

# Singapore's Strategy for Oil Spill Response

# Scope

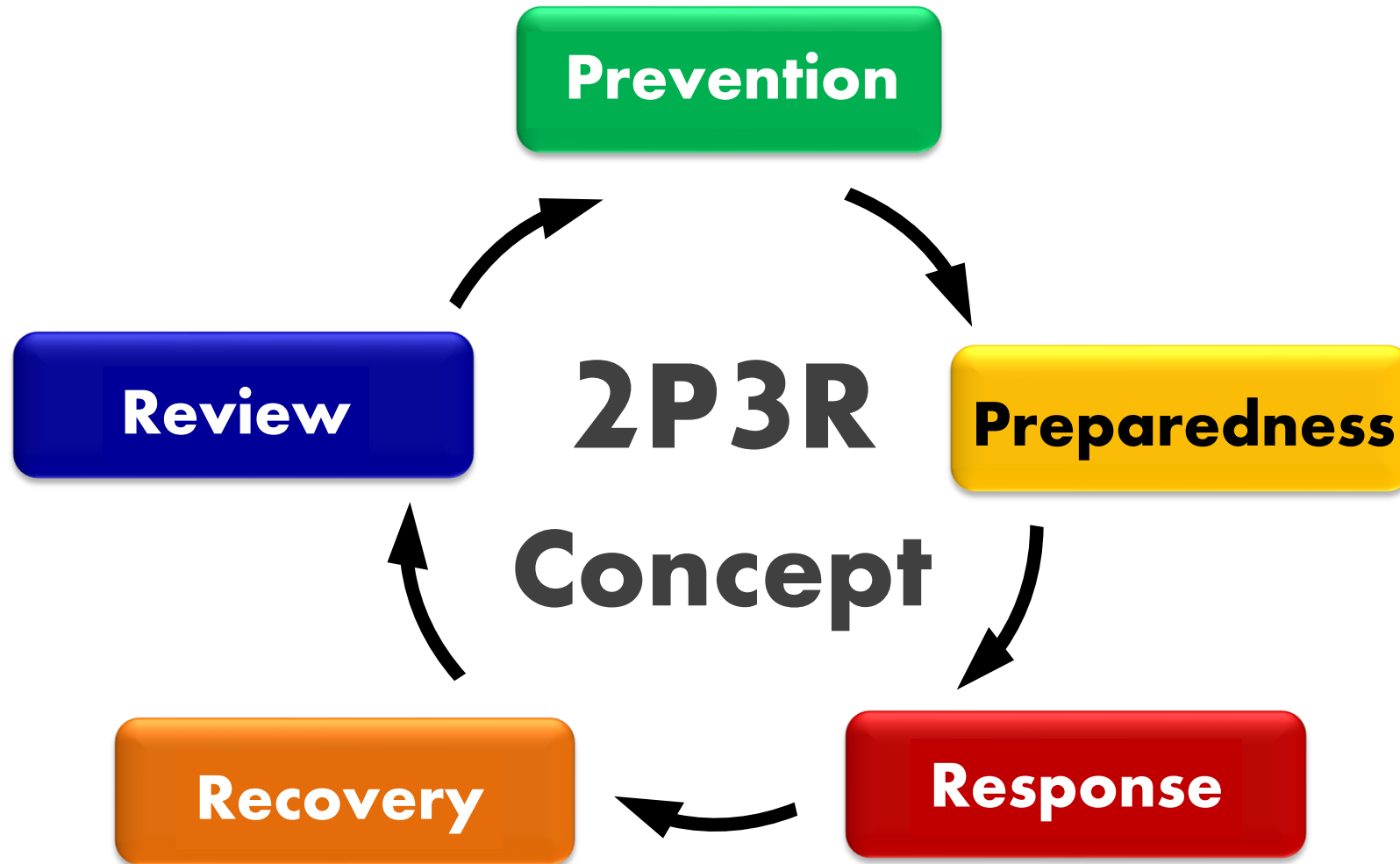
- MPA's Strategy – 2P3R Concept
- Regional Cooperation Mechanism

# MPA as the Lead Agency for Marine Emergencies

1. Oil/chemical spill, SAR, grounding, collision
2. Chairs Emergency Operations Committee
3. Coordinates operations at sea



## MPA's Strategy



# Prevention

1. Enhance Navigation Safety
  - a. Traffic Separation Scheme, STRAITREP
  - b. Vessel Traffic Information Service
  - c. Information and Navigational Assistance
  - d. Enhance the safety of navigation to protect the marine environment
2. Educating the community on pollution prevention
  - a. Guidelines on how to prevent and respond to pollution incidents during bunkering operations
3. Enforcement
  - a. 24-hour patrol
  - b. Regular checks to ensure ship-board safety
  - c. Prevention of Pollution of the Sea Act



MPA patrol craft on 24-hour patrol



Regular checks onboard ships

# Preparedness

1. MPA Crisis Management Plan
  - a. National Contingency Plan for all marine emergencies; includes the Oil Spill Contingency Plan
2. Oil Spill Contingency Plan
  - a. Government, private agencies and oil companies are parties to the plan
  - b. List of response capabilities & sensitivity mapping
  - c. Enable MPA to call upon resources from oil industry and response companies
3. Regular Exercises
  - a. Joint Oil Spill Exercise organised annually involving both government and relevant stakeholders
  - b. Testing of new technology (i.e. oil booms)
4. Memorandum of Understanding with ITOPF
  - a. Agreed rates for vessels and equipment deployment
  - b. ITOPF has an office in Singapore and technical adviser will be invited to EOC



Deploying oil booms



Spraying of oil dispersants from a C-130 aircraft

## Preparedness (continue)

5. Quick detection and reporting of pollution by leveraging on community
  - a. Vessels in port and transiting in the Singapore Strait, should the vessels detect any pollution, they will report the incident to MPA
  - b. MPA patrol craft and Police Coast Guard patrolling the waters, and any pollution will be reported immediately.
  - c. MSCC is also equipped with oil mapping software.
6. Prioritising oil-sensitive areas
  - a. Singapore has also drawn up the a list of areas which are oil sensitive areas to prioritise those areas for protection in event of oil spill.



“Giant Octopus” skimmer system  
extracting oil from the waters

# Response

## Tier 1

**Local incident** where individual vessel's or terminal's in-house capability would be deemed sufficient to cope with the situation.

## Tier 2

**A more serious incident** which may involve a wider extent of contamination and the involvement of a number of different government agencies and other stakeholders

## Tier 3

**An incident of national significance**, with the potential for wide-scale impacts and the requirement for an extensive multi-agency emergency response, resources from throughout Singapore and potentially from outside the country.



# Response

## 1. Maintaining situational awareness

- a. On-scene commander
- b. Closed-circuit TV
- c. Aerial reconnaissance
- d. Live feed from patrol craft at sea
- e. Deployment of UAV with monitoring sensors
- f. Reporting by other vessels in the vicinity

## 2. Terminal's tools for combating oil spills

- a. Anti-oil pollution craft with approved dispersants
- b. Skimmers
- c. Oil booms

## 3. MPA's tools for combating oil spill

- a. Trained personnel
- b. 24hrs Marine Safety Control Centre
- c. Patrol craft with approved dispersants



## 4. Oil spill response resources

- a. Oil handling terminals
- b. Oil spill response organisation

## 5. Technological capability

- a. Integrated Port Command and Control Center to access real time imagery and data
- b. Oil spill modeling software
- c. Satellite imaging
- d. Oil fingerprinting for source identification

# Recovery

1. Removing weathered oil from the sea
2. Proper disposal of collected oil at approved reception facilities
3. Shore-line clean up coordinated by National Environment Agency



# Review

1. Test and review plans annually –  
Ex JOSE
2. To update SOPs, contact lists, etc.
3. Conduct of After Action Review  
for oil spill incidents



# Regional Cooperative Mechanism for Oil Spill Response



# Revolving Fund Committee (RFC)

## 1. What it is

- a. Mechanism for member states to request and provide support for oil spills.
- b. Established in 1981 with principal sum of 400 million yen contributed by Malacca Strait Council.
- c. Funding available for combat of oil spill (managed by Indonesia, Malaysia and Singapore).

## 2. What it covers

- a. Division of responsibilities for lead and supporting parties.
- b. Designation of Liaison Officers, Communications, Alerting, Movement of Resources.
- c. Administration, logistics, funding.
- d. Listing of all resources available.
- e. Comms exercise



# Regional Cooperation Mechanisms for Oil Spill Combat



## ASEAN Regional Oil Spill Contingency Plan

### What it is

- Developed under the MOU on ASEAN Cooperation Mechanism for Joint Oil Spill Preparedness and Response.
- Mechanism for member states to request and provide support for oil spills.
- Does not replace the National response system of the affected state.

### What it covers

- Division of responsibilities for lead and supporting parties.
- Designation of Liaison Officers, Communications, Movement of Resources.
- Administration, logistics, funding.
- Listing of all resources available.
- Joint training and exercise programme.



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