



# The Republic of the Union of Myanmar

Maritime Shipping and Environment Protection -

**“How to master the global challenge”**

*26 May 2016*

Part 2 : Measures to push sustainable environment protection globally -

***Enforcement of environment protection requirements in Myanmar***

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- a Introduction
- a Maritime Policy and Legislation of Myanmar
- a Regional cooperation
- a Challenges to enforcement
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# **Introduction**

# Geographical area of South East Asia



# General Information about Myanmar

**Formal name:** The Republic of the Union of Myanmar

**Location:** Lat 9° 32' and 28° 31' N

Long 92° 10' and 101° 11E

**Land Area:** 676,578 sq km

**Length:** North to South - 2100 km

East to West - 925 km

**Navigable Length:** 6650 km

**Land boundaries:** 5867 km

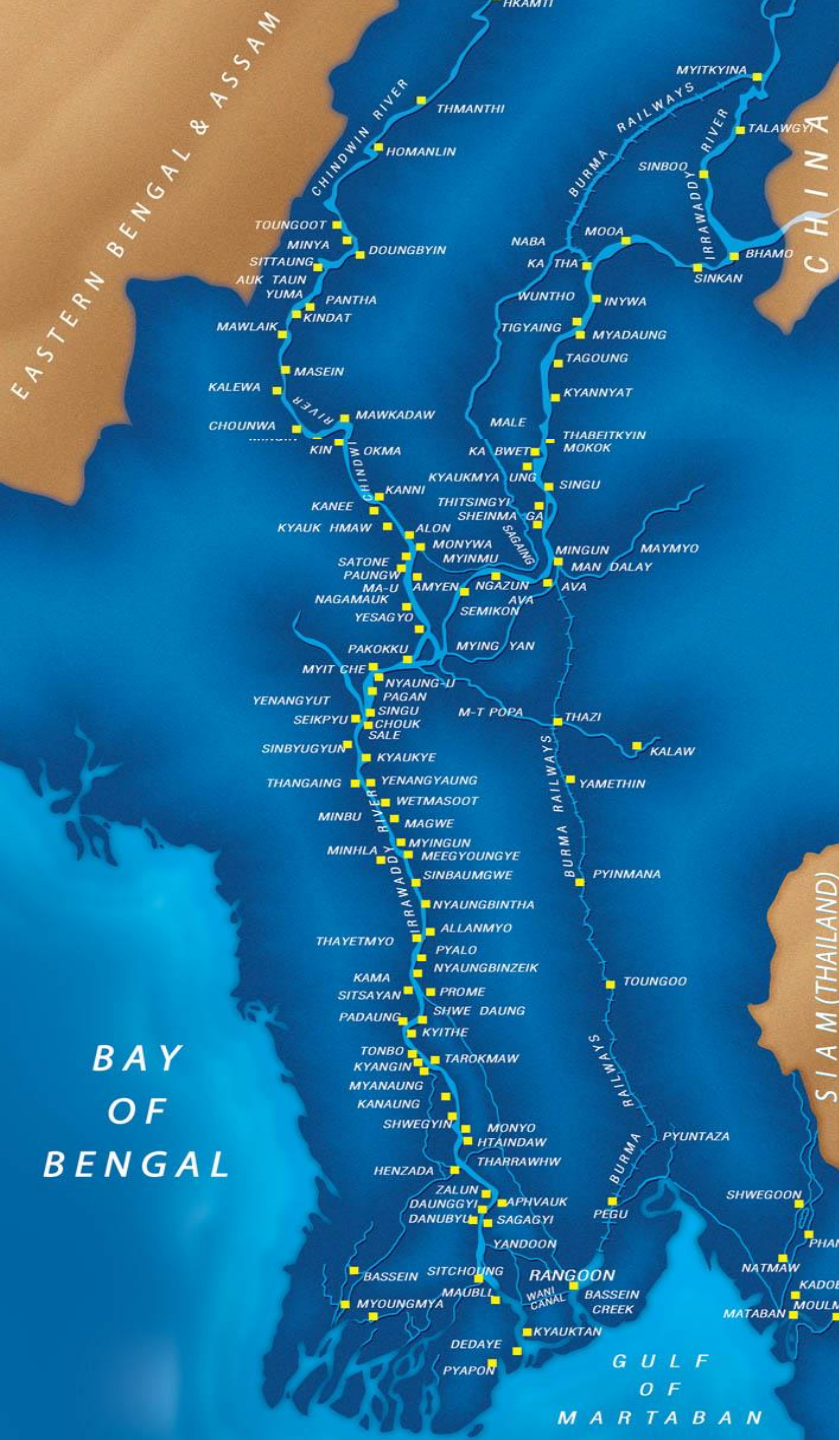
**Length of Coastline:** 2832 km

**Population:** 58.4 M

**Official Language:** Myanmar

**Neighbours:**, China, Lao PDR, Thailand, India and Bangladesh





# Rivers in Myanmar

No.	River	High Water Season (km)	Low Water Season (km)
1	Ayeyarwady	1395.2	1395.2
2	Chindwin	726.4	235.2
3	Kaladan	176	112
4	Thanlwin	88	52.8
5	Gyene	67.2	67.2
6	Athdaran	116.8	116.8
7	May Yu	129.6	129.6



# Deep Sea Ports in Myanmar

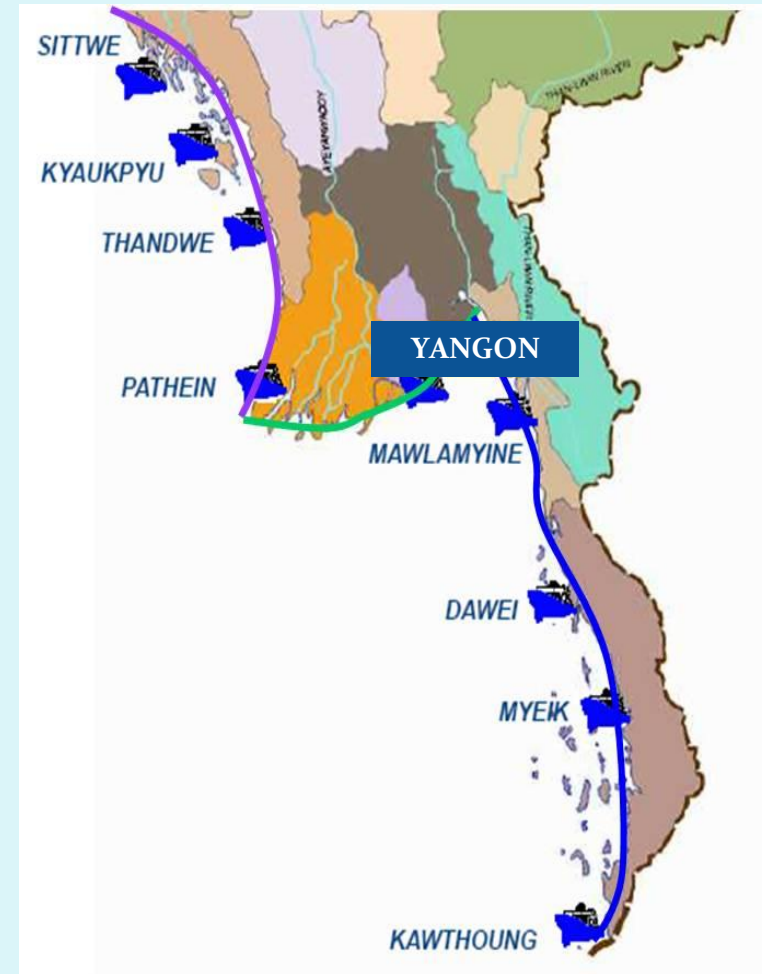
**Rakhine Coast** - 917 km

**Delta Coast** - 637 km

**Thanintharyi Coast** - 1278 km

**Total Coastline** - 2832 km

PORT	REGION
YANGON	YANGON
SITTWE KYAUKPHU THANDWE	RAKHINE
PATHEIN	AYEYARWADY
MAWLAMYINE	MON
DAWEI MKYEIK KAWTHOUNG	TANINTHARYI



Continental Shelf - 230,000 km<sup>2</sup>

Exclusive Economic Zone (EEZ) - 486,000 km<sup>2</sup>

Inland Waterways - 6650 km

# Maritime Transport

Yangon Port is the river port and premier port of Myanmar which handles about 90% of seaborne trade of the country.





# Myanmar Maritime Authority



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graph TD; A["Ministry of Transport and Communication  
Law Amending the Myanmar Merchant Shipping Act, 2007"] --> B["Myanma Port Authority"]; A --> C["Department of Marine Administration"];
```

The diagram is an organizational chart for the Myanmar Maritime Authority. At the top is a light blue box containing the text "Ministry of Transport and Communication" and "Law Amending the Myanmar Merchant Shipping Act, 2007". A vertical line descends from the bottom center of this box, then splits into two horizontal lines. From the left end of the horizontal line, a vertical line descends to a light blue box labeled "Myanma Port Authority". From the right end of the horizontal line, a vertical line descends to a light blue box labeled "Department of Marine Administration". The background of the slide features a light blue gradient with wavy lines at the top.

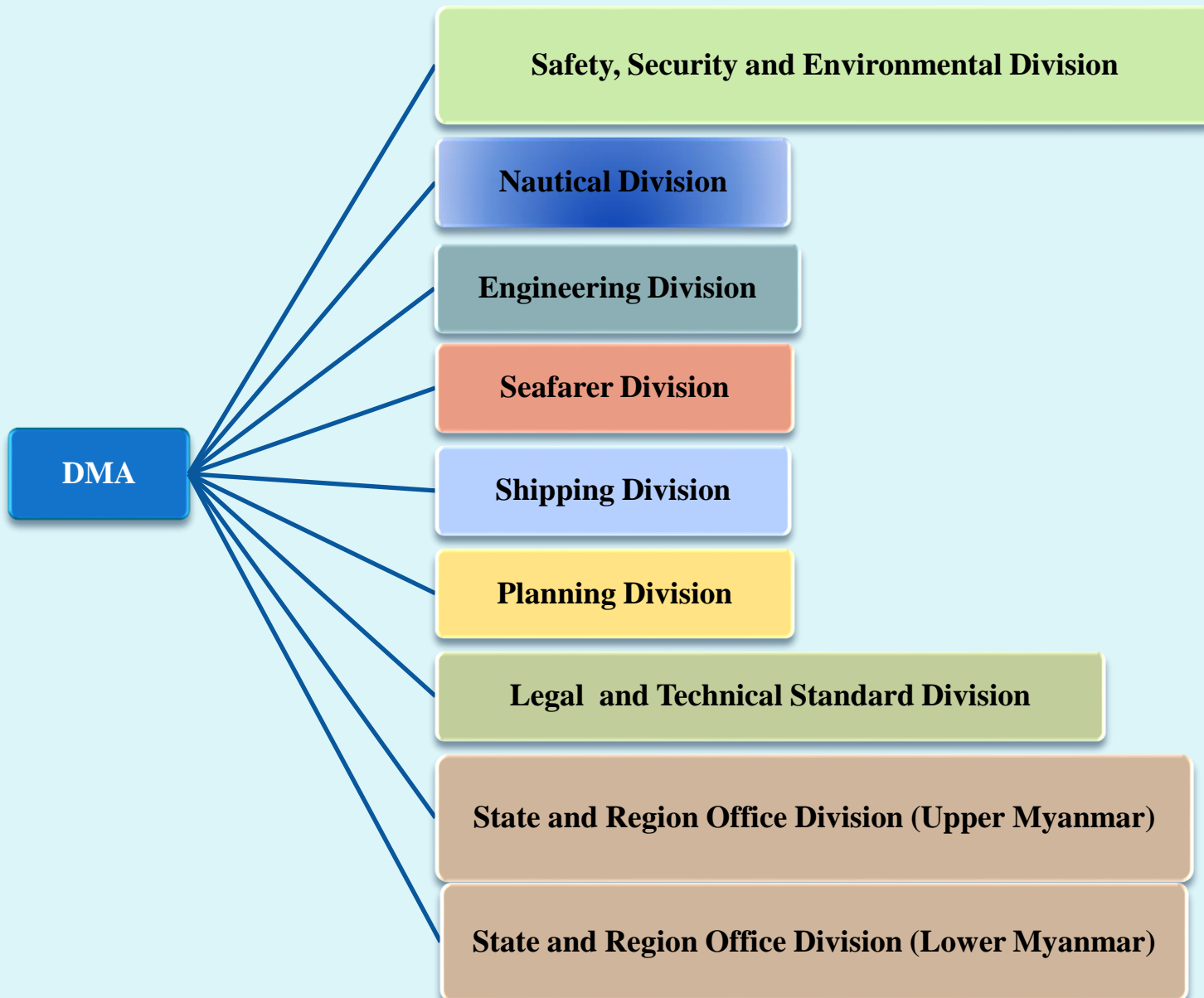
Ministry of Transport and Communication

Law Amending the Myanmar Merchant Shipping Act, 2007

Myanma Port Authority

Department of Marine  
Administration

# Organizational structure of DMA



# Services by Myanmar Port Authorities

- ❖ Pilotage
- ❖ Container and General Cargo Handling and Storage
- ❖ Diving Service
- ❖ Tug Service
- ❖ Shipping Agency Service
- ❖ Fire Fighting
- ❖ Port Security
- ❖ Fresh Water Supply
- ❖ Ship Repairs





# **Maritime Policy and Legislation of Myanmar**

# Ministry of Transport Policy

- a To develop and fully utilize transport capacities to contribute towards the realization of an economically strong, modern and developed nation.
- a To fulfill requirements, and to extend and maintain the transport infrastructure to be able to fully support increased production from other economic sectors and meet growing public and social demands.
- a To ensure smooth and secure domestic and international transport systems as well as contribute towards the development of border areas and national races and the development of tourism.
- a To enable all weather river transportation by maintenance and preservation of natural resources.
- a To develop air and maritime transport infrastructures in line with international standards for **environmental protection**.
- a To enhance the transport sector through human resources development and upgrade expertise in management and advancing modern technology.
- a To abide by international conventions, acts, laws, rules and regulations with respect to the transport sector.
- a To develop domestic and international transportation and actively take a key role in the implementation of a national multi-modal transport system.
- a To plan for implementation of implement national, sub-regional and international transport networks.

# Myanmar Maritime Administration Policy

- ❖ To conform National Ships to safety standards, safe practices and standard of competence required of it's marine personal.
- ❖ To promote development of human resources, man-power planning and optimum utilization of such man-power in the maritime sector.
- ❖ To improve the safety record of Myanmar registered vessels.
- ❖ To improve specific obligation save lives in distress at sea and **protection of the marine environment.**



# Status of National Legislation

No	Law	Status	Responsible Department
1	Myanmar Registration of Ships Act	14 <sup>th</sup> March 2003	DMA
2	Inland Water Vessel Law 2013	19 <sup>th</sup> May 2015	DMA
3	Myanmar Merchant Shipping Act, 1923	7 <sup>th</sup> February 2007 (Amended)	DMA
4	The Convention for the Unification of Certain Rules of Law with respect to Collisions between Vessels	Inserted into Myanmar Merchant Shipping Act	DMA
5	Myanmar Coastal Authority Law	9 <sup>th</sup> April 2015	MPA
6	Coastal and Maritime Transportation Law	5 <sup>th</sup> March 2015	MOT
7	Inland Water Transport Organization	5 <sup>th</sup> December 2014	IWT
8	The Defile Traffic Act 1907	20 <sup>th</sup> August 2013	DWIR
9	Multimodal Transport Law 2011	31 <sup>th</sup> January 2014	MOT

# Status of National Legislation

No	Law	Status	Responsible Department
10	The Bills of Lading Act	Under processing	DMA
11	The Carriers Act, 1856	Under reviewing	DMA
12	Myanmar Carriage of Goods by Sea Act, 1925	Under processing	DMA
13	The Obstructions in Fairways Act, 1881	Draft completed and under processing	DMA
14	Myanmar Port Authority Law, 2015	The Yangon Port Act, 1905; The Out-ports Act, 1914 and The Myanmar Light House Act, 1937 were compiled.	MPA

# National Legislative Framework for Marine Pollution

- Environmental Conservation Law 2012
- Environmental Conservation Rules 2014
- Environmental Impact Assessment Procedures Bill
- The Oil Field Act 1952
- The Factories Act 1951
- Law Relating to The Fishing Rights of Foreign Fishing Vessels, 1989
- The Myanmar Marine Fisheries Law, 1990
- The Freshwater Fisheries Law ,1991
- *Additional subordinate legislation in respect of quality standards, listings of hazardous materials and environmental incidents, etc., yet to be drafted.*



# Environmental Offences and Penalties

- ❖ Untested environmental protection framework.
- ❖ It is an offence to deviate from the EMP or to not offer full disclosure in the EIA.
- ❖ Project proponent must report within 24 hours when there has been a serious environmental incident and within 7 days where there has been an environmental incident likely to have an impact.
- ❖ Some environmental offences contained in other legislation in respect of waterways and wildlife.
- ❖ *Penalties* – prison sentencing of up to 5 years, monetary fines of up to MMK 2 million, compensation for damage, costs of remedy, government costs.

# Application of International Maritime Convention

- ❖ **INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974 (SOLAS 74 )**
- ❖ **CONVENTION ON THE INTERNATIONAL REGULATIONS FOR PREVENTING COLLISIONS AT SEA, 1972 (COLREGS 72)**
- ❖ **INTERNATIONAL CONVENTION ON LOAD LINES, 1966 (LOAD LINE 66)**
- ❖ **INTERNATIONAL CONVENTION ON TONNAGE MEASUREMENT OF SHIPS, 1969 (TONNAGE 69 )**
- ❖ **INTERNATIONAL CONVENTION FOR THE PREVENTION OF POLLUTION FROM SHIPS, 1973/78 (MARPOL 73/78 )**
- ❖ **INTERNATIONAL CONVENTION ON STANDARD OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS, 1978, AS AMENDED (STCW 1978, AS AMENDED)**
- ❖ **CONVENTION FOR THE SUPPRESSION OF UNLAWFUL ACT AGAINST THE SAFETY OF MARITIME NAVIGATION, 1988 (SUA 1988)**
- ❖ **PROTOCOL FOR THE SUPPRESSION OF UNLAWFUL ACTS AGAINST THE SAFETY OF FIXED PLATFORMS LOCATED ON THE CONTINENTAL SHELF, 1988 (SUA PROTOCOL 1988)**



# **Regional Cooperation on Environmental Protection**



# Status of IMO Conventions in ASEAN Member Countries

ASEAN Countries	OPRC 90	CLC 92	FUND 92	MARPOL 73 / 78
Brunei	X	√	√	Annex I/II
Cambodia	X	√	√	Annex I/II, III, IV, V
Indonesia	X	√	X	Annex I/II, III, IV, V, VI
Laos	X	X	X	X
Malaysia	√	√	√	Annex I/II, III, IV, V, VI
Myanmar	X	X	X	Annex I/II, III, IV, V
Philippines	√	√	√	Annex I/II, III, IV, V
Singapore	√	√	√	Annex I/II, III, IV, V, VI
Thailand	√	X	X	Annex I/II
Vietnam	X	√	X	Annex I/II

# Development of the ASEAN OSRAP MOU

REF	DATE / LOCATION	MILESTONE
1	1991	Japan Association of Maritime Safety (JAMS) and the Nippon Foundation initiated the ASEAN OSRAP
2	1994	<ul style="list-style-type: none"> <li>The six ASEAN member countries, namely Brunei Darussalam, Indonesia, Malaysia, Philippines, Thailand and Singapore signed an MOU establishing the ASEAN OSRAP.</li> <li>1 billion yen was donated to the ASEAN countries for the purchase of oil spill equipment to reinforce national stockpiles in 11 key locations.</li> </ul>
3	1-3 March 2011 Kota Kinabalu, Sabah, Malaysia	<ul style="list-style-type: none"> <li>21<sup>st</sup> ASEAN MTWG</li> <li>Inclusion of OSRAP &amp; HNS Response in the 2010-2011 IMO ITCP Programme</li> </ul>
4	3-4 October 2011 Penang, Malaysia	Regional workshop on the ASEAN OSRAP in Penang, Malaysia
5	5-7 October 2011 Penang, Malaysia	<ul style="list-style-type: none"> <li>22nd ASEAN MTWG</li> <li>Change in internal procedures of ASEAN Secretariat</li> <li>IMO-ASEAN MOU not executed because approval of each ASEAN member is required</li> <li>Bilateral arrangements with ASEAN members for delivery of ITCP activities suggested</li> </ul>
6	19-21 March 2012 Yangon, Myanmar	<ul style="list-style-type: none"> <li>23rd ASEAN MTWG</li> <li>Guidance from Senior Transport Officials Meeting on who should implement ASEAN OSRAP</li> <li>Technical and operational aspect of ASEAN OSRAP must be implemented and follow through activities will be coordinated by ASEAN MTWG</li> </ul>

# Development of the ASEAN OSRAP MOU

REF	DATE / LOCATION	MILESTONE
7	26-28 March 2012 Bangkok, Thailand	Regional workshop on the Preparedness and Response to incidents involving HNS
8	15-16 October 2012 Yangon, Myanmar	<ul style="list-style-type: none"> <li>Regional workshop on the ASEAN Oil Spill Response Action Plan</li> <li>MOU on the ASEAN Cooperation Mechanism for Joint Oil Spill Preparedness &amp; Response</li> </ul>
9	17-19 October 2012 Yangon, Myanmar	<ul style="list-style-type: none"> <li>24th ASEAN MTWG</li> <li>The MOU once adopted will serve as the platform for cooperation in oil spill preparedness and response for the region</li> <li>Information on the <b>IMO IPIECA - GISEA</b> was introduced to the ASEAN MTWG</li> <li>IMO and IPIECA may take on recommendations from the workshop, identify areas of convergence &amp; conduct awareness seminars</li> </ul>
10	12-14 March 2013 Mandalay, Myanmar	<ul style="list-style-type: none"> <li>25th ASEAN MTWG</li> <li>Revisions to the MOU were discussed</li> <li>Deadline for revisions and comments was set for 15 May 2013</li> </ul>
11	20-21 March 2013 Jakarta, Indonesia	<ul style="list-style-type: none"> <li>Launch of <b>GISEA</b></li> <li>GISEA Workshop and Launch Event</li> </ul>
12	20-22 August 2013 Yangon, Myanmar	<ul style="list-style-type: none"> <li>26th ASEAN MTWG</li> <li>Final text of MOU was adopted</li> <li>ASEAN MTWG members requested to obtain domestic clearance to sign the MOU during the Transport Ministers' meeting in December 2013</li> </ul>

# Development of the ASEAN OSRAP MOU

REF	DATE / LOCATION	MILESTONE
13	19 December 2013 Champasak Province, Lao PDR	<ul style="list-style-type: none"> <li>• 19th ASEAN Transport Ministers (ATM) Meeting</li> <li>• Transport Ministers did not sign the MOU in December 2013 because ASEAN MTWG was directed to discuss additional corrections submitted during the 26th ASEAN MTWG meeting which were not considered</li> </ul>
14	19-21 March 2014 Phnom Penh, Cambodia	<ul style="list-style-type: none"> <li>• 27th ASEAN MTWG</li> <li>• Further comments to MOU were considered</li> <li>• ASEAN MTWG advised that implementation of MOU will be done by GISEA</li> <li>• No further activities on the ASEAN OSRAP will be conducted by IMO until MOU is signed</li> </ul>
15	20-22 August 2014 Siem Reap, Cambodia	<ul style="list-style-type: none"> <li>• 28th ASEAN MTWG</li> <li>• Final text of MOU agreed through online consultations</li> <li>• Further revisions from Indonesia were submitted during the meeting</li> <li>• ASEAN MTWG requested to submit comments to the revisions from Indonesia by mid-September</li> </ul>
16	28 November 2014 Mandalay, Myanmar	<ul style="list-style-type: none"> <li>• 20th ATM</li> <li>• Final text submitted to Transport Ministers signed on</li> </ul>
17	11-13 February 2015 Sihanoukville, Cambodia	<ul style="list-style-type: none"> <li>• 29th ASEAN MTWG</li> <li>• GISEA attends the MTWG meeting for the first time and presented on the Strategic Framework for 2015-2017</li> <li>• GISEA is recognized by the ASEAN MWTG as the vehicle to assist in the implementation of the OSRAP MOU</li> </ul>
18	29 September-2 October 2015, Singapore	<ul style="list-style-type: none"> <li>• ASEAN ROSCP Workshop</li> <li>• <b>Draft</b> Regional Oil Spill Contingency Plan (ROSCP) has been agreed</li> </ul>

# ASEAN – OSRAP MOU

- ▶ Oil Spill Response Action Plan (OSRAP)
- ▶ Now known as – “*MOU on ASEAN Cooperation Mechanism on Joint Oil Spill Preparedness and Response*”
- ▶ Regional Cooperative Mechanism
- ▶ Signed by ASEAN Transport Ministers on 28 November 2014 (Mandalay, Myanmar)
- ▶ Based on the OPRC Convention Article 5, 6, 7 and 10
- ▶ Under the ASEAN MTWG

# MOU Commitments

- Implementation of IMO Conventions
- Undertake measures for Oil Spill Preparedness and Response
- Capacity building
- Development of a Regional Oil Spill Contingency Plan
- Sharing of Information
- Research and Development
- Promote Partnerships



# **GISEA - activities for ASEAN**

- National workshop on IMO conventions
- National workshop to develop/test/update NOSCP
- National/regional workshop on claims/compensation
- Development/implementation of ROSCP
- Training on environmental sensitivity mapping
- Development of response regulation/procedures - e.g. dispersant / controlled burning
- OPRC training course – levels 1, 2 &3
- National/regional table-top incident management exercise
- Joint government/industry full-scale exercise

# GISEA Strategic Framework 2015 - 2017

## Regional

- Support the development of the Regional Oil Spill Contingency Plan (ROSCP)

## Subregional /Bilateral

- Review and strengthening of Subregional and Bilateral arrangements and how they integrate with the Regional Frame work

## National

- Support Ratification of Convention (OPRC)
- Support the Review, Update and Development of Contingency Plans



## **Challenges to Enforcement**

# Oil operators in Myanmar

- Daewoo International Corporation
- PC Myanmar (Hong Kong) Limited (PCML) (Subsidiary of Petronas International Corporation Limited (PICL))
- PTTEP International (PTT Exploration and Production, Thailand)
- Total Exploration and Production Myanmar (TEPM)
- China National Petroleum Corporation (SCNPC)



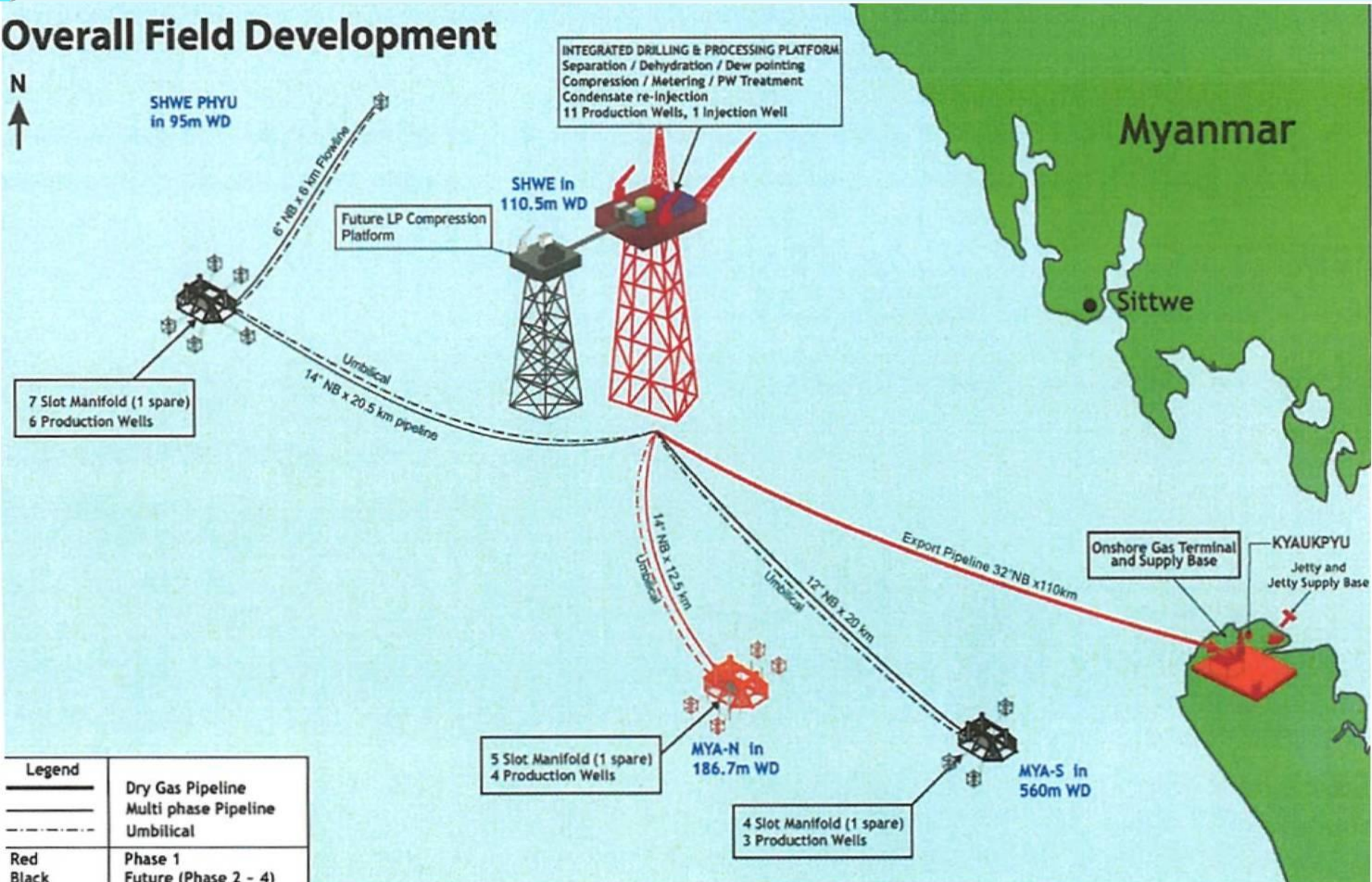
# Myanmar Oil and Gas pipelines





# Daewoo International Offshore E & P operations

## Overall Field Development

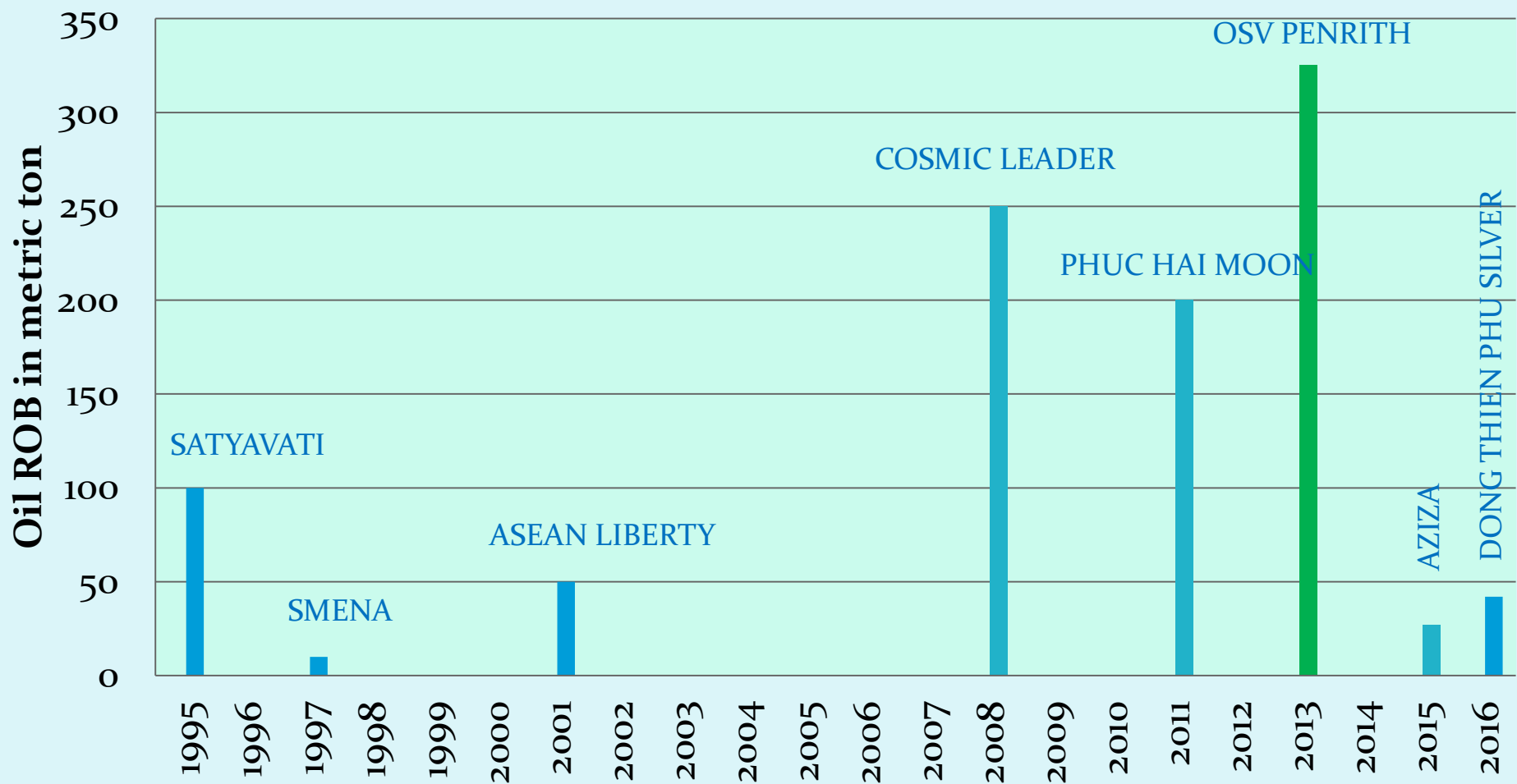




# Ma'de Island Oil Terminal



# Record of Oil Spill Incidents in Myanmar





# Major Challenges ahead !!!

## KYAUKPHYU PROJECT



## THILAWA PORT PROJECT



## DAWEI PORT PROJECT



- ❖ Kyaukpyu, Dawei & Thilawa ports
- ❖ Risk of pollution threats to coastal habitats, fishing industry and tourism

- ❖ Natural Disasters
- ❖ Environmental and Social Impact
- ❖ Long-term environmental impact

# Government Agencies for Environment Protection

- ❖ Ministry of Energy (MOE) - exploration and production of crude oil and natural gas, refining, manufacturing of petrochemicals and transportation, and distribution of petroleum products
- ❖ Ministry of Electric Power (MOEP) - gas and hydro power sector, power distribution
- ❖ Ministry of Mines (MOM) - for coal
- ❖ Ministry of Agriculture and Irrigation (MOAI) - for biofuels
- ❖ Ministry of Science and Technology (MOST) - for renewable energy
- ❖ Ministry of Environmental Conservation and Forestry (MOECF) - fuelwood, climate change, environmental safeguard requirements
- ❖ Ministry of Transport (MOT) - safety of ships and environmental protection

# Major Barriers

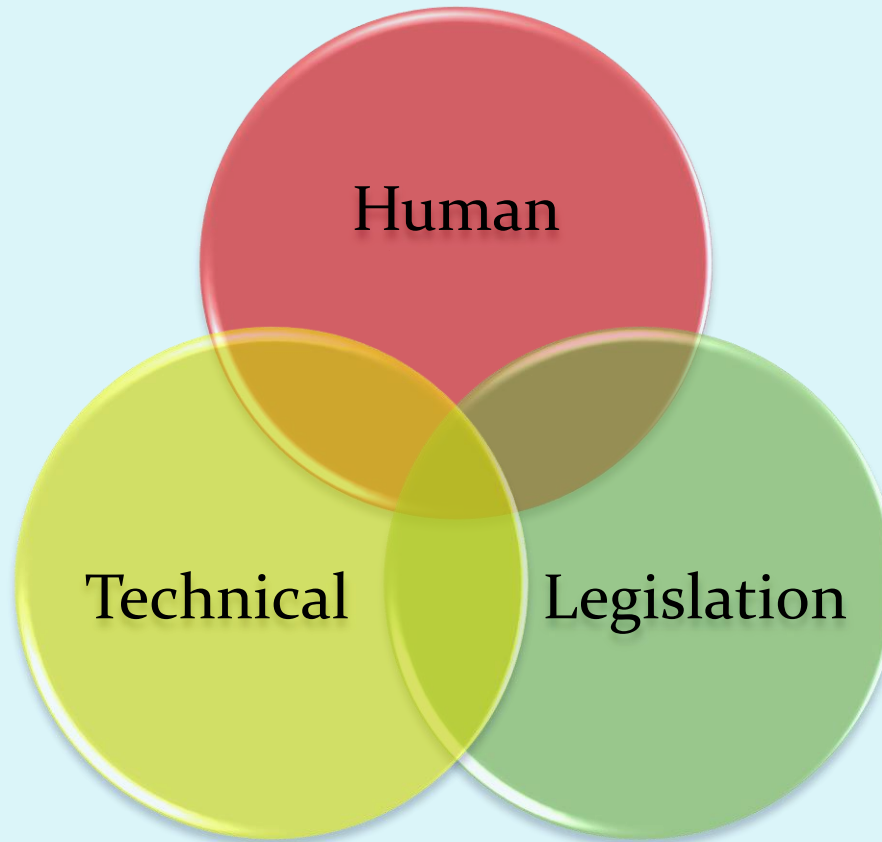
- ❖ Lack of cooperation and coordination among the Ministries and allocation of duties and responsibilities,
- ❖ Measurable goals and measurements of government performance for monitoring and planning,
- ❖ Lack of funding, resources and manpower to develop policy planning and enforcement,
- ❖ Need of public consciousness concerning environmental issues, marine accidents and incidents,
- ❖ Deficient and/or incompetent indigenous expertise in Maritime Affairs,
- ❖ Lack of appropriate environmentally sound technology, and co-operation among the shipping industries, maritime sectors.

# Oversight - Administrative burden?

- ❖ New Requirements = More paper work
- ❖ Ensure that quality standards both for Administrations and Oil Industries do not produce unnecessary paperwork



# Challenges





# **Future Development Plan**



# **New Government Agencies for Environment Protection**

- Ministry of Electric Power and Energy
- Ministry of Natural Resources and Environmental Conservation
- Ministry of Transport and Communications

# Future Plan

- To develop National Oil Spill Contingency Plan and Regional Oil Spill Contingency Plan with the assistance of IMO and GISEA;
- Ratification of OPRC Convention (CLC 92 recently approved by Parliament);
- National/Regional workshop on IMO Conventions;
- Develop public awareness actions and booklet on marine environmental issues for local primary schools on environmental awareness;
- Reform the Environmental Conservation Committee;
- Identifying marine managed areas, no-take zones, and community managed areas to ensure resource security and sustainability;



# **Conclusion**

# Recommendations

- *International conventions become dynamic*
- *Legislations to be updated - against technical panorama*
- *Legal system to be revised amendable*
- *Government supports as well as oil companies benefit*
- *Three pillars (human-legislation-technical)- are paramount*
- *Attendance of MEPC meetings; Conference relate to Oil spill*
- *IMO Technical assistance – important role (ITCP)*

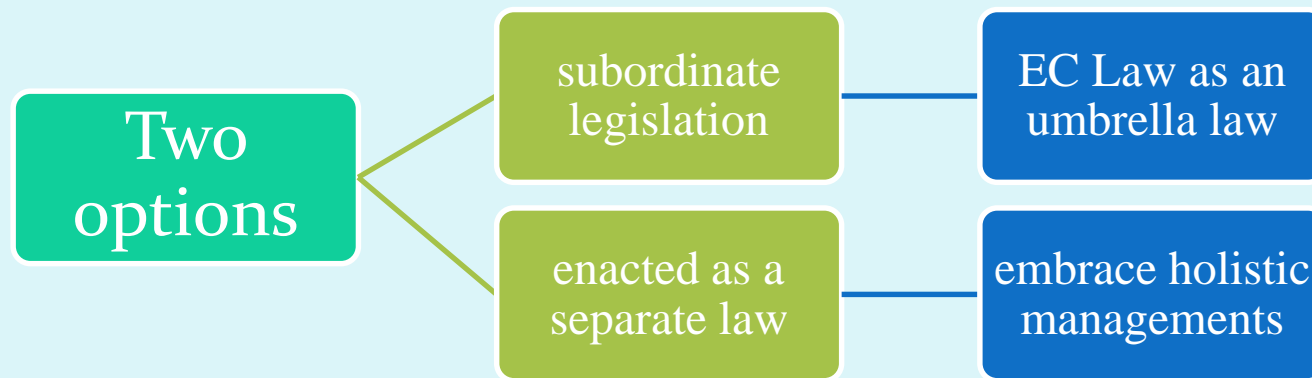
# Recommendations

- Promote ratification of IMO Convention related to Pollution
- Developments of National Frameworks
- Strengthen existing regional, sub-regional and bilateral Agreement
- Encourage adoption of international standards and industry best practices

# Development of Myanmar Marine Pollution law

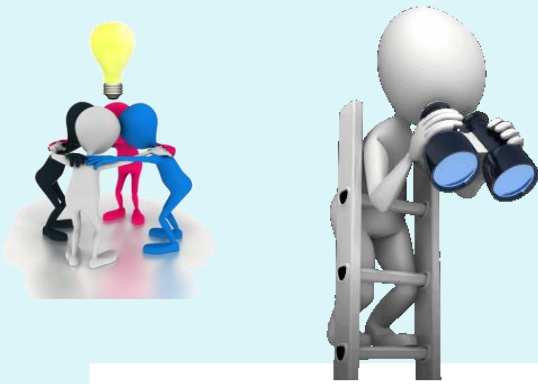
## ❖ Marine Pollution Law

❖ *status quo* - may lead to detrimental consequences if it is too late



❖ Legislatures thinks globally and regional basis

# Summary



## **Legal Framework**

1. Risks of pollution

2. Lessons to be learnt

3. Legal validity for enforcement

4. Analyzing & scrutinizing national  
legislation context

5. Full & complete effect how it  
upkeeps

6. Rights & obligations



# Thank You

