

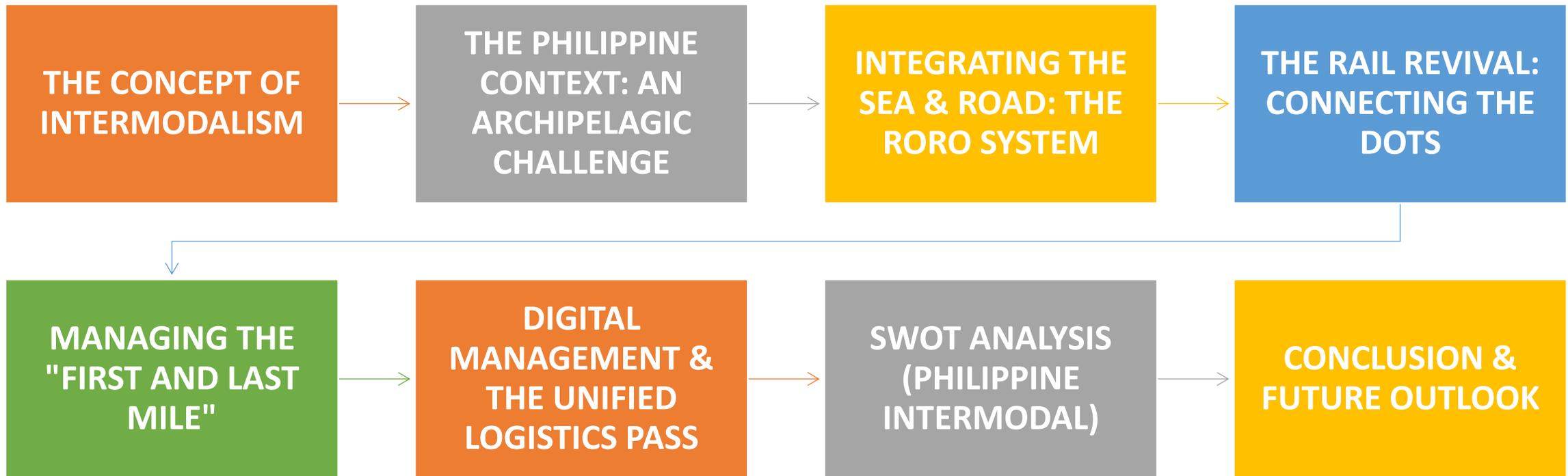
Intermodal Logistics as Value Factor:

*The Integration of Road, Rail and Sea Supply Chain and Logistic
and Management*

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TOPIC OUTLINE

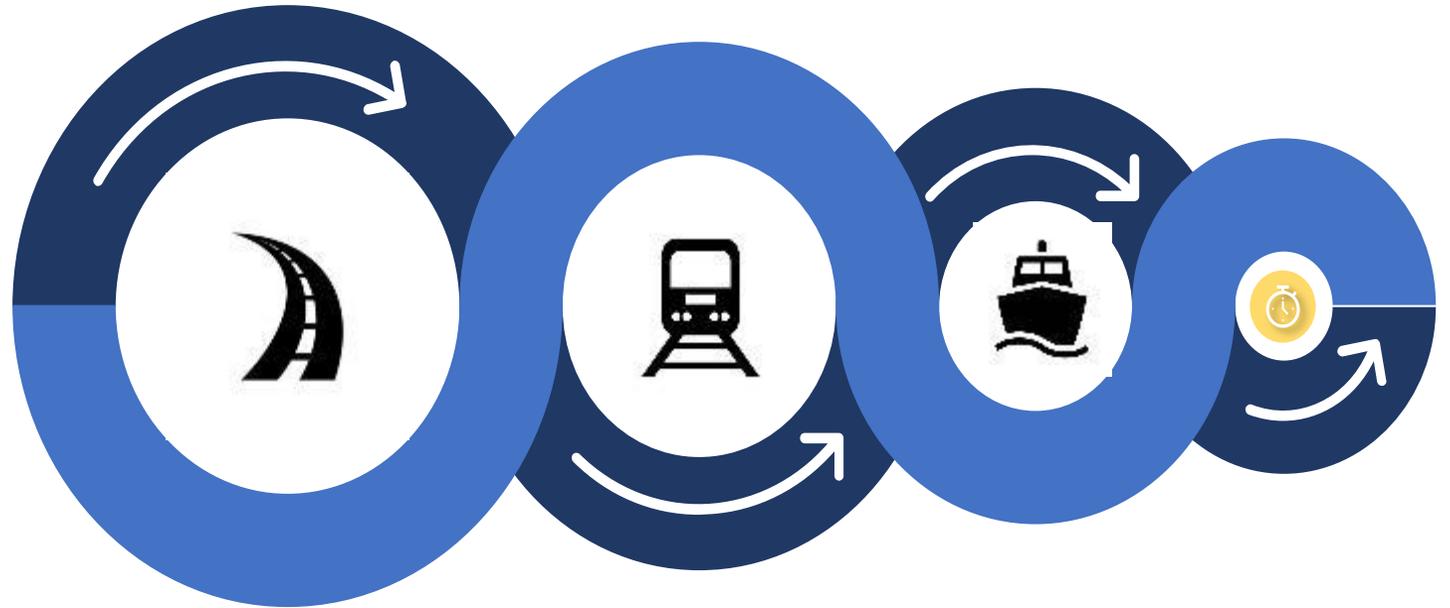


The Concept of Intermodalism



Coordinated Transport Modes:

Intermodalism uses multiple transport modes like road, rail, and sea with single cargo units for efficient goods movement



ROAD

The Last Mile Specialist

RAIL

The Middle Mile Backbone

SEA

The Global Arteries

The Concept of Intermodalism



KEY VALUE DRIVERS IN INTEGRATION



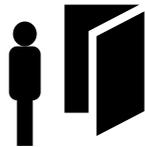
Efficiency and Cost Reduction

Intermodal systems reduce cargo handling, lower logistics costs, and improve turnaround times for ports and terminals.



Cost Reduction Benefits

By combining transport modes, intermodalism lowers fuel consumption, road maintenance, and overall logistics expenses.



Sustainability and Environmental Impact

Shifting cargo to rail reduces carbon emissions and urban congestion, supporting climate-resilient logistics

The Philippine Context: An Archipelagic Challenge

GEOGRAPHY

7,641 islands



Intermodalism a necessity, not an option

RORO

High reliance on road (trucking) and sea (RORO), with rail as the “missing link”

The Goal: Seamless integration of the **Road-Rail-Sea** chain to lower food prices and boost exports.

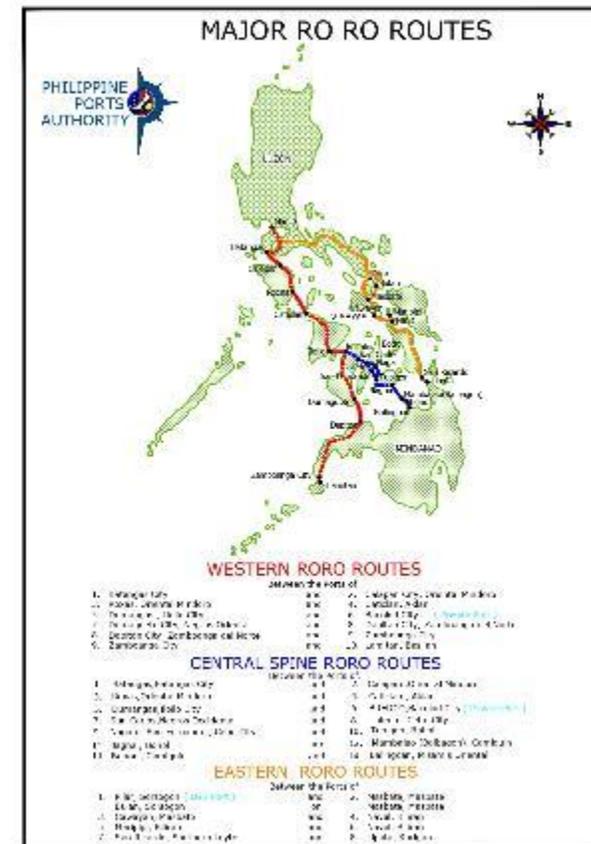


INTEGRATING THE SEA & ROAD: THE RORO SYSTEM



STRONG REPUBLIC NAUTICAL HIGHWAY

The SRNH was institutionalized through **Executive Order No. 170 (2003)**, which established a **Road Roll-on/Roll-off Terminal System (RRTS)** to promote efficient domestic transport



INTEGRATING THE SEA & ROAD: THE RORO SYSTEM



VALUE IMPACT

- 39% Increase in trade between connected islands
- Faster transit for perishables

LIMITATION

- Heavy reliance on road leads to highway congestion and high maintenance costs.

FUTURE INTEGRATION STRATEGIES

- Integrating RORO with rail and expanding port capacity can improve cargo flow efficiency and support sustainable logistics

THE RAIL REVIVAL: CONNECTING THE DOTS



- **Subic-Clark-Manila-Batangas (SCMB) Railway:** The centerpiece of the Luzon Economic Corridor.
- **North-South Commuter Railway (NSCR):** Integrating cargo trains with passenger lines.
- **The Benefit:** One freight train can replace **150–200 trucks**, drastically reducing road wear and urban traffic.

Economic and Logistical Impact

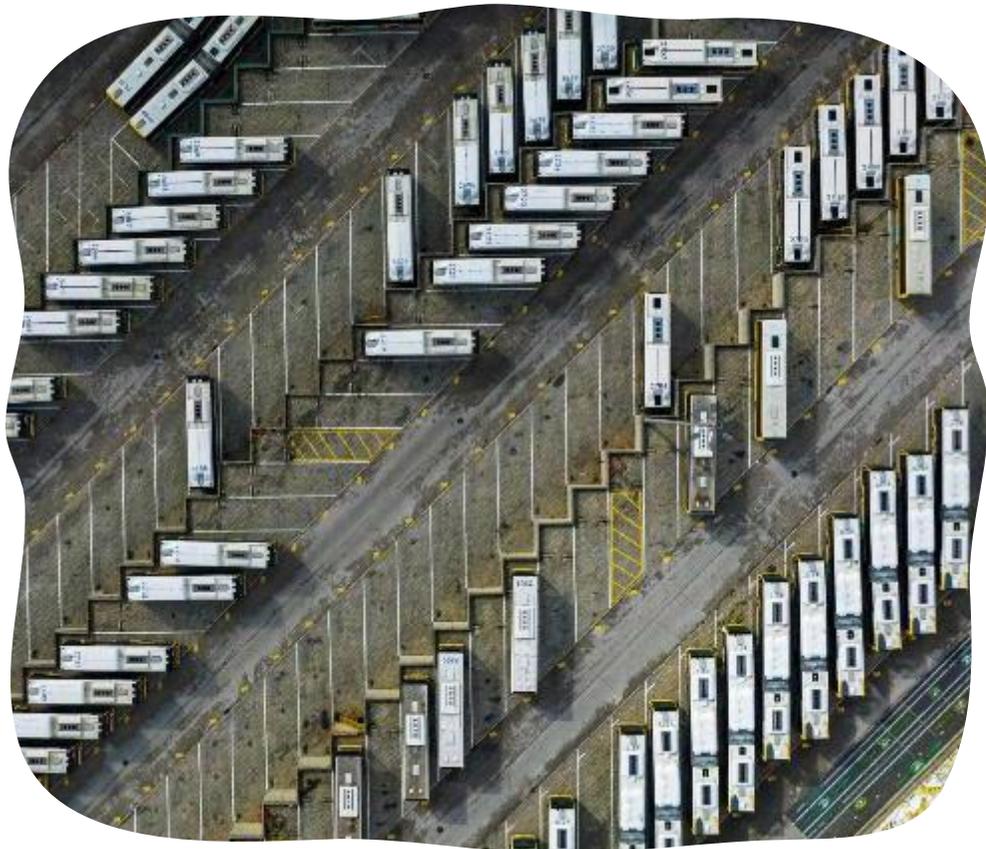
Improved rail links strengthen ports, promote dry ports, and decentralize economic activity beyond Metro Manila

THE RAIL REVIVAL: CONNECTING THE DOTS

GLOBAL BENCHMARK AND STRATEGIC COMPARISON

REGION	EXAMPLE INTEGRATION	KEY STRATEGIC TAKEAWAY
ASEAN	ASEAN EXPRESS (MY-TH-LA-CN)	Rail-Road integration can beat sea transit times for electronics
USA	Alameda Corridor (California)	"On-dock" rail is essential for clearing massive port volumes without road traffic.
Europe	Port of Rotterdam	Seamless transfer between ocean vessels, river barges, and rail.

MANAGING THE FIRST AND LAST MILE



Challenges in Urban Logistics

First- and last-mile logistics face urban congestion and limited road capacity, causing delays near city centers.

Infrastructure Upgrades

The BBM Program prioritizes infrastructure like the Davao City Bypass to improve access to major ports and cut travel time.

Intermodal Transportation Terminals

ITTs act as hubs for smooth cargo transfers between rail, sea, and truck, reducing delays and handling.

Active Transport and Sustainability

Bike lanes and light delivery routes support sustainable last-mile deliveries, enhancing urban logistics diversity.

DIGITAL MANAGEMENT AND THE UNIFIED LOGISTICS PASS



Unified Logistics Pass

The ULP consolidates permits via QR codes, reducing checkpoints and streamlining freight mobility across regions.

Real-time Tracking

IoT-enabled tracking systems provide visibility of cargo status, route progress, and estimated arrival times.

Predictive Analytics

Digital tools enable route adjustments by analyzing traffic, weather, and port congestion to avoid delays.

Enhanced Government Coordination

Digital platforms provide rich data for policymaking and improve coordination among transport and customs authorities.

SWOT ANALYSIS

Strong RoRo foundation;
aggressive "Build Better
More" funding.

Natural disasters
(typhoons) disrupting
sea and rail links.



High electricity/fuel costs;
infrastructure gaps in rural areas.

Trilateral investment (US-
Japan-PH); digitalization of
Customs.

CONCLUSION AND FUTURE LOOK



Streamlined Goods Movement

Intermodal logistics reduces operational waste and shortens delivery timelines by integrating multiple transport modes.

Infrastructure Development

Modernized seaports and expanded railway systems enhance the Philippines' supply chain resilience and competitiveness.

Digital and Regulatory Integration

Future logistics depends on digital platforms, regulatory harmonization, and private-sector collaboration for seamless operations.

Vision for 2028

A seamless multimodal system enables container transport from Davao to Bulacan under a single digitized contract.

Thank you

