

BLUE ECOSYSTEM MANAGEMENT AND SUPPORT FOR BLUE PORT PROGRAM

Towards Sustainable, Inclusive, and Resilient Coastal Development

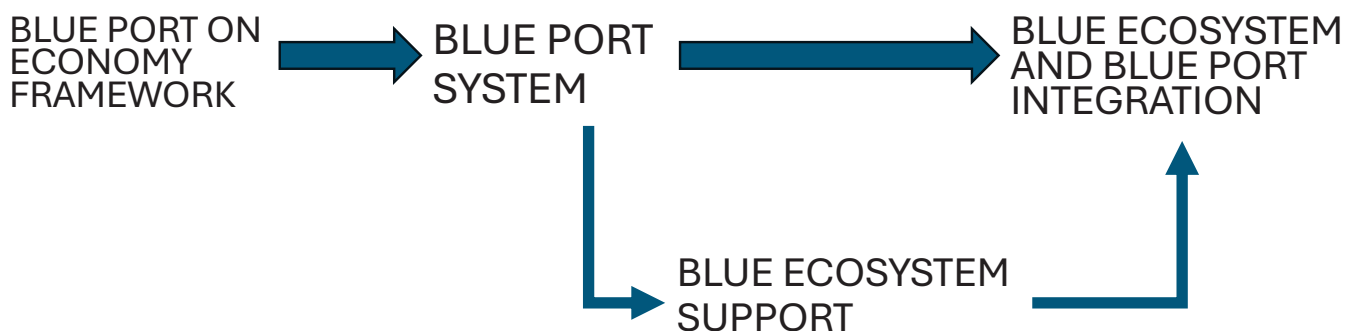
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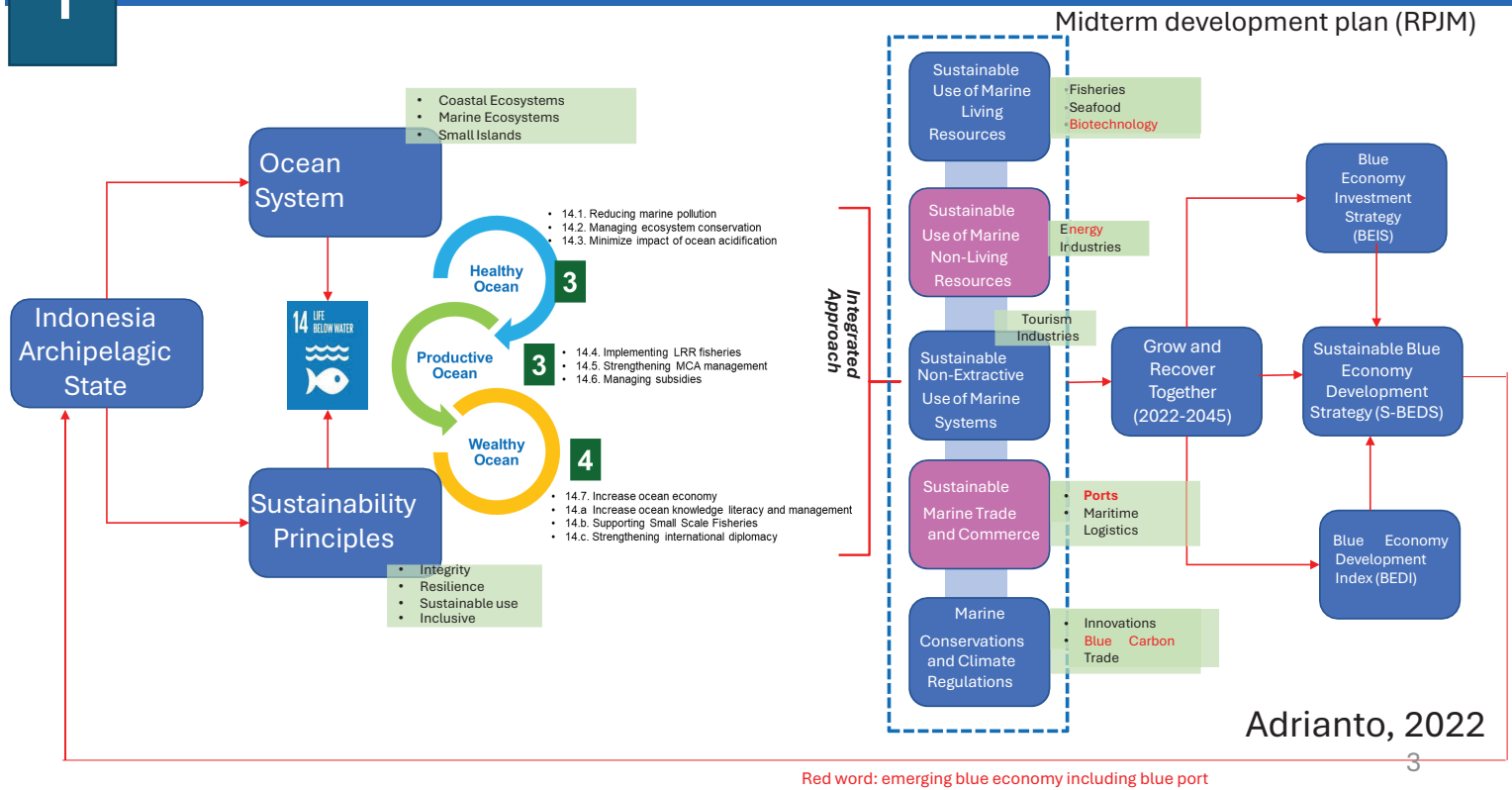
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Flow of presentation

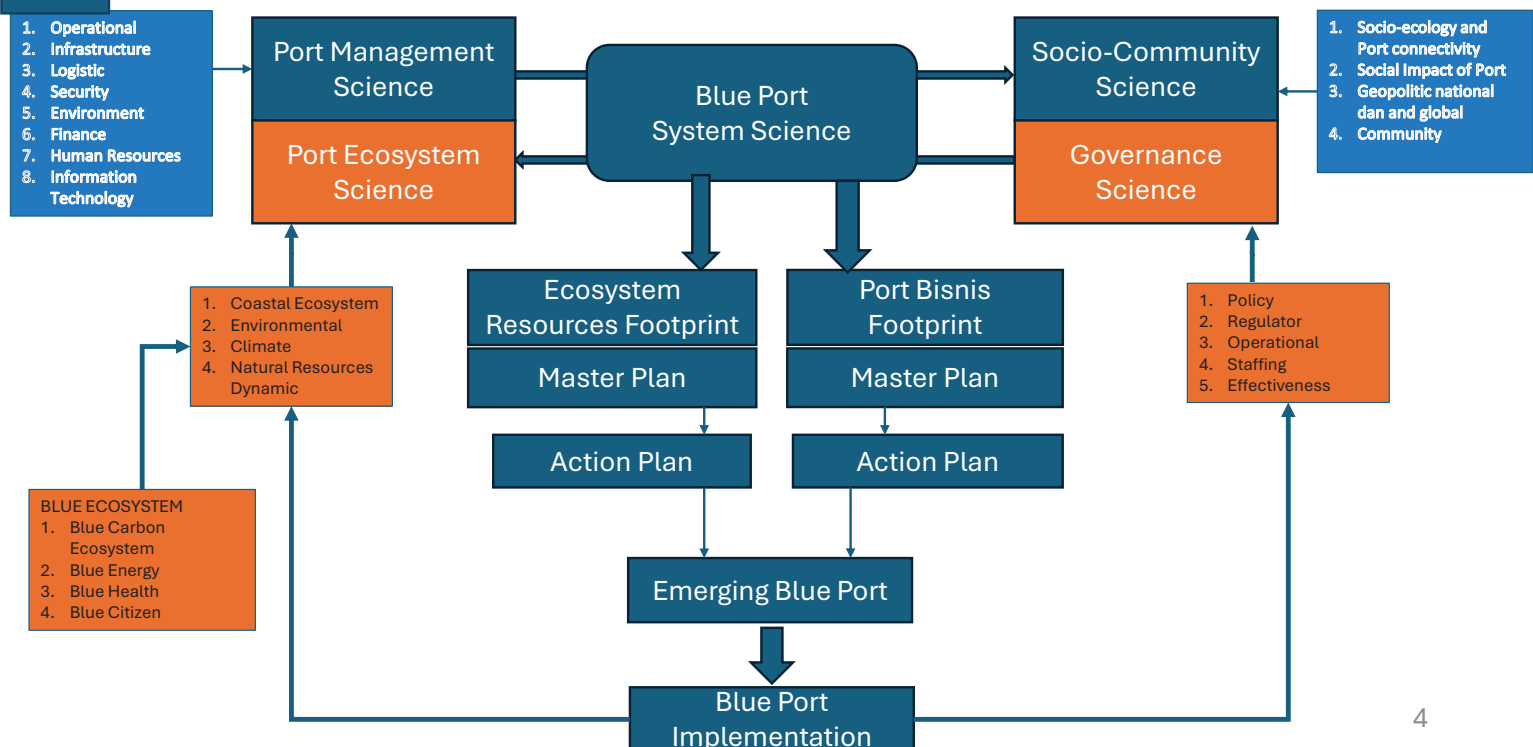


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BLUE PORT ON ECONOMY FRAMEWORK



BLUE PORT SYSTEM SCIENCE



Why Blue Ecosystem Matters

The ocean and coastal areas are vital ecosystems:

- Provide good and food (fish's, wood, ect)
- Support biodiversity and services
- Sustain coastal economies
- Protection and Prevention

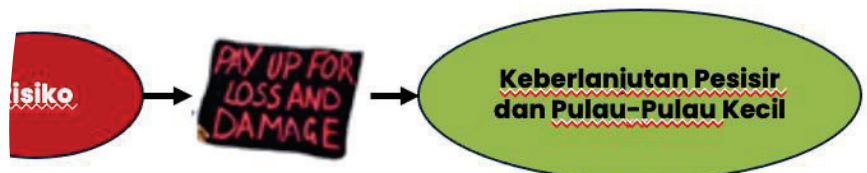
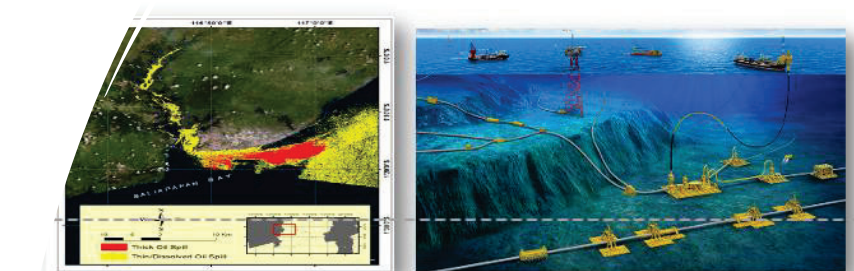


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Why Blue Ecosystem Matters

Challenges

- Environmental degradation
- Marine pollution
- Overfishing and Illegal
- Climate Change and Disaster Control



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Blue Ecosystem Component

- Mangrove and Coastal Forest
- Wetland and Swamp
- Coral Reef
- Seagrass
- Shallow Water Ecosystem
- Coastal and Estuary
- Strait and
- ect



Key Components of Blue Ecosystem Management

Componen	Description
Ecosystem Monitoring	Water Quality Monitoring, habitat monitoring, Sustainable Fishing,
Ecosystem Restoration	Mangrove and coastal forest rehabilitation and restoration, coral rehabilitation, seagrass rehabilitation.
Green Infrastructure	Low emission port, renewable energi, water treatment port
Smart Governance and Management	Multi-party colaboration & avidance base policy

Blue Ecosystem Management

= An integrated effort to maintain ecological balance while ensuring economic benefits on coastal and port activity on coastal area

Blue Ecosystem -- The Blue Port Program

Blue Ecosystem Management

An integrated effort to maintain ecological balance while ensuring economic benefits on coastal and port activity on coastal area

What is a Blue Port?

A port that adopts principles of:
Environmental sustainability
Economic efficiency, Social inclusion

Relation

1. Port protection and prevention from Risk and natural or man-made disaster
2. Port healthy indicator (physical, chemical and biological pollution)
3. Sustainable community economic supporting
4. Energy efficiency from wind and current circulation
5. Community engagement and participation

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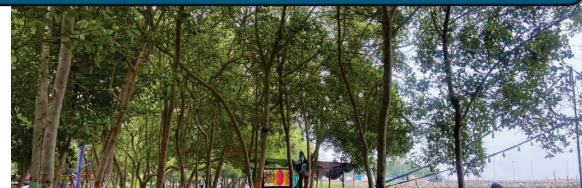
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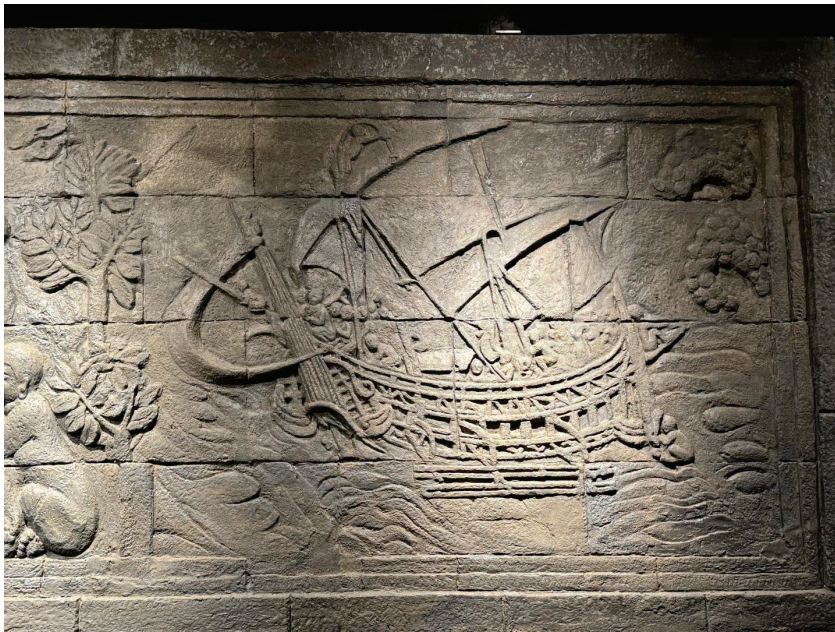
BLUE ECOSYSTEM AND BLUE PORT INTEGRATION

Integrating Ecosystem Management into Blue Ports

Ecosystem Management Principal Implemented:

- Ecosystem and Area-Based Management (EABM)
- Pollution Control & Waste Management
- Climate Adaptation Measures
- Biodiversity Protection Zones
- Sustainable Fisheries Integration





The Blue Ports Initiative (BPI) aspires to enhance the role of ports in contributing to the environmental, social, and economic development of coastal regions by adhering to sustainable principles.

In the history of port development in Indonesia, the ecosystem has always been an important aspect that is consistently taken into consideration.

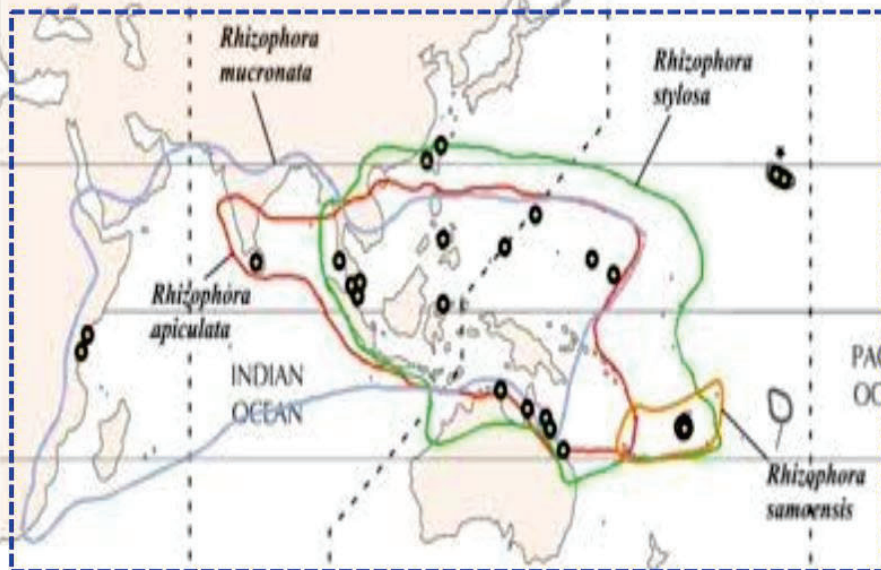
Many reliefs found on the Borobudur Temple depict historical traces indicating that the concept of integration between the ecosystem and ports has long existed. The reliefs show mangrove plants located near ports or boats, suggesting the presence of coastal ecosystems in harmony with maritime activities even in ancient times.

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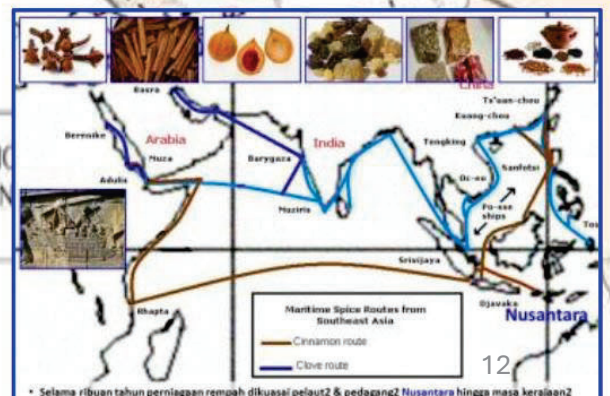
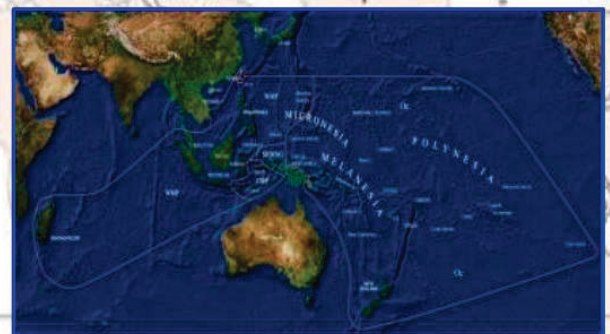
MANGROVE DISTRIBUTION & GREAT VOYAGES OF AUSTRONESIANS



There is a strong link between **Austronesian** civilization & its **mangroves**



Source: Keim, 2024

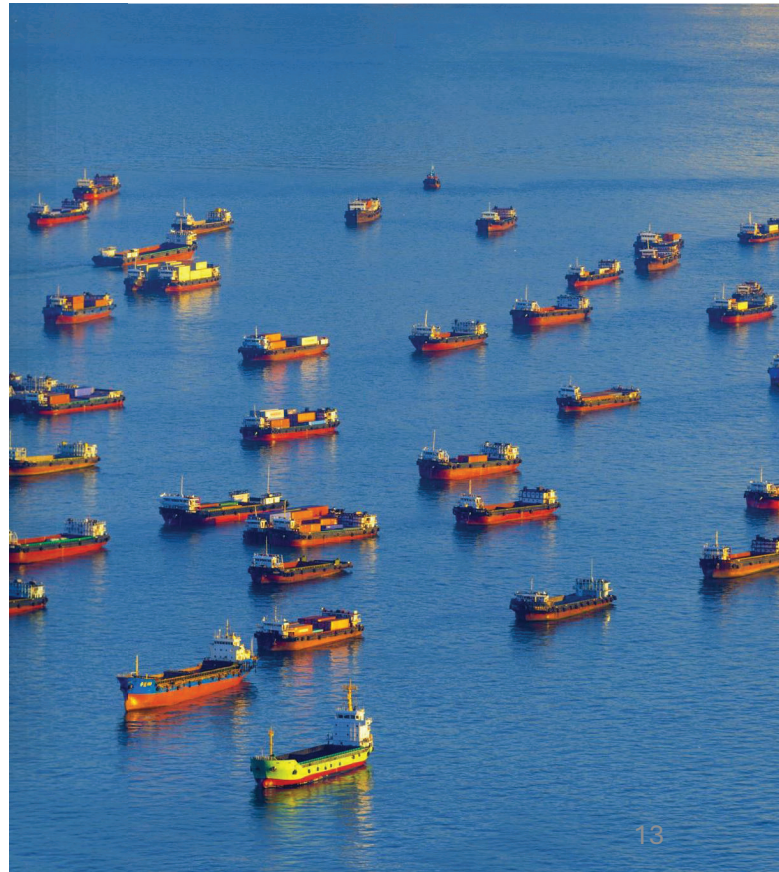


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* Selama ribuan tahun perniagaan rempah dikuasai pelaut & pedagang Nusantara hingga masa kerajaan2

Stakeholder Support and Collaboration on Indonesia Blue Port

- **Government:** Ministry of Maritim and Fisheries, Ministry of Transportation, Ministry of Environment, Local Government
- **Private Sector:** Fisheries business, logistic, renewable energy
- **Academese & NGO:** Research, Training, Education
- **Local Community :** Fisherman, small-medium scale interprise
- **Participative Approach** is the key to the success of blue ecosystem management.



Blue Port Implementation

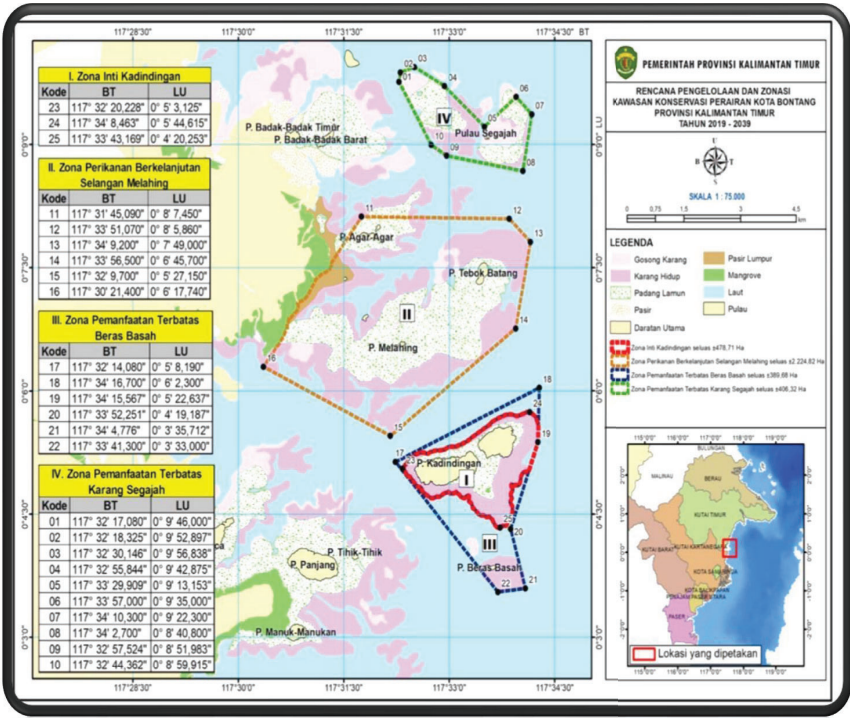
3 Model Blue Port in Indonesia

Commercial
Blue Port

Special/Private
Blue Port

Fishing Blue
Port

Pilot Projects & Best Practices on Pupuk Kaltim Bontang Commercial port

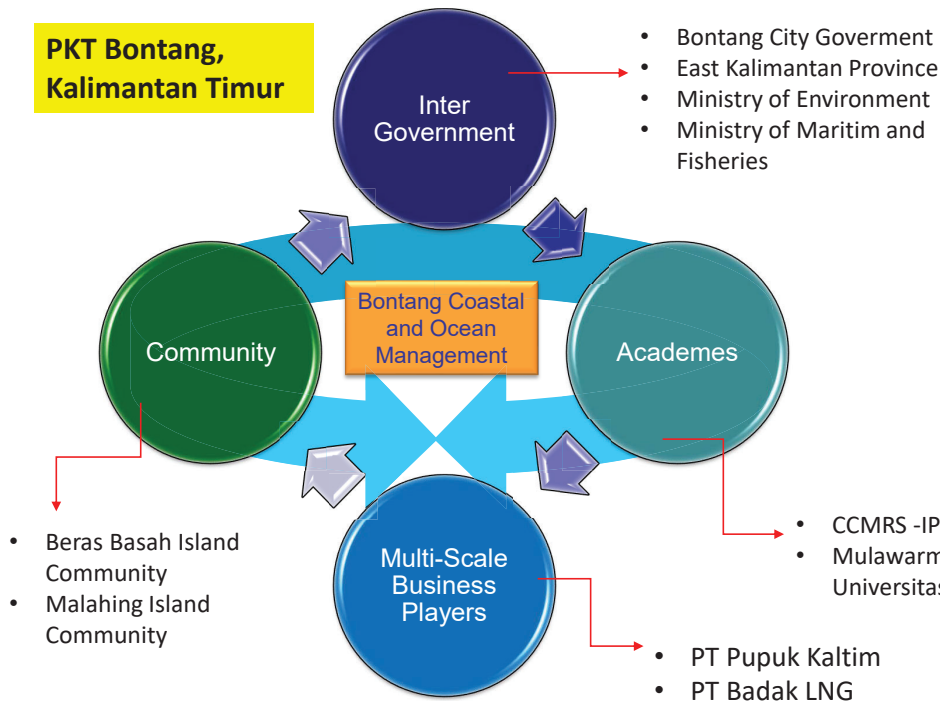


No	Jenis Zona	Nama Zona	Luas (Ha)	Proporsi Luasan (%)
1.	Preservation	Kedindingan	478,71	12,68
Core Zona			478,71	12,68
2.	Sustainable Fisheries (Fishing Capture & Aquaculture friendly)	Melahing	2224,82	63,57
Sustainable Fisheries			2224,82	63,57
3.	Limited Utilization (Coastal Tourism)	Beras Basah	389,68	11,14
		Karang Segajah	406,32	11,61
Sustainable fisheries			796	22,75
Total Luasan Kawasan Konservasi Perairan			3,499,53	100



Integration Blueport and Community in Bontang?

PKT Bontang, Kalimantan Timur



City Regent Development Plan (2020)

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Pilot Projects & Best Practices on Fishing Port

- **Bitung Fisheries Port, North Sulawesi**
- Implementation of liquid and solid waste management systems
- Rehabilitation of coastal ecosystems surrounding the port
- **Benoa Port, Bali**
- Integrated conservation zone
- Eco-friendly cooling technology for seafood products



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Bitung Ocean Fishing Port as the Main Fish Landing Site Using a Cold Chain System and Conservation Area Around of Landing Port.



Small-Scale Fishing Port
in Tarum Jaya, Bekasi,
near the Mangrove Area



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Pilot Projects & Best Practices on Industrial/Business Port



- The area of private or special-purpose industrial ports is located in coastal zones that are closely connected to ecosystems such as mangroves, seagrass beds, and coral reefs
- Port activities include rehabilitating and restoring damaged ecosystems for port-related purposes, as well as replanting mangrove areas that still have potential for restoration

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Conclusion

- Blue ecosystem management is the foundation for the success of the Blue Port program.
- Blue ecosystems are commonly linked to various port activities in Indonesia, especially mangrove, seagrass, and coral reef ecosystems.
- The connection between blue carbon ecosystems and ports encourages integrated management to support a sustainable blue economy.
- Cross-sectoral support is essential to develop ports that are: Clean, Health, Productive, Equitable
- Today's investment in blue ecosystems = A sustainable maritime future.

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TERIMAKASIH

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