product during the period October 2018 to March 2019. The main products moved along the pipeline are **automotive gas oil (AGO), Motor Spirit Premium (MSP), Illuminating Kerosene (IK), Dual Purpose Kerosene (DPK)** and **SLOP** –Slop refers to oil sludge from refineries, tank terminals, pipelines and petrochemical plants.

Automotive Gas Oil (diesel 2) had the highest volume of all the oil products representing **53%** of the total products moved by pipeline to Northern Corridor Member States. Automotive Gas Oil has wide usage in road vehicles (trucks, buses, vans and cars) and other machinery that are powered by diesel engines. Motor Spirit Premium commonly known as super petrol was the second highest product accounting for **30%**. Illuminating Kerosene and Jet accounted for the least at **6%** and **11%** respectively. Kenya and Uganda are the highest destinations for both Automotive Gas Oil and Motor Spirit Premium. Kenya and Uganda received the largest consignment of oil products accounting for **43%** and **29%** respectively, out of the total cubic meters destined for Northern Corridor Member States.

**Table 19: Volume (M3) dispatched per type of product for Northern Corridor Member States**

Source: KPC October 2018 to March 2019

Product type	BU	DRC	KE	RW	SS	UG	Total
Automotive Gas Oil	33	120,615	620,752	12,067	177,437	297,365	1,228,269
Illuminating Kerosene	-	117	94,648	2,984	78	49,595	147,422
JET	-	9,991	24,491	-	86,554	127,341	248,377
Motor Spirit Premium	33	149,197	263,525	7,459	71,689	208,938	700,842
<b>Total</b>	<b>65</b>	<b>279,921</b>	<b>1,003,415</b>	<b>22,510</b>	<b>335,759</b>	<b>683,239</b>	<b>2,324,909</b>



**Table 20: Transit volume of Fuel dispatch (M3 ) from Nakuru, Kisumu and Eldoret Depots**

Source: KPC October 2018 to March 2019

Product type	Burundi	DRC		Rwanda		S Sudan		Uganda	
	Oct 18-Mar 19	Oct 17-Mar 18	Oct 18-Mar 19	Oct-March 2018	Oct 18-Mar 19	Oct-March 2018	Oct 18-Mar 19	Oct-March 2018	Oct 18-Mar 19
Automotive Gas Oil	33	56674	120,615	9,458	12,067	83,199	177,437	269,448	297,365
Illuminating Kerosene	-	43	117	2,342	2,984	162	78	26,548	49,595
JET	-	645	9,991	-	-	50,962	86,554	65,302	127,341
Motor Spirit Premium	33	47541	149,197	5,206	7,459	35,597	71,689	260,680	208,938
<b>Total</b>	<b>65</b>	<b>104,258</b>	<b>279,921</b>	<b>17,006</b>	<b>22,510</b>	<b>169,921</b>	<b>335,759</b>	<b>621,978</b>	<b>683,239</b>
		<b>167%</b>		<b>32%</b>		<b>98%</b>		<b>10%</b>	

Comparison for transit volumes of fuel dispatched to the Northern Corridor Member States by depot for the period October to March 2017/18 and 2018/19 is illustrated in table 20. There was a positive performance of volume of fuel dispatched to DRC and South Sudan through Kenya which grew by **167%** and **98%** respectively during the same review period. Qualitative data showed that there was a decline on the fuel dispatch to Rwanda from Kenya (Nakuru, Kisumu and Eldoret) depots when compared to fuel dispatch from central corridor yet it is a longer route. Rwanda importers prefers the central corridor because the route is faster since traders only cross one border at Rusumo. Additionally, it was reported that Northern Corridor has a lot of human intervention attributing to non-tariff barriers hampering trade.

### 3.4.3.2 Transport rates for fuel tankers

Transport rates for fuel products destined to Rwanda from Mombasa, Nairobi, Nakuru, Kisumu, Eldoret and Dar-es Salaam are presented in table 21 as at March 2019 in USD per cubic meter.

**Table 21: Transport Rates for oil tankers by Rwanda Transporters**

Source: ACPLRWA, 2018

From/To	Kigali
Mombasa	130\$/m3
Nairobi	90\$/m3
Nakuru	70\$/m3
Kisumu	60\$/m3
Eldoret	60\$/m3
Dar-es salaam	130\$/m3

The cost of transporting by a tanker from Mombasa and Dar-es-salaam stood at **USD130** per cubic meter. The cost of transporting by fuel tankers from Eldoret and Kisumu was **U\$60 per cubic meter, U\$70** from Nakuru and **U\$90** from Nairobi. The major factor in transportation by tankers is the distance covered. A bigger proportion of Rwanda's fuel comes in through the Central Corridor. From the qualitative analysis, findings show that substantive number of importers shifted from Northern Corridor to Central Corridor for petroleum products due to a number of reasons:

First and foremost, the Kigali-Dar es Salaam route which is about **1,495 kilometres** long is faster since traders are able to make between **6 - 7 turnarounds per month** compared to the Kigali - Eldoret route which is **860 kilometres** making **3 - 4 turnaround trips per month** along the Northern Corridor) despite the long distance Kigali-Dar Es Salaam (**1,400Km**).

Secondly, for the case of Central Corridor, clients don't wait for documentation after loading because Customs' Documentations are transmitted by courier to the exit border point at Rusumo.

Lastly, in Central Corridor, clients are served immediately on arrival by petroleum companies themselves (e.g. Shell, Total, Kobil, Gapco, etc) whereas in Northern Corridor, products are served by KPC where queues are regularly observed.



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## Chapter 4

# Transport Rates and Costs

Transport costs are the expenses incurred in moving products or assets from one place to another, which is often passed on to consumers. Rates are the price of transportation services paid by their users.



Transport rates are the negotiated monetary costs of moving a passenger or a unit of freight between a specific origin and destination. Rates are often visible to the consumers since transport providers must provide this information to secure transactions. They may not necessarily express the real transport costs. The transport rates are determined by factors such as: distance, location, infrastructure, administrative barriers, energy and how the freight is carried and other indirect (hidden) costs. As a result, there is a wide variation in transport rates across countries.

This section gives the regional averages costs for transporting a standard container across the Northern Corridor Member States road routes as at March 2019. There are two standard inter-modal shipping container sizes in use throughout the world which are the 20 feet and 40 feet.

## 4.1 Road Freight Charges in Burundi

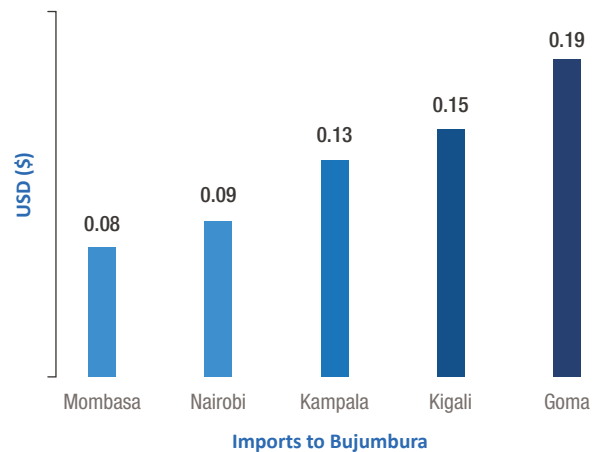
### 4.1.1 Imports

Figure 7 summarizes transport charges per kilometer per ton to Bujumbura in USD as at March 2019. The distance between Bujumbura and Northern Corridor Member States’ cities is as follows; 1,957 km to Mombasa (through Kampala-Kigali), 1,476 km to Nairobi through Namanga, 275 km to Kigali, 788 km to Kampala and 431 Km to Goma.

The tariff for imports from Goma and Kigali to Bujumbura was much higher per kilometer per ton at **USD 0.19** and **USD 0.15** respectively whereas tariff cost from Mombasa and Nairobi through Namanga attracted the lowest cost at **USD 0.08** and **USD 0.09 per kilometer per ton** respectively. It is important to note that transport rates are reducing substantively.

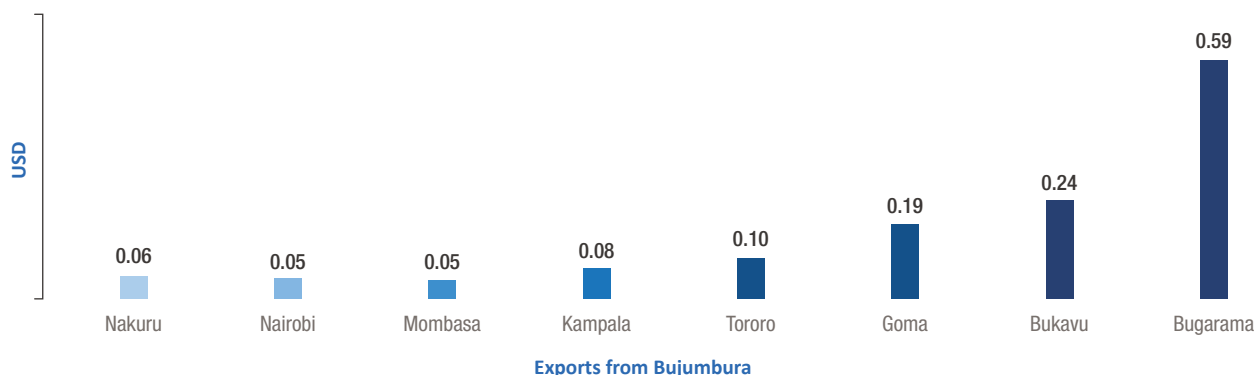
**Figure 7: The current transport tariff per KM per Ton in USD to Burundi (Imports)**

Source : “Association des Transporteurs Internationaux du Burundi”, March 2019



**Figure 8: The current transport tariff in USD per Km per ton for exports from Bujumbura**

Source : "Association des Transporteurs Internationaux du Burundi", March 2019



#### 4.1.2 Exports

Figure 8 above summarizes transport charges per kilometer per ton from Bujumbura (exports) in USD as at March 2019. The distance between Bujumbura and other Northern Corridor Member States' cities is as follows; 1,957 Km to Mombasa (through Kampala-Kigali), 1,476 Km to Nairobi through Namanga, 275 Km to Kigali, 788 Km to Kampala, 431 Km to Goma, 165 Km to Bukavu 34 Km to Bugarama 1,134 Km to Nakuru and 990 Km to Tororo.

The tariff for exports from Bujumbura to Mombasa through Kampala and from Bujumbura to Nairobi (through Namanga) was the lowest at **USD 0.05 per kilometer per ton**. The lower tariff could be attributable to shorter distance and good road condition; Nairobi – Namanga route road is paved and there are fewer roadblocks. It has only one mobile weighbridge and a road toll with a charge of approximately **30 dollars**.

Transport charges for exports from Bujumbura to Bugarama and Bukavu were much higher per Kilometer per ton at **USD 0.59** and **0.24** respectively. This is in spite of the fact that the latter are shorter distances. Some of factors that have been identified to cause cost escalations include road tolls, multiple border crossing charges and poor road conditions.

There is another alternative route to Burundi through Taveta/ Holili. Burundi transporters preferred Voi/Holili route due to shorter distance, low costs and fewer non-tariff barriers (i.e. one border) as opposed to the traditional corridor route which goes through Uganda and Rwanda.

The transport rates from Nairobi and Mombasa to Bujumbura through Taveta/ Holili route are **USD 2.6 per tonne** and **USD 2.9** respectively. It was noted that the cargo transported via the traditional corridor route was mainly coffee and tea.

#### 4.1.3 Number of Round Trips per month

Table 22 shows the number of roundtrips achieved for the different destinations per month in Burundi. Number of road trips made per month during the period under review, are very minimal despite some destinations having shorter distances for instance, Kigali and Goma.

There was no trip made from Bujumbura to Juba. The report recommends a qualitative survey to determine inefficiencies and bottlenecks along the corridor and recommend ways that could lead to increased roundtrips, truck turnaround and hence operational efficiency for transporters.

**Table 22: Number of round-trips in Burundi**

Source : "Association des Transporteurs Internationaux du Burundi", March 2019

From	To	Distance (Km)	Number of Round Trips per Month)
Bujumbura	Goma	431	1
Bujumbura	Kampala	788	2
Bujumbura	Kigali	275	1
Bujumbura	Nairobi	1,476	1
Bujumbura	Mombasa	1,957	1

## 4.2 Road Freight Charges in DRC

Table 23 shows the transport tariffs by DRC transporters. Transport tariffs in Congo were highest on the Bunia-Goma and Butembo - Goma routes costing **\$5.61** and **\$ 5.29** per container per Km respectively. The high cost on these routes could be attributed to poor road conditions on these stretches. The rates to Goma from Mombasa, Nairobi and Juba were cheaper at **\$1.63**, **\$1.58** and **\$0.97** respectively. Comparing the cost of transport within DRC suggest that the rates in the other Member States are cheaper. The data also shows that the cost of exports from Goma were cheaper possibly because most of the containers were empty. The number of round-trips has reduced significantly and the rates per kilometre increased.

The Goma–Kampala route has seen the Round-trips reduce from **6 to 2** per month between September 2015 and 2016.

**Table 23: The current transport tariff in USD for DRC transporters**

Source: FEC, September 2018

From	To	Distance (Km)	Rate (USD) for 20 feet container 2018	Rate (USD)/ TEU per Km 2018
<b>Imports</b>				
Mombasa	Kisangani	2,466	-	1.73-1.42
Mombasa	Goma	1,838	3,000	1.63
Nairobi	Goma	1,357	2,150	1.58
Juba	Goma	1,724	1,675	0.97
Kampala	Goma	669	1,500	2.24
Bunia	Goma	535	3,000	5.61
Butembo	Goma	284	1,500	5.29
<b>Exports</b>				
Goma	Kampala	669	1,180	1.76
Goma	Nairobi	1,357	1,680	1.24
Goma	Mombasa	1,838	1,820	0.99

## 4.3 Road Freight Charges in Kenya

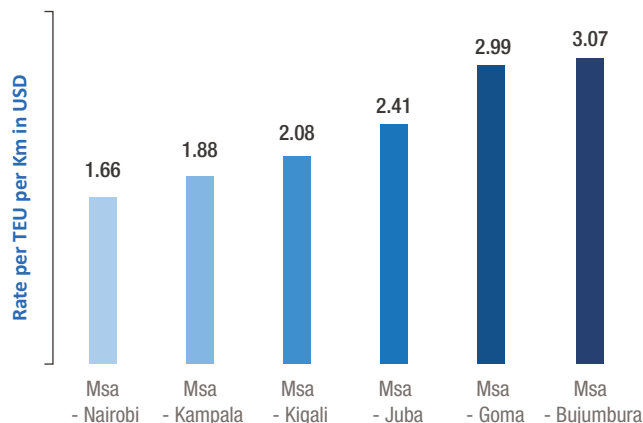
The distance between the port of Mombasa to the Northern Corridor Member States cities is as follows; 481 km to Nairobi, 1,170 km to Kampala, 1,682 km to Kigali, 1,957 km to Bujumbura, 1,840 km to Goma and 1,662 km to Juba.

### 4.3.1 Imports

Figure 9 gives a comparison of road freight charges in Kenya to different destinations along the Kenyan section of the corridor in US dollars as at March 2019. It gives the average transport tariff per container per km for moving a container from Mombasa to main destinations along the Northern Corridor.

**Figure 9: Transport Rates in Kenya to various destinations in USD from Mombasa Port (imports)**

Source: KTA, data 2019



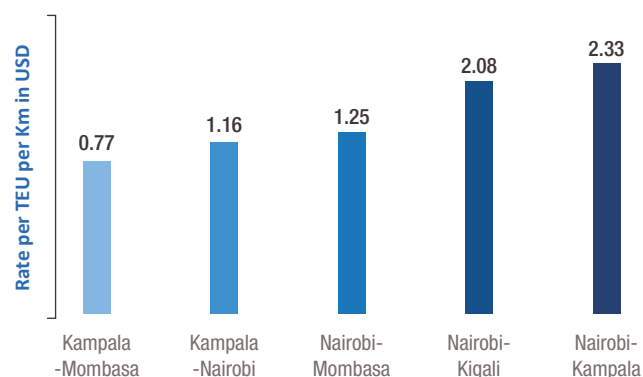
Analysis presented show that it was expensive to transport cargo from Mombasa to Bujumbura at a cost of **USD 3.07 per container per kilometre** which could be related to the distance. This indicates that cross border logistics bottlenecks have an impact on the cost of cargo transportation to different destination. It is notable that the cost for long distances remains high. The costs of imports to Nairobi were cheaper possibly because most of the counterpart competition from SGR freight cargo.

### 4.3.2 Exports

The transport tariff from Nairobi to Kampala and Nairobi to Kigali was the highest at **\$2.33** and **\$2.08 per container per kilometre** respectively as shown in figure 10. On the other hand, average cost from Kampala to Mombasa was cheapest at **\$0.77 per TEU per Km**. This is attributable to return of empty container to the port therefore any amount would cushion the transporter on the operating expenses for the return trip. It is therefore important to note that the differences on the average cost are influenced by factors that vary depending on the destination route.

**Figure 10: Transport Rates to various destinations in USD**

Source: KTA, data 2019



### 4.3.3 Number of Round Trips per month

Table 24 shows the number of round-trips achieved from Mombasa to different destinations per month. The number of return trips is mainly influenced by distance to respective destinations for instance the highest number of round trips was recorded from Mombasa to Nairobi due to the short distance covered contrary to Goma and Bujumbura which recorded the lowest number of 1 trip per month.

**Table 24: Number of roundtrips in Kenya**

Source: KTA, data 2019

From	To	Distance in Km	No. of Roundtrips per month
Mombasa	Nairobi	481	8
Mombasa	Kampala	1,170	3
Mombasa	Kigali	1,682	2
Mombasa	Bujumbura	1,957	1
Mombasa	Goma	1,840	1
Mombasa	Juba	1,662	2

Port/border post procedures and documentation are the biggest hindrances to high turnaround time while non-availability of cargo was ranked the second contributor. The Mombasa port community charter provides the target of **120,000 Km** as the annual distance trucks have to achieve as a benchmark to international standards. Average distance (km) covered per truck from January 2018 to December 2018 varied widely for different transporters ranging as low as **65,000 km** to rising to **91,200 km** which is still below the target of **120,000 Km**.

## 4.4 Road Freight Charges in Rwanda

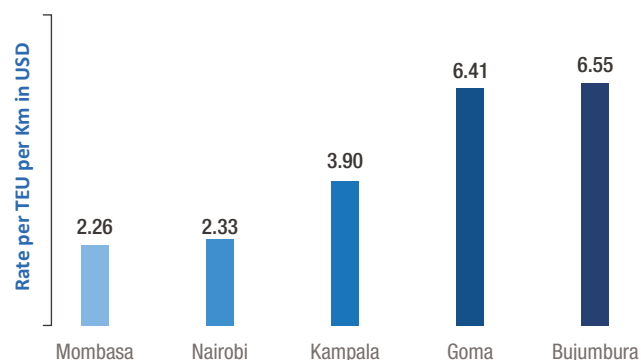
In 2018, **80%** of Rwanda cargo came through the Dar es Salaam port via the Central Corridor and the remaining **20%** through the port of Mombasa via the Northern Corridor. Dar es Salaam is the preferred port in the transit traffic for Rwanda because Tanzania has absolute advantage on distance from the Rwanda. This translates to cost advantage as well as time utility.

### 4.4.1 Imports

Figure 11 provides freight charges involved to move a 20-foot container in Rwanda. It is much expensive to transport cargo from Bujumbura and Goma to Kigali at a cost of **USD 6.55** and **USD 6.44 per kilometer** respectively compared to other destinations. Transporters charge **\$2.26 per container per kilometer** from Mombasa and **\$2.33** from Nairobi to Kigali.

**Figure 11: The current transport tariff in USD to Kigali (Imports)**

Source: ACPLRWA, 2019

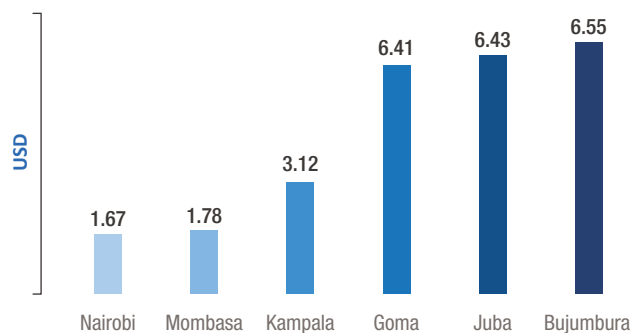


### 4.4.2 Exports

The highest transport costs for exports were recorded on the Kigali –Bujumbura, Goma and Juba routes with transporters charging **\$6.55**, **\$6.41** and **\$6.43** respectively per kilometer which is same as the import route. The lowest cost was on the Kigali- Mombasa and Kigali- Nairobi routes which had the fairest cost on both the import and export journeys as shown in figure 12.

**Figure 12: The current transport tariff in USD from Kigali (Exports)**

Source: ACPLRWA, 2019



### 4.4.3 Number of Round Trips per month

Table 25 provides a summary of the average number of round trips made by transporters from Kigali to other destinations. The results indicate that the highest number of round trips made were to Kampala and Goma, an average of **7** and **6 trips** respectively. There were only **2 trips** to Bujumbura and **1 return trip** to Juba. Average distance (km) covered per truck from January 2018 to December 2018 was recorded as **69,000 km** for transporters from Rwanda.

**Table 25: Number of round-trips Per Month in Rwanda**

Source: ACPLRWA, 2019

From	To	Number of Round Trips
Kigali	Goma	6
Kigali	Kampala	7
Kigali	Bujumbura	2
Kigali	Juba	1
Kigali	Nairobi	4
Kigali	Mombasa	2.5

## 4.5 Road Freight Charges in South Sudan

South Sudan is expansive and has some of the longest distances covered by transporters. Table 26 shows that the cost of transport to and from Nairobi and Mombasa were the lowest when compared to other destinations. Exports from Nairobi to Juba attracted a cost of **\$2.183** for a **TEU per Km** while from Mombasa the cost stood at **\$2.708**. The Juba – Kigali route recorded the highest cost per kilometre standing at **\$5.146 per TEU**.

**Table 26: Current transport tariff in USD for South Sudan transporters**

Source: B \$ S group of companies, 2018

From	To	Distance (Km)	Rate (\$) for 20 feet container	Rates Per TEU/ Km (USD)
Mombasa	Juba	1,662	4,500	2.708
Nairobi	Juba	1,145	2,500	2.183
Kampala	Juba	653	2,500	3.828
Juba	Kigali	1,166	6,000	5.146
Juba	Kampala	653	2,000	3.063
Juba	Nairobi	1,145	3,000	2.620
Juba	Mombasa	1,662	3,500	2.106

## 4.6 Road Freight Charges in Uganda

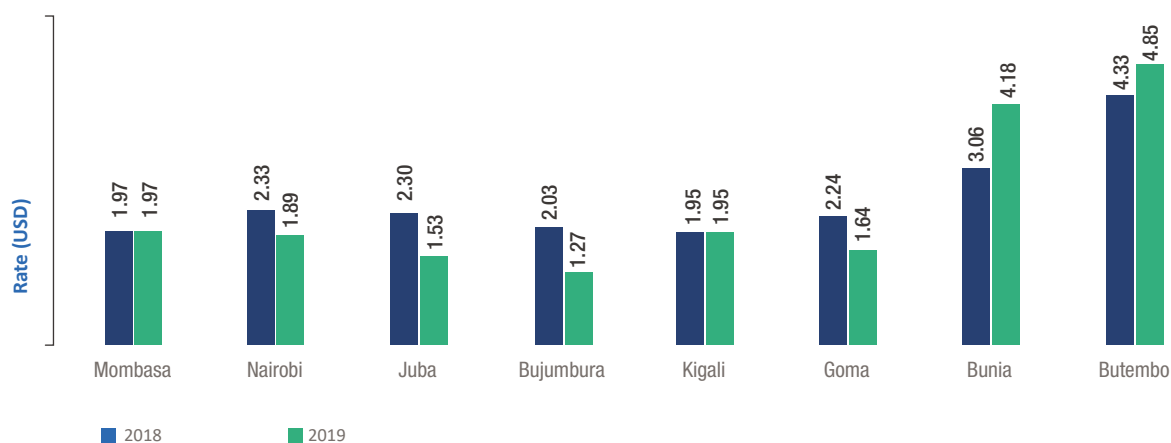
### 4.6.1 Imports

Figure 13 presents the transport tariff in Uganda per container per Kilometer for exports from Kampala to various destinations as at March 2019. The distance between Kampala and Northern Corridor Member States cities is as follows; 1,169 Km to Mombasa, 688 Km to Nairobi, 653 Km to Juba, 788 Km to Bujumbura, 513 Km to Kigali, 669 Km to Goma, 718 Km to Bunia and 577 Km to Butembo.

The highest rates were recorded on the Kampala -Butembo route at **\$4.33 for imports** in **2018**; which increased significantly by **12% to \$4.83** in **2019**. Transport rates from Bunia to Kampala also increased witnessed significant annual increase of **36%** from **\$3.06 in 2018 to \$4.18** in **2019**.

**Figure 13: The current transport tariff in USD (\$) for Uganda transporters on Imports**

Source: UNTA data, 2018/2019





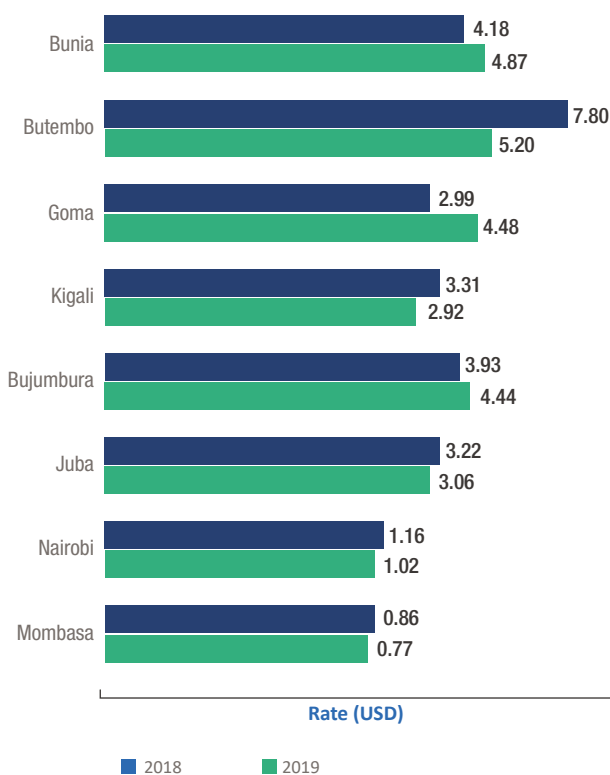
Conversely, Kigali- Kampala has the lowest tariffs on imports followed by Mombasa-Kampala. The data also shows that cost of transporting cargo from Mombasa to Kampala was lower than Mombasa –Nairobi despite being longer distance.

#### 4.6.2 Exports

Freight charges in Uganda on exports are presented in figure 14 below, based on a 20 ft container. Analysis indicate that rates for export from Kampala/Uganda decreased significantly in 2019 when compared to 2018; except for those destined to Goma, Bunia and Bujumbura which showed a **substantial annual increase** at **50%, 17%** and **13%** respectively in freight charges.

**Figure 14: The current transport tariff in USD (\$) for Uganda transporters on Exports**

Source: UNTA data, 2018/2019



#### 4.6.3 Number of Round Trips per month

Table 27 provides a summary of the average number of round trips made by transporters from Kampala to other destinations per month. It is indicative that transporters from Kampala make more trips to Kigali and Nairobi in a month compared to other destinations.

From the data, the target of 120,000 Km for average truck kilometers is achieved for the Kampala - Mombasa route with an annual truck Km of **126,252 Km** for container trucks. Fuel tankers take up 4 to 5 trips due to clearance under single customs territory.

**Table 27: Number of Round Trips**

Source: UNTA data, 2018/2019

From	To	Containers	Tankers
Kampala (UG)	Bujumbura (BI)	3	4
Kampala (UG)	Juba (SS)	4	4
Kampala (UG)	Goma (DRC)	3	4
Kampala (UG)	Kigali (RW)	5	6
Kampala (UG)	Nairobi (KE)	5	6
Kampala (UG)	Mombasa (KE)	4	5



## Chapter 5

# Efficiency and Productivity

The analysis of efficiency and productivity on the Northern Corridor considers various factors that impact on the cost and time taken to move cargo along the corridor.



An efficient port plays an important role in trade and transport facilitation since it enhances competitiveness, allowing countries to trade goods and services on time and with low transaction costs. The indicators track performance on various parameters which include: duration a ship stays at the port; the quality of cargo handling; cargo evacuation process and procedures and quality of infrastructure for different inter-modal transport networks.

Port productivity and efficiency are important for improved logistics environment that will support trade facilitation and competitiveness initiatives. This section gives an in-depth analysis of efficiency and productivity indicators at the port of Mombasa and the Northern Corridor at large.

The port of Mombasa recorded average annually ship turnaround time of **3.4 days** in **2018**; the set target of 3 days as shown in figure 15. This is an improvement from the average turnaround time of **4.4 days** that was recorded in 2017. Although this performance is an increase when compared to previous years of 2016 and 2017, the ultimate goal is to attain the **24 hours (1 day)** ship turnaround global benchmark time. The positive performance can be related to a number of capacity improvement projects that the Kenya Ports Authority (KPA) has been implementing. They include the dredging of the port channel, construction of additional berths, construction of the second container terminal and construction of an offshore Single Buoy Mooring among others.

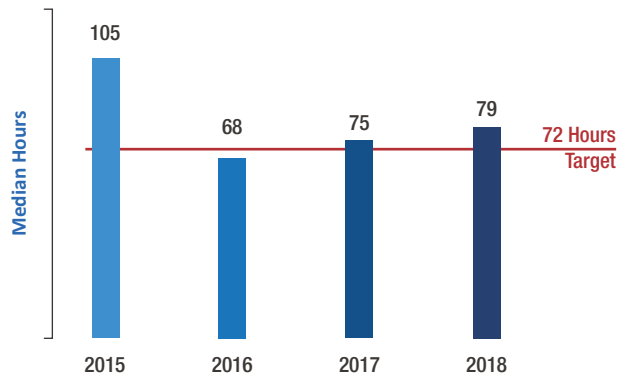
### 5.1 Ship turnaround time at the port of Mombasa

This indicator is measured from the time the vessel arrives at the Port area (Fairway Buoy) to the time it leaves the port area demarcated by the fairway buoy.

The ship turn-around time is an accumulation of the two critical times, ship service time at berth and waiting time or the time the ship spends in port from its arrival within the limits of the port up to its departure. The reduction in time spent on these two indicators is key in achieving port efficiency.

Figure 15: Ship turnaround time at the port of Mombasa in median hours; 2015 to 2018

Source: KPA 2015, 2016, 2017 and 2018

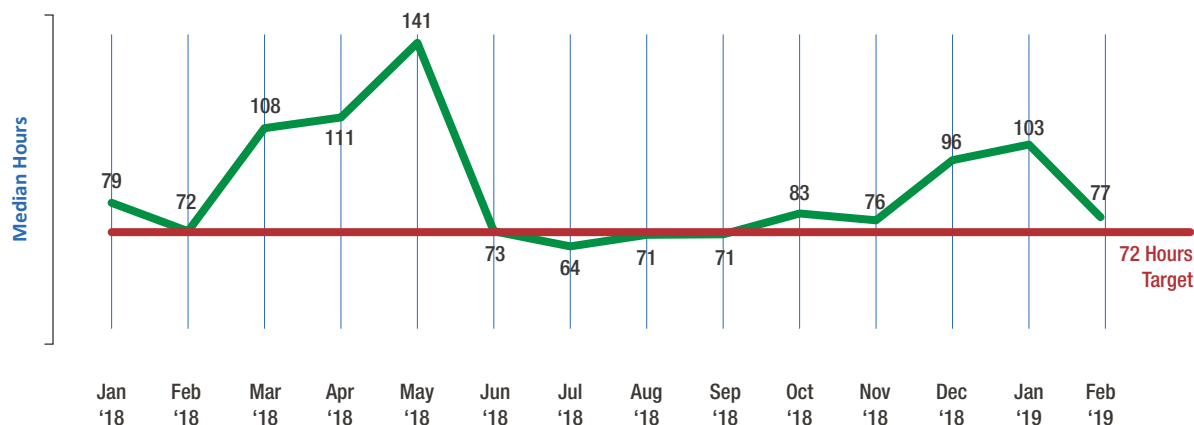


Month to month analysis reveals that, ship turnaround time fluctuated between January 2018 and March 2019, as presented in figure 16. Turnaround time rose from **79 hours** in January 2018 to **141 hours** in May 2018 and decreased to **64 hours** in July 2019 and increased gradually to **77 hours** in February 2019.

The high turnaround time in May was occasioned by heavy rain conditions that were experienced on the Kenyan coast. The overall assessment is that average ship turnaround time target of **72 hours** has not yet been met. More efforts are therefore required to improve performance towards attaining the ship turnaround global benchmark goal of **24 hours**.

Figure 16: Ship Turnaround Time from Jan 2018 to Feb 2019 (Median Hrs)

Source: KPA, 2018/2019



## 5.2 Vessel waiting time before berth at the port of Mombasa

This time is measured from the time the vessel arrives at the port area, demarcated by the fairway buoy to the time of its first berth.

Vessel waiting time has significant bearing on ship turnaround time and is therefore critical port efficiency. The set target for Vessel Waiting Time is 24 hours. Figure 17 shows that the median vessel waiting time decreased from **18 hours** in **2015** to **13 hours** in **December 2018**.

Vessel turnaround time in 2016 was the best at **4 hours** and surpassed performance for similar period in 2017 and 2018. The performance for this target over the years exceeds the set **target of 24 hours**. It is attributed to the implementation of fixed Berthing Window to allow shipping lines plan their time, improved crane productivity and enough terminal capacity.

Furthermore, there has been increased investment in both shore and off shore equipment which includes acquisition of modern tugboats and pilot boats that have boosted berthing operations.

Figure 17: Median Vessel Waiting Time before Berth at the port of Mombasa (2015 - 2018)

Source: KPA 2015, 2016, 2017 and 2018

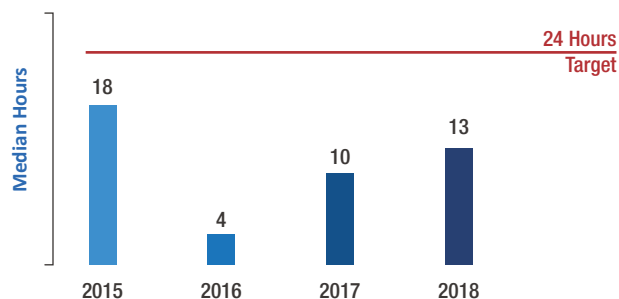
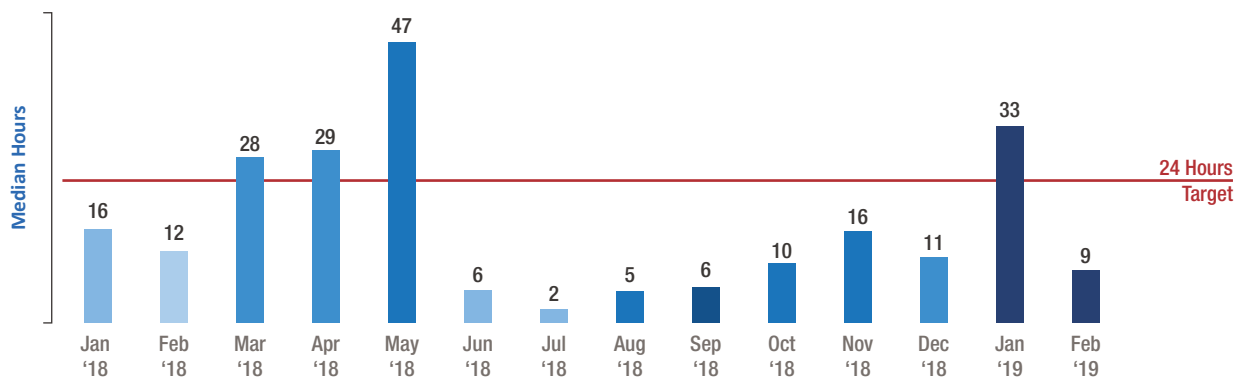


Figure 18 shows vessel waiting time from January 2018 to February 2019. Statistics presented indicate that vessel waiting time was within the target of **24 hours** except for the months of March to May 2018 and January 2019. This shows great performance at the port of Mombasa implying that initiatives being implemented are yielding desired outputs and enhanced efficiency.

This could also be due to the stringent pre-planning; the terminal knows in advance the vessels that will arrive and as such plan the berthing of vessels accordingly. It is important to note that the Kenya Ports Authority (KPA) also tracks the ship actual waiting hours. This is the time ship arrives at the fairway buoy to the time pilot boards for pilotage to the first berth. Some ships choose to wait at their own convenience.

**Figure 18: Median hours for Vessel Waiting Time before Berth at the port of Mombasa (Jan 2018 to Feb 2019)**

Source: KPA Jan 2018 to Feb 2019



### 5.3 Vessel Productivity (Gross Moves per Hour) at the port of Mombasa

Another key measure of efficiency and productivity at the port is vessel productivity which is proxied by **Gross moves per hour**.

**Gross Moves per Hour (GMPH)** is defined as the total container movement (on loading, offloading and repositioning) divided by the number of hours for which the vessel is at berth.

A gross move per hour focuses on a crane's ability to move containers over the quay wall each hour. **Table 28** describes vessel productivity at the port of Mombasa.

The average Gross Moves at the port of Mombasa for container vessels handled was **30.17** from **January 2018** to **February 2019**. The number of ships recorded was **639** during the review period, delivering a total of **1,402,133 TEUs**. Productivity in Gross Moves per hour has improved two-fold compared to the port charter baseline of **16.7 Gross Moves per hour in 2013**.

The improved productivity has been attributed to improved investment and utilization of ship yard equipment by the KPA. This includes increase in number of Ship to Gantry cranes, Rubber Tyres Gantry (RTG) cranes, Terminal Tractors among others.

Table 28: Vessel Productivity at the port of Mombasa from January 2018 to February 2019

Source: KPA Jan 2018 to Feb 2019

Month	No of ships	Total moves	Gross moves per hours	TEUs	Average TEUs per ship
Jan-18	36	59,255	28.97	82,222	2,284
Feb-18	49	67,787	27.91	94,775	1,934
Mar-18	45	65,720	25.35	91,815	2,040
Apr-18	45	66,227	24.79	92,381	2,053
May-18	41	64,757	22.25	91,627	2,235
Jun-18	41	71,882	33.11	101,052	2,465
Jul-18	47	75,674	36.37	108,468	2,308
Aug-18	47	77,603	33.75	112,178	2,387
Sep-18	48	75,026	30.99	107,611	2,242
Oct-18	52	81,241	29.16	116,375	2,238
Nov-18	44	74,139	31.29	104,219	2,369
Dec-18	48	75,807	38.81	81,241	1,693
Jan-19	47	79,601	30.67	111,555	2,374
Feb-19	46	76,262	28.97	106,614	2,318
<b>Total/Average</b>	<b>636</b>	<b>1,010,981</b>	<b>30.17</b>	<b>1,402,133</b>	<b>2,209.83</b>

## 5.4 Containerized Cargo Dwell Time at the Port of Mombasa

Cargo Port Dwell Time is the measure of time that elapses from the time cargo is offloaded at the Port to the time it exits the Port premises.

Dwell time is a port efficiency indicator and measures how fast the containerized cargo flows through the port terminals. Reducing cargo dwell time at the port implies lower trade costs and enhanced efficiency of the port. The port of Mombasa has different facilities and equipment that are used in the evacuation of the cargo.

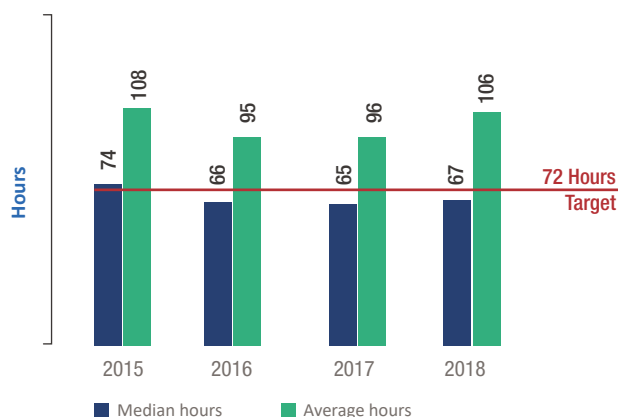
They include: **container terminals 1 (which has four berths, No. 16, 17, 18 and 19); Container terminal 2 (has two berths, No. 20 and 21); 2 bulk oil jetties; 2 bulk cement berths with 3 silos and 10 Conventional Cargo berth; Rubber Tyred Gantry cranes; Terminal Trunkers; Ship to Shore cranes; Harbor Mobile Cranes and Reach Stackers.**

Figure 19 shows a comparative analysis of the cargo dwell time at the port of Mombasa from 2015 to 2018. The average container dwell time at the port of Mombasa has seen a steady decrease in 2016 and 2017; but increased slightly to **106 hours in 2018**.

Nonetheless, data shows that **50% of containers in 2015** were picked up within an average of **3.1 days** of arrival and decreased gradually by **9.5%** to **2.8 days** in 2018 against the set target of **3 days**. This performance could be attributed to the expansion and construction of additional terminals, acquisition of modern equipment's, improvements in documentation and clearance processes and automation of container handling processes.

Figure 19: Average containerized cargo dwell time in hours for the years 2015 to 2018

Source: KPA 2015, 2016, 2017 and 2018



### 5.5 Time for customs clearance at the Document Processing Centre (DPC)

This refers to the time taken by Customs to pass an entry lodged by a clearing agent.

This time bears a proportion to the total port dwell time. The data shows a wavering trend in performance from January 2018 to March 2019 as illustrated in figure 20. Delays in customs clearance at DPC during this period is partly attributed to the SIMBA system instability; document volumes awaiting processing in between the shifts; the quality of declaration by the relevant agents and other stakeholders' systems.

Statistics presented reveal that customs authorities have not achieved the set target of one hour. It is evident that more efforts, including the automation of the DPC processes should be fast-tracked for speeding-up clearance of cargo processes to realize this target of one hour.

### 5.6 Time taken after customs release at the port of Mombasa

Delay after customs release refers to the period it takes to evacuate the cargo from the port after it is officially released by Customs.

Figure 21 shows the time taken after customs have issued the traders/clearing agent with a release order to actual exit from the Port from **January 2018** to **March 2019**. This time varied over the review period ranging from **31 hours** to a maximum of **42 hours**. The month of March 2019 recorded performance of **35 hours** against the port charter **target of 36 hours**.

The improved performance comes in the wake of automating gate clearance procedures, dedicating special gates to Container Freight Stations (CFSS) and ensuring **24-hour** operations.

Figure 20: Time Taken at the Document Processing Centre (DPC)

Source: KRA, Jan 2018 to Mar 2019

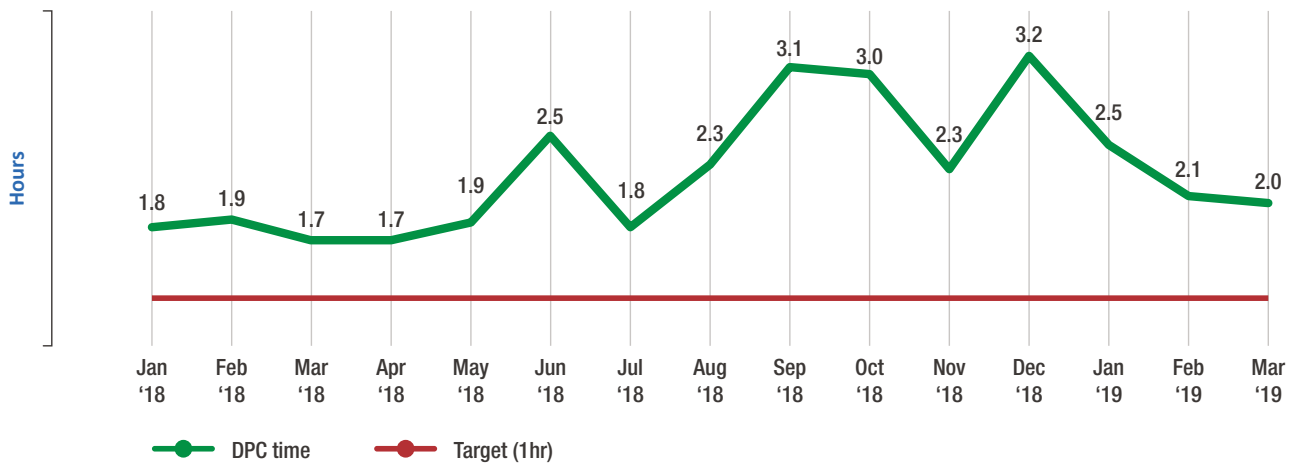
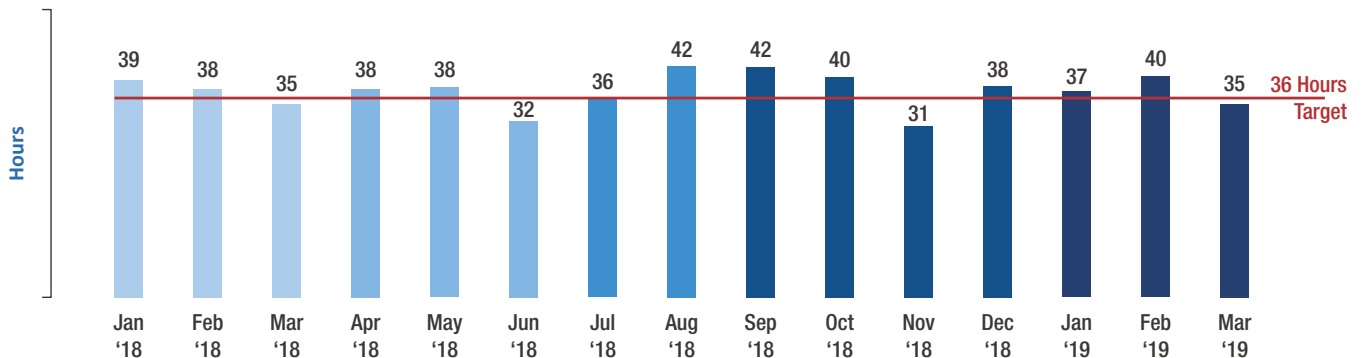


Figure 21: Average Time taken after customs release

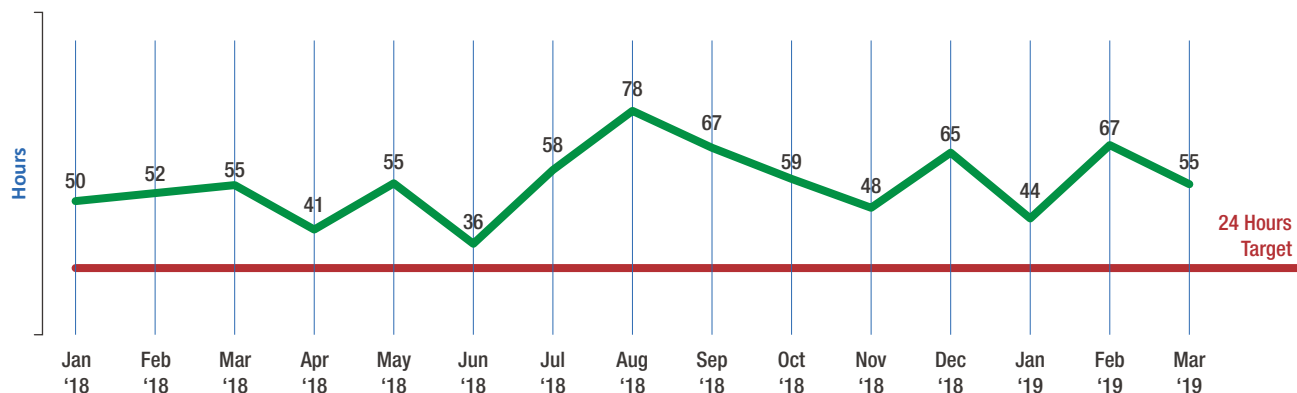
Source: KRA, Jan 2018 to Mar 2019





**Figure 22: One Stop Centre Clearance Time**

Source: KRA, Jan 2018 to Mar 2019



## 5.7 One Stop Centre Clearance Time

One Stop Centre Clearance Time measures the average time between passing of customs entry after its registration and issuance of a release order.

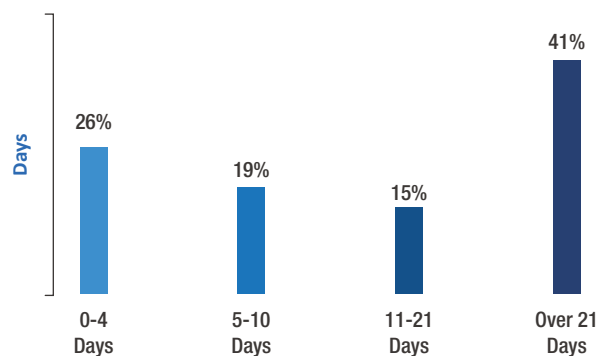
Figure 22 above illustrates the trend for time taken at Mombasa one stop center. Performance was not steady during the period under review. Furthermore, the performance seems to be moving far away from the set target of 24 hours. The under-performance is partly attributed to uncoordinated joint verification of cargo, delays in physical verification and inspection of the cargo, late submission and amendment of documents by clearing agents which are pointers to prevailing inefficiencies at the one stop center. However, the roll out of the Integrated Customs Management Systems (ICMS) will address these challenges and improve this target.

Depots are linked via the old meter gauge railway. The ICDs receive imports directly from the port of Mombasa and also collect export cargo and empty containers to Mombasa.

From figure 23, forty-one (41) percent of the import containers stayed at Nairobi ICD for more than **21 days**. The long duration that it takes to clear cargo from the Inland Container Depot (ICD) in Nairobi is occasioned but not limited to **inadequate access roads to the ICD used by trucks to collect cargo, slow clearance of cargo, delays in collection of cargo from the ICD by the owners after it has been cleared, some cargo owners taking long to lodge customs declarations for their cargo, and some of the Kenya Bureau of Standards tests take long before the results can be obtained.**

**Figure 23: Summary of imports age analysis as at March 2019 (TEUS)**

Source: KPA 2018/2019



## 5.8 Dwell time at Nairobi ICD

This indicator is measured from the time cargo is offloaded at the ICD- Nairobi to the time it leaves the ICD premises.

The container terminal at the port of Mombasa is linked to the Inland Container Depots (ICDs) by a raitainer service that is run by the Kenya Railway Corporation for both the standard gauge railway (SGR) and the meter gauge railway.

The SGR is currently connected to the Nairobi Inland Container while the Kisumu and Eldoret Inland Container

### 5.9 Truck turnaround time at the port

Turnaround time is the average time a truck takes from entry to exit from the port of Mombasa.

As indicated in figure 24 truck turnaround time varied widely increasing from **4 hours** in April 2018 to **8 hours** in September 2018; then dropped to **5 hours** between October and December 2018 after which it rose to **9 hours** in the quarter ending March 2019. High truck turnaround time is partly due to the congestion of traffic along the roads leading to the port and time it takes before a truck is loaded or offloaded. The scanning of cargo at the exit gates also contributes to the high truck turnaround time at the port of Mombasa. The area of improvement that would greatly enhance faster truck turnaround times is speeding up process of obtaining gate passes for trucks through a truck appointment system, putting in place a mechanism to expedite offloading of exports as well as loading of imports on trucks for delivery out of the port.

### 5.10 Turnaround time at MAGERWA ICD in Rwanda

This indicator 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.

MAGERWA is a dry port and a main inland logistics cargo handling facility in Rwanda. The dry port handles **90%** of the goods imported to, transiting through and exported from Rwanda. Other private warehouses in Rwanda include Dubai Port and SDV. From figure 25, average turnaround time at MAGERWA ICD varied from a high of **6 hours** in March 2019 to a low of **1 hour**. Most of the trucks are cleared within **2 hours**. It was noted that the truck turnaround time for Magerwa increased significantly to **6 hours** in March 2019 due to system upgrade.

Figure 24: Average Truck Turnaround Time April 2018 – March 2018 at Mombasa Port in Hours

Source: KPA 2018/2019

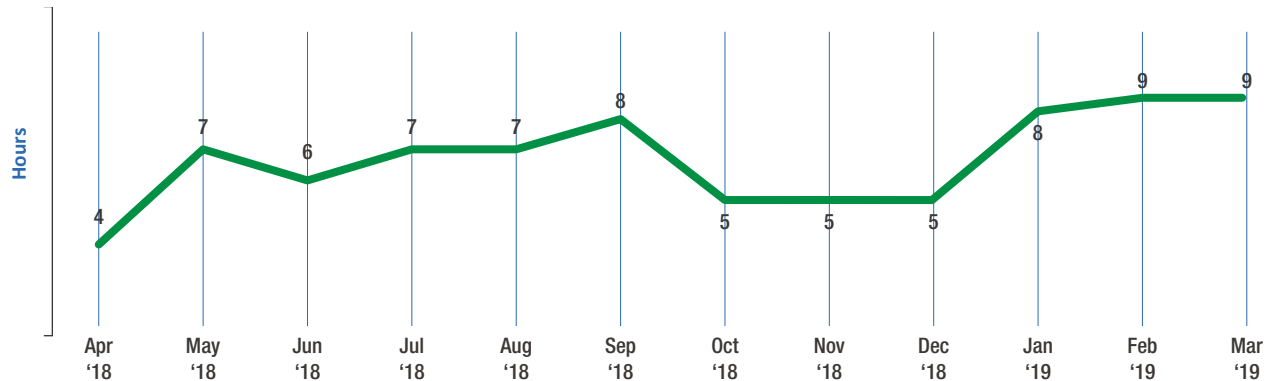
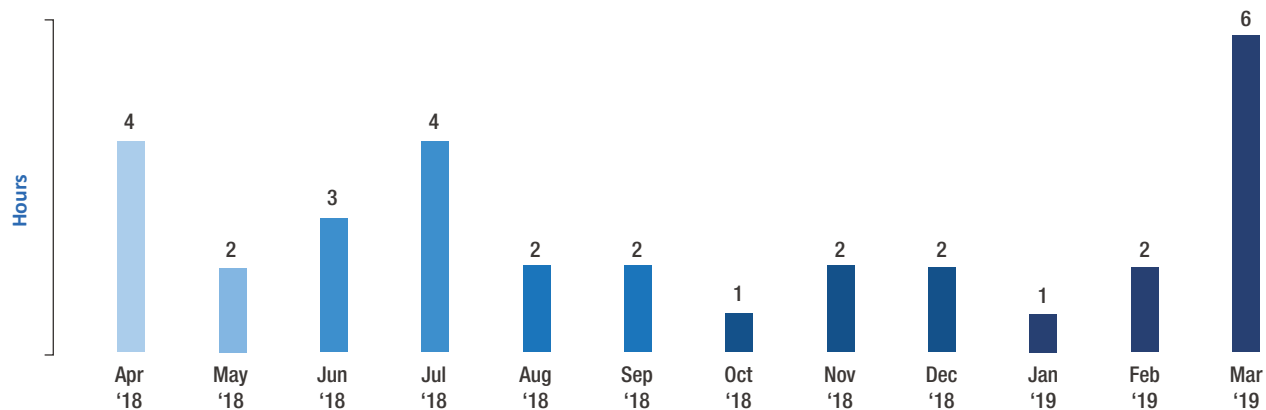


Figure 25: Average Turnaround Time at MAGERWA ICD in Rwanda

Source: Magerwa, April 2018 to March 2019





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## Chapter 6

# Quality of Infrastructure

A good infrastructure network facilitates efficiency in trade by reducing the cost of business and enhancing the movement of goods and services.



Protocol Number 2, Section 1 (Article 4) of the Northern Corridor Transit and Transport Agreement (2007), provides designated road routes by Member States for use in inter-state trade along the Corridor. It is therefore important to assess the efficiency and capacity of transport modes since they have direct impact on transport costs.

Poor infrastructure translates to higher transport costs, delays and negative economic consequences. The road network for the Northern Corridor starts from the port of Mombasa in Kenya, to Uganda, Rwanda Burundi then DRC and South Sudan. Kenyan roads serve as inevitable link as it is the main pathway route linking the landlocked countries to the port of Mombasa who lack direct access to the sea.

This section provides analysis on the quality of roads within the Northern Corridor Member States as defined by the International Roughness Index (IRI) as at **March 2019**.

## 6.1 Road Condition in Kenya along the Northern Corridor

Kenya serves as the main artery linking the landlocked countries to the port of Mombasa as it is a key point of entry for imports to the east and central Africa regions. Kenya handles the highest cargo throughput in East and Central Africa of about **65%** of the regional transit traffic through the ports annually.

The Kenya National Highways Authority (KeNHA) is responsible for the management, development, rehabilitation, and maintenance of **Super Highways (Class S); International Trunk Roads (Class A)** and **National Trunk Roads (Class B) Class A, B and C** roads in Kenya. The quality of the road infrastructure is measured by International Roughness Index (IRI) and recorded by the vibrations experienced by the tyre of a moving vehicle. The smaller the International Roughness Index, the higher the quality and more comfortable the road.

A rough road depicts symptom of problems that require to be further investigated. In Kenya, Annual Road Inventory and Condition Survey (ARICS) is carried out annually using special equipment developed jointly with JICA and attached to a vehicle to capture vibrations and convert them into IRI.

Table 29 provides status on road conditions in Kenya measured by international roughness index. **80%** of the roads in Kenya along the Northern Corridor are in good condition paved and tarmac, **8%** in fair condition and **12%** in bad condition. The ongoing roads infrastructure upgrading is expected to bring more improvements. Furthermore, there are ongoing plans on expansion of Nairobi- Mombasa Highway.

**Table 29: Road condition in Kenya along the Northern Corridor from the port of Mombasa**

Source: Kenya National Highways Authority (KeNHA) March 2019

Description	Length (Km)	Good	Fair	Poor
Mombasa - James Gichuru	492.1	354.8	96	41.3
Mombasa- Voi	161.4	120.1	0	41.3
Voi-Mtito Andei	96		96	0
Mtito Andei-Sultan Hamud-Athi River	199	199	0	0
Athi River - JKIA- Likoni Road	20.7	20.7	0	0
Likoni Road - James Gichuru	15	15	0	0
Southern Bypass	28	28	0	0
James Gichuru junction – Rironi	26	0	26	0
Rironi - Mau Summit -Malaba	430.6	430.6	0	0
Rironi - Gilgil	89	89	0	0
Gilgil - Mau Summit	90	90	0	0
Mau Summit - Timboroa	38.8	38.8	0	0
Timboroa - Eldoret	80	80	0	0
Eldoret - Webuye	75	75	0	0
Webuye - Malaba	57.8	57.8	0	0
Mau Summit -Kisumu-Busia	249.8	144.3	4.5	101

Table 30 gives the status on other vital links to Tanzania from Athi River to Namanga and Voi to Taita Taveta and also the link to South Sudan via Lokichar – Nadapal route. Most of the poor road sections are undergoing rehabilitation.

**Table 30: Other road sections not in the Northern Corridor Agreement but linking Kenya to Tanzania and South Sudan borders**

Source: Kenya National Highways Authority (KeNHA) March 2019

Road No	Description	Length (Km)	Good	Fair	Poor
A6	Taveta - Voi	121.2	121.2	0	0
A5	Emali - Loitokitok	113.6	113.6	0	0
A2	Athi river - Namanga	136	136	0	0
A1	Kitale - Kapenguria	32	32	0	0
A1	Kapenguria - Lokichar	173	143	30	0
A1	Lokichar - Lodwar - Lokichoggio - Nakodok <sup>1</sup>	358	0	0	358
B14	Maili Tisa - Moi's Bridge - Kitale	57.3	27.3	30	0
B15	Kitale - Kachibora	27.6	27.6	0	0
B15	Kachibora - Tot	90.2	15	75.2	0
B72	Lodwar - Kalokol	60	10	5	45
B77	Cheptongei - Chebiemit	16	16	0	0

<sup>1</sup>Rehabilitation in progress-Funded by World Bank

Table 31 presents projects along the Northern Corridor roads in Kenya. The Dongo Kundu bypass is designed with several interchanges with provisions to integrate seamlessly with the port of Mombasa, the Moi International Airport, the Standard Gauge Railway, the Nairobi-Mombasa Highway and the upcoming Mombasa Northern Bypass. Phase one of the Dongo Kundu Bypass in Mombasa was completed in **2018** and is in use.

**Table 31: Projects on the NC roads in Kenya**

Source: Kenya National Highways Authority (KeNHA) March 2019

Project Name	Road Id	Total Road Length (Km)
Mwache - Mteza (Dongo Kundu)		9
Mteza - Kibundani (Dongo Kundu)		7
Mombasa Gate (Likoni) Bridge (A7)	A7	-
Capacity enhancement of JKIA - Likoni Road - James Gichuru (A8)	A8	19
Nairobi - Nakuru - Mau Summit	A8	200
Kisian - Busia (A12)	A12	96
Kitale - Kapenguria	A1	37
Kapenguria - Marich Pass	A1	63
Marichpass - Kainuk	A1	49
Kainuk - Lokichar	A1	48
Lokichar - Loichangamatak	A1	40

The road runs from the port of Mombasa's second container terminal and joins the Mombasa-Nairobi highway at Bonje, near Mazaras. The **11-kilometer (Miritini - Mwache Kipevu Link Road)** linking the Kipevu Container Terminal to Mwache and Miritini Interchanges; Mombasa-Kwa Jomvu project with interchanges at Makupa,

**Changamwe, Mikindani** and **Kwa Jomvu** is also complete. These developments have eased congestion and facilitated logistics from the new container terminal. Table 32 presents the level of implementation of the on-going road development works along the Northern Corridor in Kenya. The construction of 3 interchanges at **Nakuru – Njoro Turn off, Nakuru – Nyahururu** and **Mau Summit** is **100 percent** complete while Kisumu – Kakamega is **99%** complete.

On the other hand, the Eldoret bypass project is behind schedule since its launch in **August 2017**. Currently the project is at **7.13%** implementation status. The project is expected to ease traffic snarl-ups being witnessed within Eldoret Central Business District along the route that connects North Rift to the neighboring countries of Uganda, South Sudan and Rwanda. The bypass will run from Ngeria on the Eldoret-Nairobi road, through areas next to the Eldoret Airport before linking with the Eldoret-Webuye road in Leseru

## 6.2 Road Condition in Uganda along the Northern Corridor

The designated Northern Corridor Route in Uganda are: **Malaba – Katuna, Malaba – Ishasha, Malaba – Mpondwe, Malaba – Goli, Malaba – Arua, Busia -Katuna, Busia -Ishasha, Kasese – Kagitumba, Busia – Arua** and **Busia – Goli, Kasese – Mpondwe** and **Kasese – Ishasha**. The roads are classified as national roads, district roads, urban roads and community roads. The national roads make up about **17%** of the road network but carry over **80%** of the total road traffic. Uganda National Roads Authority (UNRA) is mandated to develop and maintain the national roads network, advise Government on general roads policy and contribute to addressing of transport concerns.

The Northern Corridor road network in Uganda is approximately **2,162.75 km** long, out of which, about **79%** roads are paved and in good condition **13%** in fair condition and **8%** in bad condition as shown in table 33. UNRA reported that they have adopted standardization of speed humps that will apply to all major roads in Uganda. UNRA also reported cases of heavy traffic congestion being experienced along the – **Jinja - Kampala Road** and that plans are underway to build the **Jinja – Kampala** express way to ease congestion. The project is projected to be completed by **2020**.

**Table 32: On-going road development Works along the NC roads in Kenya**

Source: Kenya National Highways Authority (KeNHA) March 2019

Project Name/Activity	Source of Funds	Contract sum (Ksh.)	Length (Lane KM)	% Physical Progress
Construction of 3 interchanges at Nakuru – Njoro Turn off, Nakuru – Nyahururu and Mau Summit.	IDA/ GoK	2,690,008,029	N/A	100
Kisumu - Kakamega	IDA/ GoK	7,961,527,361	141.6	99
Kisumu Boys - Mamboleo	IDA/ GoK	2,565,076,332	18.4	86
Kakamega - Kaburengu (Webuye) New	IDA/ GoK	4,168,686,096	80	84
Construction of Interchange at Ahero Jn (A1/B1)	IDA/ GoK	655,908,412	N/A	75.45
Construction of Interchange at Kericho Jn (B1/C23)	IDA/ GoK	671,880,126	N/A	65.42
Dualling of Athi River - Machakos Turnoff	IDA/ GoK	5,288,549,207	40	60
Mombasa – Kwa Jomvu Rd (A109)	AfDB/GoK	6,016,868,250	80	50
Lodwar - Lokitaung Junction (Lot1)	IDA/ GoK	8,333,852,291	160	33.33
Kisii - Ahero	AfDB/GoK	9,467,004,191	384	28.8
Mau Narok-Kisiriri (B18)	GoK	1,222,217,429	34	26.56
Isebania - Kisii	AfDB/GoK	8,597,817,890	368	20
Loichangamatak – Lodwar (Lot0)	IDA/ GoK	6,782,439,479	100	18.7
Uplands - Githunguri	GoK	3,988,058,395	94	18
Capacity enhancement of James Gichuru - Rironi (25.3km)	IDA/ GoK	16,366,586,563	156	18
Kitale – Endebes - Suam	AfDB/GoK	4,474,991,402	90	13.5
Kalobeiyei River – Nadapal (Lot3)	IDA/ GoK	7,856,051,265	176	13.12
Lokitaung Junction - Kalobeiyei River (Lot2)	IDA/ GoK	8,456,315,607	160	12.94
Eldoret Bypass	AfDB/GoK	5079517696	64	7.13



Table 33: Condition of Road Sections in Uganda along the northern corridor in 2019

Source: UNRA, data 2019

Route	Length	Good	Fair	Bad
<b>Malaba-Tororo-Jinja-Kampala</b>				
Malaba-Tororo	11.65	11.65	0.00	0.00
Tororo-Iganga-Kakira-Jinja	126.73	93.53	33.20	0.00
Jinja -Lugazi-Kampala	73.75	56.01	17.74	0.00
<b>Kampala-Masaka-Kabale-Katuna</b>				
Kibuye - Natete – Busega	6.52	6.52	0.00	0.00
Busega- Mpigi-Buwama-Lukaya- Masaka	121.92	121.92	0.00	0.00
Masaka- Mbarara (Bushenyi Junction) – Rubaale	211.77	211.77	0.00	0.00
Rubaale - Muhanga – Kabale	59.41	59.41	0.00	0.00
Kabale-Katuna	21.70	21.70	0.00	0.00
<b>Malaba-Jinja- Kampala-Ishasha</b>				
<b>Busega- Bujuuko- Fortportal-Kasese - Kikorongo-Ishasha</b>				
Busega-Bujuuko- Mityana	59.64	59.64	0.00	0.00
Mityana -Kitenga-Lubaale-Fortportal	224.06	203.71	20.35	0.00
FortPortal - Kasese – Kikorongo	96.06	0.00	96.06	0.00
Kikorongo - Katunguru – Ishasha	102.72	0.00	15.70	87.03
Mbarara – Ishanyu	4.93	4.93	0.00	0.00
Ishanyu – Kabwohe	26.17	26.17	0.00	0.00
Kabwohe – Ishaka	28.08	28.08	0.00	0.00
Ishaka – Katunguru	54.00	0.00	54.00	0.00
Katunguru – Ishasha	87.03	0.00	0.00	87.03
<b>Busega- Bujuuko- Fortportal-Kikorongo-Mpondwe</b>				
Kikorongo - Bwera – Mpondwe	38.25	38.25	0.00	0.00
<b>Malaba-Tororo-Goli</b>				
Tororo - Magodes – Nabumali	33.70	33.70	0.00	0.00
Nabumali - Mbale- Lira	233.75	233.75	0.00	0.00
Lira - Ayer- Packwach	189.24	189.24	0.00	0.00
Packwach – Nebbi	53.47	53.47	0.00	0.00
Nebbi – Goli	15.14	15.14	0.00	0.00
<b>Malaba-Tororo- Arua-Oraba</b>				
Nebbi – Eruba	63.79	63.79	0.00	0.00
Eruba - Arua – Manibe	18.80	18.80	0.00	0.00
Manibe - Maracha – Koboko	49.90	49.90	0.00	0.00
Koboko – Oraba (Uganda/Sudan border)	18.85	18.85	0.00	0.00
<b>Kasese – Kakitumba</b>				
Ishaka - Kagamba- Ntungamo	51.14	35.91	0.00	0.00
Ntungamo-Kakukuru	13.54	0.00	13.54	0.00
Kakukuru-Kafunzo-Kakitumba	22.17	0.00	16.13	0.00
Busia – Namutere	16.91	16.91	0.00	0.00
Busia – Tororo (Malaba junction)	24.24	0.00	0.00	0.00
Malaba junction – Tororo	3.75	0.00	0.00	0.00
<b>Total Length in Km</b>	<b>2,162.75</b>	<b>1,672.74</b>	<b>266.71</b>	<b>174.05</b>

### 6.3 Road Condition in Rwanda along the Northern Corridor

Rwanda has designated a number of routes and their associated borders as part of the Northern Corridor Route. The main designated Northern Corridor roads in Rwanda as per the NCTTCA Agreement are as below:

**Kagitumba – Kayonza – Kigali – Muhanga – Huye – Akanyaru-Haut, Huye – Kitabi – Buhinga – Rusizi, Rusizi – Bugarama – Ruhwa, Muhanga – Rubengera - Karongi – Buhinga, Kigali – Nemba, Kigali – Base - Musanze – Mukamira – Musanze, Kagitumba – Ryabega - Nyagatare – Rukomo, Gatuna – Rukomo – Kigali, Rukomo – Gicumbi – Base, Cyanika - Musanze, Mukamira – Ngororero – Mukamira, Rubavu – Rutsiro - Rubengera.**

From, table 34 most of the Northern Corridor road network in Rwanda is paved and in good condition at approximately **83%**; whereas only **17%** is in fair condition with Huye (Karubanda-junction to Kitabi sections under rehabilitation being financed by **BADEA, OFID & SFD** and Kagumba – Kayonza rehabilitation works is at substantial completion. The construction works to upgrade the road from **Nyagatare – Rukomo** is at **38.9%** progress and **Rukomo – Gicumbi – Base** is at **90%** progress. This is an alternative shorter route for DRC Transit bound trucks which had to go through Kigali City.

### 6.4 Road Condition in Burundi along the Northern Corridor

The designated Northern Corridor Routes in Burundi are: **Kanyaru-Haut (through- Kayanza – Bujumbura) to Gatumba, Gasenyi (through-Kirundo – Ngozi) to Bujumbura, Ruhwa - (through - Rugombo – Nyamitanga) to Bujumbura, Kanyaru-Bas-(through Ngozi–Nyungungu) to Gitega.**

Majority of the roads in Burundi are paved and in good conditions except for some sections of about **93km (19%)** which is still in bad condition as shown in table 35. However, plans are underway to improve/ upgrade for instance, for **Kanyaru – Kayanza** section technical study by World Bank was conducted for rehabilitation and expansion according to EAC standards.

As of **March 2019**, black spots identified in Burundi along the Northern Corridor route are on: **Bujumbura – Akanyaru** road occasioned by a lot of landslides during the rainy season; **Bugarama – Gitega route** where the road is too old and **Kanyaru bas-Ngozi** where the road has steep bends which makes it difficult to circumvent.

**Table 34: Road condition in Rwanda**

Source: RTDA, March 2019

From	To	Length (Km)	Good	Fair	Bad
Kagitumba (border)	Kayonza (junction of NR4)	116.3		116.3	0
Kayonza (Junction of NR24)	Kigali (city centre-main roundabout)	77.9	77.9	0	0
Kigali (City centre main roundabout)	Muhanga - Huye - Akanyaru Haut (border)	157.8	157.8	0	0
Huye (Karubanda-junction of NR1)	Kitabi	52.7		52.7	0
Kitabi	Buhinga	62.6	62.6	0	0
Kigali (Nyabugogo)	Gatuna (border)	78	78	0	0
Kigali (Gitikinyoni) by way of Musanze	Rubavu (grande barriere-border)	150	150	0	0
Ruhwa	Kamembe(gihundwe)	50.5	50.5	0	0
Kamembe	Rubengera (roundabout-junction of NR15)	131.1	131.1	0	0
Rubengera	Rubavu (Pfunda-junction of NR2)	75.4	75.4	0	0
Musanze (Junction of NR2)	Cyanika (border)	25.1	25.1	0	0
<b>Other sections along the Northern Corridor not in the agreement</b>					
Muhanga (Junction of NR1)	Rubengera (roundabout-junction of NR15)	61.5	61.5	0	0
Muhanga (Meru-junction of NR15)	Mukamira (junction of NR2)	99	99	0	0

Table 35: Status of road sections in Burundi

Source : Office des Routes, March 2019

Route / Road section	Length (Km)	Good	Fair	Bad
Kanyaru Haut - Kayanza - Bugarama - Gatumba	125	16	109	0
Kanyaru Haut - Kayanza	15	0	15	0
Kayanza - Bugarama	59	0	59	0
Bugarama - Bujumbura	35	0	35	0
Bujumbura - Gatumba	13	13	0	0
Gatumba - Frontière RDC (Rusizi II)	3	3	0	0
Gasenyi - Kirundo - Ngozi - Kayanza	139	35	104	0
Gasenyi - Kirundo	35	35	0	0
Kirundo - Gashoho	32	0	32	0
Gashoho - Ngozi	40	0	40	0
Ngozi - Kayanza	32	0	32	0
Ruhwa - Rugombo - Nyamitanga - Bujumbura	80	75	0	5
Ruhwa - Nyamitanga	50	50	0	0
Nyamitanga - Bujumbura	30	25	0	5
Kanyaru bas - Ngozi - Nyangungu - Gitega	172	84	0	88
Kanyaru bas - Ngozi	23	0	0	23
Ngozi - Gitega	84	84	0	0
Gitega - Bujumbura	65	0	0	65
<b>Total Length in Km</b>	<b>516</b>	<b>210</b>	<b>213</b>	<b>93</b>

As presented in table 36, Burundi has **19 bridges** along the Northern Corridor. Their respective locations and routes are as shown.

Table 36: Bridges along the Northern Corridor section

Source : Office des Routes, March 2019

From	To	Number of Bridges	Location
Kayanza	Bugarama	4	Ruvubu, Nyawisera, Gihorwe and Nyabihondo
Bujumbura	Gatumba	4	Mutimbuzi, Mpanda, Rusizi I and Rusizi II
Ruhwa	Nyamitanga	6	Kagunuzi, Kaburantwa, Muhira, Nyamagana, Nyakagunda and Ruhwa
Nyamitanga	Gihanga	1	Kajeke
Gihanga	Bujumbura	2	Mutimbuzi and Mpanda
Kanyaru bas	Ngozi	1	Kanyaru
Ngozi	Gitega	3	Ruvyironza, Mubarazi and Ruvubu
Gitega	Bujumbura	2	Mubarazi and Ruvyironza

## 6.5 Road Condition in DRC along the Northern Corridor

Table 37 shows designated Northern Corridor routes in DRC as per the Agreement.

**Table 37: Transit Road Sections in DRC**

Source: NCTTA, Agreement (2007)

From	By way of	To
Aru	Bunia	Kisangani or Isiro
Mahagi	Bunia	Kisangani or Isiro
Kasindi	Beni	Kisangani or Bunia
Ishasha	Rutshuru	Goma Town
Bunagana	Goma	Goma Town
Bukavu	Kindu	Kisangani
Kiliba	Uvira	Kalundu
Kavimvira	Uvira	Kalundu
Kamanyora	Bukavu	Kalundu

Table 38 gives the current status of various road subsections in DRC. **48%** of the Northern Corridor roads in DRC are in a good state, **26%** in fair condition and the rest **26%** in bad condition.

**Table 38: Status of the roads in DRC**

Source: Office Des Routes, DR Congo, September, 2018

Route	Length (KM)	Road Condition Status (KM)		
		Good	Fair	Bad
<b>Bukavu - Kindu - Kisan-gani</b>				
Bukavu - Burhale	55	24	0	31
Burhale - Shabunda - Lubile	363	0	108	255
Lubile - Kalima - Mali	117	7	67	43
Mali - Kindu	36	5	30	1
Mali - Lubutu	318	18	88	212
Lubutu - Kisangani	297	105	94	98
Lubutu - Osokari - Walikale	219	192	27	0
Walikale - Hombo	107	0	0	107
Hombo - Miti	93	0	4	89
<b>Bukavu - Uvira</b>				
Bukavu - Kamanyola	55	5	45	5
Kamanyola - Uvira	86	61	15	10
Uvira - Kamvivira - Front Burundi	17	7	10	0
<b>Kisangani - Beni -Kasindi</b>				
Kisangani - Niania - Ko-manda	650	637	0	13
Komanda - Luna	65	12	53	0
Luna - Beni	60	60	0	0
Beni - Kasindi	80	45	35	0
<b>Komanda - Bunia - Mahagi</b>				
Komanda - Bunia	71	13	58	0
Bunia - Mahagi - Goli - Fr Uganda	190	21	131	38
<b>Kisangani - Isiro - Aru</b>				
<b>Kisangani - Niania</b>				
Niania - Isiro	232	41	108	83
Isiro - Watsa - Aru	422	288	81	53
<b>Beni - Butembo - Goma - Bukavu</b>				
Beni - Ndoluma	132	76	44	12
Ndoluma - Rutshuru - Goma	199	167	32	0
Goma - Sake - Minova	58	23	25	10
Minova - Kavumu - Bukavu	150	131	0	19
Rutshuru - Bunagana	27	16	11	0
Rutshuru - Ishasha	63	36	20	7
<b>TOTAL (KM)</b>	<b>4162</b>	<b>1990</b>	<b>1086</b>	<b>1086</b>

## 6.6 Road Condition in South Sudan along the Northern Corridor

South Sudan is facing challenges related to repairing aging roads with limited resource allocation. Table 39 shows that around **95%** of the corridor roads in South Sudan are in **bad condition** and **5% is in fair condition**.

Table 39: Condition of Road Sections in South Sudan as at March 2019

Route / Road	Pavement type	Configuration	Length (Km)	Works Status	Planned	Road condition (Km)/IRI		
						Good	Fair	Bad
Nimule - Nesitu - Juba	Paved	Two lane	192	Constructed	Maintenance	0	192	
Nadapal - Kapoeta - Torit - Nesitu	Gravel	Two lane	335	Designed	Awaiting construction	0	0	335
Juba - Lainya - Yei - Kaya	Gravel	Two lane	225	N/A	N/A	0	0	225
Yei - Maridi	Gravel	Two lane	180	N/A	N/A	0	0	180
Juba - Mundri - Maridi - Yambio - Nabiapai	Gravel	Two lane	427	N/A	N/A	0	0	427
Yambio - Tambura - Wau - Aweil	Gravel	Two lane	591	N/A	N/A	0	0	591
Wau - Kwacjok - Agok - Mayom - Bentiu	Gravel	Two lane	520	N/A	N/A	0	0	520
Juba - Bor - Ayod - Malakal	Gravel	Two lane	614	N/A	N/A	0	0	614
Mundri - Rumbek - Wau	Gravel	Two Lane	459	N/A	N/A	0	0	459
<b>Total (Length) in Km</b>			<b>3543</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>192</b>	<b>3,351</b>

## 6.7 Weighbridge traffic in Northern corridor Member States

The indicator measures the average number of trucks weighed per day at the various weighbridges in respective countries of the Northern Corridor.

Efficiency of the weighbridge station is measured through time taken for trucks to cross. Long queues and high service time leads to congestion which is a pointer to inefficiency. This section discusses operations at the weighbridge traffic along the Northern Corridor in the respective Member States.

### 6.7.1 Burundi

Burundi has no weighbridges at the moment along the Northern Corridor. In Burundi, the law governing the control of the axle load has already been adopted and signed by

the authorities of the country. However, Burundi is yet to enforce vehicle load limits. Currently no achievements have been attained on weighbridges implementation.

### 6.7.2 Kenya

There are **9 static weigh-bridges** located at **Ati-River, Mariakani, Webuye, Gilgil, Busia, Mtwapa, Rongo Isinya** and **Bondo**; out of which the former five are along the Northern Corridor. To reduce congestion at the weighbridges, Kenya National Highway Authority (KeNHA) has installed **High Speed Weigh in Motion (HSWIM)** and multi deck scales at: Mariakani; Athi River; Gilgil and Webuye which are fully automated.

Table 40 illustrates average daily traffic at weighbridges for both inbound and outbound trucks. Athi - River weighbridge recorded the highest traffic that included traffic originating from the port of Mombasa both local and transit cargo and traffic originating from Namanga Border Point.

**Table 40: Average daily weighed traffic at Weighbridges in Kenya**

Source: KeNHA, Kenya 2018/2019

	Number of Trucks				
	Mari-akani	Athi River	Busia	Gilgil	Webuye
Jan-18	2,110	6,980	697	6,586	2,575
Feb-18	4,973	10,949	596	6,186	2,300
Mar-18	4,846	8,698	650	4,940	2,426
Apr-18	5,085	10,212	610	6,376	2,510
May-18	4,987	9,868	659	6,186	2,627
Jun-18	5,319	9,979	596	6,586	2,698
Jul-18	4,452	6,973	680	6,697	2,536
Aug-18	4,572	9,951	751	6,456	2,412
Sept-18	7,220	8,153	703	6,295	2,519
Oct-18	5,692	10,407	--	--	--
Nov-18	5,154	10,290	--	--	--
Dec-18	5,271	9,073	--	--	--
Jan-19	2,007	--	--	--	--
Feb-19	1,811	--	--	--	--
Mar-19	2,093	--	--	--	--

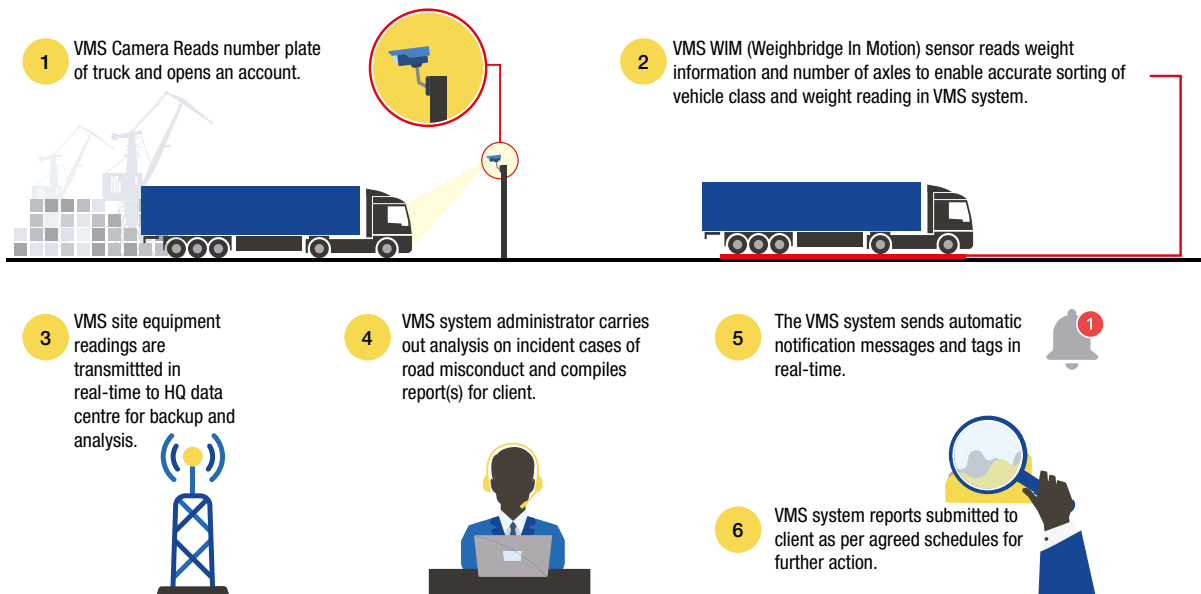
This traffic reduces by around **50%** at Gilgil weighbridge given that some of it was destined for Nairobi and its environs. Webuye and Busia Weighbridges recorded lower traffic which majourly comprises of transit cargo heading to the border points of Malaba and Busia respectively.

**6.7.2.1 Status on implementation of virtual weighbridges**

Virtual weigh stations are Weigh-in-Motion systems that provide vehicle records for enforcement, traffic surveillance and/or data collection in real time over a computer network connection to a laptop, mobile device or workstation computer. It provides ways to unobtrusively monitor commercial vehicles traffic on highways and urban streets. There is no need to physically man these stations as the system is designed for true multi-lane bi-directional free flow measurement and verifies the accuracy of all measured parameters of the vehicles in both road directions and also when driving between road lanes.

Currently, 10 virtual weighbridges stations have been installed and integrated at selected locations along the National Highways Road Network. They include: **Southern Bypass 1; Southern Bypass 2; Sagana; Yatta; Kamulu; Kaloleni; Ahero; Eldoret; Mayoni** and **Lisamis**. The Virtual Weighbridge has improved the efficiency and cost effectiveness of weighbridge operations. Plans are underway to build up to **20 stations** using same information and technology. Furthermore, East Africa Community (EAC) is seeking advice to be guided in implementing the same technology

**Vehicle Management System (VMS) Flowchart**



### 6.7.3 Rwanda

Like Burundi, Rwanda is yet to enforce vehicle load limits. No weighbridge is operational at the moment. However, 8 Sites for Weigh-in-Motion Weighbridges were identified and so far, 2 are under Construction/installation between Kagitumba-Kayonza and Rusumo. RTDA targets to procure and setup two HSWIM equipment, which will be setup at Kagitumba and Rusumo Borders. A policy and legal framework on Axle Load Control has been developed. The piece of legislation being finalized is in harmony with the Northern Corridor decision as it proposes a High-Speed Weigh In-Motion Weighbridge Technology.

### 6.7.4 South Sudan

South Sudan has no weighbridges at the moment and also is yet to enforce the vehicle load limits. However, South Sudan is to adjust the regulations to the regional vehicle load limits set through the Common Market for Eastern and Southern Africa (COMESA) and East African Community (EAC) requirements; which is currently set at a maximum of **56 tons** with a **5%** weighbridge allowance and whose enforcement is based on both Gross Vehicle and Axle load limits.

### 6.7.5 Uganda

Uganda has **8 fixed Slow Speed weigh-in-motion weighbridges** located at Busitema, Lukaya, Mbarara, Mubende, Mbale, Luwero, Magamaga and Ibanda. Table 41 gives the average daily traffic at respective weighbridges operated by UNRA along the Northern Corridor. It is observed that between **October 2018 to March 2019**, Magamaga weighbridge recorded the highest average monthly traffic of **25,390** whilst Mubende weighbridge had the least traffic recording monthly average of **7,412** over the same period. The slow speed weigh in motion has caused a lot of congestion and delays along the sections of the Corridor where they are located.

**Table 41: Average monthly weighed traffic for Weighbridges in Uganda**

Source: UNRA

	Number of Trucks					
	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19
Magamaga	21,032	22,231	23,555	22,301	29,453	33,766
Lukaya	16,118	17,126	18,026	1,372	7,664	17,924
Mbale	10,263	12,130	10,313	11,366	10,822	11,733
Luwero	12,330	12,453	13,681	14,586	13,109	--
Mbarara	9,270	10,080	9,658	9,906	9,078	10,574
Mubende	7,876	8,127	8,049	8,546	8,859	3,014

However, UNRA is in the process of upgrading Magamaga and Mbarara weighbridges to HSWIM; as well as install weighing scales on both sides of the road. The upgrading is expected to be completed in the year **2019**.

## 6.8 Weight Limit compliance at Weighbridges along the Northern Corridor

Weighbridge compliance is a key indicator for tracking corridor performance and is measure of axle load compliance. Axle load limit compliance is important because non-compliance damages the roads and compromises vehicle safety. Weighbridges serve as check points that enhance compliance with the transport vehicle load limits. Data for the period **January 2018 to March 2019** as shown in Table 42 shows that compliance is high at Mariakani, Athi River and Webuye Weighbridges with compliance ranging from **96.26%** to **99.32%**.

**Table 42: Weight Compliance Level at weighbridges in Kenya**

KeNHA, Kenya 2018/2019

	Number of Trucks				
	Mari-akani	Athi River	Gilgil	Webuye	Busia
Jan-18	97.1	98.4	94.0	96.2	67.0
Feb-18	99.1	98.2	94.3	96.0	68.6
Mar-18	99.9	98.1	92.0	96.4	68.9
Apr-18	99.3	98.7	91.8	96.3	69.8
May-18	99.9	98.6	94.3	97.0	69.0
Jun-18	98.9	98.0	94.0	97.8	73.3
Jul-18	96.7	97.7	94.7	97.0	81.4
Aug-18	98.8	98.8	95.0	97.1	81.5
Sept-18	99.2	98.9	93.4	97.2	81.4
Oct-18	99.7	95.2	--	--	--
Nov-18	98.4	94.3	--	--	--
Dec-18	98.8	93.9	--	--	--
Jan-19	99.6	--	--	--	--
Feb-19	99.5	--	--	--	--
Mar-19	99.5	--	--	--	--

Target = 100%

However, Compliance at the Busia Weighbridge was the lowest with the highest compliance of **82%** in the month of **August 2018**. It is important to note that Busia Weighbridge has the lowest traffic and does not use the HSWIM technology which reduces its efficacy. In addition, there is a possibility that the Busia weighbridge handle cargo that originates from the region but has not been weighed elsewhere.

To avoid transit delays and penalties to cargo transporters, measures are required by both transporters and the road

authorities to ensure compliance and efficiency of the weighbridges. Uganda has its Gross Vehicle Weight limit at **56 tons**. Enforcement is based on both Gross and Axle load limit. **Table 43** depicts the level of compliance (gross and axle load compliance) by trucks that were weighed at the Uganda weighbridge on the Northern Corridor. Clearly, all weighbridges recorded a steady performance in terms of gross compliance levels of over **99%** performance. However, there was very low compliance on axle load limits with only one quarter of trucks complying with axle load limits. Axle load control regulations are being operationalized as stipulated in the UNRA Act.

**Table 43: Weight Compliance Level at weighbridges in Uganda**

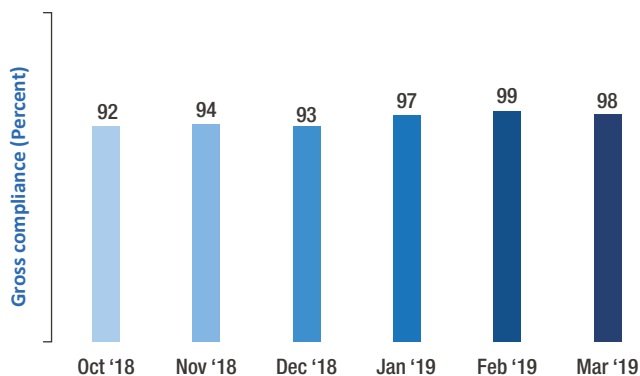
Source: UNRA

	Number of Trucks									
	Lukaya Gross	Lukaya Axle	Luwero Gross	Luwero Axle	Magamaga Gross	Magamaga Axle	Mbale Gross	Mbale Axle	Mubende Gross	Mubende Axle
Oct-18	99.9	14.9	99.7	12.6	99.9	16.0	100.0	18.7	99.9	10.5
Nov-18	99.9	14.7	99.6	12.9	99.9	13.7	99.9	13.3	100.0	11.6
Dec-18	99.9	13.9	99.9	15.3	99.9	13.4	99.9	11.8	100.0	12.4
Jan-18	99.6	14.9	99.9	14.9	100.0	15.0	100.0	15.2	99.8	8.1
Feb-19	100.0	13.8	99.9	14.7	100.0	14.7	99.9	15.5	99.8	8.6
Mar-19	99.9	13.4	--	--	100.0	15.2	100.0	14.4	99.8	10.5

Mbarara weighbridge compliance level on gross load limit was above **90%** as shown in figure 30.

**Figure 30: Compliance level at Mbarara Weighbridge in Uganda**

Source: UNRA 2019









## Chapter 7

# Transit Time and Delays

This section analyses and presents some key findings on time related indicators including transit time and border crossing and delays time at major nodes.



The data on transit time and delays within the Northern Corridor is obtained from electronic data sources including customs business systems; Electronic Cargo Tracking System (ECTS) and the road transport survey results.

Transit time is measured by the average time for transit trucks take to move from departure to destination. There are various sources of data for this indicator including Revenue Authorities' systems such as **ASYCUDA**, **SIMBA**, **RECTS** and **SCT**.

Regional Electronic Cargo Tracking System (RECTS), connecting Kenya, Rwanda and Uganda was implemented in March 2018 with the objective of reducing the cost of cargo transportation along the Northern Corridor. RECTS allows Revenue Authorities in Rwanda, Uganda and Kenya to jointly and electronically track and monitor goods (whose taxes have not been paid) along the Northern Corridor from Loading (Departure) to destination within Kenya, Rwanda and Uganda.

RECTS replaces the existing Electronic Cargo Tracking System (ECTS) where monitoring is done independently through stand-alone platforms. DRC and South Sudan have not yet rolled out the R-ECTS. Currently KRA has about **3,000 R-ECTS gadgets** and targets to have **17,000**. RECTS cover about **15%** of the transit cargo only. It is also noted that the number of RECTS seals on some transit routes were quite few with some having very minimal records. Therefore, the routes have not been analyzed since sample population may not be adequate for conclusive analysis.

## 7.1 Transit time in Kenya using - RECTS

### 7.1.1 Mombasa to Malaba

Table 44 shows transit time from the port of Mombasa to Malaba border for a period of 12 months (March 2018-March 2019) for the trucks that were armed with RECTS. The distance between Mombasa to Malaba is 933 km and the average transit time from March 2018-to March 2019 stood at **72 hours** against the target of 72 hours for the 899 trucks that were assessed.

The best transit time for the period was recorded in **January 2019** at **59 hours** whereas **March 2018** recorded the poorest performance of **92 hours**. Over the same period, **median transit time** was recorded as **62 hours**, which suggests an enhanced efficiency along the route over time.

The remarkable performance could be attributed to the infrastructure improvement along the route including construction of Port Reitz- Moi International airport access road, Miritini –Mwache Kipevu links road, Nairobi Southern by-pass and Nairobi Eastern by-pass, construction of 3 interchanges at Nakuru, Njoro and Mau Summit which have succeeded in diverting traffic from congestion in the major urban areas along the Corridor.

**Table 44: Transit time from Mombasa port to Malaba border (March 2018 to March 2019) in Hours**

Source: KRA, customs RECTS data 2018/2019

Transit time	2018										2019			Mar 2018 - Mar 2019
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	
Mean	92	71	74	67	75	74	75	72	61	87	59	67	62	72
Median	84	65	62	58	66	62	59	56	63	69	50	54	49	62
75%	112	85	90	74	79	87	76	81	70	87	68	72	76	84
Minimum	46	24	24	19	31	25	22	29	37	33	30	32	39	19
Maximum	179	289	300	310	232	269	283	332	95	275	134	247	111	332
Counts	35	236	126	127	100	83	60	32	10	13	18	46	13	899

### 7.1.2 Mombasa Port to Busia Border

The Mombasa-Busia section of the Northern Corridor covers a total of 947 Km. Busia offers an alternative entry and exit point for goods to Uganda and other Northern Corridor Member States. Traffic on this section goes through four weighbridges (Mariakani, Athi River, Gilgil and Busia).

Table 45 presents average transit time from Mombasa port to Busia border for the period covering March 2018 to February 2019. The average transit time over the period stood at **73 hours** against the **target of 72 hours**. The best recorded average transit time for the period was at **56 hours** in **November 2018**. It can be noted that transit time has been decreasing marginally with a recorded exemplary median transit time of **64 hours**.

The report notes poor road condition between Kisian and Busia (96 km) however, the ongoing improvements along the Mombasa – Busia stretch is expected to enhance smooth cargo movement in the coming months. Generally, the routes in Kenya along the Northern Corridor have witnessed a significant reduction in transit time. It can be noted that transit time has been decreasing marginally with a recorded exemplary median transit time of **64 hours**.

The report notes poor road condition between Kisian and Busia (96 km) however, the ongoing improvements along the Mombasa – Busia stretch is expected to enhance smooth cargo movement in the coming months. Generally, the routes in Kenya along the Northern Corridor have witnessed a significant reduction in transit time.

**Table 45: Transit time from Mombasa to Busia border (March 2018 to February 2019) in Hours**

Source: KRA, customs RECTS data 2018/2019

Transit Time	2018										2019		Mar 2018 - Feb 2019
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Jan	Feb		
Mean	76	67	64	78	87	60	64	87	56	163	78	73	
Median	79	63	57	67	70	60	64	57	59	163	82	64	
75%	87	79	83	88	87	66	73	154	68	163	97	85	
Minimum	54	44	27	37	44	31	39	37	40	163	42	27	
Maximum	88	115	127	305	234	114	95	161	68	163	113	305	
Counts	6	24	24	32	20	20	8	6	3	1	8	152	

### 7.1.3 Mombasa port to various destinations

Figure 27 provides transit time from the port of **Mombasa to Vurra/ Uganda, Elegu-Nimule border/South Sudan, Katuna border/ Rwanda, Mpondwe and Bunagana/DRC** from March 2018 to March 2019.

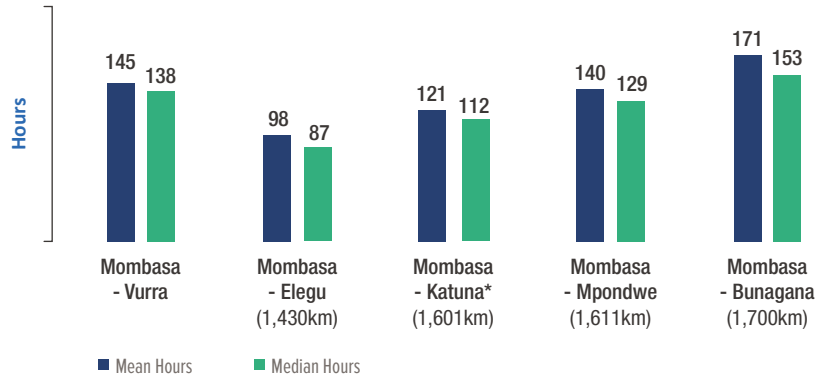
All the destinations from Mombasa have seen an improvement in average transit times since implementation of RECTS. However, it should be noted that it takes shorter time from the port of Mombasa to Elegu/Nimule which is 1,430 Km than from the port of Mombasa to Vurra.

It can also be noted that **Mombasa to Mpondwe** is the slowest route averaging **12 kms per hour** compared to **Mombasa to Elegu** route that averaged **15 Kms per hour** over the review period; suggesting that there are factors constraining cargo movement on these routes over the review period.

Sometimes it takes longer for the RECTS gadgets to be disarmed when a truck has already arrived which may contribute to an increase in transit time.

Figure 27: Average transit time from Mombasa Port to various Destinations (March 2018 to March 2019)

Source: KRA, customs RECTS data 2018/2019. \*Does not include March 2019



### 7.2 Transit time in Uganda - using RECTS

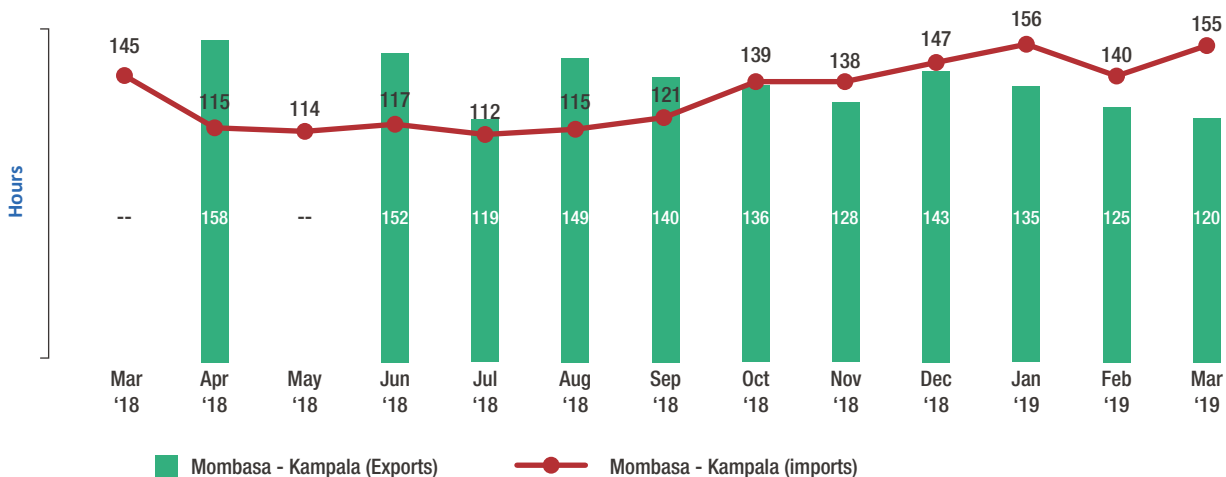
Transit time in Uganda tracks the time taken to move cargo between Kampala and various borders between Uganda and Northern Corridor Member States of Rwanda, South Sudan, Kenya and DRC. Uganda is bordered by South Sudan to the north, Kenya to the east, Tanzania and Rwanda to the south and the DRC to the west.

#### 7.2.1 Kampala to Mombasa port and import route

The distance between the port of Mombasa and Kampala through the Northern is about 1,169 Km. From figure 28, the average transit time for exports from Kampala to the port of Mombasa has been reducing steadily at **5-6 days** ranging from **158 hours** in **April 2018** to **120 hours** in **March 2019**. Over the same period, median transit time was registered as **121 hours**. On the other hand, transit time for imports i.e. from the port of Mombasa to Kampala varied between the months with the highest

Figure 28: Average Transit Time from/to Kampala and Mombasa port (March 2018 to March 2019)

Source: URA, customs RECTS data 2018/2019



transit time being recorded in the month of March 2019 at **156 hours**. This higher transit time could be attributed to the longer time taken to clear and disarm the R-ECTS gadget for trucks at ICDs in Kampala. This is because some inland stations where cargo is dropped do not operate 24/7. Median transit time from Mombasa port to Kampala was recorded as **106 hours** during the same period.

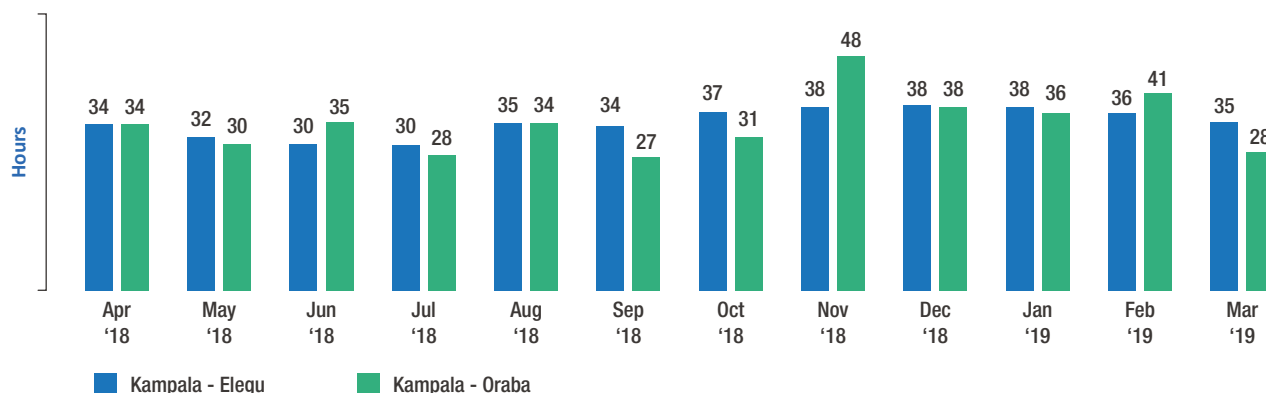
### 7.2.2 Kampala to borders with South Sudan

Uganda borders South Sudan through various borders among them **Elegu/Nimule**, **Oraba/Kaya** and **Madi Opei/Tetenya**. Data from Uganda Revenue Authority (URA) on the average transit time is shown in figure 29 covering the period of 12 months (March 2018 - March 2019). These borders are key as they serve as main gateway into South Sudan from the port of Mombasa. Oraba is a small border town neighboring South Sudan's Kaya town on the extreme North West. Nimule is located immediately north of the International border with the Republic of Uganda.

From figure 29, average transit time from Kampala to borders with South Sudan reduced steadily on all routes. The distance from Kampala to Elegu is 457 Kilometers; Kampala to Oraba is 581 Kilometers. It can be noted that Kampala to **Nimule/Elegu** is the slowest route averaging **13 Kms per hour** compared to Kampala to **Oraba/Kaya** that averaged **17 Kms per hour** over the review period. Data also showed that cumulatively **50%** of the truck drivers took **27 hours, 67 hours, 25 hours** and below to move cargo from Kampala to Elegu, Madi Opei and Oraba respectively. It is expected that establishment of one stop border post (OSBP) at Nimule should herald to decrease in transit time to Juba.

Figure 29: Average Transit Time from Kampala to Elegu and Oraba

Source: URA, customs RECTS data 2018/2019



### 7.2.3 Kampala with Rwanda Katuna/ Mirama Hill

Uganda borders Rwanda to the south through the following borders; **Katuna/Gatuna**, **Mirama Hills/ Kagitumba** and **Cyanika**. Mirama Hills is located in Ntungamo District, Ankole sub-region and is approximately 368 kilometers from

Kampala. The Mirama Hills road route offers a shorter and less difficult route to Rwanda than passing through the Katuna/Gatuna border post. The Mirama Hills/Kagitumba border crossing is one of the two busiest transit points between Uganda and Rwanda; the other being the Katuna/Gatuna border crossing. It is important to highlight that between

2011 and 2015, the Mirama Hills border crossing underwent upgrades to facilitate a single clearance process involving one joint stop for both countries. Data from Kampala to Mirama Hills of 27 hours between April, 2018 and March 2018.

Figure 30: Average transit time from Kampala to Katuna (March 2018 to February 2019)

Source: URA, customs RECTS data 2018/2019

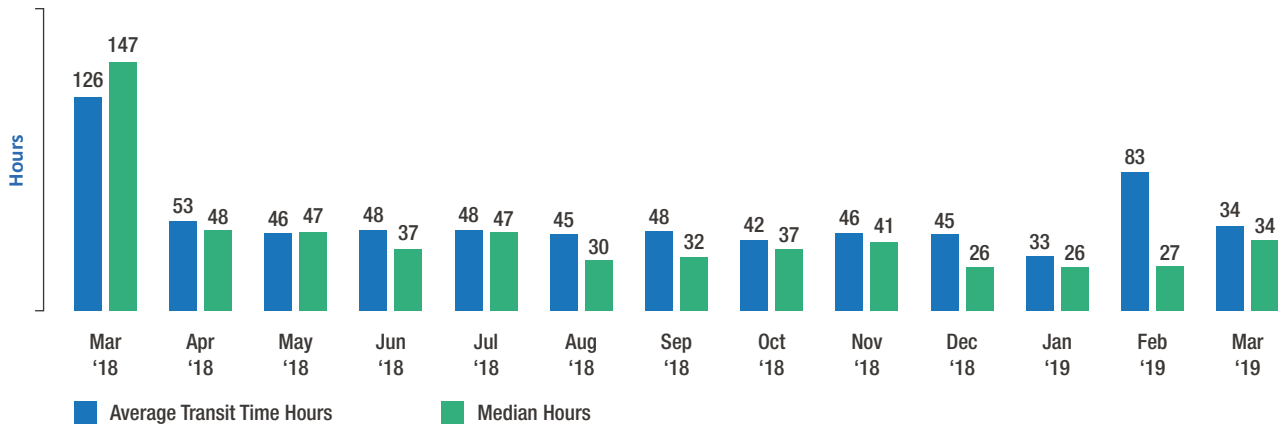


Figure 30 above illustrates transit time from Kampala to Katuna for the period covering April 2018 to February 2019 for **307 trucks** that were sampled. It has been observed that the average transit time from Kampala to Katuna border for the period April 2018 to February 2019 was approximately **50 hours**. Cumulatively **50%** of trucks travelled within **42 hours**.

Although transit time on the route reduced significantly over the months, February 2019 saw an increase to **83 hours**. The high increase was attributed to partial closure of the Gatuna border by Rwanda Government. The border serves Rwandan exporters to Uganda, Kenya and South Sudan, as well as imports from those countries, including cargo trucks to DRC and Burundi.

Kampala to Mpondwe (442 km), Kampala to Vurra (480 Km), Kampala to Ishasha River and Kampala to Bunagana.

Figure 31 presents summary average transit time in hours on these routes from Kampala using electronic cargo tracking system (ECTS). From the analysis time taken varies depending on the distance. However, Kampala to Ntoroko is the slowest route averaging **8.3 Kms per hour** compared to Kampala to Mpondwe and Kampala to Vurra that averaged **11 Kms per hour** over the review period. The terrain of the Fortportal - Ntoroko route contributes to long transit time. In March 2018, it was reported that the government of Uganda, had secured a loan of **US\$14 million**, to facilitate cross-border trade between Uganda and DR Congo.

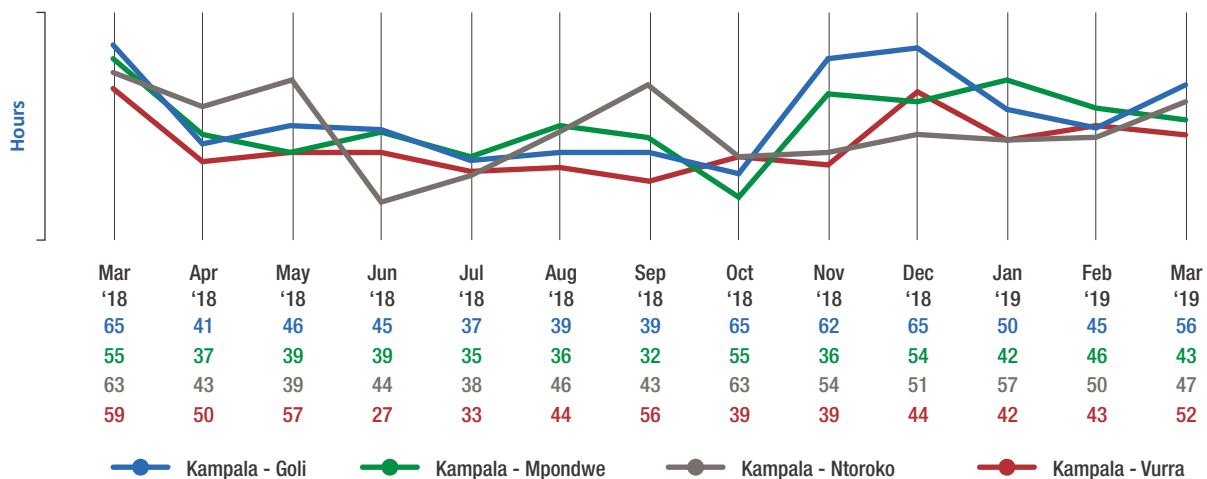
### 7.2.4 Kampala to DRC border

Uganda borders DRC through the following borders; Kampala to Ntoroko (372 Km), Kampala to Goli (465 Km),

A one-stop-border-post (OSBP at Mpondwe was officially opened on April 2019, by His Excellency president Yoweri Museveni of Uganda. This is expected to reduce transit time for smooth cargo flow.

Figure 31: Average transit time from Kampala to various borders in DRC (March 2018 to March 2019)

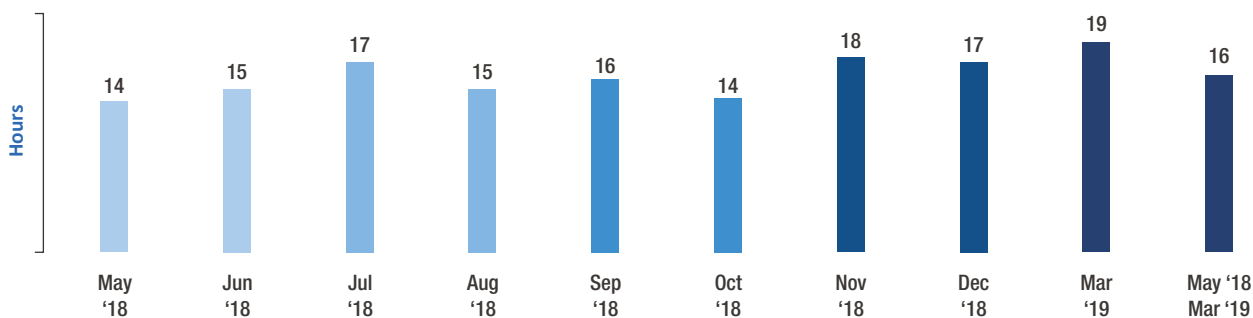
Source: URA, customs RECTS data 2018/2019





**Figure 32: Average transit time from Mirama Hills to Mpondwe in Hours**

Source: URA, customs RECTS data 2018/2019. \* Data for January and February 2019 missing



### 7.2.5 Mirama Hills to DRC border

The distance from Mirama Hills to Mpondwe is about 276 Km. From the **347 trucks** analyzed, the average transit time was **16 hours** with the highest duration recorded in March 2019 was **19 hours** as shown in figure 32 above.

## 7.3 Transit time using RECTS in Rwanda

This is the time duration from the time a truck is allowed (electronically in Rwanda Revenue Authority’s system) to commence the transit journey to the time the bond is cancelled on the exit border.

Rwanda is bordered by Uganda, Tanzania, Burundi and the DRC. This section discusses transit time in Rwanda with various borders along the Northern Corridor.

### 7.3.1 Transit Time from Kigali/Rwanda to Rubavu/ DRC

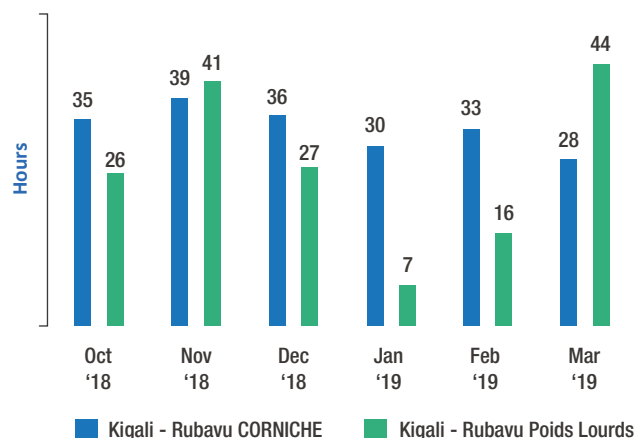
Rwanda borders DRC through various borders among them is Rubavu-Corniche, Rubavu Poids Lourds, Cyanica, Bukavu and Bugarama.

Figure 33 shows the transit times in Rwanda to these borders with DRC from October 2018 to March 2019 using the Regional electronic cargo tracking system. A total number of **198** and **57 trucks** were sampled for real time cargo trucking from Kigali to Rubavu Corniche and Poids Lourds respectively.

The distance from Kigali to Rubavu is approximately 160 kilometers. From the analysis, average transit time from Kigali to Rubavu Corniche is higher compared to transit time from Kigali to Rubavu Poids Lourds as shown in the same figure.

**Figure 33: Transit time from Kigali/ Rwanda to Rubavu-Corniche, Oct 2018 to Mar 2019 (hours)**

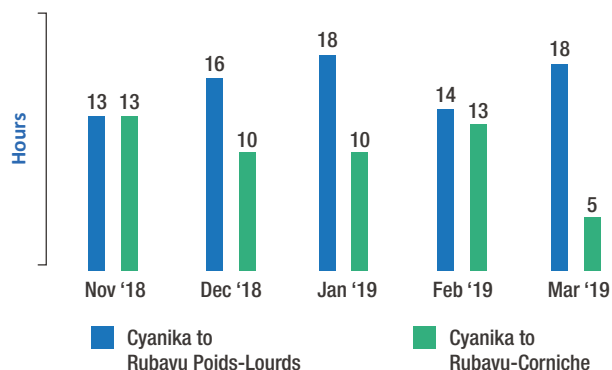
Source: RRA RECTS Data, Oct 2018 to Mar 2019



On the other hand, the distance between Cyanika to Rubavu/DRC is around 86 kilometers. From figure 34, average transit time from Cyanika to Rubavu Poids Lourds increased from 13 hours in November 2018 to 18 hours in March 2019 contrary to the Cyanika-Rubavu Corniche route which witnessed a decrease from **13 hours** to **5 hours** over the same period.

**Figure 34: Transit time from Cyanika to Rubavu-Corniche, November 2018 to Mar 2019 (hours)**

Source: RRA RECTS Data, Nov 2018 to Mar 2019



### 7.3.2 Transit time from Gatuna/ Rwanda to various Destinations

Gatuna border is in northern Rwanda and sits across from the town of Katuna in neighboring Uganda. Gatuna border serves Rwandan exporters to Uganda, Kenya and South Sudan, as well as receiving imports from those countries, including cargo trucks to DRC and Burundi.

In the month of March 2019, data shows no trucks were recorded at Gatuna border; this was due to temporally closure of Gatuna border for construction. As at March 2019, it was reported that the progress on the ongoing construction works for Gatuna one stop border post (OSBP) was at **90%** and is expected to be completed by July/ August 2019. The road infrastructure at the OSBP has been expanded to dual carriageway with a greening in middle. This is to allow separation of inbound and outbound traffic at the OSBP. Furthermore, the OSBP building facility is integrated and completed and an automatic drive lane through scanner will be positioned.

Table 46 presents summary on average transit time in Rwanda from Gatuna/Rwanda to Bugarama and Mururu/ Rusizi borders in DRC and Nemba border with Burundi for the period of November 2018 to February 2019. Total observations over the period were not substantive; for instance, 22 observations were witnessed at the Gatuna to Bugarama/DRC between November 2018 and February 2019. This means that the average figures may not be adequate for conclusive analysis. Nonetheless, transit time on these routes was not steady and varies depending on the distance and route.

**Table 46: Transit time from Gatuna/ Rwanda to various destinations**

Source: RRA RECTS Data, Nov 2018 to Feb 2019

Average Transit Time	Distance (Km)	Nov-18	Dec-18	Jan-19	Feb-19	Counts
Gatuna - Kigali	84	12	11	8	10	45
Gatuna - Mururu	356	11	12	1	2	45
Gatuna - Bugarama	410	42	34	42	52	22
Gatuna - Nemba	150	10	8	20	8	43

For instance, available data shows that average transit time from Gatuna to Bugarama (Export bound route) was not consistent increasing from **42 hours** in November 2018 to **52 hours** in February 2019.

Average transit time from Gatuna to Kigali (84 Km) between November and February 2019 ranged between **8 hours** to **12 hours**.



The border was until its partial closure the busiest border crossing serving Rwanda and Uganda, receiving hundreds of trucks and cross-border travelers each day.

### 7.4 Transit time in Burundi



Burundi is bordered by Rwanda, Tanzania and the DRC. This section focuses on transit time for a truck travelling between key borders in Burundi along the designated Northern Corridor road transit routes. The main borders linking Burundi to the Northern Corridor include Kanyaru – Haut and Nemba/ Gasenyi connecting with Rwanda; Gatumba border with DRC.

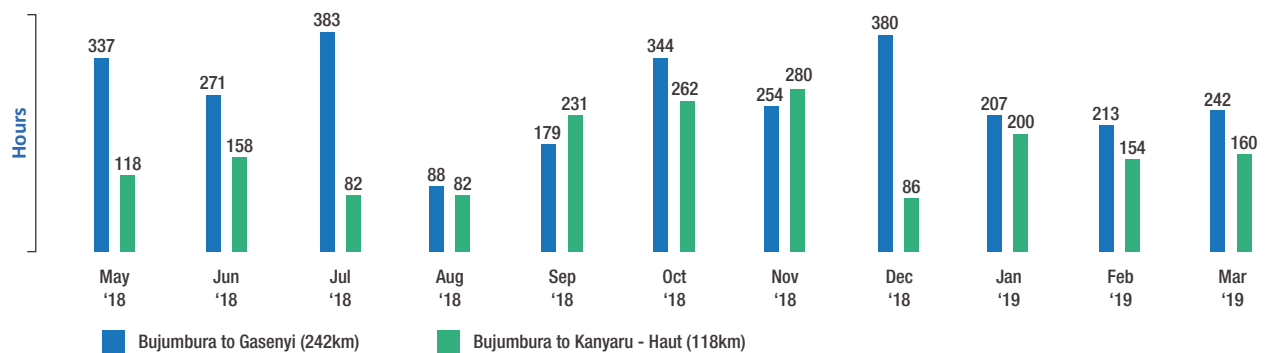
### 7.4.1 Transit time from Bujumbura to Kanyaru Haut and Gasenyi borders with Rwanda

Figure 35 shows average transit time from Bujumbura to Kanyaru-Haut (118 Km) and Nemba/Gasenyi (148 Km) respectively from May 2018 to March 2019. This is an export route. Average transit time on these routes was inconsistent over the period varying from as high as **383 hours** to a low of **88 hours** on Gasenyi route. This time taken is significantly high considering the distance of 118 kilometers suggesting that barriers to cargo movement still exist along the route pointing to prevailing inefficiencies.

.. time taken is **significantly high** suggesting that barriers to cargo movement still exist along the route pointing to prevailing inefficiencies

Figure 35: Transit Time from Bujumbura to Gasenyi and Kanyaru Haut with Rwanda in hours

Source: OBR, 2018/2019

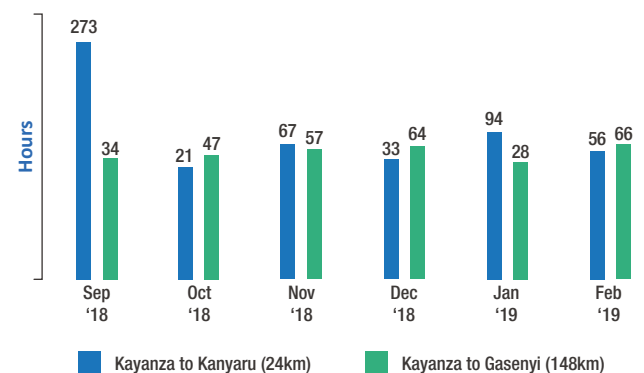


### 7.4.2 Transit time from Kayanza to Kanyaru Haut and Gasenyi

Average transit time for Kayanza to Kanyaru-Haut route varied from **273 hours** in **September 2018** to **21 hours** in **October 2018** then increased to **94 hours** in **January 2019** then to **58 hours** in **February 2019** as shown in figure 36. Similarly, the route of Kayanza to Gasenyi (148 Km) exhibited the same inconsistent trend however transit time was much favorable when compared to Kayanza to Kanyaru-Haut route of 24 kilometers. The long transit delays on the routes were attributable to the steep terrain and road conditions resulting from damage by rain and overloaded vehicles. Furthermore, delays to acknowledge receipt and clearance of trucks at the border.

Figure 36: Transit Time from Kayanza to Gasenyi and Kanyaru Haut in hours

Source: OBR, 2018/2019





## Chapter 8

# Intra-Regional Trade

A host of factors including level of tariffs and restrictions on the number of items or service have been cited as barriers to intraregional trade among the Northern Corridor Member States (TOP bi-annual reports) and the effective participation of countries in the global economy.



In essence, provision of adequate quality infrastructure is vital in reducing trade costs, enhancing competitiveness and facilitating regional economic integration. The Countries have embraced initiatives that are geared towards boosting intra-regional trade. Under the African Union, a lot of effort has been put on advancement of a Continental Free Trade Area that would bring together all the existing regional blocs. For instance, being part of African Continental Free Trade Area (ACFTA) provides an opportunity for Northern Corridor Member States to access a large and dynamic market.

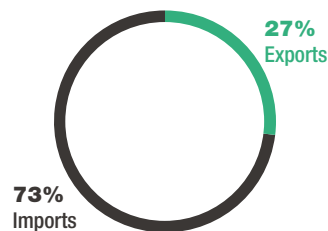
## 8.1 Burundi Formal Trade

### 8.1.1 Overall formal trade with Northern Corridor Member States

In **2018 (Jan-Dec)**, Burundi had an overall trade **USD 120,819,902** trading with Northern Corridor Member States. Out of which, share of exports accounted for **27%** while imports share absorbed **73%** as shown in figure 37. This implies that Burundi is a net importer given that imports are more in demand than exports.

**Figure 37: Share of Burundi trade within NC in 2018 (Jan to Dec in USD)**

Source: Burundi Bureau of Statistics (ISTEEBU) Jan-Dec 2018





### 8.1.2 Formal Imports from Northern Corridor Member States to Burundi

Table 47 above shows a summary of imports between Burundi and all Members States of the Northern Corridor except South Sudan. The total value of imports for the period **January 2018 to March 2019** was valued at **\$113.5 Million**. Uganda was the top customer of Burundi

products, accounting for **47%** of the total value of imports followed very closely with Kenya representing **44%** during the same period. Rwanda and DRC take a share of **5%** each. Burundi's main imports were: construction materials, food and fuel.

**Table 47: Share of Burundi Imports in USD Jan 2018 – Mar 2019**

*Source: Burundi Bureau of Statistics (ISTEEBU), Jan 2018 – Mar 2019*

Month	DRC	Kenya	Rwanda	Uganda	Total
Jan-18	99,104	2,206,662	387,340	2,888,481	5,581,587
Feb-18	33,605	2,848,969	353,946	2,613,739	5,850,259
Mar-18	176,348	2,818,950	648,080	3,195,288	6,838,666
Apr-18	138,679	3,248,540	241,912	3,067,864	6,696,995
May-18	352,089	3,356,213	464,872	3,064,643	7,237,817
Jun-18	696,047	2,870,416	306,963	3,284,593	7,158,019
Jul-18	892,318	4,725,571	257,941	3,065,411	8,941,241
Aug-18	543,023	3,821,349	417,544	4,772,837	9,554,753
Sep-18	421,391	3,422,624	398,384	4,134,666	8,377,065
Oct-18	199,262	3,435,266	411,014	4,275,145	8,320,688
Nov-18	202,907	3,242,986	196,832	2,771,790	6,414,514
Dec-18	165,732	3,227,039	460,521	3,608,401	7,461,693
<b>Total 2018</b>	<b>3,920,506</b>	<b>39,224,584</b>	<b>4,545,349</b>	<b>40,742,857</b>	<b>88,433,297</b>
Jan-19	200,367	3,484,217	455,803	3,754,480	7,894,868
Feb-19	129,670	3,915,558	343,311	2,099,193	6,487,731
Mar-19	255,168	3,716,583	388,506	6,309,802	10,670,059
<b>Total imports in USD</b>	<b>4,505,710</b>	<b>50,340,943</b>	<b>5,732,969</b>	<b>52,906,333</b>	<b>113,485,955</b>

### 8.1.3 Formal Exports to Northern Corridor Member States from Burundi

Table 48 below shows a summary of the exports between Burundi and all Northern Corridor Member States except South Sudan. The total value of exports for the period **January 2018 to March 2019** was valued at approximately **USD 38.8 Million**. Burundi's main exports were coffee and tea followed by cotton and skins.

Other products traded included those locally manufactured goods (such as soap, beer, cigarettes, etc.) providing a significant outlet for the development of the secondary sector of the economy in Burundi. Over the review period, DRC remains, however, the principal customer of Burundi providing **58%** market for Burundi merchandise. Burundi sales to Rwanda and Uganda accounted for **15%** each and **12%** for Kenya.

**Table 48: Share of Burundi Exports in USD Jan 2018 – Mar 2019**

*Source: Burundi Bureau of Statistics (STEEBU), Jan 2018 – Mar 2019*

Month	DRC	Kenya	Rwanda	Uganda	Total
Jan-18	1,915,395	505,022	77,832	621,657	3,119,906
Feb-18	1,227,191	552,136	98,360	633,698	2,511,385
Mar-18	1,713,979	536,012	50,793	300,508	2,601,292
Apr-18	1,413,446	370,842	122,045	602,659	2,508,992
May-18	1,619,598	266,534	276,330	145,316	2,307,778
Jun-18	1,571,581	290,008	1,736,179	467,145	4,064,913
Jul-18	1,333,935	30,877	1,833,628	230,066	3,428,506
Aug-18	1,836,530	193,029	423,005	309,718	2,762,282
Sep-18	2,273,454	272,333	129,880	138,264	2,813,931
Oct-18	1,393,906	140,626	182,453	169,700	1,886,685
Nov-18	1,439,175	259,830	148,887	652,779	2,500,671
Dec-18	1,165,610	375,029	170,967	168,659	1,880,264
<b>2018 Exports</b>	<b>18,903,799</b>	<b>3,792,278</b>	<b>5,250,359</b>	<b>4,440,169</b>	<b>32,386,605</b>
Jan-19	1,246,896	415,438	163,199	444,147	2,269,680
Feb-19	1,667,812	237,351	227,598	466,178	2,598,939
Mar-19	1,377,552	165,748	468,683	521,414	2,533,398
<b>Sub Total 2019</b>	<b>4,292,260</b>	<b>818,537</b>	<b>859,481</b>	<b>1,431,739</b>	<b>7,402,017</b>
<b>Total Exports</b>	<b>23,196,059</b>	<b>4,610,815</b>	<b>6,109,840</b>	<b>5,871,908</b>	<b>39,788,622</b>

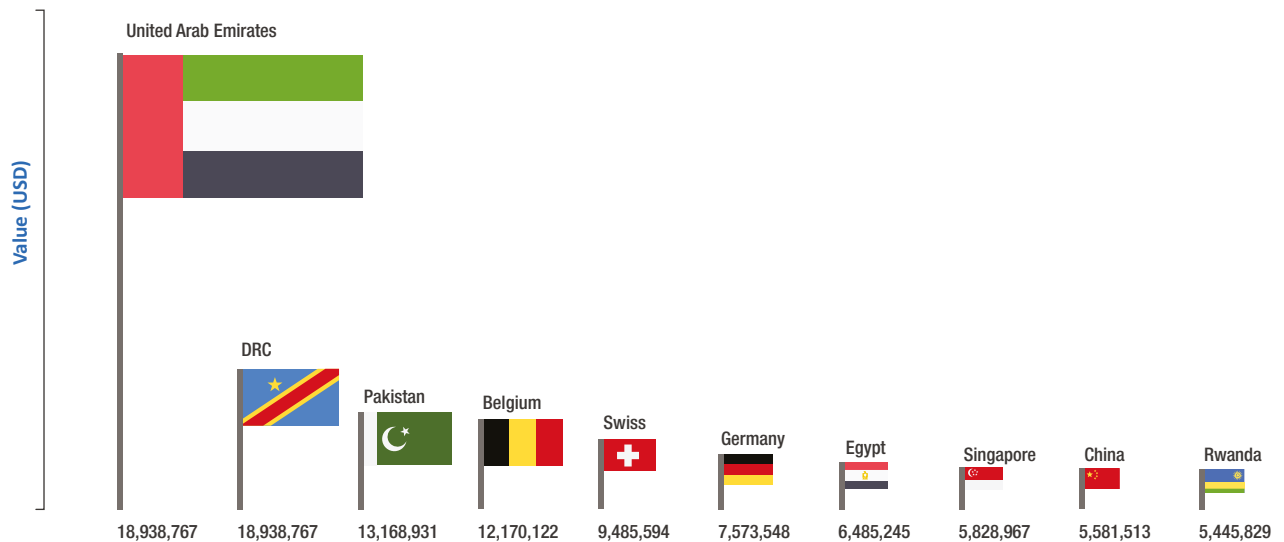


### 8.1.4 Burundi Trade with the world (mainly top 10)

United Arab Emirates featured as a significant proportion of market for Burundi; accounting for **42%** of total export trade. DRC also topped market in Africa for Burundi exports accounting for **13%** as presented in figure 38.

Figure 38: Top market for Burundi Exports to the world in USD Jan 2018 – Mar 2019

Source: Burundi Bureau of Statistics (ISTEEBU) Jan 2018 – Mar 2019

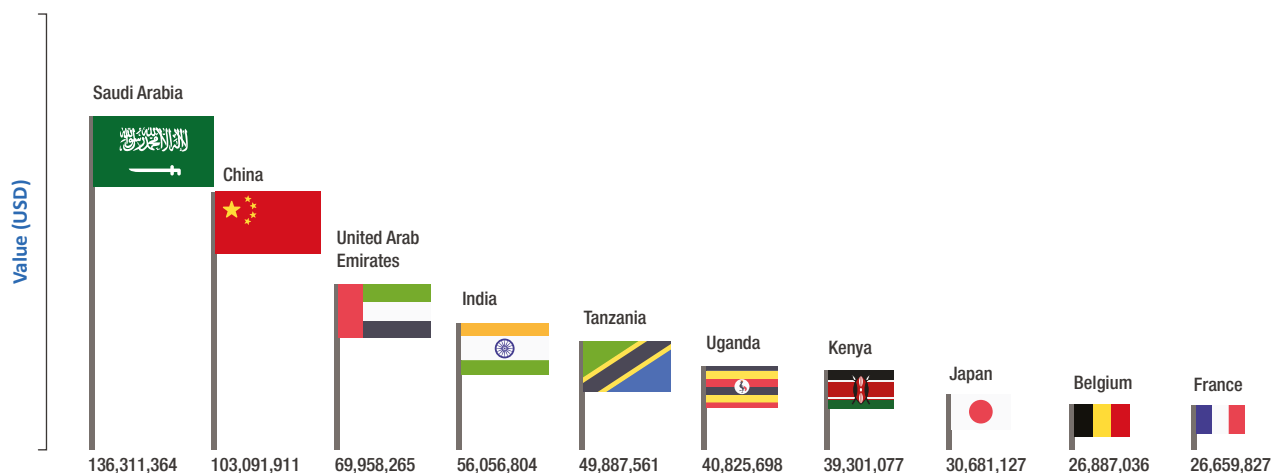


The main imports include petroleum products, construction materials, electrical appliances and mechanical equipment during the period **January 2018** to **March 2019**. The majority of Burundi imports originate from Asia (**63%**),

principally Saudi Arabia, China, United Arab Emirates and India, the EAC countries bloc particularly Tanzania, Uganda and Kenya (**22%**) and the European Union (**15%**) as shown in figure 39.

Figure 39: Top market for Burundi Imports from the world in USD Jan 2018 – Mar 2019

Source: Burundi Bureau of Statistics (ISTEEBU) Jan 2018 – Mar 2019



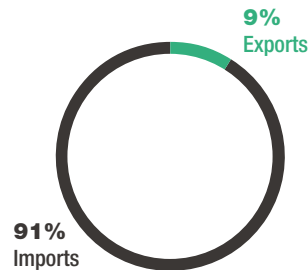
## 8.2 Formal trade between DRC and other Northern Corridor Member States

### 8.2.1 Overall formal trade with Northern Corridor Member States

DRC had an overall trade of **USD 660,842,291** in 2018 with Northern Corridor Member States except South Sudan. Out of which, share of exports accounted for **14%** while imports share absorbed **86%** as shown in figure 40. From the statistics, it is evident that DRC is a net importer when trading with the other Northern Corridor Member States.

Figure 40: Share of DRC trade within NC in 2018 (Jan to Dec in USD)

Source: Transport Observatory Analysis/NCTTCA



From the statistics, it is evident that DRC is a **net importer** when trading with the other Northern Corridor Member States.

### 8.2.2 Formal Imports from Northern Corridor Member States to DRC

Table 49 provides trade statistics (imports) between DRC and other Northern Corridor Member States for the period **January 2018 to March 2019**. DRC formal imports to the region were valued at approximately **790 million USD**. Its top imports are poultry meat, refined petroleum, passenger and cargo ship and special purpose ships. Rwanda was the top origin of DRC imports accounting for **41%** among NC Member States, followed by Uganda **33%** and Kenya **23%** during the same period.

Table 49: Share of DRC Imports in USD Jan 2018 – Mar 2019

Source: Transport Observatory Analysis/NCTTCA

Imports	Burundi	Kenya	Rwanda	Uganda	Total
Jan-18	1,915,395	11,316,835	9,824,797	15,533,832	62,211,985
Feb-18	1,227,191	11,621,037	9,347,771	15,102,380	53,458,010
Mar-18	1,713,979	12,664,591	14,371,617	17,488,795	61,495,268
Apr-18	1,413,446	13,246,808	8,663,711	18,178,525	41,502,490
May-18	1,619,598	18,015,945	11,006,407	19,282,611	49,924,561
Jun-18	1,571,581	11,333,516	8,159,577	17,073,036	38,137,709
Jul-18	1,333,935	11,783,614	9,690,806	17,253,936	40,062,291
Aug-18	1,836,530	12,545,377	9,320,350	17,262,504	40,964,760
Sep-18	2,273,454	13,471,379	8,773,578	17,594,905	42,113,316
Oct-18	1,393,906	15,311,478	27,809,433	16,562,558	61,077,374
Nov-18	1,439,175	11,075,641	30,298,123	17,074,530	59,887,470
Dec-18	1,165,610	9,384,458	26,606,115	15,901,377	53,057,560
<b>Total 2018</b>	<b>18,903,799</b>	<b>151,770,678</b>	<b>173,872,285</b>	<b>204,308,989</b>	<b>603,892,795</b>
Jan-19	1,246,896	10,661,045	31,652,946	19,193,961	62,754,848
Feb-19	1,667,812	12,564,611	27,937,121	17,375,479	59,545,022
Mar-19	1,377,552	10,109,768	32,501,751	19,945,341	63,934,412
<b>Grand Total</b>	<b>23,196,059</b>	<b>185,106,102</b>	<b>265,964,103</b>	<b>260,823,770</b>	<b>790,127,077</b>

### 8.2.3 Formal Exports to Northern Corridor Member States from DRC

Table 50 shows a summary of the exports from DRC to Northern Corridor Members States except South Sudan. The total value of exports for the period **January 2018** to **March 2019** was valued at approximately **USD 63.7 Million**.

Over the review period, Uganda was the principal customer of DRC providing **58%** market for her exports. DRC sales to Kenya accounted for **22%** whereas to Rwanda it was valued at **13%**.

Table 50: Share of DRC Exports in USD Jan 2018 – Mar 2019

Source: Transport Observatory Analysis/NCTTCA

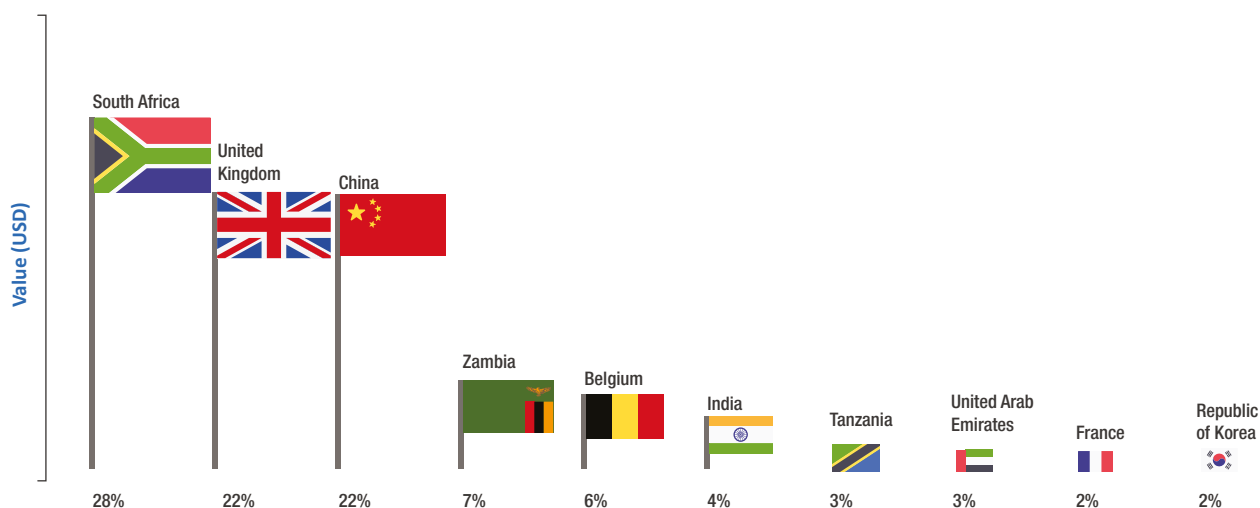
Month	Burundi	Kenya	Rwanda	Uganda	Total
18-Jan	99,104	1,440,458	738,865	315,236	2,593,663
18-Feb	33,605	847,474	748,046	432,580	2,061,705
18-Mar	176,348	1,093,346	683,401	695,538	2,648,633
18-Apr	138,679	1,042,304	305,844	689,914	2,176,741
18-May	352,089	2,317,942	339,474	344,859	3,354,364
18-Jun	696,047	936,911	180,738	7,277,811	9,091,507
18-Jul	892,318	754,814	159,612	604,929	2,411,673
18-Aug	543,023	604,825	223,834	575,921	1,947,603
18-Sep	421,391	512,160	122,601	14,359,027	15,415,179
18-Oct	199,262	827,368	752,909	7,595,352	9,374,891
18-Nov	202,907	1,686,293	542,521	795,688	3,227,409
18-Dec	165,732	826,666	848,347	805,382	2,646,127
<b>Total 2018</b>	<b>3,920,506</b>	<b>12,890,561</b>	<b>5,646,192</b>	<b>34,492,237</b>	<b>56,949,496</b>
19-Jan	200,367	151,712	921,707	679,257	1,953,043
19-Feb	129,670	396,469	689,687	692,023	1,907,849
19-Mar	255,168	825,285	914,544	936,662	2,931,659
<b>Total Exports in USD</b>	<b>4,505,711</b>	<b>14,264,028</b>	<b>8,172,130</b>	<b>36,800,178</b>	<b>63,742,047</b>

### 8.2.4 DRC Trade with the world (mainly top 10)

DRC top imports products are special purpose ships, passenger and cargo ships, poultry meat, refined petroleum and iron structures.

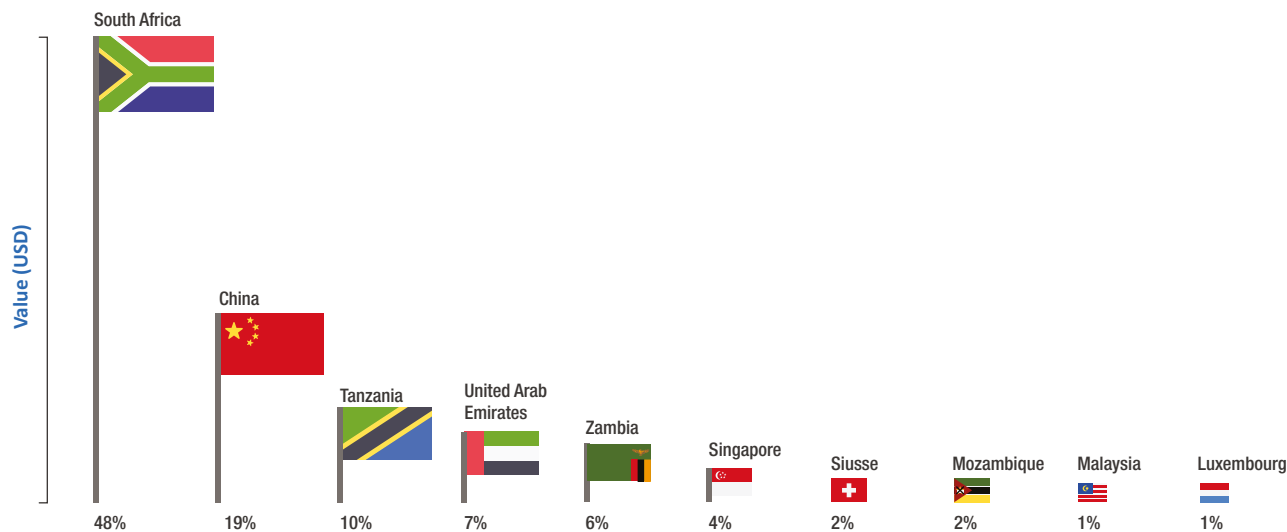
The top import origins are South Africa accounting for **28%**, UK **22%**, China **22%** and Zambia **7%** as shown in figure 41.

Figure 41: Top market for DRC Imports from the world in USD



The top export destinations of the DRC are South Africa **48%**, China **19%**, Tanzania **10%**, UAE **7%** and Zambia **6%**. The main export products are gold, diamonds, copper, cobalt, coltan, zinc, tin, tungsten, crude oil, wood products, and coffee. See figure 42 below.

Figure 42: Top market for DRC Exports to the world in USD



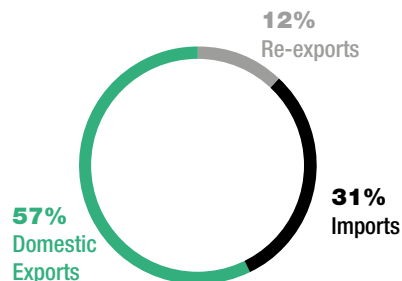
### 8.3 Formal trade between Kenya and other Northern Corridor Member States

#### 8.3.1 Overall formal trade with Northern Corridor Member States

Kenya’s trade surplus in Northern Corridor Member States was significant in 2018 with imports accounting for only **31%** as illustrated in figure 43. This implies that Kenya is a net exporter in the region given that the value of total exports is about **3x** that of total imports. This was mainly attributed to liberalization of trade under the Customs Union and Common Market regimes. The bulk of exports are raw materials and primary products, while the imports are high value capital and finished products.

Figure 43: Share of Kenya trade within NC in 2018 (Jan to Dec in USD)

Source: Kenya National Bureau of Statistics, 2018



### 8.3.2 Formal Imports from Northern Corridor Member States to Kenya

Kenya has maintained a positive trade balance among the Northern Corridor Member States, with Uganda being the principal origin for Kenyan imports at **95%** as shown in table 51. Kenya continues to benefit from the EAC and COMESA trade preferences to access cheaper food items in the region to bridge her food deficit.

**Table 51: Share of Kenya Imports in USD Jan 2018 – Mar 2019**

*Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019*

<b>Imports</b>	<b>Burundi</b>	<b>DRC</b>	<b>Rwanda</b>	<b>South Sudan</b>	<b>Uganda</b>	<b>Total</b>
Jan-18	11,500	1,440,458	624,514	1,202	69,430,476	71,508,149
Feb-18	48,947	847,474	1,723,263	-	55,456,769	58,076,454
Mar-18	5,060	1,093,346	906,686	18,260	43,050,316	45,073,667
Apr-18	35,202	1,042,304	1,118,577	630	37,135,603	39,332,316
May-18	80,706	2,317,942	1,470,893	45,647	49,589,289	53,504,477
Jun-18	19,815	936,911	692,870	6,901	45,439,721	47,096,218
Jul-18	11,426	754,814	1,255,655	8,936	40,584,106	42,614,936
Aug-18	72,225	604,825	714,355	525	34,214,762	35,606,692
Sep-18	110,823	512,160	812,027	53,580	36,664,111	38,152,701
Oct-18	146,292	827,368	910,759	-	30,866,958	32,751,378
Nov-18	52,329	1,686,293	820,729	-	30,978,462	33,537,814
Dec-18	83,277	826,666	812,751	27,620	20,945,937	22,696,251
<b>Total 2018</b>	<b>677,604</b>	<b>12,890,561</b>	<b>11,863,079</b>	<b>163,301</b>	<b>494,356,509</b>	<b>519,951,054</b>
Jan-19	54,493	151,712	3,025,078	1,868	22,930,857	26,164,009
Feb-19	75,515	396,469	747,138	2,276	22,555,321	23,776,719
Mar-19	79,500	825,285	804,620	17,945	22,393,046	24,120,396
<b>Grand Total</b>	<b>887,112</b>	<b>14,264,028</b>	<b>16,439,916</b>	<b>185,389</b>	<b>562,235,733</b>	<b>594,012,178</b>

### 8.3.3 Formal Exports to Northern Corridor Member States from Kenya

The exports products to regional markets have mostly been processed and semi-processed products. Table 52 presents the share of Kenya domestic exports to the Northern corridor member states. The total value of exports for the period **January 2018** to **March 2019** was valued at approximately **USD 1.18 billion**. Over the review period, Uganda was the principal customer for Kenya exports accounting for **54%** share market for Kenya exports.

**Uganda** accounted for **54%** of Kenya's domestic exports between **January 2018** to **March 2019**

**Table 52: Share of Kenya Domestic Exports in USD Jan 2018 – Mar 2019**

*Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019*

<b>Domestic exports</b>	<b>Burundi</b>	<b>DRC</b>	<b>Rwanda</b>	<b>South Sudan</b>	<b>Uganda</b>	<b>Grand Total</b>
Jan-18	3,260,891	10,227,085	10,523,686	12,240,255	35,223,942	71,475,859
Feb-18	3,905,832	10,108,855	10,984,733	6,550,852	44,899,846	76,450,118
Mar-18	4,239,518	11,247,777	12,845,445	8,059,144	49,087,771	85,479,654
Apr-18	3,883,899	12,063,090	11,340,502	7,554,962	34,416,554	69,259,006
May-18	4,105,437	16,454,979	13,976,527	9,397,431	49,427,421	93,361,795
Jun-18	3,646,882	10,577,605	11,896,711	15,805,863	43,574,860	85,501,921
Jul-18	6,187,282	9,826,693	14,025,117	6,384,788	37,038,888	73,462,768
Aug-18	5,408,437	10,878,039	14,856,303	5,217,061	44,496,631	80,856,471
Sep-18	4,732,010	11,139,493	11,992,177	4,569,179	40,996,532	73,429,391
Oct-18	3,457,757	12,797,165	12,259,914	8,604,158	42,930,684	80,049,678
Nov-18	3,564,612	9,199,601	15,818,945	7,168,060	46,191,600	81,942,818
Dec-18	3,378,765	8,698,953	10,721,957	6,605,081	41,720,412	71,125,168
<b>2018 Total</b>	<b>49,771,321</b>	<b>133,219,335</b>	<b>151,242,016</b>	<b>98,156,834</b>	<b>510,005,141</b>	<b>942,394,647</b>
Jan-19	8,785,434	9,682,580	10,434,383	7,050,520	43,451,090	79,404,007
Feb-19	3,651,191	11,402,566	12,695,281	8,161,456	43,537,469	79,447,963
Mar-19	3,230,171	9,595,056	15,706,816	8,431,993	45,355,348	82,319,385
<b>Grand Total</b>	<b>65,438,117</b>	<b>163,899,538</b>	<b>190,078,496</b>	<b>121,800,803</b>	<b>642,349,047</b>	<b>1,183,566,002</b>

### 8.3.4 Formal Re-Exports to Northern Corridor Member States from Kenya

Re-Exports data was reported at **248.6 USD** between **January 2018** to **March 2019** as illustrated in table 53. Re-exports to Uganda, (the country's leading export

destination) remained steady in the period under review, accounting for **138.9 million USD** revenue to Kenya.

Table 53: Share of Kenya Re-Exports in USD Jan 2018 – Mar 2019

Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019

Re-exports	Burundi	DRC	Rwanda	South Sudan	Uganda	Total
Jan-18	473,093	1,089,750	2,927,876	2,927,383	12,264,703	19,682,806
Feb-18	637,106	1,512,182	413,321	6,098,347	13,475,822	22,136,777
Mar-18	601,940	1,416,814	1,135,858	2,713,438	6,718,398	12,586,448
Apr-18	713,673	1,183,718	8,200,058	6,616,757	8,199,268	24,913,474
May-18	1,160,349	1,560,967	3,776,192	4,804,741	7,287,587	18,589,836
Jun-18	811,620	755,910	1,710,242	908,363	5,645,459	9,831,594
Jul-18	2,437,279	1,956,921	593,022	1,545,403	8,482,642	15,015,268
Aug-18	2,005,241	1,667,337	3,439,187	439,487	8,615,732	16,166,983
Sep-18	1,997,626	2,331,886	377,217	750,776	11,291,317	16,748,822
Oct-18	2,963,314	2,514,312	858,862	1,295,387	12,158,278	19,790,154
Nov-18	1,081,283	1,876,040	1,848,202	1,956,828	6,288,645	13,050,998
Dec-18	1,272,246	685,505	1,899,989	1,394,029	8,335,570	13,587,339
<b>2018 Total</b>	<b>16,154,769</b>	<b>18,551,343</b>	<b>27,180,024</b>	<b>31,450,940</b>	<b>108,763,421</b>	<b>202,100,498</b>
Jan-19	4,707,915	978,465	1,545,656	3,076,422	11,165,051	21,473,509
Feb-19	328,372	1,162,044	1,507,734	1,195,172	8,949,275	13,142,597
Mar-19	570,588	514,713	370,210	399,002	9,986,850	11,841,362
<b>Total</b>	<b>21,761,644</b>	<b>21,206,564</b>	<b>30,603,624</b>	<b>36,121,536</b>	<b>138,864,597</b>	<b>248,557,966</b>

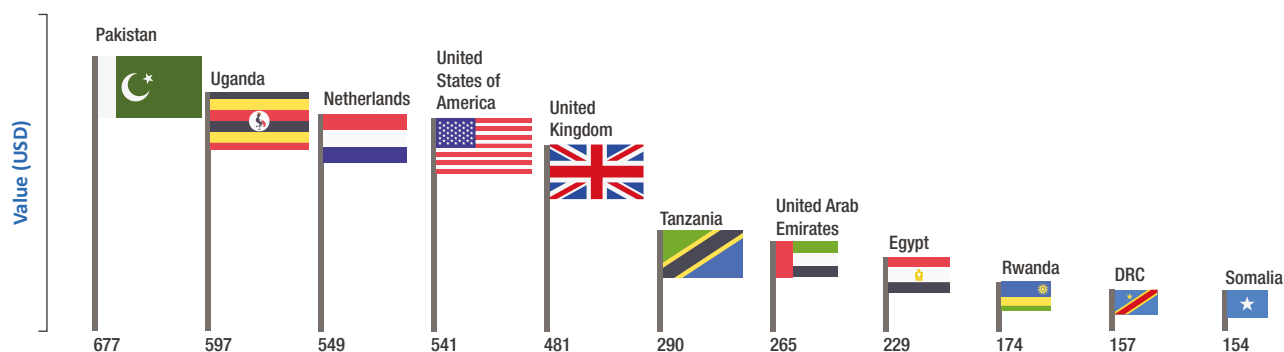
### 8.3.5 Kenya Trade with the world (mainly top 10)

Main top ten export partner for Kenya were; **Pakistan 11%**, **Uganda 9%**, **USA 9%**, **Netherlands 9%**, **UK 6%**, **Tanzania 5%**, **UAE 4%** as presented in figure 44.

The main products exported were tea, horticultural products, coffee, petroleum products, fish, cement, apparel.

Figure 44: Top market for Kenya Exports to the world in million USD Jan 2018 – Mar 2019

Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019



The main imports were machinery and transportation equipment, oil, petroleum products, motor vehicles, iron and steel, resins and plastics.

As shown in figure 45, Kenya imported from **China 21%**, **India 10%**, **Saudi Arabia 9%**, **UAE 8%**, **Japan 6%**, and **South Africa 4%** which accounted for top ten markets for her imports.

**Figure 45: Top market for Kenya Imports from the world in USD Jan 2018 – Mar 2019**

Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019

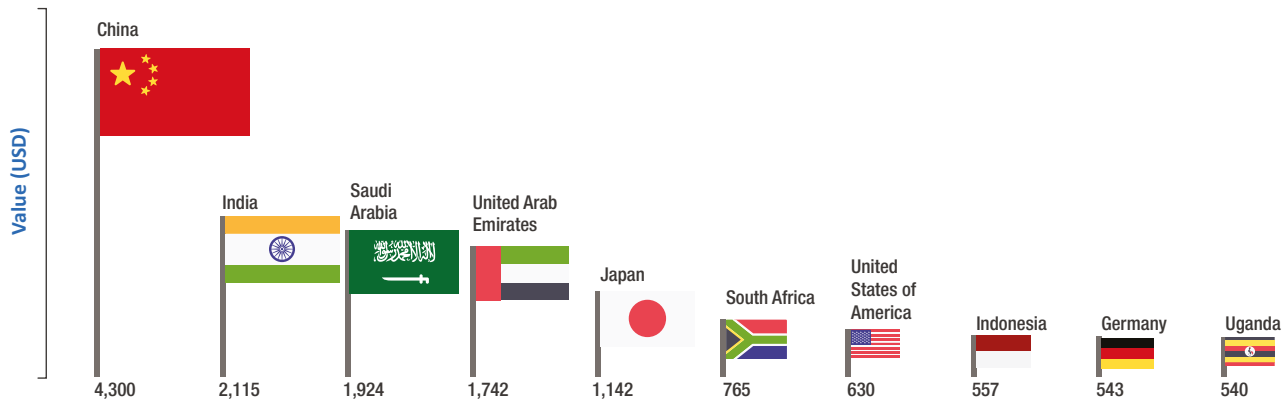
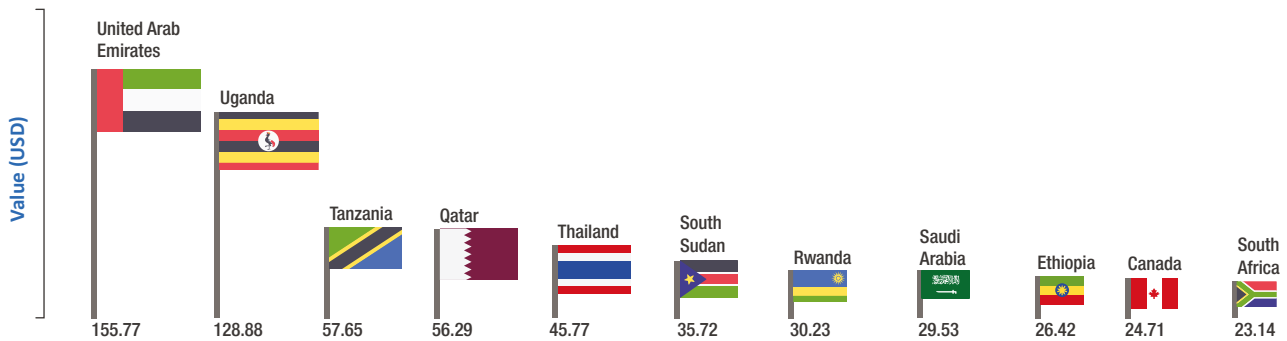


Figure 46 provides statistics on top market for Kenya re-export in the world. UAE and Uganda are the leading top markets.

**Figure 46: Top market for Kenya re-exports to the world in USD Jan 2018 – Mar 2019**

Source: Kenya National Bureau of Statistics, Jan 2018 to March 2019





## 8.4 Formal trade in Rwanda

### 8.4.1 Overall formal trade with Northern Corridor Member States

Figure 47 provides Rwanda's overall trade statistics with Northern Corridor Member States in 2018. The total imports accounted for only **51%** and exports accounted for **47%**. This implies that Rwanda is a net importer in the region.

### 8.4.2 Formal Imports from Northern Corridor Member States to Rwanda

Table 54 shows the value of commodities imported between Rwanda and other Northern Corridor Members States. Rwanda imports from Uganda and Kenya which took the largest share at an equivalent of **55%** and **44%** respectively. Commodities mostly traded included beverages and tobacco, crude materials, mineral fuels, lubricants, animals and vegetable oils, fats & waxes, chemicals, manufactured goods, machinery, and transport equipment. Top exports include food and live animals, beverages and tobacco, crude materials, except fuels.

Figure 47: Share of Rwanda trade within NC in 2018 (Jan to Dec in USD)

Source: National Bank of Rwanda

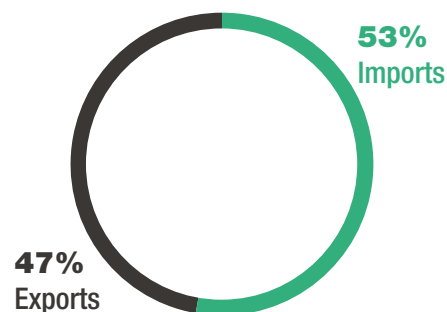


Table 54: Share of Rwanda Imports in USD January 2018 – Mar 2019

Source: National Bank of Rwanda

Imports	Burundi	DRC	Kenya	Uganda	Total
Jan-18	545,353	1,401,819	13,076,903	57,837,517	72,861,592
Feb-18	306,889	1,739,649	12,569,280	45,569,365	60,185,183
Mar-18	305,731	1,752,430	12,481,030	45,048,358	59,587,549
Apr-18	382,939	305,844	11,340,502	1,123,394	13,152,679
May-18	390,701	339,474	13,976,527	1,000,535	15,707,237
Jun-18	394,883	180,738	11,896,711	1,724,563	14,196,895
Jul-18	310,555	159,612	14,025,117	1,061,857	15,557,141
Aug-18	308,508	223,834	14,856,303	892,380	16,281,025
Sep-18	319,098	122,601	11,992,177	805,556	13,239,432
Oct-18	297,060	752,909	11,553,381	18,756,730	31,360,080
Nov-18	337,418	542,521	12,393,462	16,533,789	29,807,190
Dec-18	588,164	848,347	10,687,910	18,086,121	30,210,542
<b>Total 2018</b>	<b>4,487,299</b>	<b>8,369,778</b>	<b>150,849,302</b>	<b>208,440,165</b>	<b>372,146,545</b>
Jan-19	584,505	921,707	10,110,153	17,219,908	28,836,273
Feb-19	143,397	689,687	9,381,075	13,942,044	24,156,203
Mar-19	203,480	914,544	13,714,090	1,756,416	16,588,530
<b>Grand Total</b>	<b>5,418,681</b>	<b>10,895,716</b>	<b>184,054,620</b>	<b>241,358,533</b>	<b>441,727,551</b>

### 8.4.3 Formal Exports to Northern Corridor Member States from Rwanda

The main export earnings for the period covering **January 2018** to **March 2019** were generated from the following commodities, namely, tea, coffee, Tin ores, Niobium and Tantalum and Tungsten ores among others.

All these commodity exports are resource-based and the country struggles to enter the global value addition chain due to limited or lack of a strong manufacturing sector. DRC was the principal customer for Rwanda exports accounting for **56%** share market for exports and Kenya accounted for **30%** as shown in table 55.

**Table 55: Share of Rwanda Exports in USD January 2018 – Mar 2019**

Source: National Bank of Rwanda

<b>Exports</b>	<b>Burundi</b>	<b>DRC</b>	<b>Kenya</b>	<b>South Sudan</b>	<b>Uganda</b>	<b>Total</b>
Jan-18	1,023,031	9,824,797	33,445,923	40,911	4,516,158	48,850,820
Feb-18	1,069,045	9,347,771	25,507,402	20,711	2,259,581	38,204,510
Mar-18	2,487,448	14,371,617	29,627,904	101,276	6,388,417	52,976,662
Apr-18	280,771	8,663,711	1,118,577	0	1,238,627	11,301,686
May-18	301,708	11,006,407	1,470,893	0	1,076,106	13,855,114
Jun-18	197,895	8,159,577	692,870	0	873,139	9,923,481
Jul-18	155,541	9,690,806	1,255,655	0	1,341,094	12,443,096
Aug-18	142,744	9,320,350	714,355	0	1,337,007	11,514,456
Sep-18	185,448	8,773,578	812,027	0	1,062,735	10,833,788
Oct-18	2,966,898	27,809,433	8,546,002	468,308	1,761,505	41,552,146
Nov-18	1,390,894	30,298,123	7,914,986	445,059	877,087	40,926,149
Dec-18	4,839,745	26,606,115	7,665,117	466,494	1,252,637	40,830,108
<b>2018 Total</b>	<b>15,041,168</b>	<b>173,872,285</b>	<b>118,771,711</b>	<b>1,542,759</b>	<b>23,984,093</b>	<b>333,212,016</b>
Jan-19	4,625,266	31,652,946	8,322,583	362,315	2,891,911	47,855,021
Feb-19	680,917	27,937,121	7,440,644	4,487,778	1,103,543	41,650,003
Mar-19	1,362,225	32,501,751	7,892,135	3,282,269	3,293,725	48,332,105
<b>Grand Total</b>	<b>21,709,576</b>	<b>265,964,103</b>	<b>142,427,073</b>	<b>9,675,121</b>	<b>31,273,272</b>	<b>471,049,145</b>

## 8.5 Formal trade in South Sudan

Mirror statistics for South Sudan data on intra-regional trade was obtained from Kenya, Rwanda and Uganda to show intra-regional trade among the countries as shown in table 56 below. South Sudan is a net importer with a negative balance of trade with all the Northern Corridor Member States exports.

The main import products were; sorghum, maize, rice, millet, wheat, gum arabic, sugarcane, mangoes, papayas, bananas, sweet potatoes, sunflower seeds, cotton, sesame seeds, cassava (manioc, tapioca), beans, peanuts; cattle, sheep

Table 56: Share of South Sudan Exports and Imports in USD January 2018 – Mar 2019

Exports	Kenya	Uganda	Imports	Kenya	Rwanda	Uganda
Jan-18	1,202	323,557	Jan-18	15,167,638	40,911	33,134,204
Feb-18	-	387,172	Feb-18	12,649,199	20,711	31,021,304
Mar-18	18,260	509,451	Mar-18	10,772,582	101,276	31,521,362
Apr-18	630	324,246	Apr-18	14,171,719	-	27,278,173
May-18	45,647	277,633	May-18	14,202,172	-	32,393,422
Jun-18	6,901	258,721	Jun-18	16,714,226	-	30,720,478
Jul-18	8,936	272,830	Jul-18	7,930,191	-	27,309,441
Aug-18	525	67,924	Aug-18	5,656,548	-	23,559,782
Sep-18	53,580	88,419	Sep-18	5,319,955	-	21,370,913
Oct-18	-	103,699	Oct-18	9,899,545	468,308	26,548,075
Nov-18	-	252,475	Nov-18	9,124,888	445,059	29,654,762
Dec-18	27,620	341,422	Dec-18	7,999,110	466,494	41,240,052
<b>2018 Total</b>	<b>163,301</b>	<b>3,207,549</b>	<b>2018 Total</b>	<b>129,607,774</b>	<b>1,542,759</b>	<b>355,751,968</b>
Jan-19	1,868	355,370	Jan-19	10,126,942	362,315	34,151,541
Feb-19	2,276	704,068	Feb-19	9,356,628	4,487,778	36,695,095
Mar-19	17,945	549,989	Mar-19	8,830,995	3,282,269	40,690,868
<b>Grand Total</b>	<b>185,389</b>	<b>4,816,976</b>	<b>Grand Total</b>	<b>157,922,339</b>	<b>9,675,121</b>	<b>467,289,472</b>

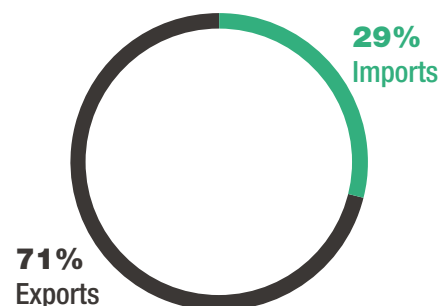
## 8.6 Formal trade in Uganda

### 8.6.1 Overall formal trade with Northern Corridor Member States

Total trade volume in Uganda with respect to Northern Corridor Member States was valued at approximately **USD 1.96 Billion** in **2018**; out of which **USD 572 million** accounting **29%** of total trade value were imports and **USD 1,392 million** representing **71%** of total trade value was for exports as shown in figure 48. This implies that Uganda is a net exporter.

Figure 48: Share of Uganda trade within NC in 2018 (Jan to Dec in USD)

Source: UBOS, Jan-Dec 2018



Similarly, total trade volume for Uganda in **2018** was worth approximately **USD 9,816,803,804**; out of which **69%** of total trade volume accounted as imports while **31%** of total trade volume accounted as exports as shown in table 57. Comparatively, the Northern Corridor Member States accounted for **20%** share of total trade.

### 8.6.2 Formal Imports from Northern Corridor Member States to Uganda

Table 58 presents the share of Uganda imports from Northern Corridor Member States from **January 2018** to **March 2019**. Uganda imports over the period accounted for **USD 777,072,906**. Over **90%** of Uganda imports were from Kenya which took the largest share at an equivalent of **92%**. Uganda imported petroleum oils partly refined (Including topped crudes), rolled iron/steel, salt (including table salt and denatured salt) and pure sodium chloride from the other Northern Corridor Member States.

**Table 57: Total Trade Volume and share worth in USD in Uganda 2018**

Source: UBOS, Jan-Dec 2018

Market Type	Non- Northern Corridor Countries	NC Member States	Total Trade 2018
Imports	6,157,440,142	572,000,086	6,729,440,228
Exports	1,694,870,293	1,392,493,283	3,087,363,576
<b>Total</b>	<b>7,852,310,435</b>	<b>1,964,493,369</b>	<b>9,816,803,804</b>
Proportion	80%	20%	100%

**Table 58: Share of Uganda Imports in USD**

Source: UBOS, January 2018 to March 2019

Formal Imports	Burundi	DRC	Kenya	Rwanda	South Sudan	Total
Jan-18	153,196	315,236	39,574,420	854,747	323,557	41,221,156
Feb-18	178,667	432,580	40,216,130	933,873	387,172	42,148,422
Mar-18	135,526	695,538	39,018,023	1,421,749	509,451	41,780,287
Apr-18	83,341	689,914	34,278,043	1,806,840	324,246	37,182,384
May-18	37,898	344,859	38,691,306	1,300,892	277,633	40,652,588
Jun-18	63,255	7,277,811	34,191,005	1,338,014	258,721	43,128,806
Jul-18	4,170,460	604,929	35,410,444	1,015,831	272,830	41,474,494
Aug-18	185,587	575,921	41,517,627	1,066,602	67,924	43,413,661
Sep-18	105,307	14,359,027	39,913,756	1,089,505	88,419	55,556,014
Oct-18	104,275	7,595,352	57,928,924	991,554	103,699	66,723,804
Nov-18	73,726	795,688	55,794,863	403,790	252,475	57,320,542
Dec-18	79,226	805,382	59,318,921	852,977	341,422	61,397,928
<b>2018 Imports</b>	<b>5,370,464</b>	<b>34,492,237</b>	<b>515,853,462</b>	<b>13,076,374</b>	<b>3,207,549</b>	<b>572,000,086</b>
Jan-19	45,118	679,257	63,822,158	1,302,554	355,370	66,204,456
Feb-19	78,245	692,023	72,116,611	725,536	704,068	74,316,484
Mar-19	107,590	936,662	61,136,740	1,820,899	549,989	64,551,880
<b>Total</b>	<b>5,601,417</b>	<b>36,800,178</b>	<b>712,928,971</b>	<b>16,925,363</b>	<b>4,816,976</b>	<b>777,072,906</b>

### 8.6.3 Formal Exports to Northern Corridor Member States from Uganda

As illustrated in table 59, **39%** of products exported from Uganda were bought by importers from Kenya, Sudan (**28%**), Democratic Republic of the Congo (**16%**), Rwanda (**15%**) and (**3%**).

This is an indication of positive regional trade agreements that have expanded the country's export markets. Main exports from Uganda to Northern Corridor Member States included; agricultural products comprising coffee, tea, maize, sorghum grain, fish, broken rice and milk. Other exports included oil re-exports, metals, electricity, plastic products, cement, iron/steel bars and rods.

Table 59: Share of Uganda Exports in USD

Source: UBOS, January 2018 to March 2019

Formal Export	Burundi	DRC	Kenya	Rwanda	South Sudan	Total
18-Jan	2,925,933	15,533,832	83,984,103	14,749,401	33,134,204	150,327,473
18-Feb	2,455,290	15,102,380	65,343,608	16,799,986	31,021,304	130,722,568
18-Mar	3,619,903	17,488,795	55,031,997	15,812,230	31,521,362	123,474,287
18-Apr	2,814,592	18,178,525	25,655,176	15,203,710	27,278,173	89,130,176
18-May	3,082,240	19,282,611	66,723,149	19,490,963	32,393,422	140,972,385
18-Jun	2,932,015	17,073,036	59,987,996	17,708,410	30,720,478	128,421,935
18-Jul	2,791,084	17,253,936	48,410,982	19,578,625	27,309,441	115,344,068
18-Aug	4,547,923	17,262,504	51,530,674	20,835,425	23,559,782	117,736,308
18-Sep	4,010,983	17,594,905	46,042,076	19,494,558	21,370,913	108,513,435
18-Oct	4,258,488	16,562,558	34,706,986	19,366,587	26,548,075	101,442,694
18-Nov	3,398,425	17,074,530	27,178,505	15,670,295	29,654,762	92,976,517
18-Dec	3,830,671	15,901,377	15,557,100	16,902,237	41,240,052	93,431,437
<b>2018 Exports</b>	<b>40,667,547</b>	<b>204,308,989</b>	<b>580,152,352</b>	<b>211,612,427</b>	<b>355,751,968</b>	<b>1,392,493,283</b>
19-Jan	4,074,347	19,193,961	17,796,835	17,996,397	34,151,541	93,213,081
19-Feb	2,819,291	17,375,479	19,357,535	14,511,564	36,695,095	90,758,964
19-Mar	4,047,911	19,945,341	26,440,805	2,643,323	40,690,868	93,768,248
<b>Total</b>	<b>51,609,096</b>	<b>260,823,770</b>	<b>643,747,527</b>	<b>246,763,711</b>	<b>467,289,472</b>	<b>1,670,233,576</b>

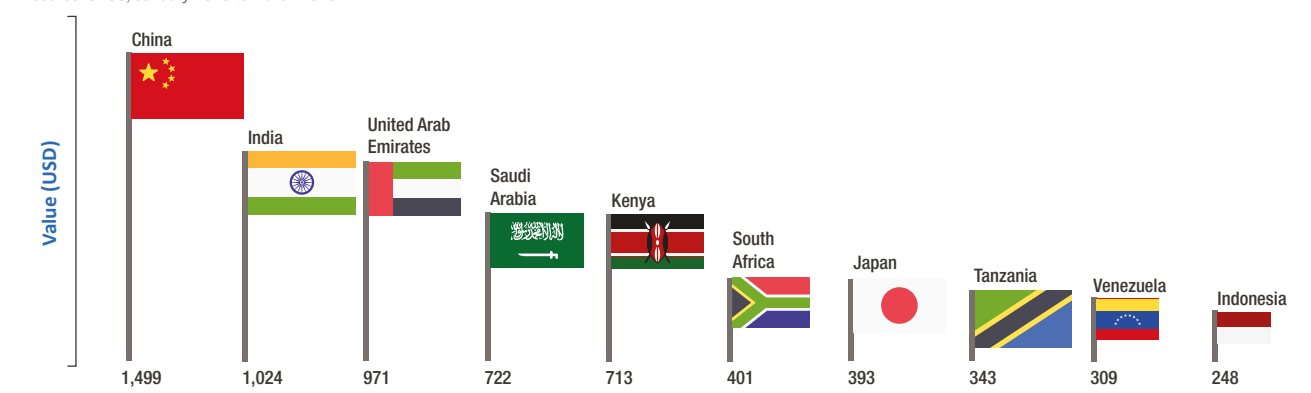
### 8.6.4 Uganda Trade with the world (mainly top 10)

Main trading partner countries with Uganda around the world are presented in figure 49 covering **January 2018 to March 2019**.

From a continental perspective, majority of Ugandan imports originate from Asia (**50%**), predominantly China, India, United Arab Emirates and Saudi Arabia as shown. It is also evident that over the review period, Kenya also contributes significantly to the Uganda imports. Uganda Imports from Kenya was **USD 713 Million**.

Figure 49: Top market for Uganda Imports from the world in USD

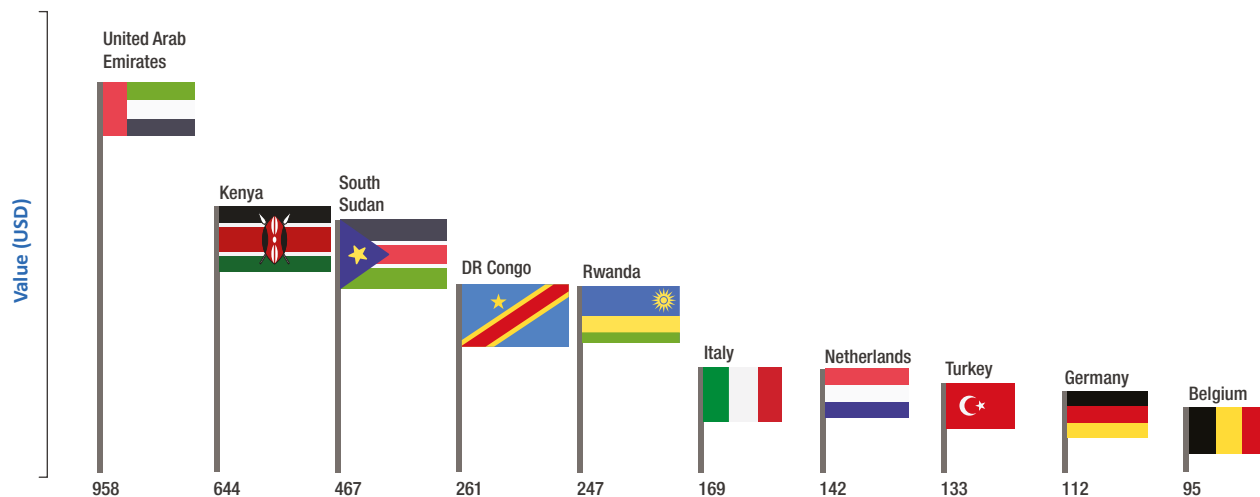
Source: UBOS, January 2018 to March 2019



Northern Corridor Member states are contributing largely to Uganda’s market for her exports as shown in figure 50. Uganda’s top 10 exports accounted for **77%** of the overall value of its global shipments for the period covering **January 2018 to March 2019**. UAE is the biggest market for Uganda exports.

**Figure 50: Top market for Uganda Exports to the world in USD**

Source: UBOS, January 2018 to March 2019



## 8.7 Informal Cross Border Trade (ICBT)

Informal cross border trade (ICBT) plays a key role in addressing vital issues of livelihoods such as income security and poverty reduction. Informal cross border trade is prevalent among the Northern Corridor Member States. ICBT is mainly dominated by women and the youth. Women make a significant contribution towards the process of socio-economic transformation and sustainable growth.

It is also notable that ICBT involves significant capital outlays. The shortage of ready finance hinders the expansion of ICBT activities. Therefore, it is necessary to explore alternative financial deepening ways that are responsive to the unique demands of the informal cross border trade. The lucrative markets offered by the Member States in the bordering country promotes and attract people to engage in the trade.

One Stop Border Post (OSBP) play a key role in ICBT as they combine activities of two countries at a single location to remove unnecessary obstacles which may hinder trade. OSBPs are important for building resilient economies

especially noting that most products are locally produced goods. Informal cross-border goods in the region is mainly agricultural products including primary farm and animal products.

The integration of technology for value addition as well as reduced cross-border transportation costs can help improve the volumes traded and hence boost development in the region.

### 8.7.1 Uganda

Statistics from ICBT reveals that Uganda is a net exporter with exports accounting for **90%** of total informal trade. Informal cross-border exports products include animals and agricultural products, clothes, footwear, alcohol/spirits, salt, motorcycle parts, textile materials, bicycle parts, cooking oil, cement, perfume, fertilizers among others.

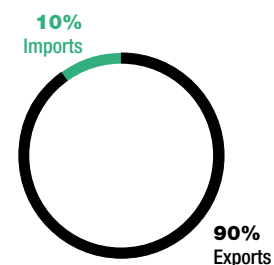
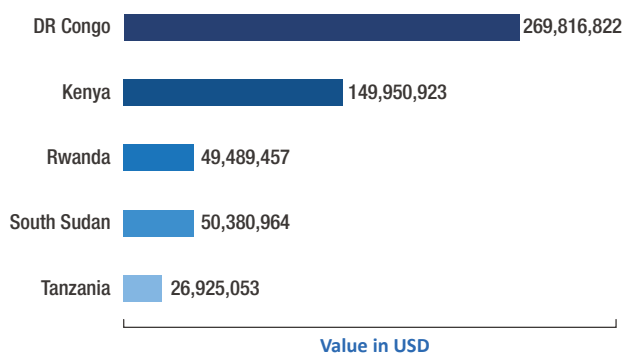


Figure 51 illustrates Uganda informal trade (exports) with the Northern Corridor region. In **2018**, nearly half of the cross-border informal exports from Uganda went to DRC which registered a total of **USD 269.8 million**. The main products were clothing, fish and cereals. Kenya consumed **27%** of Uganda exports with the main products being cereals, eggs, clothing and footwear.

**Figure 51: informal cross border trade - Uganda exports in USD in 2018**

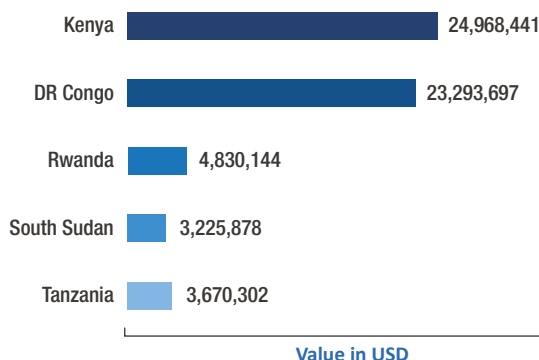
Source: UBOS 2018



Kenya remained as the highest source of cross-border informal imports for Uganda accounting for **42%**. DRC followed closely accounting for **39%** as presented in figure 52. Uganda imports semi-processed agricultural products from Kenya. On the other hand, the country imports palm oil, tobacco, cocoa bean and timber from DRC.

**Figure 52: Informal cross border trade - Uganda imports in USD in 2018**

Source: UBOS 2018



## 8.7.2 Rwanda

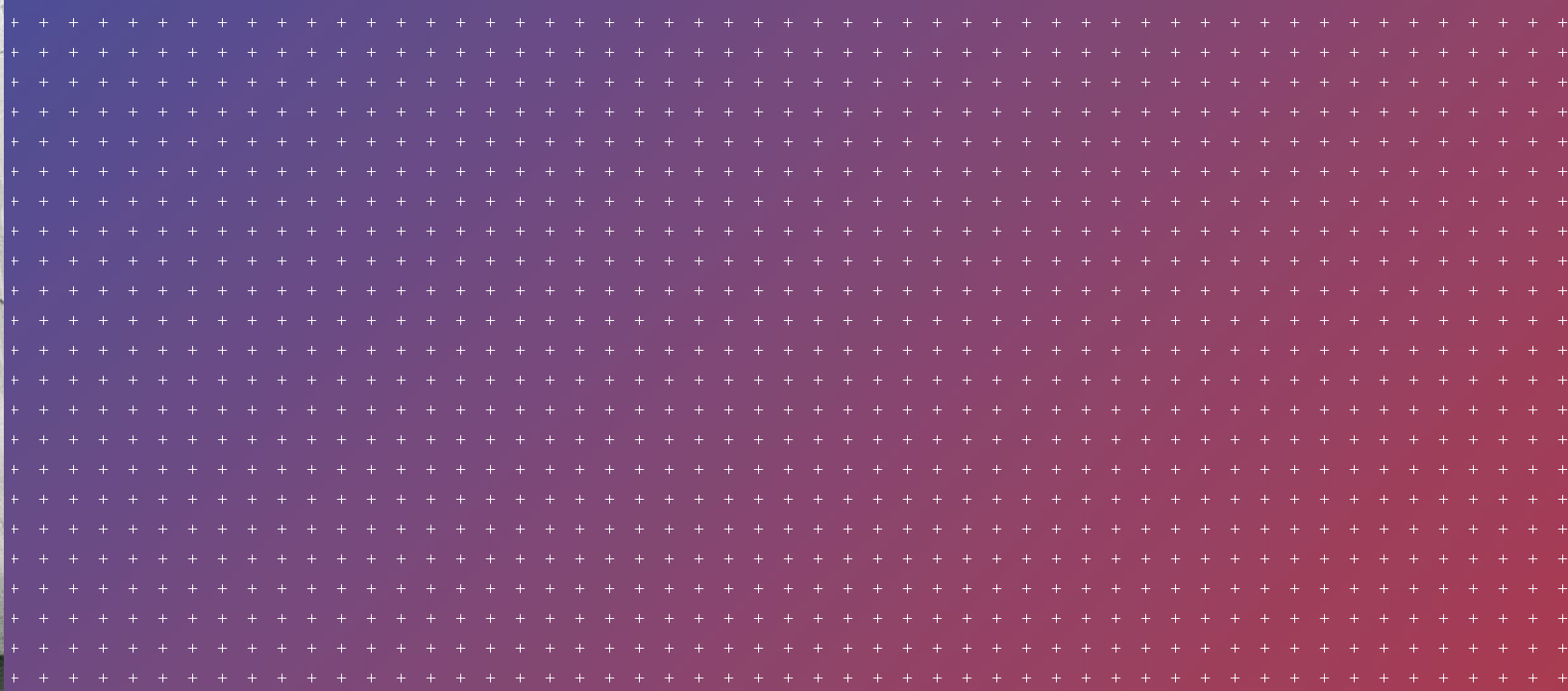
Table 60 presents cross border informal trade for Rwanda from **October 2018** to **March 2019**. Uganda still remains the highest source of imports (accounting for over half) for Rwanda at **52%**. DRC remained the greatest export destination for goods produced in Rwanda for the review period accounting for **86%**.

**Table 60: Rwanda ICBT for imports and exports in USD for the period October 2018 to March 2019**

<b>Market Type: Imports</b>				
<b>Month</b>	<b>Burundi</b>	<b>DRC</b>	<b>Tanzania</b>	<b>Uganda</b>
Oct-18	476,993	126,447	255,220	824,356
Nov-18	299,272	101,485	131,250	671,624
Dec-18	308,816	122,670	64,386	836,064
Jan-19	305,014	196,535	76,624	697,077
Feb-19	374,932	151,884	80,091	776,672
Mar-19	419,390	192,277	78,772	314,895
<b>Grand Total</b>	<b>2,184,418</b>	<b>891,298</b>	<b>686,343</b>	<b>4,120,688</b>
<b>Market Type: Exports</b>				
Oct-18	199,536	11,376,835	1,714	1,218,242
Nov-18	164,203	7,243,324	782	855,488
Dec-18	272,877	7,962,992	928	707,704
Jan-19	393,143	6,755,940	95	1,139,554
Feb-19	400,291	8,779,777	2,684	1,513,158
Mar-19	5	9,198,695	2,371	1,309,226
<b>Grand Total</b>	<b>1,430,055</b>	<b>51,317,563</b>	<b>8,573</b>	<b>6,743,372</b>







## Chapter 9

# Road Safety

This section provides some insight into the magnitude of the problem of road traffic crashes along the Northern Corridor



Some of the crashes can be prevented, however discipline and attention to common sense issues like speeding, use of seatbelts, drinking and driving, disregard of traffic laws, use of mobile phones, carelessness, and fatigue along journeys should be taken seriously. The report highlights trends in the incidence and severity of road traffic injury and shows the principal factors contributing to road traffic crashes.

Details are also given of the road user categories, nature of crashes with respect to time, age and gender groups of road users, most at risk of being killed or injured on the roads. To reduce the accidents, the NCTCA has launched a multi-million project **“Road Side Stations (RSS)”** to address fatigue of drivers across the Northern Corridor. About **67 roadside stations** have been proposed for development with public-private partnership financing. The roadside stations that will serve as rest points for truck drivers in **Kenya, Uganda, Rwanda, Burundi, South Sudan** and the **Democratic Republic of Congo**. The RSS are proposed to provide four clusters of services: Resting space for drivers and passengers, such as hotels, restaurants and recreation facilities; ICT services, medical and counselling and training services.

The increasing accident fatalities are a serious cause of concern as African countries had committed to reducing accident fatalities by **50%** by **2020** following the UN road Safety Decade and the African Action Plan for the Road Safety – **2011-2020**.

## 9.1 Road Safety in Burundi

Table 61 shows the distribution of fatalities in Burundi based on road section on the northern corridor for the period **2017** and **2018**. There were 201 accidents reported in **2018** an increase of **9%** when compared to **2017**. In **2018**, most fatalities were on **Bugarama - Bujumbura** section **43 percent** followed closely by **Kanyaru Haut - Kayanza** section **35%** and **Kayanza - Bugarama** section accounted for **21%**. Major causes of accidents were attributed to steep slopes; lack of road signage, over speeding, failure of brakes, landslides particularly the route of **Bugarama - Bujumbura** and fatigue.

Table 61: Fatalities on the Northern Corridor- October 2018- March 2019

Source: Burundi Road Traffic and Road Safety Police, March 2019

Section	2017			2018		
	No of accidents	Dead	Wounded	No of accidents	Dead	Wounded
Kanyaru Haut- Kayanza	67	5	27	71	4	20
Kayanza- Bugarama	39	3	21	43	5	24
Bugarama- Bujumbura	78	6	35	87	8	47
<b>Total</b>	<b>184</b>	<b>14</b>	<b>83</b>	<b>201</b>	<b>17</b>	<b>91</b>

Most of the accidents occur during daytime and mainly trucks are involved in accidents. Available information reveals that Burundi has developed road safety strategy however implementation was slow

because of inadequate resources. The government was planning to implement speed guns so as to regulate speed and also put in place clear road signages.

## 9.2 Road Safety In Kenya

National Transport and Safety Authority (NTSA) has been implementing traffic laws that will see minimal loss of lives through road crashes. Table 62 shows the distribution of fatalities on the Northern Corridor for the period **October 2018** to **March 2019**.

There were **318 fatalities** that were reported during the review period. Majority of the cases were reported on the **Gilgil - Mau** summit stretch with **74 cases** followed by the **Rironi - Gilgil** stretch with **61 cases**. This data shows the sections that are fatality prone and require focused interventions to stem the number and severity of accidents.

Qualitative information reveals that most of the fatalities were attributed to accidents caused by privately owned vehicles (**30%**) followed by commercial (**26%**) and Public service vehicles (**21%**). Information provided by the NTSA shows that there are several factors that cause road

Table 62: Fatalities on the Northern Corridor (October 2018 - March 2019)

Source: National Transport and Safety Authority March 2019

Route	Section	No of Fatalities
Mombasa-Malaba	Mombasa- Miritini	6
	Miritini-Maji ya Chumvi	5
	Maji ya Chumvi- Bachuma Gate	3
	Bachuma Gate-Voi	9
	Voi-Mtito Andei	7
	Mtito Andei-Sultan Hamud	9
	Sultan Hamud -Rironi	31
	Rironi- Gilgil	62
	Gilgil Mau Summit	74
	Mau Summit-Timboroa	17
Mau Summit- Busia	Timboroa-Eldoret	6
	Eldoret-Webuye	22
	Webuye-Malaba	6
	Mau Summit- Kisian	22
Voi-Taveta	Kisian- Kisumu	16
	Kisumu- Busia	17
<b>Total fatalities</b>	<b>318</b>	

accidents. The main resulting causes of accidents in particular fatalities were highly attributable to losing control, failing to observe traffic lane

discipline, overtaking improperly, Excessive speed, misjudging clearance and error in judgment were some of the causes.

Table 63 presents the distribution of fatalities by gender along the NC route in Kenya. From the analysis, the numbers of fatalities were high among men accounting for **83.96%** whereas female fatalities were **16.04%**. NTSA also informed that most of the accidents occur between **1700 hours** and **2000 hours** as a result of poor visibility and rush hour especially in cities along the Corridor.

This suggests that road infrastructure and signage need to be enhanced to ensure improved road safety for those who drive after dusk. Most of the accidents were reported on Friday, Saturday and Sunday.

**Table 63: Fatalities distribution by gender along the northern corridor**

Source: National Transport and Safety Authority March 2019

County	Male	Female	Total
Nakuru	57	13	70
Nairobi	34	1	35
Machakos	27	5	32
Makueni	23	8	31
Kiambu	21	4	25
Kericho	18	3	21
Kisumu	16	4	20
Bungoma	11	2	13
Taita Taveta	10	0	10
Kakamega	9	3	12
Kilifi	8	4	12
Baringo	7	0	7
Siaya	6	1	7
Mombasa	5	1	6
Busia	4	0	4
Nyandarua	4	1	5
Uasin Gishu	4	1	5
Kitui	3	0	3
<b>Total</b>	<b>267</b>	<b>51</b>	<b>318</b>

### 9.3 Road Safety In Rwanda

Table 64 the distribution of fatalities in Rwanda based on road section along the Northern Corridor for the period **October 2018** to **March 2019**. Major causes of accidents were attributed to over speeding, wrong maneuvers and reckless driving. Most fatalities were on **Kigali-Musanze-Rubavu** section **20%** followed closely by **Kigali – Huye -Akanyaru** section **19%** and **Ruhwa – Bugarama – Rusizi – Buhinga -Karongi - Rubavu** section **16%**. The report proposes strict law enforcement against over speeding, drunk driving and non-compliance with traffic rules to enhance road safety in Rwanda.

**Table 64: Number of accidents distributed by road section (October to March 2019)**

Source: Ministry of infrastructure/Rwanda National Police

Section	Fatal	Serious	No Of Accidents
Kigali - Muhanga - Huye - Akanyaru (NR1)	28	52	80
Kigali - Base - Musanze - Mukamira - Rubavu (NR2)	43	42	85
Kigali - Rukomo - Gatuna (NR3)	21	10	31
Kigali - Kayonza (NR4)	21	29	50
Kicukiro - Nemba (NR5)	15	12	27
Huye - Kitabi - Buhinga (NR10)	2	2	4
Ruhwa - Bugarama - Rusizi - Buhinga - Karongi - Rubengera - Rutsiro - Rubavu (NR11)	27	42	69
Muhanga - Rubengera (NR15)	8	8	16
Muhanga - Ngorerero - Mukamira (NR16)	13	20	33
Musanze - Cyanika (NR17)	7	1	8
Kayonza - Gabiro - Kagitumba (NR24)	9	9	18

### 9.4 Road Safety In Uganda

The Ministry of Works and Transport is setting up a Road Traffic Data System which will be able to capture data relating to accidents and road safety. Statistics in table 65 show that **13,244** crashes were reported in **2017**, out of which **3,051 were fatal**, **6,530 were serious** and **3,663 were minor**. The number of fatal crashes increased by **2.4%** when compared **2016** while serious and minor crashes reduced significantly by **8.7%** and **15.6%** respectively. Pedestrians were the largest casualty of the class killed accounting for **(40%)** of all casualties followed by passengers at **27%** and motorcyclists at **23%**.

**Table 65: Nature of Road traffic crashes in Uganda**

Source: Ministry of Works and Transport 2016/2017

Nature of crashes	2016	2017	Percentage change (%)
Fatal	2,981	3,051	2.4
Serious	7,153	6,350	(8.7)
Minor	4,340	3,663	(15.6)
<b>Total</b>	<b>14,340</b>	<b>13,244</b>	<b>(8.6)</b>

Road traffic accident deaths were highest in **August** and lowest in **February**. **3,500** people were killed and a further **10,420** were seriously injured from Road traffic crashes in **2017**. **40%** of the fatalities were people in the **25 – 44** age groups – the most productive age group in society (2017 Road safety report Uganda).

The table 66 highlights the accident situation within the various policing regions in Uganda. Crashes were lowest in the Karamoja regions (Mt. Moroto and Kidepo) while the highest were found in the Kampala Metropolitan Area (Kampala South, Kampala East and Kampala North respectively). Of the **13,244** crashes that occurred in **2017**, most occurred between **1600 hrs** and **2100 hrs** attributed to the heavy traffic flow during that time and poor visibility while the lowest occurrence was between **12.00 midnight** and **5.00am** as a result of less activity during that time.

**Table 66: Distribution of Accidents in Uganda in 2017**

Source: Ministry of Works and Transport 2017

Region	Fatal	Serious	Minor	Total
Kampala Metropolitan East	213	765	408	1,386
Kampala Metropolitan South	192	1,172	1,197	2,561
Kampala Metropolitan North	221	790	433	1,444
Wamalwa	140	150	68	358
Katonga	93	136	66	295
Sezibwa	114	159	73	346
Savannah	91	196	99	386
Great Masaka	195	222	83	500
Rwizi	219	222	108	549
Kigezi	91	124	98	313
Great Bushenyi	60	114	39	213
Kiira	70	98	55	223
Busoga East	142	168	58	368
Busoga North	64	97	17	178
Elgon	80	130	67	277
Bukedi	97	227	110	434
Sipi	20	25	4	49
Aswa	103	282	76	461
North Kyoga	151	251	81	483
Ruwenzori West	156	214	93	463
Ruwenzori West	31	16	9	56
Albertline	233	283	117	633
West Nile	113	187	121	421
North West Nile	25	77	46	148
East Kyoga	101	309	88	498
Mt. Moroto	16	57	33	106
Kidepo	20	59	16	95
<b>Total</b>	<b>3,051</b>	<b>6,530</b>	<b>3,663</b>	<b>13,244</b>

Careless driving remained the single largest causation factor for all crashes in **2017** accounting for **42%** of all collisions as shown in table 67.

**Road safety data was not available for DRC and South Sudan during the stakeholder consultations.**

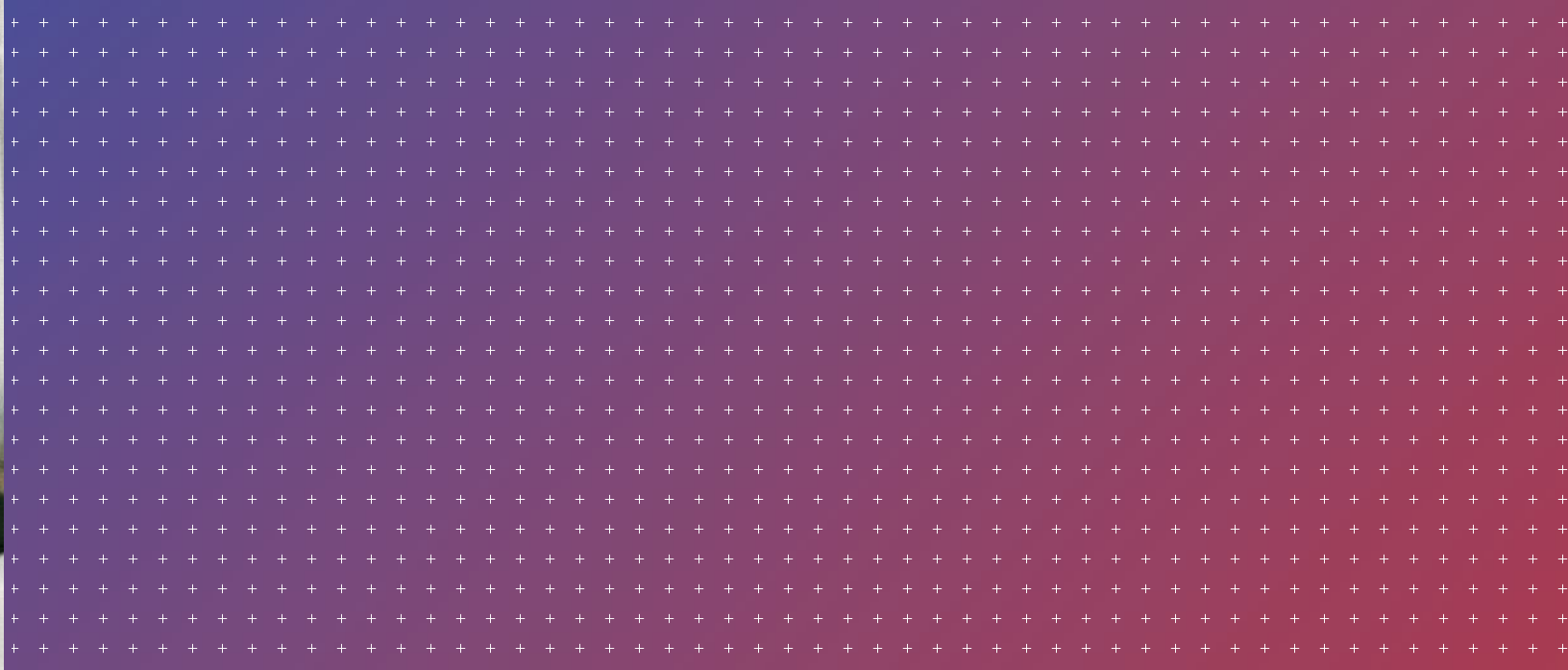
**Table 67: Causes of Accidents in Uganda in 2017**

Source: Ministry of Works and Transport 2017

Causes of crashes	Percentage
Careless driving	42%
Reckless driving	34%
Careless pedestrian	5%
Unknown cause	4%
DMC	3%
Over speeding	3%
Passengers fall from vehicle	3%
Under influence of alcohol	2%
Dangerous loading	1%
Overloading	1%
Dazzled by lights	1%
Obstacle on carriage way	1%

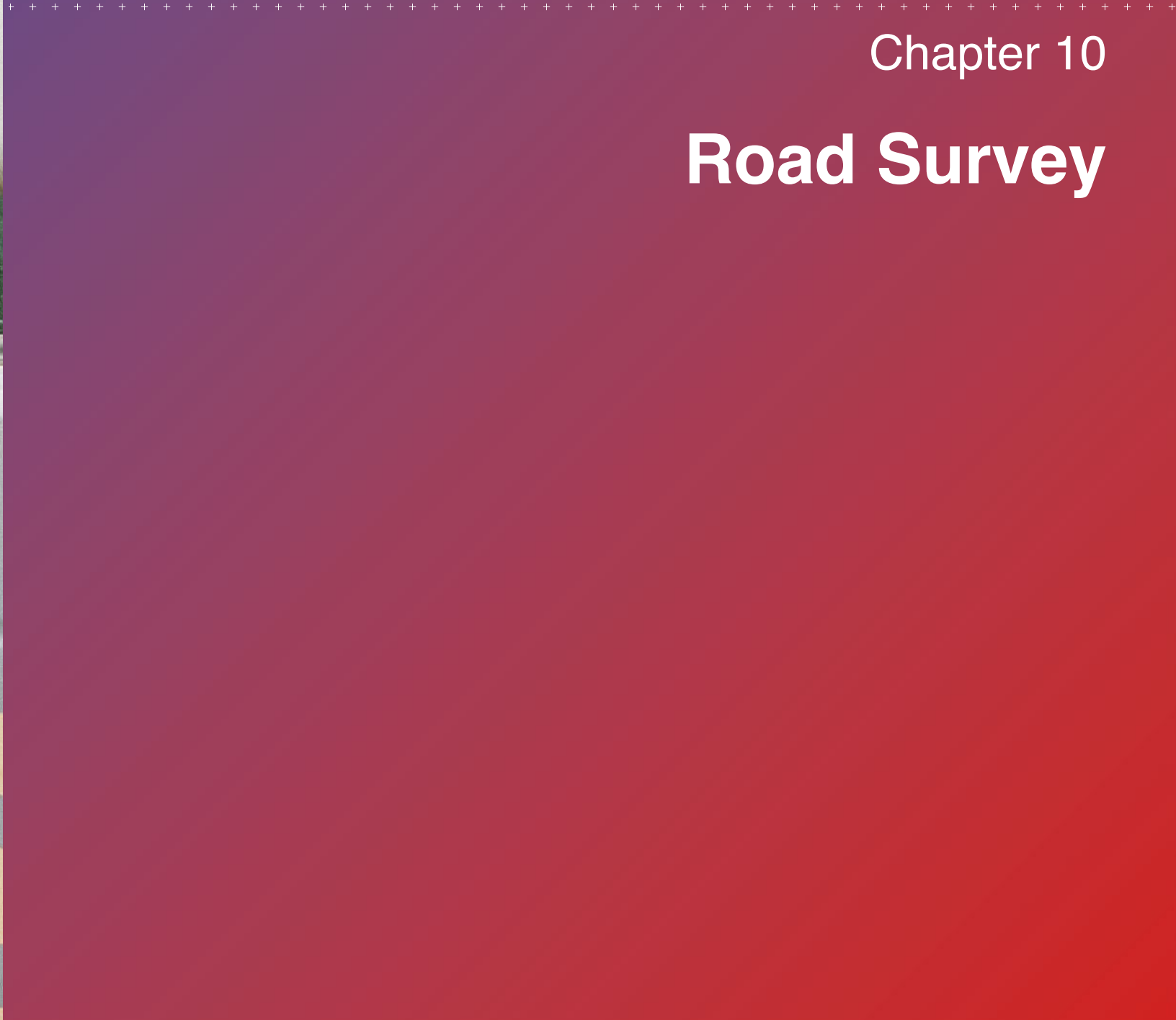


**TGA 27.400**



## Chapter 10

# Road Survey



Road survey is a qualitative tool for monitoring the operation and efficiency of the Northern Corridor through the collection of data from transporters and truck drivers.



## 10.1 Findings from the Mobile Phone Road Survey

Data is collected using an android mobile application for easy response and real-time relay of the survey data. The methodology of the data collection involves working with the truck drivers from transport companies; who uses their Smart Phones installed with the “Survey123 Mobile App” configured with the road transport survey questionnaire for the purpose of data collection.

Through Field Supervisors, the data collected using the “Mobile Phone Apps” are submitted directly to the Northern Corridor Secretariat. The survey questions range from stop location, reasons for stoppages and charges paid, if any. Different indicators including weighbridges crossing time, delays at border crossings and various transit nodes are captured as highlighted in this section.

## 10.2 Sampling

A total of **243 trips** were recorded from a pool of **42 drivers** plying the Northern Corridor route from **17<sup>th</sup> January** to **31<sup>st</sup> May 2019**. During the survey exercise, the response rate varied significantly due to multiple reasons; in some destination high response rate were recorded compared to others; and one of the reasons for the variation being the limited volume of cargo in the respective destinations. Uganda had the highest trips for transit cargo compared to all the other destinations within the Northern Corridor Member States.

Table 68: Trips per destination

Source: Road survey 2019

Destination	Frequency	Percent
Uganda	114	47%
Mombasa-Kenya	89	37%
Kenya	21	9%
Rwanda	9	4%
DRC	4	2%
South Sudan	4	2%
Tanzania	2	1%
<b>Total</b>	<b>243</b>	<b>100%</b>

## 10.3 Weighbridge and Border Crossing Time

The indicator is measured by the stop duration at the weighbridges.

Mariakani is the first weighbridge along the Northern Corridor for all trucks carrying goods imported through the Port of Mombasa (except those using the Dongo Kundu bypass which pass through the Dongo Kundu weighbridge). The weighbridge is fully automated and installed with HSWM. Once a truck is weighed it is then given a green light signal indicating the truck complies to the allowed weight, this allows the truck to continue with the/its journey.

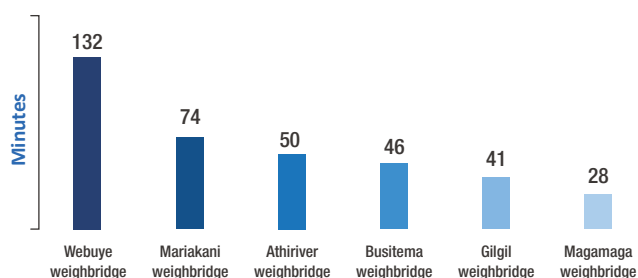


On the other hand, if the truck is found to be none compliant, it is instantly shown a red light then diverted to the static weighbridge for further re-weighing. A static weighbridge measures axle load of every axle on the truck to see if it complies with the allowed axle load. The average stop duration for those trucks diverted was **74 minutes**.

Magamaga and Busitema Weigh-bridges in Uganda registered an average of **28** and **46 minutes** respectively. Webuye weighbridge recorded the highest crossing time of **132 minutes** during the survey period as shown in figure 53.

**Figure 53: Average crossing stop duration at various weighbridge in minutes**

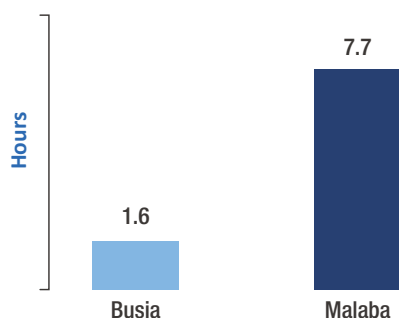
Source: Road Survey 2019



As illustrated in figure 54 below, Border crossing time at Malaba border shows higher duration of **7.7 hours** during the survey period. The benefits of Single Customs Territory and OSBPs are yet to be fully felt at the border. There is need to enhance systems connectivity and provision of enough packing yards at the border to reduce congestion. Equally, there is a high need to fully complete construction of the bridge connecting the two countries of Kenya and Uganda at the Malaba border.

**Figure 54: Average crossing time Malaba and Busia Border in hours**

Source: Survey 2019



## 10.4 Number of Stops and Stop Reasons

The table 69 shows the reasons for trucks stoppages for the period under review. Most of the stops occur due to Rest /Meals, featuring **31 percent**; followed by stops for Police/Security checks at approximately **14 percent**. Weighbridges and personal reasons each account for 11 percent. Stops for rest and meals were observed at Mtito Andei, Busowa, Kikopey, Maungu, Longonot, Cheptiret, Salgaa, Bukembe, Kimaeti, Masimba, Jua Kali, Mbiko, Machakos junction, Salama, Kwa DC, and Malili. Some stop locations have no facilities.

**Table 69: Summary of Stops and Duration**

Source: Road survey data May 2019

Activity	Number of Stops	%	Average Duration in Hours	Median Duration in Hours
Rest /Meals	718	31%	4.7	1.4
Police/Other Security Checks	320	14%	0.3	0.1
Weighbridges	261	11%	0.8	0.3
Personal Reasons	247	11%	3.1	0.5
Other	193	8%	6.6	3.9
Customs Checks	165	7%	4.6	0.4
Border Post Procedures	157	7%	8.2	3.3
Fueling/Checking Vehicle	129	6%	2.1	0.3
Road Condition	64	3%	3.2	0.8
Vehicle Breakdowns	52	2%	4.8	2.1
Company Check Points	27	1%	5.6	1.1
Insecurity	2	0%	11.7	11.7

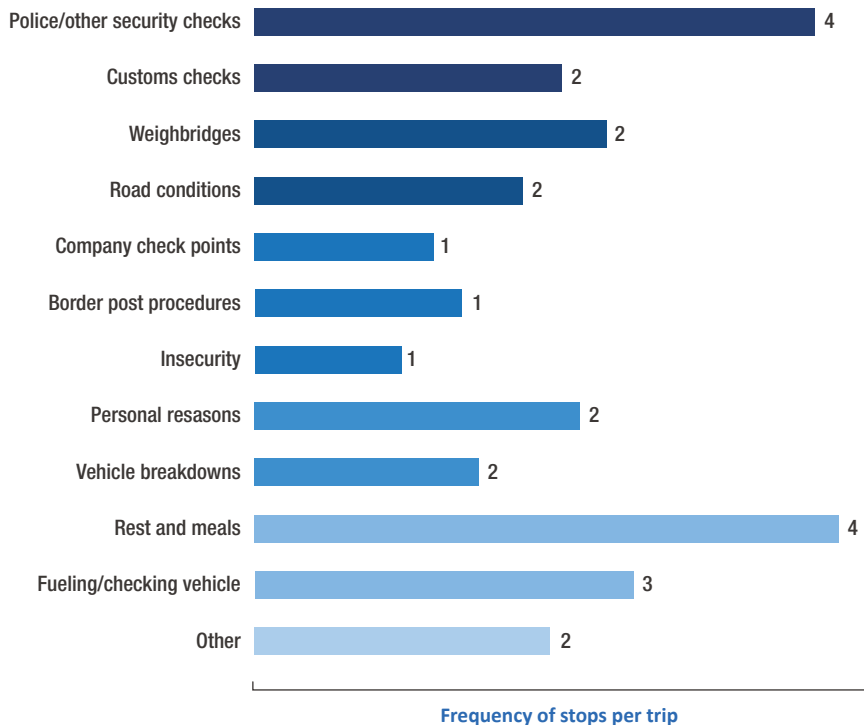
Overall, most stops occur at Malaba, Salgaa, Mtito Andei, Maungu, Busitema, Makindu, Mlolongo, Magamaga, Mariakani, Gilgil, Longonot, Nakuru, Kikopey and Busowa.

Other stoppage reasons given during the surveys include: offloading, parking, carwash, loading return, cargo, accident, buying personals, convoy break down, drivers delivering some belongings to their homes, money changing (i.e Mpesa), police timing, pressure and studs, shifting container, traffic jam, and transferring diesel to the main tank.

Fast-tracking the implementation of Road Side Stations would significantly reduce the frequency of unnecessary stops in addition to other benefits such as health. The frequency of stops per trip is shown in figure 55 below. Drivers are likely to be stopped **4 times** at Police Checkpoints or for other procedures at various centers along the Corridor.

**Figure 55: Average number of stops per stop reason per trip**

Source: Road survey data May2019



## 10.5 Proportion of stops that attract Charges/Fees

Rest and meals take a bigger proportion of stops attracting some charges for payment of food and accommodation followed by Border Posts Procedures. Most of the charges incurred at the border are for parking and road user charges. The median fee payments recorded are **\$1** for Police Fees/Fine, **\$45** for Customs charges, **\$101** for Weighbridge charges and **\$9** border charges. Other charges that drivers recorded were clearance fee, Bribe/ *'Hamsini kawaida'*, Security of truck, Shopping, and Truck washing.

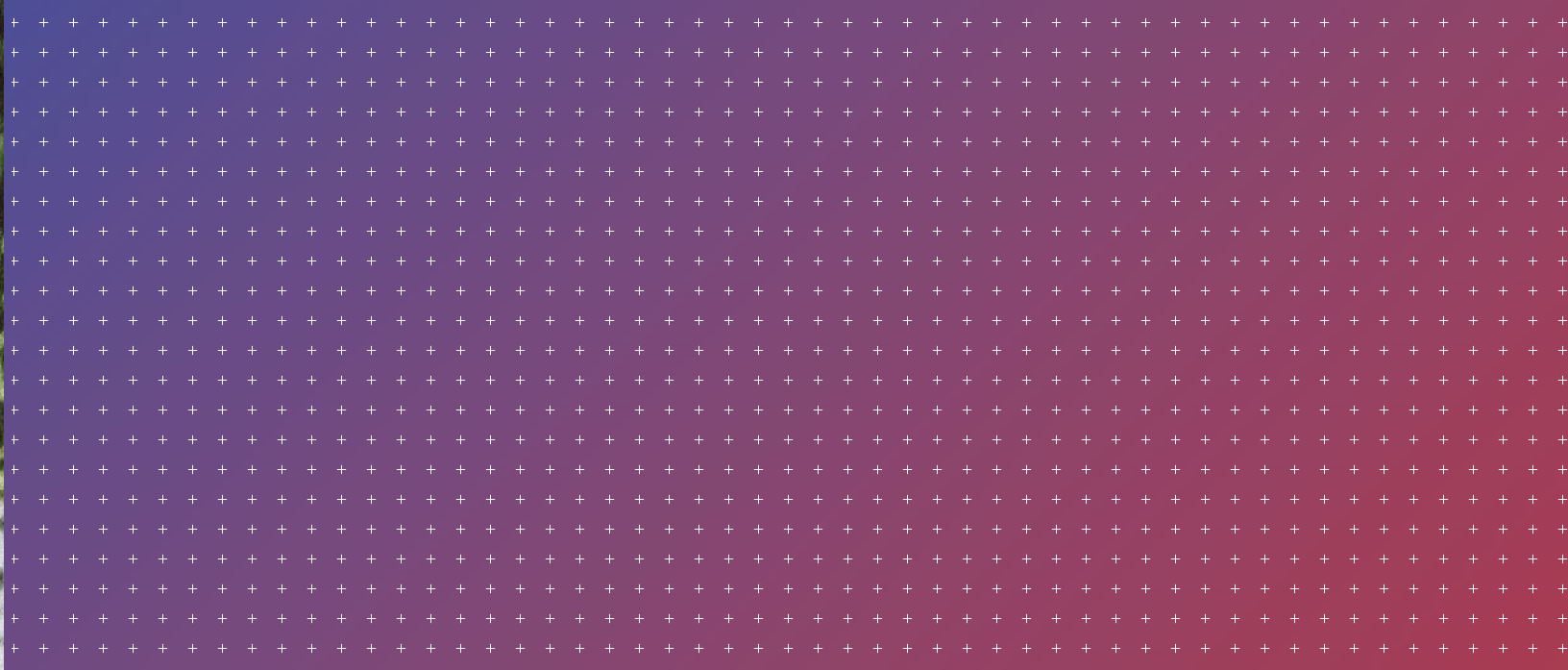
**Table 70: Proportion of Stop Reasons Attracting Charges**

Source: Road survey data May 2019

Stop Reason	No of stops	Stops with Payment	Proportion
Rest/Meals	718	321	45%
Border Post Procedures	157	69	44%
Vehicle Breakdowns	52	14	27%
Police/Other Security Checks	320	55	17%
Customs checks	165	27	16%
Personal Reasons	249	24	10%
Company Check Points	27	1	4%
Weighbridges	261	5	2%
Road Condition	64	1	2%
Fueling/Checking Vehicle	129	2	2%
Insecurity	2	0	0%
Others	193	21	11%

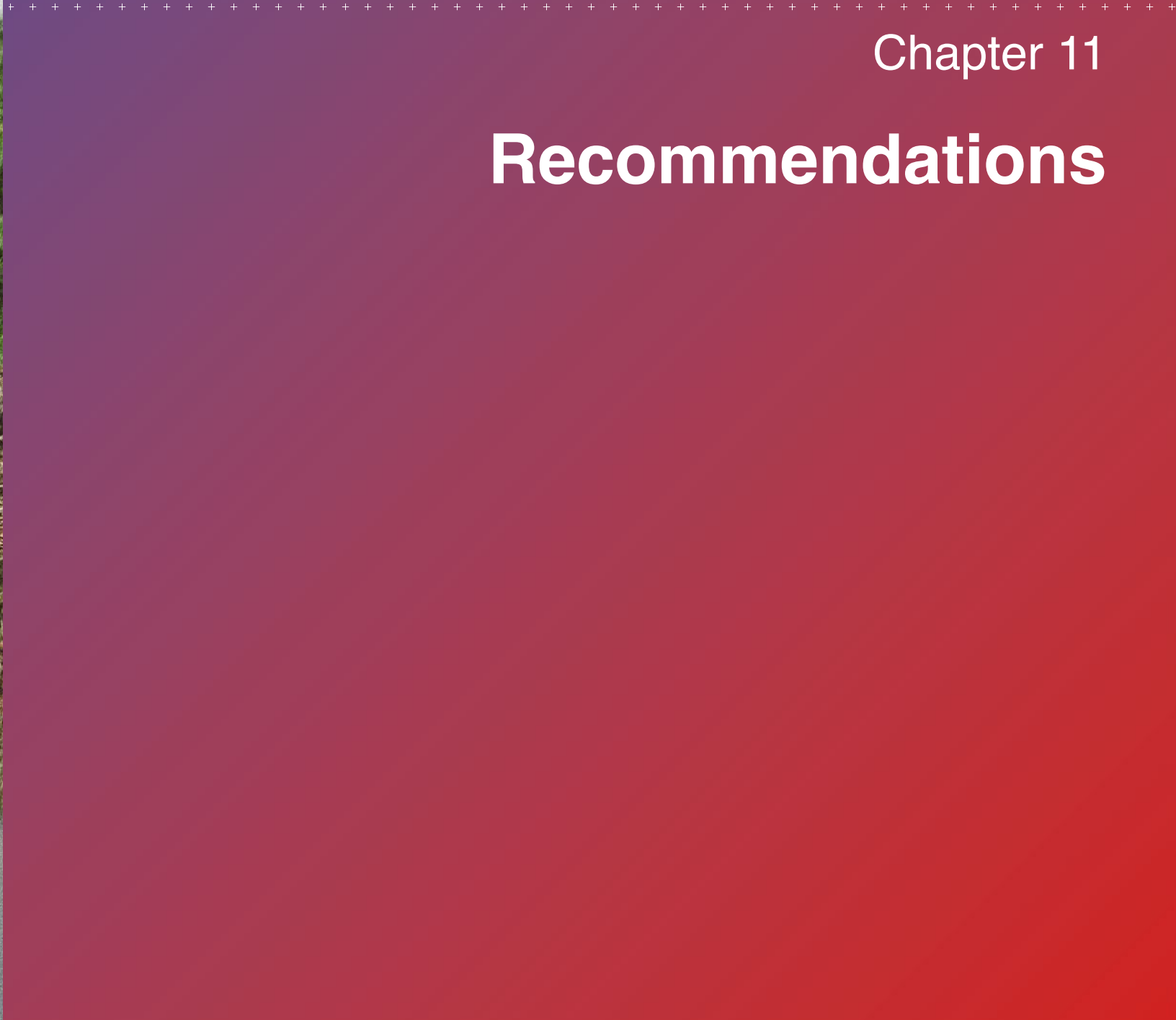






## Chapter 11

# Recommendations



## 11.1 Higher One-Stop Border Posts (OSBP) crossing Time

Delays at Malaba reversing the gains made by OSBP and SCT initiatives. There is a need to enhance systems connectivity and provision enough packing yards at the border to reduce congestion. Equally, there is also a need to do a border audit to any other bottleneck affecting the flow of traffic and if need be, review the Common operating procedures and removal of duplication procedures.

## 11.2 Congestion at Malaba border.

There is a need for the concerned agencies (KeNHA and Road Ministry in Uganda) to fast-track implementation of the initiatives which include; completion of the road connection on the Uganda side, Dualling of the road section at the border and expanding the truck parking area to enhance infrastructure at the border. The Government of South Sudan and development partners are urged to support South Sudan National Revenue Authority to construct a dry port at Nesitu to minimize congestion and delays in clearance of goods for Home Use at Nimule border.

It is recommended that South Sudan automates its customs business processes to expedite clearance of internationally traded goods, this can be rolled out in phases starting with the key customs stations; Nimule, Kaya and Juba. To enhance monitoring of goods destined to all Member States and exchange of information of goods released for transit along the Northern Corridor. It is recommended that the other Northern Corridor Member States support the Republic of South Sudan to join the R-ECTS scheme for tracking goods along the Corridor.

## 11.3 Intraregional trade

Countries in the region trade more with the outside world than amongst themselves. Implementation of trade facilitation instruments varies by country and therefore affecting smooth cross-border trade. Therefore, the need for all Northern Corridor Member States to implement fully trade facilitation instruments that exist already.

The data on intraregional trade does not cover all the member states of the northern corridor. There is a need for Member States to provide data on informal trade. The Member States are urged to harmonize the use of the COMESA Simplified Trade Regime instruments to support small scale cross border trade such as the Simplified Certificate of Origin, Simplified Customs Declaration and value limit for goods cleared using the instruments to at least US \$2,000 per consignment.

## 11.4 Axle Load Limits and Vehicle Overload Control

All Northern Corridor Member States are urged to fast-track the installation of high-speed weigh in motion or virtual weighbridges to reduce delays at the weighbridges. Awareness programs to enhance compliance with vehicle load limits in all the Member States are also of high importance. There is a need to harmonize the charges and penalties for non-compliance on the weighbridges along the NC corridor routes.



## 11.5 Maintenance of Road Infrastructure

The road transport commands the market share for surface transport. However, there is need to improve the road infrastructure in South Soudan and DRC. Authorities and Development Agencies active in these countries are urged to undertake maintenance and establish a dedicated fund for the corridor maintenance.

## 11.6 Railways Transport and Operations

The SGR transport has an advantage of being a low-cost bulk carrier, relatively efficient, less gas emission and with better safety record compared to other modes. There is a need for further improvement of operations at the ICD for faster evacuation of goods moved under the railway. Member States are also urged to give priority to railway transport infrastructure development along the corridor. With the development of SGR railway lines, there is a recommendation to have dry ports for various member states to hasten the process of clearing of cargo from the port.

## 11.7 Non-tariff barriers to trade

It was reported that there exist many police roadblocks along the Northern Corridor routes which contributes to a lot of delays in the movement of cargo. There is a need to carry out campaigns to sensitize all players and stakeholders on trade facilitations and the need to accord special treatment to transit trucks once they have been cleared.

There is a need to involve police officers in the validation workshops and any other activities of the northern corridor. This will enable them to get to know and appreciate the need to ensure trade facilitation along the corridor. In addition, there is a need to sensitize traffic police officers along the northern corridor in Kenya to understand trade facilitation and be able to facilitate transit trucks rather than stopping them. There is a need for Northern corridor to establish a one stop inspection center to centralize the inspection processes.

## 11.8 Nairobi ICD

It was reported that there is a lot of congestion at the Nairobi ICD and high truck turnaround time. Currently, there is one gate for exports and empty containers. It was recommended that KPA needs to create addition gates to reduce congestion at the ICD-N. There is problem of parking for trucks in major towns and therefore need for relevant authorities to look into creating more parking yard for trucks as well as reduce parking fees. Case example is Nairobi where parking fee for truck is KES. 3000.

## 11.9 Road Safety

Member states are urged to promote use of railway mode of transport to reduce road carnage as more traffic moves to the railway. There is Need for comprehensive data analysis on the road accidents statistics. This should include the quality of infrastructure, type of vehicles involved in the accidents.

## 11.10 Logistics performance and Transport Cost

The low logistics performance in the Member States results in high costs due to a combination of transportation costs and unreliable supply chains. There exit huge variations between countries as a result of many factors including delays, hidden cost etc.

The road user charges have also not been harmonized across the region. Its paramount for relevant government agencies to improve border management processes and also build capacity in logistics services. Deliberate effort should be made in reducing delays, duplication of efforts and transportation costs.

## 11.11 Dissemination of Reports

It was recommended that reports to be disseminated to relevant stakeholders including government line Ministries.



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