GEODYN SOLUTIONS™

GEODYN SOLUTIONS PARTNERSHIP FOR CAN GIO INTERNATIONAL TRANSSHIPMENT PORT & GREEN ENERGY HUB

www.geodynsolutions.com

EXECUTIVE SUMMARY

Geodyn Solutions and its partners propose the development of the Can Gio International Transshipment Port as a world-class smart and sustainable maritime hub.

This project positions Vietnam as a direct competitor to Singapore, by combining:

- Mega-container handling capacity of 10–15 million TEU annually.
- Energy hub with 6 million barrels of oil storage & green bunkering.
- Next-generation AI, blockchain, and automation.
- Green infrastructure and renewable power systems to create the most environmentally advanced port in Southeast Asia.

AREA REQUIREMENTS

TOTAL PROJECT AREA: ~800 HECTARES (8 KM²)

- **Container Port & Logistics Zone:** ~570 hectares
- **Oil Storage & Energy Hub:** ~150 hectares
- Green Infrastructure (solar farms, hydrogen plant, wastewater treatment, mangrove buffer): ~80 hectares

WATER AREA & ACCESS CHANNELS:

- 7.2 km of quay walls & berths.
- Dredged navigation channel: ~12 km long, -16m depth to accommodate 24,000 TEU ships.
- Turning basin: 1.5 km diameter.

This footprint balances operational capacity with ecological preservation, allocating dedicated areas for mangrove restoration and green buffers.

GREEN TECHNOLOGY & INNOVATION

AI & SMART AUTOMATION

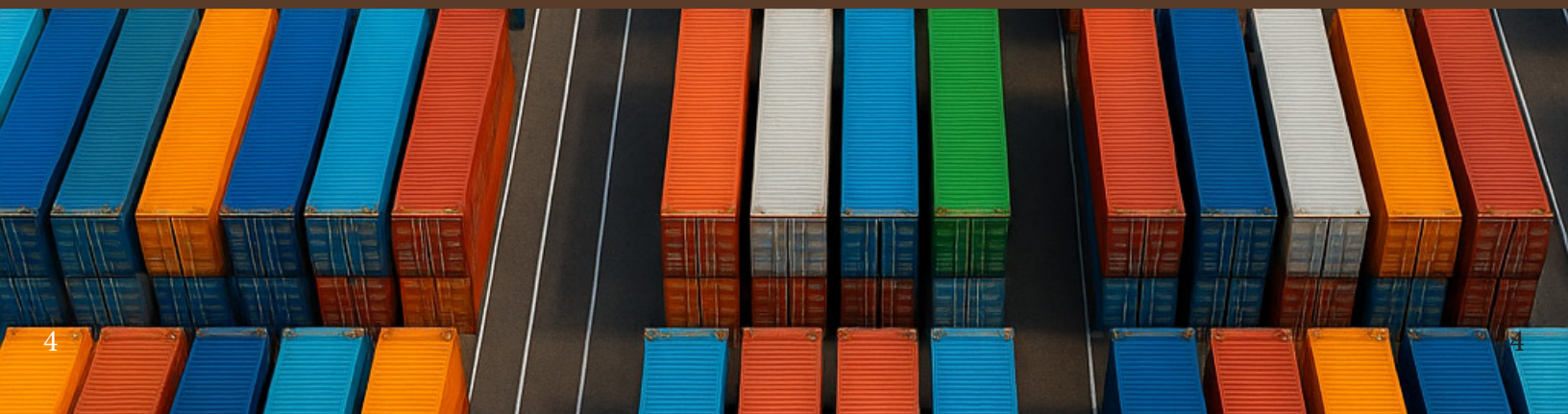
- Predictive vessel scheduling to reduce wait times and emissions.
- Hydrogen/electric AGVs for zero-emission cargo handling.
- Smart cranes with energy recovery systems.

BLOCKCHAIN FOR TRANSPARENCY & GREEN FINANCE

- Blockchain-based carbon credit trading.
- Smart contracts for container trade and oil storage leasing.
- Immutable cargo tracking to ensure ESG compliance.

SUSTAINABLE INFRASTRUCTURE

- Shore-to-ship renewable power (cold ironing).
- Hydrogen and LNG bunkering for clean shipping fuels.
- On-site solar fields + offshore wind integration for energy independence.
- Zero-wastewater discharge through recycling systems.
- Circular economy converting dredged sediment into construction materials.
- Mangrove conservation zone integrated into port landscape.



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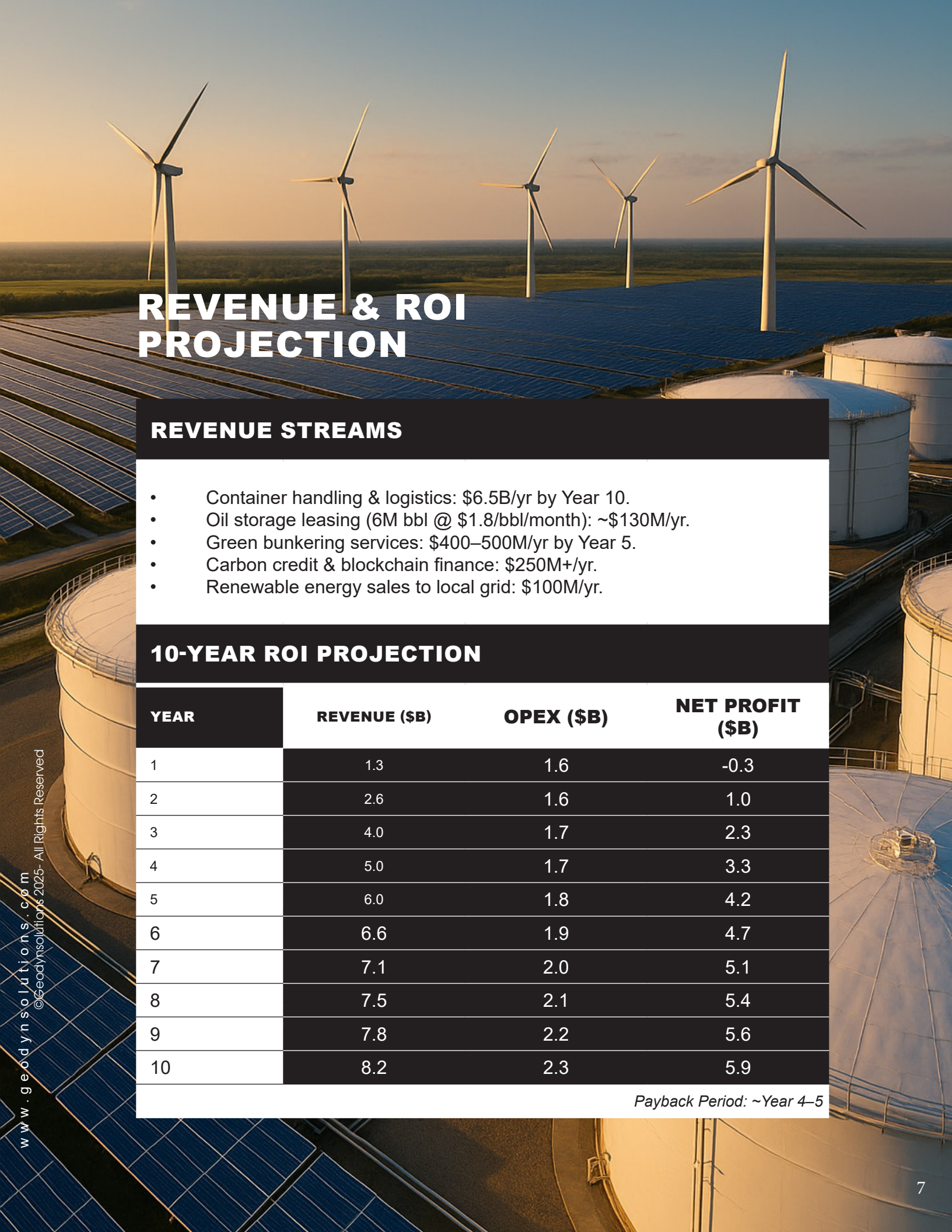
CAPEX & OPEX (USD)

CATEGORY	COST ($B)
Marine Works (dredging, quay walls)	1.6
Container Terminals (yards, automation)	1.8
Oil Storage & Green Bunkering (6M bbl)	1.4
Renewable Microgrid & Energy Systems	0.8
AI, Blockchain, Automation Systems	0.6
Roads, rail, eco-systems, green buffers	1.2
Subtotal	7.4
+ 20% Contingency	1.5
Total CAPEX	8.9

(including 20% contingency)

Annual OPEX Estimate

- *Container operations: $0.9B*
- *Oil storage & bunkering: $0.4B*
- *Renewable energy & maintenance: $0.3B*
- *Total ≈ $1.6B/year*



REVENUE & ROI PROJECTION

REVENUE STREAMS

- Container handling & logistics: $6.5B/yr by Year 10.
- Oil storage leasing (6M bbl @ $1.8/bbl/month): ~$130M/yr.
- Green bunkering services: $400–500M/yr by Year 5.
- Carbon credit & blockchain finance: $250M+/yr.
- Renewable energy sales to local grid: $100M/yr.

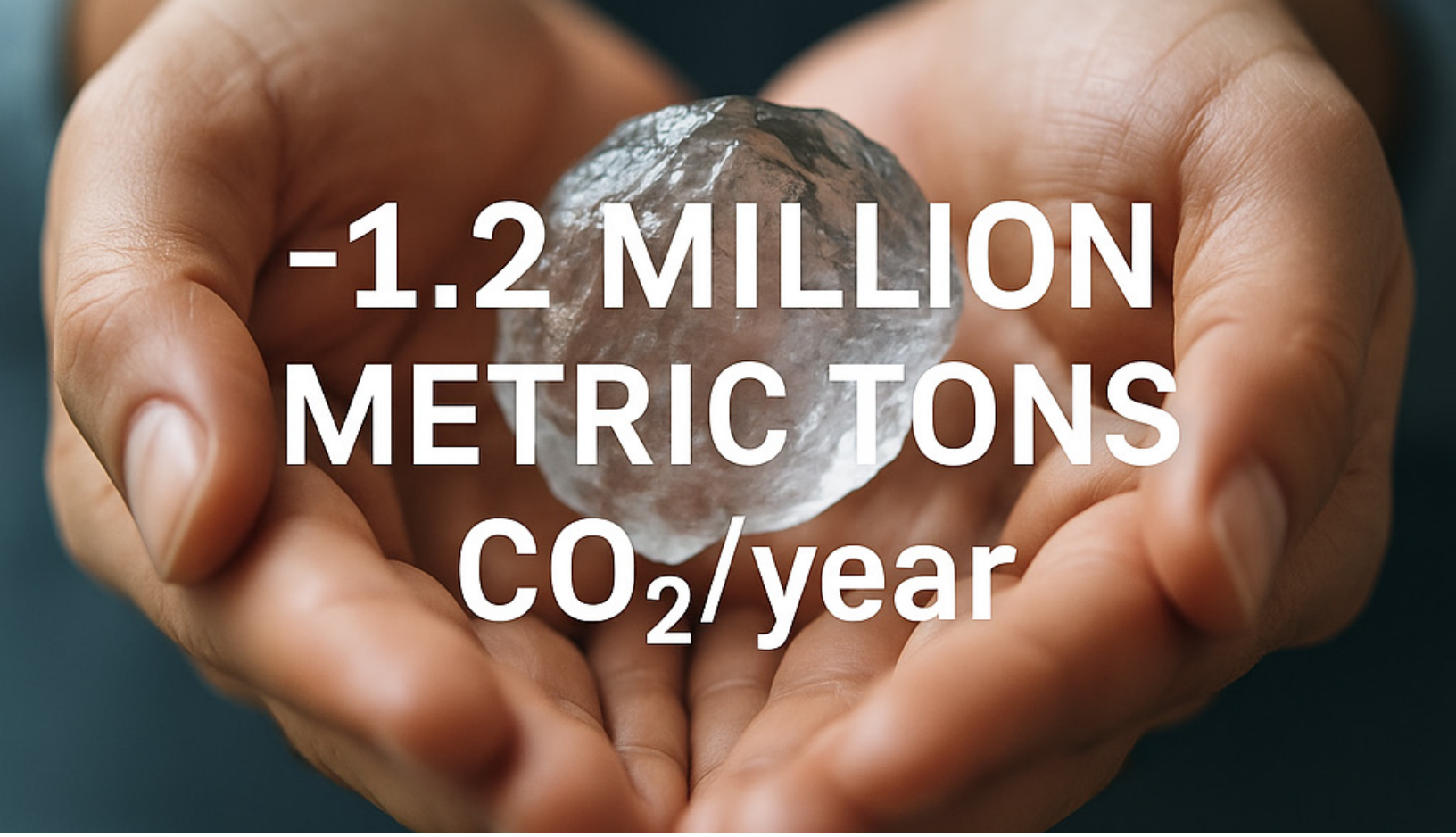
10-YEAR ROI PROJECTION

YEAR	REVENUE ($B)	OPEX ($B)	NET PROFIT ($B)
1	1.3	1.6	-0.3
2	2.6	1.6	1.0
3	4.0	1.7	2.3
4	5.0	1.7	3.3
5	6.0	1.8	4.2
6	6.6	1.9	4.7
7	7.1	2.0	5.1
8	7.5	2.1	5.4
9	7.8	2.2	5.6
10	8.2	2.3	5.9

Payback Period: ~Year 4–5

JOB CREATION & SOCIAL BENEFITS

- Construction (5 years): ~40,000 jobs.
- Operations: ~20,000 direct jobs.
- Indirect Employment: ~75,000 across logistics, trucking, warehousing, renewable energy, and digital services.
- Community Training Programs for green logistics, AI, and blockchain.

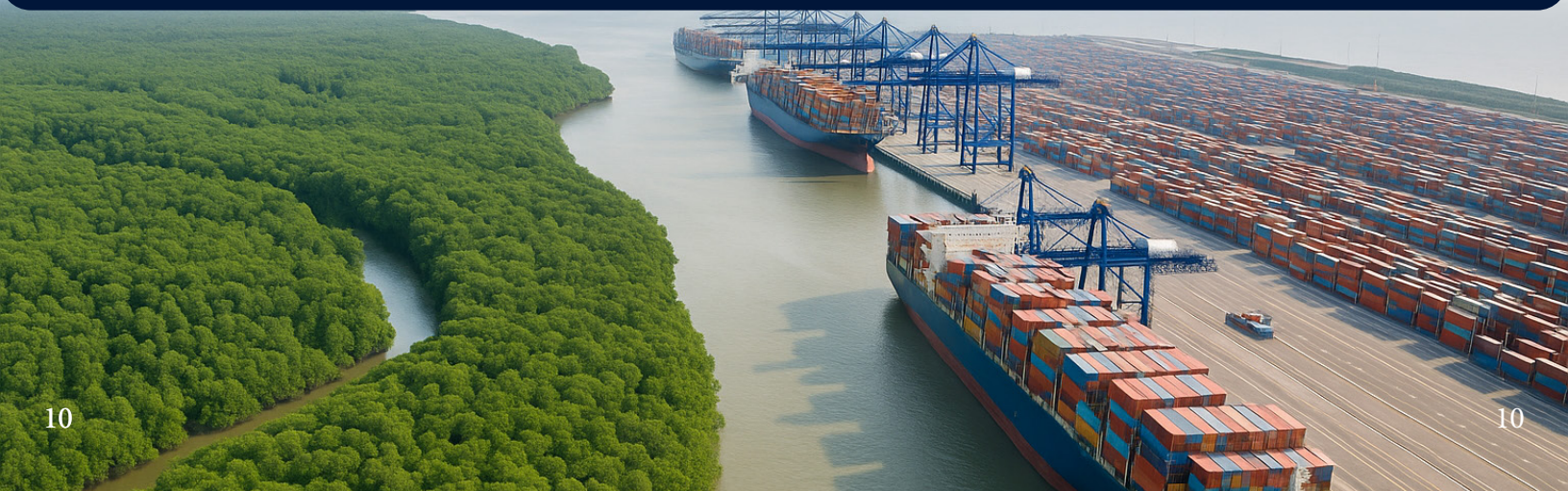


ENVIRONMENTAL BENEFITS

- CARBON NEUTRAL BY 2040 GOAL.
- REDUCTION OF >1.2M TONS OF CO_2 ANNUALLY VIA SHORE POWER & CLEAN FUELS.
- 100% RECYCLED WASTEWATER.
- RENEWABLE-POWERED MICROGRID TO RUN PORT OPERATIONS.
- MANGROVE BUFFER ZONE TO PROTECT BIODIVERSITY AND ENHANCE CLIMATE RESILIENCE.

STRATEGIC POSITIONING AGAINST SINGAPORE

- 6M BARRELS STORAGE CAPACITY EXCEEDS SINGAPORE'S ACTIVE TANK FARMS, MAKING CAN GIO A DIRECT RIVAL.
- DUAL CAPACITY: MEGA-CONTAINER HUB + GREEN BUNKERING HUB.
- GREEN ADVANTAGE: SINGAPORE RELIES HEAVILY ON OIL BUNKERING; CAN GIO LEADS IN HYDROGEN AND LNG BUNKERING.
- COST ADVANTAGE: LOWER CONSTRUCTION AND LABOR COSTS, WITH HIGH-TECH GREEN SYSTEMS INTEGRATED FROM THE START.



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With Geodyn Solutions at the helm, the Can Gio International Port & Green Energy Hub will redefine Southeast Asian logistics. By combining AI, blockchain, renewables, hydrogen, LNG, oil storage, and mangrove restoration, this project delivers:

- World-class logistics capacity
- Direct competition with Singapore
- Long-term ROI and fast payback
- Jobs, sustainability, and national prestige

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