

*Presentation by Lydia Ngugi
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Title, “Regional Reflections: Challenges and Opportunities for Innovation and Deploying New Solutions. Focus on the MTCC Africa Region.”



**ZERO AND LOW-EMISSION
INNOVATION FORUM**

27-29 September 2021 12:00pm – 15:00pm GMT+1

Presentation Outline

1. Overview of the African Region
2. MTCC Africa Regional best practices,
3. Innovation models for decarbonization,
4. What are the challenges and lessons learnt?
5. How can developing countries benefit from regional cooperation?
6. How can developing countries benefit from specific projects, innovation models?

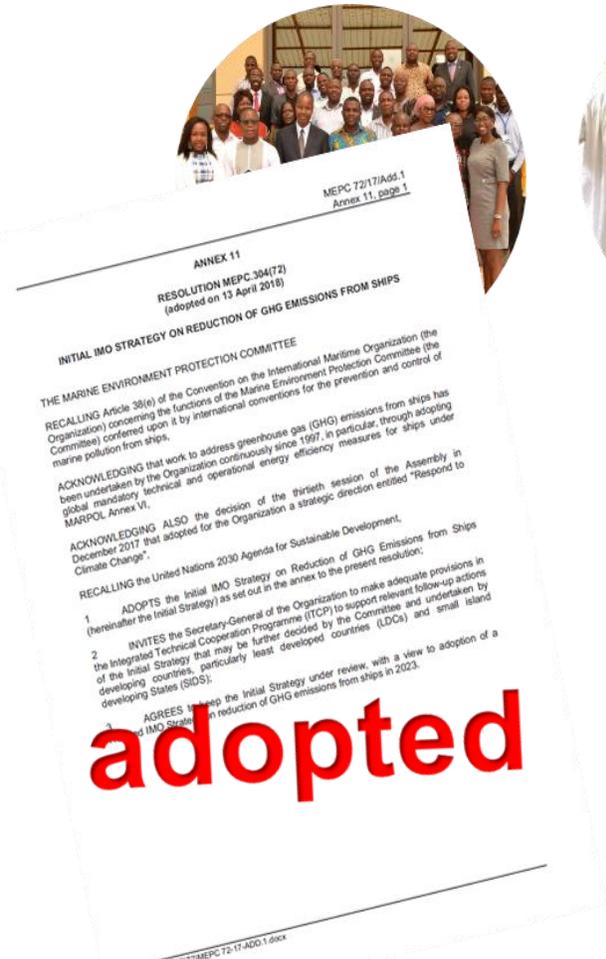
The African Region Overview Emission Factors



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IMO environment program

MTCC Africa Best Practices Capacity Building



Capacity Building Events Virtual Events 2020-2021



Success of MTCC Africa Road Map to Decarbonization

- Capacity building for regional focal points committee
- Benefiting from roll out of virtual events 2020-2021
- Stakeholder engagement in the industry
- Implementation of the IMO GHG Strategy
- Pilot projects completion and building up on the recommendations
- Consideration of bankable long term projects ie current on going Port Emissions Pilot Project
- Promoting the ratification of Marpol Annex VI
- Plans in place to commence publications of ongoing pilot project

Target Audience:

- Maritime Administrations
- Port Authorities
- Bunkering Companies
- Marine Engineering Firms
- Ship Owners & Ship Agents
- Maritime Technology Companies
- Maritime Logistics & Transport
- Financial Institutions
- Ship Operators & Seafarers
- Maritime R&D Institutions
- Government Authorities/Institutions
- International Organisations
- Ship Building & Repair Yards
- Maritime Lawyers

MTCC Africa's Pilot Project and Action Items

Uptake of ship energy efficient technologies and operations

Promote of the uptake of energy-efficient technologies and operations through information dissemination platforms

Identify and report impacts of the implemented energy-saving/emission reduction strategies at the selected Port

Conduct Energy Audits in selected ports

Fuel Consumption and Emissions Data Collection and Reporting

Quantify the impact of greenhouse gases from the shipping industry in selected ports and waterways

Collect and process data-sets to calculate the Energy Efficiency Operation Index (EEOI) of participating ships

The information compiled and reported to IMO can further be used for subsequent decision and policy making



Impacts of the Pilot Projects to the Region

- 20% saving on energy efficiency at the Port of Mombasa
- Use of RIS-GA system on RTG and MHC: Optimizes diesel generator speeds during the crane's stand-by mode and typically reduces total fuel consumption by 20%
- Trained a number of maritime administrators and ship operators through capacity-building programs
- Identification of baselines of emissions at the Port of Mombasa area
- Port of Douala is currently implementing the recommendations of energy efficiency audit



Challenges

- **Technical Cooperation:** to ensuring no country is left behind in the move to decarbonise shipping. long-term partnership of the EC and IMO is absolutely critical. With the establishment of Maritime Technology Cooperation Centre's (MTCC's), and their growing status and success, IMO and EC have embarked on a common journey that we hope will eventually lead to full decarbonisation in all regions.
- **Financing models** promoting innovation and uptake of new technologies especially in the context of developing countries in Africa, and in particular the small island developing States (SIDS) and least developed countries (LDCs).
- **Capacity Building:** sustainable maritime sector and the need to build back better and greener in a post pandemic world, through use of 'New technologies for greener shipping' reflecting the need to support a green transition of the maritime sector into a sustainable future.
- **Funding Gap:** Results from the ongoing pilot projects on quantification of emissions within the ports limits of Mombasa, ought to be replicated to the wider African region, a plus that will be in support of item number 2, this is seriously being hampered by the funding gap This gap will also stall the implementation of the Initial IMO GHG Strategy which is directly linked to bankable project consideration.

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Needs as Derived from the MTCC Africa National Needs and Technical Barriers Assessment Study: Case Study African Region towards Shipping Decarbonisation

Technology

- Pilot Project Progress implementation with a focus on port development
- Leverage on bankable projects
- Long term benefits to integrate with the private shipping industry

Policies/Regulations

- Implementation of the IMO GHG Strategy
- Domestication of Marpol Annex VI
- Public Policy in the region to leverage on IFI policies

Finance

- On bankable projects
- Demand driven not supply driven
- Positive returns on investment
- Zero-low emissions i.e bunker fuel, port infrastructure
- Sustainability models



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"Greening Port Technologies"



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