

Unlocking ASEAN Trade Potential

The Role of Seamless Intermodal Transport in Cost Reduction and Service Excellence

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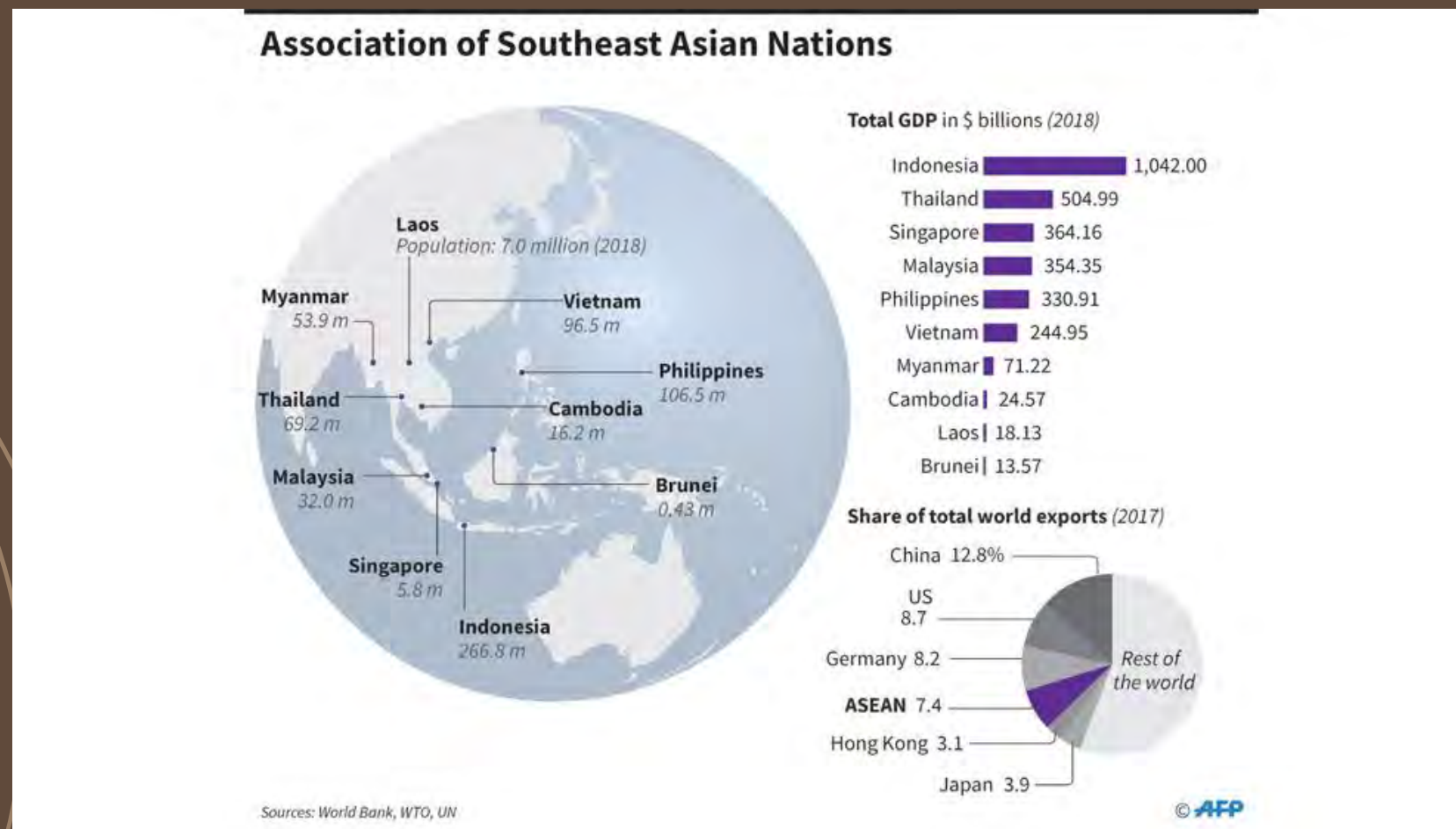
Founder, CLLB Sdn Bhd | Founding President, WISTA Malaysia



ASEAN Trade Landscape



- 5th largest economy globally with a combined GDP of US\$4.1 trillion in 2024, [according to Bernama](#).
- Over 23% intra-ASEAN trade
- Key player in Indo-Pacific trade corridors
- ASEAN is a vital node in China+1 and Indo-Pacific supply strategies

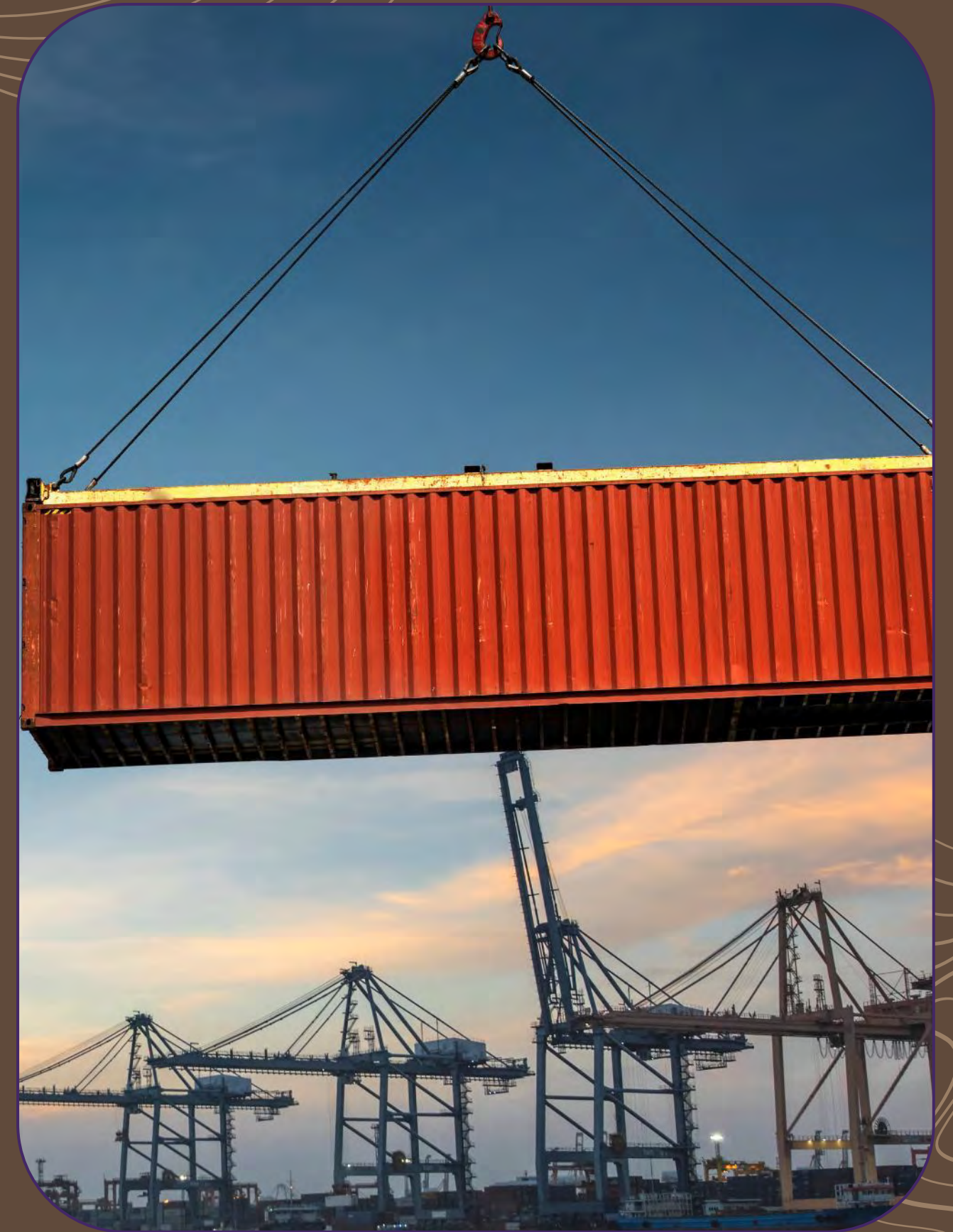


Why Intermodal Transport Matters

- Reduces transit time and costs
- Intermodal transport links road, rail, sea, and air – the backbone for cost efficiency and service enhancer
- Improves regional service standards

CASE EXAMPLES

- Singapore: Rail-sea-air connectivity supports 2M+ TEU/year transshipment
- Vietnam: Lao Cai-Hai Phong rail link cuts border to port time by 30%
- Thailand: Intermodal links support agri exports via land-sea corridor to China



Transport And Storage Sector Gross Domestic Product (GDP), Share % Of GDP, ASEAN, 2017 - 2022



Source : Mordor Intelligence





Challenges in
ASEAN Trade

Addressing Regional Transport Infrastructure Issues

Challenges: Infrastructure

Gaps

- Fragmented logistics systems across borders
- Uneven infrastructure development
- Inefficient customs and border procedures
- High last-mile delivery costs
- Only 5 ASEAN countries have direct rail access to seaports
- Philippines & Indonesia face inter-island logistics fragmentation
- Cambodia and Myanmar need investment in last-mile road networks

Real Example:

Myanmar's Thilawa SEZ struggles with road-port congestion due to narrow infrastructure.



Challenges: Policy and Process Gaps

- Inconsistent border clearance systems
- Manual documentation delays
- Unaligned regulations across borders
- ASEAN Single Window (ASW) still has limited adoption for full digital clearance

Border inefficiencies:

- Mukdahan–Savannakhet crossing (TH–LA): avg. 4–6 hours truck delay
- Rantau Panjang–Sungai Kolok (MY–TH): limited bonded warehousing access



Bottlenecks in Service Delivery

- Long truck queues at ports
- Slow customs clearance
- Minimal cargo visibility
- Port Klang: Truck turnaround time still >3 hours at peak hours
- Jakarta's Tanjung Priok: Dwell time reduced from 6.4 to 4.8 days — but still higher than regional bests
- Limited visibility: 30% of ASEAN SME cargo lacks GPS tracking or digital documentation

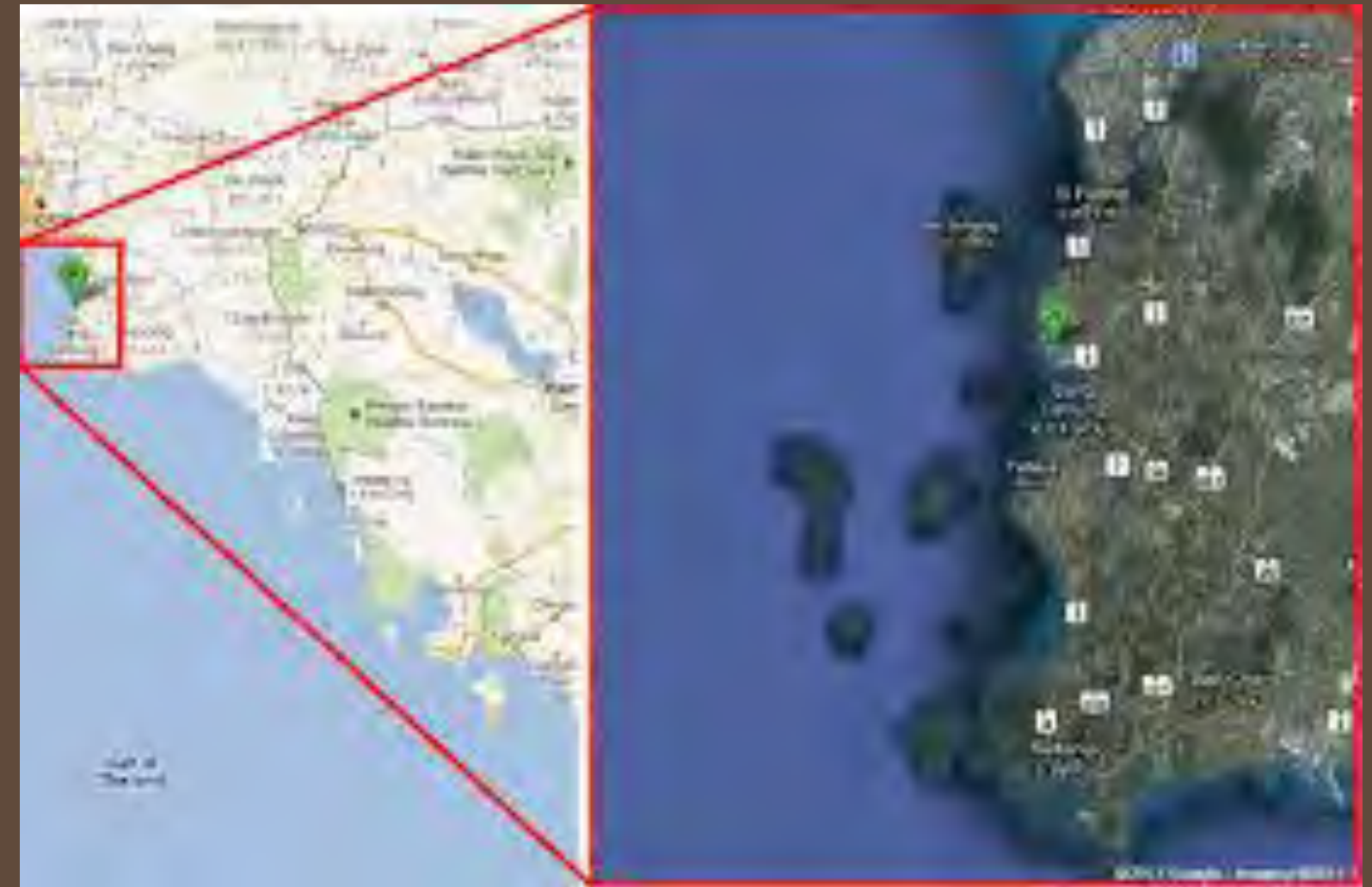




Case Studies

Eastern Economic Corridor (Thailand)

- EEC spans 3 provinces: Chachoengsao, Rayong, Chonburi
- Integrated road-rail-port-air master plan
- Laem Chabang Port Expansion Phase 3 to double capacity to 18M TEU/year
- Rail to port: Exports in Bangkok reach port in 2.5 hours (vs. 5+ by road)
- 30% reduction in export transit times



Singapore—Malaysia Cross-Border Logistics

- Cross-border trucking exceeds 30,000 trips per day
- e-Manifest, Smart Customs, and bonded warehousing reduce clearance time to <60 minutes
- Beneficiaries: electronics firms, auto manufacturers, pharma distributors

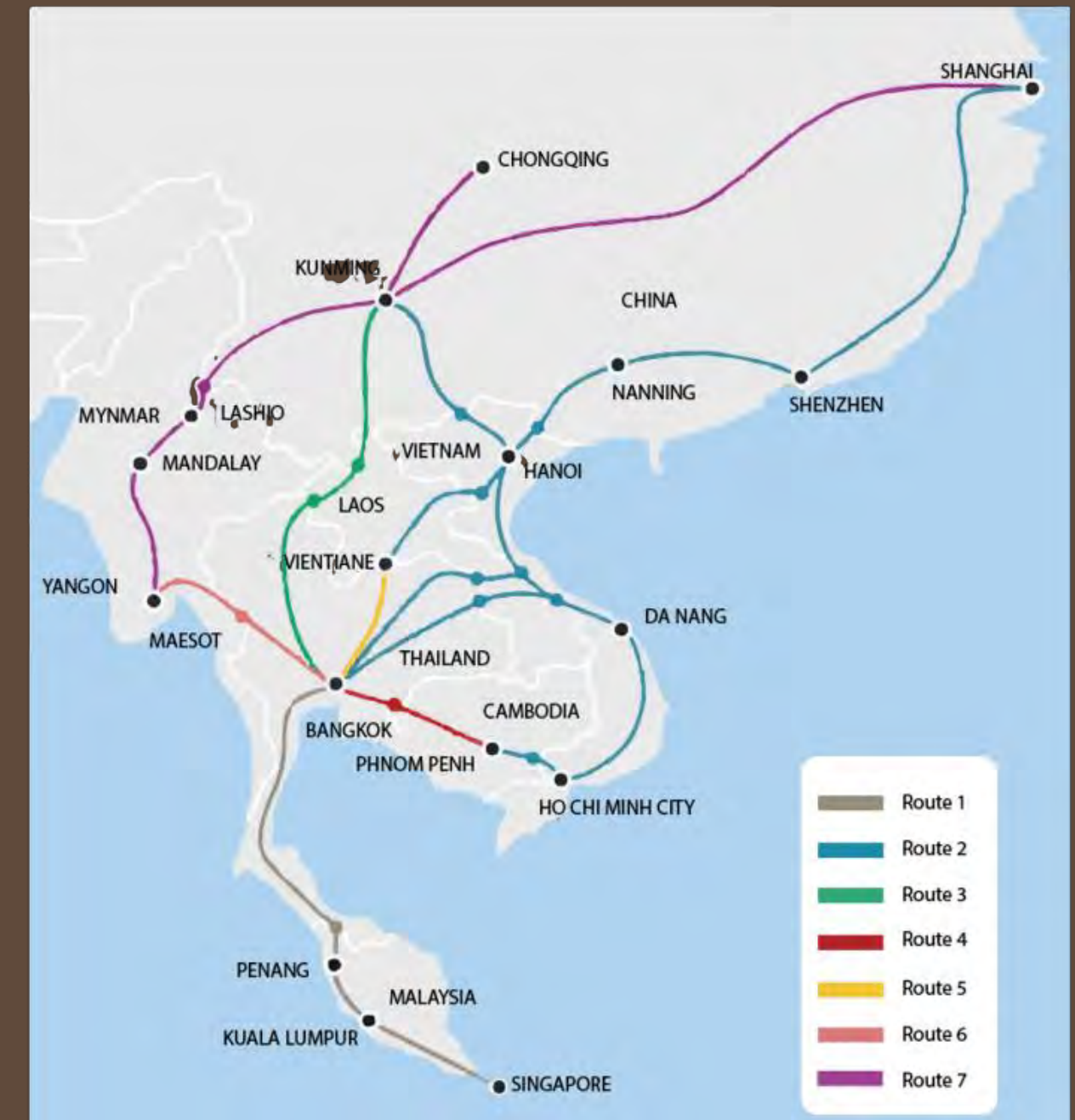
Future Capabilities

- Provide option to modal shift from road to rail for non-critical parts
- Reduction of Carbon emission levels



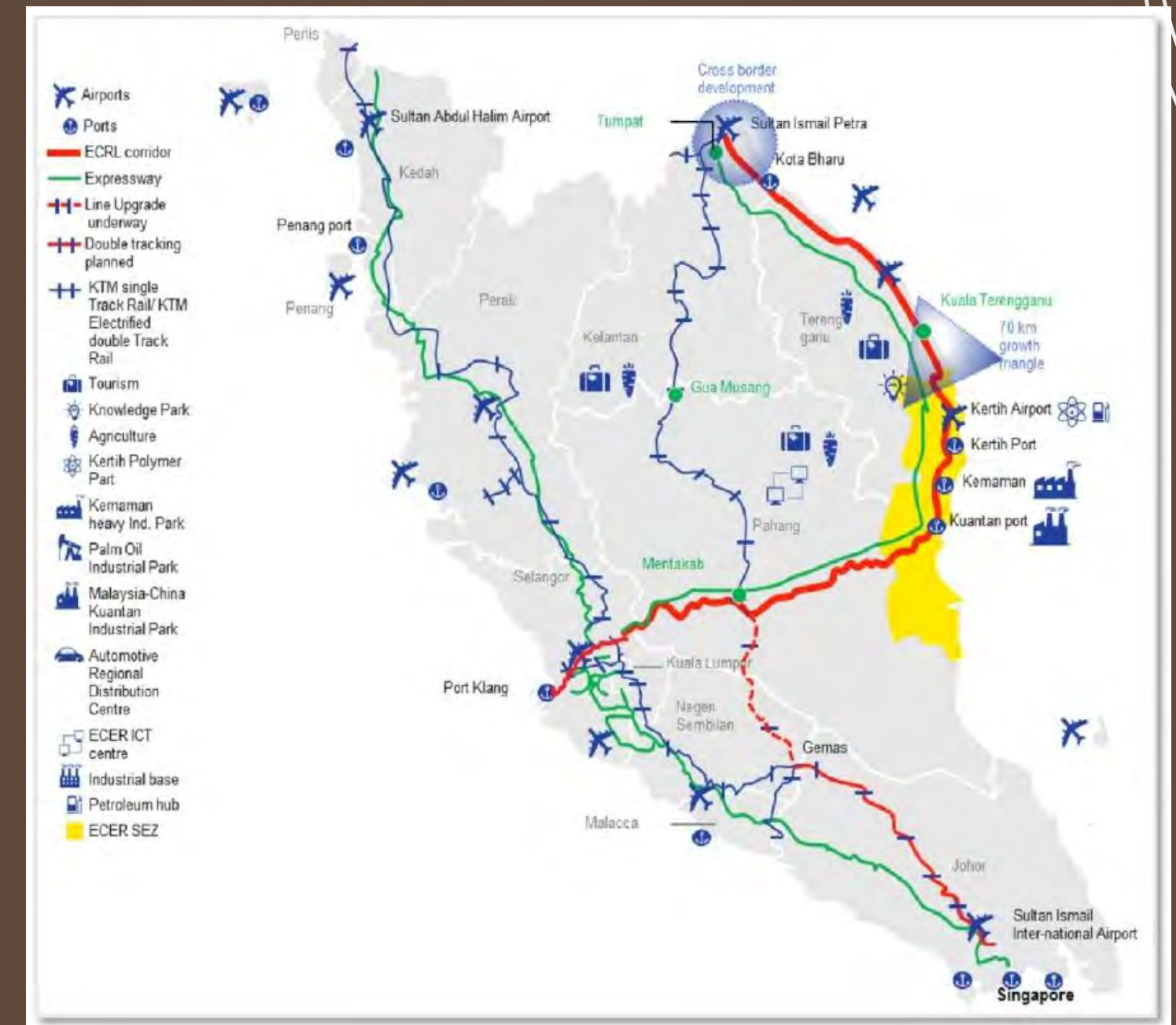
Malaysia—Thailand Landbridge

- The Malaysia-Thailand Landbridge, utilizing rail and potentially road networks, offers significant benefits for cross-border ASEAN logistics, including reduced transport costs, increased trade efficiency, and enhanced regional connectivity.
- This land bridge provides an alternative to sea and road transport, potentially shortening transit times and creating new trade corridors within ASEAN and with other regions
- Padang Besar & Bukit Kayu Hitam crossings
- Multimodal cargo to Laos/Vietnam
- Backbone of North-South ASEAN corridor



East Coast Rail Link (Malaysia)

- The East Coast Rail Link (ECRL) project in Malaysia is expected to bring significant economic and social benefits.
- It will enhance connectivity between the east and west coasts of Peninsular Malaysia
- Expected to strengthen trade networks and improve logistics by providing a more efficient and affordable alternative for freight transport compared to air and road options.
- Links Kuantan Port to Klang Valley
- 665km intermodal rail route
- Part of Belt & Road logistics vision



Belt and Road in ASEAN

China–Laos–Thailand Railway Corridor

- Laos–China Railway (operational since Dec 2021):
- 1,035 km from Kunming (China) to Vientiane (Laos)
- Cuts freight transit time from 2 days to 15 hours
- Reduced logistics cost by up to 40% for Laos exporters
- Link to Thailand:
- Construction underway from Nong Khai (Laos border) to Bangkok
- Will create a Pan-Asia Railway enabling continuous cargo movement from China through ASEAN



Belt and Road in ASEAN

Port Infrastructure Upgrades in Cambodia and Myanmar

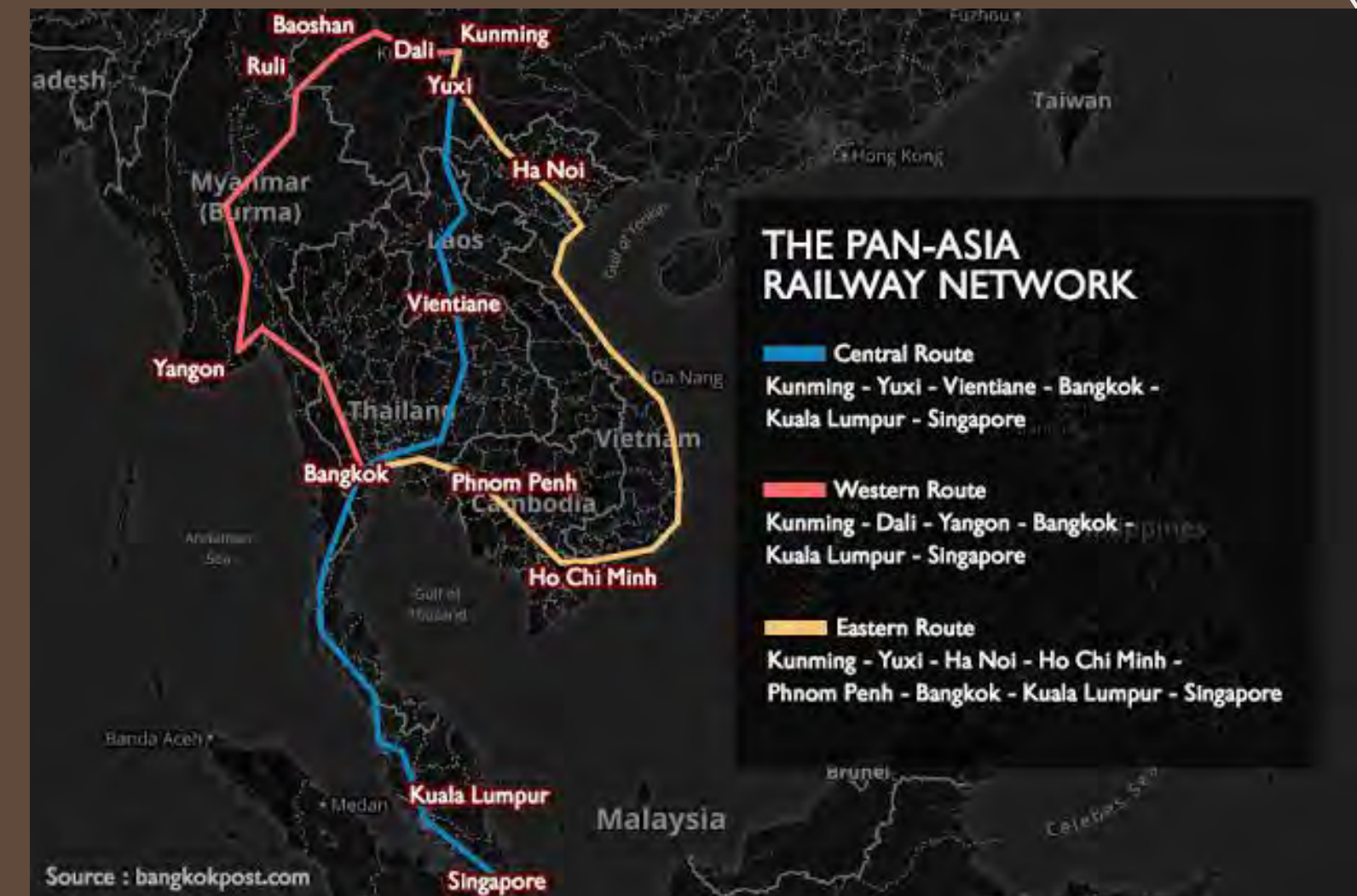
- Cambodia – Sihanoukville Port Expansion:
- Upgraded with China's support to increase TEU capacity
- Expected to handle 1M TEUs by 2026, serving garment and agri-export industries
- Myanmar – Kyaukpyu Deep Sea Port:
- Chinese-backed project linked to a pipeline and road corridor to Yunnan
- Enables land-sea oil transport and opens trade routes bypassing the Malacca Strait



Belt and Road in ASEAN

Land-Sea Trade Integration for Eurasia

- ASEAN gains land access to China-Europe freight rail via Laos and Thailand
- Cargo from Thailand and Malaysia could transit through Laos into China, connecting to Central Asia and Europe
- Opportunity: Reduce dependence on Singapore transshipment for some bulk or inland cargoes



Belt and Road in ASEAN

Gemini Cooperation Model at PTP (Port of Tanjung Pelepas)

Maersk & Hapag-Lloyd Strategic Alignment

- In early 2024, Maersk and Hapag-Lloyd launched the Gemini Cooperation, a long-term vessel-sharing and network integration initiative.
- The collaboration includes joint scheduling, shared berth windows, and aligned transshipment planning.



Belt and Road in ASEAN



Impact on Port of Tanjung Pelepas (PTP)

- PTP designated as a strategic transshipment hub under Gemini for Asia-Europe and Intra-ASEAN routes.
- Berthing delays reduced by up to 40% due to shared digital planning and synchronized terminal access.
- Average vessel turnaround time improved by 6-8 hours per call.



Belt and Road in ASEAN



- Supports Intra-ASEAN and Hub-and-Spoke Efficiency
- Feeder networks from Indonesia, Vietnam, Thailand now benefit from reliable, timely connections at PTP.
- Reduces dwell time and misalignment for cargo moving between regional RDCs.
- Encourages integrated intermodal transport (rail-truck-sea) by reducing unpredictability in schedules.
- Enables port-centric logistics around PTP, boosting Johor's position in the ASEAN supply chain.



Future Trends in Logistics

Trends in Logistics: Shaping the Next Decade of ASEAN Trade

Blockchain & Smart Contracts

Purpose: Enable secure, tamper-proof, and automated trade processes

Example:

- Singapore Port Authority + Maersk pilot on TradeLens improved document transparency and cut processing time by 50%
- Thailand's Customs Department tested smart contracts to speed up bonded cargo release

Green Fuels & Solar Warehouses

Purpose: Decarbonize logistics operations in line with ESG targets

Example:

- Westports Malaysia trials biodiesel for terminal equipment
- DHL's Singapore Hub operates on 100% solar + hybrid vehicles
- Vietnam's Gia Lam distribution center uses rooftop solar for cold chain storage



Trends in Logistics: Shaping the Next Decade of ASEAN Trade

Digital Freight Platforms

Purpose: Improve freight matching, route optimization, and SME access to logistics

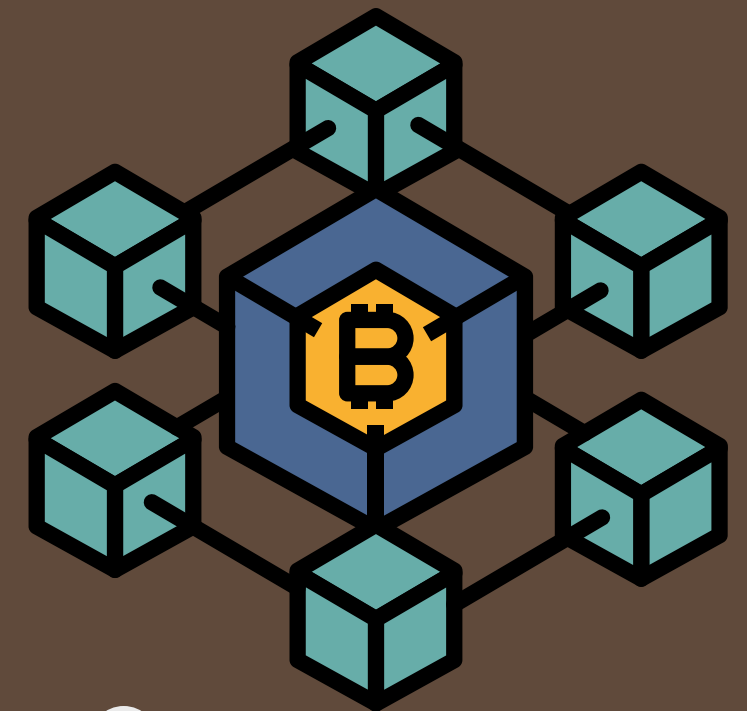
Example:

- Deliverree (Indonesia): Live rate quoting and instant truck matching
- GOGOX (Thailand/Vietnam): Urban last-mile gig driver network
- Malaysia's eFTZ Port Klang: Full API-based B2B booking system for LCL

freight

Impact on ASEAN Intermodal Transport:

- Reduces reliance on paper-based systems
- Shrinks carbon footprint and energy waste
- Increases logistics access for SMEs and rural exporters





Vision for 2030

Vision for 2030: Seamless, Sustainable ASEAN Intermodal Logistics

An Integrated ASEAN Logistics Ecosystem

- Multimodal hubs linked via shared data platforms
- Harmonized cross-border processes through a fully operational ASEAN Single Window
- Standardized logistics certifications and digital documentation across member states

Example:

A shipment from Penang to Phnom Penh moves seamlessly via rail, crosses customs digitally at Padang Besar, and flows to Cambodia via bonded barge through Vietnam.



Vision for 2030: Seamless, Sustainable ASEAN Intermodal Logistics

Real-Time Cargo Flow Visibility

- Unified ASEAN logistics visibility platform linking shippers, ports, truckers, and customs
- AI-powered ETAs and exception alerts
- IoT-based tracking of temperature, handling, and security

Example:

A food shipment from Indonesia to Thailand is monitored in real-time for cold chain integrity across sea and land.



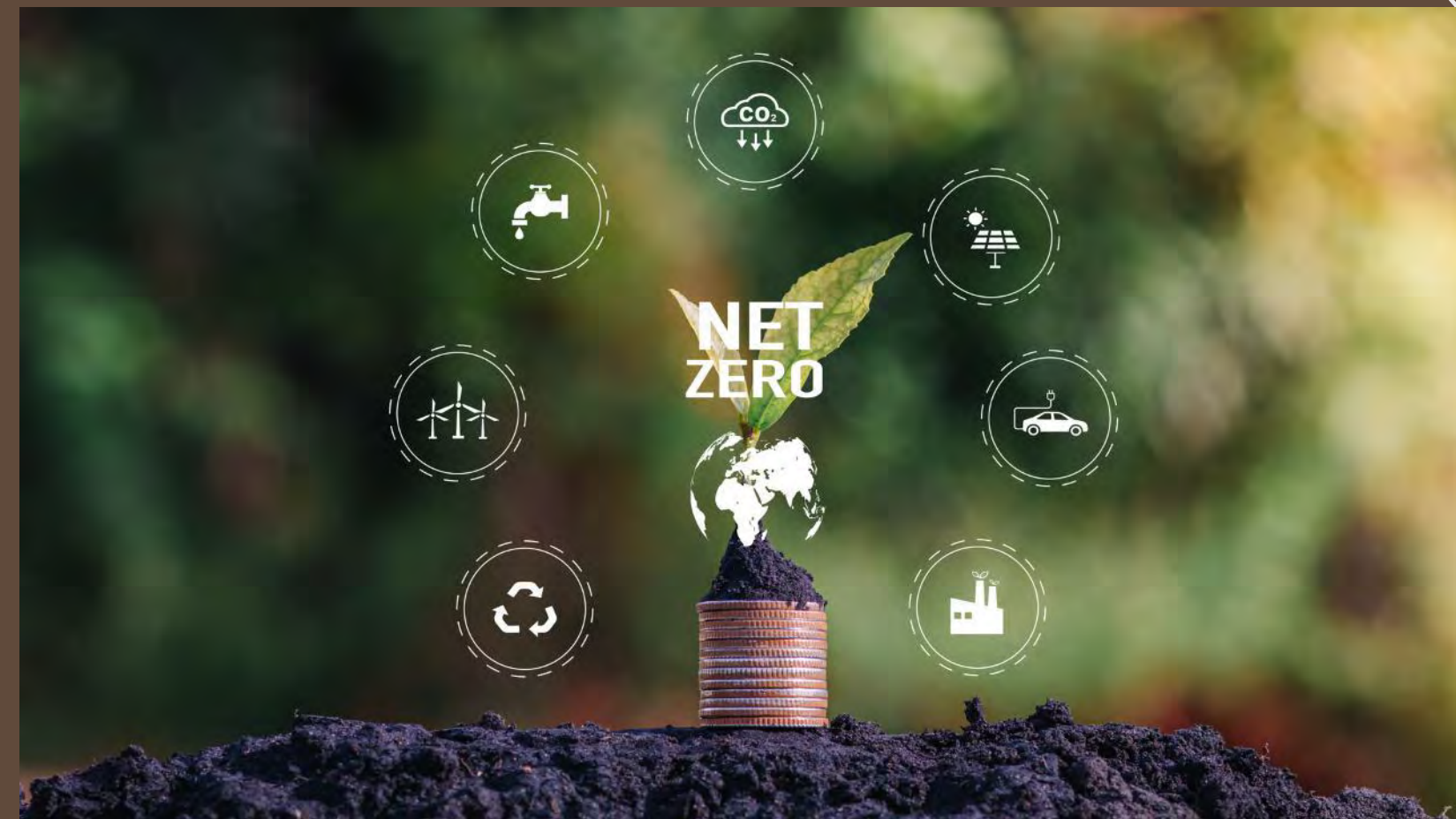
Vision for 2030: Seamless, Sustainable ASEAN Intermodal Logistics

Zero-Emission Intermodal Corridors

- Green logistics corridors established for high-traffic trade lanes
- Powered by:
 - Electric trucks for cross-border haulage
 - Hydrogen rail for long-distance freight
 - Solar-powered warehouses and charging stations

Example:

The KL-Bangkok-Vientiane “Green Corridor” uses electric truck platoons and solar charging at RDCs in Kedah and Nakhon Ratchasima.



A close-up photograph of a hand holding a white marker, writing the word "RECOMMENDATIONS" in all caps on a whiteboard. The hand is positioned in the center-right of the frame, with the marker tip touching the letter 'S'. The background is a blurred whiteboard surface. The image is framed by a thin white border.

RECOMMENDATIONS

Solutions and Recommendations

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Solutions and Recommendations: Unlocking ASEAN's Intermodal Potential

Policy: ASEAN-Wide Multimodal Transport Agreements

- Goal: Establish seamless rules for intermodal operations across borders
- Actions:
 - Ratify the ASEAN Framework Agreement on Multimodal Transport (AFAMT) across all 10 nations
 - Develop a shared "ASEAN Logistics Permit" for cross-border trucking and rail cargo
- Outcome: Reduces administrative delays, enables full corridor-based supply chains



Solutions and Recommendations: Unlocking ASEAN's Intermodal Potential

Infrastructure: Dry Ports, Green Lanes & RDCs



- Dry Ports:
 - Invest in inland container depots near industrial zones (e.g., Kedah, Khon Kaen, Lao PDR)
 - Enable customs clearance away from congested seaports
- Green Lanes:
 - Designate fast-track customs lanes for certified intermodal cargo
 - Apply to land crossings (e.g., MY-TH, VN-LA) and bonded road-rail corridors
- Support RDC Networks:
 - Build regionally coordinated distribution centers with shared warehousing options



Solutions and Recommendations: Unlocking ASEAN's Intermodal Potential

Technology: Digital Documentation & Smart Tracking



- E-Platform Interoperability:
 - ASEAN Single Window (ASW) integration with logistics providers, ports, and finance systems
- Tracking & Visibility:
 - Encourage use of IoT for cross-modal cargo tracking
 - Apply blockchain-based bills of lading to reduce paperwork and fraud



Solutions and Recommendations: Unlocking ASEAN's Intermodal Potential



Strategic Impact:

- Cut regional logistics costs by 15–20%
- Improve customs clearance time by 40–60%
- Enhance SME participation in regional and global trade



3 Key Takeaways

1

Intermodal = ASEAN Trade Enabler

- Seamless rail, road, and sea integration unlocks cross-border competitiveness
- Efficient modal switching shortens delivery time and reduces cost-to-serve
- Case proof: Laos-China-Thailand Rail Corridor + Malaysia's ECRL

2

Infrastructure + Technology = Cost Reduction

- Smart ports, bonded dry ports, and RDCs amplify physical efficiency
- Digital freight platforms, tracking systems, and paperless trade streamline flows
- Result: Lower logistics cost as % of GDP, faster customs, fewer idle resources

3

Collaboration = Transformation

- Government-business partnerships drive corridor development
- Regional alignment on standards, permits, and data sharing is essential
- Case proof: Gemini Model at PTP, ASEAN Single Window, shared SME warehousing

Thank you for your
attention! Any questions?

