

# Northen Corridor Quarterly Performance Dashboard Report

## **October-December 2016**





Northern Corridor Transit and Transport Co-ordination Authority

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## **1. SUMMARY**

This report presents the status of progress achieved on various indicators that are used to track the smooth flow of cargo and movement of traffic along the northern transport corridor. Measuring these indicators gauges the performance of the corridor and contributes to the identification of areas requiring improvement and evaluation for the effectiveness of programs designed to improve competitiveness and efficiency of the corridor.

The northern transport corridor links Kenya's maritime port of Mombasa to Burundi, Democratic Republic Congo, Rwanda, South Sudan and Uganda. This is mainly to facilitate intra-regional trade and regional integration by ensuring the smooth movement of goods and persons across Member States. To this end, various initiatives have been implemented including upgrading and expansion of road, rail and port infrastructure to support trade along the routes and eliminate Non-Tariff Barriers.

Currently the road network is the main mode of transport for both imports and exports accounting about 97 percent. However ongoing projects such as construction of Standard Gauge Rail (SGR) shall balance transport modal shift between rail and road as stipulated in the Mombasa port community charter.

In some instances, some of the targets have been surpassed for example maritime indicators (waiting time before berth and the average monthly ship turnaround time). This is attributable to various initiatives initiated by the Port of Mombasa such as the implementation of the fixed berthing window, simplification of port clearance procedures and establishment of the Single Customs Territory (SCT) that has seen reductions in time taken to process and clear goods at the Port of Mombasa and transit borders. Although not all Member States have implemented the SCT initiative.

The table below summarizes performance of key quarterly indicators from October to December 2016.

#### Table 1: Quarter status summary, October to December 2016

Category	Indicator	Target	October to December 2016 Status/Pro- gress
Maritime Indicators	Vessel turnaround time (Hrs)	72	dec 74.1 73.4 Oct 62.8
	Ship waiting time before berth (Hrs)	24	Dec 15.4 0ct 8.2

Port Indicators	Containerised Cargo Dwell time (Hrs)	72	76	5.1	75.7	89.7	
	One Stop Centre Time (Hrs)	24	Mon Oct	th	<b>Local</b> 32.5	Transi	37.9
			Nov Dec		33.1 33.3		41.3 43.1
	After customs release (Hrs)	36	Oc	- <del>38</del> t	37 Nov	Dec	48
	Document Processing Centre Time (Hrs)	2	Oct Nov Dec		3.6 3.6 3.0		
Corridor Indicators	Transit time Kenya in Hrs (from Mombasa to Malaba and Busia)	72	Mon Oct Nov Dec	th	Malaba         106         107         112	Busia	147 257 182
	Weighbridge traffic (No of trucks weighed)	All	Month Oct Nov Dec	Mariakani         2,687         2,539         2,259	Athi River         5,897         5,683         5,100	Webuye         1,025         940         706	Busia 427 435 440

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Weight compliance at weighbridge (%)	100	Month	Mariakani	Athi River	Webuye	Busia
		Oct	96	98	93	78
		Nov	96	97	92	81
		Dec	96	97	93	74

### **INTRODUCTION**

The Mombasa Port Community Charter<sup>1</sup> provides the framework to enhance an efficient, effective, competitive port and supply chain system that would drive the regional economies towards becoming an attractive investment destination.

Public and private stakeholders are responsible for developing and improving all the transport modes by making infrastructural improvements and collaborating with other parties that play a role in the freight flows to the hinterland. Lower trade costs, improved infrastructure and communication technology will go a long way in fostering economic development.

The Mombasa Port Community Charter which was signed in June, 2013 provides commitments by Key Stakeholders in Transport Logistics chain to achieve particular targets some of which are to;

- Achieve 70% pre-entry of cargo handled by the Mombasa Port.
- Have paperless cargo clearance by integrating community systems into the KNESWS by December 2014
- Increase liquid bulk holding capacity to 11,000,000 MT by December 2015.

<sup>1</sup> The Mombasa Port Community Charter was signed in June 2013 by both Public and Private Institutions who committed towards measures aimed at improving efficiency at the Port and the Corridor. The charter may be accessed via http://ttcanc.org/documents/Port\_Comm\_Charter\_Final.pdf

- Achieve an average of 120,000 km per truck per annum by December 2016.
- Grow cargo off take by rail to above 35% of throughput by December 2018.

Implementation of these aforementioned targets is expected to ensure efficiency is attained along the Corridor. The quarterly report has continued to provide useful information on performance to both the public and policy makers and remains a useful tool for malling informed decisions in regard to logistics chain efficiency.

The analysis presented in this report complements what is provided in the online portal of the Northern Corridor Transport Observatory and is also available online at http: top.ttcanc.org.

This report mainly covers the period of three months from October 2016 to December 2016. Information on key performance indicators was extracted from the stakeholder's electronic business systems as well data from the Road Transport and GPS surveys.

## 2. PROGRESS OF QUARTERLY PERFORMANCE ANALYSIS

This section gives the performance status for the second quarter of 2016/17 (October to December 2016). Where possible a comparison is made with the same quarter of the previous years.

The scope is limited to the indicators specified by the Mombasa Port Community charter and is part of the 31 performance indicators being measured by the Northern Corridor Transport Observatory<sup>1</sup>.

The indicators tracked provide a set of tools for the diagnosis of problems affecting the Northern Corridor; thus, contributing to the identification of areas requiring improvement with regard to the reduction of transport costs and to the evaluation of the effectiveness of programs/projects designed to improve the competitiveness of the Corridor.

<sup>2</sup> The Northern Corridor Transport Observatory is a corridor performance monitoring tool with an online platform that tracks over 31 performance indicators. The indicators relate to Volume/Capacity, Transport Rates/Costs, Transit time/delays and Efficiency/Productivity. The online port is accessed via http://top.ttcanc.org

#### 2.1 MARITIME INDICATORS

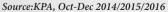
This section focuses on performance of container vessel movements (waiting time before berth and the average monthly turnaround time) at the port of Mombasa from October to December 2016.

#### 2.1.1 Ship Turnaround Time

Ship turnaround time is the time of ship entry in port to the time of exit from the port area. 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.

#### Figure 1: Ship Turnaround Time (Hrs)







According to this indicator, ship turnaround time remained steady in the second quarter period covering the months of October to December 2016. Turnaround time rose from 62.8 hours in October 2016 to 74.1 hours in December 2016 indicating that performance deteriorated over the second quarter. When analysed over the same period for the years 2014 and 2015 it is evident that ship turnaround time decreased significantly from 123.6 hours in October 2014 to 74.4 in the same month of 2015.

One of the deliverables under the port charter aimed at improving turnaround time was the construction of the second container terminal. The launch of Second Container Terminal in September 2016 has increased the port capacity by 550,000 Twenty Feet Equivalent Units (TEUs) and is projected to further drive port efficiency.

According to the Kenya Ports Authority (KPA) the second phase of this project which is planned to be commenced in June 2017, will increase the cargo capacity by handling additional 500,000 TEUs. Other initiatives were the construction of an offshore Single Buoy Mooring and establishment of up to date dry bulk facilities which are yet to be implemented.

#### 2.1.2 Vessel Waiting Time before Berth (hours)

This the mesure of the time the vessel arrives at the fairway buoy to the time at its first berth. This is normally a small proportion of the turnaround time.





Source: KPA, Oct-Dec 2014/2015/2016

Vessel waiting time has a key bearing on ship turnaround time and is therefore critical in achieving port efficiency. Figure 2 shows that vessel waiting time increased from 8.2 in October 2016 to 15.4 hours in December 2016.

This performance exceeds the set target of 24 hours and excels above performance for similar period in 2014 and 2015. It is attributed to the implementation of fixed Berthing Window to allow shipping lines plan their time.

Under the port charter the main initiative for reducing waiting time was the conversion of berth nos. 11 – 14 into container handling terminal that was expected to play a great role in reducing the vessel waiting time. Currently designs have been done but to be fully completed when Ground Investigation (GI) is finalized. GI is expected to be completed by February 2017. In addition, a study on financial and Economic Viability is ongoing and almost complete.



#### **2.2 PORT INDICATORS**

#### 2.2.1 Containerised Cargo Dwell Time

Measures the total time spent by Cargo at the Port from when the Cargo is discharged from the vessel until it exits the Port (average number of days the container stays in the yard).

Figure 3 below shows performance in cargo dwell time for the period of October 2016 to December 2016 and gives a comparison for the

same period in the years 2014 and 2015. The average Cargo dwell time was at 89.7 hours in December 2016 having risen from 76.1 in October the same year. This performance is higher that then 72 hours target for this indicator. This is attributable to the challenges associated with the introduction of Single Customs Territory for the transit containers caused by lack of full integration between ASYCUDA++, SIMBA and KWATOS which resulted in a large proportion of transit containers being cleared manually. However, when compared with the previous year it is evident that performance has improved greatly from 120.5 hours in December 2014 and 116.9 hours in the same month in 2015 to 89.7 in December 2016.

#### Figure 3: Containerised Cargo dwell time (Hours)



Source:KPA, Oct-Dec 2014/2015/2016

It is clear that more efforts are required to reach the target of 72 hours that was set in the port community charter. The initiatives that were identified for achieving this target include, 70% clearance 24 hrs before docking of any vessel, conducting joint verification, Expand the scope of services rendered by the CFSs, Outsourcing of conventional cargo operators and Move Customs warehouse cargo to the G section. Implementation of these initiatives should be hastened.

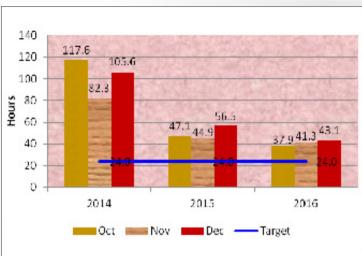
#### 2.2.2 One Stop Centre Clearance Time

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

Figure 4 shows that performance in time taken at the one stop centre clearance deteriorated marginally from 37.9 hours in October 2016 to 43.1 hours in December 2016 against a target of 24 hours.

A longer term analysis shows that this time improved significantly from 117.6 hours in October 2014 to 37.9 hours in October 2016. Activities aimed at improving this time include conducting joint verification and verification of transit cargo to be made at the countries of destination. Full implementation of these activities will go a long way in attaining this indicator.





Source: KRA, Oct-Dec 2014/2015/2016

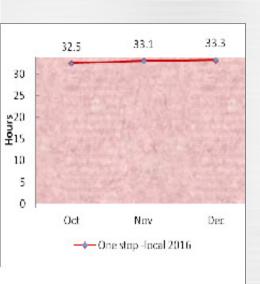


Figure 5 shows that there was a marginal decrease in DPC time from 3.6 hours in October 2016 to 3.0 hours in December 2016, which was lower than the DPC time of 3.4 hours recorded in December 2015 and 2.6 hours in the same month in 2014.

#### 2.2.3 Time Taken at the Document Processing Centre (DPC)

This is the time it takes to have an entry lodged by a clearing agent passed by Customs. The time at DPC has an effect on port dwell time though minimal.

#### Figure 5: Time Taken at the Document Processing Centre (DPC)



Source: KRA, Oct-Dec 2014/2015/2016

It is clear that performance in DPC time moved further away from the target of 1 hour over the last 3 years. Initiatives to improve DPC time include on the spot approval of manifest, allow partial manifest and simultaneous online submission of manifest.

#### 2.2.4 Delay after customs release

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



Figure 6: Delay after Custom Release

Source: KRA, Oct-Dec 2014/2015/2016

The time after Customs release has a significant bearing on the Port dwell time.

Figure 6 shows the Time taken after Customs Release from October December for the years 2014, 2015 and 2016. The custom release time recorded 48 hours in December 2016 having risen from 38 hours in October 2016. A Similar pattern was observed in 2015 having gained from 77 hours in October 2014.

The data also shows that the month of December has always recorded high customs release time for the years 2014 to 2016. Some of the activities aimed at improving performance of this indicator include: Automating gate clearance procedures, dedicating special gates to CFSs and ensuring 24 hour operations.

#### **2.3 CORRIDOR INDICATORS**

Corridor Indicators cover the period from the time goods are released up to exit at the border. The indicators of interest are compliance levels at weighbridges, volume of traffic and transit time from the port to the borders.

#### 2.3.1 Weighbridge Traffic

This refers to the number of trucks crossing the weighbridges.

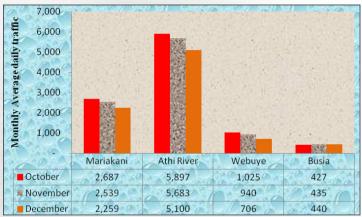


Figure 7: Monthly average daily traffic volume

Source: KeNHA, Oct-Dec 2016

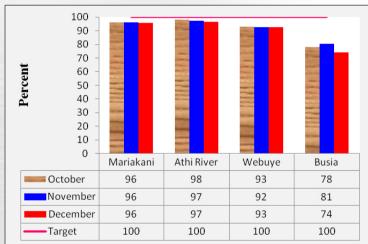
Note: Weighbridge data for Gilgil is missing (December 2016 was not provided)

The indicator measures the average number of trucks weighed per day at the various weighbridges in Kenya. From figure 7, data shows a decrease in monthly average daily traffic weighed from October to December 2016 at all the weighbridges except the one at Busia which, however, recorded the least traffic. The Athi River weighbridge recorded the highest traffic in the quarter and it's attributable to cargo that are originating from Namanga route, Nairobi City and its environs. This traffic further reduces almost by half as registered at Gilgil weighbridge partly due to cargo being offloaded in the Nairobi City which is one of the main destination centres.

#### 2.3.2 Weight Compliance at the Weighbridge

Weight compliance measures the percentage of trucks that comply with the vehicle load limits before and after redistribution of the weights.

From October to December 2016 the weighbridges recorded a steady performance in terms of compliance levels of over 90 percent performance with exception of Busia weighbridge where the level of compliance improved from 78% in October 2016 to 81% in November and reduced to 74% in December same year. Low compliance at the Busia weighbridge could be attributed to the weighbridge not implementing the high speed weigh –in- motion.



#### Figure 8: Weighbridge Compliance

Source: KeNHA, Oct-Dec 2016

Note: Weighbridge data for Gilgil is missing (December 2016 was not provided)

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From the analysis, average transit time from Mombasa to Malaba which is 933 km reduced steadily across the three year period under review. Transit time recorded 112 hours a high of 40 hours above the set target of 72 hours in December 2016 having risen from 106 hours in October 2016.

This trend was a replica of 2015 which shows that transit time increased from 152 hours to 177 hours in October and December respectively.

#### 2.3.3 TRANSIT TIME

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

It is evident that the competiveness of the Corridor lies in achieving transit cargo efficiencies at minimal costs. Accessing the port services accounts for a very large share of corridors costs. Therefore private and public stakeholders should partner to remove barriers along the corridor, keep everyone involved and update with all relevant developments.

Figure below gives trends of transit time from October to December 2014 and 2016 from Mombasa port to Malaba border.





Source: KRA, Oct-Dec 2014/2015/2016

Transit time Mombasa to Busia (947 Km) is as shown in figure 10.



#### Figure 10: Average Transit Time in Kenya (Mombasa to Busia)

Source: KRA, Oct-Dec 2014/2015/2016

There was a significant increase in transit time from Mombasa to Busia from 147 hours in October to 182 hours in December 2016. A Similar pattern was observed in 2015 where transit time increased from 169 hours in October to 224 hours in December 2015.

In general, transit time is still beyond the expected 72 hours. Therefore initiatives that were agreed upon to attain this target should be implemented to the latter.



#### 2.4 CONTAINERS UPTAKE FROM THE PORT TO THE CFS

Container Freight Stations (CFSs) are an extension of the port and are privately managed.

Decongestion of the port of Mombasa enormously depends on the efficient cargo pick up from the Port by CFS's and efficient cargo clearance process at the CFS's. Cargo to the CFSs is either client nominated or KPA nominated.

According to the Port Charter policy, where 70% pre-clearance of goods prior to arrival of vessels is targeted, goods should not overstay at CFSs unless CFS's are also specialized to be

used as Warehouses for Shippers.

The time taken for import pickup and customs release at CFS's should be comparable with that of the Port.



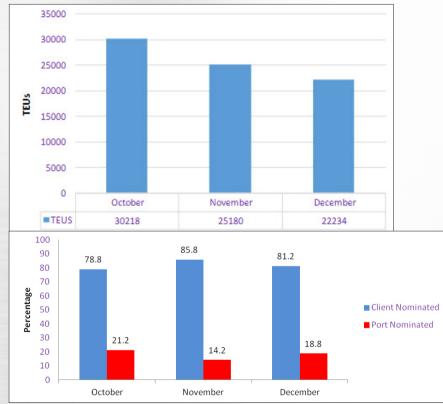


Figure 11 shows the total deliveries to 12 out of 24 Container Freight Stations (CFS) registered under the CFSAs and KPA policy for both client and port nominated cargo.

Results indicate that over 75 percent of the containers received at the CFSs are client nominated compared to port nomination. For instance in December 2016 client nominated containers registered 81.2% an increase from 78.8% in October 2016 against 18.8% in December and 21.2% in October 2016 as port nominated containers.

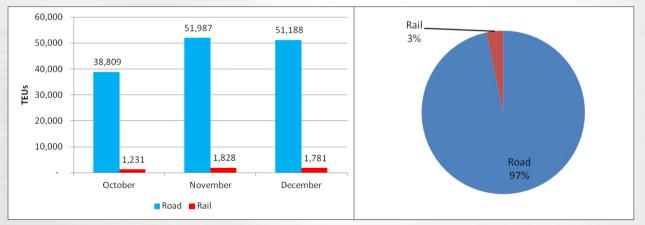
In general, total monthly container deliveries decreased between October and December 2016.

Source: KPA, Jul-Sep 2015/2016

#### 2.5 CARGO OFF TAKE (ROAD, RAIL)

Cargo leaves the port through the following transport modal channels: road, rail and pipeline. As per the charter stipulation, all the relevant stakeholders need to expand the capacity of these channels to remove the bottlenecks that are currently causing delays. These delays directly influence costs.

From figure 12, road transport is the main mode of cargo off take accounting for 97 percent compared to 3 percent for rail transport in October to December 2016. Mombasa port charter set target for cargo off take by road at 60 percent and that for railway at 40 percent. Clearly the performance for rail transport is way below the set target. However, initiatives towards realization of this target are in place. Among the ongoing initiatives include; the construction of a Standard Gauge Railway from Mombasa to Malaba is expected to attract increase in the share of cargo transported by rail.



#### Figure 12: Cargo off take by rail and road from October to December 2016



Northern Corridor Transit and Transport Co-ordination Authority

#### 1196 Links Road, Nyali, Mombasa-Kenya



P.o.Box 34068-80118 Mombasa, Kenya

Phone + 254 41 4470734 +254 729 923574



Web www.ttcanc.org



Telefax + 254 41 4470735



