

Moving Towards an Improved Economy, Environment & Productivity Through Sustainable Port Development Planning



Col. Andre Ciseau, PMAESA Secretary General

27th Intermodal Africa 2022, Dakar, Senegal 28 – 30 June 2022

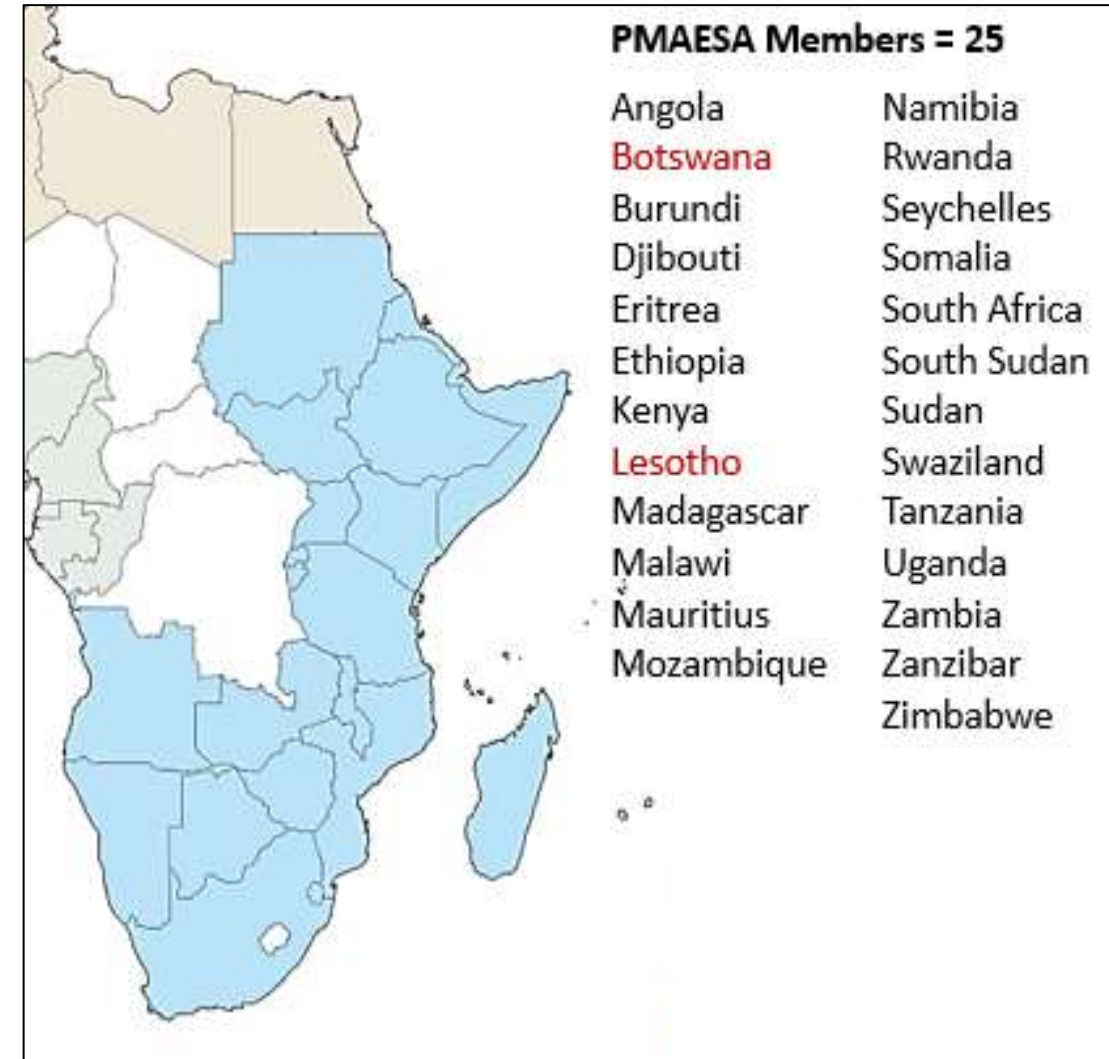


PMAESA

PMAESA Introduction



- Established in 1973 under the auspices of the United Nations Economic Commission for Africa (ECA),
- A non-profit, inter-governmental organization made up of Port Authorities, Port Operators, Government Line Ministries, Logistics and Maritime Service Providers and other port and shipping stakeholders from the Eastern, Western and Southern African and Indian Ocean regions,
- Has 25 countries under its jurisdiction
- Governed by a Council and the Board of Directors (6 – representing Coastal Countries, Island Countries and Land-Linked Countries) – currently chaired in South Africa



PMAESA Objectives

Build consensus amongst member ports with a view to promoting regional co-operation and subsequently regional integration

Framework for exchange of information and ideas among members and to enable members to interface with one another from the port, transport and trade spaces to exchange benchmarks and best-practices

Working towards improving conditions of operation and management of ports (coastal and inland) in its region of coverage with a view to increase their efficiencies.



Port Developments – SSA

Walvis Bay CT Launched (Aug 2021)

Operationalization of Lamu Port (May 2021)

Dar es Salaam Maritime Gateway Project (DMGP) – began in 2017 – port expansion works

Mombasa Container Terminal 2 – Phase 2 completed (May 2022)

Berbera Port new container terminal inaugurated (June 2021)

Expansion of Port Victoria, Seychelles (2022)

Maputo Port berths rehabilitation (May 2022)

Durban port expansion announced (March 2022)

Djibouti a key transshipment port in HOA (ranked 61 globally) is the top-ranked African port according to the World Bank/IHS Markit CPPI (May 2021)





Maputo Port (Feb 2022)

Interface between Port-City

Ports are nodes in the intermodal system in which road, rail, pipelines and other transport modes converge for purposes of trade enhancement

Drivers of Investment in Ports

Increase in vessel sizes

Cargo base expansion among other factors



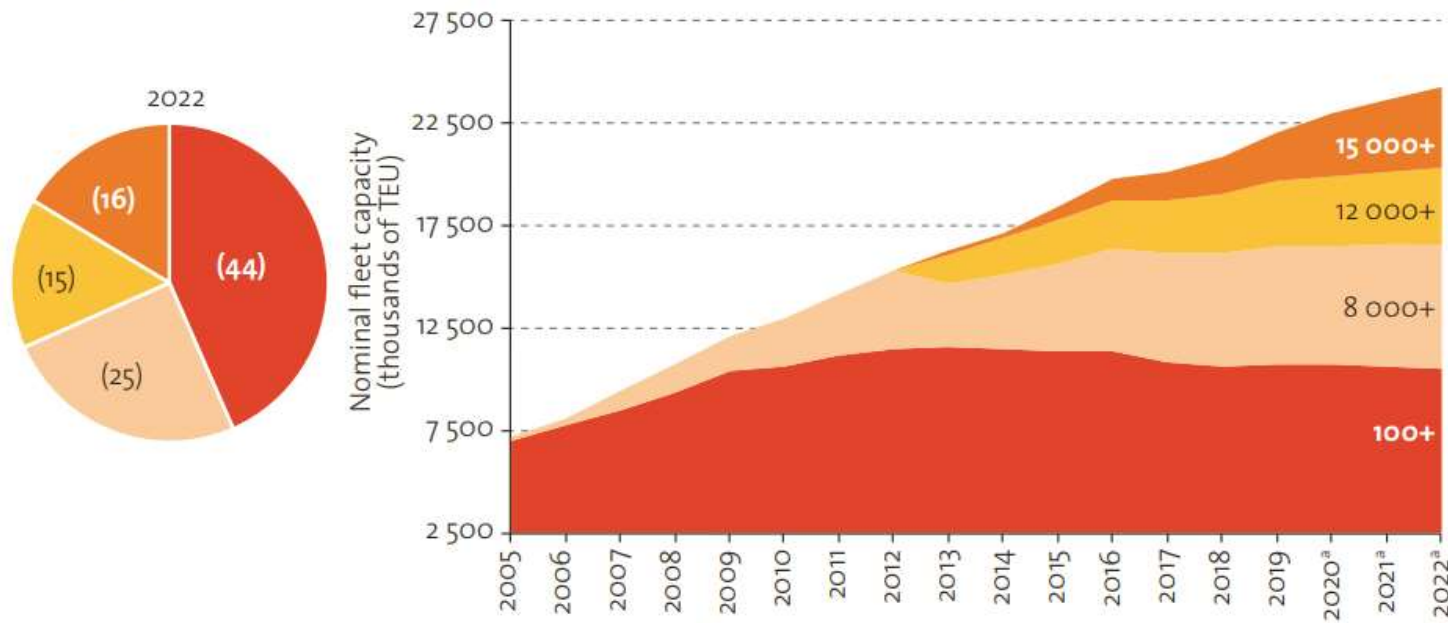
Recently built Walvis Bay CT (March 2020)

Figure 1

World:^a trends in gigantism of container ships, 2005–2022
(Thousands of TEU and percentages)

A. Gigantism trends, 2005–2022

Source: CEPAL



Ports face multi-faceted challenges

- Growing vessel sizes
- Increase in Cargo volumes
- Challenge in cargo types
- Changes in Vessel Fleets
- Inland connections constrains
- Changing physical conditions
- Increased environmental impacts
- Climate change



Floods disrupt port operations at Durban (April 2022)

Mitigation measures

Proper planning during port development and expansion as well as incorporating strategies to reverse environmental effects of existing ports can alleviate such challenges



The TRAktor 3000-Z: a low emission tugboat built by Sanmar Shipyards – a member of PMAESA



Ports and environment intersect with potential to compromise the integrity of natural resources

However these resources are critical for the socio-economic development of the region since SSA economies are largely natural resource based e.g. tourism, fishing, farming, mining



Business as usual scenario

Short-term gains (profit)
overshadow long-term effects

- Loss of species & habitats
- Decline in marine gross product

Port environmental impacts
are vast & well known:

- Direct loss of coastal habitat
- Disruption of sensitive and/or ecologically productive ecosystems and transition zones
- Release of metals, chemicals, organochlorines and PCBs into the marine environment
- Damage to habitats of birds and intertidal fish and animals.
- Reduction in natural flushing, potentially leading to eutrophication
- Removal of all marine life from parts of the seabed
- Permanent loss of slow growing, sensitive species which are unable to recover
- Release of organic-rich sediments into seawater which can exacerbate algal blooms



Sustainable Port Development Model

Ports of the future which are green, sustainable and has minimal or no impact to the environment

Is it doable? (hint: we don't really have a choice)

Balancing economic growth & port community welfare & healthy ecosystems is possible & achieved by:

- Blue Economy Strategies in port's influence area
- Paradigm shift in port management style
- Encourage PPPs
- Maximize usage of green energy sources
- Optimization of port operational processes
- Strong environmental regulations

Mainstreaming automation & digitization

Modelling and simulation

Results:

Improved Air quality & waste management

Real time monitoring of pollution sources & eco-systems

Efficient port operations (reduced inland transport & operational costs)



Example measures – reducing spatial & environmental barriers to port development

Improved Air Quality

Replacing fossil fuel use by electric transportation at ports and use of renewable energies

Equipping machinery with oxidation catalysts and particulate traps, which may reduce emissions of CO, HC and PM by up to 90%

Eco-Driving, reduce idling

Introduce and increase the supply and use of shore-side electricity

Use of fuels with lower sulphur content

Sulphur scrubbers, NOX reduction systems & particulate traps



Improved Water and Soil Quality

Environmental friendly antifouling agents

Adequate waste reception facilities

Structurally sound oil transmission and containment equipment



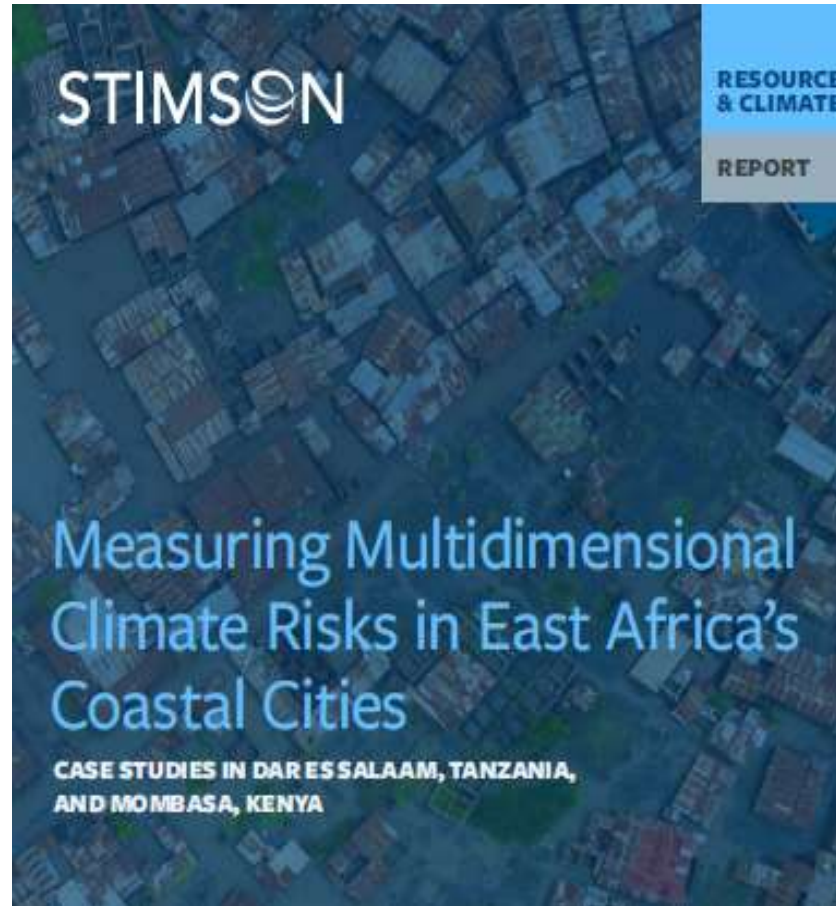


Some key interventions...

3rd African Ports Environment & Sustainability Conference 2020 in collaboration with PMAWCA & PENAf



PMAESA Technical Committee Meeting on Marine Environment Protection



1st Environmental Ship Index Award ceremony at the marine terminal. Port Reunion is the first Indian Ocean port to adopt this indicator, set up in 2018 to promote clean shipping. Awards were given to four companies, CMA-CGM, GMC Shipping, Roxana Shipping and Carnival PLC.



Our partners:



Thank you

