NORTHERN CORRIDOR TRANSPORT OBSERVATORY

RELIABLE PERFORMANCE DATA

NORTHERN CORRIDOR QUARTERLY PERFORMANCE DASHBOARD

JULY TO SEPTEMBER

2021

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Growing Prosperity Through Trade

Report by the Permanent Secretariat of the
Northern Corridor Transit and Transport Coordination Authority
Transport Observatory Technical Team
October 2021

Northern Corridor Transit and Transport Coordination Authority (NCTTCA)
P.O. Box 34068-80118
Mombasa, Kenya,
Tel.: (+254) 729 923 574
www.ttcanc.org

TradeMark East Africa (TMEA)
P.O. Box 313 – 00606
Nairobi, Kenya,
Tel.: (+254) 20 423 5000
www.trademarkea.com

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QUARTER SUMMARY BRIEF

This report is part of the series of quarterly reports prepared by the Northern Corridor Transit and Transport Coordination Authority (NCTTCA) in furtherance of its mandate to monitor and report regularly on the performance of the Corridor. It covers the performance of Mombasa Port and Northern Corridor Charter indicators for three months from July to September 2021. Indicators discussed in the report present the performance status on implementing the Mombasa Port & Northern Corridor Community Charter quarterly. The performance indicators have been monitored to track various initiatives agreed upon since the Charter was signed in 2014 and reviewed in 2018 to enhance the efficiency of the Port and the Corridor at large. The report also compares performance for a comparable quarter of previous years to understand and track improvements and challenges along the Corridor.

The Charter aims to realize increased efficiency in trade logistics and was a culmination of extensive consultations with both private and public sector stakeholders on the upgrading and improved coordination of the monitoring and evaluation of the logistics services. The findings from these reports are often utilized in setting strategic interventions and policy inferences to improve the Corridor's efficiency.

30

Percentage increase in merchandise trade value in the first half of 2021

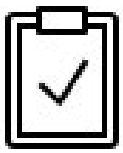
*Global trade is expected to continue growing during 2021. Preliminary data for the first half of 2021 indicates an increase in the merchandise trade value of about **30%** compared to 2020 and about **15%** compared to 2019 (UNCTAD 2021). Further, global trade is projected to recover during the second half of 2021.*

*The Port of Mombasa recorded an average ship turnaround time of **60 hours** in September 2021 which is within the set target of **75 hours**. This is a reflection that the concerted efforts by stakeholders are bearing fruits. The positive performance could be attributed to the initiatives that have been implemented, including modernization of equipment and expansion of berth that has led to the improvement of this target.*

*The Port's Average Container Import Dwell Time worsened from **68 hours** in August 2021 to **75** in September 2021. However, a comparison with the same quarter in 2020 showed a significant improvement in dwell time for the quarter of 2021. This was partly due to the measures put in place to curb the COVID-19 pandemic. Further, data show that time taken at the Port after customs release cargo improved significantly for the quarter of 2021 and was within the set target of **36 hours** compared to the same quarter of 2019. In addition, time for customs clearance at the Document Processing Center (DPC) and customs One Stop Centre Clearance Time posted positive growth*

during the quarter ending September 2021.

Weighbridge traffic increased marginally in 2021 by 699 trucks from 63,121 trucks in the similar quarter of 2020, and this could partly be linked to the implementation of standard gauge rail. Athi River and Gilgil Weighbridge traffic reduced cumulatively by ***3%*** *and* ***42%*** *respectively in July to September 2021 quarter compared to a similar period in 2020. Athi- River weighbridge recorded the highest traffic compared to other weighbridges on the Corridor. The weighbridge handles traffic originating from/to the Port of Mombasa, both local and transit cargo and traffic originating from/to Namanga Border Point. Further analysis on weighbridges compliance levels shows over* ***94%*** *performance compliance except for Busia weighbridge, whose compliance level averaged* ***84%.*** *Low compliance at the Busia weigh weighbridge could be attributed to the weighbridge implementation of every axle compliance while the rest of the weighbridges register group axle compliance.*



ABOVE
94%

Weighbridge compliance along the Northern Corridor in Kenya

DEVELOPMENT OF VIRTUAL WEIGHBRIDGES ALONG THE NORTHERN CORRIDOR TO ENHANCE AXLE LOAD COMPLIANCE

Introduction

Axle load compliance is critical for maintaining transport infrastructure's condition, longevity and enhancing road transport safety. Transport corridors with a high level of compliance benefit from increased efficiency stemming from reduced transit times, costs of doing business, the cost for repairing and maintaining infrastructure, accidents and related damage to the freight. The Northern Corridor had recorded significant progress in improved infrastructure development and harmonization of transport and trade facilitation policies in the region.

Among the policies regulating trade in the region is the East Africa Community Vehicle Load Control Act, 2016 (EAC VLC Act 2016). The Act, which was gazetted in 2016, limits weights on the roads to protect roads by curbing overloading. Overloading[1] is among the key determinants of road deterioration. Overloading on axles leads to faster road pavement deterioration while exceeding vehicle load gross limits destroys bridges. Therefore, trucks are expected to comply with the set vehicle load limits to protect the road infrastructure. Under the Northern Corridor, the maximum permissible axle loads, applicable to axles with four-wheel per axle, shall be those specified under the EAC/COMESA/SADC Tripartite from time to time. In addition, the total maximum laden weight of any vehicle shall in no case exceed 56 tonnes. The current permissible limits are specified in the table below:

NORTHERN CORRIDOR Axle Load Limits specified under EAC/ COMESA/ SADC Tripartite

1 Overload" means an axle load, a load from a group of axles, or gross vehicle weight on a vehicle that exceeds the prescribed legal limits for the vehicle or for any particular part of public roads.

Table 1 Tripartite Permissible Axle Limits

Steering Axle	Single Axle	Single Tyres	8,000 kg
Non-Steering Axle	Single Axle	Single Tyres	8,000 kg
		Dual Tyres	10,000 kg
	Tandem Axle Unit	Single Tyres	16,000 kg
		Dual Tyres	18,000 kg
	Tridem Axle Unit	Single Tyres	24,000 kg
		Dual Tyres	24,000 kg

According to the Act, vehicles with a gross weight of 3.5 tonnes and over have to be weighed at weighbridges they pass through. The maximum axle weight for super single tyres is permissible at 8.5 tonnes, whereas the maximum gross vehicle axle load[2] is 56 tonnes, but this depends on the number of axles on the truck and truck configuration.

A weighbridge or railroad scale is a large set of scales, usually mounted on roads and which enables the weight of a vehicle and the content (load) to be ascertained. There are different types of truck scales, including pit weighbridges/in-ground, Above-Ground weighbridges, virtual/ portable truck scales and Weigh-In-Motion weighbridges. In addition, Member States have consented to implement the weigh-in-motion weighbridge. This can mean a more efficient process, as heavy goods vehicles do not need to stop for weighing. Instead, trucks drive over the platform at a steady pace, and their mass is accurately measured. The weighbridges, therefore, help to determine the weight of cargo passing at the weighbridge.

As observed in the Mombasa Port and Northern Corridor Community Charter, the Kenyan road serves as an inevitable link because it is the main pathway linking landlocked countries to the Port of Mombasa. Kenyan roads are classified into three categories: Super Highways (Class S); International Trunk Roads (Class A), and National Trunk Roads (Class B), as shown in **Table 2** below;

8.5 TONNES Maximum axle weight for super single tyres

56 TONNES Maximum gross vehicle axle load

Depends on the number of axles and truck configuration

2 Axle load" means the sum of the wheel weight loads of all wheels on any axle;

Table 2 Selected Macroeconomic Performance Indicators

Road Class	Paved	Unpaved	Total(Km)	Description
Super Highway(S)	40	0	40	Highways connecting two or more cities meant to carry a large volume of traffic safely at the highest speed of operation
International Trunk Roads (A)	4,609	2,221	6,830	Link centres of international importance and crossing international boundaries or terminating at international ports
National Trunk Roads (B)	8,463	6,216	14,679	Link nationally important centers
Total (Km)	**13,112**	**8,437**	**21,549**	

Source: KeNHA data 2020

The construction of roads requires the outlay of large amounts of funds. Therefore, there is a need to protect all the improved roads to realize their useful lifespan. This requires enhanced maintenance profiles, improved road use and road wear surveillance mechanisms. Evidence shows that the installation of weighbridges has produced positive results. The

deployment of mobile weighbridges has supported fixed weighbridges. Kenya National Highways Authority manages weighbridges in Kenya (KeNHA), a State Corporation established under the Kenya Roads Act, 2007, to enforce Axle Load Control on the roads

Kenya currently uses a combination of High Speed Weigh in Motion (HSWIM) and Virtual weighbridges to help rid roads of overloaded vehicles. There are nine static weigh-bridges located at Mtwapa, Mariakani, Athi River, Gilgil, Webuye, Rongo, Juja, Busia and Isinya along the Northern Corridor. However, a notable downside of the static weigh-bridges is the lengthy and strenuous process of attending to each vehicle, which is a significant cause of massive traffic gridlocks around the facilities. Towards this end, KeNHA is betting on the digital stations, also known as weigh-in-motion devices, for efficiency to boost regional appeal of Kenya's roads. An automated system will be activated whenever a vehicle with beyond threshold overloads is encountered.

Burundi, Rwanda and South Sudan have no weighbridges at the moment. However, Rwanda had identified eight (8) sites for Weigh in Motion Weighbridges, and two are under Construction/ installation between Kagitumba-Kayonza and Rusumo Kayonza road sections which will be used mainly by trans-border vehicles through Kagitumba and Rusumo Borders. DRC has ten static weighbridges along the Northern Corridor, namely; Kasindi, Butembo, Beni 1, Beni 2, Kasenyi, Mahagi, Aru, Komanda, Batshamba and Nsele.

The High-Speed Weighing in Motion (HSWIM) is comprised of the following basic features:

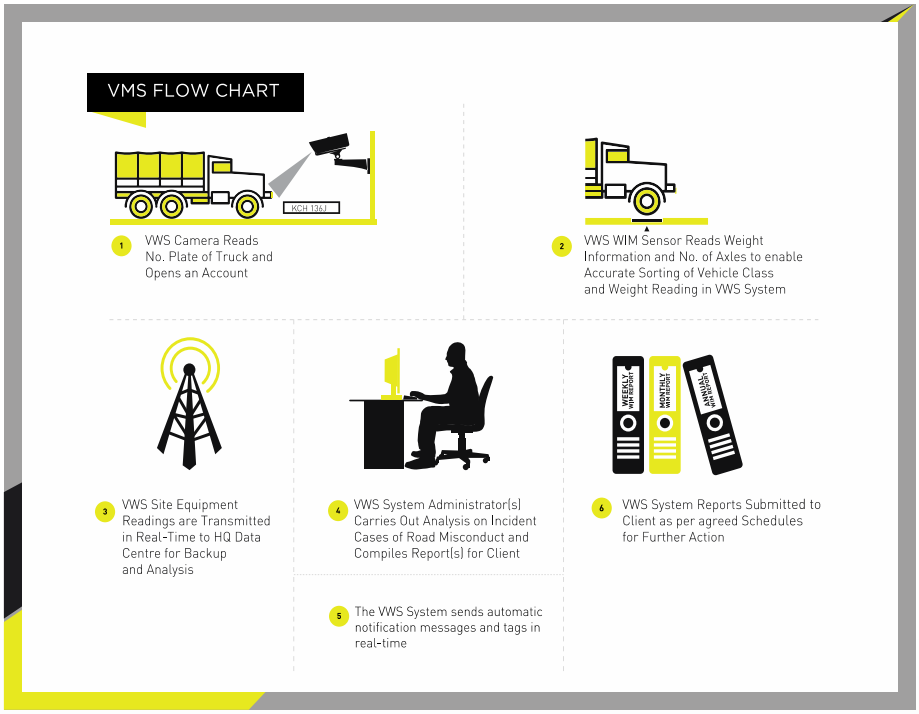
- Overview Camera -weight-violating vehicle documentation
- Automatic number plate recognition (ANPR) cameras
- Staggered half-width sensors, with 3 rows of weighing sensors setup

Virtual Weigh- in- Motion System working principles

Unlike the brick-and-mortar toll stations, the virtual weigh stations can pick records in real-time without asking the driver to slow down or stop the vehicle. Instead, vehicles are automatically weighed and the weighing data transmitted to a central data point for integration. Virtual weigh system provides vehicle records for enforcement, traffic surveillance and/or data collection in real-time over a computer network connected to a laptop, mobile device or workstation computer. There is no need to physically man these stations as the system is designed for true multi-lane bi-directional free flow measurement and verifies the accuracy of all measured parameters of the vehicles in both road directions and when driving between road lanes.

The Virtual Weighbridge System (VWS) runs on a High-Speed Weighing in Motion (HSWIM) backbone, which captures data from the sensors and cameras, classifies the vehicle, and then transmits the database for analyses to the Control Center. In Kenya, the Control Center is housed at the Athi River Weighbridge and has processing units that analyse, store, and allow access to the data through a web-based graphical user interface to the system operators, enforcement unit, and the KeNHA officers charge. In addition, the system having distributed capability allows transmission of live data enabling the people in charge to use the data for enforcement purposes.

Figure 1 Virtual Weigh Station Concept of Operations



As illustrated in **Figure 1**, the following five steps summarize the typical operations of a virtual weigh station:

1. As a truck approaches the virtual weigh station, it is weighed while in motion on the Weigh in Motion scales.
2. A picture of the truck is taken for identification purposes.
3. Screening software integrates data from the Weigh-in-Motion and camera system.
4. Mobile enforcement officer positioned downstream from the Virtual Weighbridge System accesses the Virtual Weighbridge System data (e.g., photo of commercial vehicle, WIM data) and makes a screening decision. Enforcement personnel at the fixed site access the VWS data, including the vehicle photo, Weigh in Motion data and make a screening decision.
5. Overweight trucks vehicle is intercepted for weighing/inspection.

The key objectives of the system include:

1. Protection of pavement and bridge structures against premature damage due to overloaded vehicles.
2. Policing of trucks on Secondary roads attempting to bypass main inspection stations.
3. Better identification of potential violators, leading to more efficient enforcement, increased resources to focus on safety issues.
4. Better data collection to improve road design.
5. A good tool for raising funds and development planning for the road.
6. Improve the efficiency and effectiveness of roadside enforcement assets.
7. Improve resource allocation and staffing decisions through the use of information.
8. Reduce costs associated with the expansion of commercial vehicle size and weight/safety enforcement programs through technology.

Key Concepts

The basic virtual weigh station functionality is based on the following concepts:

- Use roadside technology to augment human enforcement resources;
- Deploy scarce enforcement resources as effectively and efficiently

as possible;

- Accurately identify all commercial vehicles in real-time;
- Determine a commercial vehicle's weight to a degree of accuracy that is sufficient for its functional purpose
- Deliver the vehicle identification and weight data to enforcement personnel in real-time
- Leverage other safety and credentialing data in screening criteria
- Focus enforcement on commercial vehicles that pose the highest risk; and
- Deploy VWS technology in an open and expandable way to integrate future technologies easily and cost-effectively.

Status of virtual weighbridge stations in Kenya

To date, KeNHA has installed, integrated, and manages ten (10) Virtual weighbridges stations at selected locations along the National Highways Road Network.

The virtual weighbridges include: -

1. Archers Post on the Isiolo-Moyale road;
2. Sagana Bridge on the Thika-Nyeri road;
3. Yatta on the Thika-Garissa road;
4. Kamulu on the Nairobi-Kangundo road;
5. Eldama Ravine on the Eldama Ravine-Eldoret road;
6. Kibera on the Nairobi Southern By-pass;
7. Moi's Bridge on the Eldoret-Kitale road;
8. Mayoni on the Mumias-Bungoma road;
9. Ahero on the Mau Summit-Kisumu road; and
10. Mwatate on the Voi-Taveta road.

These ten (10) stations have so far driven compliance to almost **98%** . However, due to the expansion of the road network, KeNHA plans to set up an additional thirteen (13) new virtual weigh stations on major highways to curb overloading and road damage. The additional weigh stations, which take weight measurements as vehicles drive past, will now scale its total number of such stations to twenty-three (23). Further, the virtual weigh stations work best due to the complexity of the network, and they are faster to install and easy to run from a centralized location.

The virtual stations send signals of overloaded vehicles to the Control Room at KeNHA headquarters and flag the violating vehicles whenever

13

Number of Virtual weigh stations KeNHA plans to set up

they arrive at any of the static weighbridges. In addition, there are mobile patrol vehicles on standby to track the vehicles that are caught by the cameras in the virtual weigh stations. The Virtual Weighbridges have improved the efficiency and cost-effectiveness of weighbridge operations, and some immediate gains are in the foresight, and these include: -

1. National Transport Safety Authority, KRA already engaging to be enjoined in the project for information sharing
2. Priority to build up to 20 stations using the same information and technology
3. Best Practices for the region in implementing the same technology.
4. Self-compliance mode has been enhanced

Virtual weigh stations (VWS) have the potential to exponentially expand the geographic scope of a country's enforcement program and limit the number of routes on which a non-compliant vehicle can operate without being detected and/or monitored by enforcement personnel. This improved efficiency is a crucial factor in policy decisions to deploy VWS technology, especially with regard to resources. Thus, VWS technology can improve the efficiency and effectiveness of the country's weight enforcement regime.

Concerning statistics and facts, the VWS assists in providing historical data for making decisions regarding Axle Load Control, data for the prosecution traffic offenders, data on road lane and wheel track measurement, and real-time traffic data for road planning purposes.

Conclusion

Development and implementation of virtual weighbridges stations combined with other technologies has enhanced compliance on the roads, saved operational costs, and removed illegal overloaded vehicles, reducing the costs of premature road repairs and allowing the road Authority to use resources more efficiently. In addition, the VWS are easy to put up and cheaper to manage.

The report recommends:

- Northern Corridor Member States to take advantage of the harmonized Axle Load Control and establish Virtual Weighbridges and High-Speed Weigh in Motion.
- Northern Corridor Member States install VWS in all the feeder/ artery roads that link with the main Northern Corridor.
- Enhance enforcement and reporting mechanisms.

MARITIME INDICATORS

Arrival at Port and Departure from Port are two extremely important aspects of a ship's voyage. Both these procedures are considered critical because of a number of complexities involved with them. Discussions under this sub-section focus on performance on container vessel movement from the arrival of the ship at the outer Port waiting area, the beginning of its entrance into the Port, the arrival at berth, the departure from berth and the release of the ship at the Port of Mombasa for the quarter ending September 2021. Further, Mombasa seaport modernization aligns with International Maritime Organization (IMO) security regulations to make the Port a safer and more efficient space for business. Specific indicators analysed include ships turnaround time and vessel waiting time before berthing at the Port of Mombasa. Finally, a comparison is made with the same quarter of previous years.

1.1 Transit Traffic through the Port of Mombasa

Transit volume is the quantity of cargo discharged and destined to countries outside the Port of loading or discharge.

2,224,745

Transit Throughput July to September 2021

The methodology applied in determining the transit volume is by summation of all cargo's weight in metric tonnes handled at the Port of Mombasa per Country of destination.

The transit countries include all the six Member States of the Northern Corridor and other countries, including Tanzania, Somali and Ethiopia. **Table 3** illustrates the share of throughput of the Port of Mombasa based on the destination market for the quarter ending September 2021. The total transit throughput for the quarter was 2,224,745 tons for July to September 2021, with imports accounting for the highest share of trade volume at **89%**, while exports accounted for **11%**. This suggests that transit countries using the Port of Mombasa are net importers. Uganda remains the top destination accounting for **75%** of all transit traffic through the Port of Mombasa.

Table 3	Transit Volume through the Port of Mombasa in tonnes				
Transit Traffic 2021	July	August	September	Total	% Share of total traffic throughput
Uganda	586,818	596,796	486,440	1,670,055	75.07%
Burundi	76	160	92	329	0.01%
Rwanda	18,020	12,826	17,793	48,639	2.19%
South Sudan	103,166	79,630	80,371	263,167	11.83%
DRC	70,783	58,533	55,554	184,869	8.31%
Others	20,179	19,467	18,041	57,687	2.59%
SUB TOTAL: Imports	720,914	685,281	584,610	1,990,805	89%
SUB TOTAL: Exports	78,128	82,130	73,681	233,940	11%
GRAND TOTAL	**799,043**	**767,411**	**658,291**	**2,224,745**	100%

Source: KPA 2021 data

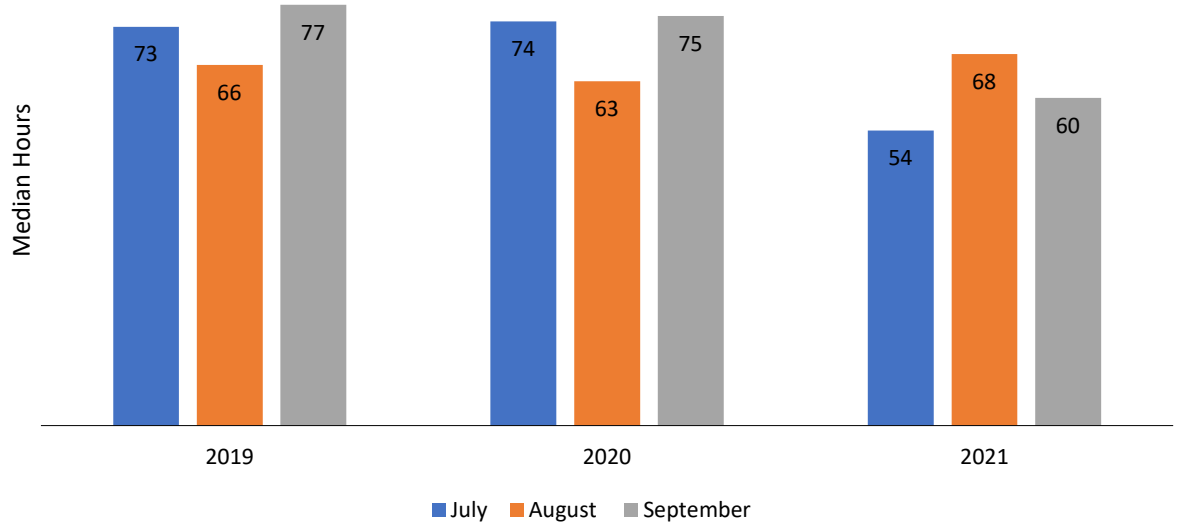
1.2 Ship turnaround time at the Port of Mombasa

The Ship Turnaround Time 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 turnaround time is the sum of waiting time, berthing time, service time and sailing delay. The Mombasa Port and Northern Corridor Community Charter aims to attain vessel turnaround time of **75 hours** by December 2022. Globally, the ultimate goal is to achieve the **24 hours** (1 day) ship turnaround global benchmark time. Evidence has shown that maritime transport carries about **80%** of the world trade. The ever-increasing demand for marine cargo transportation has led to frequent ship calls at seaports.

As presented in **Figure 2**, the quarter performance is within the target of **75 hours**. This positive performance is attributed to berth planning and ship scheduling with channel restrictions, the dredging of the Port channel with additional berths, and the construction of an offshore Single Buoy Mooring, among others. However, compared to previous years, the performance of 2020 was worse off due to the negative effects of the COVID-19 pandemic on the global economies. Therefore, the positive outlook for 2021 remains largely dependent on subsiding pandemic restrictions.

Figure 2 | Average Ship turnaround Time at the Port of Mombasa in hours



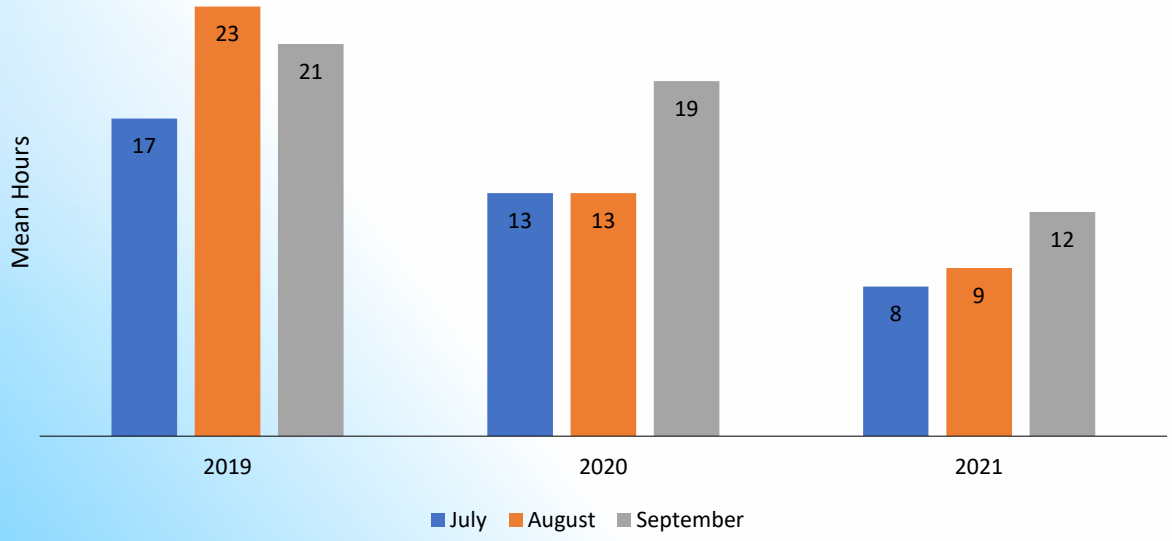
Source: KPA data Jul-Sept various years

1.3 Vessel Waiting Time before berth (hours)

This time is measured from the time the vessel arrives at the fairway buoy to the time of its first berth, including waiting at their convenience.

The set target for this indicator is **12 hours** as per the Mombasa Port and Northern Corridor, Community Charter. As presented in **Figure 3**, the overall ship waiting time improved significantly during the review period compared to previous years. Further, the performance is within the set target of 0.5 days, and this is attributed to the introduction of online exchange of documents by stakeholders and the acquisition of modern tugboats and pilot boats that have boosted berthing operations at the Port.

Figure 3 | Average Vessel Waiting Time before Berth in hours at the Port of Mombasa



Source: KPA data July to September various years

PORT INDICATORS

The Port of Mombasa has two container terminals, 1 and 2. Terminal 1 has three berths (No. 16, No. 17, and No. 18) whereas, Terminal 2 has two berths (No. 20 and No. 2). The seaport is managed by the Kenya Port Authority (KPA). Other facilities and equipment include; 2 bulk oil jetties, 2 bulk cement berths with 3 silos, and 10 Conventional Cargo berths. This section focuses on performance at the Port in terms of time and delays; specifically, container dwell time, One Stop Centre Clearance Time, Time Taken at the Document Processing Centre (DPC) and Delay after customs release at the Port of Mombasa for the quarter covering July to September 2021. A comparative analysis with a comparable quarter for previous years is also analysed.

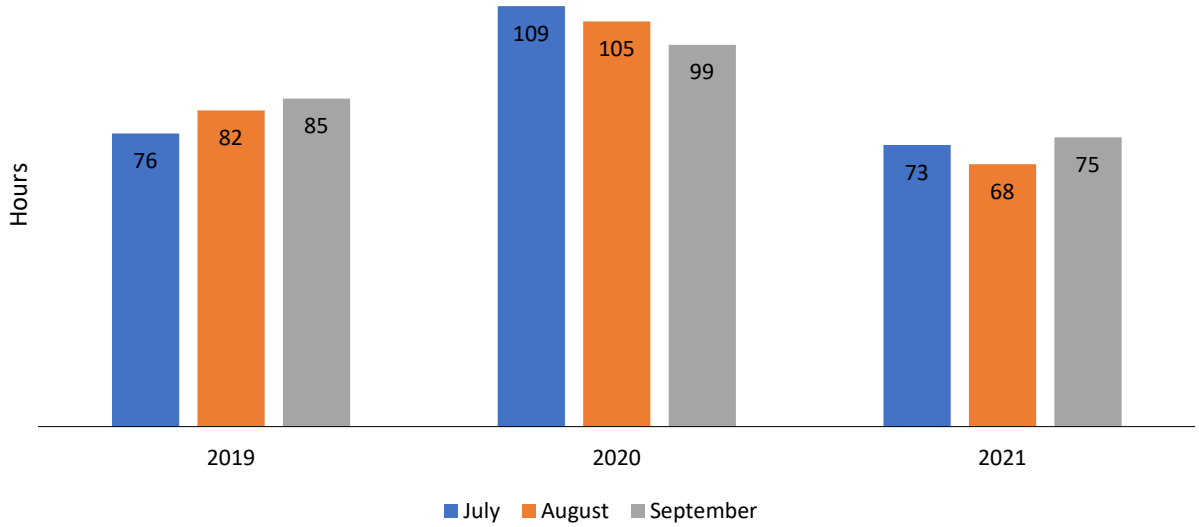
2.1 Containerized Cargo Dwell time at the Port of Mombasa

The Containerized Cargo Dwell Time is the measure of time that elapses from when a container is offloaded at the Port to when it leaves the Port premises.

The methodology applied for this indicator is based on the calendar month the cargo arrived, i.e., the date of entry inward is considered. Therefore, the outlier cases of consignments held from clearance for more than 21 days due to non-compliance issues, court matters, among others, are excluded. Further, dwell time assessment is done separately for Green channel (Facilitated) and Red Channel (Non-facilitated) cargo. For this purpose, cargo that is not subjected to Customs examination is considered as Green Channel cargo.

The set target for cargo dwell time for import containers at the Port of Mombasa is set at **60 hours** by December 2022 as per the Mombasa Port and Northern Corridor Community Charter. Analysis of dwell time helps identify both the problem areas and potential curative actions to enhance the efficiency of the clearance process. Based on the statistics, dwell time for containerized import cargo at the seaport of Mombasa has shown significant improvement over the years, as presented in **Figure 4** below.

Figure 4 | Average import containerized cargo dwell time



Source: KPA data Jul-Sept various years

It took an average of **72 hours** to evacuate containers from the Port premise during the review quarter of 2021, a reduction of **31%** when compared to the same quarter in 2020. However, the report also shows a significant increase in dwell time for the quarter of 2020, and this was attributed to the restriction put in place to curb the spread of COVID-19 as well as the increase in free storage period from 9 to 15 days for domestic export containers and from 9 to 14 days for transit import containers. As a result, the quarter performance for 2021 shows a significant improvement when compared with previous years. However, this performance is still below the Port charter target of 2.5 days' dwell time and 2 days international benchmarking standards.

TARGET: 60HRS

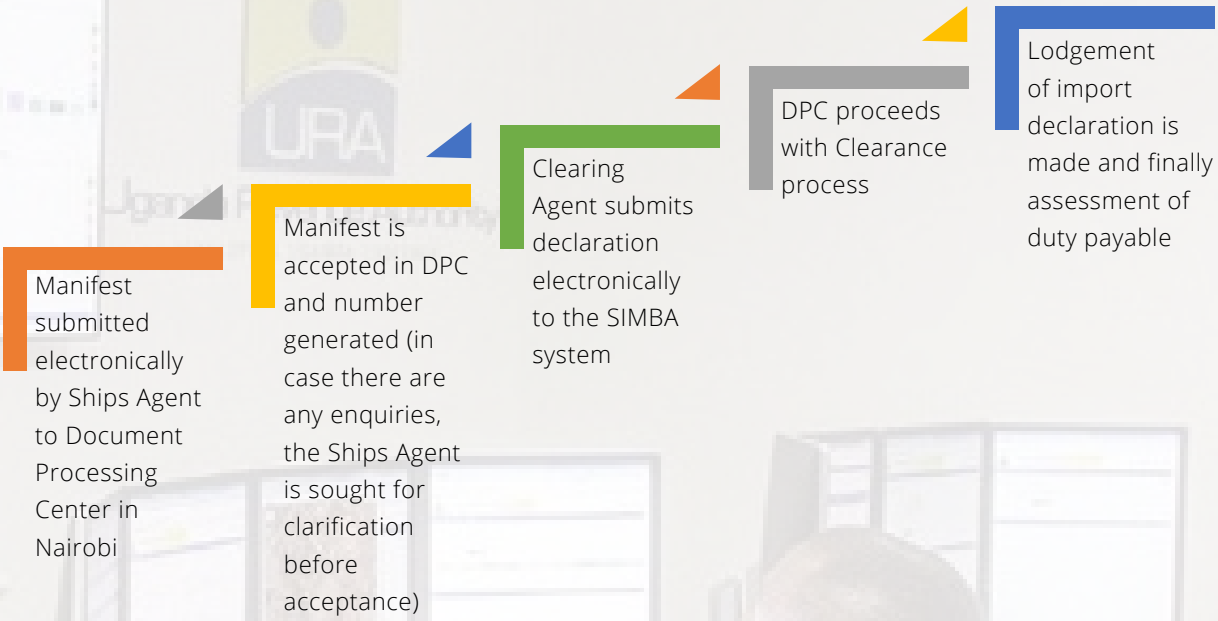
72 HRS

Average time taken to evacuate containers from the Port of Mombasa

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

This refers to the time taken by Customs to pass an entry lodged by a clearing agent. This time bears a proportion to the total Port dwell time.

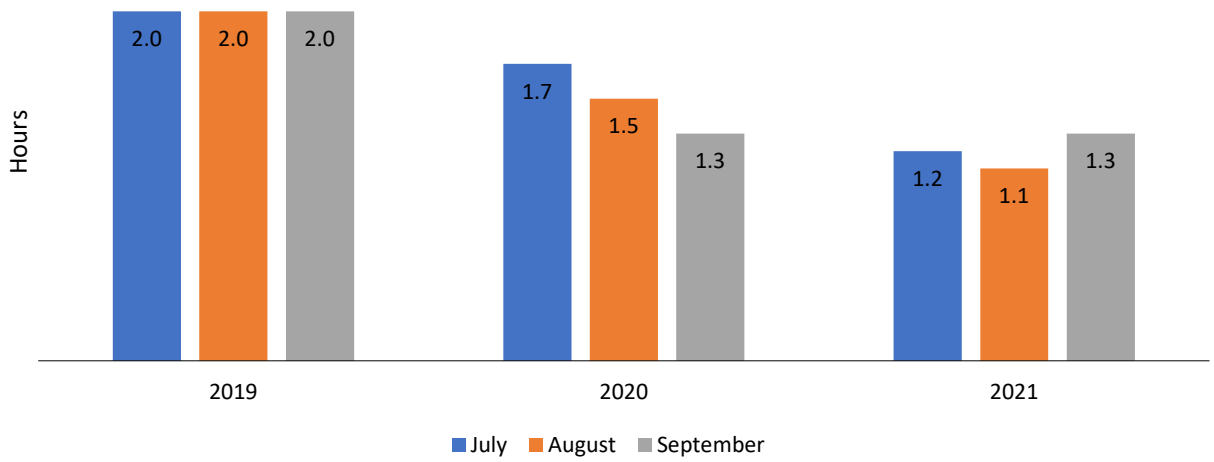
Time taken at the Document Processing Centre involves the following processes:



The Mombasa Port and Northern Corridor Community Charter targets processing at the DPC to be real-time/instant since December 2020. This was to be achieved by full roll-out of the Integrated Customs Management System (iCMS) developed by the Kenya Revenue Authority. Presently the iCMS module for containerized cargo has commenced. Therefore, this implies the DPC process will significantly scale down.

The iCMS consolidates all the existing Customs systems into one. As illustrated in **Figure 5**, the average DPC time for the quarter ending September 2021 remained steady at 1 hour. However, the performance improved when compared to the quarter in 2019 and 2020.

Figure 5 | Average time taken at the Document Processing Centre (DPC)



Source: KRA Jul-Sept various years

2.3 Delay after customs release at the Port of Mombasa

Delay after customs release refers to the period it takes to evacuate the cargo from the Port after Customs officially release it.

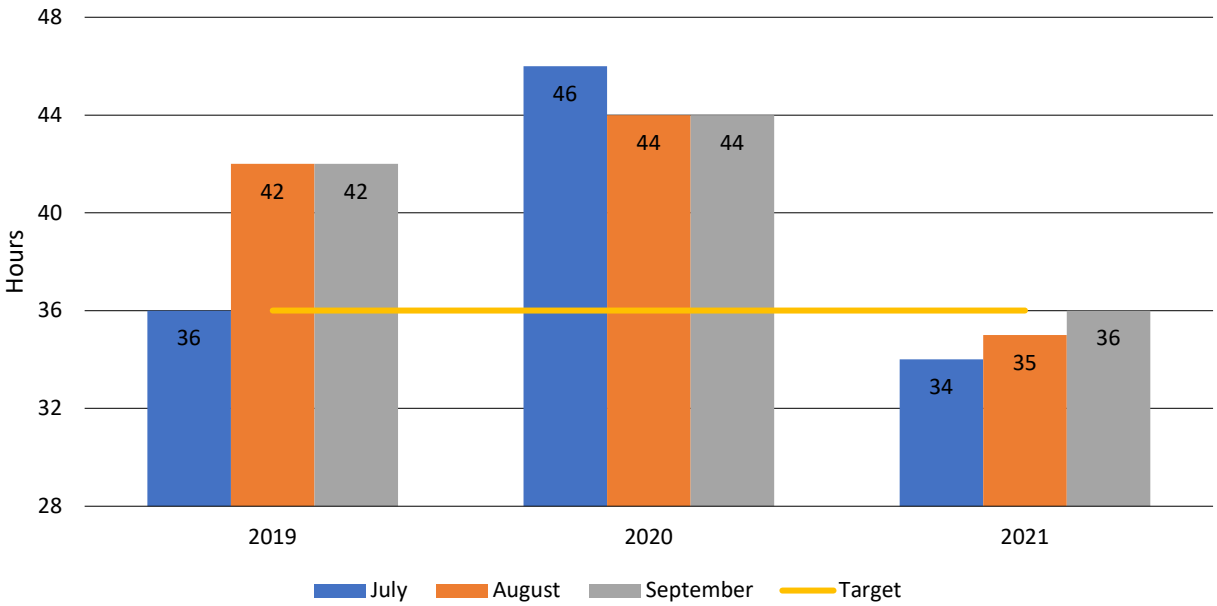
The Mombasa Port and Northern Corridor Community Charter sets to achieve a target of **36 hours**. Statistics from **Figure 6** show that the time taken after customs release improved in 2020 compared to other years and was within the set target of **64 hours**.

Data show that after release time improved significantly by **22%** for the quarter of 2021 compared to the same quarter of the previous two years. The improved performance comes in the wake of automating gate clearance procedures, dedicating special gates to Container Freight Stations (CFSs) and ensuring 24-hour operations. As a result, the performance of this indicator for the quarter under review is within the set target of **36 hours**.

22%

After release time improvement in 2021 quarter compared to similar quarter in 2020

Figure 6 | Average after release customs time at the Port of Mombasa



Source: KRA Jul-Sept various years

2.4 Customs One Stop Centre Clearance Time at the Port of Mombasa

One-Stop Centre Clearance Time is measured as the average time taken from passing a registered customs entry to issuing a release order by customs.

The steps involved between the passing of customs entry registration and issuance of release order are as follows:

- Agent submits documents to the receiving clerk for onward submission to the Head Verification Officer
- Clearing and forwarding Agent also submits copies of the file to other concerned agencies
- Head Verification Officer reviews the documents and instructs the Verification Officer to forward them to the Receiving Clerk
- Receiving clerk prepares a letter to KPA advising that container is subject to verification, and an email is sent to Clearing Agent advising of the same.
- The container is sighted to ensure that it is available for verification/ inspection. The Agent informs the verification officer to arrange a time of verification/inspection

- Joint verification by KPA and concerned agencies is conducted
- The Agent obtains release stamps from all agencies involved in the verification
- Document file is returned to Verification Officer who creates examination report and submits to Head Verification Officer for examination
- Head Verification Officer releases cargo on the system, which generates Release Order electronically
- Release Order is electronically transferred to KPA

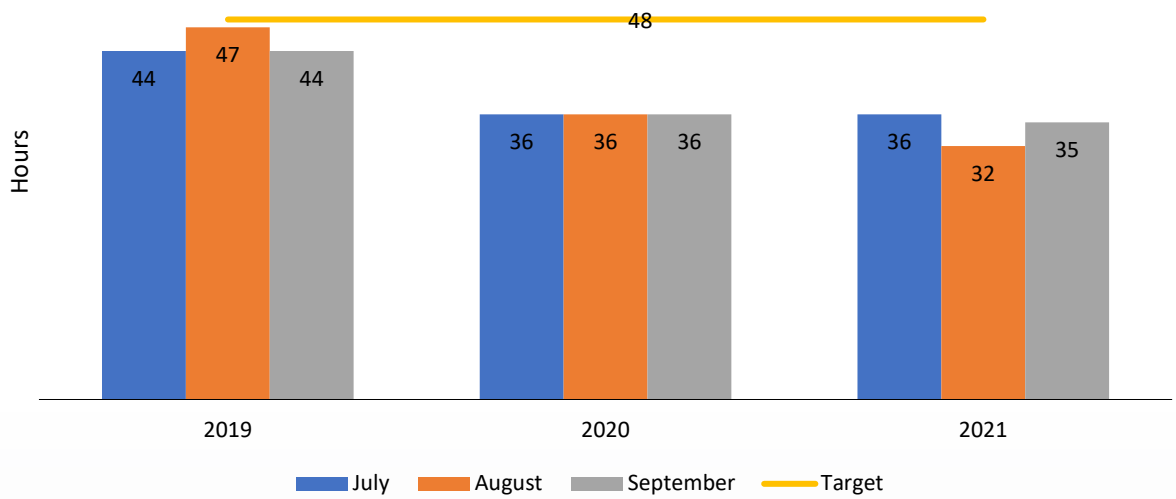
The Mombasa Port and Northern Corridor Community Charter sets to achieve the target of **48 hours** by December 2022. In the review quarter ending September 2021, 21,688 observations were analysed to determine the average customs one-stop centre time. Statistics show an improvement from an average of **36 hours** in the 2020 quarter to **34 hours** in 2021, as presented in **Figure 7**. Thus, the performance is within the set target of **48 hours**. This could be attributed to the early submission and amendment of customs entries by clearance agents and the coordination of joint cargo verification.

TARGET: 48HRS

34 HRS

Average customs one-stop centre time

Figure 7 | Customs one-stop clearance time at the Port of Mombasa



Source: KRA Jul-Sept various years

2.5 Rwanda Revenue Authority (RRA) Customs Time and Delays

The Mombasa Port and Northern Corridor Community Charter commits the Rwanda Revenue Authority to facilitate the fast-processing release of transit cargo and reduce clearance times for transit cargo. The indicators analysed in this report include; customs release time, delay processing time, and after release time from the ASYCUDA system.

The process of clearance under SCT is as follows:

- The clearing Agent lodges an entry into ASYCUDA, which is interfaced with other agencies under a single-window system (Rwanda Electronic Single Window) that allows all the border agencies to interface with ASYCUDA when a consignment is dealt with at Mombasa.
- The Agent self-assessed taxes/bond security and pays taxes in the bank where applicable
- Customs processes and electronically issues entry release to Agent.
- If a consignment is dealt with at Mombasa, the Agent requests for the physical release of goods from the RRA Mombasa office; RRA issues a physical goods release order (Exit Note) to the Agent
- Basing on the Exit Note, KRA processes the final release of goods from the Port on Form C2, which accompanies the goods to exit border station and also seals the goods where applicable
- Seals are applied at Mombasa, and the other agencies conduct their procedures when the truck/goods arrive at the trader's premise in Rwanda.

2020: 42HRS

31 HRS

Average Rwanda Revenue Authority (RRA) Customs Time

As presented in table 4, the average time between passing/acceptance of customs entry registration and issuance of customs release order improved from an average of **42 hours** in the 2020 quarter to **31 hours** during the review quarter of 2021. Similarly, the average time between the custom release order to the exit, i.e., evacuating the cargo from the Port after it is officially released by customs, improved from **38 hours** in July to **15 hours** in September 2021.

Table 4	RRA SCT Release at the Port of Mombasa

	After release time		Customs release time		Processing time	
	2020	2021	2020	2021	2020	2021
July	25	38	48	32	27	33
August	31	20	38	36	25	42
September	14	15	41	24	19	30

Source: RRA SCT Asycuda Jul-Sept various years

CORRIDOR INDICATORS

Corridor Indicators cover the period from when goods are released at the Port/ inland container depots to exit at the border and final destinations. In this category, the indicators of interest are compliance levels at weighbridges, traffic volume, and transit time along the respective routes on the Northern Corridor.

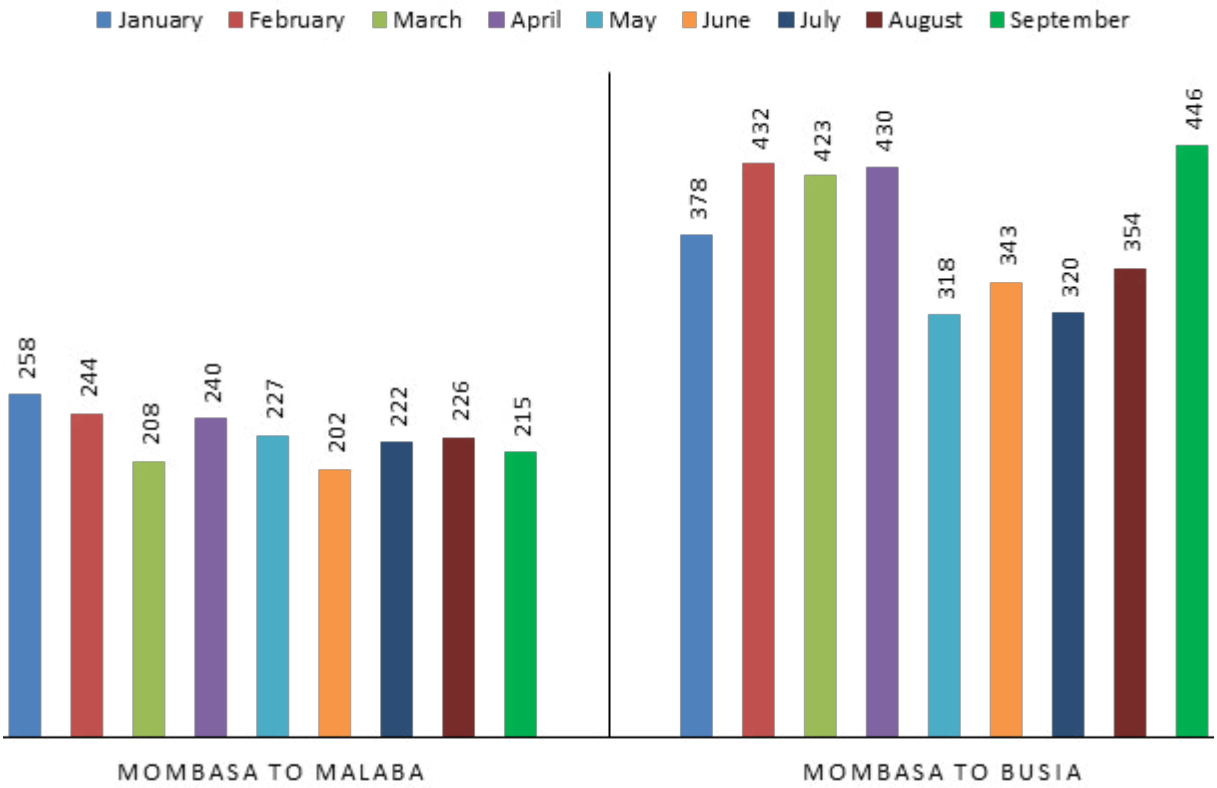
3.1 Transit Time in Kenya using SIMBA System Data

Transit time in Kenya estimates the period from when cargo is removed from the Port of Mombasa to when the export certificate is issued after crossing the border at Malaba or Busia.

The set target for transit time from Mombasa to Malaba is **40 hours**, and Mombasa to Busia is **45 hours** by December 2022 as stipulated in the Mombasa Port and Northern Corridor Community Charter.

A total of 26,616 trucks were sampled to measure the transit time from the Port of Mombasa to Malaba border route, and a total of 425 trucks were sampled for the Mombasa- Busia route during the quarter ending September 2021. All these trucks were issued with a certificate of export at the respective borders. Both borders are the first exit points from Kenya to Uganda along the Northern Corridor. Traffic on these sections goes through five weighbridges (Mariakani, Athi River, Gilgil, Webuye and Busia). As presented in **Figure 8** below, the average transit time on the Mombasa – Malaba and Mombasa – Busia route indicates that there still exist barriers to cargo movement along the corridor routes. In addition, in the period under analysis, vehicle movement along both routes was affected by delays encountered by transporters to meet the COVID health protocols.

Figure 8 | Transit time from Mombasa to Malaba and Busia in hours

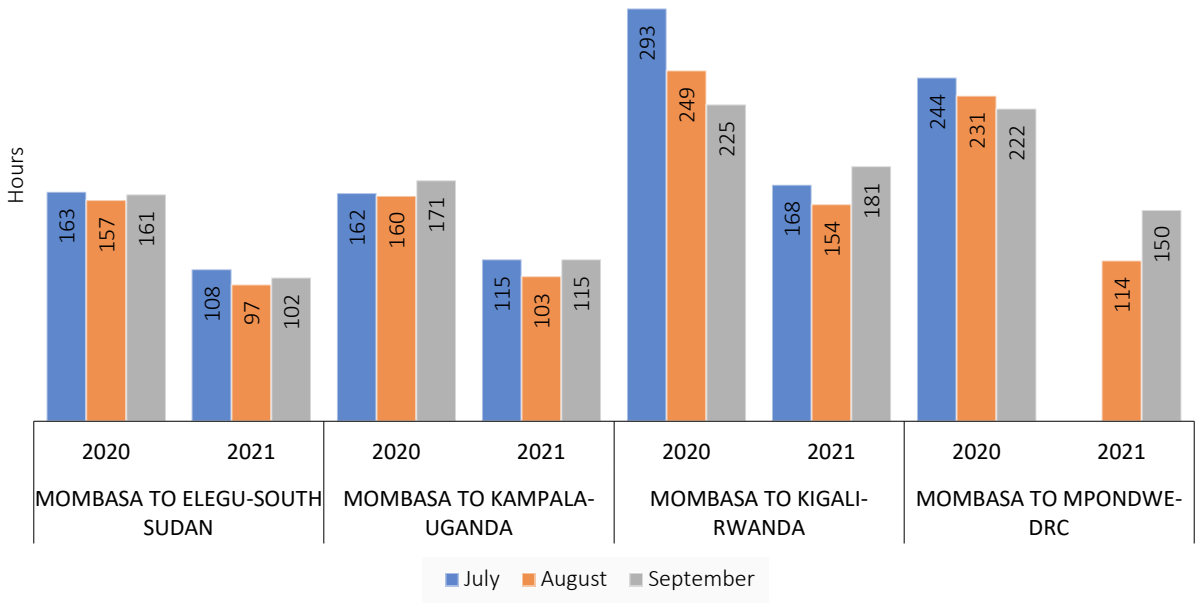


Source: KRA Jan-Sep 2021

3.1.1 Origin (Mombasa) to Destination

Figure 9 provides transit time from the Port of Mombasa to Kampala/ Uganda, Kigali/Rwanda, Elegu-Nimule border/South Sudan and Mpondwe for the quarter ending September 2021. Comparing performance with the similar quarter previous year of 2020 shows a significant reduction in transit time across all the analysed routes. Transit time varied on different routes depending on distance, the status of the road, and non-tariff barriers. These routes recorded higher transit times in the review quarter, which was occasioned by the extended time taken to process driver COVID-19 test results as a requirement for the COVID-19 health protocol. The Mombasa- Elegu route was the fastest, with an average speed of 14 km per hour. The Mombasa to Kigali route registered an average speed of 10 km per hour during the review period. There has been a massive investment along the Corridor to ensure the reduction of transit time. The initiatives include improvement/expansion of road infrastructure, implementation of the SCT framework for clearance of goods, and one-stop border points, among others, indicating enhanced efficiency.

Figure 9 | Transit time from the Port of Mombasa to various destinations



Source: RECTS data, Jul-Sep 2020/2021

3.2 Transit Time in Uganda

Transit time in Uganda tracks the time taken to move cargo between Kampala and various borders of the Northern Corridor Member States of Rwanda, South Sudan and DRC, as presented in table 5. All these borders are one-stop-border-post expected to reduce transit time for smooth cargo flow, from the analysis time taken varied depending on the distance. It can be noted that Kampala to Oraba was the fastest route and averaging 14 km per hour compared to Kampala to Mirama Hills route that was the slowest, averaging 5 km per hour over the review period. This good performance could be attributed to good road condition by tarmacking of Vurra- Arua- Koboko- Oraba road. However, the low performance was attributed to the frequency of stoppages by drivers along the Corridor, such as Rest /Meals, border delays, and stoppages due to personal reasons.

Table 5	Transit time from Kampala to Various destinations in hours			
	Distance (KM)	July	August	September
Kampala to Mirama Hills	368	52	81	72
Kampala to Mpondwe	442	40	39	39
Kampala to Ntoroko	463	51	51	75
Kampala to Elegu	457	32	35	38
Kampala to Oraba	581	38	44	39

Source: URA RECTS January-September 2021

3.3 Transit time in Rwanda

Transit time in Rwanda is the time duration from the time a truck is allowed (electronically in Rwanda Revenue Authority's system) to commence the transit journey to the time the bond is cancelled on the exit border. **Table 6** below shows the transit times in Rwanda from Kagitumba and Cyanika borders for the quarter ending September 2021 using the Regional Electronic Cargo Tracking System. From the analysis, average transit time varied across the routes depending on the distance and measures put in place to cope with the COVID-19 pandemic. However, it can be seen that all the routes analysed witnessed poor transit time.

Table 6	Average Transit time in Rwanda in hours Apr-Jun 2021		
	July	August	September
Kagitumba to Mururu	50	63	56
Kagitumba to Kigali	390	92	66
Kagitumba to Rubavu	46	58	54
Cyanika to Rubavu	29	41	65

Source: RRA July to September 2021

3.4 Weighbridge performance in terms of traffic

The indicator measures the average number of trucks weighed per day at the various weighbridges. **Table 7** illustrates average daily traffic at five weighbridges for inbound and outbound trucks, namely Mariakani, Athi River, Gilgil, Webuye and Busia.

Comparing the quarter performance with the previous year, average daily traffic at Mariakani weighbridge increased by **65%** in the 2021 quarter. This traffic mainly originates from the Port of Mombasa and comprises both local and transit cargo. Similarly, average daily traffic at Webuye weighbridge increased by **79%** in the 2021 quarter from 5,027 in September 2020. Contrary, average daily traffic at Gilgil weighbridge reduced by **42%** in the 2021 quarter.

Athi- River weighbridge recorded the highest traffic during the review quarter, including traffic originating from the Port of Mombasa and Namanga Border Point. This traffic was reduced by **50%** at Gilgil weighbridge, given that some of it was destined for Nairobi and its environs. Busia Weighbridges recorded low traffic, which majorly comprises transit cargo heading to Busia border point

Table 7 Weighbridge traffic through Kenyan weighbridges

Mariakani		Athi River		Gilgil		Webuye		Busia	
2020	2021	2020	2021	2020	2021	2020	2021	2020	2021
3,827	4,901	9,531	7,831	7,307	4,403	1,881	3,093	702	729
3,083	5,587	8,041	8,031	7,403	4,173	1,643	3,102	654	691
2,921	5,707	7,039	7,964	6,992	3,994	1,503	2,802	594	812

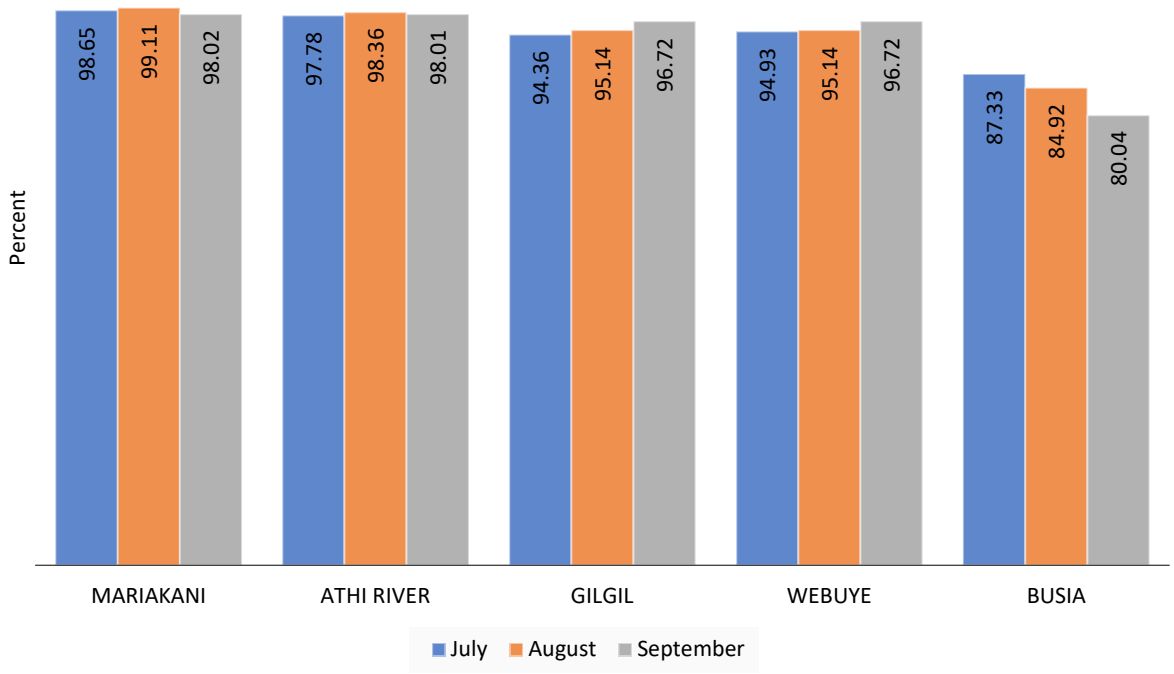
Source: KeNHA, various years

3.5 Weighbridge performance in terms of compliance

The indicator measures the percentage of trucks that comply with the gross vehicle weight and the vehicle axle load limits before and after redistribution of cargo as stipulated in the EAC Vehicle Load Control Act of 2016.

Data for the quarter ending September 2021 shows high compliance at Mariakani, Athi River, Gilgil and Webuye Weighbridges, with **95%** to **99%**. However, Compliance at the Busia Weighbridge was the lowest, as shown in **Figure 10**. It is important to note that Busia Weighbridge does not use the HSWIM technology, which reduces its efficacy. In addition, there is a possibility that the Busia weighbridge handle cargo that originates from the region but has not been weighed elsewhere.

Figure 10 | Weight Compliance Level at weighbridges in Kenya



Source: KeNHA, 2021

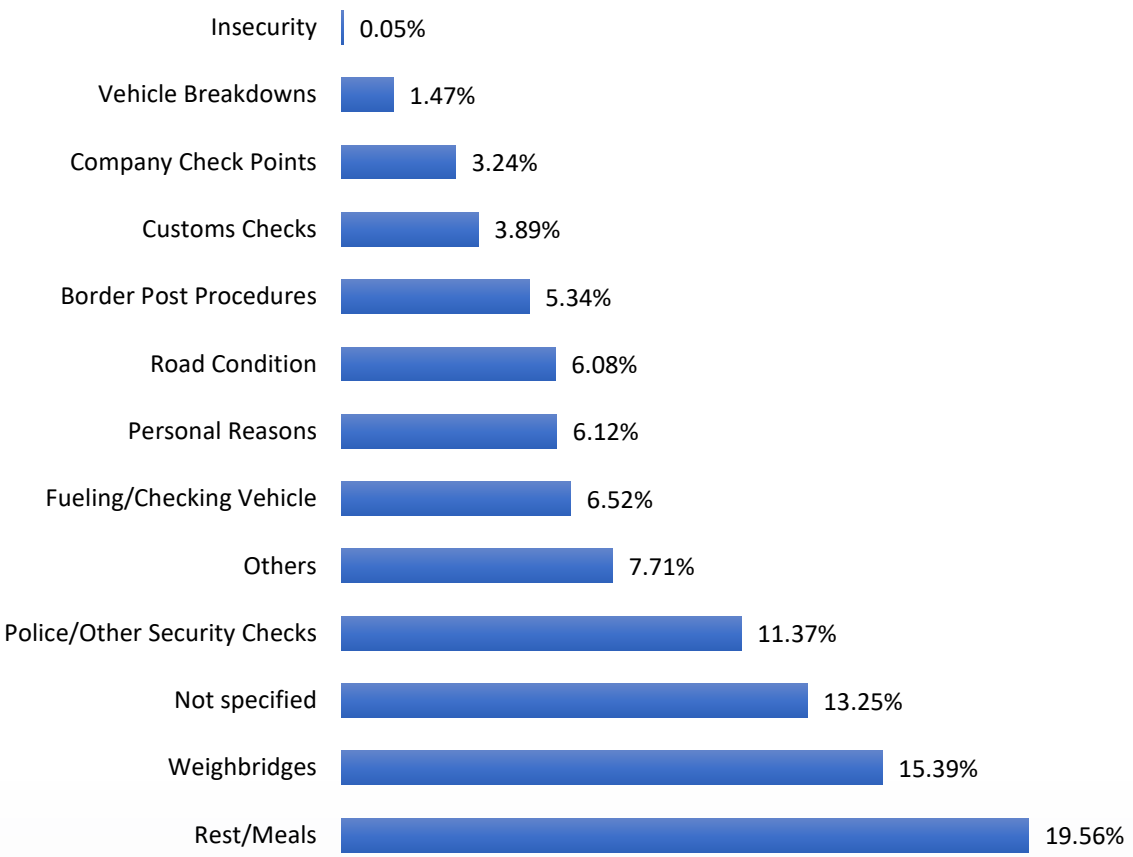
3.6 Road Transport survey data analysis

The NCTTCA Secretariat conducts road transport surveys to gather information relating to operations and efficiency of the transit route from transporters and truck drivers. Data is collected using an android mobile application for easy response and real-time relay of the survey data. The data collection methodology involves working with the truck drivers from transport companies; who uses their Smart Phones installed with the "Survey123 Mobile App" configured with the road transport survey questionnaire for data collection. Then, through Field Supervisors, the data collected using the "Mobile Phone Apps" are submitted directly to the Northern Corridor Secretariat. The survey questions are origin and destination of the cargo, stop location, reasons and duration for stoppages and costs, fees charges incurred and paid, if any. In addition, different indicators including weighbridges crossing time, border posts crossing time, delays and transit time are also monitored using this application.

A total of 18,683 trips were sampled from January to September 2021 from a pool of drivers plying the Northern Corridor routes to the respective Member States. Various factors occasion the frequency of

stoppages by drivers along the Corridor. **Figure 11** illustrates the various factors that lead to stoppages for cargo with their respective percentage of the occurrence. The most prevalent stops occurred due to Rest / Meals, featuring **31%**, followed by stops at weighbridges accounting for **15%** and stops occasioned by Police/Security checks at approximately **11%**. About **13%** of drivers did not specify the reasons for stoppages. It is important to note that these stoppages, if many, may cause delays and inefficiencies on the Corridor and hinder trade in the region. Further analysis shows that stoppages due to insecurity were lengthy, with an average of about **9.45 hours**, followed by border post procedures taking about **8.8 hours** and vehicle breakdowns at **8.7 hours**. Rest and meals accounted for about **5 hours**.

Figure 11 | Prevalence stoppage reasons in percentage Jan to Sep 2021



Source: Road Transport Survey, Jan to Sept 2021

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1196 Links Road, Nyali
P.O. Box 34068-80118
Mombasa, Kenya

E-mail: ttca@ttcanc.org
Website: www.ttcanc.org
@NorthernCoridor NorthernCorridor