Environmentally Sustainable Initiatives in the ASEAN Ports

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GIZ’s purpose is to promote international cooperation for sustainable development and education work.

As a 100% federally owned, public-benefit enterprise, we support the German Government in achieving its objectives in the field of international cooperation for sustainable development.

GIZ operates in more than 130 countries and employs more than 17,000 staff members spread across the globe.

Our annual turnover is about 2 billion Euro.
Sustainable Port Development

The project is part of the regional ASEAN programme “Cities, Environment and Transport”

Project objective:
“Selected ports have improved the quality and efficiency of their Safety, Health and Environmental (SHE) management”

Project impact:
“The quality of life and welfare of port workers and nearby communities have improved”
Participating ports

7 countries / 12 ports

1. Bangkok
2. Laem Chabang
3. Phnom Penh
4. Sihanoukville
5. Iloilo (Panay/Guimaras)
6. Cagayan de Oro / (Misamis Oriental)
7. Sabah
8. Johor
9. Saigon
10. Saigon Newport
11. Tanjung Priok
12. Yangon Port
Objective of session

“To showcase initiatives and achievements of various stakeholders (our ASEAN ports) in promoting environmental sustainability in the maritime sector”
Main challenges for sustainable ports in ASEAN

- **Building up** capacity of port staff and personnel
- **Change management** of existing practices and structures
- **Commitment** of top management as a driving force for sustainable change
- **Engagement** and buy-in from key stakeholders
- **Balancing** environmental challenges with economic demands
- **Gaps regarding** national legislation and enforcement and international standards and conventions
Project Outcomes and Partner Achievements

- Increased efficiency of cargo operations and traffic management in the port area
- Increased awareness, providing capacity building and support the port’s goal to improve SHE management and performance
- Sharing of know how within the region and south-south cooperation (port to port learning, training network)
- Supported the ports to move towards international compliance on waste management and establishing port regulations
- Successful changes made at the institutional level
  - Organizational structures, establishment of SHE committees, divisions and departments
  - Improved procedures and methodology on reporting and monitoring
Best Practices and Initiatives in the Region

- ASEAN ports have implemented measures to mitigate environmental impacts
- Some of these initiatives were achieved with support from the project
- Initiatives include reduction of air emissions, improving water quality, improvement of waste management and proactive policies toward a green port
Cold Ironing – PMO Cagayan de Oro (PH)

- The port installed a shore based power supply (SBPS) for domestic ferries
- Provides low voltage (125kW) power to ships when at berth – ships do not use their auxiliary engines to generate power
- The port has calculated the payback period for installation was less than 2 years (comparing saved costs for fuel with electricity)
Emission Inventories – Sabah Ports (MAL)

• In cooperation with the project in 2011, the port developed its own emission inventory in the following years up to now

• Results from annual emission inventories led to measures to reduce environmental problems and to go beyond compliance of local air quality standards
  • Development of a Cargo Handling Equipment Idling Guideline
  • Replacement of diesel powered equipment (E-Retrofitting)
  • Energy efficient lighting of port area (LEDs)
Waste Management – Bangkok Port (THA) and Port of Tanjung Priok (IND)

- Efforts to move towards compliance to MARPOL Annex V
- Both ports developed a revised Ship Waste Management Manual (SWMM) - including notification forms, internal waste collection procedures and requirements
- Roles and responsibilities of internal and external stakeholders clearly defined and assigned
- Implementation of SWMM expected in 2016
Green Port Initiatives – Johor Port (MAL)

• The port’s Green Port Policy was launched in 2014 as a guide for all port operators to move towards better environmental performance and sustainable development

• Led to one of many initiatives on improving environment:
  • Installation of energy efficient lighting systems for cranes – reduced electricity consumption by 76%
  • RTGs retrofitted to E-RTG – 40% reduction in diesel consumption in 2014 compared to 2013
Waste Water Treatment – Saigon Port (VN)

- Waste water treatment systems installed at the port
  - Household water – waste water from household uses (restroom, washrooms) are collected and processed
  - Industrial water – waste water from maintenance workshops (oily waste water) collected and processed
- Treatment is done prior to discharging to the river
Traffic Management Plan – Bangkok Port (THA)

- The plan was developed in cooperation with SPD
- Measures to reduce traffic congestion and emissions generated from port activities include (but not limited to):
  - Revised gatehouse policies and procedures, restructuring of key routes within the port, relocation of commercial areas surrounding the port, coordination with external authorities
  - Traffic congestions decreased at gates – lower emissions and faster turnaround times
  - Increase efficiency of cargo movement
Conclusion

• Simple yet effective measures to mitigate environmental impacts caused by port operations

• ASEAN ports are stepping up to improve environmental management in their ports

• These proactive approaches ensure the sustainability of port operations in the region and promotes a Blue Economy for the seas of East Asia
THANK YOU FOR YOUR ATTENTION

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