

*An Assessment of the Contribution of Ports, Harbours and Maritime Transport to Kenya's Economy and GDP: A BE Perspective*

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# Outline

1. Motivation for the Study
2. Importance of the Sub-sector to the Economy and GDP
3. Challenges to Sub-sector Performance
4. Potential for Development & Ongoing Initiatives
5. Economic Viability/Bankability of Sub-sector Investments
6. Inland BE Components-Values & Potential for Development
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# 1. Motivation for the Study

- ❖ **The economic benefits of ports, harbours and maritime transport cannot be gainsaid:**
  - Ports, harbours & MT are important economic development factors- promote trade, social well-being and welfare of the surrounding cities and nations.
  - Activities undertaken in this sub-sector have multiplier effects on the economy, funnels to economic development, and their positive impact to the economic sector is felt not only in the town where a port is domiciled, but along the corridor served by the port, and its hinterland at large.
  - They play a crucial role in connecting the logistics nodes and links from a country's or region's hinterland, to global markets.
- ❖ **Maritime transport provides the cheapest and most effective means of transportation, compared to other modes of transport:**
  - 90% of seaborne trade is transported by sea and about 90% of East, Central, South Sudan and Horn of Africa exports and imports are serviced through the Port of Mombasa.
  - Promotes development of multimodal transport, logistics, maritime ecosystem, and the establishment of EPZs, SEZs and ICDs.

## Motivation for the Study...cont..

- ❖ **Shipping and proper maritime administration:**
  - Played a leading role in the economic development of many countries-Norway, Japan, India and Poland, etc with benefits-improvement in the BoP, forex, reducing transportation costs and stimulating ship building, repair and maintenance, assists development of modern agricultural systems and contribute to the establishment and expansion of modern industry.
- ❖ Kenya has done well economically over the years, **becoming a middle-income economy in 2016 and about 70% of Kenyans expect the country to do even better and Vision 2030 envisages the** creation of a prosperous and globally competitive nation with a secure and sustainable high quality of life by the year 2030. To do this, there is however, there is need to look beyond the traditional growth sectors, need to diversify the economy's sources of growth-focus on the BE.
- ❖ This paradigm shift is in sync with the concept of **“blue growth”** as championed in the post **2012 RIO+20 Conference era and further underlined by the recommendations of the 2018 Nairobi Sustainable BE Conference which** expressed the need to exploit Kenya's existing potential to stimulate the growth of the blue economy sectors. All this is **in tandem with SDGs, AU BE Agenda and Vision 2030.**

## Motivation for the Study...cont..

### Kenya's Overreliance on Traditional sectors as sources of growth

Sector	Sector Share (% of GDP, 2020)	Remarks
Agriculture	<ul style="list-style-type: none"> <li>- 38 % of GDP</li> <li>- 68 % of employment of the rural population</li> <li>- 50 % of export revenue</li> </ul>	<ul style="list-style-type: none"> <li>- Development Policies, strategies were prioritized</li> <li>- Huge budgetary allocations</li> <li>- Bilateral &amp; Multilateral Loans</li> <li>- Fiscal incentives given</li> <li>- Trainings, R&amp;D</li> <li>- Reforms</li> </ul>
Transportation and Storage	<ul style="list-style-type: none"> <li>- 8 % of GDP on average</li> </ul>	
Finance and Insurance	<ul style="list-style-type: none"> <li>- 6.6 % of GDP on average</li> </ul>	
Real Estate Sector at 7.2%	<ul style="list-style-type: none"> <li>- 7.2 % of GDP on average</li> </ul>	
BE sectors contribution to GDP	<ul style="list-style-type: none"> <li>- Ranging from 1-3 % of GDP on average with shipping and MT contribution of 1 % of GDP.</li> </ul>	
		<ul style="list-style-type: none"> <li>- Not be given significance-government policies, strategies &amp; reforms did not include them in the development policy hence the insignificant performance.</li> </ul>

## 2. Importance of the Sub-sector to the Economy and GDP

### ❖ A. Direct Benefits:

#### 1. Contribution of Export/Import Trade:

- In the period under review, Kenyan exports of goods as percentage of GDP was 13% and imports of goods as percentage of GDP was about 22%. The net contribution was therefore negative.

#### 2. Increased Containerization:

Container traffic has continued to increase in tandem with the worldwide increase in the rate of containerization of seaborne trade.

- Our analysis also shows that containerized imports increased by about 46% while containerized exports increased by about the same percentage on average over the 2016-2020 period
- Notable is the decrease in container traffic in 2020 as a consequence of the effects of covid-19 on the global economy.

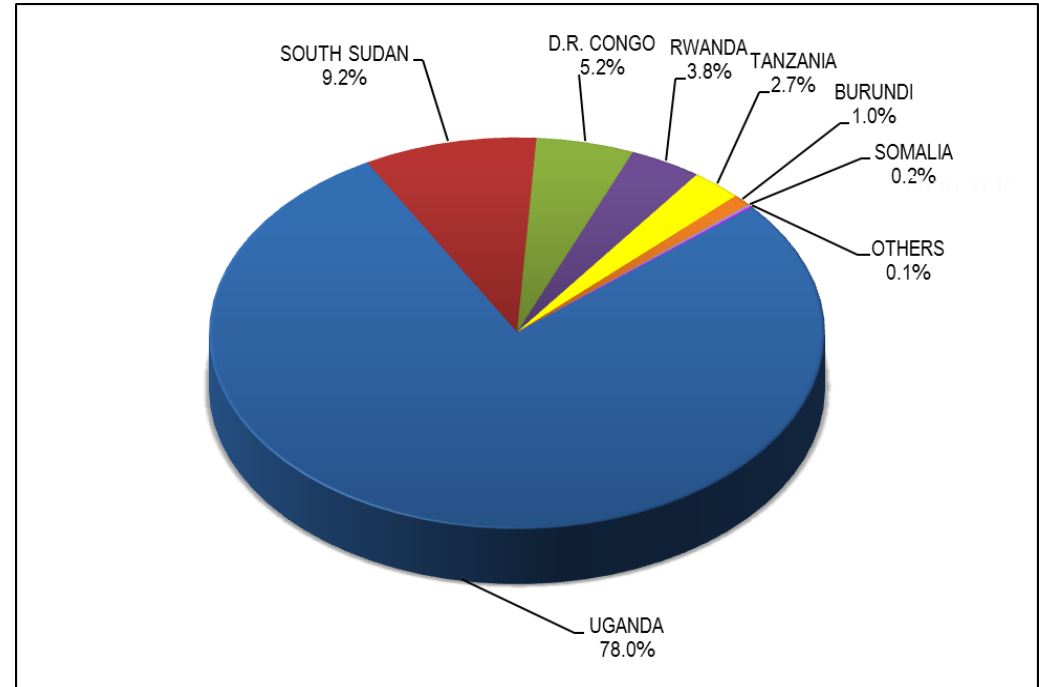
## 2. Importance of the Sub-sector to the Economy and GDP ...cont...

### 3. Contribution of Increased Regional Transshipment Export/Import Trade & Transit Cargo:

#### ➤ Cargo to:

- ❖ Uganda-about 78%
- ❖ RSS-9.2%
- ❖ DRC-5.2%
- ❖ Rwanda-3.8%
- ❖ TZ-2.7%
- ❖ Burundi-1%
- ❖ Others-0.1%

- Increased transshipment trade has a positive effect on GDP



## 2. Importance of the Sub-sector to the Economy and GDP...cont...

### ❖ 4. Improved Revenues and Higher tax Contribution: An increase in Port revenues and profits have a positive effect on both local and national economies:

- The total revenues increased from Kshs. 29.9 billion in the 2013/14 financial year to kshs 34.8 billion in 2014/15, kshs 38.8 billion in 2015/16, kshs 40.2 billion in 2016/17, kshs 43.6 billion in 2017/18 and reached kshs 50.2 billion in the FY 2019/20, representing an **average 9.5% annual change over the entire period.**
- The percentage share of total port revenue to sub-sector GDP has stabilized at around **12% with a high of 13.9% in 2018/19 financial year.**
- On the other hand, **the share of total port revenue to overall GDP is about 1% on average.**
- Profit before tax **registered an average increase of 12.6% over the entire period reaching kshs. 8.2 billion in the 2019/20 financial year.**



## 2. Importance of the Sub-sector to the Economy and GDP...cont...

### ❖ 5. Increased Trade Transportation Connectivity and Market Capture:

- The total number of ships that visited the Port of Mombasa in 2020 was 1,621.
  - ✓ 33.3% of those ships were container carriers,
  - ✓ 7.2% were general cargo carriers,
  - ✓ 18.8% were bulk, 12.5% were tankers
  - ✓ 8.6% were car carriers.

### ❖ 6. Increased Employment: Ports across the globe have been seen to positively influence the creation of employment opportunities:

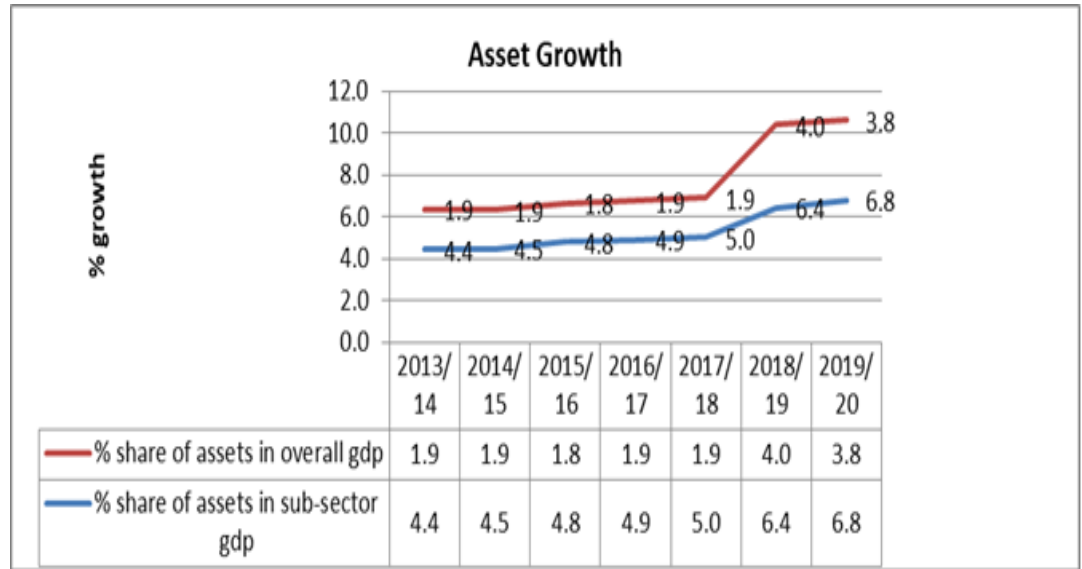
#### ○ Studies have shown that:

- ✓ An increase of one million tonnes of port throughput is associated with an increase in employment in the port region of 0.0003% implying that in a region with one million employees, employment would increase by 300 units while in the long run this increase would be 7500 units.
- ✓ It was also found out that private ports have the largest employment impacts in regions with one million additional tonnes of port throughput creating 1000 jobs.
- ✓ KPA wage bill, with wages being used as proxy for total employment, is about 5.2% of sub-sector GDP and about 0.4% of the overall GDP.

## 2. Importance of the Sub-sector to the Economy and GDP...cont...

### 7. Increased Asset Creation:

Data: shows that the share of the book value of KPA assets in sub-sector GDP has tended to increase over time from 4.4% in the 2013/14 FY, to 4.5% in the 2014/15 FY and attained a high of 6.8% in the 2019/20 FY.



## 2. Importance of the Sub-sector to the Economy and GDP...cont...

### ❖ **B. Indirect Benefits include:**

- ✓ Indirect employment effects through the linkages of harbors with other economic sectors and the spatial interactions with large logistics and economic poles outside port areas;
- ✓ Induced benefits which accrue locally and throughout the wider national economy due to purchases of goods and services by those directly employed in the Port.
- **Increased Employment:** Employment opportunities created in port related entities such as banks, insurance companies, freight forwarding, transport, etc.
- **Fiscal effects in the Local Economy:** Increased consumer spending and tax remittances,
- **Tourism revenues.**
- **Customs Duty Collected by KRA:** Benefits the whole economy. Customs duty as a % of GDP increased from 12.4% in 2013/14 FY to 14.3% in 2016/17 FY before declining to 13.0% in the 2017/18 FY.
- **Hinterland Infrastructural Development:** EPZs, SEZs, ICDs, CFSs, SGR, Mombasa Area Port Development Project

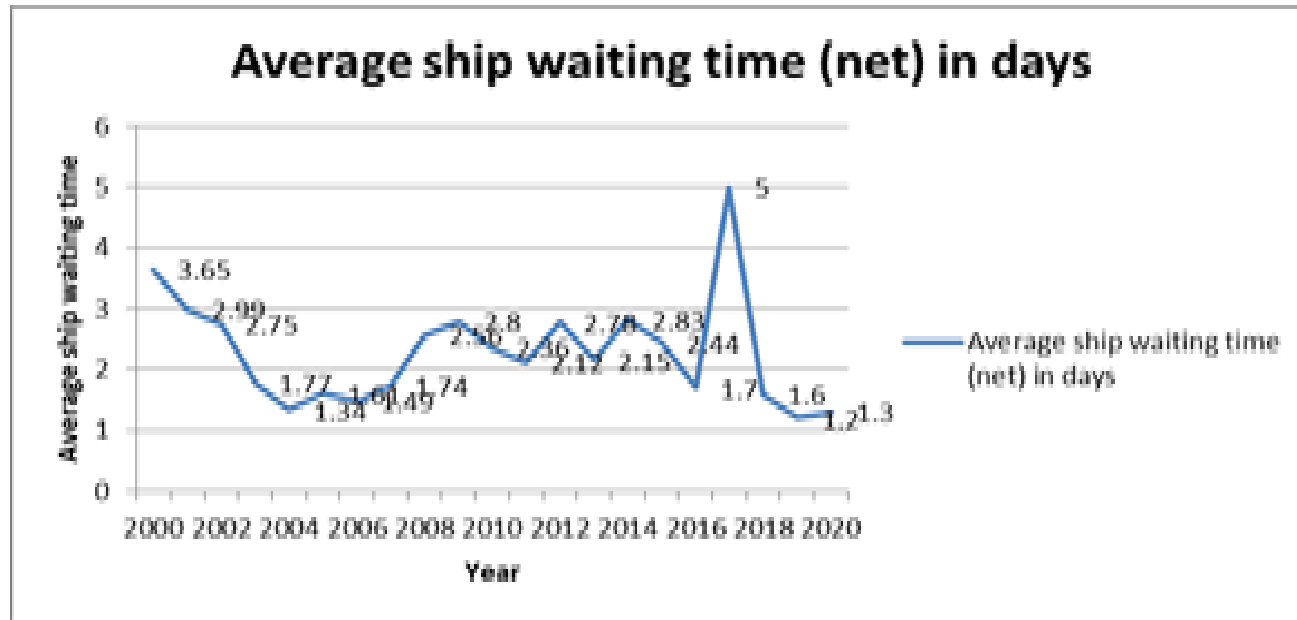
### 3. Challenges to the performance of the Sub-sector

Terminal	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
General cargo berths	63.9	60.9	61.4	64.4	63.5	73.3	75	78.4	83.5	81.5
Mombasa container terminal	94.5	75.7	82.7	93.0	91.4	52.9	71.6	56.6	64	64.1
Shimanzi oil terminal	81.8	80.1	77.5	75.7	79.2	86.6	88.4	86.4	82.6	81.7
Kipevu oil terminal	84.5	80.2	83.5	79.4	86.0	82.7	78.1	75.8	70.7	43.5
Mbaraki wharf	76.2	79.3	56.0	62.2	55.8	40.9	53.4	38.9	33.7	25.9

#### ***a. High Berth Occupancy Rates across all the terminals:***

- ❖ An indication of congestion at the port which in turn leads to higher vessel delay surcharges, higher cargo handling charges and higher other KPA related charges. This has a detrimental effect on freight charges which in turn tend to increase overall transportation costs.
- ❖ A high berth occupancy rate also increases berth dwell time and logistical costs- more time spent at the OSC and DPC.
- ❖ Causes of the high berth occupancy rates include: insufficient berths; few or unreliable gantry cranes, and insufficient, inadequate or unreliable container yard equipment, among others.

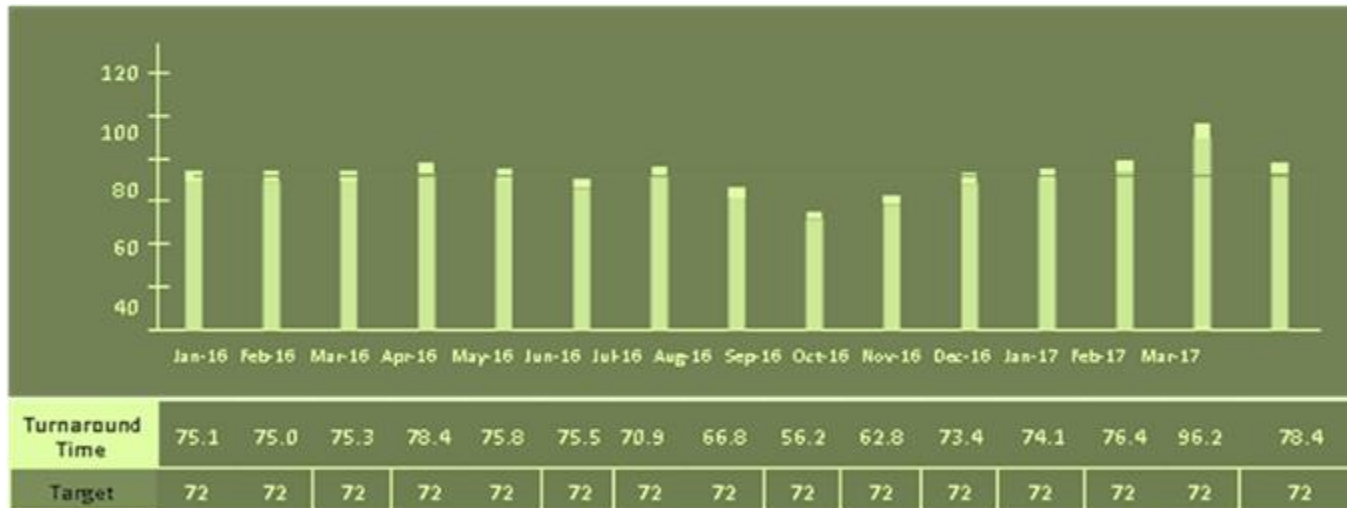
### 3. Challenges to the performance of the Sub-sector...cont...



#### **b. Ships waiting time:**

- ❖ Average waiting time per ship is predominantly high, at 2.5 days per ship, but this trend is also characterized by large variations especially during the rainy season-poor road infrastructure.
- ❖ Cargo handling process is not only inefficient but also unreliable and unpredictable.

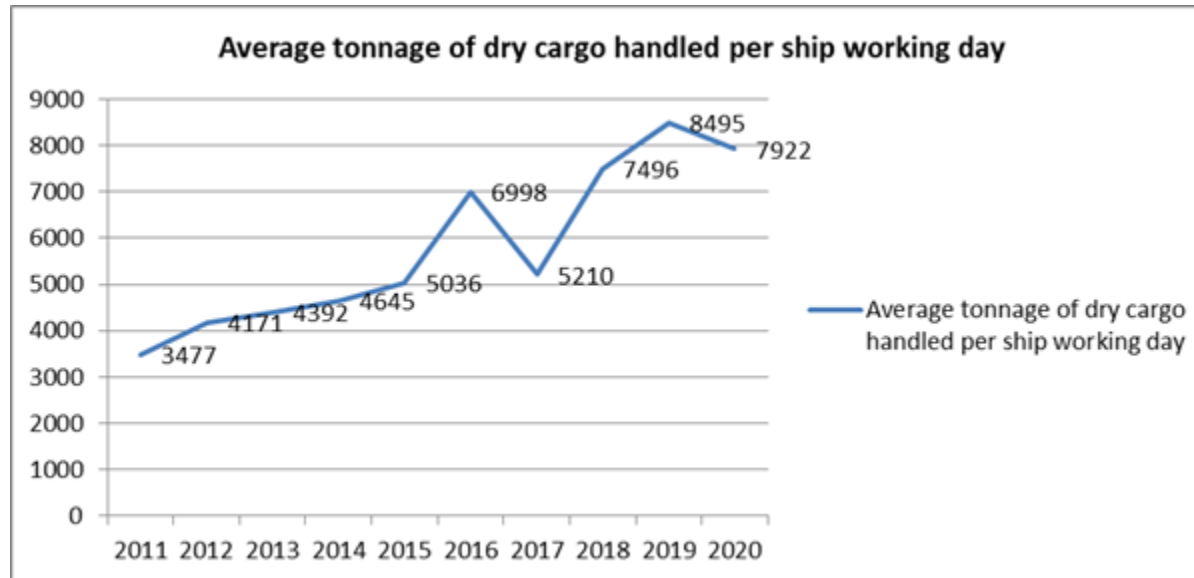
### 3. Challenges to the performance of the Sub-sector...cont...



#### c. Ship turnaround time:

- ❖ Is an important indicator of overall port efficiency and is influenced mainly by arrival rates, waiting times and cargo off-take.
- ❖ Also a good indicator of the efficiency of shipping operations, cargo loading and unloading, and onward clearance to other cargo destinations.
- ❖ Further indicates the condition and efficiency of port equipment, its information management systems, and its workforce productivity.
- ❖ Chart above shows that ship turnaround time has been above the target of 3 days for the most part-inadequate and aged facilities, poor hinterland transport connectivity, inefficient document and cargo clearance procedures and slow cargo loading/unloading.

### 3. Challenges to the performance of the Sub-sector...cont...



#### d. Productivity at the Port:

- ❖ On average, dry cargo handled per ship working day increased from 3,477 tons in 2011, increasing thereafter to 6,998 tons in 2016, declining and then rising to attain a high of 8,495 tons in 2019 and thereafter declining to 7,922 tons in 2020.
- ❖ These unpredictable changes in productivity suggest that there are some fundamental issues related to productivity that need attention. **These could include: labour force productivity issues, per gang shift issues, equipment availability and reliability, etc.**

### 3. Challenges to the performance of the Sub-sector...cont...

Berth/Wharf	Allowable LOA	Number of Calling Ships	Ships with Longer LOA Than Designed LOA	Ratio
Mbaraki	276m	7	0	0 %
No.1	156m	180	162	90 %
No.2	150m	4	3	75 %
No.3	150m	78	72	92 %
No.4	171m	95	23	24 %
No.5	161m	111	85	77 %
No.7	187m	62	23	37 %
No.8	154m	39	5	13 %
No.9	162m	62	52	84 %
No.10	184m	56	37	66 %
No.11	166m	106	69	65 %
No.12	165m	113	4	4 %
No.13	157m	104	84	81 %
No.14	163m	87	72	83 %
No.16	160 m	108	101	94 %
No.17	165 m	103	100	97 %
No.18	215 m	116	36	31 %
No.19	216 m	2	-	-
Total		1,433	928	65 %

#### e. Inadequate berth length for calling vessels:

- ❖ Most of the ships visiting the port are longer than the designed berth LOA. This is true across most of the berths. This implies that the berths cannot be efficiently and productively used.



### 3. Challenges to the performance of the Sub-sector...cont...

**f. Lack of adequate stakeholder consultations for buy-in and long-term sustainability.**

**g. Crime related challenges-need for adequate maritime security:**

- ❖ Piracy and armed robbery at sea, illicit trade in crude oil, arms and drugs trafficking, human trafficking and smuggling of contraband goods, marine pollution, and illegal activity in protected areas require enhanced regional and international collaboration to overcome (see Nyonje, Ouma and Orina, 2020).
- ❖ In 2016, the Business Daily Africa reported that Kenya lost an estimated KSh10 billion (US\$100 million) in revenue, annually, due to illegal fishing alone.

**h. In the geo-political arena,** the maritime boundary dispute with Somalia has some implications.

**i. Operational and jurisdictional silos.**

**j. Politics vs policy (a sustainable BE agenda), e.g. SGR.**

## 4. Potential for Development & Ongoing Initiatives

### a. Need for an Integrated Approach to Sub-sector Master Planning and Development:

- ❖ Many port development initiatives are going on concurrently-Vision 2030 and the MTP III, Mombasa Master Plan including Dongo Kundu, KPA, Mombasa Port Development Project, LAPSSET and Lamu Port Development Project, KENTRADE, etc.
  - ✓ These initiatives should continue due to the existing and forecasted demand for sub-sector services and to reduce port infrastructure deficit but moving forward, there is need for coordinated Master Planning for the long term.

### b. Mombasa Port Expansion:

- ❖ Berths, terminal construction , dredging of the harbour to be able to accommodate larger vessels ongoing . The port has seen completion of the 1st phase of the Second Container Terminal, called Kipevu Container Terminal, with an annual capacity of 1.65 million TEUs.
- ❖ Ongoing construction of other smaller ports such at Shimoni, Kipevu, Port Reitz, etc.
- ❖ Ongoing revival, redevelopment and expansion of Kisumu port, to improve movement across L. Victoria, and increase trade across E. Africa

## 4. Potential for Development & Ongoing Initiatives ...cont.

### c. LAPSSET and Lamu Port Project:

- ❖ A new transport corridor linking Port of Lamu with Garissa, Isiolo, Maralal, Lodwar and Lokichogio and branching at Isiolo to Moyale at the border with Ethiopia and proceeding to the border with Southern Sudan.
- ❖ The corridor comprises : Standard gauge railway line, Road network, Oil pipeline Crude & product), Oil refinery ( Isiolo/Lamu), International Airports (Lamu, Isiolo and Lokichogio), Port at Lamu (Manda Bay) & Resort cities (Lamu, Isiolo and Lake Turkana)
- ❖ First berth launched in May 2021. Once complete, the new port will have 32 Berths as well as ship building and repair center and is intended to unlock logistics and trade and create a regional transport hub. The port will be able to handle the largest ships in the world as it will have a 500m wide channel with a depth of over 18 meters. By the year 2030, the port is expected to handle more than double the containers handled by the Mombasa port thus providing a competitive environment and trading flexibility as well as reducing pressure on the Mombasa port.

## 4. Potential for Development & Ongoing Initiatives...cont...

### d. Other Ongoing Infrastructural Projects:

- ❖ Mombasa Port Area Road Development Project
- ❖ Upcoming SEZs, Dongo Kundu (National Government) and Miritini SEZ (county project)
- ❖ Special Economic Zones to spur manufacturing and economic activities around Mombasa, and create more employment opportunities
- ❖ Projects under the Mombasa Master Plan

### e. Investment in port equipment:

- ❖ The port needs a major audit of its quay equipment, such as Ship-to-Ship gantry cranes, transfer equipment such as tug masters and straddle carriers, and yard/stacking equipment, such as reach stackers, forklifts and Rail-mounted Gantrys- identifying equipment suitability, availability, productivity and if equipment is adequate to meet the demands of the projected traffic.

## 4. Potential for Development & Ongoing Initiatives

**f. Investments in ICT & Automation of Operations:** 4 Major ICT developments recently that cut across the port industry, aimed at automating the industry, use of Artificial Intelligence, make it paperless, and reduce human interaction-basically systems put in place to improve efficiency and address aspects of corruption as well.

- ❖ KWATOS – Kilindini waterfront system, by KPA-To automate clearance and gate in / out processes, documentation, etc.
- ❖ Integrated Customs Management System – New system By KRA – still under roll out phase. To phase out the current Simba
- ❖ System (Tradex) Linked to Itax, and other systems, to improve tax collection
- ❖ KenTrade Electronic Social Welfare Surcharge and Maritime Single Window System
  - ✓ Promote & Facilitate International Trade
  - ✓ Reduce Complexities in clearance and improve efficiency
  - ✓ Bring all actors under one roof for ease of processes, visibility and monitoring.

## 4. Potential for Development & Ongoing Initiatives

### g. Increase qualified staff and training:

- ❖ Marine education and training is offered through:
  - ✓ The Kenya Marine and Fisheries Research Institute (KMFRI),
  - ✓ Universities,
  - ✓ Bandari Maritime Academy,
  - ✓ Coast National Polytechnic and Railway Training Institute (TRI) Marine School,
  - ✓ Kisumu and Technical Vocational Education and Training (TVET) institutions.
  
- ❖ In the process of satisfying their mandates, these institutions face a lot of challenges:
  - ✓ Shortage of instructors and lecturers with professional training in maritime related disciplines,
  - ✓ Shortage of opportunities for onboard training for students who complete shore-side training
  - ✓ Inadequate training facilities and equipment to enable students acquire the practical training to attain the competencies for Standards of Training, Certification and Watch-keeping for Seafarers (STCW) 1978.

## 5. Economic Viability/Bankability of Sub-sector Investments

### a. **LAPSSET and Lamu Port Project:**

- ❖ The feasibility studies show that all the nine project components are economically and financially viable with high EIRR of between 12.9% and 23.4% compared to the acceptable industry minimum standard rate of return of 10% for infrastructure projects.

### b. **Mombasa Port Development Project**

- ❖ Attractive NPV, B/C ratio, FIRR and EIRR.

### c. **Returns to investments in sustainable environment, ocean health preservation and restoration:**

- ❖ Research shows that, for example, every US\$1 invested in mangrove conservation and restoration has a multiplier effect of \$3 in returns.

### d. **Economic viability of investments in port connectivity, performance and logistics:**

- ❖ Investments in the improvement of port connectivity, performance, turnaround time, attractiveness and logistics performance could increase GDP by 2%.

### e. **Employment creation:** Mentioned earlier in the presentation.

## 6. Inland BE Components, Values & Potential for Development

### a. Our report dwells mainly on inland water transport on Lake Victoria:

- ❖ Lake Victoria forms an important component of the inter-modal supply chain along the Central and Northern Corridors thereby linking these corridors to Mombasa and Dar-Es-Salaam ports-links landlocked countries-Zambia, Malawi, Rwanda, Burundi & Uganda.
- ❖ Cargo exports are estimated to increase to 160,000 tons by 2025, and further to 230,000 tons by 2035.
- ❖ Similarly, Kisumu's local cargo imports are estimated to increase to approximately 130,000 tons by 2025, and further to 180,000 tons by 2035.

### b. River Tana Basin is the home of a series of hydroelectric dams that include:

- ❖ Kindaruma Dam provides 44 MW, Kamburu Dam provides 94 MW, Gitaru Dam provides 227 MW, Masinga Dam provides 40 MW, and Kiambere Dam provides 168 MW.
- ❖ The river is navigable by small craft for about 240 km upstream.
- ❖ In the upper catchment, **Sasumua Dam** provides water for Nairobi. **An irrigation project in Mwea, Kirinyaga County, provides water for rice cultivation.**



## 6. Inland BE Components...cont...

### c. The Athi-Galana-Sabaki River is the second longest river in Kenya:

- ❖ The river flows through the Tsavo East National Park and attracts diverse wildlife and can therefore be considered as a key contributor to tourism revenues.

### d. The Mara River Basin:

- ❖ The basin supports some of the most profitable economic activities in Kenya and Tanzania, including tourism, agriculture and mining, which collectively contribute between 10-15% to both countries' GDP.

e. **The Nairobi Basin**-Nairobi River is in a poor state & not supporting economic activities. Other rivers flow into the Athi and subsequently into the Indian Ocean.

## 6. Inland BE cont...-Potential for Development & Ongoing Initiatives

### a. Ongoing Lake Victoria Basin Investments

#### ❖ Kisumu Port Rehabilitation Project (Kshs. 22.5 bln.) on a BOT basis:

- inland shipping on Lake Victoria represents an important node of an intermodal supply chain along the [Northern](#) and [Central](#) Corridors, two multimodal corridors linking, respectively, the Mombasa and Dar es Salaam ports to other East and Central African destinations.
- Construction works that included dredging operations aimed at improving navigability of big ships and the expansion of port capacity to handle up to 4,000 containers.
- All roads within and the link roads to the port facility have also been repaired and feeder jetties and piers are also being put in place. Equipment such as forklift trucks, mobile cranes and tractor-trailers also bought.
- Planned repair and upgrade of satellite piers in Mbita, Homa Bay and Luanda K'otieno is projected to further improve merchandise trade in the region.
- **Benefits**-volume of cargo handled has increased by 62%.
  - - Number of vessels handled increase by 116%
  - - KPC oil jetty complete with a capacity of 39,243 cubic meters of fuel for local use and export to Uganda, Rwanda, Burundi, South Sudan and eastern Democratic Republic of Congo (DRC).

## 6. Inland BE cont...-Potential for Development & Ongoing Initiatives

### **b. The Lake Victoria Marine Transport (LVMT) Project:**

- Keen on the improvement of the market for marine cargo transport in the Lake Victoria Region by bringing modern, purpose-built cargo vessels, logistics expertise and infrastructure to enhance cargo transport services to customers.
- **Benefits include:**
  - New and purpose-built marine transport infrastructure to serve the Lake Victoria Region,
  - Improving productivity of the logistics chain,
  - Reducing the cost of imports, increasing the yield from exports and imports.
  - Will enhance regional trade, increasing trade among Uganda, Tanzania and Kenya, enhancing regional cooperation and integration; and increase the diversification of transport routes within the region, providing alternatives to the Northern Corridor.

### **c. Multinational Lake Victoria Maritime Communications and Transport Project:**

- Part of the EAC Development Strategy 2022-2026 where maritime transport is envisioned to be developed into a safe, secure, and efficient transport system.

## 6. Inland BE cont...-Potential for Development & Ongoing Initiatives

### d. Investments in Transboundary Inland Water Transport:

- The Nile System- opportunity for investments that support the development of inland water transport for the riparian states.
- The main areas that are important for inland water transport are the Lake Victoria Region, sections of the White Nile in South Sudan, and the Main Nile in The Sudan and Egypt.
- Improve interconnectedness between the Nile Riparians, enhance regional and continental integration.

### e. Other Inland Water Transport Initiatives:

- Projects contained in the CIDPs for Kisumu, Nakuru and Turkana Counties
  - Develop a legal framework to facilitate the growth of local entrepreneurs to invest in emerging maritime opportunities in inland water transport in lakes Victoria and Turkana and promote Inland Water Maritime Development.
  - Sensitizations of communities and other stakeholders on the benefits of water transport for both commercial and leisure purposes.

## 7. Recommendations-Oceanic BE

1. Need for concerted efforts in order to measure the actual size of Kenya's BE. Apart from the traditional sectors of fisheries and tourism, there is an overall lack of disaggregated data that quantifies the economic and social value of Kenya's blue economy. Additionally, there is need to add a BE sub-sectors' account into the KNBS national accounts in order to easily monitor the performance and contribution of the BE to Kenya's GDP. This will also ease BE planning and investment decision making;
2. A synthesis of the plans and expected outputs of the LAPSSET, Mombasa Master Plan, Vision 2030 flagship projects and other related projects should be undertaken in order to avoid duplication of effort and also help in the identification of low hanging fruits that can be implemented as we move towards the finalization of a BE Strategy for Kenya;
3. State and non-State stakeholders should strive to ensure that the security and safety of both persons and goods within the maritime transport, harbours and ports are guaranteed and is impeccable to encourage more investments and utility of the Maritime transport and its hinterland connections. Programs related to the development of maritime safety and security and the natural maritime environment in/out of the port need to be prioritized.
4. State and non-State stakeholders should effect the establishment of more well equipped centres of learning and research, including Institutes for BE and Oceans Studies whose main objective shall be to undertake research and offer technical assistance and capacity building in all matters relating to the ocean, and the sustainable use of its resources;
5. The ongoing revival of the Kenya Shipping Line needs to be fast-tracked.

## 7. Recommendations-Oceanic BE...cont...

6. There is need to undertake an administrative reform that ensures that the port is blended from a Service Port to both a Service Port and a Landlord Port. In addition, administrative, policy, legal and institutional coordination issues require urgent attention in order to optimize the contribution of ports, harbours and maritime transport to Kenya's GDP and to Kenya's BE;

7. There's need to address those issues that promote healthy competition between ports, ports to compliment one another rather than compete with each other. Specialization is key. Eg. Mombasa and Dar serving almost the same hinterland, should focus on the strengths and build up on the same.

8. The government of Kenya should expedite infrastructural developments of the hinterland through KeNHA to provide more connectivity between the ports, local population and the neighboring countries. This will lead to creation of employment opportunities, reduced overload of the Port of Mombasa and improvement in efficiency in cargo transportation corridors;

9. KPA and related government agencies should effect the establishment of more well equipped centres of learning and research, including Institutes for BE and Oceans Studies whose main objective shall be to undertake research and offer technical assistance and capacity building in all matters relating to the ocean, and the sustainable use of its resources. Capacity building needs for ports, harbours and maritime transport need to be enhanced; and,

## 7. Recommendations-Inland BE...cont...

10. Lakeside counties should prioritize investments in inter-modal transport system that feeds into an inland water transport system to stimulate income and employment growth,
11. It is recommended that countries increase investments aimed at improving inland water transport on Lake Victoria and other navigable parts of the Nile, and increase the integration of inland water transport with other modes, notably road and rail, as a way of bridging the north–south transport and trade divide in the basin,
12. The necessary Legal, Policy and Institutional Frameworks should be put in place to promote resource management, accountability and resource mobilization.
13. A comprehensive study on the navigability of Kenya’s main rivers needs to be undertaken as a basis of initiating “bankable” projects along and adjacent to these rivers.
14. Studies on maritime transport for Lakes Naivasha, Baringo and Turkana need to be carried out in order to stimulate social-economic development in the concerned counties. The case of rising water levels needs attention.
15. With regard to moving forward with the development of the ports, harbours and maritime transport sub-sector, there is need to bring on board all the relevant stakeholders in order to come up with an all-inclusive development strategy for the sub-sector.

**THANK FOR YOUR ATTENTION**