

Thailand Oil Industry Tier 2 Oil Spill Response Capability Management

PAJ Oil Spill Workshop
Dec 12, 2017

Capt. Teerapol Phaparkhorn
PTT Global Chemical Public Company Limited
Oil Industry Environmental Safety Group Association

Topics

- Background
- Role and Responsibility Management
- Capability Improvement Management
- Summary and Way forward

Recent Thailand Oil Spill Incident in Y2013



Recent Thailand Oil Spill Incident in Y2013



Improvement in Progress

- Review of National and Province Level in regard of Oil Spill Response Plan
- Review the Frequency of Oil Spill Exercise in each level
- Review of Mutual Support Process
- Develop Oil Spill Knowledge for other related parties
- Improve of Logistics Arrangement and Oil Spill Response Equipment

National OSR Plan

- Established April 24, 1995 (B.E. 2538)
- First revision proposed to the Cabinet in 2000
 - But was asked to have additional amendment
- The revision was re-submitted to the Cabinet in March 2002
 - Received approval, and effective in August 2002



- National Committee on Oil spill response was appointed by the Ministerial Regulation in 1995
- The Marine Department and the Royal Thai Navy were leading agencies
- National Oil Spill Contingency Plan of Thailand was established and approved by the Cabinet in 2002
- Capacity building at National and local level
 - Training programmes for responders and supervisors
 - Oil spill response exercise (Local and National level)

Response Organizations

Committee on the Prevention and Combating of Oil Pollution

Coordination Centre

Command Centre

Operation Unit

Support Unit

Order Line —————

Coordination Line - - - - -



DESIGNATION OF RESPONSIBLE AUTHORITY

OPERATION UNIT

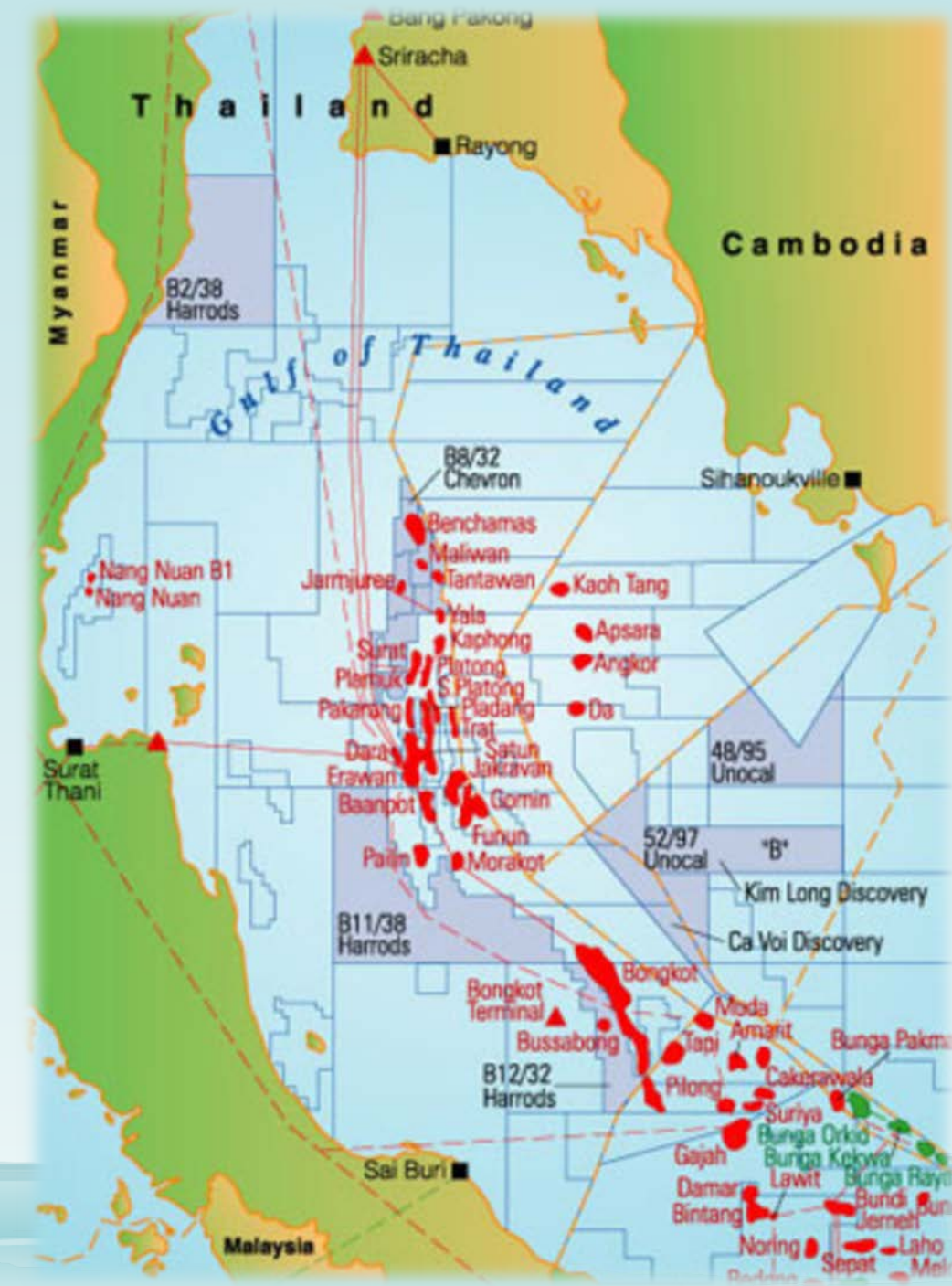
- ✓ **Marine Department**
- ✓ **Royal Thai Navy**
- ✓ **Provincial Administration**
- ✓ **IESG (Oil Industry Environmental Safety Group Association)****

SUPPORT UNIT

- | | |
|---------------------|---------------------------|
| ✓ Army | ✓ Metrological Department |
| ✓ Airforce | ✓ Fishery Department |
| ✓ Marine Police | ✓ Agricultural Aviation |
| ✓ Civil Aviation | ✓ Customs |
| ✓ Environment PLA. | ✓ Foreign Affair |
| ✓ Pollution Control | ✓ Immigration |
| ✓ Local Admin. | ✓ Port Authority |
| | ✓ etc. |

** IESG – Private Sector

Operation Area



Current Tier Concept

Responsible area and amount of oil leak	Coordinating Centre	Command Centre	Operation Unit	Support Unit
<u>Within Port area</u>				
Tier 1: Below 20 tons	Marine Department	-	Spiller/Agency	On requested
Tier 2: Between 20 to 1,000 tons	Marine Department	Marine Department	MD/RTN/IESG	22 Units
Tier 3: Over 1,000 tons	Marine Department	Marine Department	MD/RTN/IESG	22 Units
<u>Outside Port area</u>				
Tier 1: Below 20 tons	Marine Department	-	Spiller/Agency	On requested
Tier 2: Between 20 to 1,000 tons	Marine Department	Royal Thai Navy	MD/RTN/IESG	22 Units
Tier 3: Over 1,000 tons	Marine Department	Roya Thai Navy	MD/RTN/IESG	22 Units

IESG Members – Oil Company In Thailand



BCP



BP-CASTROL



CEC



CVX



CTEP



COTL



ESSO



IRPC



MTT



MUBADALA



OPHIR



PTG



PTT



PTTEP



PTTGC



PTT TANK



SHELL



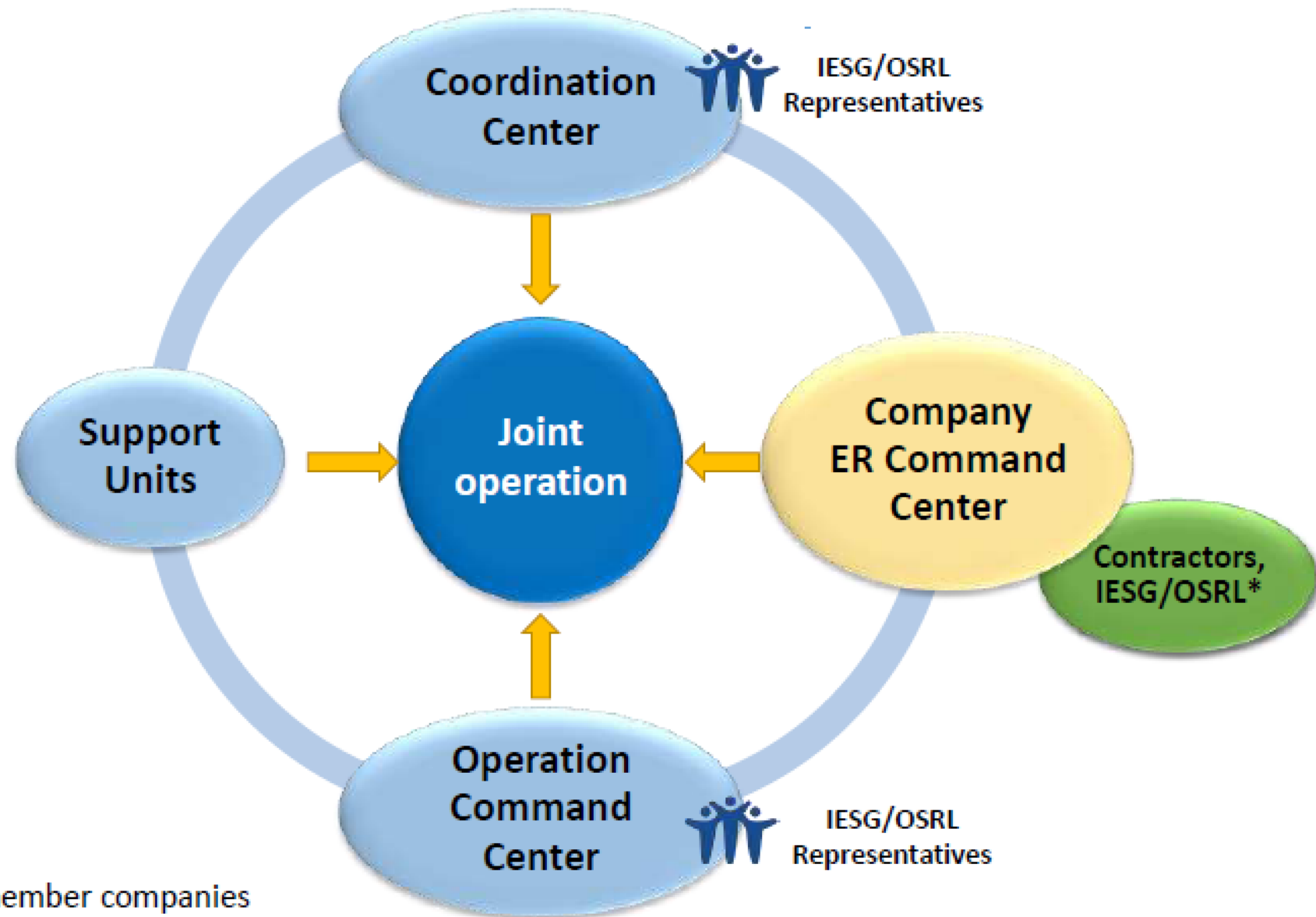
SPRC



THAI OIL



OSR Coordination In Thailand



Remark: * For IESG/OSRL member companies

IESG OSR Working Committee

- Bangkok Area
- Sriracha Area
- Rayong Area
- South Area
- Offshore Area



Bangkok Area

Sriracha Area

Rayong Area

Offshore Area

South Thailand

IESG Stockpile Location

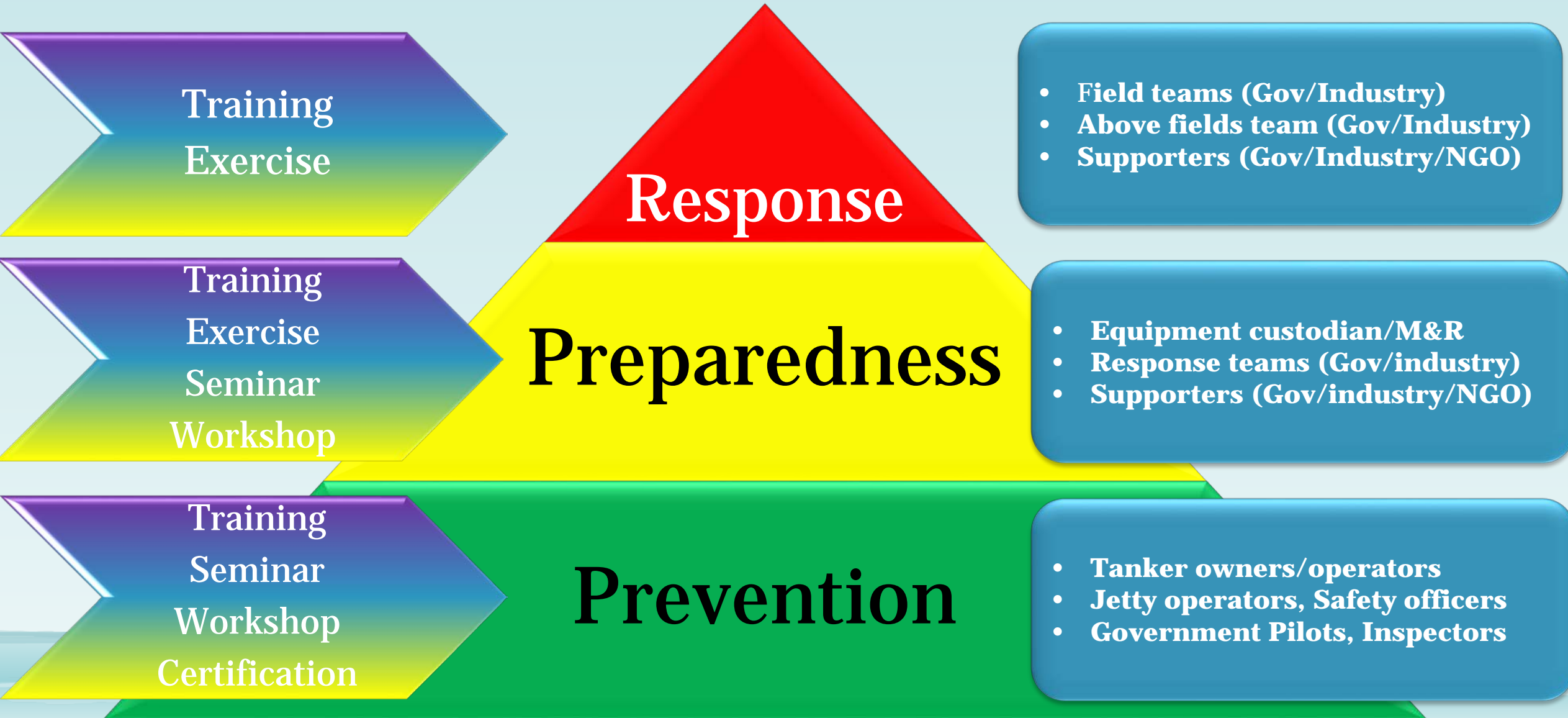


Tier 2 OSR Equipment Stockpile (IESG and Government)

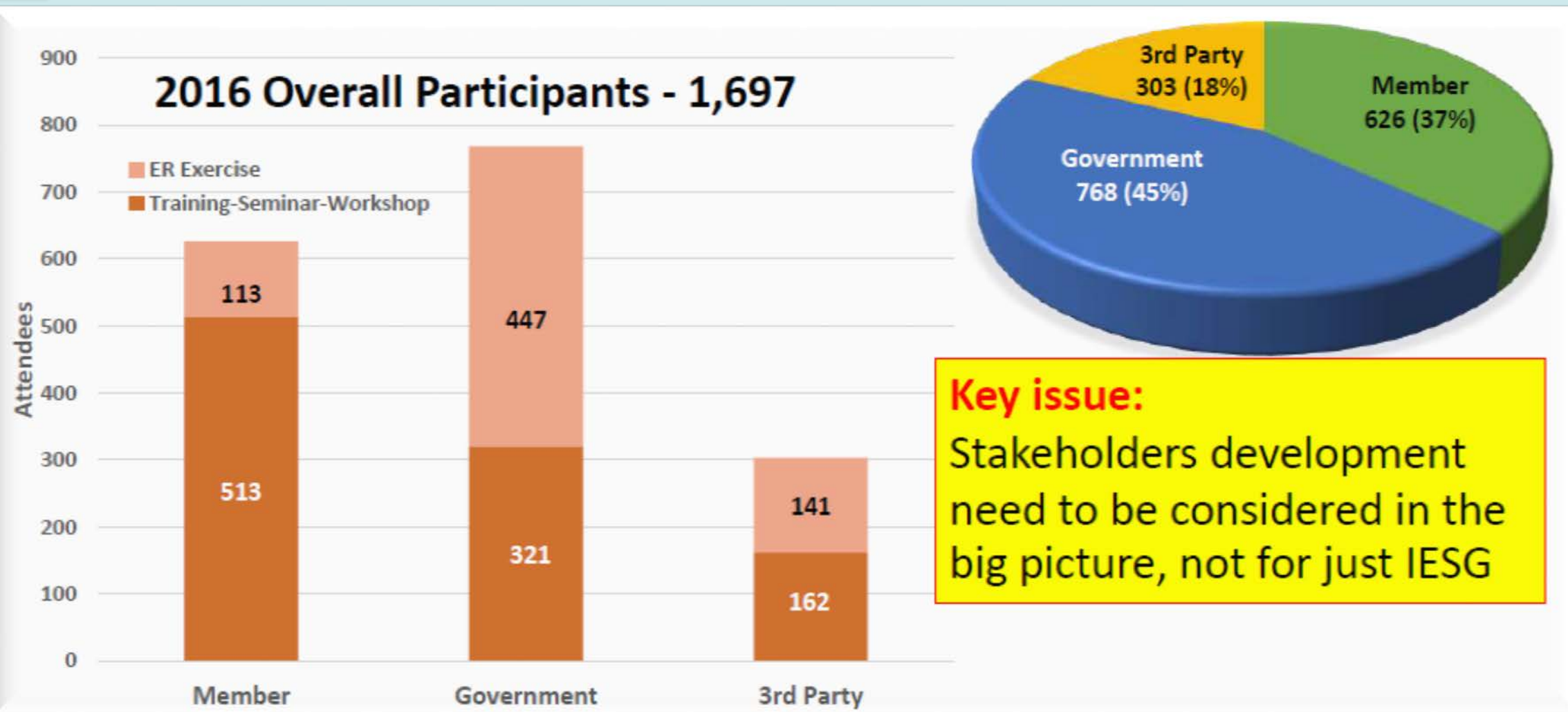


Tier 1 OSR Equipment Stockpile

Key Stakeholders Capability Development



Training, Seminar, Workshop & ER Exercise



IESG Self Review

Strength

- National plan & company plan
- Co-op Assistant agreement
- Collaboration & cooperation
- Mutual aid arrangement
- Tier 1 equipment
- Tier 2 equipment
- Company response team
- Government response team
- Regular exercises
- Equipment M&R program

Weakness

- Experience with major spill
- In-country professional service providers
- Formal or certified training program
- Adequate response vessels
- Adequate responders in company
- Full exercise of National Plan
- Dedicated co-op/government resources
- In-country response center
- Effective equipment M&R program
- Budget to replace dated equipment

IESG and Member OSR Capability Management

IESG

- Re-organization of permanent staff
- Review Oil Spill capability (every 5 years)
- Stockpile management:
 - Replacement plan
 - Increase OSR equipment efficiency
- Proactive actions:
 - Exercise frequency and scope review
 - Workshop/Seminar
- Increase Regional Cooperation among Oil Spill Response Organizations - RITAG

Members

- Cooperation among Member
- Shore line clean up plan
- OSR Equipment review
- Internal and External Exercise
- Personnel Competency development

5 Years Capability Review

Area	Recommendation on equipment
Bangkok	No additional equipment needed. Current equipment stockpile via mutual aid arrangement and government resources is sufficient.
Rayong	Need additional <u>nearshore booms</u> to protect sensitive areas. A more efficient and suitable <u>at sea containment system</u> and <u>on water temporary storage tanks</u> are needed to support the existing offshore equipment due to close vicinity of sensitive areas.
Sriracha	A more efficient and suitable <u>at sea containment system</u> is required to support offshore operations. Also recommended to have additional <u>dispersant spray systems</u> .
Songkhla	No additional equipment needed. However, need to consider limiting dispersant usage based on the oil properties in the areas of operations.
Offshore	Need additional <u>nearshore booms</u> to protect sensitive resources along the GOT, particularly at Northern GOT and Central GOT. For Southern GOT, it is recommended to have <u>offshore fast current containment system</u> , <u>multi skimmer</u> and <u>on water temporary storage tanks</u> to be stored at Songkhla.

Government's OSR Stockpile Management Before Year 2013 Incident

Marine Department

- 2 OSR Boats with full stock pile on board
- Tier 2 stockpile at Songkhla province



Royal Thai Navy

- Multi functions Tug boats
- Dornia Airplane with 280 Litres dispersant pack



Government's OSR Stockpile Management Now

Marine Department

- 2 OSR Boats with full stock pile on board
- Tier 2 stockpile at Songkhla province



Royal Thai Navy

- Multi function Tug boats
- Dornia Airplane with 280 Litres dispersant pack – out date
- **OSR Equipment**
- **Sea Hawk Helicopters**
- **New Tug boat with OSR capability**

The current capability of the Royal Thai Navy to oil spills response



Regional Industry Technical Advisory Group (RITAG)

- The cooperation forum among Oil Spill Response Organizations (OSROs) within Asia Pacific Region. This working platform enhanced Technical knowledge sharing, cooperation and good practices.
- Currently the member are consists of COES from China, OSCT from Indonesia, MDPC from Japan, KOEM from Korea, PIMMAG from Malaysia, OSRL from Singapore, and IESG from Thailand.
- IESG is actively participate in this forum which conducted annually and Host is rotation among available member.



Gap Identification on Sea operations

- Delay of spill combat time
- Dispersant spray effectiveness
- Night time response



Improvement

- Additional OSR Boats
- Heli-bucket
 - Max operation weight 1,270 kg
 - Max weight without dispersant 260 kg
- Hawk Owls Aerostat (Overhead Wireless Lookout System)
- AFEDO Nozzles Boat Spray
- UV-Oil Spill Search Light; CL-10-02
- Fluorometer C-3



AW 139



Way forward

- New Criteria for Tier determine
 - Quantity?
 - Time?
 - Impact?
- Incident Command System (ICS) Management
 - Organization?
 - Unified Command
- Expertise from Oil Industry/Capability Development
- Social Media Management



**Prevention is better than cure
Thank you**

