





# The GREEN PORT Project

**5%** GHG Emission Reduction  
by 2021 (Baseline 2015)  
= more than 6,000 TCO<sub>2</sub>eq


## Reducing Greenhouse Gas Emissions




**Adopting port automation** at Thailand's main ports by installing automated quay cranes, vehicles, Rubber Tyre Gantry cranes (RTGs) and gates, to increase ports' efficiency and productivity and enhance environmental sustainability




**Promoting shift mode logistics development**, from road to inland waterway and rail transport in order to alleviate traffic congestion as well as reduce fuel consumption and greenhouse gas emissions




**Promoting the use of alternative energy** within the ports including wind turbines, solar electricity system, etc



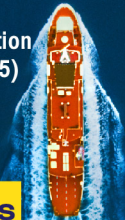
**Using and upgrading energy efficiency equipment** including onshore power supply, electric equipment, LED lights, high efficiency cool water pumps and refrigeration, etc



**Applying slow steaming concept** for dredging boats which seeks to deliberately reduce the speed of ships to cut down fuel consumption and carbon emissions. This practice can reduce carbon dioxide emissions by as much as 53 tons per year.



**Expanding green areas** including reforestation and mangrove forest and coastal conservation both inside and outside of ports





## Improving Environmental Management



### Installing wastewater treatment system

to ensure wastewater is treated in accordance with the quality standards stipulated by laws before being released to public water sources



### Implementing ship waste management

to be in line with the MARPOL Convention Annex V by facilitating waste discharge from vessels in ports and developing the Ship Waste Management Online Platform to share and manage the ship waste data



### Developing environmental information system

to collect data about fuel consumption, water and electricity supply, waste from operations, and levels of pollution derived from environmental quality measurement and monitoring activities in order to analyze and evaluate greenhouse gas emissions from port operations



### Implementing the Upcycling the Oceans, Thailand Project

to collect and recycle plastic waste such as plastic bottles and bags found in the sea, coastal areas and inside port's area for producing value-added clothing and fashionable products



### Moving toward "Smart and Green Port"

by adopting innovative technologies such as Port Community System (PCS), fuel card management system and smart grid to minimize pollution and efficient energy use



### Thailand awarded global environmental standards

- Green Port Award System (GPAS)
- Port Safety, Health and Environmental Management System (PSHEMS)

