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Northern Corridor Transit and Transport Coordination Authority (NCTTCA)

P.O. Box 34068-80118 Mombasa, Kenya, Tel.: (+254) 729 923 574 www.ttcanc.org

TradeMark Africa (TMA)

P.O. Box 313 – 00606 Nairobi, Kenya, Tel.: (+254) 20 423 5000 www.trademarkafrica.com

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Main text

The term "dollars" (USD) refers to United States dollars.

The term "billion" signifies 1,000 million.

Annual rates of growth and changes refer to compound rates.

Use of a dash (-) between dates representing years or months, e.g. 2021–2022 or Jan-Dec, signifies the full period involved, including the initial and final years/months. A slash (/) between two years, e.g. 2021/22 or 2021/2022, signifies a fiscal year.

The terms "country" and "economy", as appropriate, also refer to territories or areas.

Tables

A dash (–) indicates that the amount is nil or negligible.

An asterik (*) indicates some data is missing

Details and percentages do not necessarily add up to totals, because of rounding.

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ACRONYMS AND ABBREVIATIONS

ACPLRWA	Association des Chauffeurs des Poids Lourds au Rwanda		
ACTA	African Continental Free Trade Area		
AGOA	African Growth and Opportunity Act		
ASYCUDA	Automated System for Customs Data		
BADEA	Arab Bank for Economic Development in Africa		
COE	Certificate of Export		
COMESA	Common Market for Eastern and Southern Africa		
COVID-19	Coronavirus 2019		
DRC	Democratic Republic of Congo		
EAC	East Africa Community		
EPRA	Energy and Petroleum Regulation Authority		
FSD	Financial Sector Deepening		
GDP	Gross Domestic Product		
GVW	Gross Vehicle Weight		
HSWIM	High-Speed Weigh-in-Motion		
ICBT	Informal Cross Border Trade		
ICD	Inland Container Depot		
ICT	Information Communication Technology		
IRI	International Roughness Index		
KeNHA	Kenya National Highways Authority		
Km	Kilometre		
KOJ	Kisumu Oil Jetty		
KOSF	Kipevu Oil Storage Facility		
KOT	Kilindini Oil Terminal		
KPA	Kenya Ports Authority		
KPC	Kenya Pipeline Company		
KPRL	Kenya Petroleum Refineries Limited		
KRA	Kenya Revenue Authority		
KTA	Kenya Transporters Association		
LPG	Liquefied Petroleum Gas		
MGR	Metre Gauge Rail		
MT	Metric Tonnes		
NC	Northern Corridor		
NCTO	Northern Corridor Transport Observatory		
NCTTA	Northern Corridor Transit and Transport Agreement		
NCTTCA	Northern Corridor Transit and Transport Coordination Authority		

NTB	Non-Tariff Barrier		
NTSA	National Transport and Safety Authority		
OFID	OPEC Fund for International Development		
OSBP	One-Stop Border Post		
PS	Pumping Station		
RECTS	Regional Electronic Cargo Tracking System		
RRA	Rwanda Revenue Authority		
SADC	Southern African Development Community		
SCT	Single Custom Territory		
SGR	Standard Gauge Railway		
TANCIS	Tanzania Customs Integrated System		
TEUs	Twenty Feet Container Equivalent Units		
TMA	TradeMark Africa formerly TradeMark East Africa		
TOP	Transport Observatory Project		
UNCTAD	United Nations Conference on Trade and Development		
UNRA	Uganda National Roads Authority		
URA	Uganda Revenue Authority		
URC	Uganda Railways Corporation		
USD	United States Dollar		
WHO	World Health Organization		

FOREWORD



We are pleased to present the 18th edition of the Northern Corridor Transport Observatory report, which provides a comprehensive overview of the performance of the Northern Corridor and the Port of Mombasa over the past year. This report is part of our ongoing commitment to monitor and report on the performance of the Northern Corridor and provide evidence-based information for policy formulation.

The 18th edition is a continuation of previous publications under the Transport Observatory. It should not be read on its own but as part of our comprehensive monitoring and reporting system for the performance of the

Northern Corridor. More data on the region's performance can be found on the Observatory's online portal (http://top.ttcanc.org).

The report is primarily prepared using raw data from stakeholders in the Member States of the Northern Corridor and qualitative data and information gathered through trade and transport logistics surveys.

The report contains over fourty (40) key performance indicators and, where possible, comparisons with previous years' data are given to provide insights into the region's progress. The data is collected from various stakeholders in the Member States of the Northern Corridor, including Road Authorities, Revenue Authorities, Transport Associations, and the Bureau of Statistics, among others.

We are proud to report that the efficiency of the Port of Mombasa and the Northern Corridor has significantly improved, and the region is fully recovering from the effects of the Covid-19 pandemic. We owe this achievement to the collaboration and support of our stakeholders, experts from Member States, and Northern Corridor Policy organs.

We would like to express our gratitude for your continued support in implementing the Mombasa Port and Northern Corridor Community Charter Initiatives. We hope this report will increase your understanding of the Northern Corridor's performance and inform policies for improvement. Additionally, we express our gratitude to all stakeholders who have contributed to the analysis and refinement of this report up to its validation.

Omae Nyarandi Executive Secretary

ACKNOWLEDGMENT

The Northern Corridor Secretariat has prepared this report with contributions and support from experts in the Member States. This collaborative effort was made possible by the data from our key stakeholders, including Road Authorities, Revenue Authorities, Transport Associations, and the Bureau of Statistics, among others.

We would like to express our gratitude to the Northern Corridor Policy organs for their immense support and to Trademark Africa (formerly Trademark East Africa) for their financial support.

Finally, we acknowledge the Northern Corridor Transport Observatory technical team and all those involved in the development of the report.

NCTTCA Secretariat

The 18th edition of the Transport Observatory report comprehensively analyzes the Northern Corridor transport industry in 2022. The report covers various modes of transportation, including road, rail, and maritime. In addition, it provides insights into the challenges and opportunities the sector faces.

The report identifies several challenges facing the industry, including infrastructure constraints, the shortage of skilled labor, and tariff and non - tariff barriers to trade. To overcome these challenges, the report recommends focusing on innovation and technological advancements, improving efficiency and collaboration among stakeholders to address common challenges.

Overall, the 18th edition of the Transport Observatory report provides a comprehensive and insightful analysis of the regional transportation industry, offering valuable insights for businesses and policymakers looking to navigate the challenges and opportunities in this dynamic market.

Quality of infrastructure

The report evaluates the progress made in the development of the ports and inland waterways as well as the status of the roads in the region covered by the Northern Corridor. The Member States have committed to promoting the use of inland waterways as well as providing sufficient facilities while encouraging any private sector initiatives that would facilitate the transportation of goods and people through the inland waterways. As such Member States have made tremendous progress as far as improving inland waterways and road transport is concerned.

Burundi started upgrading the Bujumbura port by constructing a shipyard, and a container terminal and instituting waterway management. Kenya has revamped the port of Kisumu in addition and the meter gauge railway connection to the port of Kisumu. Kenya has also started the revamping of its vessels MV Uhuru I and II. Uganda has rehabilitated its vessel MV Pamba, and it is in operation. It is working on the maritime communication and transport project in Lake Victoria that aims to upscale the communication and safety of vessels in Lake Victoria. The country is also upgrading the port of Ntoroko and is in the process of constructing the port of Bukasa.

In the Democratic Republic of Congo, there are pending waterway projects that include the rehabilitation of Kalundu & Kalemie Ports, the rehabilitation of Bukavu, the port of Kisangani, and Goma ports. Improvements at the Kasenyi Port on Lake Albert are also ongoing. Rehabilitative activities in Rwanda include the Construction of four ports on Lake Kivu namely Rusizi, Rubavu, Karongi, and Nkora. The member state is also in the process of establishing whether river Akagera is navigable. South Sudan intends to rehabilitate the existing ports as well as develop a regulatory framework for inland water transport.

Besides the ongoing rehabilitation of the ports, various Member States have made progress in improving the road infrastructure. 72.3% of the Northern corridor routes in Burundi are in good condition, 23.5% are in fair condition, and only 4% in poor condition. In Kenya, 76% of the roads are in good condition, 19% in fair condition, and 5% in bad shape. Rwanda has 93.8% of Northern Corridor roads paved and in good condition. However, about 6.2% of the road network is in bad condition. In South Sudan, the road network is generally poor attributed to limited infrastructure development and maintenance resources. Of the 2,076 Km of the Northern Corridor network in Uganda, 49% of the roads are paved and are currently in good condition, 45% are in fair condition, and 6% are in poor condition. Many of the Northern Corridor roads in DRC are unpaved and generally in fair condition. However, the region is characterized by rugged terrain, dense forests, and heavy rainfall, making road construction and maintenance challenging.

The pipeline system in Kenya is under the management of Kenya Pipeline Corporation spanning 1797 km and serves Uganda, Rwanda, Burundi, and the Eastern Democratic Republic of the Congo through tanker transshipment on the Northern Corridor highways and oil jetties at Lake Victoria in Kisumu. Kenya is still improving the pipeline and the pump stations to improve its efficiency. Inland container depots are operational in Kenya, Uganda, and Rwanda.

Volume and Capacity

This section summarises the volume of cargo that went through the port of Mombasa and was transported to the Member States. Though the Member States had a target of reaching a throughput of 35.90 million tonnes by 2022, they fell short by a slim margin by attaining 33.75 M tonnes. This was a slight decline from the volume traded in 2021. The drop represented 2.3%. Of the total throughput, 78.8% represented imports while 14.1% represented exports. The collected data, however, revealed that the number of imports and exports through the port has continued to rise although all the six Member States are net importers. Container throughput grew by 14,746 TEUs between 2021 and 2022. Thus, overall containerization was 46.80%. Pipeline throughput also improved to 8.2 million cubic meters in 2022 as compared to 7.7 million cubic meters in 2021. Kenya Pipeline has also installed additional pumping and storage and expanded loading and storage capacity at the depots.

Efficiency and Productivity

The analysis of efficiency along the Northern Corridor is aimed at ensuring the maximization of output while using minimal inputs, costs, and time. Factors determining efficiency include the time ships spend at the ports, the process of cargo evacuation, and the duration of each of the procedures involved. Efficiency along the Northern corridor, the port of Mombasa, and clearance at the weighbridges and border points are yet to hit the targets set by the Member States. For instance, analyzed data reveals that the ship turnaround time increased in 2022 clocking 95 hours as compared to 86 hours in 2021. The delays are consequences of the breakdown of equipment as well as relying on labor rather than mechanized processes of handling and clearing vessels. These challenges also saw the vessel waiting time increase from 0.99 days to 1.1 days in 2022. Dwell time at the port and time taken to clear cargo at the port has also increased despite the installation of systems to aid in cargo clearance. Moreover, delays in data exchange at border points have also seen an increase in the clearance time of trucks at the various transit nodes. With the implementation of the commitments under the Mombasa Port and Northern Corridor Charter, which aims at increased compliance and improvement of cargo clearance at the port of Mombasa, the Northern Corridor can achieve its targeted dwell time, turnaround time, and cargo clearance at the checkpoints.

Rates and Costs

During the movement of cargo from the port of Mombasa to various destinations, transporters incur various charges as outlined by the various energy and transportation agencies in the Member States. These include fuel expenses, freight charges tariff and non-tariff-related expenses, and other operating expenses. Furthermore, these costs are pegged on the distance, the status of the infrastructure used in transportation, and existing administrative barriers. The rates and costs apply to road, railway, pipeline, and during the clearance of cargo at the port of Mombasa. The cargo handling fee at Mombasa port remains high due to multiple and overlapping charges such as Charges for shore handling, wharfage charges, and terminal handling charges of shipping lines. These multiple charges tend to increase the cost of doing business in the region, making goods more expensive as they are transported into the landlocked countries. In Kenya, shipping lines' markups on cargo under the Through Bill of Lading (TBL) make freight rail less competitive. Additionally, cargo transportation cost via the SGR remains high. The expansion of the pipeline infrastructure has however seen a reduction in transportation rates. Again, these charges vary according to the distance traveled. The increase in road charges is influenced by the state of the roads in the Member States. Longer distances have lower charges and rates if the road quality index is high. Consequently, the improvement of road infrastructure will continue reducing the cost of cargo movement hence reducing the cost of doing business.

Transit Time and Delays

Mombasa Port and the Northern Corridor charter target a maximum of 40 hours to move from Mombasa to Malaba and 45 hours from Mombasa to Busia. Unfortunately, this target is yet to be achieved due to several factors such as stoppages along the road, road accidents, police roadblocks, and infrastructure challenges. Collected data reveal that it took 77 hours to travel from Mombasa to Busia and 80 hours from Mombasa to Malaba. The slowest route is the Mombasa – Kigali. Transit time within the Member States also varies from one country to another with delays being caused by various reasons. Data collected from various drivers showed that there are several reasons why they stop while in transit and the number of hours. Non-disclosed reasons took the highest part of the stoppage time at 8 hours while police check only took 0.1 hours on overage. On the contrary, these police checks and security accounted for the highest frequency of stops along the Northern Corridor.

Intraregional trade

The Northern Corridor Member States trade among themselves as well as with other countries outside the corridor. In the 2022 fiscal year, Burundi exported goods worth 53.69 million dollars to the United Arab Emirates as its main destination. Most of the goods imported into Burundi originated from the Asian block. Burundi's volume of trade with the Member States was USD 192.5 million down from USD 221 million in 2021. Rwanda's trade with the Northern Corridor Member States was valued at USD 1.3 billion. Sixty-four percent of the traded volume was exports and 36% comprised imports. Despite its vast resources, Southern Sudan struggles to engage in trade with the world and even with the Member States. The country is affected by issues such as insecurity, poor infrastructure, and bureaucratic hurdles. These challenges should be addressed before the country can enjoy its resources. Uganda also had its share of intraregional trade volume valued at USD 2.59 billion. The exports and imports represented 61% and 39% respectively.

Kenya's total international trade volume was approximately USD 28.5 billion of which 7% is with the Northern corridor Member States. Kenya has consistently maintained a positive trade balance with other Northern Corridor Member States. Data show that the country is a net exporter in the region. Kenya's trade with the Northern Corridor Member States has remained constant in 2021 and 2022 at about 1.978 billion USD, with export accounting for 80% of the total trade with the Northern Corridor Member States in 2022.

Primary production is predominant in the six Member States. These primary products, mainly from uncontrolled subsistence farming, have lower monetary value as compared to the manufactured products. Hence there is a huge difference between the exports and imports, especially from the developed countries.

Road Safety

Road safety remains a major concern along the Northern Corridor in the Member States. Burundi continued to record very high road accidents at 3,283 in 2022 up from 1,056 in 2021, for the entire country. Kenya recorded 672 road accidents along the Northern Corridor while Rwanda reported 327 accidents along its Northern Corridor routes. South Sudan recorded the least number of road accidents at only 44 while Uganda had the highest number of crashes reported at 20394 in 2022 in the whole country. The major causes of accidents along these routes emanated from human error such as over speeding, inappropriate overtaking, and refusing to observe basic traffic rules. The report, therefore, recommends thorough enforcement of traffic rules to mitigate the crashes caused by failure to observe basic traffic rules.

The 18th issue of the Observatory report presents data and information obtained from the six Northern corridor Member States. This data and information describe various performance and development indicators in these economies. The report focuses on the implications of the performance of the transport sector in facilitating trade among these Member States. Analysis in this report focuses on the performance of the port of Mombasa, road networks, railway lines, pipelines, and inland water transport system along the Northern Corridor. The report was prepared using a descriptive methodology where the Observatory body monitors the corridor's performance. Data is collected on various parameters such as delays, volume and capacity, quality of infrastructure, tariffs and rates, road safety, intraregional trade, and the general efficiency and productivity of the Corridor. The collected data is processed and analyzed using statistical tools and validated by the stakeholders before publication and dissemination.

The findings from this report are vital to the policymakers as they inform policy interventions. This is achieved by identifying barriers that hinder efficient trade along the corridor in the Member States with clear recommendations on trade facilitation.

1.1 Macroeconomic Context

The six Member States of the Northern Corridor, located in the East African region, exhibit diverse macroeconomic trends that indicate some stability and anticipated growth. The Northern Corridor region has an estimated population of 240.9 million, covering a land area of 3.8 million square kilometres. The population has grown by 4.6% since 2021, indicating a rising market demand for goods. Notably, 80% of the region's population is young, with a median age of approximately 18.7 years. Despite the setbacks of the COVID-19 pandemic, the macroeconomic environment in the Northern Corridor has been growing steadily. Unfortunately, the Russian-Ukrainian conflicts appear to be undermining the modest gains made by these countries. Additionally, fuel shortages are driving up average prices and increasing the cost of living.

Table 1: Key Macroeconomic Indicators

			Land Surface		
		Population "000"	area (Km²)	GDP Current p	rices in Billion USD
Economy	2021	2022	2022	2021	2022
Burundi	12,255	12,889	27,830	3.19	3.3
DRC	92,378	99,010	2,344,858	54.83	63.91
Kenya	54,986	55,100	580,370	109.49	114.86
Rwanda	12,277	13,846	26,340	10.4	11.07
South Sudan	11,381	11,547	644,330	3.26	2.89
Uganda	47,124	48,582	241,350	43.24	48.35
Total	230,401	240,974	3,865,078	224.41	244.38

Source: World Bank, UNCTAD statistics 2019/20 and World Economic Outlook

In 2022, the six Member States combined gross domestic product (GDP) rose to USD 244.4 billion from USD 224.41 billion in the 2020-2021 fiscal year, with Kenya maintaining its growth trend. Except for South Sudan, all Member States reported a positive deviation, resulting in a 9% increase in total GDP. The Republic of Kenya accounted for the largest share at 47%, followed by DRC at 26% and Uganda at 20%. As illustrated in the **Figure 1** below, Rwanda contributed 5%, South Sudan 2%, and Burundi 1%.



The Member States economies are projected to grow. However, they continue to rely heavily on imported manufactured products while depending on the agricultural sector to drive their economies. At the end of 2022, only Kenya had a single-digit inflation rate of 7.38%. The inflation rates for the other Member States for the same period were as follows: Uganda at 10.5%, Burundi at 17.34%, Rwanda at 16.5%, DRC at 12.4%, and South Sudan at 17.6%. The persistent rise in inflation was largely attributed to adverse weather conditions that affected the region in late 2022.

In addition, global prices driven by a global oil shortage and rapidly depreciating currencies have made it challenging for Northern Corridor Member States to manage inflation. Monetary policies such as increasing interest rates could stifle credit, which is necessary for investment. Therefore, the IMF advises Central Banks in Africa to manage interest rates with caution. Member States are urged to continue investing in infrastructure to facilitate trade and movement of goods and services.

1.2 Organization of the Report

This report entirely focuses on the general performance of the Northern Corridor. It provides an update on the state of the various indicators in the following sequence. Chapter two examines the status of the infrastructure that supports transportation across the Northern Corridor Member States. Chapter three deals with the traded volume and capacity indicators along the Northern Corridor. Chapter four discusses efficiency and productivity from the port of Mombasa to the borders of the Member States. Chapter five looks at transport rates and costs, chapter six examines transit time and delays, chapter seven explores intraregional trade, and chapter 8 discusses road safety along the corridor. Lastly, chapter nine summarizes the report and provides recommendations for improvement.



CHAPTER TWO: QUALITY OF INFRASTRUCTURE

The Northern Corridor is a multimodal surface transport system linking the Great Lakes Region countries of Burundi, DR Congo, Kenya, Rwanda, South Sudan, and Uganda to the sea port of Mombasa. The Corridor also serves Northern Tanzania, Somalia, and Ethiopia. The Corridor was established in 1985 through a Treaty known as the Northern Corridor Transit and Transport Agreement (NCTTA). NCTTA provides obligations for Member States to ensure the corridor is efficient.

The corridor consists of road, rail, pipeline, and inland waterways and the related facilities used in the trade facilitation and clearance of goods, notably Inland Container Depots (ICDs), Weighbridges, and One Stop Border Posts (OSBP). In addition, the Northern Corridor Member States have designated routes and facilities which are supposed to be maintained at required standards through the corridor to enhance the seamless flow of goods and persons.

This section presents a summary of the Northern Corridor infrastructure status. The Northern Corridor Infrastructure Masterplan (2011) provides strategic development of the corridor's infrastructure up to 2030. Apart from the Infrastructure Masterplan, the improvement of the Corridor is also in line with the African Union's PIDA Priority Action Plan.

2.1 Ports and Inland Waterways Ports

The Northern Corridor ports and inland waterways play a crucial role in facilitating trade and transportation in the Central and East African region. The Port of Mombasa, managed by the Kenya Port Authority, serves as the primary gateway for the region and connects landlocked countries to global trade systems through the Northern Corridor. It is the largest and busiest port in Eastern Africa, with a capacity to handle a diverse range of cargo, including fertilizers, cereals, cement, liquid bulk cargo, and containerized goods.

Apart from the ports, the Northern Corridor also features a variety of navigable inland waterways, such as Lake Victoria, Albert, Edward, Kyoga, Kivu, and Tanganyika, as well as several rivers, including the Nile, Akagera and the River Congo.

Under the NCTTA article 38, the Member States of the Northern Corridor have committed to, among other provisions:

- i. Promote and facilitate safe and efficient use of their inland waterways for transport of transit and interstate traffic.
- ii. Provide and encourage private sector initiatives to provide facilities for the transport and handling of goods and passengers by inland waterways through their respective territories. `1

The Fall and Rise of Inland Waterways Transport

Inland waterways transport, especially on Lake Victoria, has a fascinating history from being a vibrant form of transportation to losing out to rail and road and, finally, a resurgence of interest due to a renewed effort to support multimodal transport. The sector was very vibrant before 2000s, but after that, there was a sharp decline from 2004/5 following a series of mishaps. Then concessioning of the rail operation led to a total collapse of lake/rail multimodal cargo after the operator of the metre gauge rail stopped using wagon ferries through the lake. It was only in 2018 that a sharp focus on inland water transport and political goodwill revamped the sector.

Table 2 below summarizes the status of IWT in the region.

Table 2: Status of Inland Water Transport

Country	Activity	Status
Burundi	 Upgrading of Bujumbura Port 	 Rehabilitation of port facilities, construction of a shipyard, construction of a container terminal and wastewater management, and dredging of the port are ongoing.
	✓ Construction of Vessels	✓ Fund mobilization for the construction of 5 vessels with a total capacity of 10,000 tonnes is ongoing.
Kenya	 Revamping Kisumu Port / Infrastructure upgrade 	 Kisumu Port has been rehabilitated and the Metre Gauge line from Nakuru to Kisumu has been rehabilitated. The port has also been dredged.
	 Establishment of the Railway Institute (RTI) Kisumu Campus 	raining ✓ Modern training facility developed with capacity to admit 1,000 students.
	✓ Vessel Rehabilitation/ship buil	ding ✓ MV Uhuru was rehabilitated and is operational, and MV Uhuru II is being built.
Uganda	✓ Rehabilitation Vessels	✓ MV Pamba vessel rehabilitated and back in operation
	 Multinational Lake Victoria Ma communications and transpor 	ritime project is ongoing, and it will involve extending communication coverage to the entire lake; establishing one maritime Rescue Coordination Center, and installation of search and rescue stations around the Lake.
	✓ Upgrade Ntoroko Port	\checkmark The following works are ongoing;
		 Resurfacing the concrete access road, concrete turning, and parking area.
		 b) Constructing a new jetty comprising of sheet metal pipes with a grid of concrete beams.
		c) Construct a concrete deck (5m wide).
		 Construct a warehouse with capacity to accommodate the contents of ten 40ft containers.
		 e) Install fencing along the unfenced side with additional solar lighting and a gate/barrier with gate house.
	✓ Construct Bukasa Port	✓ Construction of Bukasa Port - at land acquisition stage
		\checkmark Planned rehabilitation of Port Bell and Jinja Port .

Country	Activity	Status
DRC	 Rehabilitation / Upgrading Equipment of Kalundu & Kalemie Ports 	 At fund mobilization stage for dredging, rehabilitation, and modernization of Kalundu and Kalemie port infrastructure
	 Rehabilitation / Upgrading of the port of Bukavu and Goma 	 At fund mobilization stage for Dredging, rehabilitation, and modernization of Bukavu and Goma ports infrastructure to facilitate trade between Bukavu in DRC and Rwanda.
		 Planning to clear two ships Mikeno & Karibu that collapsed and are still in the water at the quay.
		 Planned fencing of the entry and exit points of the Ports for safety and security.
	 Rehabilitation / Upgrading of the port of Kisangani. 	 Mobilizing funds for dredging, rehabilitation, and modernization of Kisangani port infrastructure to facilitate trade between Kisangani- Kindu-Kinshasa. Acquisition of 2 multifunctional dredgers and a barge are ongoing
	✓ Improvement of Kasenyi Port on Lake	✓ Rehabilitation of the infrastructure at the Port is ongoing.
	Albert	✓ Planned jetty renovation.
Rwanda	✓ Construction of four ports on Lake	\checkmark The following works are ongoing;
	Kivu (Rusizi, Rubavu, Karongi & Nkora)	 Development of four (4) Ports at Rusizi, Karongi, Nkora and Rubavu.
		 Construction of warehouses; security guard services; RRA offices, offices for Immigration/emigration and police posts.
		 Construction of ship repair workshop yard in Rubavu.
		 Supply of two (2) ferries by the Private Sector.
	 Feasibility study of Akagera navigability 	✓ Fund mobilization for the detailed feasibility study is ongoing.
	 Institutional capacity building, Regulatory framework and funds 	 Ongoing activities on the establishment of Maritime Regulatory Authority,
	mobilization.	 Development of maritime regulations, navigation charts and appropriate training and technical assistance for capacity building are ongoing.
S o u t h - Sudan	✓ Dredging, widening of shipping	✓ There following activities are in the pipeline / underway;
	channels; clearing of vegetation and marking submerged wrecks and rocks that nose significant risks	 Budget approval and establishment of the Project Management Unit.
	 particularly when water levels are low. Installation, operation, and maintenance of navigation aid 	 Dredging, widening of shipping channels; clearing of vegetation and marking submerged wrecks and rocks that pose significant risks, particularly when water levels are low.
	systems.	 Installation, operation, and maintenance of navigation aid systems.
	existing ports.	 Rehabilitation and expansion of existing ports.
	 Procurement, operation and maintenance of additional pushers 	 Procurement, operation and maintenance of additional pushers and barges (including self-propelled system).
	and barges (including self-propelled system)	 Develop regulatory framework;
	 ✓ Develop regulatory framework; 	 Integrated Action Plan for Institutional development, Procurement and Operations
		 Implementation of the Action Plan.



2.2 Roads

The primary road network of the Northern Corridor spans from the Mombasa seaport in Kenya, passing through Uganda, Rwanda, Burundi, and the Democratic Republic of Congo (DRC). Moreover, it links Kenya and Uganda to Juba in South Sudan. In addition, Interstate and transit traffic utilize the routes and auxiliary infrastructure specified in each Member State as defined by Protocol No. 2 of the Northern Corridor Transit and Transport Agreement (NCTTA).

The Northern Corridor is part of the Trans-Africa Highways that extend beyond the East African Community (EAC) region which when linked to other Corridors would spur trade and economic growth. This has become even more crucial since the African Continental Free Trade Area (AfCFTA) started on 1 January 2021. The Trans-African road network comprises nine highways, covering approximately 56,683 Km. The Highway 8, a 6,259-kilometre trans-African highway connects Mombasa and Lagos. It is projected to pass through six countries, including three Northern Corridor Member States, with 1,100 Km in Kenya, 740 km in Uganda, 1,561 km Democratic Republic of the Congo (DRC), 1,319 Km in the Central African Republic (CAR), 1,044 Km in Cameroon, and 737 Km in Nigeria. . However, missing links in the Central African Republic and the Democratic Republic of the Congo impede its full utilization.

Based on the NCTTA, Member States have designated Northern Corridor routes within their territories. The section that follows looks at the Northern Corridor roads status based on the International Roughness Index (IRI) scale;

Status	Excellent	Good	Fair	Poor	Bad
IRI	< 2	2-3.99	4-5.99	6-10	Above 10



2.2.1 Road Condition in Burundi

The Republic of Burundi through the NCTTA has designated Northern Corridor routes in Burundi as follows:

- 1. Kanyaru Haut (through -Kayanza-Bujumbura) to Gatumba
- 2. Gasenyi (through-Kirundo-Ngozi) to Bujumbura
- 3. Ruhwa (through Rugombo-Nyamitanga) to Bujumbura
- 4. Kanyaru bas- (through Ngozi-Nyangungu) to Gitega

Burundi's roads mostly consist of asphalt concrete paving. Namitanga-Bujumbura Airport - Bujumbura and Ngozi-Gitega routes have a width of 3.5 metres. However, other Northern Corridor roads in Burundi have a width of 3 metres and two lanes.

Burundi roads have seen progressive improvement over the years. Following ongoing repairs and rehabilitation of various road sections, 72.3% of the Northern Corridor routes in Burundi are in good condition, 23.5% in fair condition, and only 4% are in bad condition as shown in **Figure 3**.



Figure 3: Status of Northern Corridor Road Sections in Burundi in 2022

Along the Northern Corridor roads in Burundi, the following are the ongoing works to improve the quality of road infrastructure:

- The Republic of Burundi launched the "Zero Nid de Poule" campaign (Zero Potholes Campaign) along all national roads to reduce transit time and costs. Currently, rehabilitation and maintenance works are ongoing on almost all the critical urban roads and on some sections of the Northern Corridor Road network, such as Bujumbura-Bugarama and Bugarama-Gitega.
- Rehabilitation and asphalting works of the National Road No. 16 are also ongoing under financing from Arab Bank for Economic Development in Africa (BADEA), OPEC Fund for International Development (OFID) and Financial Sector Deepening (FSD).

Furthermore, under the National Development Plan, there is planned rehabilitation and widening of Bugarama-Kanyaru Haut, Bujumbura-Bugarama, Bugarama-Gitega, Kayanza-Gashoho Gashoho-Kirundo, and upgrading and asphalting of Kanyaru bas-Ngozi and Kayanza-Frontière Rwanda following the EAC standards.

Other planned projects in Burundi are rehabilitation and widening of Bujumbura - Bugarama – Gitega section and construction of roadside stations along Northern Corridor routes in Burundi.

2.2.2 Road Condition in DRC

The Democratic Republic of Congo through the NCTTA has designated Northern Corridor routes in DRC as follows:

- 1. Bukavu (through Kindu) to Kisangani
- 2. Kiliba (through Uvira) to Kalundu
- 3. Kamanyora (through Bukavu) to Kalundu
- 4. Kavimvira (through Uvira) to Kalundu

- 5. Kasindi (through Beni) to Kisangani/Bunia
- 6. Mahagi (through Bunia) to Kisangani/Isiro
- 7. Aru (through Bunia) to Kisangani/Isiro
- 8. Bunagana to Goma
- 9. Ishasha (through-Rutshuru) to Goma

Many of the Northern Corridor roads in DRC are unpaved and generally in poor condition. Additionally, the region is characterized by rugged terrain, dense forests, and heavy rainfall, making road construction and maintenance challenging. Moreover, the paved roads have potholes, uneven surfaces, and limited signage.

Despite these challenges, efforts have been made in recent years to improve road condition in DRC. The government has invested in constructing and rehabilitating key roads, particularly those that connect major population centers and economic hubs. The World Bank and other international organizations have also provided funding for road infrastructure projects, such as the rehabilitation of the Goma-Bukavu Road and the Beni-Butembo Road. However, ongoing conflict and instability continue to pose challenges to road construction and maintenance efforts. At the same time, limited funding and resources have also hindered progress. Nonetheless, efforts to improve roads in Eastern DRC remain a critical priority for the region's economic and social development. The current status of road conditions in DRC is presented in **Table 3**.

Route	Total Length (Km)	IRI	Status
Bukavu-Kindu-Kisangani	1299	>5	Poor
Bukavu-Uvira	140	>5	Poor
Kisangani-Beni-Kasindi	845	>5	Poor
Komanda-Bunia-Mahagi	530	>5	Poor
Beni-Butembo-Goma-Bukavu	677	>5	Poor
Rutshuru-Bunagana	29	>5	Poor
Rutshuru-Ishasha	64	>5	Poor

Table 3: Status of Northern Corridor Road Sections in DRC

2.2.3 Road Condition in Kenya

The Republic of Kenya through the NCTTA has designated Northern Corridor routes in Kenya as follows:

- 1. Mombasa to Malaba through Nairobi- Eldoret
- 2. Mombasa to Busia through Kisiani-Kisumu
- 3. Mombasa to Taveta through Voi
- 4. Mombasa to Lunga Lunga through Diani
- 5. Mombasa to Namanga through Nairobi
- 6. Mombasa to Lokichogio through Nairobi- Eldoret
- 7. Mombasa to Lwakhakha through Nairobi-Webuye
- 8. Mombasa to Isebania through Nairobi-Narok

The distances between Mombasa – Malaba, Mau Summit – Busia and Voi – Taveta are approximately 1198.3 Km. **Figure 4** shows that 76% of the roads are in good condition, 19% in fair condition, and 5% in bad condition. Some of the road sections with a high percentage of length in poor condition are Museum Hill - Athi River (Nakuru-bound) (4 Km), Mtito Andei - Tsavo River (7.6 Km), Tsavo River – Voi (19 Km), Maili Tisa – Ngeria (10 Km), and Busia – Ugunja -Kisian (10 Km).

The improved road condition is attributed to ongoing infrastructure development projects along various Northern Corridor Road sections in Kenya.



Source: KeNHA, 2021-2022





2.2.4 Road Condition in Rwanda

The Republic of Rwanda through the NCTTA has designated Northern Corridor routes in Rwanda as follows:

- 1. Kagitumba Akanyaru haut
- 2. Kagitumba Rusizi
- 3. Gatuna- Rusizi
- 4. Gatuna Rubavu
- 5. Rusizi Bugarama
- 6. Cyanika- Rubavu

Figure 5 shows that around 93.8% of Northern Corridor roads in Rwanda are paved and in good condition. However, about 6.2% of the road network is in bad condition, with Huye -Akanyaru Haut (10.4 Km), Rusizi – Bugarama (17.4 Km), Cyanika- Musanze (10.2 Km) and Kigali- Huye (5.1 Km) subsections requiring rehabilitation.



Rwanda has been actively working to improve the status of its road network, with ongoing civil works and maintenance projects across the country. Major ongoing road maintenance include three years of periodic maintenance for key road sections such as Rusizi-Buhinga-Tyazo, Crete Congo Nil-Buhinga, Tyazo-Karongi-Rubengera, and Rusizi-Bugarama-Ruhwa. Maintenance efforts also extend to several paved roads, including Kigali-Musanze, Kigali-Gatuna, Nyakinama-Musanze-Cyanika, and Musanze-Rubavu-Gisiza. Other ongoing civil works include rehabilitating and widening of Rambura-Nyange road as well as upgrading of Nyagatare-Rukomo, Huye-Kibeho-Ngoma, and Base-Butaro-Kidaho roads. These efforts are expected to enhance transport and connectivity across the country.

Road sections planned for rehabilitation and upgrade are:

- Kagitumba-Kigali: rehabilitation works of the section from Kagitumba to Kayonza were completed in 2022. For Kayonza – Kigali section, studies were conducted in 2018, and fund mobilization is ongoing.
- **Kigali- Huye:** Funds for rehabilitation works of Kigali-Muhanga Road section were secured and works are expected to start in 2024. For Muhanga-Huye, designs were completed in 2016, and fund mobilization is ongoing.
- Huye -Akanyaru Haut: designs were completed in 2016 and fund mobilization for rehabilitation works is ongoing. This section is part of Muhanga-Huye road.
- Huye Rusizi: rehabilitation works were recently completed, and maintenance works are ongoing.
- Gatuna-Kigali, Kigali- Musanze, and Musanze Rubavu: rehabilitation works were recently completed, and maintenance works are ongoing.
- Rusizi Bugarama and Cyanika- Musanze: studies for rehabilitation works were completed in 2016 and 2017 respectively and funds mobilization is ongoing.

2.2.5 Road Condition in South Sudan

Due to ongoing conflicts and limited infrastructure development and maintenance resources, road condition in South Sudan is generally poor. Many roads are unpaved and suffer from erosion, making them difficult to navigate, particularly during the rainy season. **Figure 6** shows that in 2022, only 9% of roads in South Sudan were in fair condition, an improvement from 5% in 2021.



Source: South Sudan Roads Authority, 2020-2022

Two of the three paved road sections, namely: Juba-Terekeka and Juba-Bor, with a fair IRI, have been newly completed as asphalt paved roads with funding for the Government's Oil-for-Infrastructure Programme. On the other hand, the Juba-Nimule Road upgrade to asphalt paved road was completed in 2012, and now it is in a deplorable condition due to lack of maintenance since 2014.

Nadapal-Kapoeta-Torit-Juba Road, Juba-Lainya-Yei-Kaya Road, Terekeka – Yirol - Rumbek Road, and the Juba-Mundri-Maridi-Yambio road are all currently under maintenance to gravel surfaced standard by the Government of South Sudan under the Oil-for-Roads program.

All road sections have been prioritized for upgrading to asphalt-paved standard, but lack of funding has hindered the process.

However, there have been recent efforts to improve road infrastructure in some parts of the country, particularly around major cities, which may help alleviate some of these issues. Also, NCTTCA, in collaboration with the South Sudan Ministry of Transport, has completed a comprehensive assessment of the transport sector needs in the Republic of South Sudan. The study identified gaps in policy, legal, institutional, financing, capacity, interconnectivity, and stakeholders' involvement, and proposed intervention options to enhance trade and transport flows along Northern Corridor routes in South Sudan. Furthermore, NCTTCA aims to harmonize and bring all the Northern Corridor Member States to the same level in terms of the implementation of trade and transport facilitation instruments along the Corridor. NCTTCA is leading the fund mobilization process for implementing the study recommendations.

2.2.6 Road Condition in Uganda

The Republic of Uganda through the NCTTA has designated Northern Corridor routes in Uganda as follows: Malaba-Katuna, Malaba-Ishasha, Malaba-Mpondwe, Malaba-Goli, Malaba-Arua, Busia-Katuna, Busia-Ishasha, Kasese – Kigitumba, Busia – Arua, Busia – Goli, Kasese – Mpondwe and Kasese – Ishasha.

The road network of the Northern Corridor in Uganda covers 2,076 kilometres. Of this total, approximately 49% of the roads are paved and are currently in good condition, 45% are in fair condition, and 6% are in poor condition.

Trucks park along the road at Jua Kali in Eldoret along the Northern Corridor road in Kenya





Meanwhile, Uganda's road network is undergoing rehabilitation and improvement works in various sections to ensure safe and efficient mobility. Rehabilitation works are ongoing for the Malaba (Uganda/ Kenya border) - Bugiri section of the road network. Additionally, planned periodic maintenance of the Bugiri – Jinja section of the road network is scheduled to begin in 2025.

The maintenance of the Kampala – Jinja Expressway is also underway. Meanwhile, procurement for the capacity improvement of the Kibuye - Busega - Mpigi Expressway is at an advanced stage, with financing from the African Development Bank (AfDB). The construction of the Busega-Mpigi section of the expressway began in 2019.

The rehabilitation of the Mbarara – Katuna route and Mbarara bypass is complete. The upgrading of the Mityana – Kitenga route to bituminous standards is also ongoing and is expected to be completed in 2024. The Kyenjojo- Katunguru section upgrade was completed in 2021, and the designs for Kitenga - Kyenjojo sections and Kikorongo – Mpondwe are ongoing. In addition, the paving of the Katunguru – Ishasha route is planned.

Furthermore, rehabilitation is ongoing for the road network between Kamdini – Pakwach- Nebbi and Nebbi – Arua Manibe sections. The Busia - Tororo upgrade is also expected to be completed in 2024. With these improvement projects, Uganda's road network is set to become safer and more efficient.
2.3 Pipeline Network

The Kenya Pipeline Company (KPC) is responsible for transporting, storing, and handling petroleum products through the pipeline system in Kenya. KPC oversees the pipeline transit network, which spans 1,797 kilometres and comprises 14 pumping stations and seven loading depots. The pipeline has the capacity to transport about 6.9 billion litres of petroleum products annually.

Petroleum loading depots are in various areas, including Mombasa, Konza, Nairobi's Industrial Area, Embakasi – Nairobi (Aviation depot), Nakuru, Eldoret, and Kisumu. The pipeline runs from Mombasa's oil refinery to Nairobi, Eldoret, and Kisumu. In addition, it serves Uganda, Rwanda, Burundi, and the Eastern Democratic Republic of the Congo through tanker transshipment on the Northern Corridor highways and oil jetties at Lake Victoria in Kisumu.

For instance, the Kisumu Oil Jetty (KOJ) extends its reach to Uganda's Bukiri-Bukasa Entebbe via Lake Victoria to Uganda's East Africa Logistics Limited Depot. This private supplementary facility, comprising a jetty and depot has been completed and operationalised.



Line Section	Length (Km)	Pipe Diameter (Inches)	Installed Flow Rate (M ³ /Hr)
Mombasa-Nairobi (Line I)	450	14	830
Nairobi-Nakuru-Eldoret (Line II)	325	8/6	220
Sinendet-Kisumu (Line III)	121	6	100
Nairobi-Eldoret (Line IV)	325	14	311
Mombasa-Nairobi (Line V) new	450	20	1,000
Sinendet-Kisumu (Line VI)	121	10	350
Spur Line from KOSF to Shimanzi Oil Terminal	2.8	12	450
Changamwe – Moi International Airport	3.8	6	120
Source: https://www.kpc.co.ke/pipelinene	twork		



The Mombasa-Nairobi Line I was decommissioned, and currently, only the Mombasa – Nairobi pipeline (Line 5) is in use through a 20-inch pipeline with an installed flow rate of 1,000 m³/hr.

The pipeline has reached its threshold as the current achieved flow rate is 950 m³/hr on average. Thus, the capacity is insufficient to meet growing demand of 1,450 m³/hr. The pipeline design had provided for a phased upgrade of flow rate to 1,700m³/hr.

Currently KPC has plans to install additional pump stations and construction of a new 20-inch line between Mombasa and Nairobi to increase the pipeline capacity. This upgraded pipeline will have a higher flow rate of 1.9 million litres per hour.

Other initiatives to enhance capacity for handling, transporting, storage & transferring of market demand petroleum include:

- a) Enhancement of the Nairobi- Eldoret (Line 4) to increase flow rate from 330m³ to 500m³ per hour.
- Enhancement of the Nairobi Terminal (PS 10) bottom-loading facility to provide 'common user' loading facilities in Nairobi.
- b) LPG Truck loading Facility at KPRL (PS 15)
- KPC has a 1200 MT storage capacity at KPRL but does not have a truck loading facility. Plans are underway for the development of 25,000MT LPG bulk storage and handling facility in Mombasa. The LPG facility will be located at KPRL and connected to Kipevu Oil Terminal (KOT) II as phase I of a more extensive LPG infrastructure development programme which will involve the development of Bulk LPG storage and handling facilities in Nairobi, Eldoret, Nakuru, Kisumu and Sagana.

Table 4 provides a summary of the pipeline storage capacity in Kenya.

In response to the growing demand for petroleum products, KPC has taken steps to ensure that industry players have access to this essential product by constructing an additional storage facility in Kipevu at the cost of Ksh 40 billion. Furthermore, efficiency has been the guiding principle for all activities at Kenya's Loading Depots. KPC serves over 300 trucks per day that deliver products to Uganda and beyond.

Table 4: KPC Pipeline Storage Facilities' Capacity

Facility/ Location	Capacity (M3)	Capacity (Litres)
KOSF -Kipevu (Mombasa)	326,000	326,000,000
KPRL (Changamwe) additional July 2017	140,000	140,000,000
Moi Airport (Mombasa)	7,000	7,000,000
JKIA (Nairobi)	54,000	54,000,000
Nairobi Terminal	233,000	233,000,000
Nakuru	31,000	31,000,000
Eldoret	48,000	48,000,000
Kisumu	45,000	45,000,000

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



2.4 Inland Container Depots

Inland Container Depots (ICD) management in Kenya is under the Kenya Ports Authority (KPA). These depots are connected to the Mombasa Port container terminal through rail connections and services. The Nairobi ICD is the largest and busiest in Kenya, boasting four railway-mounted gantry cranes, eight rubber-tired gantry cranes, ten reach stackers, thirty terminal tractors, sixty-seven trailers, and sixteen forklifts to support loading and unloading activities.

Similarly, the Naivasha ICD is linked to the port via the Standard Gauge Railway (SGR) line and began commercial freight operations in May 2020. This ICD is equipped with four reach stackers and 7 terminal tractors, and its existing truck holding area has a capacity of about 150 trucks.

In Rwanda, there are two primary ICDs: the Magasins Generaux du Rwanda (MAGERWA) Inland Depot and the DP World Logistics Limited (Rwanda), both of which can handle 50,000 TEUs annually. Uganda's Multiple ICDs can also handle the same amount of TEUs annually.

Table 5: ICDs along the Northern Corridor

Country	Name of ICD	Total Available Capacity (TEUs)	Notes		
Kenya	Nairobi	450,000	They are operating at an optimal level. Standard gauge tracks and handling facilities added to existing Metre gauge depot. The ICD also handles outbound cargo and empty containers.		
Kenya	Kisumu	15,000	It is operational and serves as a transshipment point. It occupies 17.5 Hectares and is designed to mostly receive cargo by railway and dispense by road and inland waterway by Lake Victoria.		
			The ICD has a well-paved container yard and a properly fenced warehouse. The yard has a verification shed, ample security, and floodlights that enable 24/7 operations. The ICD has cargo handling equipment to facilitate the loading and offloading of cargo. The yard is linked to the transport system by a rail siding, a tarmac road and wagon ferry services through the Kisumu Port.		
			The ICD has a reach stacker, a mobile crane, one heavy-duty forklift, three light-duty forklifts, three terminal tractors and eight trailers for cargo handling.		
Kenya	Kenya Naivasha 4,000 TE (Containe		enya Naivasha 4,000 (Conta	4,000 TEUs (Container yard).	Naivasha ICD brings the Mombasa Port closer to the hinterland countries by over 500 Km and offers good connectivity by road to the neighbouring hinterland countries.
		The truck holding area at the ICD has a capacity of about 150	One thousand acres of land adjacent to the ICD has been designated for developing an economic zone/ industrial park, and 50 have been designated to the transit countries for developing freight stations.		
		trucks.	The MGR line connectivity from the ICD to the existing Naivasha – Nairobi MGR line is 24.5 Km long.		
Kenya	Eldoret		Established in 1994, however, this dry port facility needs to be used.		
Kenya	Taita Taveta	*	Feasibility study was completed, and land allocated for construction.		
Rwanda	MAGERWA	40,000	In operation with container handling equipment and providing Verified Gross Mass (VGM) Certificate for export to comply with Safety of Life at Sea (SOLAS)		
Rwanda	Kigali Logistics Platform	50,000	Operational since September 2018		
Uganda	Multiple ICD	50,000	Completed in 2015, the ICD is a transit hub for trucks transporting cargo. Multiple ICD does not have a provision for empty container storage. The loaded containers are weighed at the weighbridge at the ICD to obtain and comply with the Verified Gross Mass (VGM) required for the maritime transportation of containers.		

Country	Name of ICD	Total Available Capacity (TEUs)	Notes
Uganda	Mukono ICD	1,850 -bonded warehouse	The ICD is located 25 Km from Kampala at Kyetume and has an area of 13 acres. It has cargo handling equipment and handles imports and exports received and dispatched by railway and road.

2.5 Railway

Efforts to modernize and establish an African railway network have been the focus of East African regional cooperation initiatives, aiming to adopt a common railway policy among Member States. The East African Railway Master Plan serves as a guide for future railway development, proposing the refurbishment of existing railways serving Tanzania, Kenya, and Uganda and expanding them to include Rwanda, Burundi, South Sudan, Ethiopia, and beyond. In addition, the Northern Corridor Infrastructure Masterplan aims to catalyze multilateral railway development projects in the region.

The Member States have committed to developing a Standard Gauge Rail (SGR) from Mombasa in Kenya to the rest of the Northern Corridor Member States. The Mombasa-Nairobi SGR, which spans 485 kilometers, has been complete and operational since 2018, with the extension of the SGR line from Nairobi to Naivasha also complete and operational.

In addition, Kenya Railways has constructed, upgraded, and rehabilitated the Metre Gauge Railway (MGR) network and renovated and reopened the Nairobi Central Station while procuring Diesel Multiple Units to support commuter train services in Nairobi.

To address logistics challenges associated with cargo movement, Uganda Railways Corporation (URC) operates in partnership with Kenya Railways (KRC) and other stakeholders to offer logistic solutions for railway services on the Northern Corridor for both export and import cargo, with a focus on providing a safer and more efficient alternative to road transportation. The Northern Corridor Railway Freight services in Kenya are provided via the SGR and MGR, while Uganda wholly runs railway services on the MGR.

Table 6: Current Standard Gauge Railway (SGR) Capacity

Wagons

Туре	Capacity /type	No. Delivered	Trailing load on different gradients
Freight	DF8-B Model CCD5B1	43	2600
Shunting	DF7-G Model CCD5D1	8	2600
Passenge	r DF11 Model CCD5C1	5	-
Locomoti	ves		
S/No.	Description	Model	Quantity Delivered
1	Open Top Wagons	C70	490
2	General Purpose Flat Wagons	X70	820
3	Flat Wagons – Long	NX70	150
4	Covered Wagons	P70	80
5	Double Stack Container Wagons	X2K	80
	Total number		1620
Source:	Kenya Railways		



Table 7: Metre Gauge Railway (MGR) Capacity in Kenya and Uganda

Class	Ownership	Total fleet	Active Fleet	Capacity ¹
Mainline Locomo	otives			
96	KRC	20	5	2610@ 1050 RPM
94	KRC	10	7	2913@ 1050 RPM
93	KRC	25	16	2610@ 1050 RPM
92	KRC	12	0	2550 @ 1050 RPM
97	KRC	4	4	3300 @ 1800 RPM
86	KRC	6	6	2000 @ 1800 RPM
	Total	77	38	
Shunting Locom	otives			
87	KRC	5	0	1840 @ 850 RPM
75	KRC	6	6	1500@ 1800 RPM
71	KRC	1	1	1240 @ 850 RPM
73U	URC	9	5	1230@ 1500 RPM
62	KRC	14	0	760 @ 1500 RPM
62U	URC	5	1	761@ 1500 RPM
61	KRC	10	10	
47	KRC	13	2	525 @ 1800 RPM
46	URC	5	-	2 x 345 @ 2200 RPM
	Total	68	25	
Diesel Multiple U	Inits (DMU)			
DMU	KRC	23	8	310@ 2100 RPM

Capacity of locomotives is indicated in horsepower @ revolutions per minute.

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Туре	Code	Ownership	fleet	fleet	Capacity (Tonnes)
	FWH	KRC	240	193	64
Flatbed	FWC	KRC	750	583	34 - 42.9
		URC	520	327	40-46
	LSC	KRC	65	55	42
Covered		KRC	933	541	34 -42.9
		URC	453	212	40 - 44.78
Low open		KRC	30	6	10.08-15.5
Tanks		KRC	226	127	39,070- 52,397 liters
		URC	151	72	33,000 - 60,000 liters
Vegetable	tanks	KRC	48	12	30.3 - 41.325
High Open		KRC	94	50	36.38 -45
		URC	20	14	36.38 -45
BHB		KRC	24	14	
		URC	49	21	
Coaches		KRC	164	100	36.3
		URC	23	7	36.3
Brake Van	S	KRC	20	7	
		URC	7	0	

Wagons

Source: Kenya Railways

A truck is weighed at Mariakani weighbridge along the Northern Corridor in Kenya



2.6 Weighbridges

The Northern Corridor Member States have established a uniform strategy for weighbridge operation and management under the EAC Vehicle Load Control Act, 2013, aimed at facilitating efficient and effective regulation of overloading on corridor routes. Kenya and Uganda have taken the lead in this initiative, with Kenya implementing High-Speed Weigh-in-Motion technology and virtual weighbridges along critical routes. The incorporation of modern monitoring systems in virtual weighbridges has notably contributed to enhancing self-regulation and compliance among road transport operators.

Table 8: Weighbridges in Northern Corridor Member States

Member States	Number of weighbridges along the Northern Corridor	Location	Status/Ongoing initiatives
Burundi	Zero	None	
DRC			
Kenya	Five static	Athi-River (Mlolongo) Mariakani Webuye Gilgil Busia	Four -Speed Weigh- in-Motion (HSWIM) weighbridges. They include Mariakani, Athi-River, Gilgil, and Webuye. There are plans to install HSWIM in Busia
	Four virtual weighbridge stations have been installed and integrated at selected locations along the National Highways Road Network.	Southern Bypass 1. Southern Bypass 2. Ahero. Eldoret. Mau summit Cheptiret Malaba Malili	
Rwanda	No weighbridge is operational at the moment. However, 8 Sites for Weigh in Motion Weighbridges were identified and so far.	Two	Two (2) static weighbridges are under Construction/ installation between Kagitumba-Kayonza and Rusumo-Kayonza road section. Rwanda has planned to install two high- speed weigh-in-Motion weighbridges.
South Sudan	Zero	None	Yet to enforce the vehicle load limits

Member States	Number of weighbridges along the Northern Corridor	Location	Status/Ongoing initiatives
Uganda	Eight (8) static weighbridges	Malaba	
		Lukaya	
		Mbarara	
		Mubende	
		Mbale	
		Luwero	
		Magamaga	
		Ibanda	

CHAPTER THREE: VOLUME AND CAPACITY

This chapter presents an overview of the volume of cargo handled at the port of Mombasa, at various nodes and along the Northern Corridor. Specifically, the chapter explores the cargo throughput at the Port of Mombasa, Pipeline throughput, cargo haulage by the railways and cargo handled at the Inland Container Depots.

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3.1 Cargo Throughput through the Port of Mombasa

Cargo throughput measures the total volume of cargo discharged and loaded at the port, encompassing break-bulk, dry bulk, liquid bulk, containerized cargo, transshipment, and transit cargo.

The total throughput at the Port of Mombasa reduced by 2.3% from 34.55 million metric tonnes (MT) in 2021 to 33.75 million MT in 2022. Out of 33.75 million MT, 78.8 % were imports 14.1% were exports, transshipment (6.8%) and restows (0.3%) as illustrated in **Figure 9**.



Despite the drop in total throughput, exports recorded a 3.48% growth in 2022 compared to 2021. **Table 9** shows the performance of Mombasa port in metric tonnes.

Table 9: Annual Mombasa port throughput '000' in MT

Type of Cargo	2021	2022	Volume Change	Growth %	% Share of Total Throughput 2021	% Share of Total Throughput 2022
Non - Container						
Dry Bulk	7,750.63	6,681.66	-1,068.97	-13.79%	22.40%	19.80%
Liquid Bulk	8,653.74	8,723.74	70.00	0.81%	25.00%	25.90%
Conventional	2,561.52	2,556.50	-5.02	-0.20%	7.40%	7.60%
Sub- Total	18,965.89	17,961.90	-1,003.99	-5.29%	54.90%	53.20%
Containerized	15,585.20	15,784.02	198.83	1.28%	45.10%	46.80%
IMPORT/EXPORT						

Type of Cargo	2021	2022	Volume Change	Growth %	% Share of Total Throughput 2021	% Share of Total Throughput 2022
Imports	27,331.99	26,577.40	-754.60	-2.76%	79.10%	78.80%
Exports	4,611.82	4,772.42	160.60	3.48%	13.30%	14.10%
Transshipment	2,489.34	2,303.76	-185.58	-7.46%	7.20%	6.80%
Restows	117.94	92.35	-25.59	-21.70%	0.30%	0.30%
TOTAL	34,551.09	33,745.93	-805.16	-2.30%	100.00%	100.00%

Source: KPA, 2021-2022

Based on the data presented in **Table 10**, the port of Mombasa has experienced growth in export and import volumes in 2022, indicating an expansion of trade in all transit countries. However, Kenya's imports have declined by 8%, which could be attributed to increased use of locally manufactured clinker that previously made up a significant portion of dry bulk cargo imports.

Table 10: Cargo Volumes for Northern Corridor Member States

		2021	2022	% Change
KENYA	: Imports	18,885,861	17,329,615	-8.2
	: Exports	3,741,867	3,794,475	1.4
UGANDA	: Imports	6,400,643	6,641,941	3.8
	: Exports	672,357	677,467	0.8
BURUNDI	: Imports	486	11,595	2287.4
	: Exports	491	2,300	368.3
RWANDA	: Imports	174,343	411,238	135.9
	: Exports	6,942	18,619	168.2
SOUTH SUE	DAN : Imports	956,070	1,112,163	16.3
	: Exports	87,228	150,418	72.4
D.R.C.	: Imports	689,853	865,258	25.4
	: Exports	84,156	88,344	5
Source: K	PA. 2021-2022			

The slight decline in port throughput is evident through the decrease in clinker handling by 200,000 tons equivalent to 9.3%, wheat by 241,000 tons equivalent to 11.9%, and fertilizers by 178,000 tons equivalent to 30%. In addition, the resurgence of the COVID-19 pandemic and subsequent lockdowns in major trading partners, spillover effects from the Russia-Ukraine conflict, inflationary pressures, volatile fuel and key commodities prices, and rising shipping costs have negatively impacted the total supply chain. Shipping costs have continued to rise, exacerbating the situation. These changes thus saw the shrinking of total cargo transported and traded among Northern Corridor Member States.

3.2 Transit Volume through the Port of Mombasa

Data for 2022 indicates a total transit throughput of 10.2 million MT, representing a volume change of 10% compared to 2021. Uganda transit traffic through the Port of Mombasa accounts for more than 71% of all transit traffic.

The entrance of DRC into EAC and the reopening of the Gatuna border, along with SGR and MGR connectivity at Naivasha ICD, have contributed to the increase in transit traffic.

Table 11: Transit Volume through the Port of Mombasa 2021 2022 Country **Percentage Share** Uganda 71.6 7,073,000 7,319,408 South Sudan 1,043,298 1,262,581 12.3 DRC 774.009 953.602 9.3 4.2 Rwanda 181,285 429,857 Tanzania 222,976 235,531 2.3 Burundi 977 13.895 0.1 Ethiopia 3,896 6,915 0.1 Others 2,143 2,810 0 0 Somalia 102 190 Total 9,301,686 10,224,789 100

Source: KPA, 2021-2022

3.3 Rate of Containerization

The annual container throughput at the Port of Mombasa slightly increased from 1,435,250 TEUs in 2021 to 1,449,996 TEUs in 2022. Of the total container throughput, 65% were full while 35% were empty. As a result, the total exports in TEUs increased by 2% in 2022, and the export of empty containers decreased by 3%, indicating favourable trade growth in the region. The overall rate of containerization was 46.80%.

Table 12: Total Annual Container Traffic (TEUs)						
Container Traffic (T	EUs)	2021	2022	Volume Change	Percentage Change	
Container Traffic (TEL	Js)	2021	2022	Volume Change	Percentage Change	
IMPORTS	Full	598,331	606,645	8,314	1%	
	Empty	9,828	16,462	6,634	68%	
	Total	608,159	623,107	14,948	2%	
EXPORTS	Full	166,024	189,558	23,534	14%	
	Empty	431,838	418,869	-12,969	-3%	
	Total	597,862	608,427	10,565	2%	
TRANSHIPMENT	Full	153,725	141,666	-12,059	-8%	
	Empty	66,762	68,518	1,756	3%	
	Total	220,487	210,184	-10,303	-5%	

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Container Traffic (TE	EUs)	2021	2022	Volume Change	Percentage Change
RESTOWS	Full	7,664	5,714	-1,950	-25%
	Empty	1,078	2,564	1,486	138%
	Total	8,742	8,278	-464	-5%
TOTAL	Full	925,744	943,583	17,839	2%
	Empty	509,506	506,413	-3,093	-1%
	Total	1,435,250	1,449,996	14,746	1%

Source: KPA 2021-2022

Shippers face challenges on return of empty containers especially for containers destined to far areas such as Juba in South Sudan and DRC. The maritime administrators need to enhance regulation to manage high container deposits which have contributed to higher cost of doing business.

3.4 Railway Throughput

As presented in **Table 13**, the volume of freight transported through the SGR has consistently increased, with 256,550 TEUs in 2019, 412,584 TEUs in 2020, 445,962 TEUs in 2021, and 436,954 TEUs in 2022. However, in 2022, there was a 2% decrease in cargo throughput compared to 2021. While there was a decrease in the TEUs hauled, there was a 13% increase in the cargo tonnage moved. Of the total 436,954 TEUs transported in 2022, 56% were imports, while only 5% were loaded exports. It is noteworthy that approximately 172,359 TEUs of empty containers were moved from the Nairobi Inland Container Depot to the Mombasa port in 2022, accounting for 89% of the total export TEUs.

Loaded Containers (TEUs)						
	Imports Loaded	Exports Loaded	Empty Containers	Total Volume in TEUs	Weight (Tonnes)	
2019	175,866	11,446	69,238	256,550	4,159,605	
2020	256,918	14,047	141,619	412,584	4,410,904	
2021	253,399	17,569	174,994	445,962	5,407,408	
2022	243,354	21,241	172,359	436,954	6,089,960	

Table 13: SGR Throughput 2019 to 2022

Source: Kenya Railways 2022

From **Figure 10**, MGR freight increased by 15% in 2022, reaching an annual throughput of 0.69 million MT. Products transported through the MGR included bitumen, cereals and grains, cement, clinker, concrete beams, cooking oil, steel products, flour, machinery, fertilizers, petroleum products and lubricants, animals and animal feeds, . The cargo off-take by rail was 24% in 2022, and KRC plans to implement marketing initiatives to increase the cargo off-take by rail to 35% by 2027.



Figure 10: Railway Throughput

Several activities have been implemented to link Meter Gauge Railway (MGR) and Standard Gauge Railway (SGR) to ensure first and last-mile rail services. The activities include initiatives to operationalize the 23.35Km MGR line connecting SGR at Naivasha ICD and the MGR mainline at Longonot Station and the construction of the 2.8Km MGR-SGR link from the SGR line at the SGR Miritini station to MGR mainline at the Miritini Station.

Other implemented initiatives to increase cargo off-take by rail include the acquisition of 22 new MGR locomotives, loading and offloading equipment at the Naivasha ICD, and the completion of Phase 1 rehabilitation of the Longonot - Malaba section of the MGR mainline. Additionally, a custom bonded transit shed has been established at the Malaba yard to increase utilization of the transshipment facility and intermodal connectivity for fast evacuation of transit cargo.

Planned and ongoing initiatives to improve rail services include the rehabilitation and remanufacturing of MGR locomotives to increase haulage capacity, the establishment of a liaison office in Kampala, Uganda to enhance marketing and customer service among regional clients, and the continuous marketing of MV-Uhuru and the Nakuru - Kisumu MGR route as an alternative gateway to the Great Lakes region. Furthermore, a Mombasa Freight Terminus at Miritini will be established as a loading and offloading hub for SGR and a transshipment facility linking the MGR network to SGR for haulage of customs-cleared freight, and continuous stakeholder engagements will be conducted to promote the use of rail as a preferred mode of transport.



3.5 Inland Container Depots (ICDs)

3.5.1 Nairobi

The Nairobi Inland Container Depot (ICDN) has a capacity of 450,000 TEUs. In 2022, it operated at 90% of its installed annual capacity, from 96% in 2021, indicating that the facility is operating at optimum capacity. Ports and dry ports are normally required to operate at 70% of their installed capacity to accommodate operations related to the discharge and receiving of cargo at the facility.

Table 14: Container Handling Capacity				
	UNITS	2021	2022	Target
Total Container Handling Capacity	TEUs	450,000	450,000	
Container traffic	'000 TEUs	434	404	
Average container dwell time (imports):	Days	4.4	4.8	4
Average Truck turnaround time	Hours	4.1	5.4	4.5
Average train turnaround time	Hours	12	12	3.9

The average train turnaround time, which is the average time from the train's arrival to the train's departure at the ICDN remained constant at 12 hours. Both Container dwell time and truck turnaround around time increased to 4.8 days and 5.4 hours against a target of 4 days and 4.5 hours respectively. Delays associated with empty container clearance have contributed immensely to the increment in the dwell time.

3.5.2 Turnaround Time at MAGERWA ICD

Turnaround Time at MAGERWA measures the time elapsed from when the cargo arrives in the facility to when the goods leave after all clearances. Data shows that in 2022, truck turnaround time at MAGERWA averaged 1.5 hours for the consignment cleared within a week. Twenty-seven per cent (27%) of consignments take more than 7 days.



MAGERWA implemented several initiatives to allow fast clearance of goods by importers and exporters. They include; the provision of discounts on overstaying cargo to encourage importers to clear abandoned cargo and avail space for new cargo without waiting and encouraging business community to join Authorized Economic Operators (AEOs) to benefit from fast tracked clearance process.

3.6 Pipeline Throughput

Figure 12 gives the Kenya pipeline throughput for the FY2019/2020 and FY2021/2022.



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Pipeline throughput improved to 8.2 million cubic metres in FY 2021/22 from 7.7 million cubic metres in FY2019/20 . Local market share for FY2021/22 is 91% compared to 97% in FY2020/21.

Apart from the increase in the capacity of product storage tanks, the Kenya Pipeline Company completed the Kisumu Oil Jetty (KOJ) in 2018, which is designed to handle 3 million cubic metres per annum, as a strategic investment critical for waterways transportation of petroleum products and alternative mode of transporting petroleum products to landlocked countries and ease pressure on the roads. KOJ started its operations in 2023 and is expected to provide an alternative least-cost product transportation mode and reduced road carnage and degradation. As a result, it is expected that about 150 trucks will be taken off the road network as the utilization of inland water transport takes off. The pipeline moved about 83.9% of the fuel products in FY 2021/22 compared to 75.7% in FY 2020/21. KPC has installed additional pumping and storage and expanded loading and storage capacity at the depots.

It is important that KPC fast tracks integration of KPC-SAP and KRA-ICMS systems for efficiency in loading at fuel depots to reduce truck turnaround time.

CHAPTER FOUR: EFFICIENCY AND PRODUCTIVITY

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The Northern Corridor's efficiency and productivity analysis considers a range of critical factors that influence the maximization of outputs with minimal inputs, costs, and time. These factors include the time ships spend at the ports, cargo evacuation processes, and the duration and procedures involved.

Efforts to improve the infrastructure, including the road and railway networks, have reduced transit times and costs, thereby enhancing the efficiency along the corridor. Implementing technologies and procedures, such as electronic cargo tracking systems and streamlined customs processes, and the installation of new cargo handling equipment has also contributed to increased efficiency and productivity along the route. These improvements have facilitated the movement of goods and people, creating new opportunities for trade and investment and spurring development across the region.

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4.1 Ship Turnaround Time

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. Ship turnaround time slightly deteriorated recording an average of 95 hours in 2022 compared to 86 hours in 2021. The Mombasa Port and Northern Corridor Community Charter aimed to attain a target for ship turnaround time of 81 hrs in 2020, 75 hrs by December 2022 and 67 hrs by December 2024. This exceeded the port charter target of 75 hours by December 2022. The global benchmark for ship turnaround time is 24 hours (1 day).



Figure 13: Average Ship Turnaround Time at the Port of Mombasa in Hours

The increase in ship turnaround time can be attributed to various factors, such as equipment breakdown caused by aging Ship to Shore Gantries, underutilization of the terminal operating system leading to the consolidation of containers in the yard, and the labor-intensive process of handling vessels dealing with bagged cargo. Due to natural attrition, fewer berth tally clerks, machine operators, and supervisors has also contributed to the issue.

To improve this indicator, KPA should fast-track the planned acquisition of more ship-to-shore gantries (STS) and address the labor shortage by recruiting more personnel or privatizing some services.

4.2 Vessel Waiting Time before berthing at the Port of Mombasa

Vessel waiting time before berth is the average time difference in hours from when the ship enters the port area to the time of berth.

Vessel waiting time is a subset of ship turnaround time. **Figure 14** shows a slight increase in the average waiting time for vessels at the Mombasa seaport from 0.99 days in 2021 to 1.1 days in 2022 against a target of 0.3 days in 2022. The previous years had seen a steady decrease in ship waiting time from 1.2 days in 2019 to 1 day in 2020 and 0.99 days in 2021.





Despite the current performance, Mombasa port has implemented various initiatives to enhance its efficiency, such as establishing fixed Berthing Windows, introducing new terminal equipment, and constructing an extra cargo terminal. In addition, commissioning of the new terminal at berth 22 has significantly reduced congestion in terminal operations.

4.3 Containerized Cargo Dwell Time at the Port of Mombasa

Dwell time is the measure of the time elapsed from when the cargo arrives in the port to when the goods leave the port premises after all permits and clearances have been obtained.

Delays in clearing containers result in increased costs for shippers and consignees and congestion at the port. The Port of Mombasa has been working to improve the efficiency of cargo handling processes, including streamlining customs procedures, increasing storage capacity, and improving technology to track and monitor cargo movements. These efforts have led to a reduction in cargo dwell time but there is still room for improvement to ensure that cargo is evacuated quickly and efficiently from the port.

From **Figure 15**, in 2022, average cargo dwell time was recorded at 86.8 hours, 6.8 hours more than the 2021 average. Therefore, based on the statistics, the dwell time is still higher than the port charter target of 60 hours by December 2022.



Figure 15: Annual average containerized import cargo dwell time in hours

Equipment breakdowns at the yard, late submission of documentation by clearing and forwarding agents, and delay in cargo pickup after release by shippers, among others, contributed to delays. It is noteworthy that the free storage period for transit cargo at the port of Mombasa was 9 days in 2022 and extended to 15 days in 2023. With the extended grace period, importers should be encouraged to evacuate their cargo faster for the target to be achieved. The dwell time at the port may be reduced by having adequate truck holding yards and an efficient truck appointment system to reduce congestion and delays in accessing the port to pick up cargo.

4.4 Time Taken from Pass to Release

Time taken from pass to release is the average time between registration, passing and issuance of release order on a customs entry. Under the iCMS system, submission of manifests is instant. In addition, the average time from when duty is paid by freight forwarders until the entry is passed or rejected by customs is also instant as a result of the automation of the Document Processing Centre processes.

The Mombasa Port and Northern Corridor Community Charter in December 2018 established a baseline of 80 hours as the average time required for one-stop centre clearance/Custom release process. The Port Charter set a target of 64 hours by December 2020, 48 hours by December 2022; and 24 hours by December 2024.

The Pass-to-Release process involves multiple units and may require alerts and interventions from allocation, verification, account input, referral to Valuation and Tariff determination, and sample drawing before online release is issued. The process from pass to release is outlined as follows:

Pass to release (Local Cargo)

- Automatic Pass of Paid Entries on iCMS
- Scanning of Goods
- Document verification, including pre-arrival permits entries by customs and other Government Agencies
- Physical verification of goods where necessary
- Online Release by Customs



Figure 16: Release Process 2022

While iCMS has improved and simplified clearing processes, there is a need for more sensitization of clearing agents to prevent delays caused by insufficient or missing documents in the customs systems. In addition, other agencies responsible for issuing permits and clearance can also cause delays, and continuous engagement is necessary to ensure adherence to SLAs.

4.4.1 Customs Clearance Process for Transit Goods

The customs clearance process is summarized in the chart below;

At the Port

For normal transit, clearing agent makes a declaration in in iCMS. If there are no taxes payable, it moves to under control. Two declarations are submitted for each consignment (TR810 and TR812/TR811)

Document Pass

Upon payment of required taxes/fees, entry status may move to Risk Assessed or Under Control based on status of transport document. Entry of goods in customs area may be required to move status from Risk Assessed to Under Control

Customs Release Process

Customs verification officers perform compliance checks, after which the Head Verification Officer releases the declaration. The entry status will change to Pending Removal, and client has to finish other process including clearance with the port and organizing for transport.

Gate Process

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After gate process, cargo status moves to removed and proceeds to the border of exit.

Exit Border Process

At the border, cargo is arrived by checking the arrival flag, but status remains removed.

Exit

After all the border checks are finalized, the road manifest (T812) is exited, status moves to settled. T10 will moved to settled once all related T812 have all been exited, and all quantities on TR810 have been struck. COE is auto-generated on TR812s upon exit.

End

Consignments will be released to partner states for them to carry out their clearance processes in their respective systems.

4.4.2 Time Taken after customs release at the port of Mombasa (Release to removal)

Release to removal refers to the period it takes to evacuate the cargo from the port after Customs officially release it. The following activities are involved:

Release to exit (Local Cargo)

- Clearing Agent pays shipping line.
- Clearing agent pays port charges by accessing KWATOS system to generate KPA invoice.
- Transporter provides trucks for transportation.
- Goods are loaded on trucks by KPA and head to exit.



The time taken to evacuate cargo after customs release significantly affects the port dwell time.

Data show improvement in performance from June 2022. The average time taken after customs release was lower than the set target of 36 hours. To further enhance this indicator's performance there is need to streamline the gate processes.

Workflow for SCT Cargo

For SCT consignments, declarations are lodged in the systems of partner states of final destination. The workflow for SCT import cargo is summarised in the chart below;

		Arrival at Port
		After long room pass and release in ASYCUDA, transmission of declaration to iCMS occurs. iCMS receives exit notes.
$\overline{\mathbb{O}}$		
		ASYCUDA Process
])_	Clearing agent approaches customs with exit note for generation of Cargo Manifest
\heartsuit		
		Generation C2
		Cargo manifest generated by KRA for UG goods, for RWANDA URA also generated cargo manifest.
Image: Second		
tt	J)	Confirm Border Arrival
	<u> </u>	Customs arrive cargo at the border.
\bigotimes		
		Exit
	<u>)</u>	Cargo is exited. If heading to Rwanda, URA generated a cargo manifest.
\bigotimes		
((ر	End
Ø		
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FOR EXPORT CARGO

On arrival at the port the manifest is transmitted to ASYCUDA/TANCIS, and the client does a declaration in ASYCUDA. The workflow for SCT export cargo is summarised in the chart below;

4.5 Rwanda Revenue Authority (RRA) Customs Time and Delays

As presented in **Figure 18**, data from the SCT show that in 2022, delays after customs release averaged 27 hours compared to 20 hours in 2021. In addition, delays from registration/lodgment to the time payment for goods is made at the port increased from 33 hours in 2021 to 38 hours in 2022.

One of the major reasons for delays in clearing of goods under the Single Customs Territory (SCT) framework among Member States may be the delays in data exchange. In some Partner States, cargo clearance is hampered by data transmission failures, causing the use of multiple bonds and declarations and leading to delays. Additionally, port clearance delays can occur due to insufficient RECTS seals and the need to arm all transit cargo, including those under SCT.



4.6 Weighbridge Performance in terms of Traffic along the Northern Corridor

The indicator calculates the mean number of trucks weighed daily at weighbridges located in different countries along the Northern Corridor. In Kenya, static scale weighbridges are utilized to eliminate overloaded vehicles. Five weighbridges are situated at Athi-River, Mariakani, Webuye, Gilgil, and Busia. Monthly average daily traffic at the five weighbridges for both inbound and outbound trucks is presented in **Table 15**. The Athi-River weighbridge showed the highest monthly average traffic while the Busia weighbridge had the lowest traffic, mostly consisting of transit cargo and fuel tankers from the oil pipeline in Kisumu. The traffic at Athi River weighbridge include local and transit cargo originating from the port of Mombasa and Namanga Border Point, which declines by approximately 40% at the Gilgil weighbridge since some of it is headed for Nairobi and its surroundings.

Table 15: Average Monthly Daily Weighed Traffic for Weighbridges along the Northern Corridor in Kenya in 2022

Month	Mariakani	Athi River	Busia	Gilgil	Webuye
Jan	4,290	6,937	876	2,931	2,984
Feb	5,442	7,861	923	3,042	2,594
Mar	6,811	6,932	782	4,046	3,018
Apr	7,403	6,043	542	5,044	3,592
May	7,372	8,553	792	4,803	3,103
Jun	5,802	8,801	801	4,733	2,635
Jul	5,633	8,421	1,030	6,741	4,478
Aug	4,987	8,532	978	5,310	4,932
Sep	5,793	8,202	904	4,967	5,043
Oct	4,232	7,803	975	5,633	4,006
Nov	3,975	8,033	889	4,973	4,173
Dec	4,057	8,279	929	4,802	4,361

Uganda's Northern Corridor route features various weighbridge stations at Mbale, Magamaga, Lukaya and Mbarara. The average daily traffic at the weighbridges is presented in **Table 16**.

Table 16: Average Daily Weighed Traffic for select Weighbridges in Uganda in 2022						
	LUKAYA	MAGAMAGA	MBALE	MBARARA		
Average Daily Traffic	454	994	287	323		
Source: UNRA 2022						

4.7 Weighbridge Performance in terms of Compliance along the Northern Corridor

The indicator assesses the proportion of trucks that adhere to the vehicle weight and axle load limits before and after the cargo redistribution process as stipulated by the EAC Vehicle Load Control Act.

As shown in **Table 17**, all weighbridges consistently achieved compliance rates of over 90%, except for Busia weighbridge, which maintained an average compliance rate above 84% during the review period. The low compliance rate at Busia weighbridge may be attributed to the variation in weighbridge scales where some capture group axle while Busia weighbridge records single axle. Despite the efforts to enforce vehicle load limits on Gross Vehicle Weight, Axle Load, and Group Axle Load limits, the target of 100% compliance has yet to be achieved. The Maximum GVW limit is 56 tons, and the Maximum Axle limit is 8 tons, contingent on the truck's axle configuration and the type of tires used, whether super single tires or not.

It is crucial to interconnect the weighbridges to exchange compliance information and minimize delays caused by multiple weighing on fixed scales.

	Kenya (Percentage)				
Month	Mariakani	Athi River	Busia	Gilgil	Webuye
Jan	98.21	97.45	85.30	98.65	92.12
Feb	97.21	99.12	84.45	96.01	96.42
Mar	99.45	98.42	83.21	97.34	95.45
Apr	98.89	99.02	87.43	93.75	90.56
May	98.87	97.33	83.98	94.12	92.12
Jun	99.43	99.32	84.32	97.02	95.43
Jul	99.45	99.42	90.42	94.32	97.42
Aug	99.41	99.53	95.32	97.42	94.32
Sep	98.45	98.05	95.69	98.32	99.42
Oct	98.44	97.43	96.71	97.45	98.00
Nov	99.07	97.74	98.82	98.59	97.09
Dec	98.79	98.56	96.43	98.66	98.43
Source:	KeNHA 2022				

Table 17: Weight Compliance Level at weighbridges along the Northern Corridor in

In Uganda, compliance at the weighbridges was still low with all weighbridges achieving a compliance level between 80 and 90 per cent. There is a need to sensitize on axle-load compliance and promote self-regulation on VLC.

Table 18: Weight Compliance Level at select weighbridges in Uganda (Percentage)						
	LUKAYA	MAGAMAGA	MBALE	MBARARA		
Compliance (%)	89.91	86.19	82.06	84.63		
Source: UNRA 2022						

CHAPTER FIVE: RATES AND COSTS

This chapter examines the fees incurred by traders, shippers, and transporters who utilize the Northern Corridor's surface transport mode. The analysis draws on information from multiple sources, including port, railway, and pipeline agencies and trucking and transport companies operating in the Northern Corridor Member States. Additionally, pertinent secondary data sources on surface transport modes are considered in the discussion.

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5.1 Port and Marine Charges at the Port of Mombasa

Shipping operators and their customers pay port charges to port authorities for utilizing the port's facilities and services. These charges can make up a significant portion of the final cost of consumer goods. The expenses and delays incurred during various stages of the logistics framework significantly impact costs and charges. Mombasa's seaport charges fall into the following broad categories;

- i. Stevedoring charges levied on Dry General, Dry Bulk and Liquid Bulk cargo per Harbor Ton
- ii. Stevedoring charges for containerized cargo levied on standard 20-feet (20') and 40-feet (40') containers to/from ship per move.
- iii. Charges for shore handling
- iv. Wharfage charges
- v. Storage services and penalties
- vi. Shore-handling, wharfage and storage charges for containers handled at nominated CFSs.
- vii. Charges for general services

The charges for shore handling and wharfage overlap with the terminal handling charges of shipping lines, increasing the cost of doing business in the region. The Ministry of Roads and Transport should review these charges and eliminate terminal handling fees where multiple charges apply.

Table 19 outlines other port and marine costs/charges at the Port of Mombasa.

Table 19: Port and Marine charges at the Port of Mombasa

Minimum charge in USD	Notes
150.00	
2,000.00	The certificate shall remain valid for one (1) year from date of issue
300 per Tug	Additional USD 15.00 per every 30 minutes or part thereof for tug ordered and present at the time of service but not used by the vessel through no fault of the Authority
200.00	RORO, Pure Car Carriers and Passenger Vessels charged at the rate of eighty%
150.00	
3.30 per 30 minutes	
150.00	Vessels, other than those exempted or paying an annual fee
	Minimum charge 150.00 2,000.00 300 per Tug 200.00 150.00 3.30 per 30 minutes 150.00

²¹ Please note that Vessels which are resident in Kenyan port shall pay an annual fee. The fee charged is USD 600.00 payable annually in advance.

Type of cost/charge incurred	Minimum charge in USD	Notes
PORT AND HARBOUR DUES 3	150.00	RORO, Pure Car Carriers and Passenger Vessels shall be charged 80% of the rate
DOCKAGE, BUOYAGE AND ANCHORAG	E	
Vessels at quays, wharves, or jetties	0.26	Per Metre per hour or part thereof
Vessels at buoys, or RORO vessels	0.13	
Vessels at anchorage	0.07	
SUPPLY OF FRESH WATER		
Via shore Hydrants	10.00	Rate per tonne or part thereof
In stream by barge or Tug(s)	15.00	
In stream supply ordered and present at the time of service, but not used by the vessel within 30 minutes, through no fault of the Authority, shall be charged detained thereafter	100.00 per each 30 minutes	
LAID UP VESSELS charged per week of	seven (7) calendar d	ays
Vessels up to 10,000 GT	10.00	
Vessels over 10,000 GT	20.00	
PRIVATE MOORING, BUOYS AND JETTIES		
Facility used for crafts engaged in commercial activities at the Port of Mombasa	5,000.00	Rate per year or part thereof
Facility used for crafts engaged in commercial activities outside the Port of Mombasa	1,000.00	Rate per year or part thereof
Facility used for private craft and yachts (Non-Commercial)	300.00	Rate per year or part thereof
SECURITY DUES	100.00	Vessels other than those paying annual fee
Source: KPA TARIFF		

5.2 Railway Tariff/Charges

In Kenya, Kenya Railways (KR) operates the Standard Gauge Railway (SGR) for passengers and freight and the Metre Gauge Railway (MGR) for freight. Commercial operations of the Standard Gauge Railway's (SGR) freight train service commenced in January 2018.

Railway freight rates are published through public notices and on the Kenya Railways website. The cost of transporting a 20-foot container from Mombasa port to Nairobi Inland Container Depot is USD 500. Freight rates for the year 2021 is outlined in Kenya Railways Tariff Notice No. 3 of 2021 (CAP.397 SECTION 51), with **Table 20** specifying the standard charges for cargo haulage by SGR and MGR for both loaded and empty import transit containers.

A 20% surcharge applies over the standard container rates for containerized dangerous goods and reefer containers.

³² Vessels which are resident in a Kenyan Port may request to pay an annual fee. The fee charged is USD 600.00 payable annually in advance.

Despite the charges, there are concerns that shipping lines' markups on cargo under Through Bill of Lading (TBL) make freight rail less competitive. To address this issue, it is recommended that the Kenya Maritime Authority (KMA) establishes a legal framework that guides tariff reviews for logistics service providers under the revised Maritime Transporter Operators Regulations, 2020.

Table 20: Import Transit Loaded / Empty Containers Rate Per Container in USD

	Rate USD/ container				
Rail Route	20 FT		40 FT		Notwork
naii noute	0-30 TONS	ABOVE 30 TONS	0-30 TONS	ABOVE 30 TONS	Network
Kilindini - Malaba	860	960	1110	1260	SGR/ MGR
Kilindini - Kisumu	860	960	1110	1260	SGR/ MGR
Kilindini - Naivasha	650	750	865	1015	SGR
Naivasha - Malaba	350	450	460	610	MGR
Naivasha - Kisumu	350	450	460	610	MGR

Source: KR TARIFF NOTICE NO. 3 OF 2021

According to the Kenya Railways Tariff Notice No. 3 of 2021 (CAP.397 SECTION 51), the cost of transporting cargo from Mombasa/Kilindini to Nairobi is approximately USD 500 for a 20-foot container and up to USD 630 for a 40-foot container weighing between 0-30 tonnes. The maximum volume discounts allowed in the upward direction are 20% of the cumulative payable, based on the standard authorized tariff per unit. These discounts are only applicable between Kilindini and ICD Nairobi/Nairobi Freight Terminus.

Table 21: Import Local Loaded / Empty Containers Rate Per Container in USD

00 FT				
20 FT		40 FT		
ONS ABOVE	30 0-30 TON	NS ABOVE 30 TONS	D	
610	650	800	SGR	
600	630	780	SGR	
600	630	780	SGR	
960	1110	1260	SGR / MGR	
250	235	385	SGR	
	ABOVE TONS ABOVE TONS 610 600 600 900 900 900 900 900 900 900 900 900 900 900 900 900 900	ABOVE 30 TONS 0-30 TON 610 650 600 630 600 630 90 600 630 90 250 235	ABOVE 30 TONS 0-30 TONS ABOVE 30 TONS 610 650 800 600 630 780 600 630 780 960 1110 1260 9250 235 385	

Source: KR TARIFF NOTICE NO. 3 OF 2021

Demurrage charges apply when customers retain wagons beyond the KR's free period for loading and unloading goods. All goods, except for dangerous, offensive, and perishable goods, are subject to demurrage charges. For local traffic, consignors are allowed 24 consecutive hours from the time the wagons are placed, to load and consign their goods, and 48 consecutive hours to load and consign transit goods. The time allowed for unloading of goods is 24 consecutive hours for all types of traffic.

48

The free unloading period is calculated from the time wagons are placed for unloading. Demurrage charges are computed as follows:

- First 24 consecutive hours or part thereof after the expiry of the free period= USD 100
- 2nd to 4th day after expiry of the free period =USD 150 (per 24hours)
- 5th to 10th day of expiry of the free period = USD 200 (per 24hours)
- After the 10th day, the demurrage charges will escalate by 10% every week.

Table 22: Rates for Containerized Cargo, Downward Direction

Doil Douto	Export Container		Empty Container		
	20FT	40FT	20FT	40FT	Network
Malaba – Mombasa	450	690	100	150	MGR /SGR
Kisumu – Mombasa	450	690	100	150	MGR /SGR
Malaba – Naivasha	195	330	50	75	MGR
Kisumu – Naivasha	195	330	50	75	MGR
Malaba – Nairobi	225	385	70	100	MGR
Kisumu – Nairobi	225	385	70	100	MGR
Naivasha – Mombasa	255	360	50	75	SGR
Naivasha – Nairobi	100	150	50	75	SGR
Nairobi – Mombasa	250	350	50	75	SGR
Athi river – Mombasa	250	350	50	75	SGR

Source: KR TARIFF NOTICE NO. 3 OF 2021

In addition, there is a cost associated with the ICDE - KR Transit Shed on the MGR network, which charges USD 120 for 20-foot TEUs and USD 190 for 40-foot TEUs.

The railway has improved both passenger and freight transport operations by reducing travel time, increasing safety and security, and improving mobility and accessibility. However, although the SGR has reduced travel costs for passengers, freight transportation costs remain relatively high.

Table 23 outlines the Metre Gauge railway tariff rates for transporting cargo to and from Malaba to Kampala, with estimated costs of USD 445 for a 20-foot container and up to USD 740 for a 40-foot container weighing between 0-30 tonnes.

Table 23: Railway tariff in Uganda

	20FTCONTAINER				40 FT		
From	То	0-30 TONS	30.1-34 TONS	1X20ft Empty	1X40ft (Any weight)	1X40ftEmpty	
Malaba	Kampala	445	940		740		
Kampala	Malaba	280	360	40	280	60	

Source: URC

5.3 Pipeline Charges/Tariff

Mombasa

The Energy and Petroleum Regulatory Authority (EPRA) in Kenya periodically publishes pipeline transportation rates in accordance with section 11 (b) of the Energy Act, 2019. The current fuel tariffs, listed in Table 24, were released in November 2019, with a long-term expectation to reduce tariffs. These tariffs were implemented on February 15th, 2021 and were in effect for the year 2022.

The pipeline infrastructure expansion and improvement efforts have caused a decline in KPC's fuel transportation rates via pipeline in recent years. Besides, the charges for local and imported fuel differ based on the distance and terminal used. The composite tariff displayed below covers transportation, storage, and handling costs.

		Tariff 2019/2020	Tariff 2020	/2021 T	ariff 2021/2022
Applicable tariff	(Ksh. /M³/Km) ***	5.07		4.81	4.61
Moi Airport (US	D/M ³)	22.52		21.37	20.48
Jomo Kenyatta	Airport (USD/M ³)	22.52		21.37	20.48
Nairobi Termina	l (Ksh. /M3)	2,281.5	2,	064.5	2,074.5
Nakuru Termina	์ (Ksh. /M3)				
Local (Ksh. /M ³)	3,138.33	2,9	77.39	2,853.59
Export (USD/M	3)	30.98		29.39	28.17
Eldoret Termina					
Local (Ksh. /M ³)	4,035.72	3,8	28.76	3,669.56
Export (USD/M	3)	39.84		37.80	36.22
Kisumu Termina	al				
Local (Ksh. /M ³)	4,030.65	3,8	23.95	3,664.95
Export (USD/M	3)	39.79		37.75	36.18
Entry Point	Point of Delivery		2022/23	2023/2	2024/25
Mombasa	Moi Airport (USD/m³)		22.89	23	.4 25.29
Mombasa	Jomo Kenyatta Airport (I	JSD/m³)	22.89	23	.4 25.29
Mombasa	Petrocity - Konza (Kshs/	′m³)	1,407.40	1,420.7	'3 1,527.48
Mombasa	Nairobi Terminal (Kshs/m	1 ³)	2,526.60	2,582.7	'2 2,791.85
Mombasa	Nakuru Terminal - Local	(Kshs/m³)	3,149.25	3,211.2	3,467.62
Mombasa	Nakuru Terminal - Expor	t (USD/m³)	28.53	29.0)9 31.42
Mombasa	Eldoret Terminal - Local	(Kshs/m³)	3,801.37	3,869.5	6 4,175.37
Mombasa	Eldoret Terminal - Expor	t (USD/m³)	34.44	35.0)6 37.83
Mombasa	Kisumu Terminal - Local	(Kshs/m ³)	3,797.69	3,865.8	34 4,171.37

Table 24: Pipeline Rates Set by EPRA Effective 15th February 2021

Kisumu Terminal - Local (Kshs/m³)

Kisumu Terminal - Export (USD/m³)

34.41

37.79

35.02

5.4 Road Freight Charges/Tariff

Market forces dictate charges for freight transportation by road within the Northern Corridor Member States. It is a free-market economy obeying the law of supply and demand. Like in any other business, truckers' base rates are set based on meeting operational costs. Cargo volumes and the availability of trucks are the two most important factors that dictate the margins the transporters levy on the service which the cargo owners are willing to pay once the operational costs have been met. Other important factors that affect the transport rates in this sector include dollar exchange rates, distance, security, state of infrastructure and lack of cabotage.

The data presented and analyzed in this section has been mainly sourced directly from transporters through transport associations in the respective Member States

Table 25: Road Freight Charges/Tariff along the Northern Corridor

From	То	Distance (Km)	Rate (USD) for 20-feet Container in 2022	Rate (USD)/TEU per Km
Bujumbura	Kampala	788	1200	1.52
Bujumbura	Mombasa	1957	2200	1.12
Bujumbura	Nairobi	1476	1700	1.15
Bunia	Butembo	251	1700	6.77
Bunia	Kampala	718	1400	1.95
Bunia	Mombasa	1666	1700	1.02
Bunia	Nairobi	1040	1400	1.35
Butembo	Kampala	577	1300	2.25
Butembo	Mombasa	1746	2200	1.26
Butembo	Nairobi	1265	1700	1.34
Goma	Bujumbura	431	2000	4.64
Goma	Kampala	669	1500	2.24
Goma	Mombasa	1838	2200	1.20
Goma	Nairobi	1357	1800	1.33
Juba	Kampala	653	1000	1.53
Juba	Mombasa	1662	2500	1.50
Juba	Nairobi	1145	1300	1.14
Kampala	Bujumbura	788	3500	4.44
Kampala	Bunia	718	4200	5.85
Kampala	Butembo	577	3800	6.59
Kampala	Goma	669	3000	4.48
Kampala	Juba	653	1900	2.91
Kampala	Kigali	513	1800	3.51
Kampala	Mombasa	1169	1000	0.86
Kampala	Nairobi	688	800	1.16
Kampala	Bujumbura	792	3000	3.79
Kigali	Bujumbura	275	2000	7.27
Kigali	Bunia	697	3500	5.02
Kigali	Butembo	556	3200	5.76
Kigali	Goma	156	1700	10.90
From	То	Distance (Km)	Rate (USD) for 20-feet Container in 2022	Rate (USD)/TEU per Km
---------	-----------	---------------	--	--------------------------
Kigali	Juba	1166	3000	2.57
Kigali	Kampala	513	1000	1.95
Kigali	Mombasa	1682	1600	0.95
Kigali	Nairobi	1201	1400	1.17
Mombasa	Bujumbura	1957	4500	2.30
Mombasa	Bunia	1666	5800	3.48
Mombasa	Butembo	1746	5100	2.92
Mombasa	Goma	1838	5200	2.83
Mombasa	Juba	1662	4300	2.59
Mombasa	Kampala	1169	2400	2.05
Mombasa	Kigali	1682	3800	2.26
Mombasa	Nairobi	481	800	1.66
Nairobi	Bujumbura	1476	4000	2.71
Nairobi	Bunia	1040	5000	4.81
Nairobi	Butembo	1265	5000	3.95
Nairobi	Goma	1357	4700	3.46
Nairobi	Juba	1145	4300	3.76
Nairobi	Kampala	688	1800	2.62
Nairobi	Kigali	1201	2700	2.25
Nairobi	Mombasa	481	400	0.83

Source: Transport Observatory Compilation

Note: The rate per kilometer in the table is obtained by dividing the tariff charges by the distance from the cargo origin to the destination.

Cargo volumes and the availability of trucks dictate the margins the transporters levy on the service which the cargo owners are willing to pay once the operational costs have been met.



From **Table 25**, on the upward direction, Kigali-Goma and Kigali-Bujumbura routes have the highest transport charges relative to distances. In general, destinations in Burundi and DRC are slightly expensive compared to other routes due to poor road infrastructure on Burundi and DRC sides, and issues of insecurity between DRC and Rwanda in 2022. Transporters that cargo owners procure directly charge higher rates than those procured through brokers.

In the downward direction, DRC and Burundi routes are the cheapest due to low export volumes from the Northern Corridor Member States compared to imports.

South Sudan has limited infrastructure and poor road conditions, making transportation difficult and time-consuming. Fuel prices are high and limited in some areas, increasing transportation costs, and occasional conflicts disrupt transportation networks, increasing the risk of attacks on vehicles. The rates to and from Juba are slightly higher than those to Kampala or Kigali due to infrastructure and security risks.

For Uganda transporters, the most expensive routes were Juba-Mombasa, Kigali-Bujumbura, Kigali-Goma, Kigali-Bunia, Kigali-Butembo, Goma-Bujumbura, Kampala-Bujumbura, Kampala-Goma, Kampala-Bunia, and Kampala-Butembo. Despite the shorter distances, the rates between Kampala and destinations in DRC and Burundi, and those from Kigali to DRC and Burundi were the most expensive due to poor road conditions along the routes.

Table 26 presents the transport rates for tankers from various cities in Kenya to Goma and Kigali.

 Nairobi and Nakuru are farther from Goma hence the additional USD 500 in the rates.

Table 26: Transport Rates for Tankers in 2022

From	То	Amount (USD)
Nairobi	Goma	5500
Nakuru	Goma	5500
Kisumu	Goma	5000
Eldoret	Goma	5000
Kisumu	Kigali	110
Eldoret	Kigali	110
Dar-es-Salaam	Kigali	100

Source: Transport Observatory Compilation

CHAPTER SIX: TRANSIT TIME AND DELAYS





6.1 Transit Time in Kenya

The information presented in this section is sourced from the Revenue Authorities Regional Electronic Cargo Tracking System (RECTS), which enables end-to-end monitoring of goods in transit. RECTS has greatly improved cargo safety, facilitated the tracking of goods' movement, and provided data on trip duration.

The distance between Mombasa and Malaba is 933 kilometers. Transit times have been reducing since 2021, as depicted in **Figure 19**. Despite this improvement, the transit time to Malaba and Busia is still above the Mombasa Port and Northern Corridor Community Charter target of 40 hours and 45 hours from Mombasa to Malaba and Mombasa to Busia by December 2022, respectively. The performance suggests that the routes still face some challenges, including frequent driver stoppages, road accidents, infrastructure issues, and police roadblocks. Several projects are underway to improve transport infrastructure along different road segments of the Northern Corridor in Kenya.

			Figure 19: Transit time from Mombasa to Kenya Borders						
120									
100									
80									
۵0 60									
40									
20									
0 2018 2019	9 2020	2021	2022						
	114	87	77						
Mombasa - Malaba 69 72	109	93	80						

Source: RECTS data 2022

Figure 20 shows that transit time from Mombasa to various destinations within the Northern Corridor has been reducing since 2021. During the reporting period, it took an average of 113hr to move from Mombasa to Elegu (1430km), 104 hours from Mombasa to Kampala (1169km), , 180hrs from Mombasa to Mpondwe (1611Km) and 180 hrs to move from Mombasa to Kigali (1682km).

Improved transit time performance could be due to improved infrastructure following upgrades on various route sections. However, transit times are still high along the routes due to multiple stops along the corridor and delays at the border points.



6.2 Transit Time in Uganda

Transit time in Uganda as used in this sub-section refers to the duration it takes trucks to move from Kampala to different exit/entry points in Uganda. Compared to the previous years, transit time from Kampala to various entry/exit points slightly increased as illustrated in **Figure 21**.

Kampala to Elegu was the fastest, taking 39 hours for 457 km while Kampala - Mirama Hills was the slowest route with trucks travelling 368km for 64 hours. The increased transit time to Rwanda could be attributed to increased traffic and congestion as a result of the restrictions in the use alternative Katuna/Gatuna border from 2020.







6.3 Transit Time in Rwanda

The indicator measures 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.

Table 27 shows transit time from the key entry borders to Rwanda along the Northern Corridor; Cyanika/Kyanika, Gatuna/Katuna and Kagitumba/ Mirama Hills. Gatuna to Kigali, a distance of 81 km, had the longest transit time of 108 hours. This could be due to fewer trucks using the border and longer clearance times as a result of restrictions in the use Katuna/Gatuna border from 2020.

Route	Transit Time Hours
Cyanika - Bugarama	48
Cyanika - Kigali	22
Cyanika - Rubavu	27
Cyanika - Rusizi	43
Gatuna - Akanyaru-Haut	20
Gatuna - Bugarama	67
Gatuna - Kigali	108
Gatuna - Nemba	14
Gatuna - Rubavu	43
Gatuna - Ruhwa	38

Table 27: Transit Time in Rwanda in 2022

Route	Transit Time Hours
Gatuna - Rusizi	49
Gatuna - Rusumo	26
Kagitumba - Bugarama	71
Kagitumba - Kigali	81
Kagitumba - Nemba	38
Kagitumba - Rubavu	44
Kagitumba - Rusizi	57
Kagitumba - Rusumo	28
Source: ASYCUDA data 2022	

6.4 Stoppage Reasons and duration along the Northern Corridor

The data presented in this section was gathered during the NCTTCA's mobile road survey to identify trade barriers along the corridor in 2022.- The secretariat uses an android mobile phone app with a questionnaire that drivers fill out stop reasons. In addition, the application automatically logs the stop location. 766 trips were logged from a sample of randomly selected drivers who plied the Northern Corridor route. **Table 28** shows the distribution of trucks by destination, the stop reasons, and the duration along the corridor.

Table 28: Stop reasons and duration along the corridor.				
Stop Reasons	Transit Time Hours			
Average of Duration(Hrs)	8.0			
Company check points	5.4			
Vehicle Breakdowns	4.9			
Rest and Meals	4.1			
Customs checks	3.5			
Border Post Procedures	1.2			
Road Condition	1.2			
Weighbridge	0.7			
Personal reasons	0.5			
Fuelling/checking vehicle	0.2			
Police other Security Checks	0.1			

Stops associated with other reasons that drivers could not specify accumulated a total of 8 hours per journey. Company checkpoints took, on average, 5.4 hours, followed by vehicle breakdown and rest and meals, which took 5.4 hours and 4.9 hours, respectively. Police checks took the least time of 6 minutes on average. On the contrary, police roadblocks accounted for the most frequent stops along the corridor, as shown in the **Table 29**.

Table 29: Frequency of stops along the Northern Corridor

Stop Reason	Percentage
Border Post Procedures	1%
Company check Points	12%
customs check	5%
Fuelling Checking Vehicle	5%
Insecurity	0%
others	4%
Personal reasons	5%
Police /security checks	36%
Rest and Meals	6%
Road Condition	14%
Vehicle Breakdown	1%
weighbridge	11%

Certain stop's locations lack service amenities for drivers. Company checks were for the purpose of driver wellness checks, vehicle inspection and repairs, and driver rest stops, among other checks. Accelerating the implementation of Roadside Stations (RSS) would significantly reduce the frequency of unnecessary stops, as well as accrue benefits such as crew health and well-being of the drivers.

CHAPTER SEVEN: INTRAREGIONAL TRADE

This chapter examines the components of trade among the Northern Corridor Member States in 2022. Data from intraregional trade is obtained from Revenue Authorities, Bureau of Statistics and National Banks, among others. This section features formal and informal trade in the Northern Corridor Member States. The collected data is analysed and compared to the previous years to establish the trend and inform trade facilitation initiatives in the Northern Corridor Member States and support the implementation of the AfCFTA.



7.1 Formal Trade in Burundi

The total trade value for Burundi in 2022 was USD 1.4 billion, of which 86% (USD 1.2 billion) were imports and 14% (USD 0.2 billion) were exports, as illustrated in **Figure 22**. While the total trade value remained at USD 1.4 billion similar to 2021, exports improved by 4% from 10% in 2021.



The top destinations for Burundi exports are illustrated in **Figure 23**. In 2022, United Arab Emirates was the leading destination for Burundi exports, with exports valued at USD 53.69 million. Within the African trading block, Burundi exported USD 37.53 million worth of goods to DRC, USD 9.58 million to Tanzania, Sudan (8.73 million), Egypt USD 6.03 million and Ethiopia USD 4.36 million worth of goods.



In 2022, the top import countries for Burundi were in the Asian bloc with approximately 67% of the total imports by the top ten import countries for Burundi coming from Asia. From the African trading bloc, the top countries for Burundi imports were Tanzania, Uganda, Kenya, and Zambia as shown in **Figure 24**.



Figure 24: Top Import Countries for Burundi in 2022 (USD)

The total trade value for Burundi with Northern Corridor Member States was USD 192.5 million, a few million shy of the USD 221 million in 2021. Eighty percent (80%) of the total intraregional trade were imports, while exports accounted for 20%.

Of the total trade share with Northern Corridor Member States, 48% was with Uganda, Kenya 42%, DRC 7%, and Rwanda 3% as shown in **Figure 25**.



Kenya and Uganda were the biggest trading partners with Burundi in the Northern Corridor region. The total trade value between Burundi and Uganda was USD 76.7 million, 97% of which were imports. Similarly, of the USD 66.2 million total trade value between Burundi and Kenya, 98% were imports. The Democratic Republic of the Congo took the lion's share of Burundi exports, accounting for 91% of total exports to Northern Corridor Member States.

Table 30: Total Trade Value between Burundi and other Northern Corridor States in2022 in USD					
	DRC	Kenya	Rwanda	Uganda	Total
Imports	10,556,991	64,903,909	4,107,660	74,517,952	154,086,512
Exports	34,933,684	1,247,518	49,541	2,188,540	38,419,284
Total	45,490,675	66,151,427	4,157,201	76,706,492	192,505,796

Source: INSBU 2022

7.2 Formal Trade between DRC and other Northern Corridor Member States

Table 31 gives formal trade statistics between DRC and the other Northern Corridor Member States.

Table 31:Total value of DRC Trade with other Northern Corridor Member States			
	Exports	Imports	
Burundi	10,556,991	34,933,684	
Rwanda	27,442,945.70	785,801,633.80	
Uganda	16,003,540	418,770,584	
Kenya	30,802,064	151,309,589	
Source: Northern Corridor Transport	Observatory 2022		

DRC overall annual trade value with Northern Corridor Member States was approximately USD 1.47 billion in 2022 up from USD 1.3 billion in 2021 (with the exception of South Sudan). Exports accounted for only 5.7% of total trade and imports accounted for 94.3%.

DRC is a net importer when trading with the Northern Corridor Member States, with USD 1.3 billion trade deficit. Rwanda was the primary source for DRC imports, accounting for approximately 56.5%. Kenya accounted for 36% of DRC exports, followed by Rwanda at 32% and Uganda at 19% during the period under review.

7.3 Formal Trade in Kenya

Kenya's total international trade value was approximately USD 28.5 billion in 2022, an increase from USD 27 billion in 2021. Exports and re-exports accounted for 26% in 2021 and 2022. The analysis shows that Kenya had a negative trade balance as a result of higher imports compared to exports calling for the review of the export promotion strategy. **Figure 26** gives the total trade value for the year 2021 and 2022.



China was Kenya's largest trading partner accounting for 14% of the total trade value. Imports from China accounted for 16% of the total imports into Kenya. Apart from China, Kenya's primary import partners from the Asian trading bloc are India, the United Arab Emirates, Japan, and Saudi Arabia. USA, Tanzania and Uganda are also top among Kenya's trading partners. Kenya's top ten trading partners are presented in **Table 32**.

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Table 32: Share of Kenya Trade in the World					
Country	Domestic exports	Imports	Re-exports	Grand Total	Share of Total Trade
China	225,334,509	3,845,468,139	8,709,689	4,079,512,337	14%
United Arab Emirates	254,790,528	3,461,292,488	119,224,248	3,835,307,264	13%
India	66,866,036	2,124,456,049	1,575,179	2,192,897,264	8%
United States of America	645,664,016	793,284,637	33,448,775	1,472,397,428	5%
Uganda	682,545,275	332,616,577	138,955,960	1,154,117,813	4%
Saudi Arabia	103,955,357	1,036,805,536	1,310,360	1,142,071,253	4%
Malaysia	23,740,114	1,024,677,256	617,047	1,049,034,417	4%
Tanzania	416,272,041	452,684,457	64,375,203	933,331,701	3%
Japan	50,798,442	828,375,453	62,960	879,236,856	3%
Source: KNBS,2022					

Kenya has consistently maintained a positive trade balance with other Northern Corridor Member States. Data show that the country is a net exporter in the region. Kenya's trade with the Northern Corridor Member States has remained constant in 2021 and 2022 at about 1.978 billion USD, with exports accounting for 80% of the total trade with the Northern Corridor Member States in 2022. **Table 33** provides intraregional trade comparison between Kenya and the Northern Corridor Member States. Uganda emerges the top trading partner with Kenya with both exports and imports accounting for 30% of the main traded products are; tea, coffee, fish, cement, palm oil, medicaments, machinery, petroleum, iron, steel, milk, and cream, among others.

Table 33: Kenya Total Trade with Northern Corridor States In (USD) 2022

Trade Partner	Domestic exports	Imports	Re-exports	Grand Total
Burundi	63,204,547	1,107,224	7,388,095	71,699,866
Democratic Rep of Congo	136,119,699	30,802,064	15,189,890	182,111,653
Rwanda	294,533,074	30,212,344	46,780,895	371,526,312
South Sudan	169,894,804	128,648	28,172,967	198,196,419
Uganda	682,545,275	332,616,577	138,955,960	1,154,117,813
Grand Total	1,346,297,399	394,866,856	236,487,808	1,977,652,063

Source: KNBS,2022

7.4 Trade between Rwanda and other Northern Corridor Member States

7.4.1 Formal Trade between Rwanda and other Northern Corridor Member States

The total formal trade between Rwanda and the Northern Corridor Member States was valued at USD 1.3 billion. Out of this, 64% were exports while 36% were imports indicating that Rwanda has favourable trade within the region.

Figure 27: Percentage Share of Formal Rwanda Intraregional Trade in 2022



Source: National Bank of Rwanda

From the statistics, the major trade partners for Rwanda in the Northern Corridor region are DRC and Kenya at 61% and 31% of the total formal intraregional trade value, respectively, as shown in **Figure 28**.



Table 34 shows that 84% of the total imports by Rwanda in the region were from Kenya valued at USD 402.95 million while 93% of exports valued at USD 785.8 million were to DRC.

Table 34: Share of Formal Rwanda Imports and Exports in USD 2022						
	Imports (USD)	Exports (USD)	Total Trade Value	Percentage Share		
Burundi	131,164.00	3,879,432.00	4,010,596.00	0%		
DR Congo	27,442,945.70	785,801,633.80	813,244,579.50	61%		
Kenya	402,951,089.10	11,878,291.90	414,829,381.00	31%		
South Sudan	133,942.00	22,005,600.00	22,139,542.00	2%		
Uganda	49,854,673.50	22,837,369.00	72,692,042.50	5%		
Total	480,513,814.30	846,402,326.70	1,326,916,141.00			
Percentage Share	36%	64%				

Source: National Bank of Rwanda

The top ten destinations for Rwanda exports are presented in **Figure 29**. The top destination for Rwanda goods was DRC valued at USD 785.8 million, which is significant for Rwanda since it exceeds all the other nine destinations combined. During the reporting period, top exports, including re-exports, were tea, coffee, petroleum oils, tin ores and concentrates, cereals, vegetable oils, tungsten ores and concentrates, and food and animal products.



The main import origin for Rwanda is the Asian continent with China at the top with USD 732.73 million followed by the United Arab Emirates (USD 383.79 million) and India (USD 301.38 million). Within Africa, Rwanda imports were mainly from Tanzania (USD 306.30 million) and Kenya (USD 278.48 million). The main import commodities for Rwanda in 2022 were petroleum oils, sugar, cereals, vegetable oils, medicaments, cement, and fertilizer.



7.4.2 Informal Trade between Rwanda and other Northern Corridor Member States

In 2022, the total informal trade between Rwanda and its neighbours was valued at USD 132.29 million. Exports took a lion share of 95.2% of the total informal trade, while imports were 4.8,% as shown in **Figure 31**. Informal cross border trade is mainly agricultural and animal products.



As presented in **Figure 32**, 98.8 % of the total informal trade was with DRC. Informal trade with Uganda stood at 0.6% and Tanzania at 0.5%. Despite the close proximity, there was little informal trade between Rwanda and Burundi.

Figure 32: Percentage Share of Informal Intraregional Trade with Partner States in 2022



Source: National Bank of Rwanda

The main import sectors from DRC were agro-processing, horticulture, and manufacturing with the main products being coffee, forestry products, bananas, potatoes, cassava, meat products, rice, clothes and cement. On the other hand, Rwanda imported mainly cereals, root tubers, meat products, clothing, leather products and processed foods from Uganda.

During the reporting period, Rwanda main informal export commodities were cereals, live animals and animal products, processed products, and horticultural produce.

Table 35: Share of Informal Rwanda Imports and Exports in USD in 2022						
	Informal Imports (USD)	Informal Exports (USD)	Total Informal Trade (USD)			
DRC	5,533,731.00	130,171,229.00	135,704,960.00			
UGANDA	528,824.00	358,475.00	887,299.00			
TANZANIA	573,333.00	124,598.00	697,931.00			
Total	6,635,888.00	130,654,302.00	137,290,190.00			

Source: National Bank of Rwanda

7.5 Formal Trade between South Sudan and other Northern Corridor Member States

South Sudan has vast natural resources, including oil, that it can export to its neighbors while at the same time importing goods and services to meet its domestic needs. Formal trade can lead to increased economic growth, job creation, and improved living standards for the people of South Sudan and its neighbors. However, there are also challenges to formal trade, such as poor infrastructure, bureaucratic hurdles, and security concerns, that must be addressed to ensure its success.

Table 36 presents the formal trade statistics between South Sudan and other Northern CorridorMember States.

Table 36: Formal trade between South Sudan and the rest of the NC member States				
	Exports	Imports		
Rwanda	22,005,600	133,942		
Uganda	17,274,346	606,044,758		
Kenya	128,648	198,067,771		
Total	39,408,594	804,246,471		

South Sudan's total trade with Northern Corridor Member States was USD 843.7 million in 2022, with exports accounting for 4.7% of total trade value and imports accounting for 95.3%.

7.6 Formal Trade in Uganda

Uganda's total formal intraregional trade in 2022 was USD 2.59 billion, of which 69% were exports and 31% were imports, as illustrated in **Figure 33** below.



Within the region, the top trading partner for Uganda was Kenya with 52% of the total intraregional trade. Uganda also significantly trades with South Sudan (24%) and DR Congo (17%).



Figure 34: Percentage Share of Uganda Trade with Northern Corridor Member States

Source: UBOSS 2022

The share of Uganda trade with the Northern Corridor Member States is presented in **Table 37** below. 94% of the total USD 798 million imports were from Kenya. The main export destinations were Kenya (34%), South Sudan (34%) and DR Congo (23%).

Table 37: For	nal Uganda Tra	ade with r	Northern Corr	laor Memi	ber States in 20	22
Member States	Exports	Share of Exports	Imports	Share of Imports	Total Trade Value	Percentage share
BURUNDI	85,627,732	5%	742,220	0%	86,369,951	3%
D.R. CONGO	418,770,584	23%	16,003,540	2%	434,774,125	17%
KENYA	603,905,974	34%	749,155,590	94%	1,353,087,454	52%
RWANDA	77,512,147	4%	10,863,998	1%	88,376,145	3%
SOUTH SUDAN	606,044,758	34%	17,274,346	2%	623,319,103	24%
Grand Total	1,791,861,195		794,039,693		2,585,926,778	
Percentage Share	69%		31%			

Source: UBOSS 2022

Data reveals that the top destinations for Uganda exports were within the African region with South Sudan (USD 606.04 million), Kenya (USD 603.93 million), and DRC (USD 418.77 million) at the top. Uganda significantly exported to Europe, Asia and the United States as illustrated in **Figure 35**.

Some of the top commodities exported were animal and agricultural/horticultural products, cereals, textiles and apparels, food commodities, , among others.



The leading import countries for Uganda were in the Asian bloc with China, United Arab Emirates, India, Japan, Saudi Arabia, and Malaysia in the top ten. In the African bloc, leading import countries were Kenya, Tanzania and Zimbabwe as shown in **Figure 36**.

Top among commodities imported were iron/steel and aluminum; medicaments; textiles, clothing and accessories; cement; cereals; chemicals; petroleum products; fertilizers and other farm inputs; machinery, vehicles and vehicle parts; household items and food products.



Figure 36: Top Import Countries for Uganda in 2022 (USD)

CHAPTER EIGHT: ROAD SAFETY

Road safety continues to be a major concern along the Northern Corridor. The high number of accidents continue to impact on the gains made in developing transport infrastructure to facilitate movement of people and goods. Road safety is a measure undertaken by the transport authorities to ensure that transportation of goods and individuals is smooth. Unfortunately, accidents continue to claim lives not only on the Northern Corridor but in the world at large. This section of the report examines the number of road accidents recorded in the various Member States along the Northern Corridor.

8.1 Road Safety in Burundi

The statistics for road traffic accidents in Burundi between January and June 2022 are presented in **Table 38**, revealing that 3,283 accidents occurred during this period, resulting in 220 fatalities. The primary causes of accidents were related to human factors, including over-speeding and improper overtaking maneuvers, as well as road factors such as poor pavement quality, and vehicle defects, accounting for 32.4%, 7.5%, and 2.1%, respectively. However, the causes of 58% of total accidents during this period remain unknown.

Table 38 presents country data on road crashes and fatalities;

Table 38: Number of Road Traffic Accidents in Burundi

Causes of accidents	No. of	N	% of		
	accidents	Male	Female	Total	accidents
Road pavement condition	246	27	5	32	7.5%
Driving over speed limits	679	110	25	135	20.7%
Driving under the influence of alcohol	56	3	0	3	1.7%
Vehicle defects/mechanical failures	68	6	1	7	2.1%
Use of cell phone while driving	6	1	0	1	0.2%
Overloading/Cargo shift	20	2	0	2	0.6%
Violation of traffic rules/regulations	1	0	0	0	0.0%
Driving without a license	83	1	0	1	2.5%
Improper parking and stopping	31	1	0	1	0.9%
Improper passing/severe overtaking maneuvers	175	8	1	9	5.3%
Violation of traffic rules: One way rule violation	6	1	0	1	0.2%
Driver fatigue	5	1	0	1	0.2%
Refusal to comply after they have received the order to do so from the traffic police officer	3	1	0	1	0.1%
Driver age	-	0	0	0	0.0%
Others	1,904	21	5	26	58.0%
Total	3,283	183	37	220	100

Source: National Traffic Police, 2022

To address these statistics, the Ministry in charge of Transport, with support from the World Bank's Transport Resilience Project for Burundi, plans to launch a National Road Safety Observatory Portal to provide real-time information on road traffic crashes across the country. The Ministry will also acquire road safety materials and equipment, as well as a consultant to assist with data collection and analysis. The agreement between the World Bank and the Republic of Burundi has already been signed.

In response to the technical issues and poor road quality contributing to accidents, Burundi is implementing the "Campaign for Zero Potholes" initiative. As a result, rehabilitation work is ongoing on all sections of the Northern Corridor roads in Burundi.

8.2 Road Safety in Kenya

During the period under review, the Northern Corridor route section in Kenya saw a total of 548 accidents resulting in 672 fatalities. Of these accidents, 235 involved commercial vehicles, accounting for 322 of the total 672 fatalities.

Table 39: Distribution of Road Accidents Fatalities in Kenya based on Type of Vehicle

Vehicle Type	Number of accidents involving per vehicle type	% of Fatal Accidents
Commercial	235	43%
Private	171	31%
PSV	100	18%
Unknown	105	19%
Government	8	1%
Tricycle	2	0%
Ambulance	3	1%
Motorcycle	150	27%

Figure 37 presents the share of fatalities by gender in 2022. Of the total fatalities, 84% were male and 16% were female.



Number of Fatalities by gender



The leading causes of road accidents resulting in the highest number of fatalities in 2022 were over speeding; failure to keep to the near side or proper lane; improper overtaking, losing control, misjudging clearance distance or speed; stepping, walking, or running off the footpath or verge into the road; and errors of judgment.

Table 40: Causes of Accidents along the Northern Corridor in Kenya

Causes of Crashes	No. of fatalities
Under the influence of drink or drug	1
Excessive speed	23
Failing to keep to near side or proper lane	90
Cutting in	5
Overtaking improperly	87
Swerving	7
Failing to stop to afford free passage to pedestrians at pedestrian crossing place	2
Turning round in road negligently	3
Reversing negligently	1
Failing to comply with traffic sign or signal	3
Failing to signal or giving indistinct or incorrect signal	1
Pulling out from near side or from one traffic lane	7
Turning right without due care	9
Turning left without due care	2
Crossing without due care at road junction	12
Losing control	98
Dazzled by lights of another vehicle	2
Misjudging Clearance, distance, or speed	64
Other apparent error of judgement	11
Stopping suddenly	1
Crossing road masked by stationary vehicle	4
Crossing road not masked by stationary vehicle	17
Walking or standing in road	11
Playing in road	2
Stepping walking or running off footpath or verge into road	24
Slipping or falling	1
Holding onto vehicle	1
Error of judgement	21
Falling when inside or falling from the vehicle	2
Stationery vehicle dangerously placed	4
Brake failure	1
Tyres or wheels failure	6
Other cause	1
Cause not traced	148

8.3 Road Safety in Rwanda

In 2022, 327 road traffic accidents were recorded along Northern Corridor Road sections in Rwanda. **Table 41** indicates that the highest proportion of accidents occurred on the Kigali-Musanze-Rubavu road (23.5%), Kigali-Huye-Akanyaru road (15.9%), Kigali-Kayonza Road (13.5%), and Ruhwa-Bugarama-Rusizi-Karongi-Rubavu (12.8%), respectively. These accidents resulted in the loss of 238 male and 37 females. The major causes of the accidents were reported to be failures to adjust speeding, driving on the left side of the road instead of keeping right, and improper overtaking maneuvers.

To address these concerning statistics, Rwanda runs an annual road safety awareness campaign known as "Gerayo Amahoro," which aims to sensitize and disseminate educational messages on road safety to the general public and motorists. Efforts such as regular maintenance of all National and District roads, installation and use of static and mobile CCTV cameras for traffic rules and regulations enforcement are being undertaken. Additionally, regular/random traffic police operations for enforcement of compliance with vehicle insurances, roadworthiness, driving/vehicle documents, and other related safety issues, as well as rationalization of speed limits and road markings/signage are being undertaken to reduce the number of road crashes and fatalities.

Table 41: Road Accidents Along the Northern Corridor in Rwanda

	Classification of accidents		Total	No. of	No. of fatalities		No. of serious injuries	
Road name	Fatal	Serious	accidents	Male	Female	Male	Female	
Kigali-Huye-Akanyaru (NR1)	38	14	52	36	5	11	5	
Kigali-Musanze-Rubavu (NR2)	62	15	77	66	11	16	3	
Kigali-Gatuna (NR3)	14	1	15	13	1	1	0	
Kigali-Kayonza (NR4)	32	12	44	29	3	10	2	
Kicukiro-Nemba (NR5)	12	1	13	10	2	1	0	
Huye-Kitabi-Buhinga (NR10)	13	3	16	13	3	2	1	
Ruhwa-Bugarama- Rusizi-Buyinga-Karongi- Rubavu (NR11)	30	12	42	25	5	7	5	
Muhanga-Rubengera (NR15)	5	2	7	6	0	2	0	
Muhanga-Ngororero- Mukamira (NR16)	12	4	16	11	1	5	1	
Musanze-Cyanika (NR17)	7	1	8	7	0	1	0	
Base-Gicumbi-Rukomo (NR19)	8	0	8	7	1	0	0	
Kayonza-Gabiro- Kagitumba (NR24)	20	9	29	15	5	6	4	
Total	253	74	327	238	37	62	21	
Source: MININERA, 202	2							

8.4 Road Safety in South Sudan

The number of accidents that occurred on the Nimule-Juba Road between January 2022 and December 2022 is presented in Table 42. The road recorded 6 fatalities, 28 injured persons, and 7 animals killed during this period. According to the South Sudan National Police Service, the causes of these accidents include poor road infrastructure, lack of a traffic monitoring system for truck drivers on the Juba-Nimule Road, cattle movements on and across the road, and over-speeding by truck drivers.

Table 42: Number of Road Accidents in South Sudan, Nimule - Juba Road

	Number		Number pec		
Period (January – December 2022)	Number of accidents	of deaths /fatalities	Serious injuries	Minor injuries	Animals killed
January to March	4	0	7	1	0
April to June	11	2	4	1	2
July to September	12	1	10	0	1
November to December	21	3	12	1	4
Total	44	6	26	2	7

Source: South Sudan National Police Service (2022)

To address these challenges, South Sudan needs to enforce road traffic rules and regulations, rehabilitate damaged road sections, and prioritize sensitization and awareness campaigns on road safety.

8.5 Road Safety in Uganda

The month of December registered the highest number of crashes (2,013). It was followed by March (1,824) and August (1,786). The month of July showed the lowest number of crashes (1,532), followed by February (1,572). Regarding fatalities, the month of December had the highest number of fatalities at 470 followed by January (426), and March (415). Table 43 presents country data on road crashes and fatalities;

Table 43: Trend of Cras	shes and Fatalities	
Month	No. of crashes	No. of fatalities
January	1698	426
February	1572	330
March	1824	415
April	1633	412
May	1654	408
June	1703	364
July	1532	348
August	1786	371
September	1695	332

Month	No. of crashes	No. of fatalities
October	1658	348
November	1626	310
December	2013	470
Total	20394	4534

Source: Uganda police annual crime report 2022

The highest number of crashes were recorded between 1900 and 1959hrs. This could be as a result of the rush hour as road users return home from the day's activities.

There were 21,473 casualties from road crashes in 2022, an increase of 19% as compared to 2021. Persons who died as a result of road crashes increased by 9%, persons seriously injured increased by 21% and those that sustained minor injuries increased by 33% as shown in **Table 44**;

Table 44: Road accidents in Uganda							
Victims	2021	2022	Percentage change				
Killed	4159	4534	9				
Seriously injured	12589	15227	21				
Slightly injured	1287	1712	33				
Total	18035	21473	19.1				

Source: Uganda police annual crime report 2022

Strategies to Reduce Road Crashes

- Enforcement of traffic laws and regulations through targeted operations mainly focusing on boda bodas (motorcycles) and major risk factors such as speed, driving under influence of alcohol/drugs, seatbelt use and distracted driving;
- Building capacity of traffic personnel to handle the road safety challenges;
- Conducting road safety sensitization and awareness campaigns.
- Data management to ensure Traffic and Road Safety decisions are evidence-based;
- Strengthening monitoring of CCTV to identify traffic offenders and aid in crash investigations;
- Enhancing integrated highway patrols for security and safety.

Reduction in port dwell time:

- Investing in equipment and labour to achieve operational efficiency. Fast-track the planned acquisition of more ship-to-shore gantries (STS) and address the labor shortage by recruiting more personnel or privatizing some services.
- Enhancing supervision and deployment of FIFO approach to avert delays in loading and haulage of cargo Creation of dedicated yards for rail bound containers.
- Sensitization of truck locomotive drivers on use of drive through scanners to minimize rescanning of containers.

Reducing transit times:

- Procuring additional seals by Partner State Revenue Authorities
- Exempting non sensitive transit consignments (bonded) from RECTS seals requirement.
- Development of a reengineered process to minimize delays that have led to additional costs.
- Physical verification of consignments with mixed cargo before scanning at the exit gates to avoid double scanning.
- Enhancing the concept of risk management and sampling.
- Accelerate the implementation of Roadside Stations (RSS) to significantly reduce the frequency of unnecessary stops, as well as accrue benefits such as crew health and well-being of the drivers.

Road Safety

- Member States to harmonize data collection and reporting on road safety.
- NCTTCA jointly with Member States to undertake sensitization campaigns on road safety along the corridor since most causes for road traffic accidents were human factors related.

Inland Water Transport

- Need to revise/update the Tripartite cooperation framework/agreement between KRC, URC, and Tanzania Railways
- Fastrack the development of regional inland water transport policy.
- The need to urgently update the Navigation Maps and development of various regulations supporting the Lake Victoria Act
- The need for collaboration by Maritime administration units in members sharing inland water be at par with neighbours.
- Set up maritime fund to specifically support training and skill acquisition in the Maritime sector.

Return of Empty Containers

 Maritime administrators to enhance regulation to manage high container deposits which have contributed to higher cost of doing business.

Railway Transport

• KRC and URC to implement marketing initiatives to increase the cargo off-take by rail to 35% by 2027 from 24% in 2022 and conduct continuous stakeholder engagements to promote the use of rail as a preferred mode of transport.

Reducing Delays at Oil Depots

 KPC to fast track the integration of KPC-SAP and KRA-ICMS systems for efficiency in loading at fuel depots to reduce truck turnaround time.

Clearance of Goods

 Sensitization of clearing agents to prevent delays caused by insufficient or missing documents and also ensure continuous engagement with agencies responsible for cargo clearance to ensure adherence to SLAs.

ANNEXES AND REFERENCES

Annex 1: Road condition in Burundi (2022)

Road section	Length (Km)	IRI	Road condition	No. of lanes	Lane width	Traffic volume projections ¹⁴	Comments
Gasenyi-Gashoho	67		Good	2	3	931	Routine maintenance works ongoing.
Gashoho-Ngozi	40		Fair	2	3	1538	Rehabilitation works on critical spots are ongoing.
							Routine and periodic maintenance works are ongoing.
Ngozi-Kayanza	32		Fair	2	3	1920	Maintenance works on critical spots are ongoing.
							Routine and periodic maintenance works.
Kanyaru- Haut-	15		Good	2	3	525	Road rehabilitation and drainage works are ongoing.
Nayaliza							Review of the technical designs for road rehabilitation and widening following EAC standards is ongoing.
Kayanza- Bugarama	59		Fair	2	3	2536	Road rehabilitation and drainage works, and correction of black spots substantially completed.
							Reviewing technical designs for road rehabilitation and widening following EAC standards is ongoing.
Bugarama- Bujumbura	35		Good	2	3	4324	Road rehabilitation and drainage works, and correction of black spots substantially completed.
							Reviewing technical designs for road rehabilitation and widening following EAC standards is ongoing.

41 Traffic count 2018

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Road section	Length (Km)	IRI	Road condition	No. of lanes	Lane width	Traffic volume projections ¹⁴	Comments
Bujumbura-	16		Excellent	2	3	5630	Road rehabilitation and widening works completed.
Gatumba							Bridge construction on River Rusizi II also completed.
							Routine and periodic maintenance works
Ruhwa- Nyamitanga	50		Good	2	3	2470	Routine and periodic maintenance works
Nyamitanga- Gihanga	10		Excellent	2	3.5	2470	Road under defect liability period.
Gihanga- Bujumbura	20		Excellent	2	3.5	2891	Road under defect liability period.
Kanyaru Bas-	23		Bad	2	3	238	Road in bad condition with no ongoing interventions.
Ngozi							Feasibility and detailed design studies for the upgrading of road are available but need to be reviewed.
Ngozi-Gitega	84	Bon	Excellent	2	3.5	1227	Routine and periodic maintenance works.
Gitega-Bujumbura	100	Bon	Bon	2	3	2000	Maintenance works on the critical spots are ongoing.
							The government of Burundi plans to rehabilitate and widen Gitega-Bujumbura Road and studies will be covered under the WB.
Aeroport - Bujumbura	5.3	Excellent	Excellent	4	3.5	5852	

Annex 2: Road condition in DRC (2022)

Routes	Classification	Length (km)	IRI*	Etat actuel	No. of Lanes	Lane width
Axe Bukavu-Kindu-Kisangani						
Bukavu-Burale	RN 2	55	> 5	Assez bon	2	4.5 m
Burale-Shabunda-Lubile	RP 503	422	> 5	Assez bon	2	4.5 m
Lubile-Kalima-Mali	RP 503/RN 32	223	> 5	Assez bon	2	4.5 m
Mali-Kindu	RN 31	36	> 5	Assez bon	2	4.5 m
Mali-Lubutu	RN 31	318	> 5	Assez bon	2	4.5 m
Lubutu-Kisangani	RN 3	245	> 5	Assez bon	2	4.5 m
Lubutu-Osokari-Walikale	RN 3	200	> 5	Assez bon	2	4.5 m
Walikale-Hombo	RN 3	107	> 5	Assez bon	2	4.5 m
Hombo-Miti	RN 3	93	> 5	Assez bon	2	4.5 m
Miti-Bukavu (compris Kavumu- Bukavu)	RN 2	44	> 5	Assez bon	2	4.5 m
Axe Bukavu-Uvira						
Bukavu-Kamanyola	RN 5	50	> 5	Assez bon	2	4.5 m
Kamanyola-Uvira	RN 5	90	> 5	Assez bon	2	4.5 m
Uvira-Kavimvira-Front Burundi	RN 30	7	> 5	Assez bon	2	4.5 m
Axe Kisangani-Beni-Kasindi						
Kisangani-Niania-komanda	RN 4	625	> 5	Assez bon	2	4.5 m
Komanda-Luna	RN 4	75	> 5	Assez bon	2	4.5 m
Luna-Beni	RN 4	65	> 5	Assez bon	2	4.5 m
Beni-Kasindi	RN 4	80	> 5	Assez bon	2	4.5 m
Komanda-Bunia-Mahagi	RN 27	265	> 5	Assez bon	2	4.5 m
Komanda-Bunia	RN 27	75	> 5	Assez bon	2	4.5 m

Routes	Classification	Length (km)	IRI*	Etat actuel	No. of Lanes	Lane width
Bunia-Mahagi-Goli-Front Ouganda	RN 27	190	> 5	Assez bon	2	4.5 m
Axe Kisangani-Isiro-Aru						
Kisangani-Niania	RN 4	340	> 5	Assez bon	2	4.5 m
Niania-Isiro	RN 25	232	> 5	Assez bon	2	4.5 m
Isiro-Watsa-Aru	RN 25	531	> 5	Assez bon	2	4.5 m
Axe Beni-Butembo-Goma-Bu	kavu					
Beni-Ndoluma	RN 2	135	> 5	Assez bon	2	4.5 m
Ndoluma-Rutshuru-Goma	RN 2	342	> 5	Assez bon	2	4.5 m
Goma-Sake-Minova	RN 2	45	> 5	Assez bon	2	4.5 m
Minova-Kavumu-Bukavu	RN 2	155	> 5	Assez bon	2	4.5 m
Rutshuru-Bunagana	RN 28	29	> 5	Assez bon	2	4.5 m
Rutshuru-Ishasha	RP 535	64	> 5	Assez bon	2	4.5 m

Annex 3: Road condition in Kenya (2022)

			•	Detailed Condition Survey 2022 (IRI)								
			Average Bate of	GOOD		FAIR		POOR		NO. OF		TRAFFIC
		Length	Deterioration	1:V. Good/2:Good		3 : Fair		4:Bad/ 5:Very Bad		LANES	LANE	VOLUME
Road No.	Description:	Km	ARD	Km	%	Km	%	Km	%		WIDTH	PROJECTIONS
A8 North_R1	James Gichuru - Museum Hill (Nakuru- bound)	5	2.44	2.2	44%	2.8	56%	-	0%	6	3.5	ТО
A8 North	James Gichuru - Museum Hill (Nairobi- bound)	5	1.84	5	100%	-	0%	-	0%	6	3.5	ТО
A8 North_R1	Museum Hill - Athi River (Nakuru-bound)	28	2.636	8.4	30%	15.6	56%	4	14%	6	3.5	ТО
A8 North	Museum Hill - Athi River (Mombasa-bound)	27.8	2.194	17	61%	9.4	34%	1	4%	6	3.5	ТО
A8	Athi River - Kyumvi (Mombasa-bound)	21.2	1.038	21.2	100%	0	0%	0	0%	4	3.5	ТО
A8	Athi River - Kyumvi (Nairobi-bound)	16.8	1	16.8	100%	-	0%	-	0%	4	3.5	ТО
A8	Kyumvi - Sultan Hamud	63	2.105	53	84%	10	16%	-	0%	2	3.5	TO
A8	Sultan Hamud - Makindu	60.4	2	60.4	100%	-	0%	-	0%	2	3.5	ТО
A8	Makindu - Mtito Andei	62.8	1.016	62.8	100%	-	0%	-	0%	2	3.5	TO
A8	Mtito Andei - Tsavo River	49	2.784	11.2	23%	30.2	62%	7.6	16%	2	3.5	ТО
A8	Tsavo River - Voi	47.6	2.983	10	21%	18.4	39%	19	40%	2	3.5	TO
A8	Voi - Bachuma Gate	52.4	2	52.4	100%	-	0%	-	0%	2	3.5	TO
A8	Bachuma Gate - Maji ya Chumvi	53.2	2	53.2	100%	-	0%	-	0%	2	3.5	ТО

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			.		Detailed	Conditio	n Survey	2022 (IRI)				
		Road	Average Bate of	GO	OD	FA	IR	PC	DOR	NO. OF		TRAFFIC
		Length	Deterioration	1:V. Goo	d/2:Good	3:1	Fair	4:Bad/ 5	:Very Bad	LANES	LANE	VOLUME
Road No.	Description:	Km	ARD	Km	%	Km	%	Km	%		WIDTH	PROJECTIONS
A8	Maji ya Chumvi - Kwa Jomvu	37.1	2.733	13	35%	21.4	58%	2.8	8%	2	3.5	ТО
A8_R2	Nairobi Southern Bypass (Ole Sereni - Ngong' Interchange, Kikuyu-bound)	15.4	1	15.4	100%	-	0%	-	0%	4	3.5	TO
A8_R2	Nairobi Southern Bypass (Ngong' Interchange - Kikuyu, Kikuyu-bound)	13	1	13	100%	-	0%	-	0%	4	3.5	ТО
A8	Nairobi Southern Bypass (Ole Sereni - Ngong' Interchange, Mombasa-bound)	15.4	1.062	15.4	100%	-	0%	-	0%	4	3.5	ТО
A8	Nairobi Southern Bypass (Ngong' Interchange - Kikuyu, Mombasa-bound)	13	1.062	13	100%	-	0%	-	0%	4	3.5	ТО
A8	Malaba - Webuye	63	1.977	55	87%	8	13%	-	0%	2	3.5	TO
A8	Webuye - Maili Tisa	53	2.485	43	81%	10	19%	-	0%	2	3.5	ТО
A8	Maili Tisa - Ngeria	32	4.176	12	38%	10	31%	10	31%	2	3.5	TO
A8	Ngeria - Timboroa	48.8	1.93	43.8	90%	5	10%	-	0%	2	3.5	ТО
A8	Timboroa - Mau Summit	38.4	2.492	28.4	74%	10	26%	-	0%	2	3.5	ТО
		40	0.000		700/	_	100/		100/		0.5	T 0
A12	Busia - Ugunja	42	2.923	32	76%	5	12%	5	12%	2	3.5	10
AI2	Ugunja - Kisian	59	3.29	29	49%	25	42%	5	8%	2	3.5	10

					Detailed	Condition	n Survey	2022 (IRI)				
		Road	Average Bate of	GO	OD	FA	IR	PO	OR	NO. OF		TRAFFIC
		Length	Deterioration	1:V. Good	l/2:Good	3 : I	Fair	4:Bad/ 5	Very Bad	LANES	LANE	VOLUME
Road No.	Description:	Km	ARD	Km	%	Km	%	Km	%		WIDTH	PROJECTIONS
A12	Kisian - Ahero	38.4	3.122	15	39%	23.4	61%	-	0%	2	3.5	TO
A12	Ahero - Kericho	56.6	2.548	45	80%	11.6	20%	-	0%	2	3.5	TO
A12	Kericho - Mau Summit	57	2.064	52	91%	5	9%	-	0%	2	3.5	TO
A6	Voi - Mwatate - Taveta	124	1.06	122.8	99%	-	0%	1.2	1%	2	3.5	T1

Annex 4: Road condition in Rwanda (2022)

Sect	tion	Sub-Sections	Length	IRI(m/Km)	Cı	Irrent Condit	ion	No of	Lane	Traffic
			(Km)		Km in Good Condition	Km in Bad Condition	% Good Condition	lanes	width	Volume Projections (AADT) Year 2022
1.	Kagitumba-Kigali	Kigali-Remera	8.6	2.04	17.254	0	100%	2	3	14,981
		Remera-Rugende	17.2	2.27	31.188	3.3	90%	2	3	12,434
		Rugende-Byimana	31.0	1.94	61.502	0.5	99%	2	3	1,658
		Byimana-Rwamagana	3.3	1.32	6.522	0	100%	2	3.5	5,902
		Byimana-Kayonza	17.8	1.44	35.572	0	100%	2	3	4,726
		Kayonza-Kiramuruzi	19.8	1.62	39.58	0	100%	2	3.5	2,622
		Kiramuruzi-Gabiro	33.8	1.7	67.68	0	100%	2	3.5	1,902
		Gabiro-Ryabega	22.1	1.88	44.22	0	100%	2	3.5	1,902
		Ryabega-Kagitumba	40.5	1.66	81.12	0	100%	2	3.5	1,517
			194.2	1.7633	384.638	3.8	99.02%			
2.	Kigali- Huye	Kigali-Giticyinyoni	5.1	2.36	9.7	0.5	95%	2	3	25,149
		Giticyinyoni-Bishenyi	8.0	1.95	15.8	0.4	98%	2	3	16,666
		Bishenyi-Rugobagoba	14.6	2.27	28.528	0.7	98%	2	3	7,202
		Rugobagoba-Nyamabuye	19.6	2.75	36.216	3	92%	2	3	5,464
		Nyamabuye-Kirengere	11.2	1.64	22.288	0.1	100%	2	3	3,083
		Kirengere-Ruhango	14.6	1.62	29.196	0	100%	2	3	2,794
		Ruhango-Bigega	16.0	1.99	31.504	0.4	99%	2	3	2,685
		Bigega-Karubanda	34.8	1.69	69.618	0	100%	2	3	2,075
			124.0	2.03375	242.85	5.1	98%			8,140
З.	Huye -Akanyaru	Karubanda-Mukoni	3.5	1.76	7.044	0	100%	2	3	573
Haut		Mukoni-Akanyaru	30.4	3.49	50.98	10.4	83%	2	3	573
			33.9	2.625	58.024	10.4	85%			

Se	ction	Sub-Sections	Length	IRI(m/Km)	Cu	Irrent Conditi	on	No of	Lane	Traffic
			(Km)		Km in Good Condition	Km in Bad Condition	% Good Condition	lanes	width	Volume Projections (AADT) Year 2022
4.	Huye - Rusizi	Karubanda-Nyamagabe	26.5	1.97	54.18	0	100%	2	3	1,842
		Nyamagabe-Kitabi	26.2	2.07	12.44	0	100%	2	3	1,195
		Kitabi-Pindura	33.3	2.19	15.16	0	100%	2	3	585
		Pindura-Buhinga	29.3	2.79	15.66	0	100%	2	3	394
			115.3	2.255	97.44	0	100%			
5.	Gatuna-Kigali	Nyabugogo-Karuruma	4.4	1.6	8.754	0	100%	2	3.5	14,156
		Karuruma-Nyacyonga	6.2	1.4	12.384	0	100%	2	3.5	12,567
		Nyacyonga-Cyamutara	16.0	1.09	32.092	0	100%	2	3.5	9376
		Cyamutara-Rukomo	22.9	1.11	45.766	0	100%	2	3.5	1,267
		Rukomo-Maya	20.2	1.13	40.416	0	100%	2	3.5	1,097
		Maya-Gatuna	8.3	1.09	16.608	0	100%	2	3.5	762
			78.0	1.2367	156.02	0	100%			
6.	Kigali- Musanze	Giticyinyoni-Kirenge	24.9	2	49.21	0.6	99%	2	3.5	2,922
		Kirenge-Base	18.9	2.05	37.642	0.2	99%	2	3.5	2,967
		Base-Gakenke	14.47	1.96	28.842	0.1	100%	2	3.5	3,011
		Gakenke-Musanze	29.26	1.9	58.22	0.3	99%	2	3.5	3,294
			87.53	1.9775	173.914	1.2	99%			
7.	Musanze - Rubavu	Musanze-Mukamira	22.79	1.61	45.48	0.1	100%	2	3.5	2,771
		Mukamira-Sashwara	7.129	1.65	14.258	0	100%	2	3.5	2,741
		Sashwara-Pfunda	21.29	1.6	42.574	0	100%	2	3.5	2,711
		Pfunda-Gisenyi	8.426	1.68	16.852	0	100%	2	3.5	2,456
		Gisenyi-Border	2.384	3.14	4.668	0.1	98%	2	3.5	3,341
			62.02	1.936	123.832	0.2	100%			

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Section	Sub-Sections	Length	IRI(m/Km)	Cı	Irrent Condit	ion	No of	Lane	Traffic
		(Km)		Km in Good Condition	Km in Bad Condition	% Good Condition	lanes	width	Volume Projections (AADT) Year 2022
8. Rusizi – Bugarama	Ruhwa-Bugarama	7.3	1.5	14.35	0.6	96%	2	3	317
	Rusizi III-Mutongo	31.8	4.28	48.812	14.8	77%	2	3	411
	Mutongo-Rusizi II	4.7	2.55	9.144	0.3	97%	2	3	1,267
	Mutongo-Rusizi I	6.5	2.65	11.302	1.7	87%	2	3	2,681
	Rusizi I-Gihundwe	4.9	2.5	9.038	0.8	92%	2	3	2,744
		55.2	2.696	83.608	17.4	83%			
9. Cyanika- Musanze	Musanze-Camp Muhoza	0.7	1.77	1.4	0	100%	2	3	982
	Camp Muhoza-Gahunga	9.4	3.33	13.2	5.6	70%	2	3	856
	Gahunga-Kidaho	10.6	3.32	17.6	3.8	82%	2	3	654
	Kidaho-Cyanika	4.4	2.84	8	0.8	91%	2	3	599
		25.1	2.815	40.2	10.2	80%			

Annex 5: Road condition in South Sudan (2022)

Section	Length (Km)	IRI	Current Condition	No. of Lanes	Lane Width (M)	Ongoing Works	Sources of Funds
Nimule - Nesitu - Juba	193	10	Asphalt	2	3.5	None	None
Nadapal - Kapoeta - Torit - Juba	335	10	Gravel	4	3.5	Maintenance Work	Government of South Sudan
Juba - Lainya -Yei - Kaya	225	10	Gravel	4	3.5	Maintenance Work	Government of South Sudan
Yei - Lumbek	486		Gravel	2	3.3	None	None
Yei - Maridi	175		Gravel	2	3.3	None	None
Lasu - Yei - Yambio	403		Gravel	2	3.3	None	None
Juba - Terkeka	63	0.1	Asphalt	2	3.5	Upgrading to paved/asphalt roads	Government of South Sudan
Terkeka - Yirol - Rumbek	326	10	Gravel	4	3.5	None	None
Rumbek - Aweil	393		Gravel	2	3.3	None	None
Rumbek - Bentiu	311		Gravel	2	3.3	None	None
Juba - Mundri - Maridi - Yambio	387		Gravel	2	3.3	Maintenance Work	Government of South Sudan
Yambio - Tambura - Wau - Aweil	611		Gravel	2	3.3	None	None
Wau - Kuwajok - Agok - Mayom - Bentiu			Gravel	2	3.3	None	None
Juba - Bor	203	0.1	Asphalt	4	3.5	Upgrading to paved/asphalt roads	Government of South Sudan
Bor - Ayod - Malakal	423		Gravel	4	3.3	None	None
Mundri - Rumbek - Wau	555		Gravel	2	3.3	None	None

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Bridge	Chainage	Bridge Location Altitude	Bridge Type	Deck Type	Status
Kubri Arba	23 + 800	4.666	Steel Truss	Concrete - Steel Composite Deck	Passable
Kubri Hamsa	27 + 000	4.662	Steel Truss	Concrete - Steel Composite Deck	Passable
Kubri Sita	28 + 300	4.652	Steel Truss	Concrete - Steel Composite Deck	Passable
Nyole Bridge	98 + 700	4.233	Steel Truss	Concrete - Steel Composite Deck	Passable
Kit Bridge	101 + 300	4.211	Steel Truss	Concrete - Steel Composite Deck	Passable
Aswa Bridge	167 + 000	3.723	Steel Truss	Concrete - Steel Composite Deck	Passable
Merlin Bridge, Nimule	190 + 400	3.584	Steel Truss	Concrete - Steel Composite Deck	Passable
Anyama Bridge, border	192 + 000	3.571	Steel Truss	Concrete - Steel Composite Deck	Passable

Annex 6: Status of bridges in South Sudan (2022)

Annex 7: Road condition in Uganda (2022)

Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
1. Malaba -Katuna										
Malaba (Uganda/Kenya border) -Tororo junction	Bituminous	7	11.649	Emergency repairs					1.798113	Very good
Tororo junction - Namutere	Bituminous	7	28.29	Emergency repairs					1.960352	Very good
Namutere - Bugiri	Bituminous	7	3.559	Emergency repairs					2.029874	Good
Bugiri - Nakalama	Bituminous	7	51.314			Periodic maintenance	2025	GOU	1.736139	Very good
Nakalama - Iganga	Bituminous	7	4.907			Periodic maintenance	2025	GOU	1.573095	Very good
Iganga - Kakira junction	Bituminous	7	26.809			Periodic maintenance	2025	GOU	1.737286	Very good
Kakira Junction - Jinja	Bituminous	7	11.852			Periodic maintenance	2025	GOU	1.843448	Very good
Jinja - Njeru	Bituminous	7	1.756	Periodic Maintenance	2021	Kampala-Jinja Expressway		PPP	2.5788	Good
Njeru - Lugazi	Bituminous	7	30.113	Periodic Maintenance	2021	Kampala-Jinja Expressway		PPP	2.502067	Good
Lugazi - Mukono	Bituminous	7	24.142	Periodic Maintenance	2021	Kampala-Jinja Expressway		PPP	2.595844	Good
Mukono - Kampala	Bituminous	8.666667	17.737	Spot Improvement Intervation	2021	Kampala-Jinja Expressway		PPP	3.225986	Fair

Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
Kibuye - Natete - Busega	Bituminous	7	6.524	Advanced procurement		Capacity Improvement Kibuye - Busega - Mpigi Expressway		GOU & AfDB	4.058548	Fair
Busega - Mpigi	Bituminous	7	25.342	Under construction	2019	Capacity Improvement Kibuye - Busega - Mpigi Expressway		GOU & AfDB	2.284153	Good
Mpigi - Buwama	Bituminous	7	32.081	Rehabilitation Completed	2012			EIB	2.03225	Good
Buwama - Lukaya	Bituminous	7	30.5	Rehabilitation Completed	2012			GOU	2.198552	Good
Lukaya - Masaka - bypass	Bituminous	7	34	Rehabilitation Completed	2012			EIB	2.380702	Good
Masaka - Lyantonde	Bituminous	7.264706	67.781	Rehabilitation Completed	2012			EIB	1.776376	Very good
Lyantonde - Mbarara (Bushenyi junction)	Bituminous	7.191176	67.306	Rehabilitation Completed, Mbarara by-pass complete				EIB	1.796922	Very good
Mbarara (Bushenyi Junction) - Ntungamo	Bituminous	7.688525	61.729	Rehabilitation Completed	2012	Design for Rehabilitation ongoing		EIB	2.561166	Good

Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
Ntungamo - Rubaale	Bituminous	7.4	14.951	Rehabilitation Completed	2012	Design for Rehabilitation ongoing		EIB	2.201688	Good
Rubaale - Muhanga - Kabale	Bituminous	8.683333	59.407	Rehabilitation Completed	2012	Design for Rehabilitation ongoing		EIB	2.367037	Good
Kabale - Katuna	Bituminous	7	21.697	Rehabilitation Completed	2012	Design for Rehabilitation ongoing		EIB	2.370141	Good
TOTAL (KM)			633.446							
2.Malaba - Ishasha										
Busega - Bujuuko	Bituminous	7	32.903						2.724479	Good
Bujuuko - Mityana	Bituminous	7	26.736						3.299195	Fair
Mityana - Naama - Myanzi	Bituminous	7	15.842	Rehabilitation ongoing	2024			GOU	3.358243	Fair
Myanzi - Kiganda	Bituminous	7	27.705	Rehabilitation ongoing	2024			GOU	3.763759	Fair
Kiganda-Kitenga	Bituminous	7	20.351	Rehabilitation ongoing	2024			GOU	3.682602	Fair
Kitenga-Mubende-Lusalira	Bituminous	7	29.794	Designs ongoing				GOU	2.73816	Good
Lusalira - Nabingoola - Lubaale	Bituminous	7	16.3	Designs ongoing					2.543774	Good
Lubaale - kyegegwa	Bituminous	7	12	Designs ongoing					2.693707	Good
Kyegegwa - Kakabala - Kyenjojo	Bituminous	7	52.261	Designs ongoing					2.761709	Good

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Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
Kyenjojo - Rugombe - Fortportal	Bituminous	7	49.811	Rehabilitation Completed	2021			GOU	1.865286	Very good
FortPortal - Rwimi(bridge)	Bituminous	7	44.681	Rehabilitation Completed	2021			GOU	2.280161	Good
Rwimi(bridge)-Hima- Mubuku	Bituminous	7	17.802	Rehabilitation Completed	2021			GOU	2.0408	Good
Mubuku - Kasese	Bituminous	7	11.617	Rehabilitation Completed	2021			GOU	1.964414	Very good
Kasese - Kikorongo	Bituminous	7	21.956	Rehabilitation Completed	2021			GOU	1.807778	Very good
Kikorongo - Katunguru	Bituminous	7	15.697	Rehabilitation Completed	2021			GOU	2.119684	Good
Katunguru - Ishasha	Unsealed	7.4	87.025			Upgrade to paved		GOU		
TOTAL (KM)			482.481							
OR										
Mbarara - Ishanyu	Bituminous	7	4.934	Designs ongoing					3.915814	Fair
Ishanyu - Kabwohe	Bituminous	7	26.171	Designs ongoing					3.001797	Fair
Kabwohe - Ishaka	Bituminous	7	28.078	Designs ongoing					3.530073	Fair
Ishaka - Katunguru	Bituminous	7	54	Rehabilitation Completed	2021			GOU	3.8	Fair
TOTAL (KM)			113.183							
3.Malaba - Mpondwe										
Kikorongo - Bwera - Mpondwe	Bituminous	7	38.25	Designs ongoing					3.368475	Fair

Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
TOTAL (KM)			38.25							
4.Malaba - Goli										
Malaba junction - Tororo	Bituminous	7	3.751			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.346389	Fair
Tororo - Magodes - Nabumali	Bituminous	7.181818	33.7			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.232447	Fair
Nabumali - Mbale	Bituminous	7	10.228			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.652245	Fair
Mbale - Namunsi - Kumi	Bituminous	7	54.686			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.322044	Fair
Kumi - Soroti	Bituminous	7.085106	46.745			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.389322	Fair
Soroti - Dokolo	Bituminous	7.132353	67.444			OPRC 8.5 Years	2018	WORLD BANK & GOU	4.364203	Fair
Dokolo - Agwata	Bituminous	9	23.493			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.31982	Fair
Agwata - Lira	Bituminous	9	31.149			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.919304	Fair
Lira - Ayer	Bituminous	7	27.084			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.585	Fair

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Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
Ayer - Kamdini	Bituminous	7	43.956			OPRC 8.5 Years	2018	WORLD BANK & GOU	3.858747	Fair
Kamdini -Karuma	Bituminous	7	12.157						2.833529	Good
Karuma - Olwiyo	Bituminous	7	51.633	Rehab design ongoing		Rehabilitation		IDA	3.956733	Fair
Olwiyo - Packwach	Bituminous	7	54.406	Rehabilitation ongoing					4.075537	Fair
Packwach - Nebbi	Bituminous	7	53.47	Rehabilitation ongoing					3.656201	Fair
Nebbi - Goli	Unsealed	8.933333	15.141	Designs Ready		Upgrade to paved		GOU		
TOTAL (KM)			529.043							
5.Malaba - Arua										
Nebbi - Eruba	Bituminous	7	63.79	Rehab design ongoing		Rehabilitation		GOU	3.542181	Fair
Eruba - Arua - Manibe	Bituminous	7	18.801	Rehab design ongoing		Rehabilitation		GOU	3.575112	Fair
Manibe - Maracha - Koboko	Bituminous	7	49.903						3.656169	Fair
Koboko - Oraba(Uganda/ Sudan border)	Bituminous	7	18.845						3.326011	Fair
TOTAL (KM)			151.339							
6. Busia -Katuna										
Busia - Namutere	Bituminous	7.294118	16.905						1.732606	Very good
TOTAL (KM)			16.905							
8. Busia - Arua										

Road /Name	Pavement type	Road width (m)	Length (Km)	Work status	Year of completion_ Work status	Planned	Year of start Planned	Source of Funds for Planned	Condition IRI	Rating/ IRI
Busia - Tororo(Malaba junction)	Unsealed	4.795833	24.235	Ongoing upgrade	2024					
TOTAL (KM)			24.235							
10. Kasese - Kakitumba										
Ishaka - Kagamba	Bituminous	7.138889	35.906	Rehabilitation Completed					1.957347	Very good
Ntungamo - Kagamba	Bituminous	7	15.229						3.326389	Fair
Ntungamo-Kakukuru	Bituminous	6.5	13.539						2.701667	Good
Kakukuru-Kafunzo	Bituminous	6.5	16.132						2.845743	Good
Kafunzo-Kakitumba	Bituminous	6.5	6.04						2.588148	Good
TOTAL (KM)			86.846							

INDICATIVE ROAD DISTANCES IN KILOMETERS BETWEEN THE NORTHERN CORRIDOR TRANSIT SECTIONS

	Athi River	Arua	3eni	Bujumbura	Bukavu	Bunia	Busia Busitema	Butembo	eldoret	Gasenyi - Nemba	Goli	Goma	shasha	luba Kagitumba - M/Hills	ƙampala	ƙamdini	ƙanyaru Haut	(apoeta	katuna/ Jatuna Kavimvira - Gatumba	ƙaya - Oraba	ƙayanza	ƙigali	Kisangani Kisumu	Komanda	asu - Aba	ubutu	ukaya	uwero	Vagamaga Vahagi	Vlai Mahiu	Vialaba	viariakani Vibale	Mbarara	Vombasa	viponawe - Kasınaı Vitito Andei	Vadapal	Vairobi	Vesitu	Vimule - Elegu	Jakwachi	Rutshuru	shorongyı Torit	Webuye	/ambio	/ei
Athi River		1065	1239	1505	1510 1	1069	495 50	8 129	94 360	1299 15	50 1024	1386 8	63 1186	1174 108	5 717	837	1387 1	067 11	49 152	5 1140	1411	1230	2014 3	76 1364	1375 75	5 1912	819	785 6	19 1039	100 4	81 4	16 533	984	452 11	.59 19	9 980	29	1156	978	955	1249 12	253 119	4 420	1528	1218
Arua	1065		565	1294	1088	369	611 59	8 62	0 705	1088 93	15 179	904 2	92 795	309 87	4 506	228	1176	565 93	38 1314	4 75	1200	1019	1090 73	30 440	198 31	.0 1490	608	438 6	04 194	982 5	84 14	81 532	773	1517 6	45 126	652	1036	327	407	110	833 10	142 438	3 645	463	153
Beni	1239	565		688	523	196	720 70	7 55	5 879	570 10	89 386	339 6	37 230	874 35	6 522	573	658 1	130 43	20 668	640	682	501	775 83	39 125	763 65	5 925	420	590 6	20 371	1156 7	58 16	55 773	255	1691 8	80 143	88 1217	1210	892	752	455	268 53	24 100	3 819	1028	718
Bujumbura	1505	1294	688		165	884	986 97	3 63	3 1145	242 13	55 1074	431 11	130 723	1441 48	7 788	1066	118 1	649 3	6 20	1369	94	275	864 11	05 813	1492 11	48 567	686	856 8	86 1059	1422 10	024 19	21 1039	521	1957 6	96 170	1736	1476	1423	1245 :	1184	502 29	98 152	2 1085	1757	1447
Bukavu	1510	1088	523	165		719	991 97	8 46	8 1150	349 13	60 909	184 11	318	1446 49	2 793	1071	157 1	653 30	51 145	1163	181	280	699 11	70 648	1286 11	53 402	691	861 8	91 894	1427 10	029 19	26 1044	526	1962 7	01 170	9 1770	1481	1428	1250 1	1189	255 30	03 152	7 1090	1551	1241
Bunia	1069	369	196	884	719		760 74	7 25	1 709	766 10	64 190	535 4	41 426	678 55	2 718	377	854	934 6:	16 864	444	878	697	721 8	79 71	567 45	9 1121	616	587 7	53 175	1131 5	88 16	681	451	1666 2	76 126	8 1021	1040	734	556	259	464 7.	20 833	3 649	832	522
Busia	495	611	720	986	991	760	13	3 77	5 148	780 35	54 570	867 4	09 667	720 56	6 198	383	868	355 63	30 1210	686	892	711	1495 13	19 845	809 30	1393	300	266 1	00 585	395 3	33 9	11 79	465	947 6	40 69	4 768	466	702	524	501	730 73	34 801	1 88	1074	764
Busitema	508	598	707	973	978	747	13	76	2 172	767 36	67 557	854 3	96 855	707 55	3 185	370	855	368 63	17 993	673	879	698	1482 13	32 832	796 28	8 1380	287	253 8	572	408 5	51 93	24 66	452	960 6	27 78	1 781	479	689	511	488	743 73	21 814	101	1061	751
Butembo	1294	620	55	633	468	251	775 76	2	934	625 11	.44 441	284 6	92 285	929 41	1 577	628	713 1	185 43	75 613	695	737	556	830 89	94 180	818 71	.0 870	475	645 6	75 426	1211 8	13 17	10 828	310	1746 1	35 149	3 1525	1265	1212	1034	510	213 5	79 108	4 874	1083	773
Eldoret	360	705	879	1145	1150	709	148 17	2 93	4	939 23	10 664	1026 5	03 826	963 72	5 357	477	1027	707 78	39 116	5 780	1051	870	1654 15	58 1004	903 39	1552	459	425 2	59 519	277 1	21 7	76 173	624	812 7	99 55	9 620	331	945	618	595	889 89	33 834	↓ 60	1168	858
Gasenyi	1299	1088	570	242	349	766	780 76	7 62	5 939	11	.49 1047	225 9	24 359	1235 28	1 582	860	172 1	635 1	50 262	1163	148	69	1345 89	99 695	1286 94	2 751	480	650 6	80 1062	1216 8	18 17	15 833	315	1751 4	90 149	1559	1270	1217	1039	700	422 9	2 1316	5 879	1551	1241
Gilgil	150	915	1089 :	1355	1360 1	1064	354 36	7 114	14 210	1149	874	1236 7	13 1036	1024 93	5 567	687	1237	917 99	9 137	5 990	1261	1080	1864 23	35 1214	1113 60	1762	669	635 4	54 889	67 3	31 5	66 383	834	602 10	009 34	9 830	121	1006	828	805	1099 11	.03 104/	4 270	1378	1068
Goli	1024	179	386	1074	909	190	570 55	7 44	1 664	1047 8	74	725 2	51 616	488 83	3 465	187	1135	744 89	97 1054	4 254	1159	978	911 68	39 261	377 26	9 1311	567	397 5	63 15	941 5	43 14	40 491	732	1476 4	66 122	857	995	544	366	69	654 10	01 643	; 604	642	332
Goma	1386	904	339	431	184	535	867 85	4 28	4 1026	225 12	36 725	10	011 134	1322 36	8 669	947	313 1	469 23	37 329	979	337	156	1114 98	36 464	1102 10	29 586	567	737 7	67 710	1303 9	05 18	802 920	402	1838 4	19 158	1617	1357	1304	1126	794	71 13	33 1403	3 966	1367	1057
Guiu	863	292	637	1130	1135	441	409 39	6 69	2 503	924 7	13 251	1011	811	311 /1	342	64	1012	220 2	4 115	1050	1036	855	1162 5.	28 512	490 10	1537	444	2/4 4	40 266	780 3	82 12	2/9 330	609	1315 7	84 106	606	834	293	115	182	8/4 8/	/8 392	. 443	/55	445
Isnasna	1186	795	230	723	318	426	667 65	4 28	5 826	359 10	36 616	134 8	11 1122	1122 30	3 469	747	44/ 1	330 30	05 1463	1050	4/1	290	1115 /8	36 355	993 84	9 720	367	53/ 5	67 601	1103 /	05 16	502 720 502 641	202	1638 1	50 138	1417	1157	1104	926	865	63 Zt	3/ 120:	3 766	1108	798
Kagitumba	1095	309	874 .	441	1446	5/8	720 70	7 92	9 903	201 03	24 488	1322 3	10 202	1021	269	3/5	260 1	256 10	85 146.	040	202	212	1121 6	39 749 25 401	201 41	9 1848	266	585 /	51 5//	1091 6	93 16	01 610	101	1527 2	76 130	3 343	1056	1002	196	493	266 2	35 110	2 665	1227	1027
Kagitulliba	717	506	530	407	492	710	100 10	5 41	7 257	201 5:	67 ACE	500 7	42 460	652 26	0	279	670	225 1:	01 000	545	555	512	1207 2	17 647	704 26	0 054	102	430 4	00 727	624 2	26 11	22 251	267	1160 4	12 01	c 049	2000	625	023 AE7	206	500 23	26 72	4 207	1557	650
Kampini	837	228	573	1066	1071	377	383 37	0 62	8 477	860 61	87 187	947 6	42 405	375 64	6 278	270	1152	83 7	10 108	303	1176	791	1098 50	17 047	/04 30	2 1473	380	210 3	76 202	754 3	56 12	253 304	545	1289 7	20 103	6 670	808	357	179	118	810 8	14 450	6 417	691	381
Kanyaru Haut	1387	1176	658	118	157	854	868 85	5 71	3 1027	172 12	37 1135	313 10	12 447	1323 36	9 670	1152	1152 .	531 2	10 108	1251	24	157	1427 99	27 783	1374 10	2 1473	772	738 7	68 1029	1304 9	06 18	203 921	403	1839 5	78 158	1618	1358	1305	1127	1066	510 1	80 140	417	1639	1329
Kapoeta	1067	565	1130	1649	1653	934	855 86	8 118	35 707	1635 9	17 744	1469 5	19 1330	256 122	9 861	583	1531	12	93 147	8 490	1555	1374	1681 86	55 1031	457 62	7 2055	963	793 9	59 785	984 8	28 14	183 880	1128	1519 13	130	6 87	1038	238	404	701	1393 12	197 12	7 767	722	412
Katuna	1149	938	420	356	361	616	630 61	7 47	5 789	150 99	99 897	237 7	74 367	1085 13	4 432	710	238 1	293	376	1013	262	81	1195 74	19 545	1136 79	2 763	330	500 5	30 791	1066 6	68 15	65 683	165	1601 3	40 134	8 1380	1120	1067	889	828	151 1	04 116	6 729	1401	1091
Kavimvira	1525	1314	668	20	145	864 1	1210 99	3 61	3 1165	262 13	75 1054	329 11	150 463	1461 50	7 808	1086	138 1	478 3	76	1389	114	295	844 13	29 793	1512 11	68 547	910	876 9	06 1039	1442 10	044 19	41 1059	541	1977 7	16 172	4 1756	1496	1443	1265	1204	400 3	18 154	2 1105	1777	1467
Kaya	1140	75	640	1369	1163	444	686 67	3 69	5 780	1163 99	90 254	979 3	67 1050	234 94	9 581	303	1251	190 10	13 138	9	1275	1094	1165 80	05 515	123 38	5 1565	683	513 6	79 269	1057 6	59 15	56 607	848	1592 10	23 133	9 577	1111	252	430	185	908 11	17 36:	3 720	388	78
Kayanza	1411	1200	682	94	181	878	892 87	9 73	7 1051	148 12	61 1159	337 10	036 471	1485 39	3 694	1176	24 1	555 26	52 114	1275		181	968 10	11 807	1398 10	54 583	796	762 7	92 1053	1328 9	30 18	327 945	427	1863 6	02 161	0 1642	1382	1329	1151	1090	413 20	04 142	.8 991	1663	1353
Kigali	1230	1019	501	275	280	697	711 69	8 55	6 870	69 10	80 978	156 8	55 290	1166 21	2 513	791	157 1	374 8	1 295	1094	181		1296 83	30 626	1217 87	3 682	411	581 6	11 872	1147 7	49 16	546 764	246	1682 4	21 142	9 1461	1201	1148	970	909	227 2	3 124	7 810	1482	1172
Kisangani	2014	1090	775	864	699 7	721 14	495 1482	2 830	1654	1345 18	64 911	1114 1	162 111	5 1399 1	131 12	97 10	8 1078	1681	840	844 116	i5 958	921		1259 65	0 1288	958 29	97 840	1010	1040 89	6 1576 :	1178 2	075 1193	675	2111 5	500 18	58 1890	1630	1455	1277	980	688 94	4 155	4 1239	1553	1243
Kisumu	376	730	839	1105	1170	879	119 13	2 89	4 158	899 23	35 689	986 5	28 786	839 68	5 317	502	987	365 74	1329	805	1011	830	1608	964	928 42	0 1512	419	385 2	19 704	276 1	34 7	92 198	584	828 7	59 57	5 778	347	821	643	620	849 8	53 920	J 98	1193	883
Komanda	1364	440	125	813	648	71	845 83	2 18	0 1004	695 12	261	464 5	12 355	749 48	1 647	448	783 1	031 54	15 793	515	807	626	650 96	64	638 53	0 1050	545	658 7	45 246	1281 8	83 17	780 752	914	1816 2	05 156	3 1595	1335	805	627	330	393 6/	49 904	1 904	903	593
Lasu	1375	198	763	1492	1286	567	809 79	6 81	8 903	1286 11	.13 377	1102 4	90 993	201 107	2 704	426	1374	457 11	36 151	2 123	1398	1217	1288 92	28 638	50	8 1688	806	636 8	02 392	1180 7	82 16	579 730	971	1715 8	43 146	544	1234	219	397	308	1031 12	.40 330) 843	355	45
Lira	755	310	655 :	1148	1153	459	301 28	8 71	0 395	942 60	05 269	1029 1	08 829	419 72	8 360	82	1030	527 79	92 116	385	1054	873	958 42	20 530	508	1555	462	292 3	75 508	672 2	74 11	71 222	627	1207 8	02 95	4 714	726	401	223	200	892 8	96 500	283	773	463
Lubutu	1912	1490	925	567	402 1	1121 1	1393 138	80 87	0 1552	751 17	62 1311	586 15	537 720	1848 89	4 1195	1473	559 2	055 70	53 547	1565	583	682	297 15	12 1050	1688 15	55	1093	1263 12	93 1296	i 1829 14	31 23	328 1446	1180	2364 10	005 214	3 2143	1883	1830	1652 :	1380	657 7	19 192	9 1492	1953	1643
Lukaya	819	608	420	686	691	616	300 28	7 47	5 459	480 66	69 567	567 4	44 367	755 26	6 102	380	772	963 33	80 910	683	796	411	1195 43	19 545	806 46	2 1093	5	170 2	00 582	736 3	38 12	35 353	165	1271 3	40 101	.8 1050	790	737	559	498	430 43	34 83E	399 ز	1071	761
Luwero	785	438	590	856	861	587	266 25	3 64	5 425	650 63	35 397	737 2	74 537	585 43	6 68	210	738	793 50	0 876	513	762	581	1365 38	35 658	636 29	2 1263	170	1	66 412	702 3	04 12	201 319	335	1237 5	10 98	4 880	756	703	525	328	600 60	J4 66F	i 365	901	591
Magamaga	619	604	620	886	891	753	100 87	7 67	5 259	680 45	54 563	767 4	40 567	751 46	6 98	376	768	959 53	30 906	679	792	611	1395 23	19 745	802 37	5 1293	200	166	578	536 1	38 10	35 153	365	1071 5	40 81	8 879	605	776	598	494	630 58	38 832	199	1067	757
Mahagi	1039	194	371	1059	894	175	585 57	2 42	6 519	1062 88	89 15	710 2	66 601	577 72	7 480	202	1029	785 79	91 1039	269	1053	872	896 70	04 246	392 50	08 1296	582	412 5	78	956 5	58 14	155 506	747	1491 4	51 123	88 872	1010	559	381	84	639 89	35 658	; 619	657	347
Mai Mahiu	100	982	1156	1422	1427 1	1131	395 40	8 121	11 277	1216 6	57 941	1303 7	80 1103	1091 100	2 634	754	1304	984 10	66 1442	2 1057	1328	1147	1931 23	76 1281	1180 67	2 1829	736	702 5	36 956	3	98 5	16 450	901	552 10	076 29	9 897	71	1073	895	872	1166 11	.70 1111	1 337	1445	1135
Malaba	481	584	758	1024	1029	588	33 51	81	3 121	818 33	31 543	905 3	82 705	693 60	4 236	356	906	328 66	58 104	4 659	930	749	1533 13	34 883	782 27	4 1431	338	304 1	38 558	398	8	97 52	503	933 6	78 68	0 741	452	675	497	474	768 77	12 774	61	1047	737
Mariakani	416	1481	1655 3	1921	1926 1	1630	911 92	4 171	10 776	1715 56	66 1440	1802 12	279 1602	1626 150	11133	1253	1803 1	483 15	65 194:	1 1556	1827	1646	2430 79	92 1780	1679 11	71 2328	1235	1201 10	035 1455	516 8	97	949	1400	36 15	575 21	7 1396	445	1572	1394 1	1371	1665 16	69 1610) 836	1944	1634
Mbarara	533	532	773	1039	1044	681	79 66 4CE 4E	> 82	8 1/3	833 38	83 491	920 3	30 720	641 61	9 251	304	921 1	120 14	33 105	9 607	945	764	1548 19	98 752 014 014	/30 22	2 1446	105	319 1	53 506	450 :	02 9	49	518	985 6	93 73	2 936	504	623	445	422	783 74	+1 /22	. 113	995	685
Mombara	984	1517	255	521	526	451	465 45	2 31	0 624	315 8:	34 732	402 6	09 202	920 10	1 267	545	403 1	128 10	01 107	848	427	246	1030 58	34 914	9/1 62	27 1180	105	335 3	1401	901 5	03 14	00 518	1420	1436 1	/5 118	1422	955	902	1420	1407	265 26	39 100.	1 684	1236	926
Mnondwe	452	645	80	606	701	276	947 90 640 62	7 12	5 700	490 10	1476	410 7	84 150	1002 155	6 442	720	579 1	202 2/	10 716	1022	602	421	2400 8	20 205	942 90	12 1005	240	510 F	40 451	1076 6	79 15	75 602	175	1611	120	3 1432	401	1077	200	525	212 4	44 117	6 720	1108	709
Mtito Andei	100	1264	1429	1704	1709 1	1269	694 70	7 140	3 733	1/09 2/	400	1595 10	1205	1272 129	442	1026	1596 1	266 12	49 172	1 1220	1610	1420	2212 5	75 1562	1462 05	1 2142	1019	094 9	10 1220	200 6	20 2	17 722	1192	252 12	135	1170	229	1255	1177	1154	1449 1/	152 120	2 610	1727	1417
Nadanal	980	652	1217	1736	1770 1	1021	768 78	1 153	25 620	1559 83	30 857	1617 6	06 1417	343 131	6 948	670	1618	87 13	80 172	5 577	1642	1425	2213 5	78 1595	544 71	4 2143	1018	880 8	79 872	897 7	41 13	17 732	1215	1432 13	190 117	11/5	951	325	491	788	1440 14	184 21/	4 680	809	499
Nairobi	29	1036	1217	1476	1481 1	1040	466 47	9 126	5 331	1270 13	21 995	1357 8	34 1157	1145 105	6 688	808	1358 1	038 11	20 149	5 1111	1382	1201	1985 34	17 1335	1234 73	6 1883	790	756 6	05 1010	71 4	52 4	45 504	955	481 11	30 22	8 951	551	1127	949	926	1220 17	224 116	5 391	1499	1189
Nesitu	1156	327	892	1423	1428	734	702 68	9 121	12 945	1217 10	06 544	1304 2	93 1104	18 100	3 635	357	1305	238 10	67 144	3 252	1329	1148	1455 83	21 805	219 40	1 1830	737	703 7	76 559	1073 6	75 15	72 623	902	1608 10	077 139	5 325	1127	112,	178	408	1167 11	71 11	1 736	484	174
Nimule	978	407	752	1245	1250	556	524 51	1 103	34 618	1039 83	28 366	1126 1	15 926	196 82	5 457	179	1127	104 88	39 126	5 430	1151	970	1277 64	13 627	397 22	3 1652	559	525 5	98 381	895 4	97 13	94 445	724	1430 8	99 117	7 491	949	178		297	989 9	93 27	7 558	662	352
Pakwach	955	110	455	1184	1189	259	501 48	8 51	0 595	700 80	05 69	794 1	82 865	493 76	4 396	118	1066	701 83	28 120	4 185	1090	909	980 62	20 330	308 20	0 1380	498	328 4	94 84	872 4	74 13	371 422	663	1407 5	35 115	4 788	926	408	297		723 9	32 57/	4 483	573	263
Rutshuru	1249	833	268	502	255	464	730 74	3 21	3 889	422 10	99 654	71 8	74 63	1185 36	6 532	810	510 1	393 1	51 400	908	413	227	1043 84	19 393	1031 89	2 657	430	600 6	30 639	1166 7	68 16	65 783	265	1701 2	13 144	8 1480	1220	1167	989	723	2	55 126	6 829	1296	986
Shorongyi	1253	1042	524	298	303	720	734 72	1 57	9 893	92 11	.03 1001	133 8	78 267	1189 23	5 536	814	180 1	397 10	318	1117	204	23	1299 85	53 649	1240 89	6 719	434	604 5	88 895	1170 7	72 16	69 741	269	1705 4	44 145	2 1484	1224	1171	993	932	255	127	0 829	1505	1195
Torit	1194	438	1003	1522	1527	833	801 81	4 108	34 834	1316 10	643	1403 3	92 1203	129 110	2 734	456	1404	127 11	66 154	2 363	1428	1247	1554 93	20 904	330 50	0 1929	836	666 8	32 658	1111 7	74 16	510 722	1001	1646 11	.76 139	3 214	1165	111	277	574	1266 12	270	894	595	285
Webuye	420	645	819	1085	1090	649	88 10	1 87	4 60	879 2	70 604	966 4	43 766	754 66	5 297	417	967	767 73	9 110	5 720	991	810	1594 9	8 904	843 28	3 1492	399	365 1	99 619	337 (51 8	36 113	684	872 7	39 61	9 680	391	736	558	483	829 8	29 894	1	1108	798
Yambio	1528	463	1028	1757 :	1551	832 1	1074 106	51 108	33 1168	1551 13	78 642	1367 7	55 1108	466 133	7 969	691	1639	722 14	01 177	7 388	1663	1482	1553 11	93 903	355 77	3 1953	1071	901 10	67 657	1445 10	047 19	944 995	1236	1980 11	.08 172	809	1499	484	662	573	1296 15	05 595	1108 ز		310
Yei	1218	153	718 :	1447	1241	522	764 75	1 77	3 858	1241 10	68 332	1057 4	45 798	156 102	7 659	381	1329	112 10	91 146	7 78	1353	1172	1243 88	33 593	45 46	3 1643	761	591 7	57 347	1135 7	37 16	685	926	1670 7	98 141	499	1189	174	352	263	986 11	.95 285	5 798	310	





The Permanent Secretariat 1196 Links Road, Nyali | P.O. Box 34068-80118 Mombasa, Kenya

Telephone: +254 729 923574

E-mail: ttca@ttcanc.org | Website: www.ttcanc.org