

CLIMATE CHANGE IMPACT ON PACIFIC PORTS AND FUTURE SUSTAINABILITY

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INTRODUCTION

SEAPORTS

- 80% world trade (Blue economy)
- access global markets & supply-chains
- maritime transport - goods, fisheries, energy, tourism, defence, communications
- exposure to natural hazards - rising sea level, storm, waves/ winds, flooding, tectonic events (earthquake & tsunamis) - logistics disruptions/ delay



GLOBAL WARMING

- Natural processes
 - sun activity
 - volcanoes
 - tectonic movement
- Human activities
 - Industrialization & transportation - GHG (CO₂, CH₄, N₂O, water vapor)
 - Deforestation



IMPACT



ENVIRONMENT

- Rising global sea level and temperature
- Melting ice cap
- Heat wave - La Nina/ El Nino
- Increased intensity of winds/ storm/ typhoons & wave
- Prolonged droughts, abnormal rainfall
- Lowlands submerged
- Coastal erosion & sedimentation
- Reduced crop yields
- Climate refugees - hunger & poverty
- Desertification
- Endangered flora & fauna, coral bleaching.



PORT

- Safety risk - navigation & port operations
- Low structure submerged
- Coastal erosions and navigational channel sedimentation
- Damage infra - yard, wharves, road, equipment, building
- Disrupt port and logistics efficiency
- Higher cost of maintenance & repairs
- Higher cost of doing business

UNSDG GOAL 13 : URGENT ACTION TO COMBAT CLIMATE CHANGE & ITS IMPACT

PORTS/ SHIPPING - MITIGATION



Cleaner bunker fuel - Low Sulphur, LNG, Biofuel - lower GHG emissions)



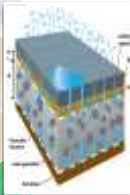
Moving towards sustainable energy solutions/ wind/ solar



On shore power supply - vessel at wharves



Electrification & Automation of Terminal Equipment



Install water-permeable pavements to better deal with floods/ stormwater

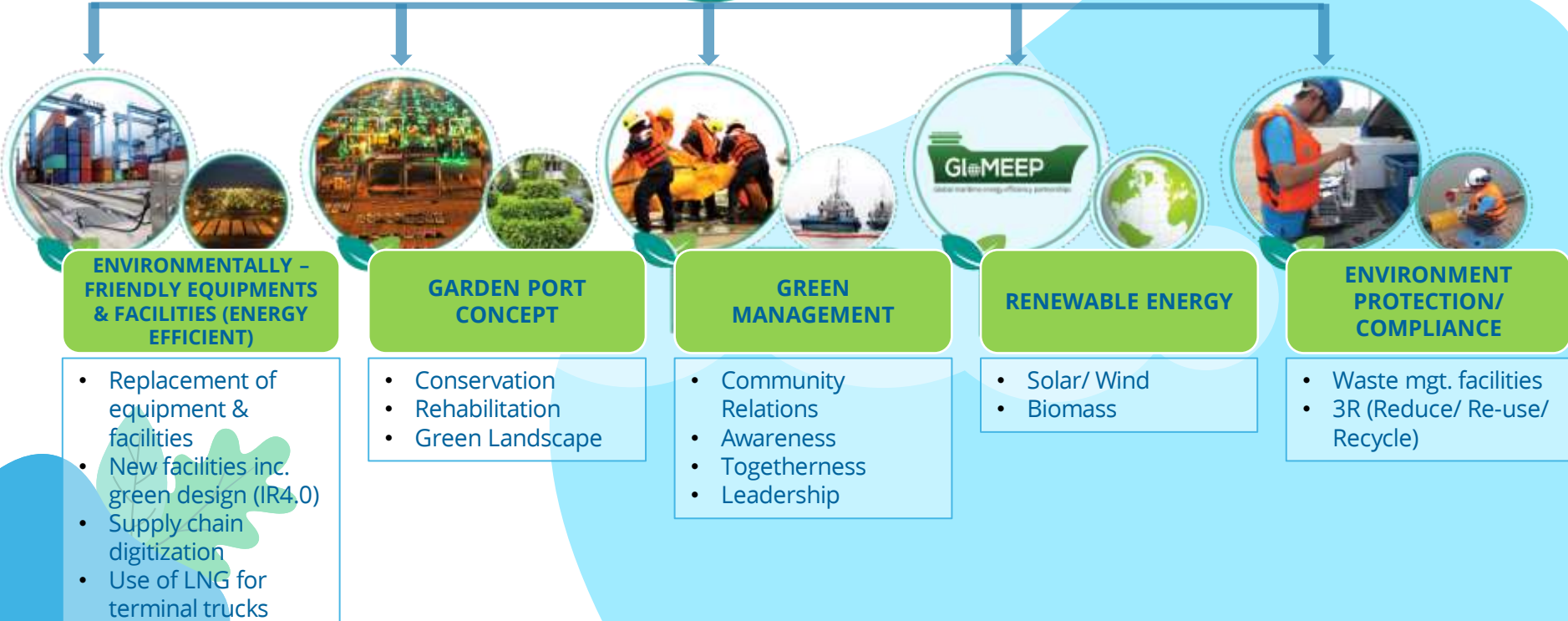


Green and Sustainable Port Policy



Green Best Practice & Standards through international cooperation - IMO, IAPH, APSN

PORT KLANG TOWARDS GREEN ENVIRONMENT



SHAPING A SUSTAINABLE FUTURE THROUGH ASSOCIATIONS



1

Work to resolve common issues and committed to a cleaner, safer and more environmentally-sustainable industry



2

APSN is to promote economically and environmentally sustainable ports by strengthening cooperation, developing best practices and guidelines, enhancing supply chain effectiveness, building capacity and stimulating information and personnel exchange



3

Enhance and coordinate future sustainability efforts of ports worldwide and foster international cooperation with partners in the supply chain.



4

Facilitate the exchange of ideas and learn best practices.



5

Provide a venue for port officials concerned to meet and share experiences that may lead to finding solutions to identified problem areas and emerging issues affecting the port sector

CONCLUSION

- 1 Fast action needed to tackle environment issues
- 2 Strategies to face future climate challenges & disruption using digital technology in every aspect of the industry
- 3 Commitment to reduce emission & GHG to protect the environment towards developing a sustainable industry for the future
- 4 Continuous planning and development of resilient infrastructure & services towards meeting future challenges
- 5 Importance of international/ global cooperation to combat and mitigate global warming issues



Thank you!

Do you have any questions?

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