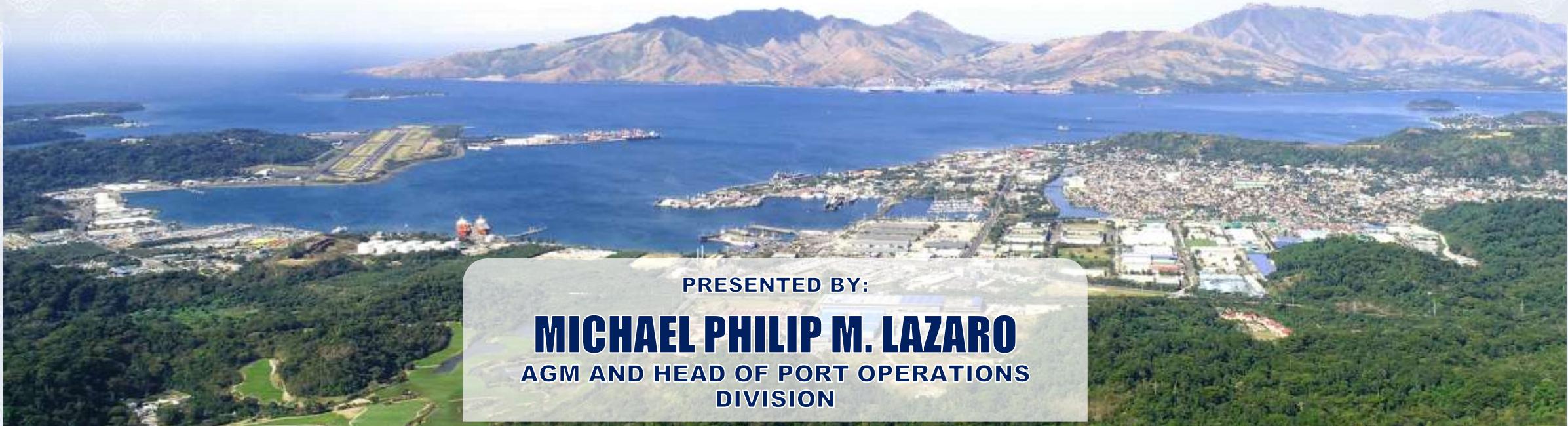




TAIWAN-PHILIPPINES SMART PORT COOPERATION

BUILDING A SECURE, RESILIENT AND SUSTAINABLE
MARITIME HUB



PRESENTED BY:

MICHAEL PHILIP M. LAZARO
AGM AND HEAD OF PORT OPERATIONS
DIVISION

HISTORY OF SUBIC BAY



Spain discovered Subic Bay's natural deep harbor and soon built a naval fortress.

1800

1992

1800s

Spanish Naval Station



1898

After the Spanish-American war, US Forces took control of the Spanish naval facility.



Subic during WWII

1951

The famous "Seabees" started construction of the Naval Base Station.



1942

The Japanese occupied Subic.

1947

The RP-US Military Bases Agreement

1992

Turnover of Subic to the Phil. after the Senate rejected the extension of the Treaty and Mount Pinatubo erupted.



SBMA VISION AND MISSION



VISION "It is our shared aspiration to be a green port city, driven by collaborative growth in business and investments as we provide the best quality of life for all our stakeholders."



"The **SBMA** will lead and serve its stakeholders by creating economic and employment opportunities that contribute to the nation's progress **MISSION** and development."



SBMA CHARTER

**HON. ENGR. EDUARDO JOSE L. ALINO.
CHAIRMAN AND ADMINISTRATOR**



Since its inception in 1992, the Subic Bay Freeport has become one of the country's premier showcases for economic development, a symbol of pride for every Filipino, and one of the most successful models of military base conversion in the world.

Republic Act 7227

The SBMA shall promote the Subic Special Economic Zone into a self-sustaining, industrial, commercial, financial and investment center to generate employment opportunities in and around the zone and to attract and promote productive foreign investments.

WHY SUBIC BAY? COMPETITIVE ADVANTAGES

- Deep, typhoon-sheltered harbor
- terminals and existing port infrastructure
- Skilled maritime labor and access to regional routes



GLOBAL TRENDS

- Smart automation
- Green technology
- Integrated trade corridors
- Supply chain resilience



Source: <https://www.polestarglobal.com/resources/green-shipping-corridors/>



Source: <https://ware2go.co/articles/supply-chain-resilience/>

SMART PORT EVOLUTION

- AI-driven operations
- Digital twins
- Automated terminals
- 5G Networks
- Specialized Drones



GREEN PORT IMPERATIVES

- Renewable energy at core
- Smart, digitalized port operations
- Shore power & electrified logistics
- Circular economy & sustainable urban development
- Cleaner air, healthier communities

Examples: Rotterdam, Los Angeles, Singapore, Kaohsiung



Source: <https://www.desapex.com/blog-posts/green-ports-charting-a-sustainable-course-for-maritime-trade>

TAIWAN PORTS CASE STUDY

- Kaohsiung Smart Port
- 5G-enabled operations
- Automated yards
- Customized GHG inventory assessment and verification
- Port specific carbon reduction blueprint



Source <https://www.wsp.com/en-hk/projects/decarbonisation-blueprint-for-taiwan-ports>



Source: <https://www.porttechnology.org/news/port-of-kaohsiung-lays-out-terminal-expansion/>

PORT OF SUBIC BAY TODAY

- Strategic Luzon gateway
- Industrial and logistics zones
- Multi-purpose terminals



1,877

LOCATORS

167,878

FREEPORT ZONE WORKFORCE

PHP 593.87B

TOTAL FOREIGN AND DOMESTIC INVESTMENT

PHP 4.26B

OPERATING REVENUE IN 2024

as of June 2025



SUBIC BAY
METROPOLITAN AUTHORITY

INFRASTRUCTURE PROJECTS

PORT EXPANSION PLANS



Shore Power Connection for Carbon-Neutral Ports

Aims to cut air pollution from ships at berth by 95% in line with the International Maritime Organization's Carbon Neutral Ports to combat climate change, setting out the future vision for international shipping



Lower Mau Multi-Purpose Port

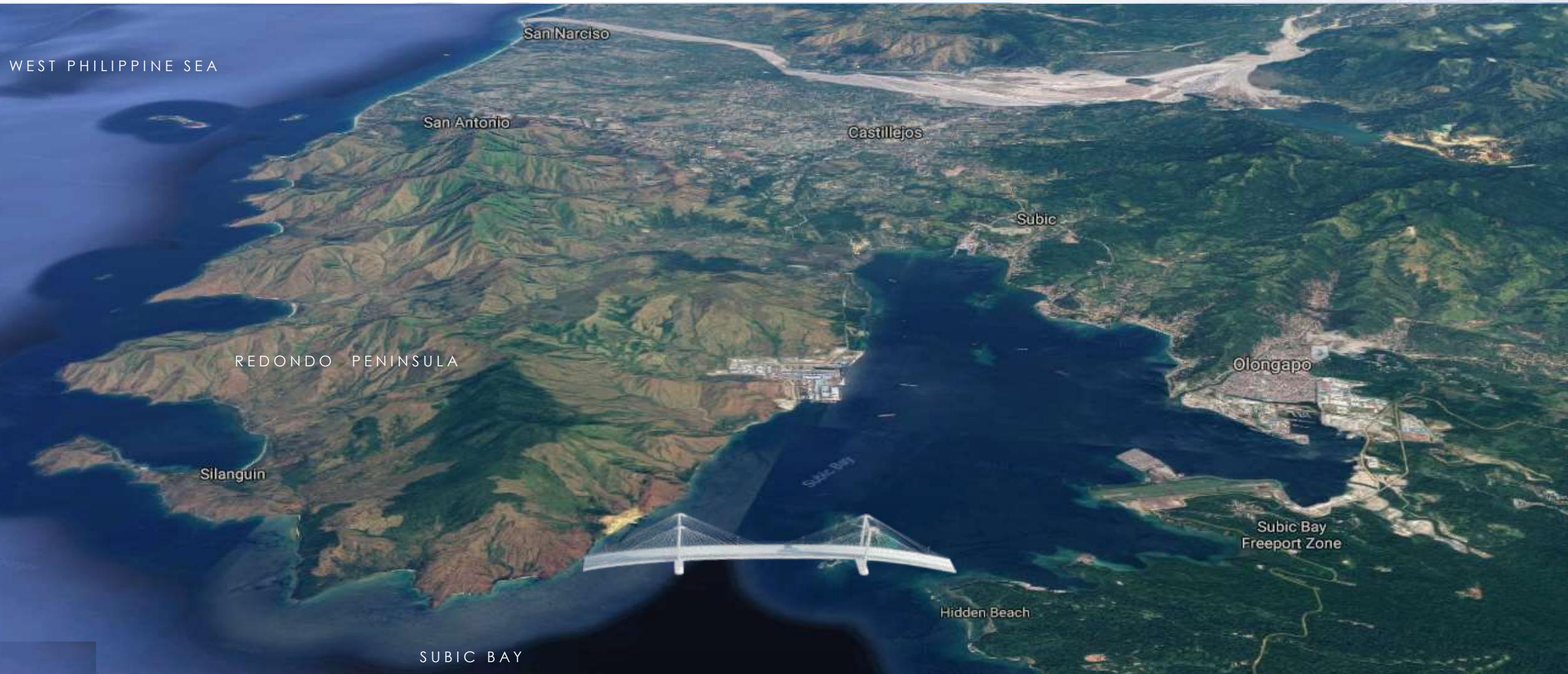
Additional 2.5 million metric tons bulk cargoes capacity



Redondo Peninsula Port Terminal

Additional 3 million metric tons cargoes capacity

Redondo Link Bridge



NEW CRUISE SHIP BERTH



CONSTRUCTION OF NEW CRUISE SHIP FACILITY

Phase 1: CONSTRUCTION OF CRUISE SHIP JETTY

Quay Length = 380 meters (Berth 1)
350 meters (Berth 2)
Depth = 12 meters

**Approximate Infrastructure Cost:
PHP 1.2B**

Phase 2: RECLAMATION FOR CRUISE PASSENGER TERMINAL AND CRUISE LEISURE & COMMERCIAL AREA

**Approximate Infrastructure Cost:
PHP 9B**

PROPOSED SUBIC BAY CRUISE SHIP TERMINAL



CRUISE SHIP TERMINAL ALONG WATERFRONT ROAD

Phase-1: Construction of double berth 380 and 350-meter jetty with a depth of 12 meters.

Phase 2: Reclamation of 20 hectares. Construction of Cruise Passenger Terminal, Area for Cruise related businesses, Public Park/ Esplanade, Amusement Park, Shopping and Dining Centers.

PROJECT COST

₱1.2B* (Phase-1)

TIMELINE

₱8.96B* (Phase-2)

***Costing as of Dec. 2023**

IMPACT

International and local cruise operations shall greatly benefit local and national economies, including job creation, revenue from port fees and dues, and increased tourism spending.



VISION: TO MAKE SUBIC BAY A HOME PORT FOR CRUISE SHIPS

US TO SET UP ECONOMIC CORRIDOR ON PHILIPPINE MAIN ISLAND WITH JAPAN HELP

President Marcos Jr. said the project will intensively focus on key infrastructure such as ports, railways, clean energy, and semiconductor supply chain connecting Subic Bay in Zambales, Clark in Pampanga, Manila, and Batangas.



SUBIC-CLARK-MANILA-BATANGAS RAILWAY SYSTEM



SBITC LIST OF SHIPPING LINES

Major Carriers



WAN HAI LINES LTD.

WE CARRY, WE CARE.

Co-loaders



新鑫海航运有限公司
New Golden Sea Shipping Pte. Ltd.



COST OF DOING BUSINESS

SEAPORT

Competitive
compared to
other areas



LABOR

US\$8.95
per working day



RENTAL

US\$3-6
per sq. m.



POWER

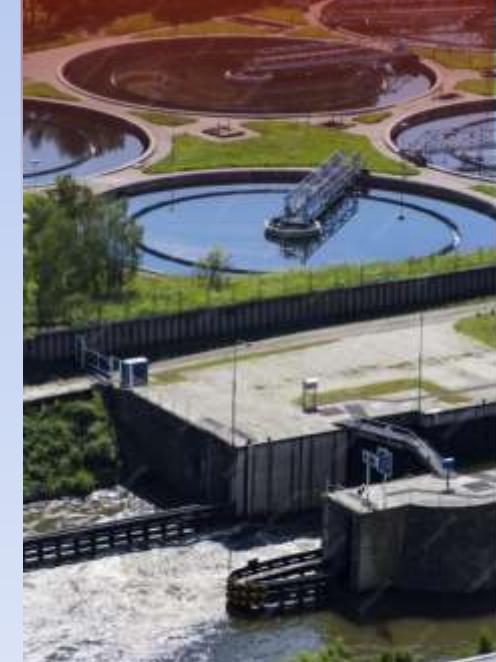
US\$0.14
per kWhr



WATER

US\$12.41 (Standing)
+ USD 1.33/ cu. m.

For commercial establishment with
above 501 cu.m. consumption



COMPARATIVE ADVANTAGES

- Subic: Freeport incentives, location, deep harbor
- Taiwan's Ports: Technology, high-volume port systems



RATIONALE FOR COOPERATION

- Complementary strengths
- Shared economic interests
- Technology + location synergy



Source: <https://www.bworldonline.com/opinion/2022/08/02/465532/closer-economic-ties-with-taiwan-1/>

COOPERATION AREA 1: DIGITALIZATION

- Port community systems
- Cybersecurity links
- Predictive scheduling



Source: <https://www.connecta-network.com/the-role-of-major-global-ports-in-sustainable-logistics/>

COOPERATION AREA 2: GREEN PORTS

- Emissions reduction plans
- Joint green fuel ecosystem



Source: <https://www.connecta-network.com/the-role-of-major-global-ports-in-sustainable-logistics/>

TOP 10 GREEN TECHNOLOGIES FOR SUSTAINABLE SHIPPING

- Wind Power
- Solar Panels
- Battery Systems
- Sustainable Biofuels
- Air Lubrication
- Shore Power
- LNG (Liquefied Natural Gas)
- H₂ Hydrogen Fuel
- Energy-Efficient Propulsion
- Digital Optimization



COOPERATION AREA 3: CONNECTIVITY

- Create scheduled Subic–Taiwan feeder loops to serve intra-Asia trades
- Transshipment partnership
- Coordinate slot sharing and vessel rotation to reduce bottlenecks



Source: https://ss.shipmentlink.com/tvs2/jsp/TVS2_ServiceProfile.jsp?line=TMS

COOPERATION AREA 4: BUNKERING, MRO, AND SUPPLY-CHAIN SERVICES

- Ship repair synergy
- Offshore wind vessels



Made in Taiwan: Green Jade WTV delivered to Deme. [Foto: Deme]



Source: <https://www.jandenul.com/our-projects/offshore-windfarm-changhua-taiwan>



SUBIC DRYDOCK CORPORATION

COOPERATION AREA 5: SECURITY & RESILIENCE

- Joint Emergency Response
- Vessel Traffic Management System (VTMS) Enhancement



COOPERATION AREA 6: WORKFORCE TRAINING & TECHNOLOGY EXCHANGE

- Training exchanges (safety, automation ops, green port skills)
- Joint R&D programs
- Capacity Building for Port Professionals and Technicians
- Eliminating Illicit Trade



COOPERATION AREA 7: CRUISE, TOURISM & PASSENGER LINKAGES



- Develop Subic as an alternative cruise port for Taiwan–Philippines itineraries
- Joint tourism packages leveraging Subic's attractions and Taiwanese markets



SUBIC-TAIWAN ECOSYSTEM

- Data-linked operations
- Coordinated vessel scheduling
- Increase in Investments
- Trade Corridors
- Joint Investment Promotions
- Technology Transfer

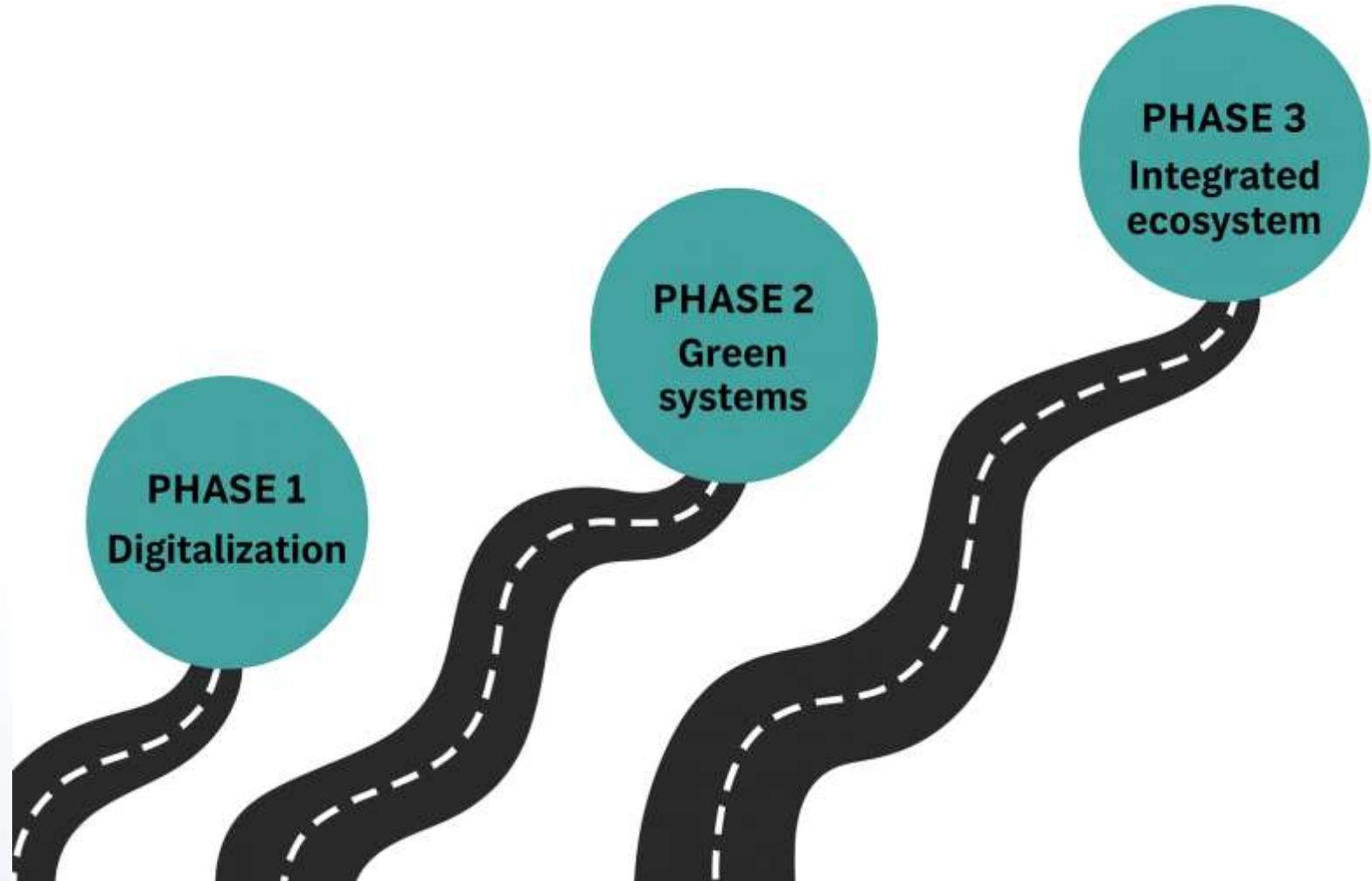


ECONOMIC IMPACT

- Trade growth
- Jobs and investment
- Infrastructure uplift



- Phase 1: Digitalization
- Phase 2: Green systems
- Phase 3: Integrated ecosystem



SUBIC BAY FREEPORT

**YOUR GREEN PORT
CITY AND HUB
FOR SHIPBUILDING,
SHIPLYARD, LOGISTICS
AND COMMERCIAL
PORT OPERATIONS**

For questions, suggestions and
comments: mpmlazaro@sbma.com

