

Green Road to Kunming

Planning Environmentally Sustainable Infrastructure

WORKSHOP SERIES 2022 28 April / 19 May / 23 June / 21 July



SESSION

3

Greening Coastal Developments

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23 June 2022 (Thursday) / 10:30 a.m., Philippines (GMT+8)



ENVIRONMENTAL IMPACTS OF PORTS AND SHIPPING

- 2-3% of global GHG emissions is from maritime transport
- 17% by 2050 if left unchecked
- Solution is to mitigate energy use and greenhouse gas emissions of this industry in the face of climate change.
- Environmental impacts
 - Shipping port activities; emissions, air & water quality, noise, vibration, liquid / solid waste, contaminants and light pollution
 - Intermodal port transport; cargo/containers on trucks, trains or feeder ships to final destinations contributes to carbon dioxide, sulfur dioxide, black carbon and other environmentally harmful greenhouse gases and particulates

HOW 'GREEN' IS BEING DEFINED

PORT SUSTAINABILITY

Strategies and activities that meet current and future needs of port stakeholders while protecting and sustaining human and natural resources

(AAPA, 2007)

GREEN PORTS

Proactive development, execution, and monitoring practices targeted at reducing environmental effects beyond compliance

(Acciaro, 2015)

GREENING PRESSURES ON PORT AUTHORITIES



EVOLVING PRIORITIES PORTS GREENING - ESPO 2020

Priority	2016	2017	2018	2019	2020
1	Air quality	Air quality	Air quality	Air quality	Air quality
2	Energy consumption	Energy consumption	Energy consumption	Energy consumption	Climate change
3	Noise	Noise	Noise	Climate Change	Energy efficiency
4	Relationship with the local community	Water quality	Relationship with the local community	Noise	Noise
5	Garbage /Port waste	Dredging operations	Ship waste	Relationship with the local community	Relationship with the local community
6	Ship waste	Garbage /Port waste	Port development (land related)	Ship waste	Ship waste
7	Port development (land related)	Port development (land related)	Climate Change	Garbage /Port waste	Water quality
8	Water quality	Relationship with the local community	Water quality	Port development (land related)	Garbage /Port waste
9	Dust	Ship waste	Dredging operations	Dredging operations	Dredging operations
10	Dredging operations	Climate change	Garbage /Port waste	Water quality	Port development (land related)

HOW ARE GLOBAL PORTS RESPONDING



FOUNDING PARTNERS



PARTNERS



ADB GREEN PORTS TA PROJECT

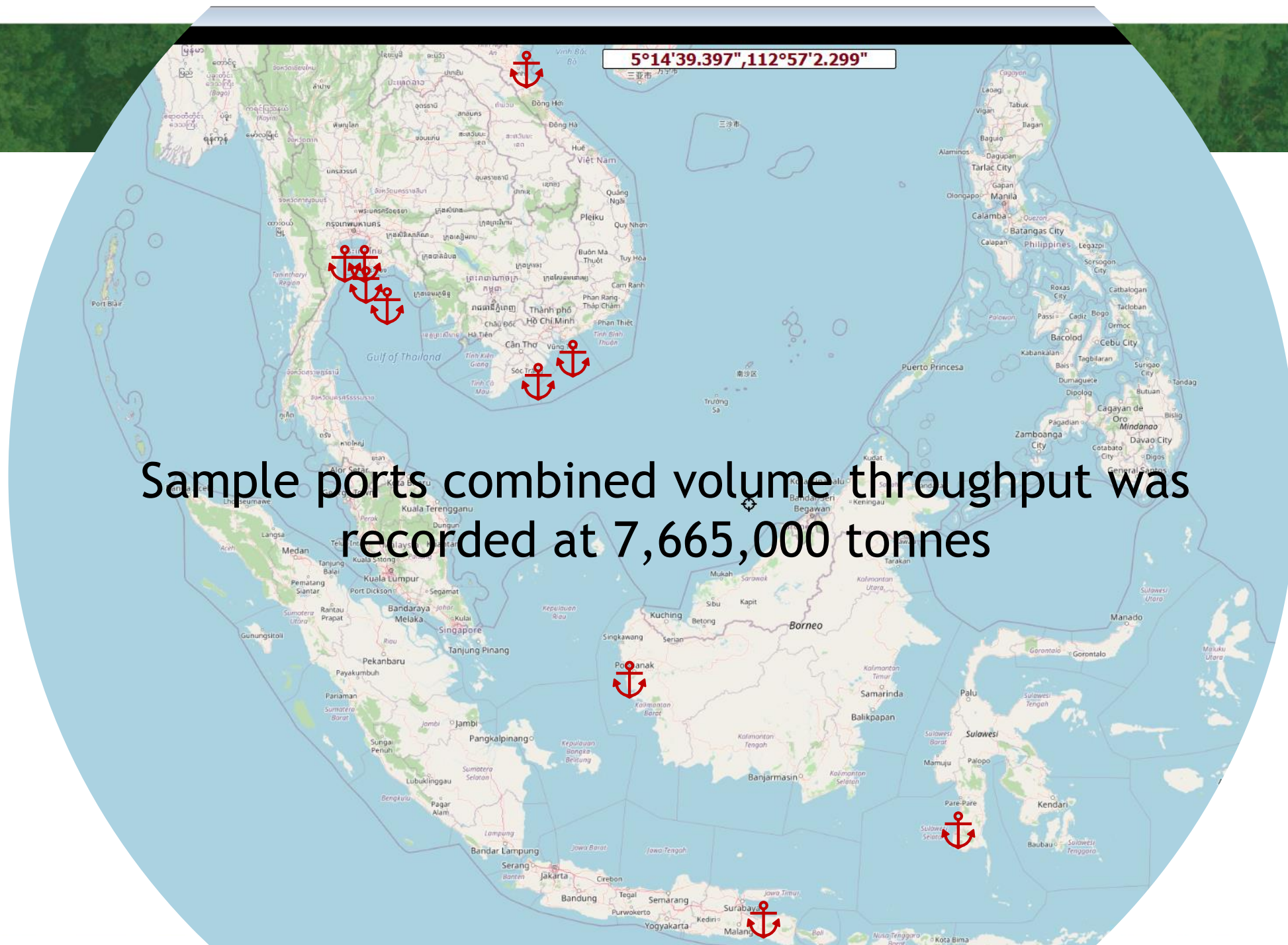
Mr Adrian Sammons - AMSTEC

Mr Russell Stevens - O2 Marine



Objectives of Study

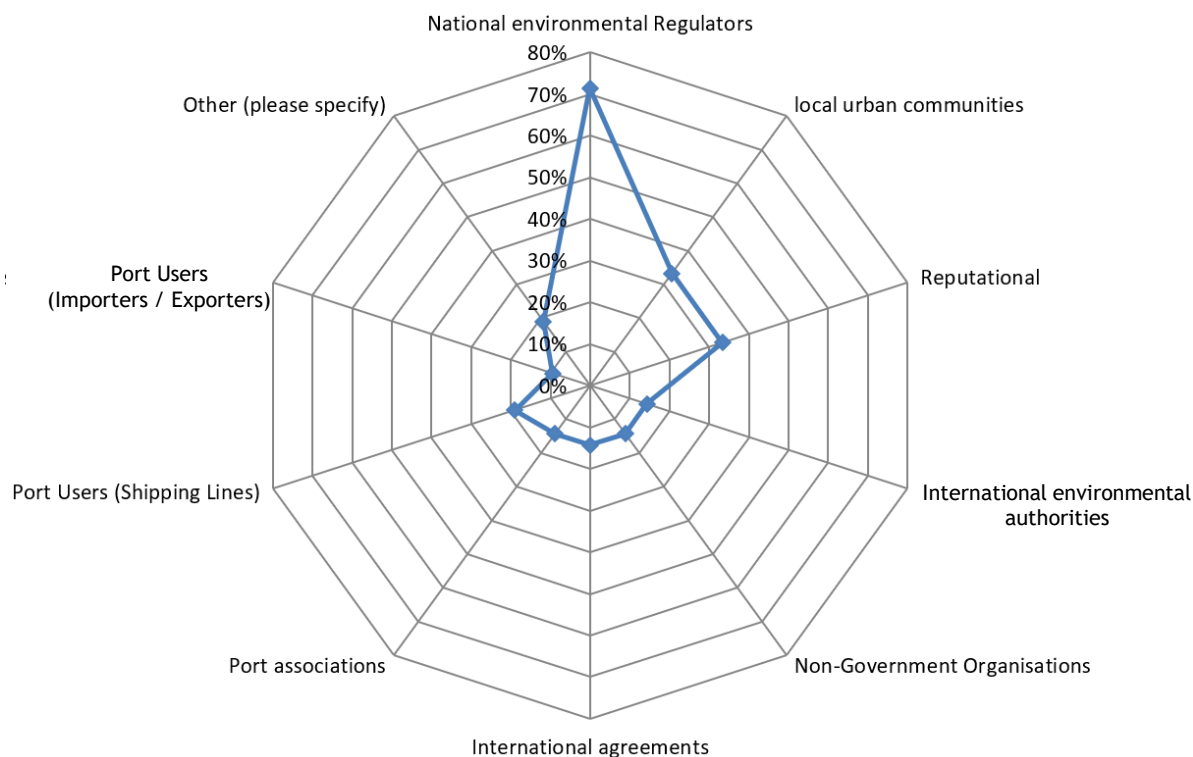
- Define environmental regulatory settings
- Define scale and operation of port activities
- Explore application and compliance of port management to their national environmental legislation
- Provide recommendations of enhanced approach to the expanding needs for greater coverage and compliance of environmental concerns emanating from seaport operations



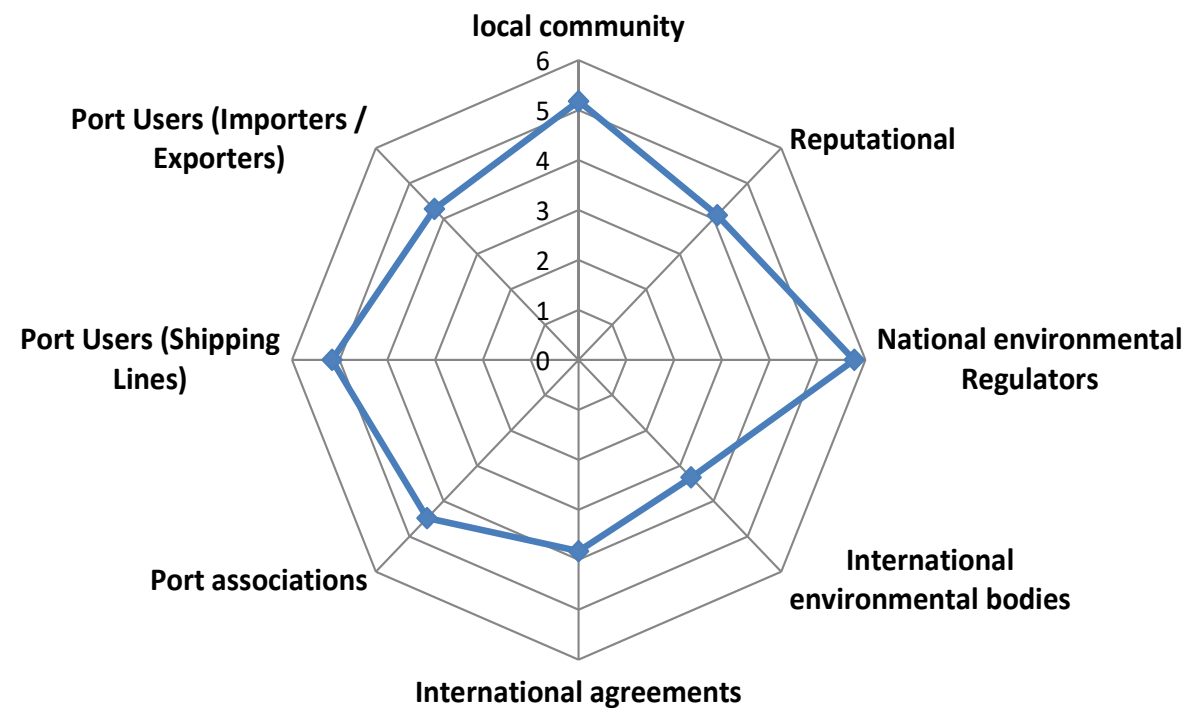
Sample ports combined volume throughput was recorded at 7,665,000 tonnes

FINDINGS GREEN PORT CURRENT STATUS AT SE ASIAN PORTS

Current Pressures on Greening

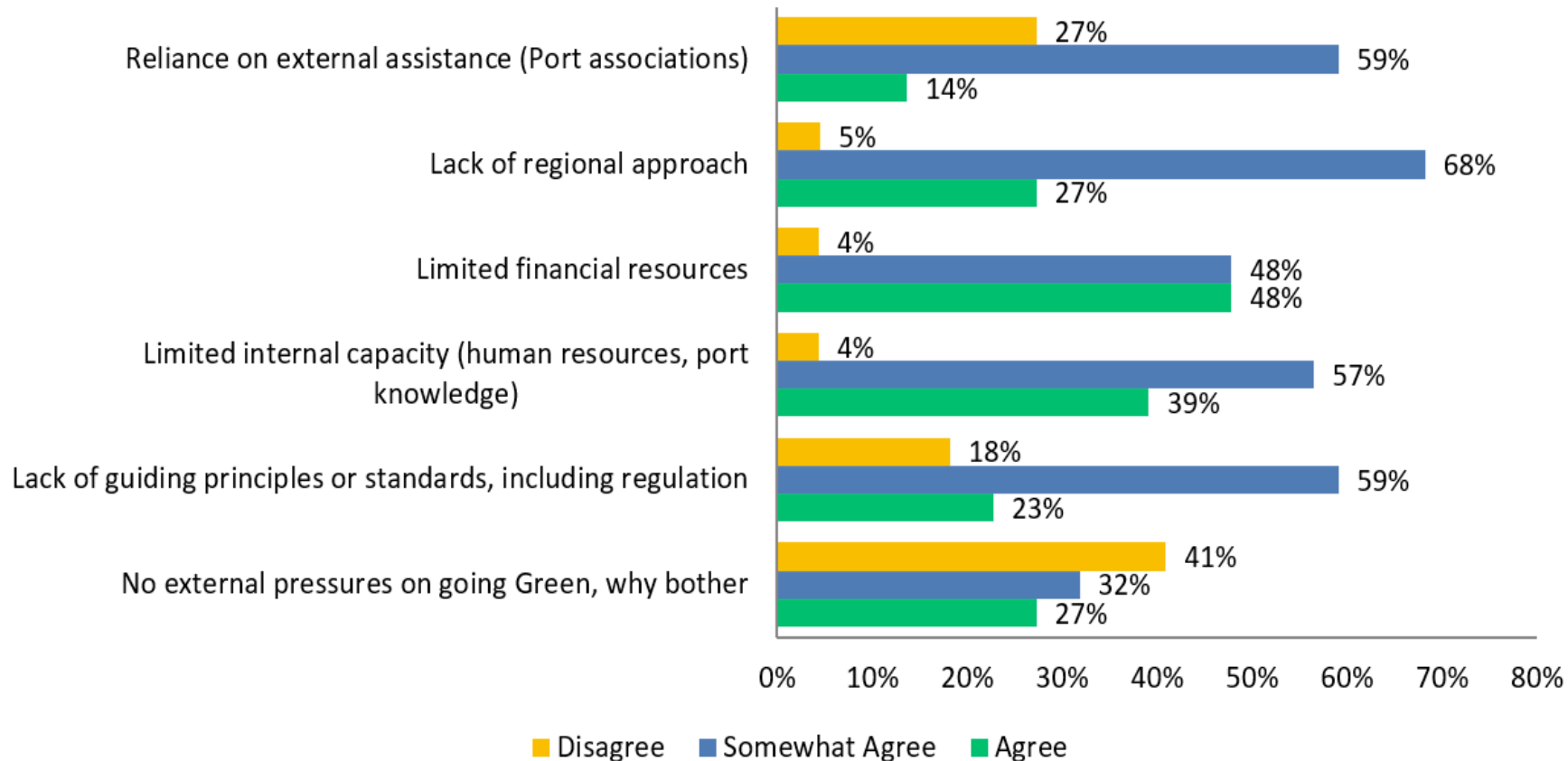


Future Pressures on Greening



FINDINGS GREEN PORT CURRENT STATUS AT SE ASIAN PORTS

Current Challenges faced on Greening



FINDINGS GREEN PORT CURRENT STATUS at SE ASIAN PORTS

Large variation across Port Environmental Management

Survey questions	Respondent Port												
	Indonesia			Thailand							Viet Nam		
	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7	Port 8	Port 9	Port 10	Port 11	Port 12	Port 13
Does the Port/Terminal have an Environmental Sustainability / Compliance (EMP) Plan?	✓	✓	✗	—	✗	✗	—	✓	✗	✗	✗	✗	✗
Does the EMP comply with the ISO 14001 standards?	✓	✗	✗	✓	✗	✗	✓	✓	✗	✗	✗	✗	✗
Does your Port / terminal employ a dedicated Environmental / Risk and Compliance Manager/Officer?	✓	✗	✗	✓	✗	✓	✗	✗	✗	✗	✓	✓	✗
Does the port have an Environmental Monitoring Plan?	✓	✓	✗	✓	✗	✓	—	✓	✓	✓	✗	✓	✗
Does the port comply with ISO 14001 standards?	✓	✗	✗	✓	✗	✓	✗	✓	✗	✗	✗	✗	✗

Green Port Standards – A Regional Approach

Operational



Technology



Infrastructure



Behavioral



Resources



WHY THE REGIONAL APPROACH

A diagram showing a green oval labeled 'Key Benefits' on the left. Three green arrows point from the oval to a list of benefits on the right. The arrows are positioned to the right of the oval, pointing towards the first, second, and fifth items in the list.

Key Benefits

- Governance Body
- Lobby Group
- Resource and knowledge-based sharing;
- Platform for collaborative approach;
- Resourcing sharing - Lower Costs;
- Transport efficiencies - reduced impacts and emissions;
- Sustainability approach - financial, environmental & operational;
- Inclusivity for 'smaller' Ports.

An aerial photograph showing a two-lane asphalt road with yellow double lines and white edge lines, curving through a dense, lush green forest. The road is bordered by a metal guardrail.

THANK YOU!

ADB



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