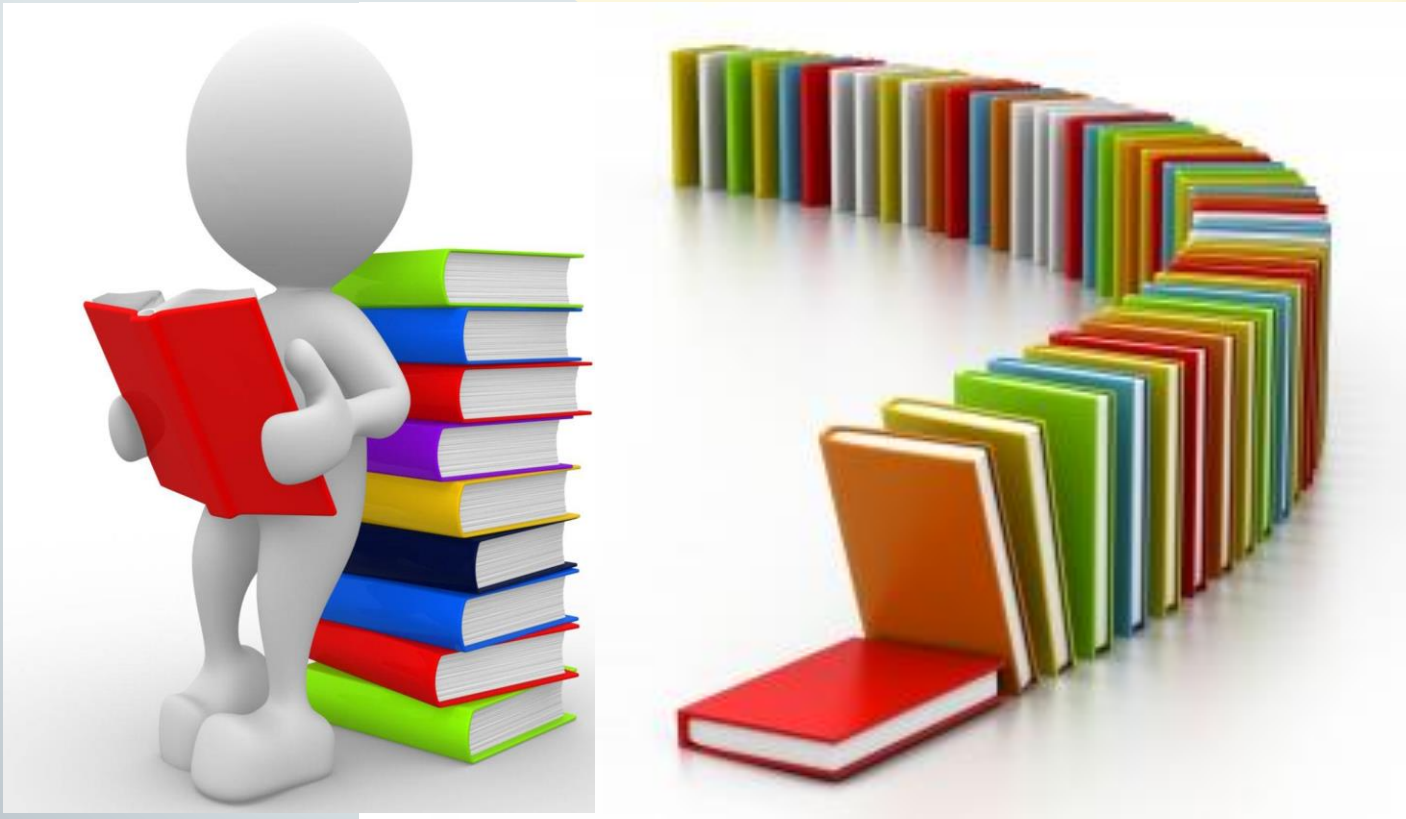
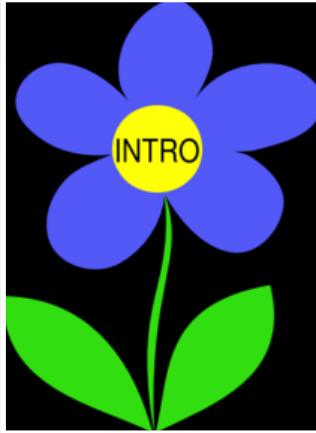


MARINE POLLUTION CONTROL UNDER ENVIRONMENTAL QUALITY ACT 1974





INTRODUCTION



EQA 1974 & EEZ 1984



CONVENTION



NOSCP



TIER 1 OIL SPILL RESPONSE PLAN

INTRODUCTION

Marine Pollution Scenario in Malaysia

Operational



- Unknown sources
- Illegal discharge
- Pipeline flushing
- Loading & off loading
- Desludging
- Desloping
- Ship to ship transfer

Accidents



- Platform blowout
- Collision
- Stranded
- Pipeline leakage

Marine Pollution Scenario in Malaysia

- Accidental discharge



AN EYESORE: The beach in Rengit is covered with the black substance. — NST picture by Roslan Khamis

Teluk Ramunia stretch hit by oil slick

KOTA TINGGI, Tues. — A 20-kilometre coastal stretch along Teluk Ramunia near here has been hit by an oil slick, believed to be the result of a collision between a tanker and a cargo ship near Sentosa Island, south of Singapore on June 12.

A check along the coast here today showed there was thick black substance covering part of the beaches, with the stretch near Rengit town the worst affected.

Department of Environment officers took samples of the substance, but declined to confirm whether it was sludge or crude oil.

"We have to take these samples to our headquarters for an analysis first," said one of the officers.

Fisherman Low Boon Hee said the substance was most likely crude oil due to its thickness and the lack of other elements

mixed with it.

"I know what an oil sludge looks like and this is definitely not it. The substance is too thick and spreads very wide. I have seen sludge released illegally from ships and it was not as bad as this," he said.

Low, who owns a deep-sea fishing vessel, based at the Rengit jetty, said this was the second time the coastal area was hit by an oil slick this year.

"This oil slick is probably the remnant of the tanker collision near Sentosa Island in Singapore. It must have been washed here by the strong currents during the past few days," he said.

In the 1.30am incident, Singapore-registered tanker *Neptank VII* collided with Thailand-registered cargo ship *MV Hermion* about 4.5 kilometres off Sentosa Island.

More than 450 tonnes of petroleum substance, identified as "marine fuel" by the Singapore Press, spilled from the tanker.

Meanwhile, checks at several fishing villages here showed that coastal fishermen were badly hit by the oil slick.

Lobster trapper Ibrahim Yaacob said he lost six fishing nets, which were covered with oil slick, in the past two days.

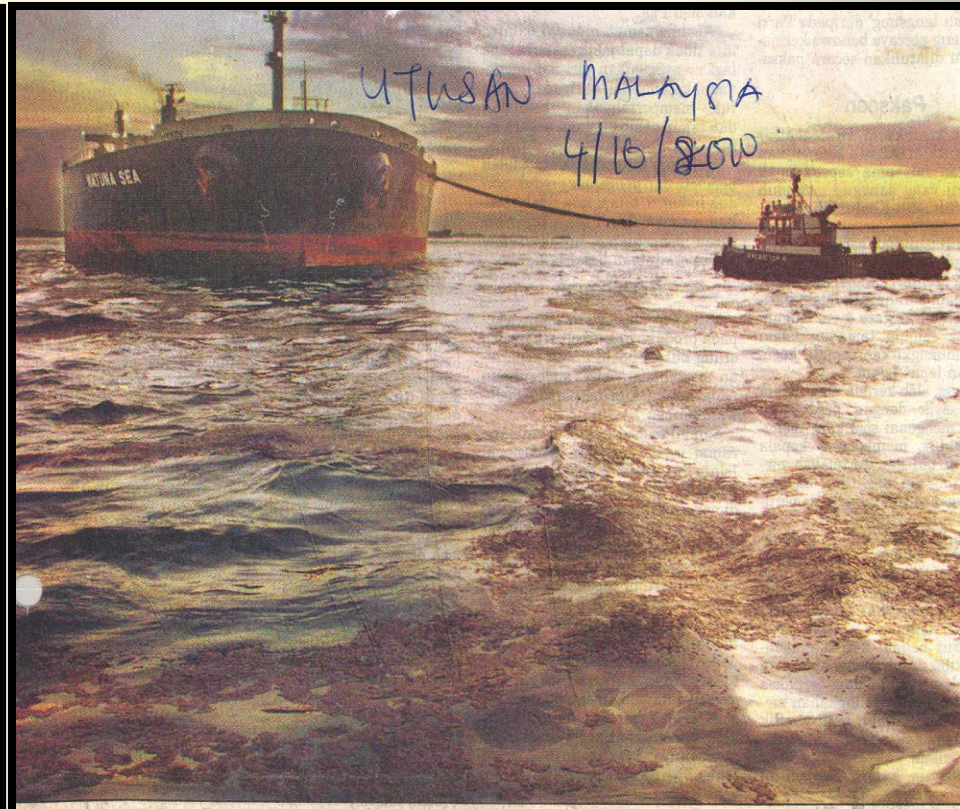
"I also could not sell some of the lobsters as they were covered with oil.

"A wholesaler told me he could not sell the lobsters as they were contaminated."

Another lobster trapper Nordin Abdul Rahman said the oil slick, which was first spotted in the water off the Rengit coast two days ago, had now been washed out to sea by the strong current.

"The beach here is badly affected by it."

NST - 19 Wednesday 2002



MT Neptank VII

MT Natuna Sea



MT Bunga Alpinia

UNKNOWN SOURCES



DESLUDGING



SHIP TO SHIP TRANSFER



OPERATIONAL DISCHARGE



Marine Pollution Concern

- Long coastline approximately 4,500 km and maritime area stretching 592,630 sq. Km
- The seas bordering Malaysia namely the SOM & SCS serve as important sea-lanes linking the west with the far east.
- Pressure on the environment from pollution, resource consumption & degradation of habitats are tremendous.

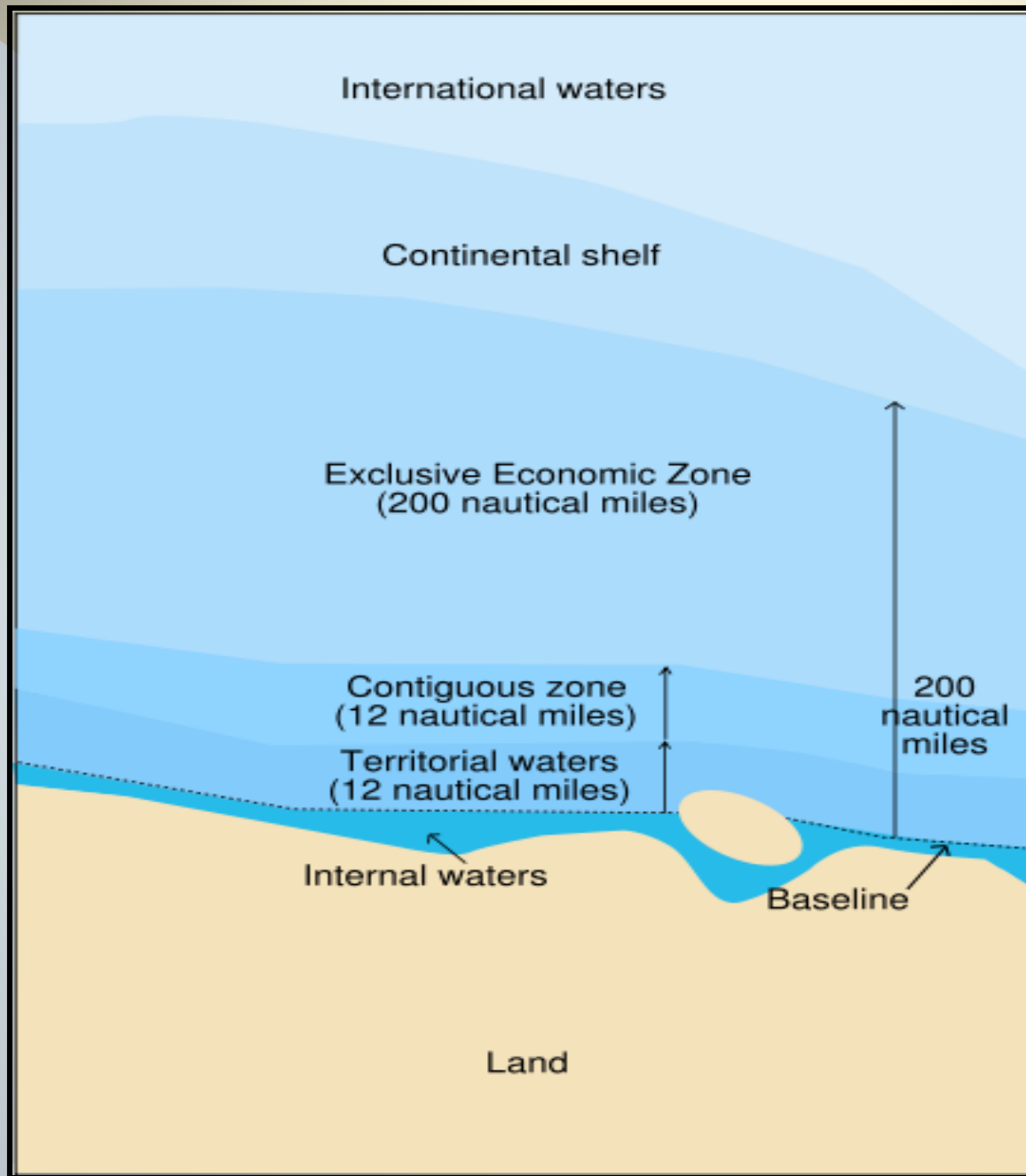
Marine Pollution Concern

- Land-based activities
- Sea-based activities
- Volume of vessel traffic and off-shore oil and gas activities are increasing
- Primary concern in marine pollution - operational, accidental or deliberate discharge of oil or mixture containing oil by ships particularly oil tankers traversing the SOM and SCS.
- Marine pollution is transboundary

FUNCTION OF DOE

**To administer and enforce the
Environmental Quality Act, 1974
and
Section IV of the Exclusive Economic
Zone Act, 1984.**





Malaysian Waters and Exclusive Economic Zone

National Legislative Framework

- Environmental Quality Act (EQA), 1974
- Exclusive Economic Zone Act (EEZ), 1984

DOE administers the EQA, 1974 and Part IV of the EEZ, 1984.

Other national legislations:-

- Merchant Shipping Ordinance, 1952
- Fisheries Act 1985, Section 2
- Continental Shelf Act 1966
- Petroleum Mining Act 1966
- Maritime Enforcement Act 2005

ENVIRONMENTAL QUALITY ACT 1974



EQA 1974

- ☐ Section 27. Prohibition of discharge of oil into Malaysian Waters
- ☐ Section 29. Prohibition of discharge of wastes into Malaysian Waters
- ☐ Section 46A. Power to seized vehicle or ship
- ☐ Section 46E. Compensation for loss or damage to property
- ☐ Section 47. Power of recovery of costs and expenses
- ☐ Section 48. Power to detain and sell vehicle or ship

Section 27 : Prohibition of discharge of oil into Malaysian Waters

- (1) No person shall, unless licensed, discharge or spill any oil or mixture containing oil into Malaysian waters in contravention of the acceptable conditions specified under section 21.
- (2) Any person who contravenes subsection (1) shall be guilty of an offence and shall be liable to a fine not exceeding five hundred thousand ringgit or to imprisonment for a period not exceeding five years or to both.

Section 29: Prohibition of discharge of wastes into Malaysian Waters

- (1) No person shall, unless licensed, discharge environmentally hazardous substances, pollutants or wastes into the Malaysian waters in contravention of the acceptable conditions specified under section 21.
- (2) Any person who contravenes subsection (1) shall be guilty of an offence and shall be liable to a fine not exceeding five hundred thousand ringgit or to imprisonment for not exceeding five years or to both.

Section 46A: Power to seize vehicle or ship

Any vehicle or ship that is used in the transportation of or the disposal of waste in contravention of this Act or any regulations made thereunder may be seized by the Director General pending the outcome of any proceedings under this Act:

Provided that the Director General may release the vehicle or ship so seized upon the furnishing of a bond or other security that is adequate to cover the value of the vehicle or ship.

Section 46E: Compensation for loss or damage to property

After a person has been convicted for an offence against this Act or any regulations made thereunder, the court, in addition to imposing a penalty for the offence, may, where it appears to the court that any other person has, by reason of the commission of, or the omission resulting in the offence, suffered loss or damage to any property, order the person so convicted to pay the other person the costs and expenses incurred or compensation for loss or damage to the property and any other costs, in the amount as the court considers fit.

Section 47 : Power of recovery of costs and expenses

(1) Any segment or element of the environmental polluted by any person in contravention of this act, the DG may take necessary to remove, disperse, destroy or mitigate the pollution and may recover from that person all costs and expenses incurred in connection therewith.

Section 48: Power to detain and sell vehicle or ship.

(1) Where the Director General has reason to believe that any discharge or spillage of oil or mixture containing oil or scheduled wastes was from a vehicle or ship, he may detain the vehicle or ship and the vehicle or ship may be detained until the owner deposits with the Government such sum or furnishes such security as would, in the opinion of the Director General, be adequate to meet the costs and expenses which would be incurred to remove or eliminate the oil or mixture containing oil or scheduled wastes.

EXCLUSIVE ECONOMIC ZONE ACT 1984

PART IV PROTECTION AND PRESERVATION OF THE MARINE ENVIRONMENT



PART IV, EEZ 1984

- ☐ Section 10: Offence in respect of the discharge or escape of certain substances
- ☐ Section 12: Requirement for discharge or escape of certain substances to be reported
- ☐ Section 14: Directions and action to remove, disperse, destroy or mitigate damage
- ☐ Section 15: Power to detain and sell vessel

Section 10: Offence in respect of the discharge or escape of certain substances

(1) If any oil, mixture containing oil or pollutant is discharged or escapes into the exclusive economic zone from any vessel, land based source, installation, device or aircraft, from or through the atmosphere or by dumping—

- (a) the owner or master of the vessel, if the discharge or escape is from a vessel;
- (b) the owner or occupier of the place on land, if the discharge or escape is from land;
- (c) the owner or person in charge of the installation or device, if the discharge or escape is from an installation or a device; or
- (d) the owner or pilot of the aircraft, if the discharge or escape is from an aircraft,

shall each be guilty of an offence and shall be liable to a fine not exceeding one million ringgit.

Section 12: Requirement for discharge or escape of certain substances to be reported

(1) If any oil, mixture containing oil or pollutant is discharged or escapes into the exclusive economic zone from any vessel, land based source, installation, device or aircraft, the owner or master of the vessel, the owner or occupier of the place on land, the owner or person in charge of the installation or device or the owner or pilot of the aircraft, as the case may be, shall immediately report the occurrence of such discharge or escape to the Director General.

(2) Any person who fails to comply with this section shall be guilty of an offence and shall be liable to a fine not exceeding ten thousand ringgit.

Section 14: Directions and action to remove, disperse, destroy or mitigate damage

(1) Where Malaysia's coastline or any segment or element of the environment or related interests, including fishing, in the exclusive economic zone is damaged or threatened to be damaged as a result of any discharge or escape of any substance mentioned in section 10, the Director General may issue such directions as are, or take such action as is, necessary to remove, disperse, destroy or mitigate the damage or threat of damage.

(2) Any person who fails to comply with any direction given by the Director General under subsection (1) shall be guilty of an offence and shall be liable to a fine not exceeding ten thousand ringgit.

Section 15: Power to detain and sell vessel

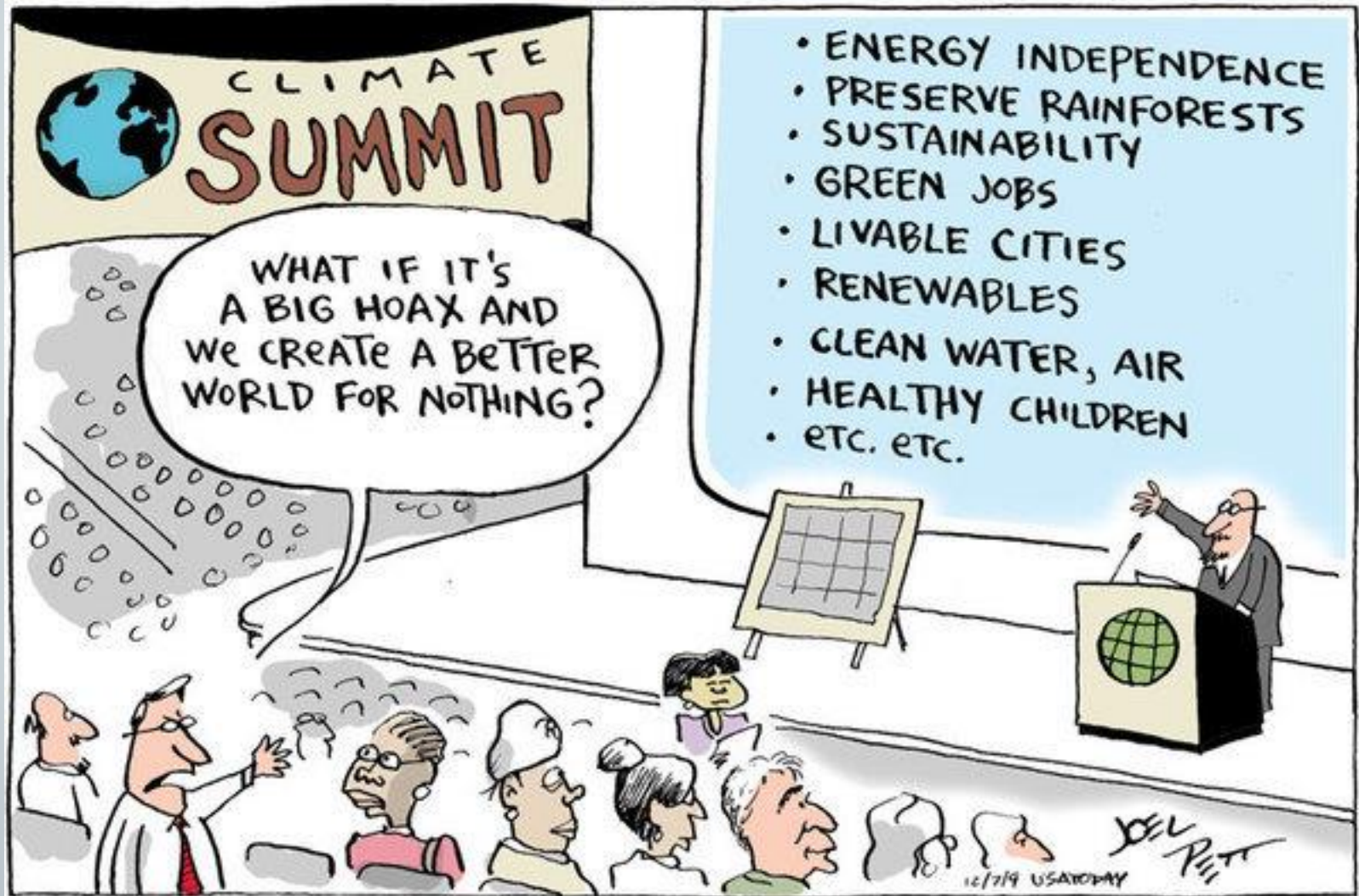
- (1) The Director General may detain any vessel from which the oil, mixture containing oil or pollutant escaped or was discharged in the circumstances mentioned in subsection 14(1).
- (2) The Director General may release any vessel detained under subsection (1) upon the owner depositing with the Government such sum of money or furnishing such security as, in the opinion of the Director General, would be adequate to meet all costs and expenses incurred in carrying out the work required to remove, disperse, destroy or mitigate the damage or threat of damage caused by such escape or discharge.

Section 15: Power to detain and sell vessel

(3) If any vessel which has been detained proceeds to sea without being released under subsection (2), the owner or master of the vessel or any other person who causes the vessel to proceed to sea shall be guilty of an offence and shall be liable to a fine not exceeding one million ringgit.

(4) Where the owner or master of such vessel or any other person found guilty of an offence under this section is unable to pay the fine or the costs and expenses incurred in carrying out the work required under subsection 14(1), the court may, on the application of the Director General, order the sale of such vessel and the application of the proceeds of the sale towards the payment of the fine and the costs and expenses incurred.

RATIFICATION OF INTERNATIONAL CONVENTIONS



RATIFICATION OF INTERNATIONAL CONVENTIONS

	KONVENSYEN	TARIKH RATIFIKASI
1.	The International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001 (Bunkers Convention 2001)	12 February 2009
2.	International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC 1990)	30 October 1997
3.	1992 Protocol to the International Convention on the Establishment of an International Fund For Compensation for Oil Pollution Damage (FUND 1992)	9 June 2005
4.	International Convention on Civil Liability for Oil Pollution Damage (CLC 1969)	9 June 2005
5.	United Nations Convention on the Law of the Sea (UNCLOS)	14 October 1996

	KONVENSYEN	TARIKH RATIFIKASI
6.	International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS 2001)	27 September 2010
7.	International Convention for the Control and Management of Ships' Ballast Water and Sediments 2004	27 September 2010
8.	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL)	1 May 1997
9.	International Convention For The Prevention Of Pollution From Ships 1973 As Amended (MARPOL Annex III - Regulations For The Prevention Of Pollution By Harmful Substances Carried By Sea In Packaged Form)	27 September 2010

	KONVENSYEN	TARIKH RATIFIKASI
10.	Implementation Of The International Convention For The Prevention Of Pollution From Ships 1973 As Amended (MARPOL Annex IV - Regulations For The Prevention Of Pollution By Sewage From Ships)	27 September 2010
11.	Implementation Of The International Convention For The Prevention Of Pollution From Ships 1973 As Amended (MARPOL Annex VI - Regulations For The Prevention Of Air Pollution From Ships)	27 September 2010

	KONVENSYEN	TARIKH RATIFIKASI
12.	Konvensyen Basel Mengenai Pergerakan Kimia Berbahaya Merentasi Sempadan dan Pelupusannya	January 1994
13.	Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	4 September 2002

UNITED NATIONS CONVENTION ON THE LAW OF THE SEA (UNCLOS)

- ❑ Malaysia ratified UNCLOS on 14 October 1996 UNCLOS came into force for Malaysia on 13 November 1996.
- ❑ **Part XII: Preservation and Protection of the Marine Environment**, States are required to establish national laws to prevent pollution from all sources. These laws include laws to be enforced by flag states, port states and coastal states where vessel-based pollution is concerned.
- ❑ The measures are to be taken individually or jointly to prevent marine pollution from all sources including vessels, land-based sources, dumping and installations on the sea-bed as well as in the marine environment.

INTERNATIONAL CONVENTION ON OIL POLLUTION PREPAREDNESS RESPONSE AND COOPERATION (OPRC 1990)

- ❑ Malaysia ratified OPRC on 30 October 1997.
- ❑ Purpose: to establish precautionary measures & effective preparation for combating oil pollution incidents world wide involving ships, off shore units, sea ports and oil handling facilities.
- ❑ Article 6 of OPRC stated that Each Party, within its capabilities either individually or through bilateral or multilateral cooperation, shall establish:
 - (a) A minimum level of pre-positioned oil spill combating equipment
 - (b) A program of exercises & training for oil pollution response
 - (c) Detailed plans and communication capabilities
 - (d) A mechanism or arrangement to co-ordinate the response

INTERNATIONAL CONVENTION ON CIVIL LIABILITY FOR OIL POLLUTION DAMAGE (CLC 1969)

- ❑ Malaysia ratified CLC on 9 June 2005.
- ❑ Article III: the owner of a ship shall be liable for any pollution damage caused by oil which has escaped or been discharged from the ship as a result of the incident.
- ❑ No liability for pollution damage shall attach to the owner if:
 - a) resulted from an act of war
 - b) caused by an act or omission done with intent to cause damage by a third party, or
 - c) caused by the negligence or other wrongful act of any Government for the maintenance of lights or other navigational aids.

INTERNATIONAL OIL POLLUTION COMPENSATION FUND (FUND 1992)

- ❑ Malaysia ratified FUND on 9 June 2005.
- ❑ The shipowner is financially incapable of meeting his obligations under the CLC 1969 and pay valid compensation claims.
- ❑ No liability for pollution damage shall attach to the insurance if:
 - (a) the pollution damage resulted from an act of war, or
 - (b) the claimant cannot prove that the damage resulted from an incident involving one or more ships.

BILATERAL AND MULTILATERAL COOPERATION



BILATERAL AND MULTILATERAL AGREEMENT

	MEA	NOTES
1.	Standard Operating Procedure for Joint Oil Spill Combat in the Straits of Malacca and Singapore	Co-operation between Indonesia, Malaysia and Singapore established by Straits of Malacca and Singapore Revolving Fund under an MOU signed in 1981
2.	Sulawesi Sea Oil Spill Network Response Plan- sub regional plan for the Straits of Lombok, Makassar and Sulawesi Sea – Indonesia, Malaysia and Phillipines	Co-operation with Malaysia and the Philippines in combating oil pollution in the Sulawesi Sea, 1981
3.	Standard Operating Procedure for Joint Oil Spill Combat in the South China Sea including Brunei Bay – Malaysia and Brunei	Memorandum of the SOP was established on 7 November 1995 by Brunei Darussalam and Malaysia

	MEA	NOTES
4.	Revolving Fund Committee (RFC)	Established on 11 February 1981 through a Memorandum of Understanding (MOU) signed between Indonesia, Malaysia, Singapore and the Malacca Strait Council (MSC)
5.	Oil Spill Response Action Plan (OSRAP)	Established through the signing of a memorandum of understanding on 20 May 1993 for Brunei, Indonesia, Philippines, Singapore and Kingdom of Thailand and 31 January 1994 for Malaysia

NATIONAL OIL SPILL CONTINGENCY PLAN



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STRATEGIES IN OIL SPILL RESPONSE

- Centralised strategies - rely on Government-led for oil spill response and preparedness
- Industry-led – responsibility by industry with minor government involvement
- **Malaysia - centralised strategy with close private partnership**

Primary Principle

- polluter pays
- addresses four (4) primary concerns:-
 - Who pays? (source of funding for the response activities);
 - For what? (the compensation scheme or those damaged);
 - Who responds? ; and
 - Response modality?

Formulation of National Plan

- Catastrophic oil spill - MT Showa Maru on 6th January 1975 spilling some 54,000 bbl in the SOM
- Significant damage to country's shorelines
- '75: first oil spill response plan - known as the National Oil Spill Contingency Plan for the Straits of Malacca (SOMCP)
- '89: formulation of another Oil Spill Contingency Plan for South China Sea (SCSCP) - intensified development of offshore petroleum resources & increased tanker traffic in SCS
- The SOMCP and the SCSCP were later integrated - National Oil Spill Contingency Plan (NOSCP)

NOSCP

- Formulated to control oil spill occurring within Malaysian Territorial Waters and the Exclusive Economic Zone (EEZ)
- **Objective:**
 - Establishing coordinated oil spill response system.
 - Enhancing response capability within available resources & manpower.
 - Preventing detrimental effects of oil spill to the environment.

INTERFACE WITH REGIONAL & SUB-REGIONAL PLANS

- SOP for Joint Oil spill Combat in the Straits of Malacca and Singapore;
- SOP for Joint Oil Spill Combat in South China Sea including the Bay of Brunei;
- Cooperative Network for Oil Spill Counter Measures in Lombok, Makassar Strait and Sulawesi Sea; &
- ASEAN Oil Spill Response Action Plan

REQUIREMENTS FOR EMERGENCY RESPONSE PROCEDURES

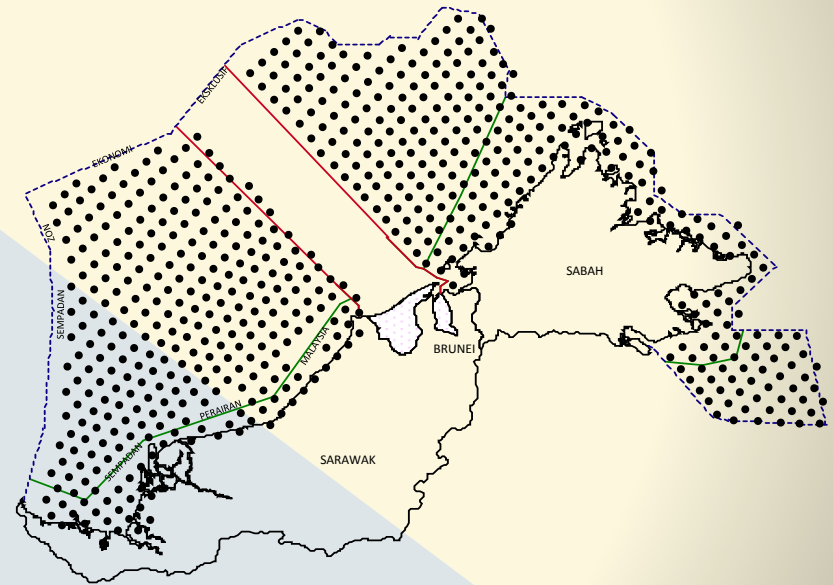
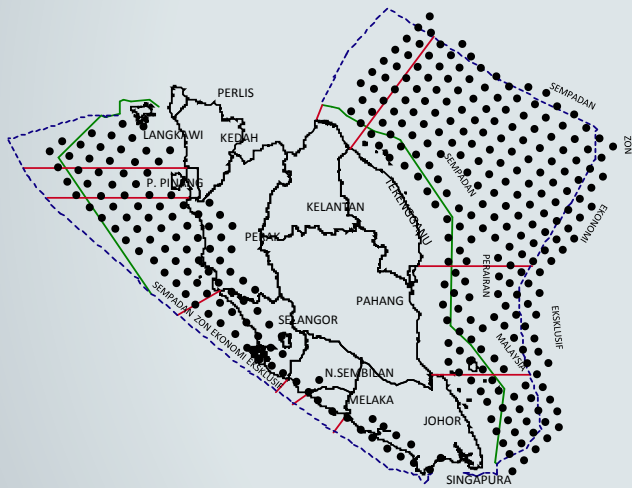
- For operators of premises involved in activities that poses a potential oil spill threat into Malaysian Waters
- These plans should identify resources in terms of equipment & personnel available for the purpose of immediate response in case of emergency
- Plans shall supplement the NOSCP

NATIONAL OIL SPILL CONTINGENCY PLAN

- Scope:-
 - Malaysian waters: 12 nautical miles
 - Economic Ekslusive Zone: 200 nautical miles
 - Strait of Malacca
 - South China Sea
 - Brunei Bay
 - Sulawesi Sea
 - Sabah & Sarawak
 - Combat Oil Spill



MALAYSIAN WATERS AND ECONOMIC EXCLUSIVE ZONE



TIERED RESPONSE SYSTEM

NOSCP implemented in stages based on following factors:-

- Spill location
 - Spill quantity
 - Capability to respond
-
- Each stage inter-relates
 - Response may occur concurrently



TIERED RESPONSE SYSTEM

TIER 1; Local response.

Generally small spill within port limit & local resources and equipments are utilized.

TIER 2; State response.

For spill that has gone beyond the control of local response and requires resource support from neighboring states.

TIER 3; Regional response.

Major spill which requires assistance from neighboring countries or when spill spreads to waters of neighboring country.

PLAN ORGANIZATION

Tier 1

Ports, Jetty
(local response)



Tier 2

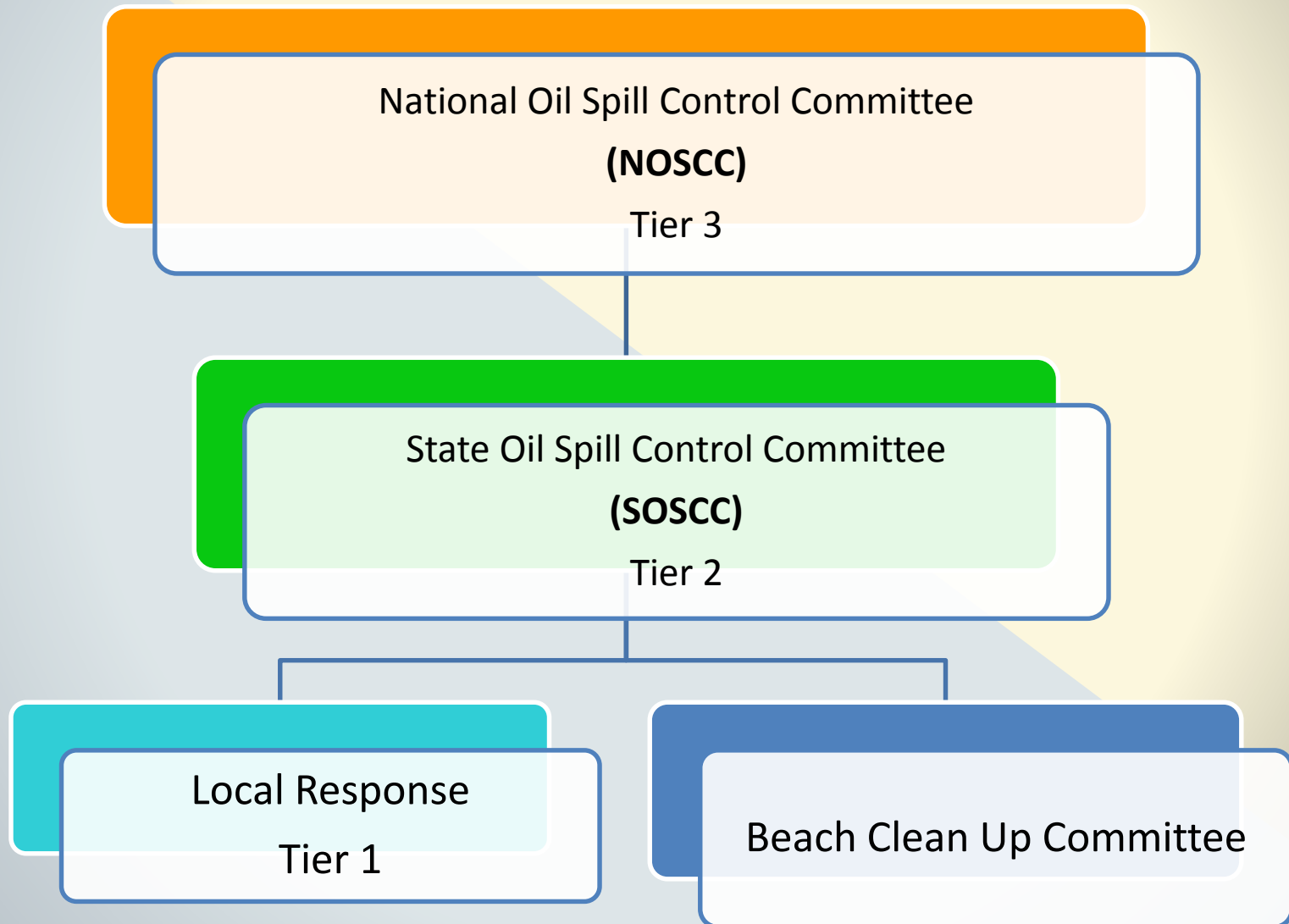
Beyond local response capability,
involve 1 or more district or state
(response by **State Oil Spill Control
Committee**)



Tier 3

Major spill affecting 1 or more
neighbouring countries (response
by **National Oil Spill Control
Committee**)

OVERVIEW OF NATIONAL OIL SPILL CONTINGENCY PLAN



Members of National Oil Spill Control Committee (NOSCC)

- Department of Environment
- Marine Department
- Fisheries Department
- Meteorological Services Dept.
- Royal Malaysia Navy
- Royal Malaysia Air Force
- Royal Malaysia Police
- Police Air Wing
- Royal Custom & Excise
- Marine Parks Department
- Immigration Department
- Ministry of Foreign Affairs
- National Security Division
- Maritime Enforcement Coordinating Centre
- Fire & Rescue Department
- Malaysia Maritime Enforcement Agency
- PETRONAS
- PIMMAG

Plan Implementation

Reporting of incident:

- All oil spill incidents shall be reported immediately to DG Environment
- Through State DOE office or Marine Department nearest to the spill area
- Initial report must contain details on:
 - Date, time and location of incident
 - Type and size of spill
 - Other related information



Plan Implementation

- Initial investigation & assessment
 - Conducted by Director of the nearest DOE within 12 hours of the sighting of incident
 - Report together with aerial surveillance report is submitted to DG for further decision (declaration of appropriate action).

Tier 2 and 3 OSR equipments

- With an all-inclusive plan, well equipped stockpiles are strategically positioned in potentially high risk areas along the coast
- These stockpiles are mostly government owned (Marine Department of Malaysia) with a significant number belonging to the oil and gas industries

TIER 1 OIL SPILL RESPONSE PLAN



WAY FORWARD

- All marine installation including fixed or floating offshore installation or structure engaged in gas or oil exploration, exploitation or production activities, or loading or unloading of oil, sea ports, oil terminals, pipelines and those facilities which present a risk of an oil pollution incident.
- The plan shall be made available for inspection by any authorized officer
- The contingency plan shall be in accordance with the specifications specified in the Guidelines issued by the Director General.
- Fail to deliver the plan will be compound by the Department

CHECKLIST

- [Borang Audit Tier 1.xlsx](#)



MITIGATION MEASURES

Curative Measures

Preventive Measures

CURATIVE MEASURES

- Legislation
- Marine Enforcement
- International Cooperation
- Action Plan & Standard Operating Procedure
 - National Oil Spill Contingency Plan (NOSCP)
 - SOP for Joint Oil spill Combat in the Straits of Malacca and Singapore;
 - SOP for Joint Oil Spill Combat in South China Sea including the Bay of Brunei;
 - Cooperative Network for Oil Spill Counter Measures in Lombok, Makassar Strait and Sulawesi Sea; &
 - ASEAN Oil Spill Response Action Plan

Preventive Measures

- EIA
- Navigation Safety
 - Traffic separation Scheme (TSS) in '77 & its subsequent extension in '98
 - Vessel Traffic Management System in '97
 - Mandatory Ship Reporting System in the straits (STRAITREP) in '98
 - Tripartite Technical Expert Group (TTEG) on Safety of Navigation & Environmental Protection in the SOM
- Habitat Conservation Programme
- Rehabilitation Programme
- National & International cooperative operation on marine enforcement
- Convention ratification

Challenges

- Reduction in maritime casualties and marine pollution incidents in recent years:-
 - improvements in Safety Navigation along the SOM
 - diligent maritime enforcement & surveillance
- Recently - incidents of illegal dumping of waste (e.g. oil sludge, used oil and mixture containing oil) in the Straits of Johor
- Expected to be overcome in due course through concerted efforts by Malaysian Maritime Enforcement Agencies & with cooperation of Singapore.

Challenges

- An increasing challenge is expected in the form of threats by spillage and discharge of hazardous noxious substances (HNS) in our waters
- Foresee increasing need in:
 - capacity building
 - development of preparedness & response capability
 - having access to adequate funding

EFFORTS UNDERTAKEN

- Regulation through legal and non-legal tools to promote the effective control of sources of marine pollution and to take all practicable steps to prevent pollution of the sea.
- International conventions such as UNCLOS, MARPOL 73/78, London Convention, etc.
- Countries have a major responsibility to prevent marine pollution from sea-based activities e.g., port state control to regulate standard of vessels.

ENDNOTE

- Has undertaken all efforts since the 1970's to address marine pollution
- Has in place meticulous planning and stringent legislative framework that is geared towards prevention & deterrent of oil spill incidents
- Determined to remain prepared for the worst-case scenario

Thank you