




- **INTERMODALS SHAPING SUPPLY CHAIN: THE CASE FOR SHORT SEA SHIPPING (SSS) IN EAST AFRICAN COAST AND WESTERN INDIAN OCEAN ISLANDS**


- **Preamble**

- Goods are rarely consumed where they are produced and transportation services are essential in the supply chain.

The transportation and logistics industry is the backbone of an economy and freight logistics is regarded in economics terms as a derived demand, resulting from demand for other products and commodities.


In most of Africa transport/freight cost makes up to 75 per cent of the total cost of commodities

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- It follows then that efficient movement of goods helps ensure that factories remain efficient, packages are delivered on time and retail and grocery stores are stocked, all this lowering the total shipping costs, with the savings to households and businesses ensuring that a country's products remain competitive in global markets.



It is out of this consideration that we talk about Short Sea Shipping and in particular with a special bearing to East African Coastline and Western Indian Ocean Island States.

Short Sea Shipping is the movement of cargo and passengers by sea along the coast or in Inland Waterways, without crossing an ocean, or simply put, as the name suggests, shipping goods and passengers over short distances.

The background of the slide features a stack of colorful shipping containers in shades of orange, red, yellow, and green, arranged in a slightly tilted, overlapping manner. The containers are set against a light blue and grey gradient background.

Allowing for the fact that some connections in this region are possible by **ONLY** sea (the Islands) there comes the need to implement strategies and actions to make SSS more competitive.

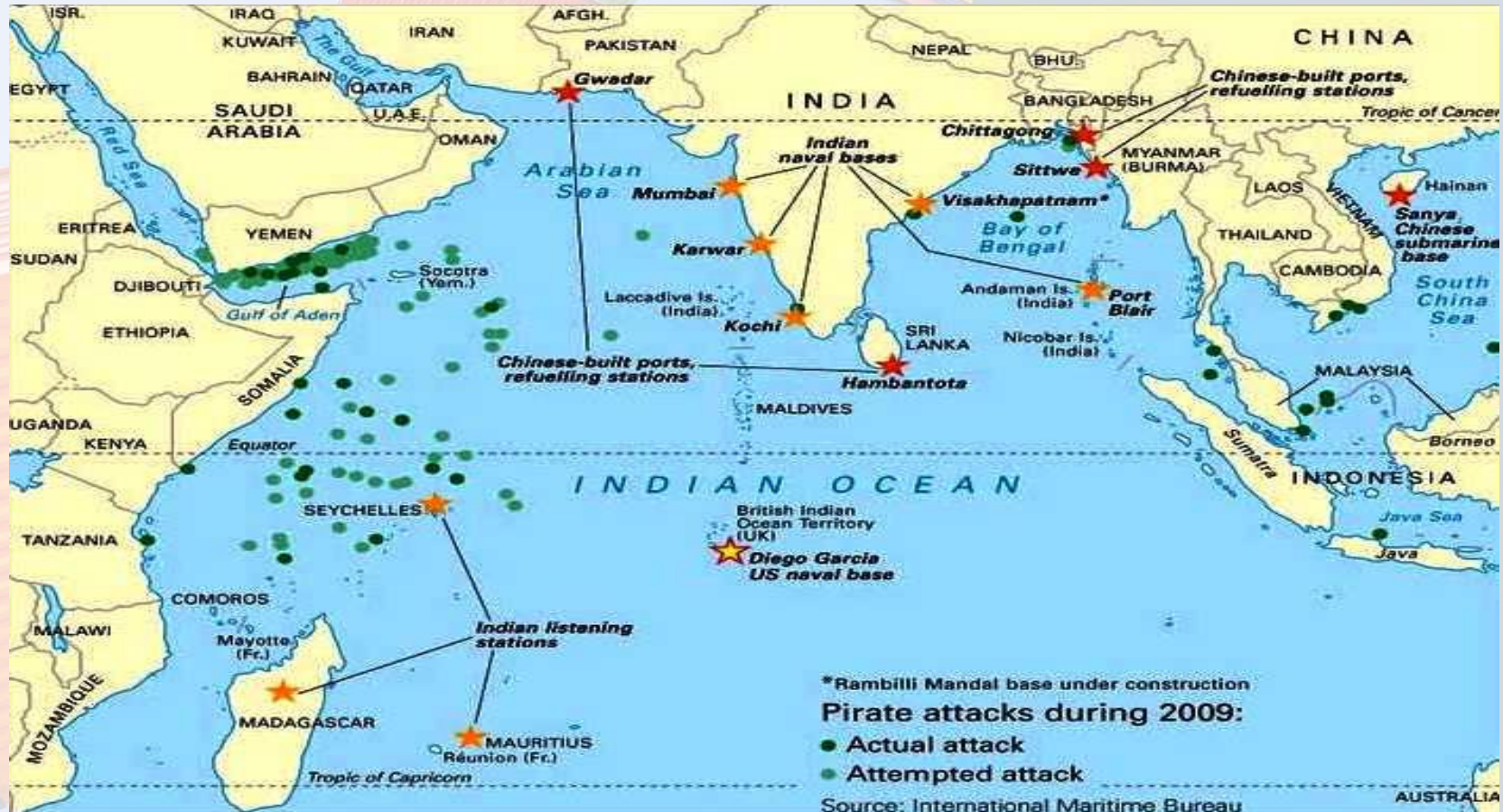
Such a system would have 3 main roles, namely:

- To offer Unimodal freight transport between ports (or port cities)
- To offer the main leg of an INTERMODAL route
- To offer FEEDER services to deep sea shipping (crossing oceans)

From the foregoing, it comes out clearly that SSS is not an alternative but a complimentary to road/rail transport.

Up to 60 million people in this region inhabit land up to 100 km from shoreline according to population census /estimates 2019/2020, and all these people require goods and services for their survival hence need to develop good and reliable SSS systems.

MAP OF EA & WIO ISLANDS



Looking at the geographical map of the region we find some peculiarities that give drive to develop SSS systems the required push factors, namely:

- The directionality of some of the ports in this region, especially in the Island states, are far off from the general north/south axis used in the routing of major shipping lines hence need to find alternative means of reaching these ports
- The countries in the region trade very little with each other (despite the emergence of the Africa Continental Free Trade Area) meaning that a large proportion of trade (imports mainly) is seaborne from outside, rather than along overland connections, hence need to develop SSS systems to pick up the cargo from and deliver to the big developed regional hub ports where big vessels can call

All these, in addition to the documented advantages of shipping over road transport:

- **Reduced shipping costs:** An example is always given of how it is cheaper to move a container of cargo by sea 4000Km from China to the port of Mombasa than to haul same overland by road/rail 1300 km from Mombasa to Kampala
- **Environmentally sustainable Shipping:** choosing SSS means the environment because it contributes less CO₂ emissions i.e. less carbon footprints. To illustrate this further, the amount of carbon emitted to the atmosphere from the single Chimney of a 4000 DWT vessel is much less compared to the combined 200 trucks on the road required to haul an equivalent of TEUs .

EMISSIONS BY DIFFERENT MODES OF TRANSPORT;

COMPARISON OF TYPICAL CO₂ EMISSIONS BETWEEN MODES OF TRANSPORT

Grams per tonne-km



Source: IMO GHG Study, 2009 (*AP Moller-Maersk, 2014)

- **High cost of building and maintaining roads as compared to construction of berth/jetty.** It requires lots of funds to lay roads while for sea going vessel once the berth is done, the vessel just floats on free sea hence less costs.

Illustration of road construction costs in Kenya Per km (data from KNBS, KRB, KeNHA, KURA, KeRRA)

- data from the [Kenya National Bureau of Statistics](#) (KNBS), [Kenya Roads Board](#) (KRB), [Kenya National Highways Authority](#) (KeNHA), [Kenya Urban Roads Authority](#) (KURA), and [Kenya Rural Roads Authority](#) (KeRRA).

KahawaSukari Estate Access Roads: Kshs 58.99 million per km.

Access to Embakasi (Infinity) Industrial Park: Kshs 177.04 million per km.

Syokimau – Katani Phase II: Kshs 121.44 million per km.

Kericho Bypass (Phase 1): Kshs 89.16 million per km.

Kisii Bypass (Phase I): Kshs 86.31 million per km.

Lenana- Muchugia – Dagoretti Market Link Road: Kshs 73.31 million per km.

Rehabilitation and Upgrading of Eastleigh Estate Access Roads: Kshs 212.68 million per km.

Nyahururu Bypass: Kshs 70.27 million per km.

Mandera Town Roads: Kshs 62.19 million per km.

Eastleigh roads Phase II: Kshs 225.69 million per km.

Old Nairobi Road and Bishop Muge Roads in UasinGishu: Kshs 97.02 million per km.

Kiogoro – Gesure – Itibo – Masongo Roads: Kshs 61.43 million per km.

Busia – Malaba: Kshs 33.97 million per km.

Kangundo Road – Greater Eastern Bypass Link Road: Ksh 116.07 million per km.

Mau Narok – Kisiriri Road: **Kshs 38.19 million per km.**

Ugunja-Nyadorera-Ruambwa: **Kshs 92.88 million per km.**

Upper Hill – Mbagathi Link Road: **Kshs 113.63 million per km.**

Mlolongo – Kware – Katani Link Roads Phase II: **Kshs 208.91 million per km.**

Thika Bypass: **Kshs 186.80 million per km.**

Mteza – Kibundani (DongoKundu): **Kshs 284.15 million per km.**

Ngong Road (Dagoretti Corner – Karen Roundabout Section): **Kshs 202.86 million per km.**

Ngong Road -Kibera- Kung'uKarumba- Langata Road: **Kshs 499.41 million per km.**

Narok – Sekenani: **Kshs. 26.12 million per km.**

Upper Hill Roads Phase II: **Kshs 347.47 million per km.**

Ngong Road Phase II (KNLS Nairobi – Dagoretti Corner): **Kshs 666.31 million per km.**

Link Road to New Lamu Port: **Kshs 231.09 million per km.**

Nyaru – Iten: **Kshs 75.59 million per km.**

Nairobi Western Bypass: Kshs 137.31 million per km.

Posta (Naibor)-Kisima-Maralal (A4): Kshs 82.75 million per km.

Meru Bypass Roads: Kshs 142.36 million per km.

Waiyaki Way-Redhill Link Road: Kshs 633.66 million per km.

Ruiru – Githunguri – Uplands: Kshs 84.85 million per km.

Kitale – Endebess – Suam Road: Kshs 99.44 million per km.

Chiakariga – Meru Road: Kshs 84.87 million per km.

Eldoret Town Bypass Road: Kshs 158.76 million per km.

Missing Link Roads and Non-Motorised Transport Facilities: Kshs 323.91 million per km.

Nuno-Modogashe (A13): Kshs 45.45 million per km.



Garsen – Witu – Lamu: Kshs 80.51 million per km.

Nairobi Outerring Road Improvement Project: Kshs 903.37 million per km.

James Gichuru – Rironi: Kshs 646.90 million per km. Kibwezi – Kitui – Migwani (A9/B64): Kshs 95.86 million per km.

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- **Convenience in carrying oversized cargo between port cities.**

A case in point here is when Kenya Ports Authority were transferring Ship to Shore cranes from the port of Mombasa to Lamu port, they didn't need to knock down the parts to haul by road then go reassemble again at destination but just carried whole due to SSS convenience

- **Less prone to cargo pilferage through theft and damage**
Sea transport is not open to highway robbers which is a common occurrence on the roads.

Life Example

Growing up in Mombasa in the 1970s and swimming in the ocean at Tudor creek, we used to wary of a live animals carrying vessel bringing livestock from northern coast of Kenya to the Kenya Meat Commission abattoir situated at the makupa causeway.

That was SSS.

- Similarly we can have the Botswana beef getting ferried overland to Beira/Maputo ports then get into the next leg of INTERMODAL transport i.e. SSS to the Western Indian Island states.

➤ Same way bunches of matoke /cooking bananas can travel via northern corridor artery from Uganda, Rwanda and even DRC (now a member of the EAC) to Mombasa port and get onto SSS to villages in Madagascar, Seychelles and Reunion Islands.

All this courtesy of SSS.

Note that development of SSS systems will see escalating of cargo cabotage rules and policies where intra-country and intra-region voyages are served by locally owned vessels. This has a way of protecting local shipping industry from international competition which is highly developed.



Ending:

As a region there is a need to take advantage of these many potential benefits and develop systems for SSS, otherwise we shall be judged harshly by history and be accused of **sea-blindness**.

Actually someone in future might even write a book on some ancestors who could not see the sea so kindly let us not be characters in such a narrative.

Short Sea Shipping presentation is **SHORT**.

THANK YOU.