

State of Oceans and Coasts: MALAYSIA

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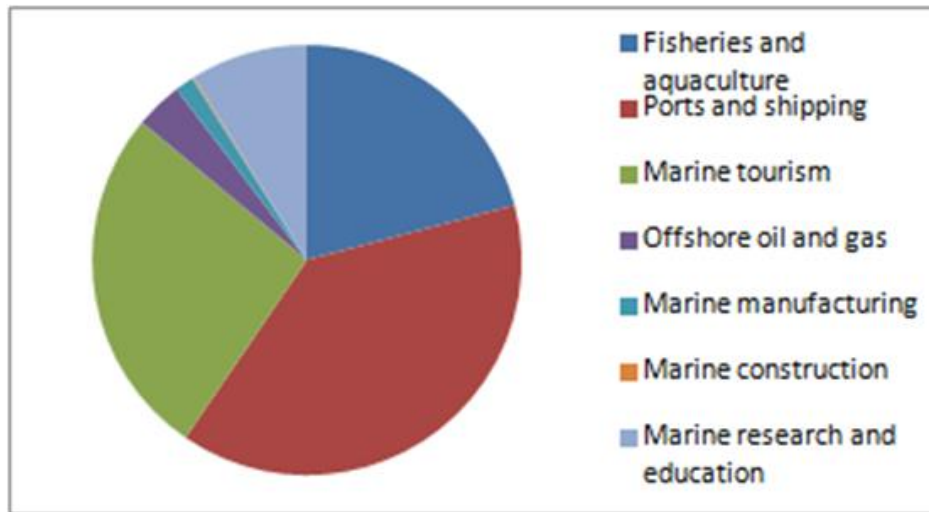
Centre for Coastal and Marine Environment
Maritime Institute of Malaysia (MIMA)



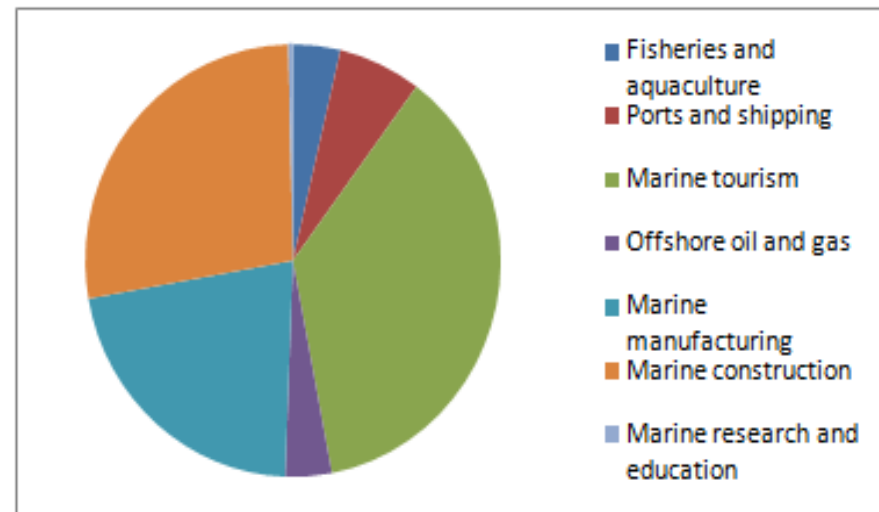
Ocean economy

In 2015	
Gross value added of ocean economy (in US\$, constant prices)	US\$ 63 billion (in 2015)
Share of ocean economy to GDP (%)	23% of GDP (in 2015)
Employment in ocean economy	4% of total employment

Ocean Economy



Contribution of ocean economy to GDP (23%)



Share of employment in ocean economy to total employment (4%)

Ocean health

Habitat	Area (km ²)	Condition	Valuation (US\$)
Mangroves	5,440	Area: Decreasing Condition: Good in the protected areas.	4,185/ha/yr
Seagrass	>4,051,000	Area: Decreasing Condition: Poor	22,400/ha/yr
Coral reefs	4,006	Area: Increasing from transplanting Condition: <ul style="list-style-type: none"> • Good in the protected areas • Fair: based on the average live coral cover of 46.4% in 2012 	635 million/yr
Tidal swamps	<i>na</i>	Area: Decreasing Condition: Poor	<i>na</i>
Coastal peat swamps and Melaleuca forests	15,400	Area: Decreasing	<i>na</i>



Ocean health

Marine water quality

Parameters	Rating
Dissolved oxygen (DO)	Fair
Nitrates	Fair
Phosphates	Fair
Heavy metals	Good
Total suspended solids (TSS)	Poor

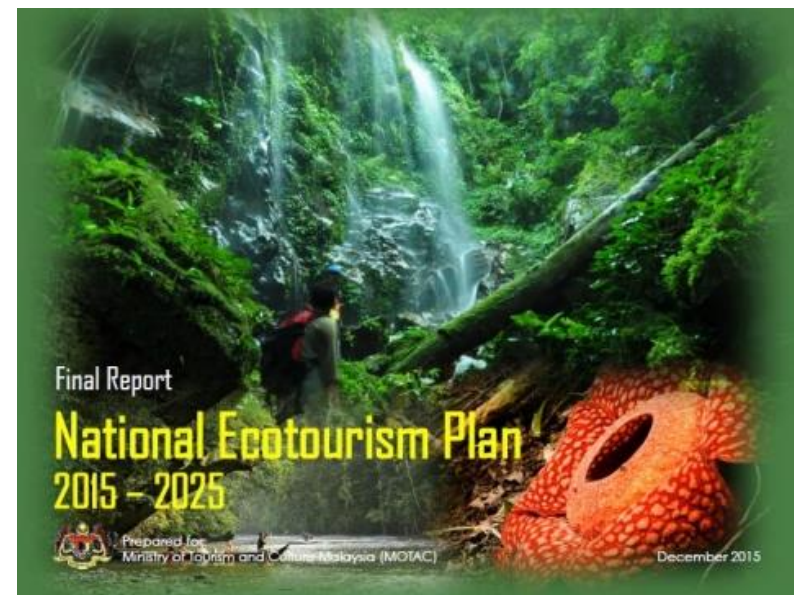


Valuation of coastal and marine ecosystems	US\$17.7 billion
Marine protected areas (% of territorial waters)	2.3%
ICM (% of coastline)	ICM in Port Klang NPP/ RFN ISMP



Blue economy initiatives: Ecotourism and marine parks

- Marine parks (other protected areas) established for the protection, conservation, and management of the marine environment.
- Economic Transformation Programme (ETP) addressing leisure and business tourism.
- Conserving Marine Biodiversity through Enhanced Marine Park Management and Inclusive Sustainable Island Development study.
- **Innovations and best practices**



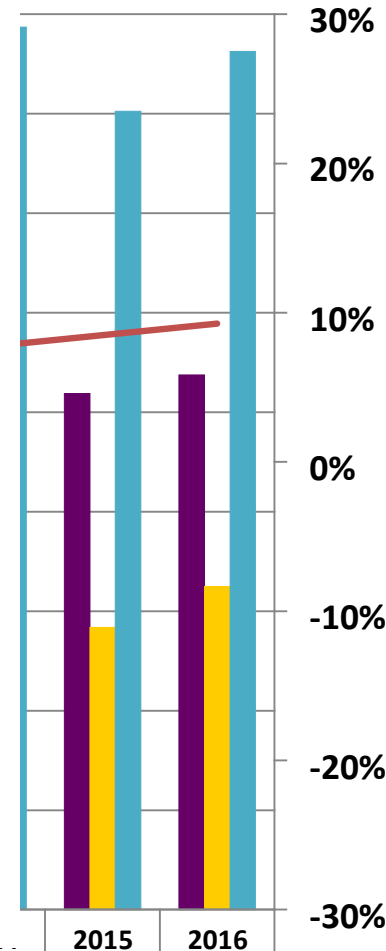
Marine parks in Malaysia



Gajah 1: Taman Laut di Malaysia

Source: Department of Marine Park Malaysia

CS



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
LOCAL TOURISTS	228,480	265,401	262,670	318,702	268,780	363,022	296,586	350,071	476,979	585,665	518,847	537,698
INTERNATIONAL TOURISTS	201,400	254,614	215,012	189,786	261,978	243,133	288,348	276,534	316,380	301,515	283,882	325,093
TOTAL	429,880	520,015	477,682	508,488	530,758	606,155	584,934	626,605	793,359	887,180	802,729	862,791
INCREMENT/YR	-23%	21%	-8%	6%	4%	14%	-4%	7%	27%	12%	-10%	7%

Conservation financing

Economic value of marine ecosystems

No.	References	Value (RM)/yr
1	<i>Investigating the Total Economic Value in Payar Island Marine Park, 2011</i>	RM 174 million
2	<i>Estimating the Total Economic Value (TEV) of Labuan Marine Park, 2012</i>	RM 39.6 million
3	<i>Investigating the Total Economic Value in Redang Island Marine Park, 2012</i>	RM 354 million
4	<i>Assessment of the Management Effectiveness & Investigating the Total Economic Value of Ecotourism, Tioman Island, 2013</i>	RM 3.4 billion
5	<i>Investigating the Total Economic Value in Tinggi Island Marine Park, 2014</i>	RM 3.6 billion
6	<i>Investigating the Total Economic Value in Perhentian Island Marine Park, 2015</i>	RM 1.049 billion

Blue economy initiatives

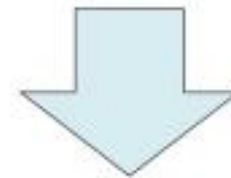
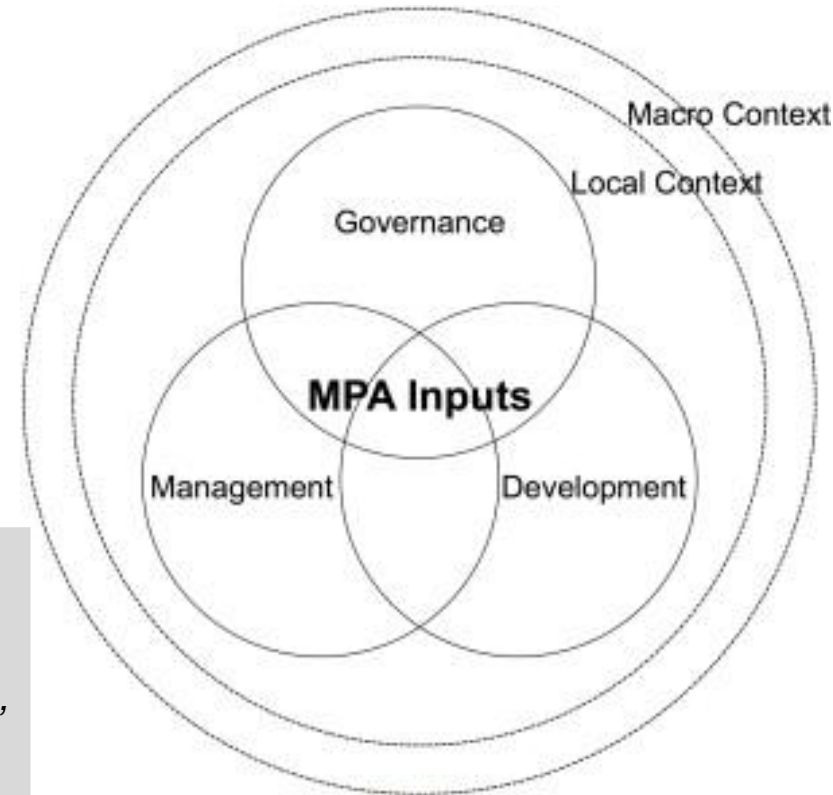
- Outcomes and benefits
- SDGs being achieved

The benefits of well designed and properly run MPAs can be measured in terms of the economic, environmental and social benefits:

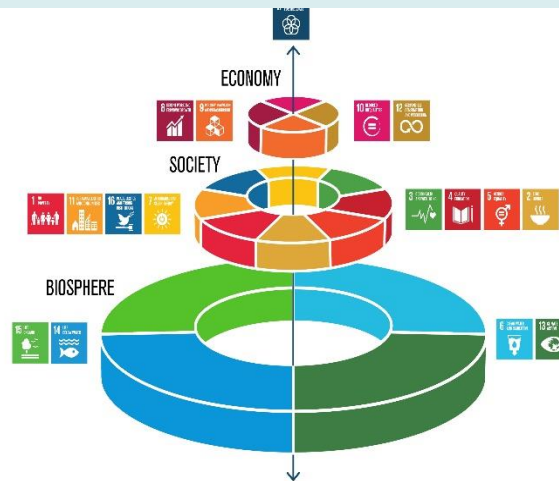
- Fisheries sustainability
- Jobs
- Climate resilience
- Tourism
- Education
- Research
- Heritage
- Spiritual
- Sustainable development

Target 14.5

By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information.



MPA Outcomes
Ecological and Socio-Economic



<p>1 NO POVERTY</p>	<p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>
<p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	<p>13 CLIMATE ACTION</p>
	<p>14 LIFE BELOW WATER</p>

<https://doi.org/10.1016/j.marpol.2014.05.005>



Blue economy initiatives:

Green ports

- Air, water, and noise pollution causing environmental degradation and health issues.
- Threats to local marine species.
- Destruction of marine ecosystems/ habitats/ ecology.
- Negative impacts on livelihood of locals.
- High cost of clean-up
- Bad image for ports and host states/ countries.

Malaysian ports in the global arena

Ports	Ranks	Volume (Million TEUs)
Shanghai, China	1	36.54
Singapore	2	30.92
Hong Kong	5	20.07
Busan, South Korea	6	19.45
Jebel Ali (Dubai), UAE	9	15.60
Port Klang, Malaysia	12	11.89
Kaohsiung, Taiwan	13	10.26
Port of Tanjung Pelepas, Malaysia	17	9.10

World Shipping Council, 2015

These ports won the Green Port Award System of APEC Port Services Network (APSN)

Tackling oil and chemical spills: Emergency Response Plan

- Joint cooperation with neighboring countries

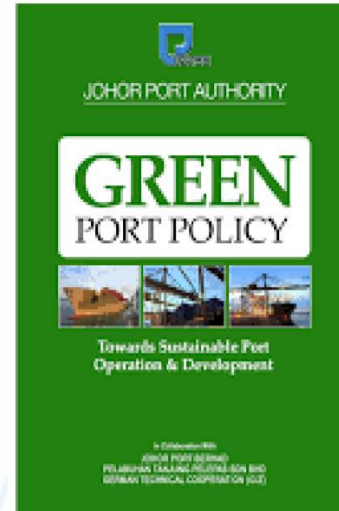
Port Tanjung Pelapas: Port Safety, Health and Environmental Management System (PSHEMS)

- facilitated by PEMSEA under the SDS-SEA Project



Blue economy initiatives: Green ports

- Malaysia is committed to reduce its carbon emissions level by 40% from 2005 GDP levels by 2020.
- Ports facilitate 95% of Malaysia's international trade, and are expected to play a part to attain this target.
- As the nation's economy and trade grow, ports will be busier, and must therefore work at minimizing their emissions and pollution.
- **Innovations and best practices**



Ballast Water Management
Study of Fuel Quality of Ships in Ports
Energy, Electricity & Fuel Saving
Environment Initiatives
Tackling oil and chemical spills



Blue economy initiatives

- **Outcomes and benefits**
 - **SDGs being achieved**
- Contributing to societal development through job and wealth creation associated with trade and infrastructure investments.
 - Ports are often located in ecologically valuable areas, and hence have a responsibility in enhancement of the local community and the environment.
 - Increasing supply chain sustainability requirements driven by consumers would require ports to increasingly to contribute so the sustainable development agenda.



The POLICY guiding principles are:

- 1) To protect the community from harmful environmental impacts as a result of port operations;
- 2) To maintain a balance between the environment, social and economy in any port planning, development and operation;
- 3) To inculcate sustainability within the framework of the organization focusing on increasing awareness and the use of sustainable materials or technologies;
- 4) To provide principal direction within the port towards environmental compliance and conservation;
- 5) To prevent pollution and improve personal, community and environmental health;
- 6) To encourage positive impacts beyond economic benefits to the surrounding community;
- 7) To engage and communicate with the community; and
- 8) To use energy, electricity and fuel saving initiatives.