



Port Infrastructure & Sustainability for the Future at Port Louis

Mauritius Maritime Week 2022

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Director Port Development

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Agenda

- **Port Louis in the Global Logistics Chain**
- **Principles of Sustainable Development & Goals**
- **Port Facilities & Sustainability Challenges**
- **Impact of Climate Change & Adaptation Measures**

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Source: Shipping density data adapted from National Center for Ecological Analysis and Synthesis, A Global Map of Human Impacts to Marine Ecosystems.

- Mauritius is located at the intersection of several main shipping lanes, ideal for hub-and-spoke transshipment to East Africa and other Indian Ocean islands, as well as relay transshipment for longer distance routes.

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Sustainable development has been defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).

- **a process of change in which the exploitation of resources, the direction of investments, the orientation of technological development and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations.**

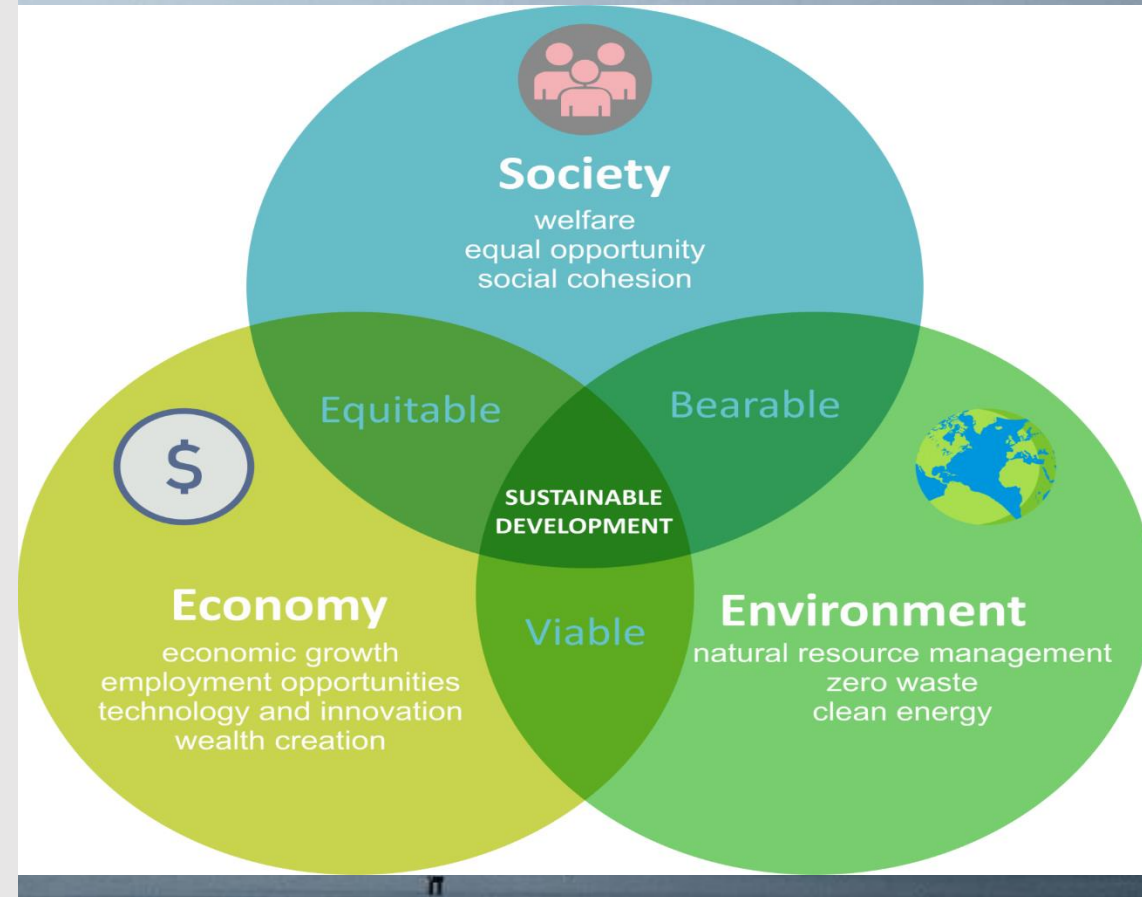


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The broadly used term “sustainable” consists of three dimensions: ECONOMIC, ENVIRONMENTAL & SOCIETAL

➤ Triple bottom lines of the concept of sustainability balances: land issues to the environmental aspect; labour combined to social aspect and technology according to economic approach.

➤ Sustainable Development Goals (SDGs) – Agenda 2030 of UN are considered as the most profound plan to reach global sustainability.



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1970s'



Recent



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Petroleum Jetty
Mauritius Container Terminal
800m x 16.5 m

Cruise Jetty
124 m x 12.5 m

Terminal II – Multi-Purpose Terminal			
Quay	Length Mts	Dredged Depth	Cargo Handled
1	123	13.5	Bulk Fertilizer, Coal, White Oil, General Cargo
2	180	12.2	General Cargo, Containers & Bulk Cement
3	185	12.2	General Cargo & Containers
4	185	12.2	Containers, LPG & Bitumen

Terminal I (incl. Trou Fanfaron Fishing Port)			
Quay	Length Mts	Dredged Depth	Cargo Handled
A	210	12.2	Black oil, Edible oil, general cargo, Maize, Molasses, Soya Bean Meal, Wheat, Passengers, Inter-island trade
D	170	12.2	Black oil, Edible oil, general cargo, Maize, Molasses, Soya Bean Meal, Wheat, Passengers, Inter-island trade
E	135	9	Passenger, Inter-island trade
TFF 1	150	5.5	Frozen Fish
TFF 2	165	7	

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TOTAL CARGO TRAFFIC 2000-2021 [000 TONNES]

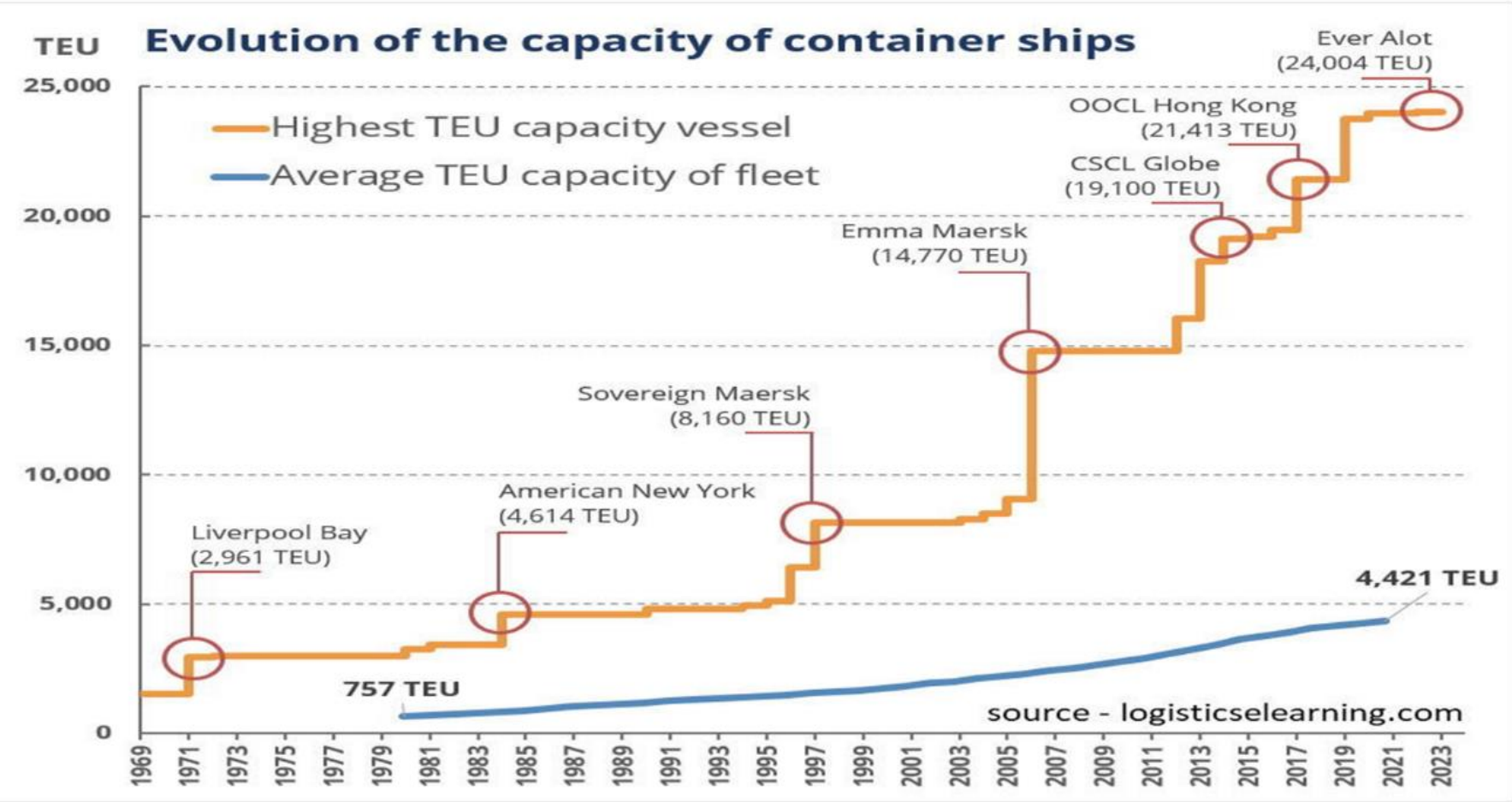


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Port Trade Performance CY 2021

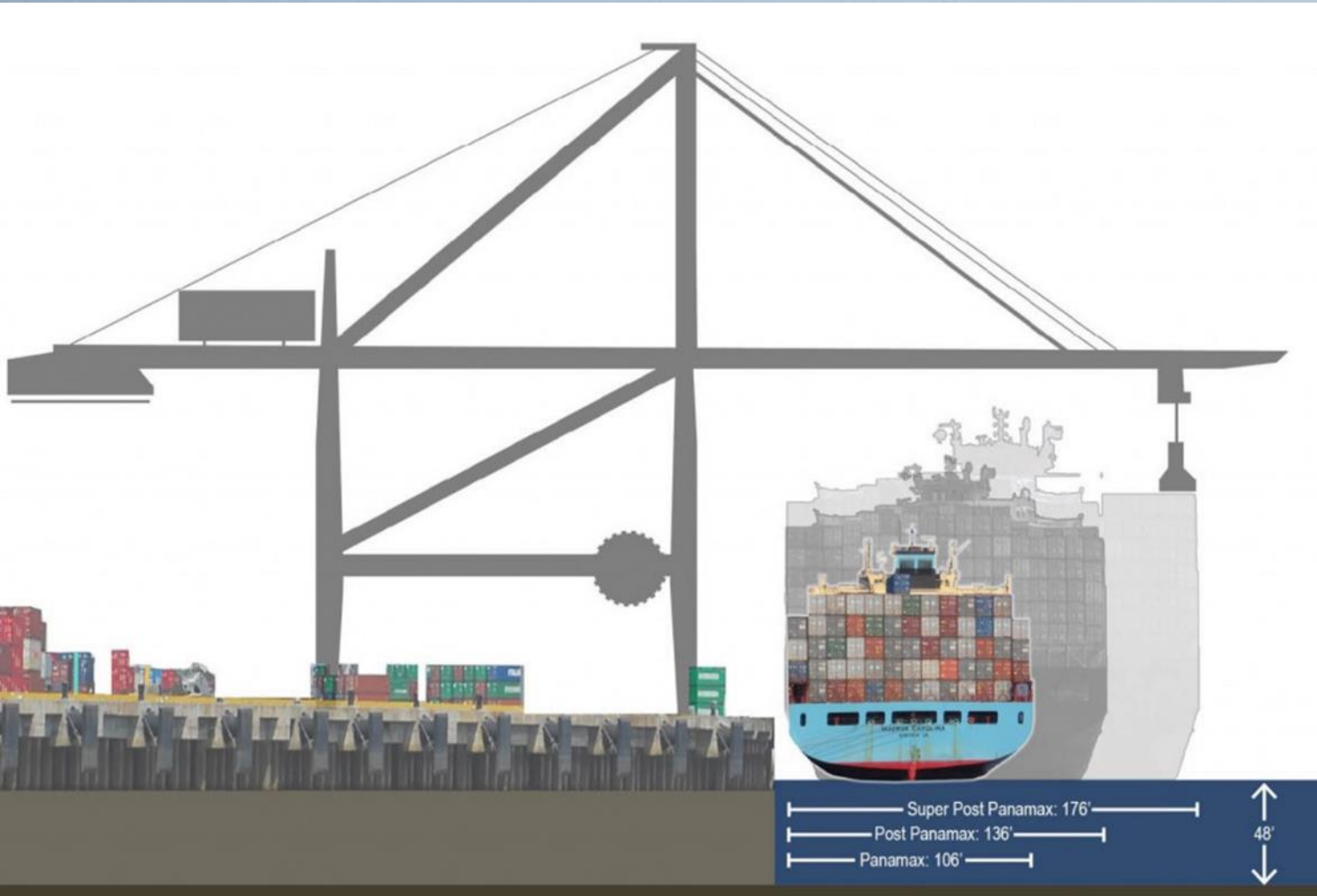
Total Traffic	7.6 MT (+2.4%)
<ul style="list-style-type: none"> • Containerised cargo • Dry Bulk Traffic (Cement, Coal, Wheat, Sugar) • Liquid Bulk Traffic (Petroleum Products, Molasses) 	3.7 M T (+1.9%) 1.8 MT (+7.0%) 2.0 MT (-2.6%)
Total Container Throughput	663.6 K TEUs (-0.4%)
Captive Container Traffic	226.3 K TEUs (-9.2%)
Transshipment Inwards Container Traffic	210.0 K TEUs (+9.2%)
Transshipment Outwards Container Traffic	210.8 K TEUs (+9.5%)
Total Cruise Traffic	338 pax (-99.0%)
Total Fish Traffic	99.9 K tonnes (-5.5%)
Total Bunker	618 K tonnes (-3.5%)
Total Vessel Calls	2,550 (-8.1%)
Container Vessels	459 (-1.3%)
Fishing Vessels	727 (-5.0%)
Cruise Vessels	1 (-95.0%)

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Ever Alot	IMO No. 9893955	22 June 2022
Ever Apex	IMO No. 9893979	11 July 2022
Ever Aria	IMO No. 9909132	13 September 2022
Ever Atop	IMO No. 9893993	28 October 2022

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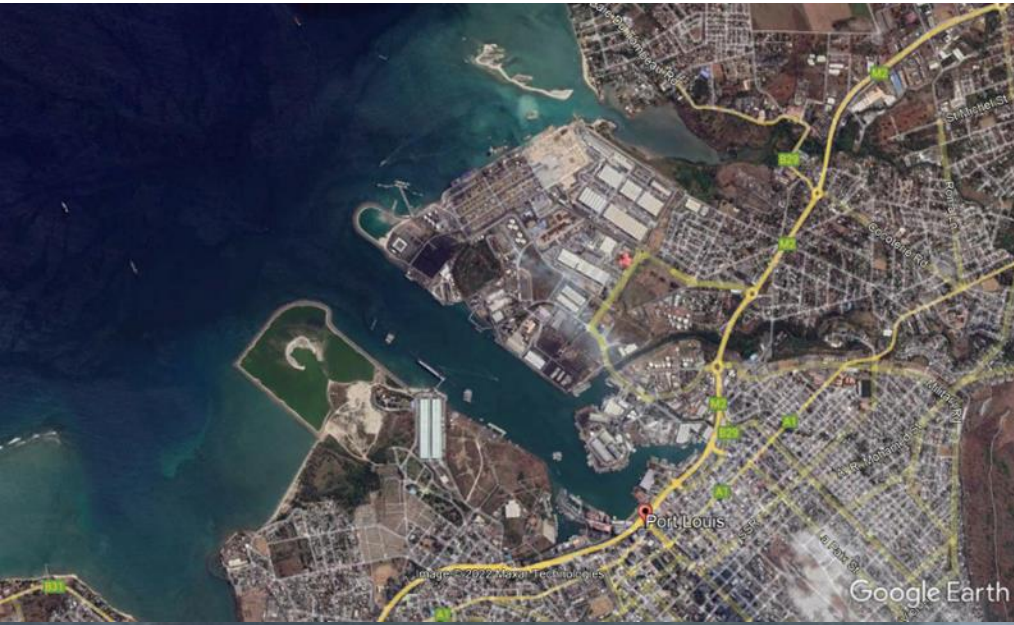


Impact of Calls by Bigger Vessels

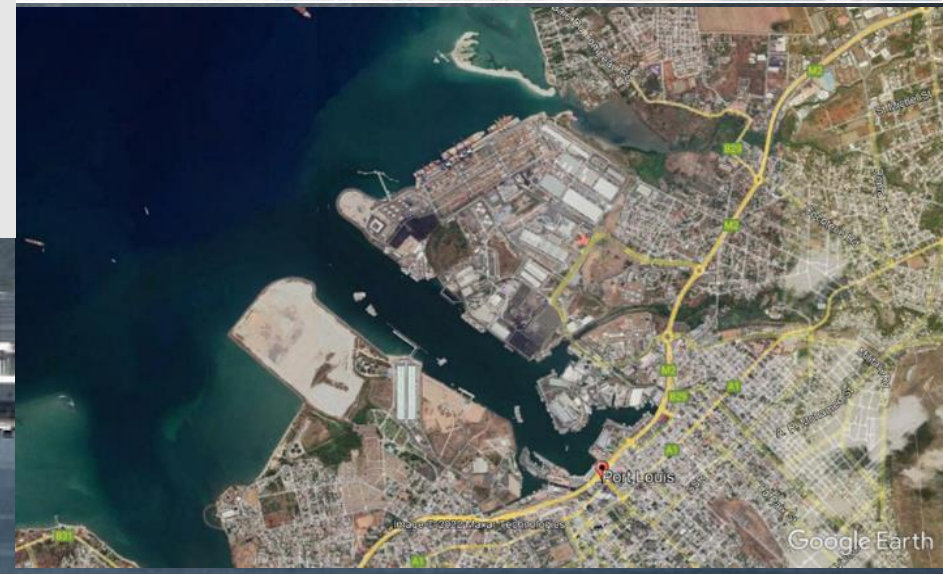
- Deeper Draft requirements
- Extended Quay length
- Cranes with extended outreach
- Larger Stacking Areas
- Increased shore equipment



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The need to deepen the navigational channel was planned taking into consideration that some 1.4 M m³ of dredged material so generated would need to be used beneficially & in an environmentally sound manner



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The increase in vessel size generated the need to extend the quay & expand the container stacking yard – Funding Agency required compliance to ESIA conditions for the adjoining Bird Sanctuary & neighbouring population



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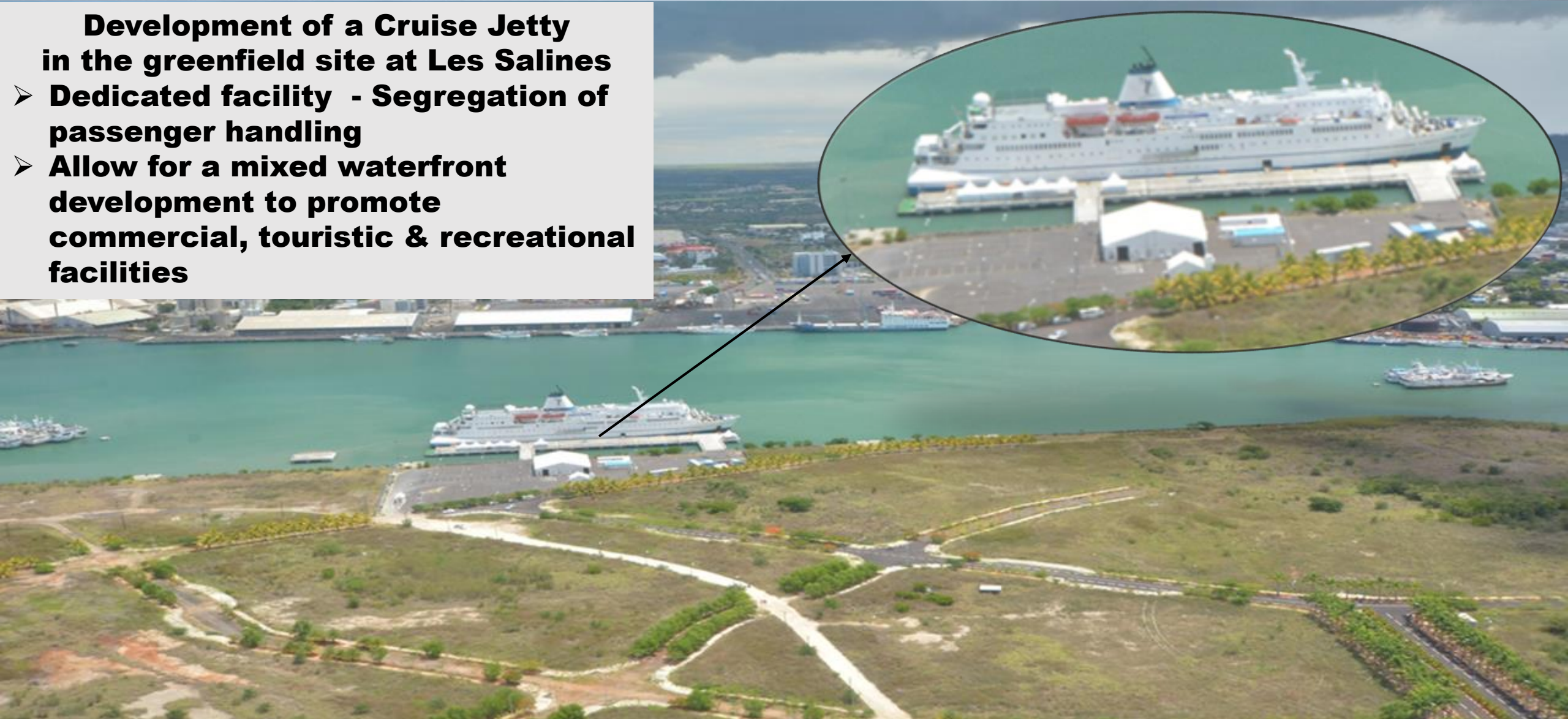
Setting up of a dedicated Oil Jetty for the handling of all petroleum products to mitigate the level of risks to the city & neighbouring residential areas



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Development of a Cruise Jetty in the greenfield site at Les Salines

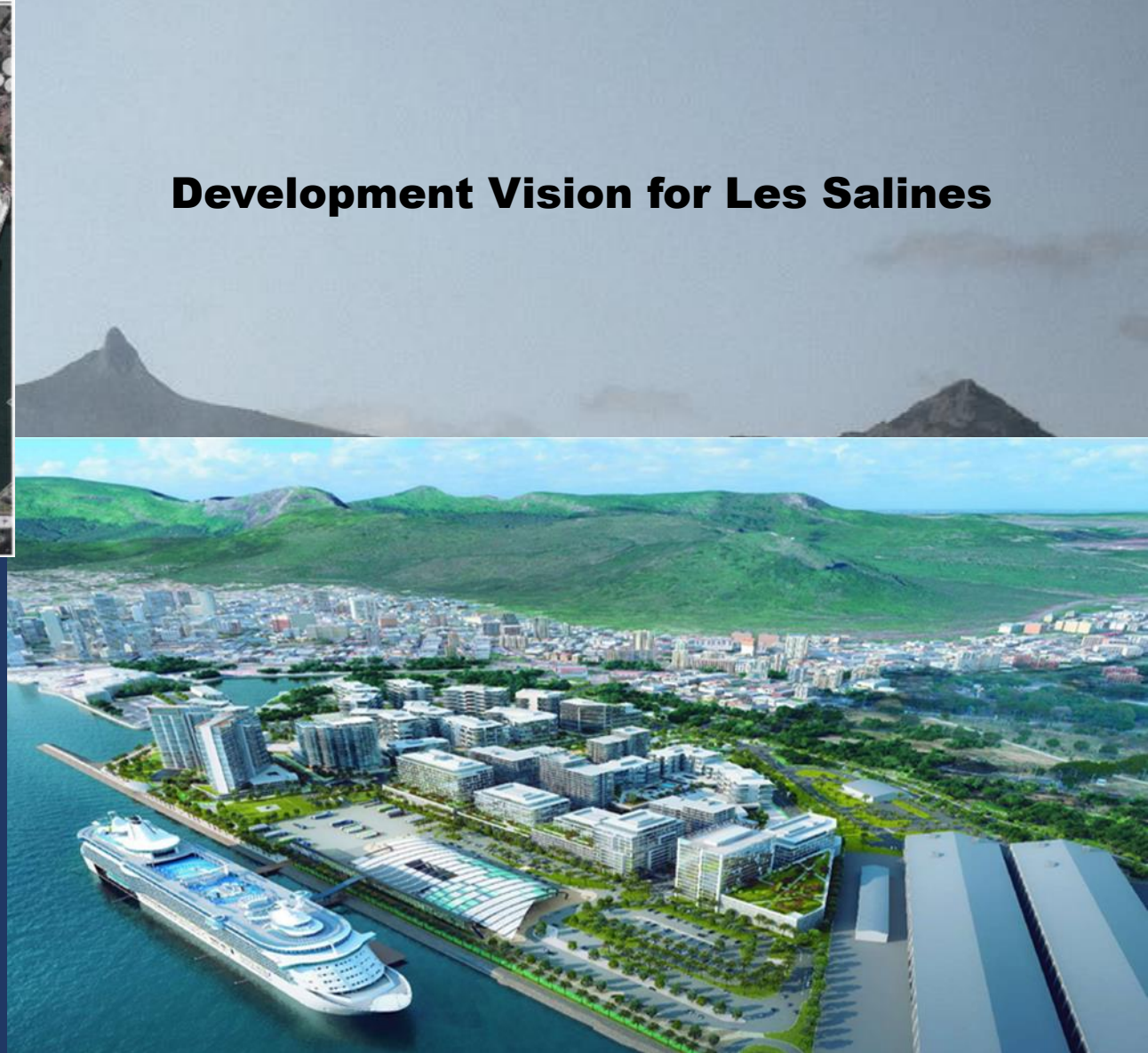
- **Dedicated facility - Segregation of passenger handling**
- **Allow for a mixed waterfront development to promote commercial, touristic & recreational facilities**



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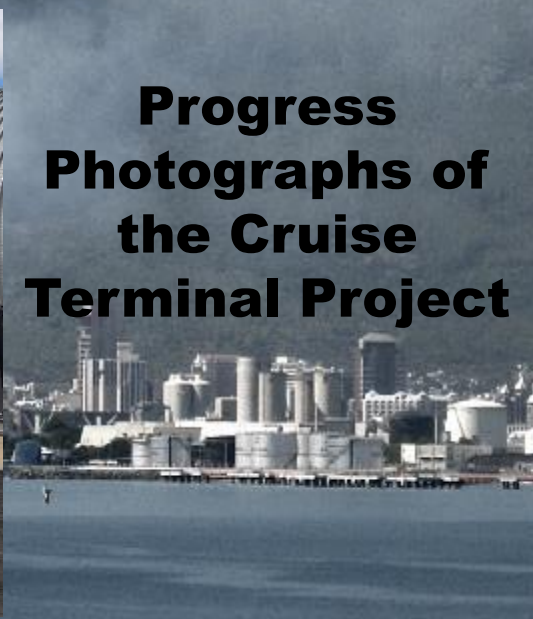
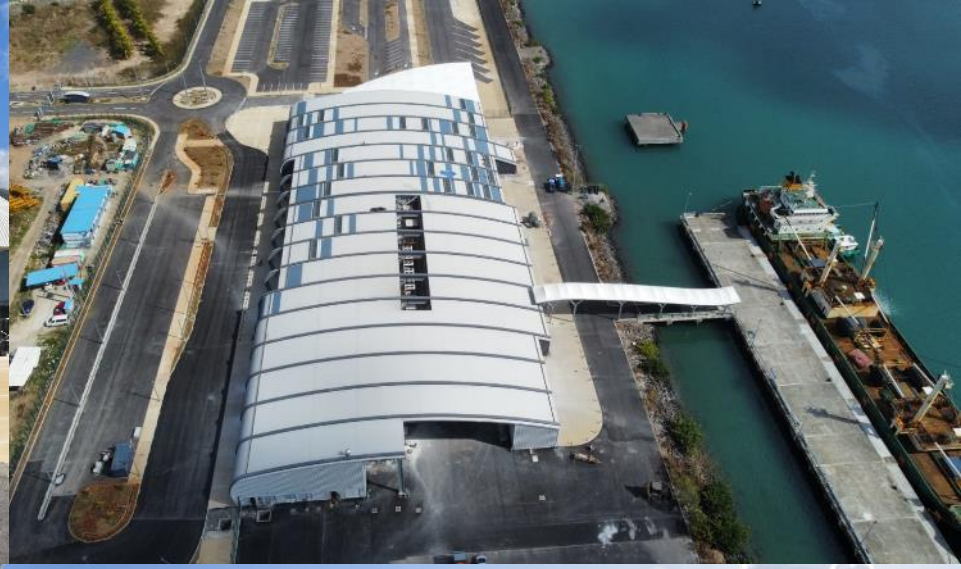


Development Vision for Les Salines



- Investment – about MuR 800 million
- Construction works nearing completion
- Floor area of 7500 sq m planned for peaks of 4000 passengers
- Developed over some 4.5 hectares includes some 150 parking slots
- Flexible planning allows for other events over about 2500 sq m

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**Progress
Photographs of
the Cruise
Terminal Project**

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Other salient measures to ensure sustainability

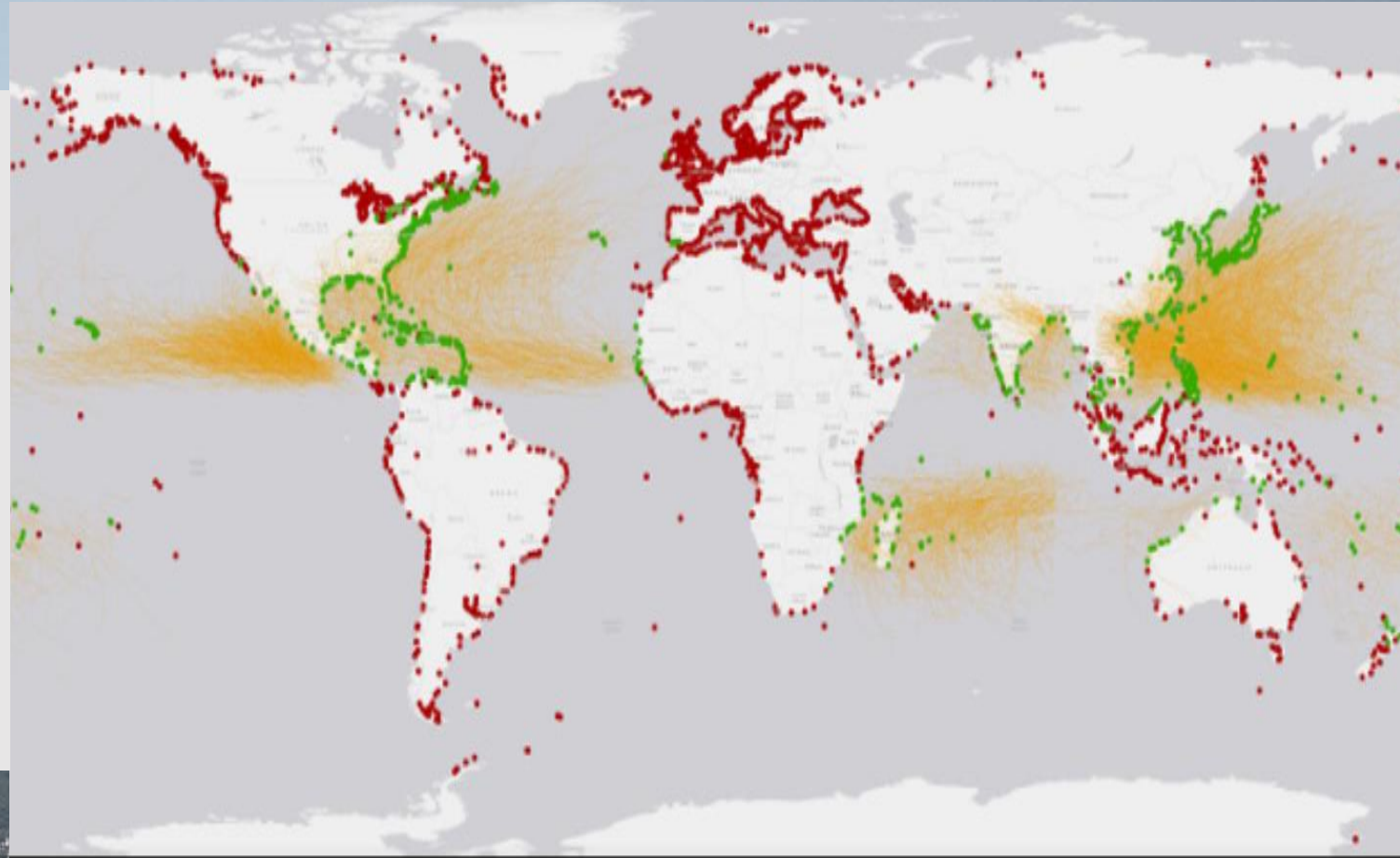
- **In addition to the perimeter fencing, CCTV system is being upgraded to sustain our ISPS certification**
- **A Cargo Community System for trade facilitation is operational**
- **An enhanced VTS has been commissioned & a vessel clearance system is in progress**
- **Development of solar PV system by MPA is under consideration**
- **Study for shore power to vessels conducted**
- **Potential use of cleaner sources like LNG, wood chips, etc. for power generation is being considered**
- **MPA will be commissioning a review of its Port Masterplan**

Impact of Climate Change

- **Port cities around the world are threatened by climate change & sea level rise; by cyclones & storm surges.***
- **Enhancing the climate resilience of ports is a matter of strategic socio-economic importance for the global economy and society as a whole (UNCTAD, 2020).**
- **The current global cost to protect all ports is estimated to be up to US \$205 billion by 2100, and yet the reduction in global trade without this investment would be worse* (*World Economic Forum – August 2022).**

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On last 20 November, the Conference of the Parties to the UN Framework Convention on Climate Change (COP27), that took place in Sharm El-Sheikh, concluded with a historic decision to establish and operationalize a loss and damage fund to compensate vulnerable nations for 'loss and damage' from climate induced disasters.



➤ **Graphical Abstract - Map showing ~1100 ports (green) out of ~3700 total (red) that have come within 50km of a tropical storm from 1960 - 2016. Storm tracks in orange. (data from World Port Index and <https://www.ncdc.noaa.gov/ibtracs/>)**

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Techno-economic Feasibility Study Island Terminal Project (2019)

- Breakwater - 1.7 km
- Land Reclamation: 55-60 Ha
- Deepening of Access Channel : 18 m
- Container Terminal with 3x400m long berths



A Climate Change Vulnerability & Adaptation Study for Port Louis(CCTN - 2020) has confirmed the need for a breakwater to provide protection to the existing container Terminal

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Port Louis is the only commercial port in Mauritius and consequently the sustainability of port development & port services will become dependent on the implementation of appropriate adaptation measures against the impacts of climate change

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Thank You for Your Attention

Mauritius Ports Authority

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