

Challenges & Opportunities of Sustainable Shipping in the Asia-Pacific Region

Asia-Pacific Day for Ocean

Session B: Sustainability Compass

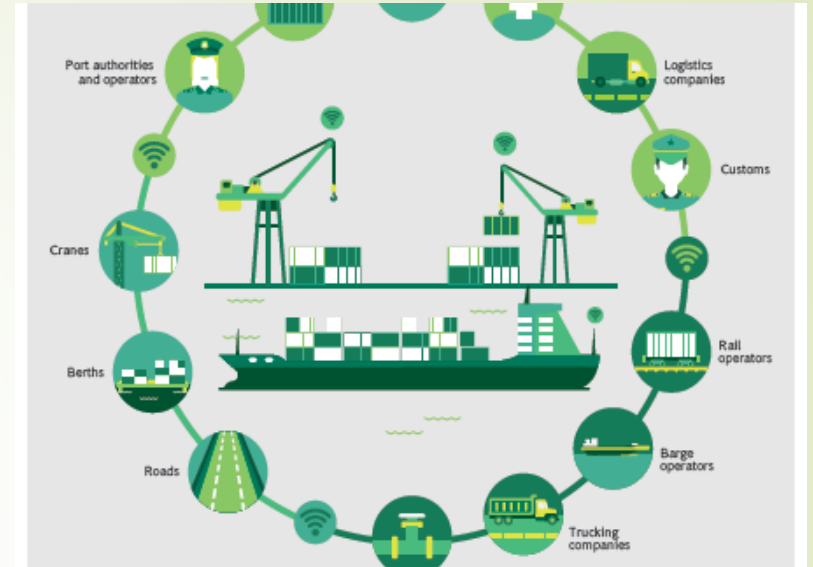
8, November 2019. UNCC, Bangkok

Mr. Sooyeob KIM

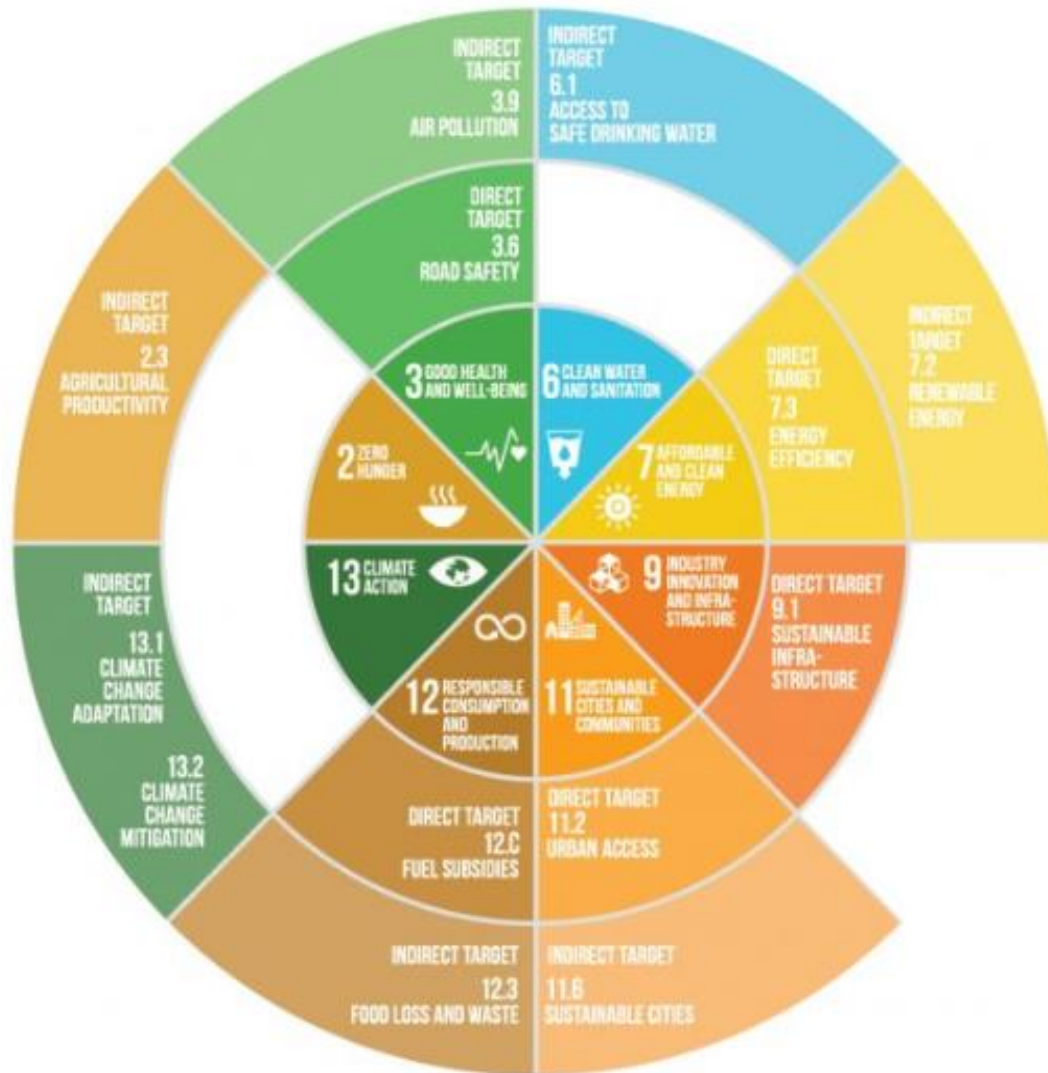
Transport Connectivity and Logistics Section
Transport Division

Contents

1. Status and trends
2. Challenges
3. Opportunities
4. Way forward



1.1 Transport and SDGs:



Directly contribute targets on;

- ❖ Road safety (Target 3.6)
- ❖ Energy efficiency (Target 7.3)
- ❖ sustainable infrastructure (Target 9.1)
- ❖ Urban access (Target 11.2)
- ❖ Fossil fuel subsidies (Target 12.c)

Indirectly contribute targets on;

- ❖ Agricultural productivity (Target 2.3)
- ❖ Air pollution (Target 3.9)
- ❖ Access to safe drinking water (Target 6.1)
- ❖ Sustainable cities (Target 11.6)
- ❖ Reduction of food loss (Target 12.3)
- ❖ Climate change adaptation (Target 13.1)
- ❖ Climate change mitigation (Target 13.2)

1.2 Asia-Pacific: Core of global maritime trade

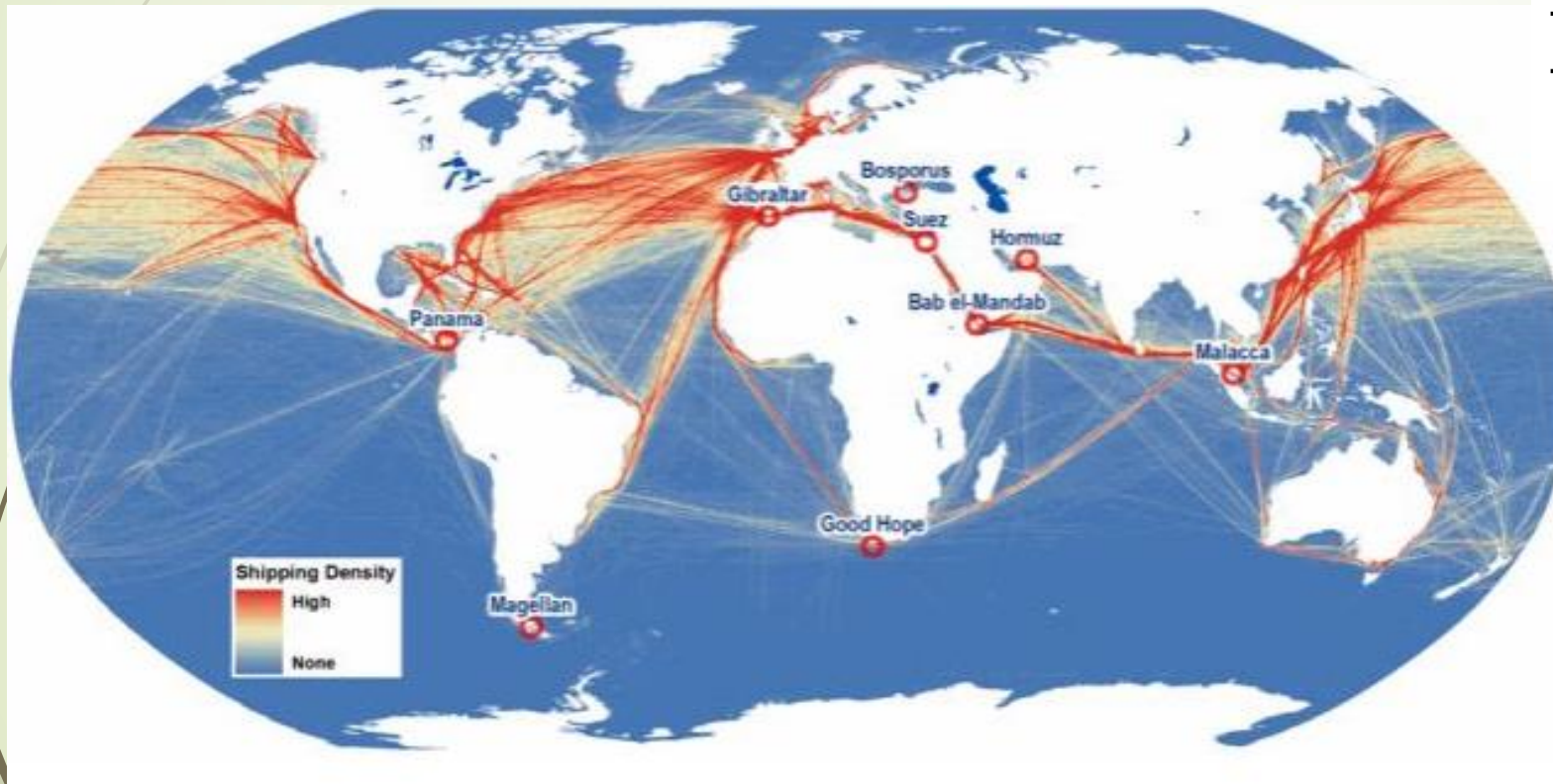
In the Asia-Pacific region, the maritime transport axis is divided into Asia-Pacific, Asia-Europe / Middle East and Asia-Oceanic routes, while Intra-Asia is subdivided into sub-regions such as East Asia, ASEAN, India sub-continent and the Pacific.

Regional Trades
weekly capacities

Trans-Atlantic: **148,597** TEU
Trans-Pacific: **461,199** TEU
Feast-Europe: **397,277** TEU

<https://alphaliner.axsmarine.com/PublicTop100/>
(as of November 2019)

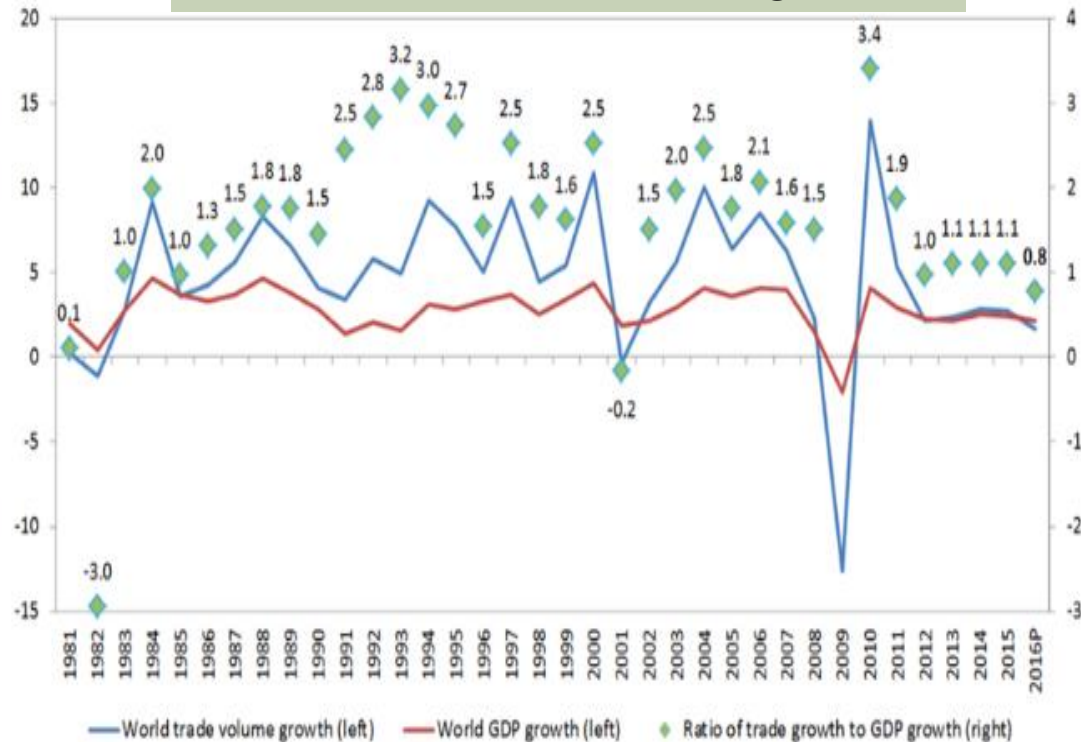
Of more than 500 liner shipping (usually weekly) services, Asia-based services account for 60% of the total.



1.3 Forecast on future maritime trade

- UNCTAD forecast: global maritime trade will grow at 3.4% in 2019-2024
- Lloyd's List Intelligence forecast : 3.1% between 2019-2026
- DNV-GL forecast: 2.2% for 2015-2030 and 0.6% for 2030-2050.

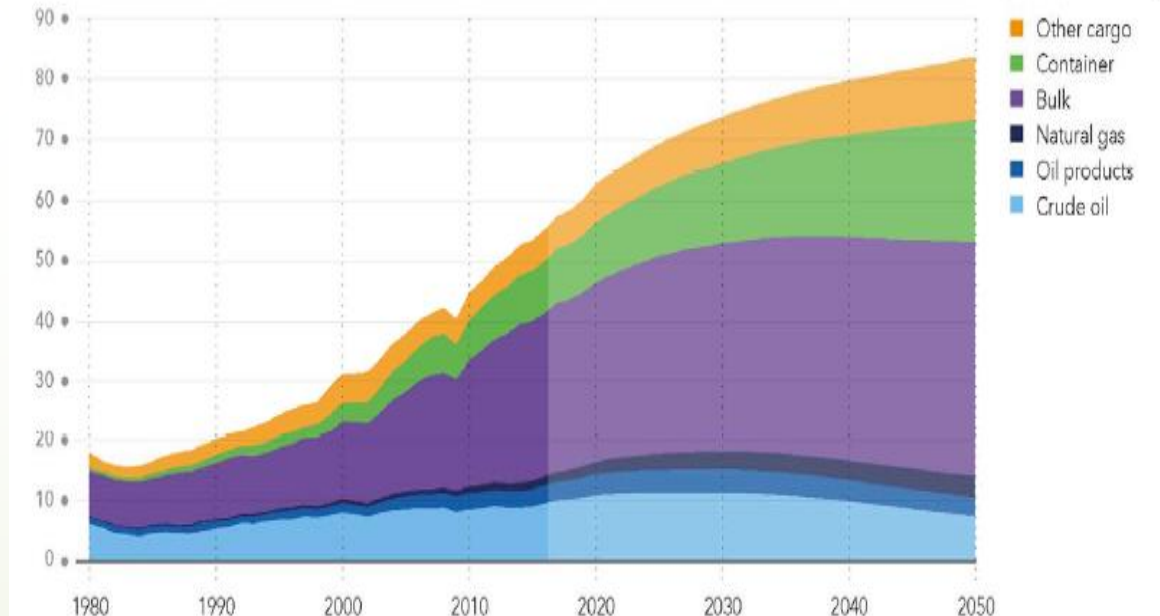
Relation trade and GDP growth



Maritime Trade 2050

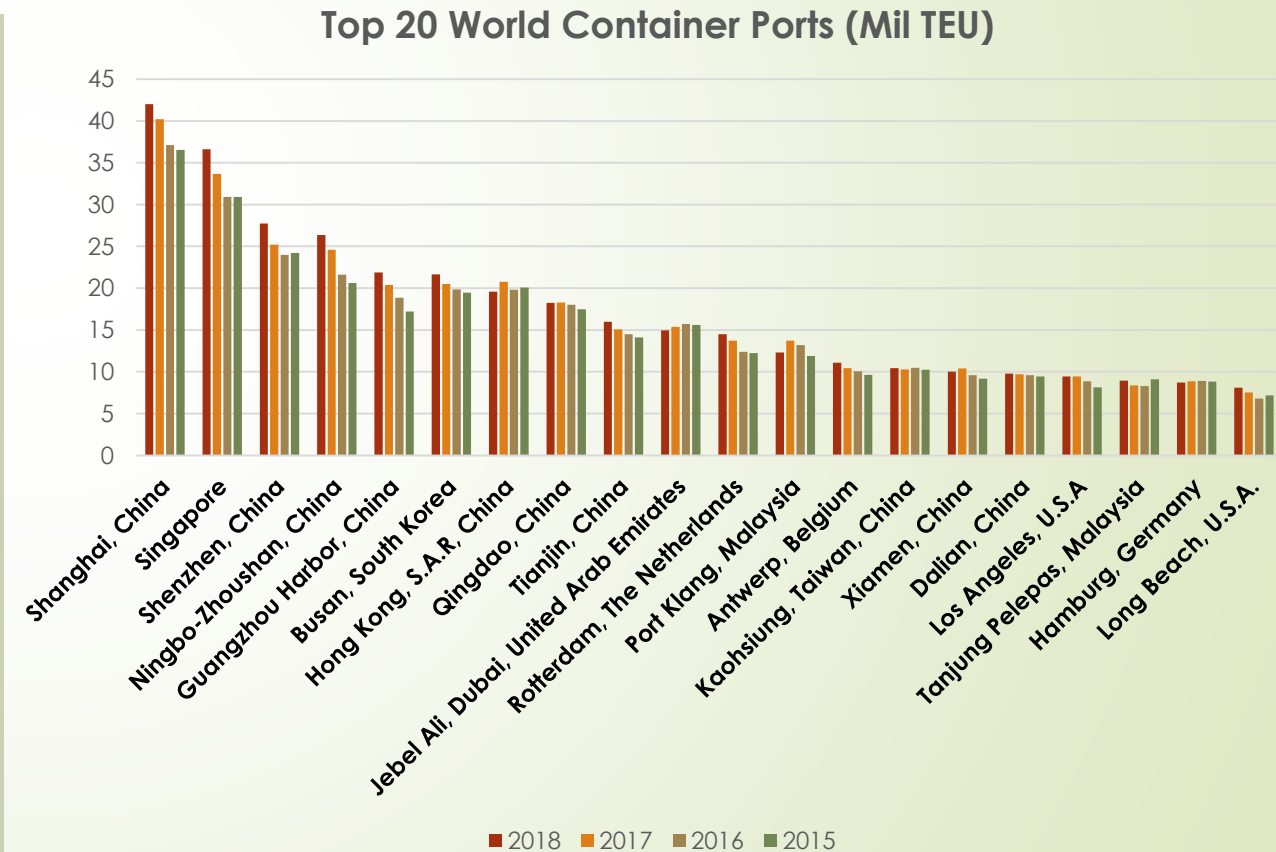
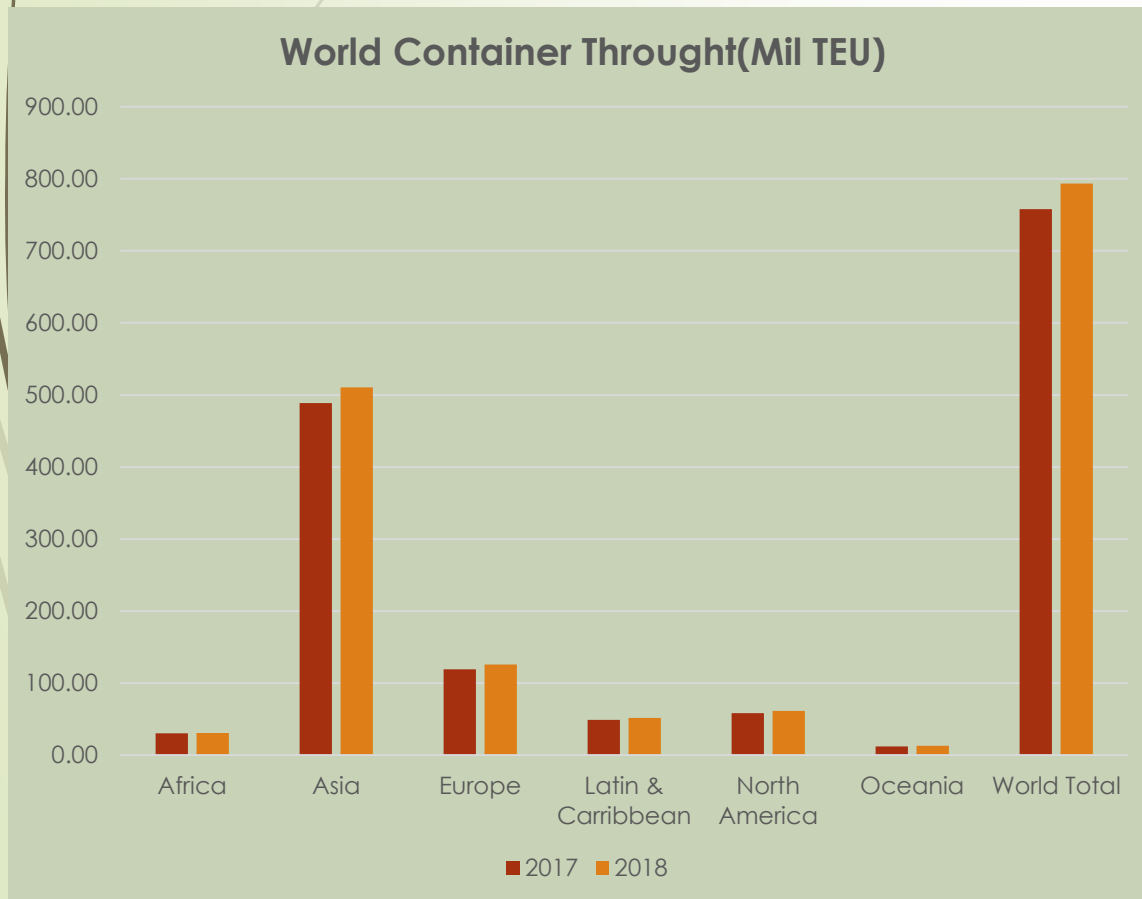
WORLD SEABORNE TRADE: TONNE-MILES

Units: Trillion tonne-miles per year



1.4 Container traffic: the dominant role of Asia-Pacific

- Asia-Pacific : 66% of global container port traffic
- Top 20: 14 in Asia, Top 10: 9 in Asia
- Impressive growth of Chinese ports



1.5 International trade: the central role of shipping

- Around 80 per cent of global trade by volume and over 70 per cent of global trade by value are carried by sea and are handled by ports worldwide (UNCTAD 2018)
- Archipelagic countries and island countries are absolutely dependent on shipping
- But, domestic transport, most of countries heavily rely on land transport

		Cambodia	Myanmar	Thailand	Viet Nam
Modal Split	Domestic	Road: 95%	Road: 90%	Road: 81% Inland waterways & Coastal: 17%	Road: 76% Inland waterways & Coastal: 23%
	International	Export Shipping: 97.4% Import Shipping: 52.5%	Shipping: 85%	Shipping: 86%	Shipping: 80%

2.1 Shipping: main features

► Advantages of shipping

- Competitiveness for Long distance (ex, over 400km) and large volumes
- Most Environmentally friendly transport mode
- ✓ CO2 emissions of shipping is 1/6 compared to that of road transport
- Lifeline : connect mainland and islands

► Disadvantage of shipping

- Slow and time-consuming process : whole supply chain(shipper – port – port – shipper) take more time
- Multimodal requirement : needs additional first and last mileage transport

► Shipping has big potential, but less utilized in the region

- Insufficient port infrastructure & hinterland connectivity : limit to provide door-to-door service
- Business practices based on road-oriented transport systems
- Lack of policies and incentives to promote coastal shipping & IWT
- Strengthen environment regulations including GHGs and Emission
- High volatile operating/management cost

2.2 Challenges in transport sector of the ESCAP region

Complicated, multidimensional and chronic problems:

- ❖ Continued population growth and urbanization increase
- ❖ Strict transport rules and regulations in line with the need for adequate health, safety, security and protection of the environment
- ❖ Differences in understanding and approach to environmental protection between developing and developed countries
- ❖ Road oriented transport system
- ❖ Increasing disparities in the provision of transport services between cities and rural areas, countries and transport modes
- ❖ Labor imbalance: Aging, Supply and Demand imbalance, Gender
- ❖ Governance: Duties, powers and responsibilities are scattered across ministries and authorities
- ❖ Fossil fuel-based transport system
- ❖ Digital gap
- ❖ Disconnected transport network
- ❖ First and last mileage issues: disconnected between transport modes/nodes

2.3 Challenges in transport sector of the ESCAP region

❑ Higher cost - lower performance

- ❖ Imbalance trade and traffic volume
- ❖ Varying transport facilities and performance: ex) LPI, LSCI
- ❖ Less developed integrated intermodal transport system
- ❖ Lacking stable and efficient transport service
 - Not only cargos but also passengers
- ❖ Lack of data and statistics
- ❖ Different economic conditions & potential
- ❖ Difficulty Transit/cross-border transport
- ❖ Lack of ability to respond to growing natural disasters
- ❖ Information and data security issues
- ❖ Urban transport : facing various challenges such as congestion, accidents, air pollution
- ❖ Transport safety(lack of awareness of safety): Road safety and Domestic Ferry Safety



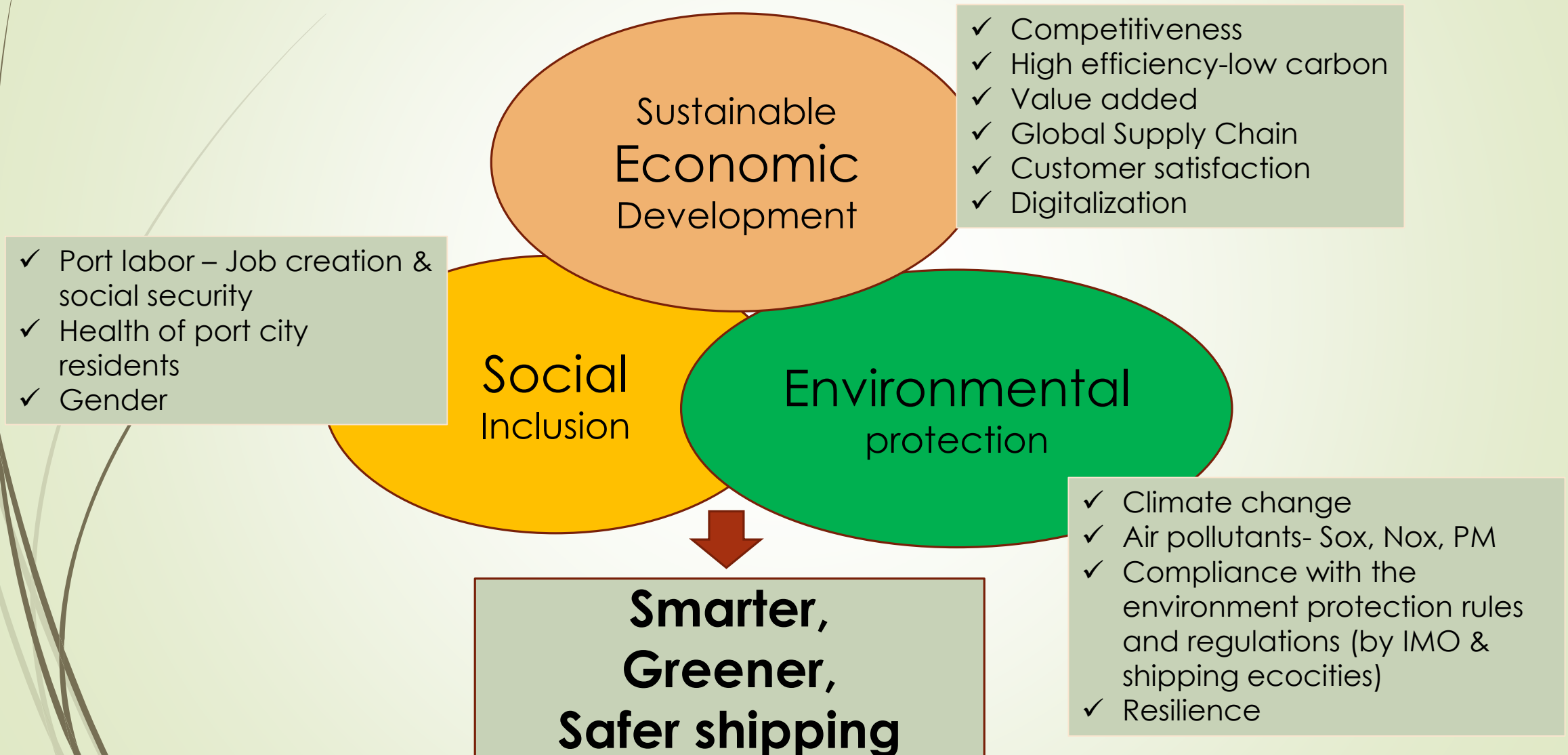
2.4 Challenges/Issues for Shipping

- ▀ Intensifying competition and low profitability
- ▀ Difficulty in securing investment funds to replace eco-friendly ships
- ✓ Enforcement of environmental regulations insufficient readiness
- ▀ Lack of commercial viability for small and remote island routes
- ✓ Unstable services
- ▀ Less developed integrated intermodal transport
- ▀ Frequent maritime accidents – maritime safety issues
- ▀ Inadequate infrastructure, especially coastal and domestic shipping
- ▀ Lower policy priorities

2.5 Challenges/Issues for port development

- Lack of long-term port infrastructure development
- Intensifying competition
- Lack of hinterland connectivity
- Insufficient port facilities (port congestion or increasing port time)
- Lack of investment (public, private)
- Additional investment due to larger ships
- Lack of skilled/trained experts & workers
- Difficulties to secure social and political support
- Traffic congestion and air pollution in port area (Port city)
- Digital divide and technology gap
- Exposure to natural disasters and social crimes

3.1 Sustainable shipping: not an option but a mandatory course



3.2 Why Sustainable shipping ?

❑ Respond to a constantly changing business environment

- Leading response to eco-friendly shipping beyond passive response to environmental regulations
- Application of new technologies for sustainable shipping
- Increasing market share
- Proactively respond to various natural disasters and social risks
- Contribute Sustainable Development
- Strengthen trust among stakeholders
- Create business opportunities and decent jobs



❑ Dynamic customer-oriented service

- Maximize efficiencies for whole supply chain
- Increase productivity
- Facilitate integrated transport connectivity
- Strengthen cooperation with stakeholders through digitalization
- Provide safer service

3.3 SDG and Shipping

Global

- Transforming our world: the 2030 Agenda for Sustainable Development (Adopted by General Assembly, September 2015)
 - Transport contribute to the SDG and Targets(1, 2, 3, 7, 9, 11, 13, 14, 16 & 17)

ESCAP

- Regional Action Programme for Sustainable Transport Connectivity in Asia and the Pacific Phase, 1 (2017-2021)
 - Facilitate maritime connectivity for LDCs and SIDS & coastal shipping & Inland waterways

ASEAN

- ASEAN transport strategic plan for 2016-2025(Kuala Lumpur Transport Strategic Plan)

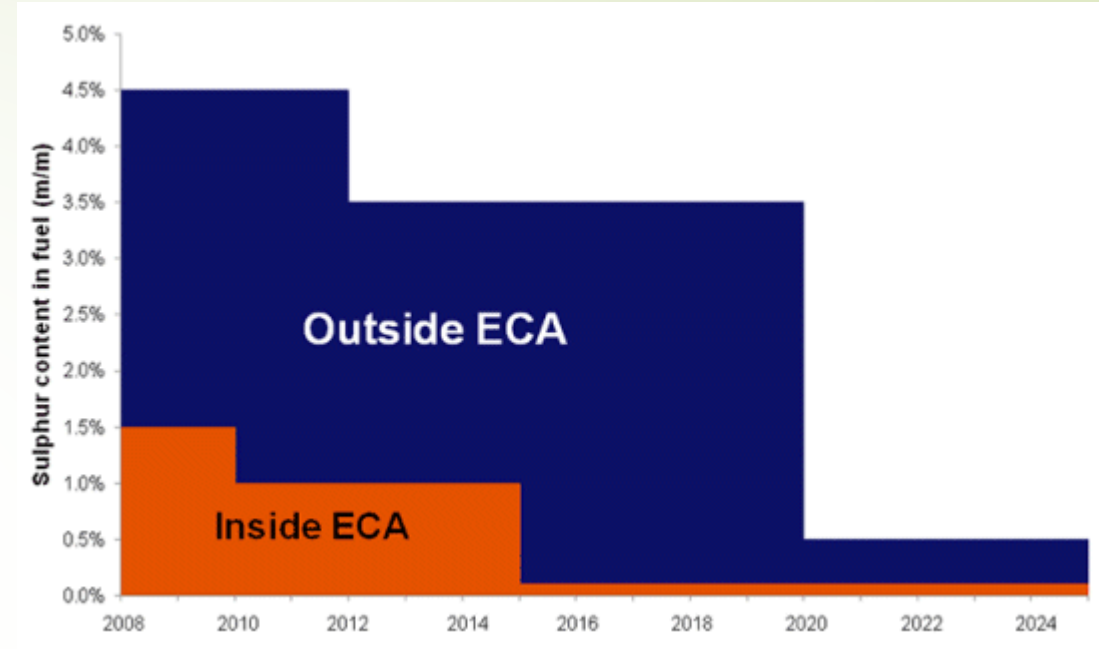
Pacific

- Suva Declaration on Improving Maritime Transport and Related Services in the Pacific
- SAMOA Pathway
- Energy and transport Ministerial meeting

3.4 SDG & Shipping

Industrial

- ❑ Conversion to an energy-efficient industrial structure
 - Energy saving
 - High efficiency-Low Carbon (R & D)
 - . EEDI(Energy Efficiency Design Index for new Ships)
 - . EEOI(Energy Efficiency Operational Indicator)
 - . MBM(Market Based Measures)
- ❑ Energy conversion: LNG, renewable energy(Wind and Solar power)
- ❑ Response to environmental regulations: Driven by IMO
 - Sulphur Cap(2020), BWMC(2022), Co2 reduction(2030-2050)



3.5% > 0.5% (January 2020)



LSFO
means
Low Sulphur Fuel Oil

4.1 Way forward

► Infrastructure/investment

- Develop dedicated port facilities: increase facilities and capacities, specially for coastal shipping and Inland waterways

Ex) Laem Chabang – develop Coastal & domestic Terminal

- Investment in facilities suitable for port functions and services
- Secure ships suitable for 3 pillars (economic, social and environment)
- Enhance integrated hinterland connectivity



4.2 Way forward

➤ Operational aspects

- Qualified/Trained experts & workers (manpower): Investing in human resources capacity building
- ICT Capacity: Use new technologies to increase efficiency, accuracy, speed, transparency and accountability
 - Digitalization in shipping and port
- Setting performance standards and level of service for customers
- Integrating national /global supply chain
- Harmonization of administrative procedures
- Innovation and new technologies



4.3 Way forward

■ Institutions/regulations

- Implementation of initiatives to promote coastal shipping
- Legal framework at national and regional/sub regional level
- Regulatory convergence, harmonization of rules
- Incentives, subsidy to promote shipping in having bigger share in modal shift
 - ex) Modal shift subsidy
- Public Service Obligations: Provide transportation services for areas that are difficult to service on a commercial basis
- Intensive measures to improve maritime safety, especially coastal shipping including domestic ferries and passenger ships

4.4 Way forward

- ✚ Analytical work
 - ✚ Conducting analytical study on sustainable shipping in Asia and the Pacific with related organizations such as IMO, UNCTAD and private sector
 - ex) 2050 Green shipping strategies in ESCAP region
- ✚ Capacity building
 - ✚ Build the technical and institutional capacity of member States to promote safe and green maritime transport in line with the global regulations
- ✚ Norm setting
 - ✚ Address the gaps in the global regulations on safe, efficient and green shipping
 - ✚ Collaboration to apply international rules and regulations in the region
- ✚ Partnerships
 - ✚ Develop specific action plans and programme in support of the implementation of the RAP(phase 2) and initiatives such as Suva Declaration



Establish a regular regional policy space [forum] on sustainable shipping in Asia and the Pacific



Thank you



Transport Connectivity and Logistics section
Transport Division



UNITED NATIONS
ESCAP

Economic and Social Commission for Asia and the Pacific