

**THE CONTINGENCY PLAN AND  
TRAINING OF RELATED PERSONNEL IN INDONESIA  
(OIL INDUSTRY'S EXPERIENCES)**

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**ABSTRACT**

**This presentation will focus on oil spill contingency plans in oil and gas industries' as related to experiences in Indonesia. This paper will further describe the relationship and roles of the Government and other related parties.**

- 1. Indonesia's Marine Oil Spill Contingency Plan covers response strategy and capabilities in handling marine oil spill incidents or disasters with special considerations in respect to the following facts:**

**Its' strategic location, as shipping traffic lanes, connecting Europe, Africa, the Middle East, Australia, Southeast Asia with the Far East, the Pacific and America**

**Archipelagic country having approximately 81,000 kilometers of coast lines and more than 17,000 islands**

**Its' location around the equator with richness of marine ecological values  
High potential for navigational or sea traffic hazards and vulnerabilities  
Inadequacies of infrastructures (remoteness) and resources**

- 2 Sustainable development is the Guiding Principle for development in Indonesia. Referring to this principle, Indonesia, being an active Member of international Maritime Organization (IMO), has adopted IMO's Conventions and Resolutions, as well as, other related international parties in the continuation of safeguarding marine environments; prevent pollution and preparedness to combat, if necessary, marine oil spill incidents or disasters. Likewise, on the National side, efforts had been made to achieve the same objective by: enacting regulations, establishing programs and procedures, as well as. enhancement of the capabilities in preparedness and response. Cooperation, within the national framework, regional and international levels, have been developed to strengthen cooperations between the Government, industries and other relevant Agencies.**

- 3. Contingency Planning and Oil Spill Response training is focussed on:**  
**availability of trained personnel in Pertamina facilities throughout the Country.**  
**Enhancement of local capabilities with adequate oil spill response equipment**  
**and trained personnel.**

**According to Pertamina's specific operational needs and requirements, training was conducted in country (in Indonesia) and abroad. Normally, these training sessions included actual exercises for the participants.**

**PETROLEUM ASSOCIATION OF JAPAN**

**OIL SPILL SYMPOSIUM II**

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**PRESENTED BY**

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# **THE CONTINGENCY PLAN AND TRAINING OF RELATED PERSONNEL IN INDONESIA (OIL INDUSTRY'S EXPERIENCES) \*)**

## **1. INTRODUCTION**

### **1.1. BACKGROUND**

**The preparedness in response to marine oil spill incidents or disasters in Indonesia should consider the following facts;**

- its strategic location as shipping traffic lanes, connecting Europe, Africa, the Middle East, Australia, Southeast Asia with the Far East, the Pacific and America**
- as an archipelagic country, with widespread areas covering approximately 81,000 kilometers of coast lines and more than 17,000 islands**
- its location around the equator with richness of marine ecological values**
- strategic sea lane with high potential for navigational or sea traffic hazards and their vulnerabilities**
- inadequacies of infrastructures (remoteness) and resources**

**(Please refer to map at Appendix I 1 and I 2)**

**Sustainable development is the Guiding Principle for development in Indonesia. Referring to this principle, as a Member of International Maritime Organization (IMO), Indonesia had adopted IMO Conventions or Resolutions as well as other relevant International Agencies to participate in the continuing strives to safeguard the marine environments: prevent pollution and prepare to combat, if necessary, if there is marine oil spill incident or disaster.**

**Likewise, on the National frameworks, efforts had been made to achieve the same objective by enacting regulations, procedures, programmes as well as improving and developing the capacity building in preparedness and response. Cooperations within the national framework, regional and international levels have been developed to strengthen partnership between the Government, industries or other relevant Agencies.**

### **1.2. SCOPE**

**This presentation will explain the above topic focussing on the oil and gas industries\* experiences in Indonesia and its relationship with the Government and other related parties networks.**

***\*) Presented at the Oil Spill Symposium    Petroleum Association of Japan, Tokyo    March 4  
5, 1996***

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Protection and Work Safety Affairs***

## **2. CONTINGENCY PLANNING**

### **2.1. PERTAMINA CONTINGENCY PLANNING**

#### **2.1.1. Pertamina Operations**

**As the State Oil and Gas Enterprise of Indonesia, Pertamina has the responsibility to manage the safe conduct of pollution control from her activities. Pertamina manage and operate the oil and gas activities with her partners through various arrangements, i.e. Production Sharing Contract (PSC), Joint Operation Agreement (JOA) and others.**

**Presently, the oil and gas activities in Indonesia covering the following operations:**

- Up stream (Appendix II 1)**
  - 28 main onshore production facilities**
  - 12 main offshore production facilities with 414 plafforms**
  - 7 main gas production facilities**
  - with more prospects either onshore or offshore including Natuna**
  
- Down stream (Appendix II 2)**
  - 8 refineries with total capacity of : 980 MBSD**
  - 6 petrochemical plants**
  - 7 gas plants including 2 LNG (with 12 trains)**
  
- Distribution (Appendix II 3)**
  - 86 seafed depots (for products)**
  - 22 inland depots (also for products)**
  - 48 depots supporting airports fuel supplies**
  
- Marine transportation : (Appendix II 4)**
  - 160 units of tankers and vessels**
  - 128 terminals (from 3,000 to 150,000 tons capacity, with SBMs up to 250,000 tons capacity)**

#### **4 locations for ship to ship transfer**

##### **2.1.2. Policy and Purpose of Pertamina's Contingency Planning (CP)**

**The Tier CP Concepts policies in Pertamina have considered the following criteria and requirements:**

**Company's general objectives and policies with specific focus on environment protection  
effectiveness and efficiency of Company's operational activities  
strategy and speed of mobilization and access  
priorities of sensitive areas which vulnerable to potential damage on marine ecology and resources  
coordination and partnership with related outside resources, either Government Agencies, Institutions, private sectors etc.**

**From Pertamina operational point of views, the following marine areas are classified as vulnerable:**

**Malacca and Singapore straits  
Java Sea, particularly the western portion  
South China Sea, southern portion, around Natuna islands  
Makassar straits and Sulawesi sea  
Java south coast in the vicinity of Cilacap, Lombok and Madura straits  
Rupat and Bangka straits in Sumatera  
Navigable rivers for tankers, i.e. : Musi, Siak, Mahakam  
Navigation channels around Sorong, Irian Jaya  
etc.**

##### **2.1.3. Pertamina (Industry)'s Contingency Planning (CP)**

**The Tiered response capabilities prepared and assigned in Pertamina operations are referring to the common international practices, i.e. IMO IPIECA guidelines:**

**Tier 1 prepared for individual local incident  
Tier 2 prepared for local incident but may cover or assist other Pertamina activities in several provinces or areas**



**Tier 3 for Pertamina corporate**

**Tanjung Priok, the harbour of Jakarta had been designated and prepared for Tier 3 capability.**

**This capability also include the provisions of : expertise, communications.**

**There are nine (9) Tier 2 stations scattered throughout the country to cover Pertamina/partners operational locations:**

- (1) Pangkalan Brandan (North Sumatera) which also cover the northern part of Malacca Strait**
- (2) Dumai (Riau, approximately at central part of Sumatera) which also cover the southern part of Malacca Strait**
- (3) Sambu (Riau, close to Batam island) which may assist Singapore Strait, as well as activities in the Natuna Islands area**
- (4) Tanjung Priok/Jakarta which also act as Tier 3 Response capability for National coverage**
- (5) Cilacap (Central Java, southern coast) which may assist Lombok Strait**

- (6) **Surabaya (East Java) which also covers Bali and the rest of Lesser Sunda archipelago**
- (7) **Balikpapan (East Kalimantan) which may cover the northern portion of Makassar Strait and Sulawesi Sea**
- (8) **Ujungpandang (South Sulawesi) which may cover the southern part of Makassar Strait and some portion of eastern Indonesia**
- (9) **Sorong (Irian Jaya) for the activities in Irian Jaya and Maluku**

**Appendix III illustrates the schematic relationships among these tier concepts.**

**The Organization, Notification networks are as follows:**

**Tier 3 Network:**

**Senior Vice President responsible for Shipping, Harbour and Communication is responsible to Coordinate the Company's Corporate Tier 3 CP. He or she will be the Incident Commander and report to the President Director**

**The Tier 3 Organization and Notification charts are given in Appendix IV 1 and 2.**

**Tier 2 Network:**

**The Unit General Manager at the Tier 2 locations described above is assigned as the Tier 2 Incident Commander for the respective Tier 2 location. The Shipping, Harbour and Communication Manager is assigned as the On Scene Commander. The organization as well as notification charts are shown in Appendix V 1 and 2.**

**Tier 1 Network:**

**The Manager at each site or location/terminal is assigned as the Incident Commander for the designated of the Tier I respectively. The Shipping, Harbour and Communication Manager is assigned as the On Scene Commander. The organization chart is shown in Appendix VI.**

**2.2. Relationship between the Government and Industry's Contingency**

## **Planning**

### **2.2.1. Policy and Legal Aspects**

**The basic principles of responsibility is the same as internationally accepted principles, i.e.: “*polluters pay and strict liability*”.**

**Therefore, Pertamina will take initiative and play more active role for action, if the incident is involving her and/or her partners\* concern and interests.**

**Indonesia had ratified and adopted the following IMO conventions (related to marine pollution prevention and abatement):**

**Civil Liability Convention, CLC, 1969**

**International Oil Pollution Compensation Fund (IOPCF), 1971**

**MARPOL 1973/Protocol 1978, Annex I and II**

**SOLAS, 1972**

**IMO Resolution, i.e. Traffic Separation Schemes, etc.**

**Other conventions are under consideration for possible ratification in future:**

**London Dumping Convention, 1972**

**MARPOL 1973/Protocol 1978, Annex III, IV and V**

**OPRO Convention, 1990**

**CLC Protocol, 1984/1992**

### **2.2.2. Linkages to the Government CP**

#### **National Coverage**

**The relationship between the Government coordinated CP S and the industry, i.e. Pertamina and her partners is the same : The Government Official is the Coordinator while Pertamina is the Supporting Agency (see Appendix VII). When we consider the following possible alternatives of party or parties concerned and responsible in the marine oil spill incident or casualties, then the share of responsibilities as drafted in the various contingency planning in Indonesia are:**

<b><i>Party(ies)interest or respon</i></b>	<b><i>Initiative of</i></b>	<b><i>Coordination</i></b>	
<b><i>sible in the incident</i></b>	<b><i>Pertamina</i></b>		<b><i>role:</i></b>
	<b><i>action by :</i></b>		
<b>1. Government</b>	<b>Government</b>	<b>Government</b>	<b>Pertamina supporting #</b>
<b>2. Others</b>	<b>The party concern or/and Govt.</b>	<b>Government supporting #</b>	<b>Pertamina</b>
<b>3. Pertamina or partner</b>	<b>Pertamina on</b>	<b>Pertamina</b>	<b>Pertamina/</b>

**and partner**

**then Government partner have**

**4. Regional or International Government**

**Government**

**Pertamina**

**supporting #**

**Remark:**

**# if requested by the Government and/or the responsible party concerned**

**Each of the Government Agencies or Port/Terminal operation have or will have their individual Contingency Plan (CP). It will be either tier I or tier 2, while for the National coverage is the tier 3.**

**As explained earlier, Pertamina and her partners (industries) also have their own individual terminal or harbour's CP, either tier I or tier 2 and for Pertamina's corporate (company's) coverage national wide is tier 3.**

**Each tier of the industry's OP have been arranged in such a way that it can be slotted into the Government's coordination OP, when needed.**

**The industry's Incident Commander (IC) or On Scene Commander (OSC) will be seconded to the Government, either as Deputy or Resource persons. The supervisors, operators will be attached to individual task according to their assignments. The experts will assist the IC or OSC as resource persons.**

### **Regional / International Coverage**

**The principle is the same : Government, the Coordinator and the industry is the Supporting Agency.**

**The ASEAN Oil Spill Response Action Plan (ASEAN OSRAP) is the official regional mutual-assistances Contingency Planning document, officially agreed upon after the completion of signing of its Memorandum of Understanding (MOU) on January 24, 1 994. This is an official Government document and is the umbrella guideline for mutual assistances among the ASEAN countries in the marine oil spill incident or disaster (see Appendix VIII).**

**The ASEAN Oil and Gas Industries (mostly State owned) have their own regional association i.e. ASEAN Council on Petroleum (ASCOPE). This association also have established a cooperative agreement for mutual assistances in the marine oil spill accident. The document is the ASCOPE Plan for the Control and Mitigation of Marine Pollution (APCMMP) and was agreed upon on November 1993. This is an industries arrangement of co-operation.**

**The co-existence of these two documents have been questioned within the ASCOPE Association. The understanding is that : the ASEAN OSRAP is**

**organized by the Government (umbrella) and APCMMP by the industry.**

**The Government have more coordinative authority and wide coverage of areas, concern and priorities. The industry has a more focussed priority and specialization in the oil spill area, therefore these two cooperations is supplementary to each other.**

**The relationship in National framework is shown in Appendix IX**

### **3. EQUIPMENT STOCKPILE BASE**

**Pertamina had and will continue to develop the stockpiling of equipments in her terminals and facilities as required.**

**The Tier 2 and Tier 3 locations have been provided and equipped with marine oil spill equipments. At most of the Tier 1 locations serving tankers of > 6.000 dwt tons and at locations with sensitive environments, the ESB had also been installed. The question is : are they adequately prepared to response or not.**

**This remain a difficult question. The present effort is to gradually assess the potential risks and condition and then enhance the availability of resources accordingly.**

**The former practice was to avail tier 1 terminals with oil booms (2 x LOA of largest tanker calling at that terminal), skimmer (depend on the type of oil handled), dispersant sprayers, pumps, sorbent and others with adequate quantity/capacity.**

**It is obvious that tier 2 stations are better equipped, to include open sea booms/skimers and so is the tier 3 ESB**

**Within the Indonesian national network, Pertamina is one of the Supporting Agency. Under the Government umbrella, Pertamina is actively involved in the marine oil spill cooperations or arrangements.**

**One of the obvious example is, under the OSPAR Programme with the Japanese Government. In 1993 – 1995, the ASEAN Countries received marine oil spill equipments assistances from Japan (under spirit of the IMO OPRC Convention, 1990 on cooperation and partnership). The Indonesian Government had asked Pertamina to store and maintain these equipments ( hardwares : i.e. oil-booms, skimmers, oil-bags etc.), and they have been stored in Balikpapan, East Kalimantan (its location is facing Makassar Strait).**

### **4. TRAINING AND EXERCISE**

#### **4.1. Training**

**The policy for training is to provide sufficient human resources capable to organize, mobilize, handle the emergency responses for marine oil spill throughout the Company's area of operations.**



**The training given to Pertamina personnel are:**

- **Environment in general : to give knowledge about environmental background, relation with petroleum activities and environment protection : for managers, supervisors, operators (different level of courses/training). Materials on Marine pollution are included as part of these courses.**
  - **Marine pollution and contingency given as part of the materials in a specific course, i.e. for Shipping or Harbour for Managers level or supervisors and senior operators. Under the ASCOPE cooperations, these particular subject were or are discussed in seminars or workshops.**
  - **Special course on marine pollution and/or contingency planning:  
For the operators: in average 3 or 4 courses annually with 25 to 30 participants  
Supervisors (Junior), in average 1 or 2 courses a year with 20 to 24 participants  
Managers or Senior Supervisors : tailor made course in cooperation with outside Institutes, depend on demand.  
During these Special Course, exercises on marine pollution or contingency planning are conducted. Participants from the Government, i.e. Sea Communications, Oil and Gas Directorate General or other related Agencies are also attending.**
- Managers, Senior Supervisors : usually participate at special courses abroad,  
i.e. Japan, USA, UK, France, Norway or Singapore (EARL : East Asia Response Limited). Pertamina have sent more than 40 managers/supervisors to the CP Course conducted by EARL in Singapore during 1993 to date and it is an ongoing effort.**
- The Multi-National-Companies (MNC) as the partners of Pertamina, operating in Indonesia, also sent their personnel to the above mentioned courses or otherwise within their Headquarters inhouse training.**

#### **4.2. Exercises**

**The policy for exercises is to train and familiarize the personnel designated or assigned in the contingency planning in order they will be capable to carry on their assignments effectively, quickly and efficiently.**

**For tier 1 exercises, it is initiated and executed by Local Management, usually carried out : twice a year for dry exercises and once a year for wet exercises.**

**These are not a standard procedure, but a recommendation.**

**For tier 2 exercise, usually carried out together with one of the wet exercise for tier 1 , once every two year while for tier 3 will depend on the requirements either from the Government or the Company. It is usually once every two year, combined with one of the tier 2 exercises. It may be initiated by the Local Management or The Directorate for Shipping, Harbour and Communications in Jakarta.**

**The other tier 2 or even tier 3 exercises include the Malacca Strait Revolving Fund involving : Malaysia, Singapore and Indonesia (for the western part) or the Sulawesi Sea Network involving The Philippines, Malaysia and Indonesia (for the eastern part) under the Government Coordinations.**

**There have been two exercises utilizing the OSPAR equipments in Balikpapan carried out in 1994 and 1995 respectively.**

**There are exercises carried out by the MNC's coordinating their areas in Southeast Asia, the Far East and Australia. This kind of exercise is categorized as Tier 3.**

**Table top exercises are included as dry exercises, which will be developed to be more effective in future.**

**The other prospects are to conduct training and exercises which will comply to and conform with IMO official standards.**

## **5. CONCLUSION**

**The CP, training and exercises relating to marine oil spill had been developed**

**and established in Pertamina organization and operations. They are on going processes which will be maintained, improve and develop continually.**

**The spirit in the IMO OPRC Convention as well as Rio de Janeiro UNCED II Agenda 21 on building of partnerships had also been developed and maintained.**

Jakarta, February 5, 1996



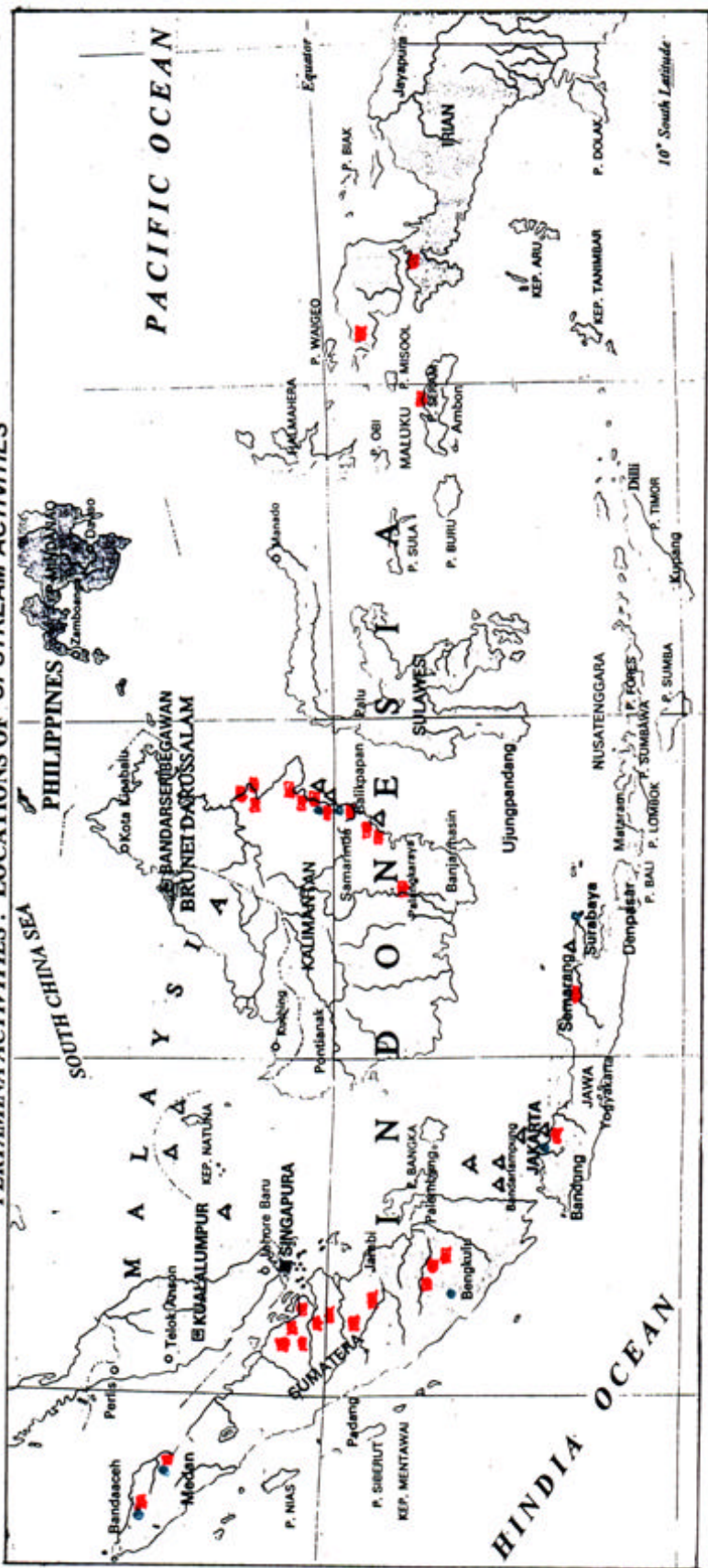
Max Maloringan

**INDONESIA LOCATED IN THE STRATEGIC SEA-LANE**



# INDONESIA

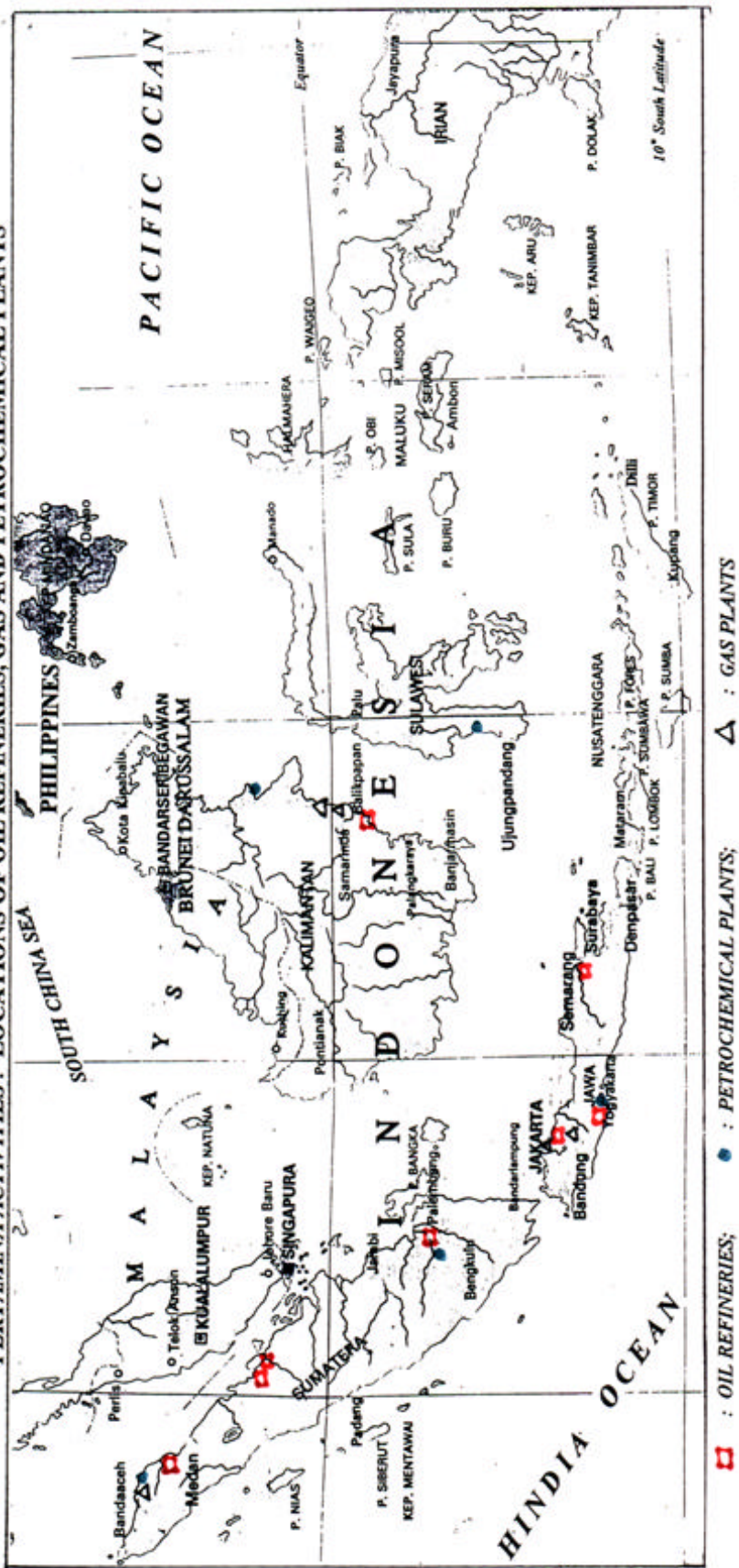
PERTAMINA ACTIVITIES: LOCATIONS OF UPSTREAM ACTIVITIES



■ : MAIN ONSHORE PRODUCTION FACILITIES ; △ : MAIN OFFSHORE PRODUCTION FACILITIES ; ● : MAIN GAS PROD. FACILITIES

# INDONESIA

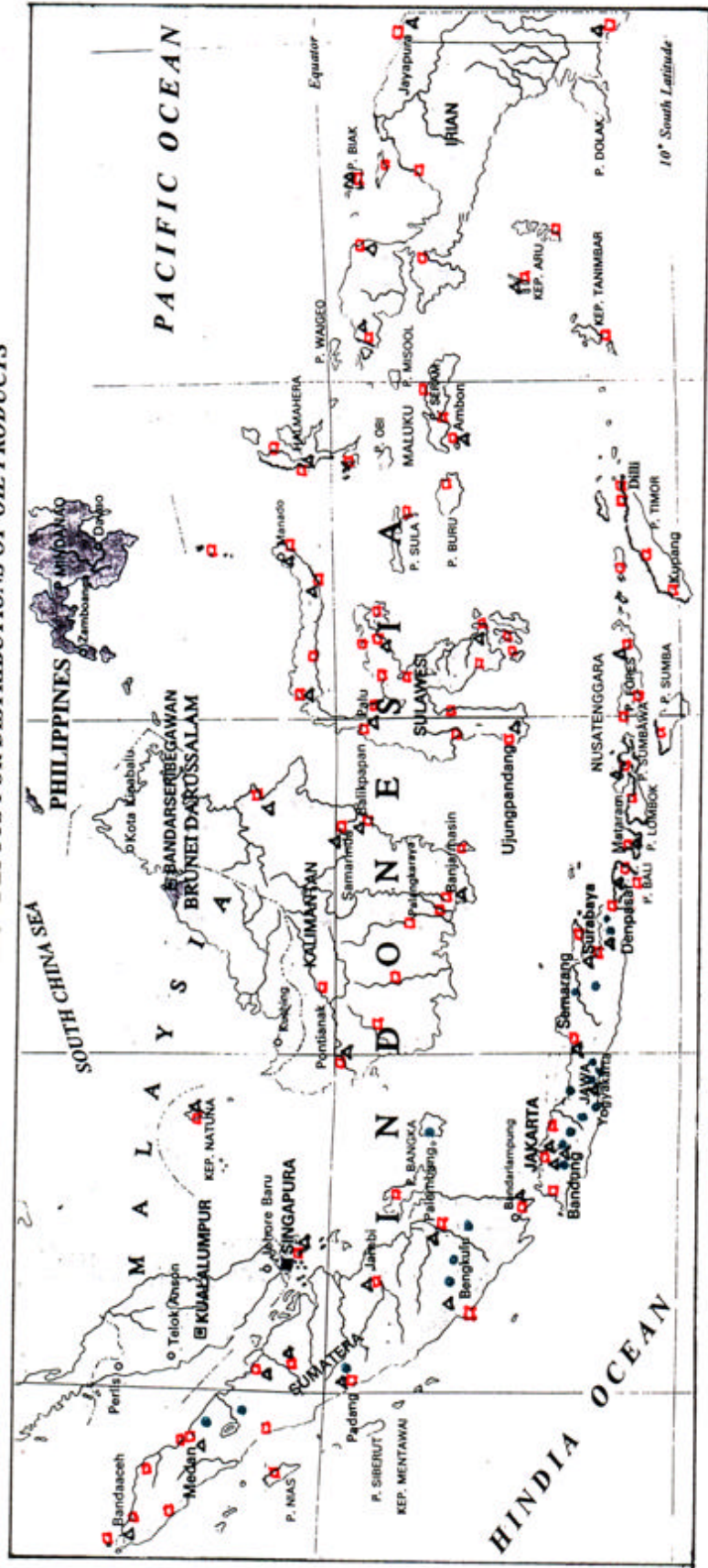
PERTAMINA ACTIVITIES : LOCATIONS OF OIL REFINERIES, GAS AND PETROCHEMICAL PLANTS



■ : OIL REFINERIES; 
 ● : PETROCHEMICAL PLANTS; 
 ▲ : GAS PLANTS

# INDONESIA

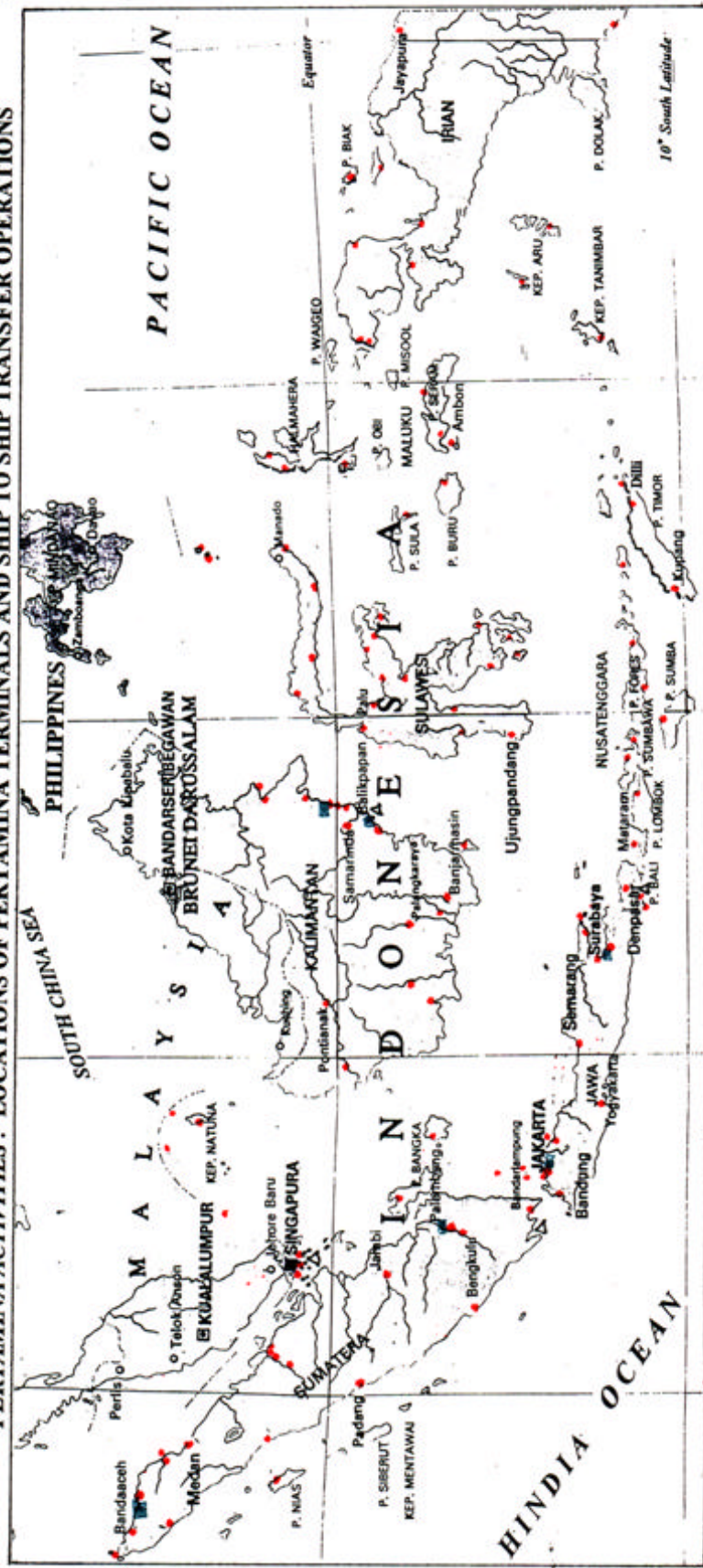
PERTAMINA ACTIVITIES : DEPOTS FOR DISTRIBUTIONS OF OIL PRODUCTS



□ : SEA-FED DEPOTS ; ● : ON-SHORE DEPOTS ; ▲ : DEPOTS SUPPORTING AIRPORTS

# INDONESIA

PERTAMINA ACTIVITIES : LOCATIONS OF PERTAMINA TERMINALS AND SHIP TO SHIP TRANSFER OPERATIONS

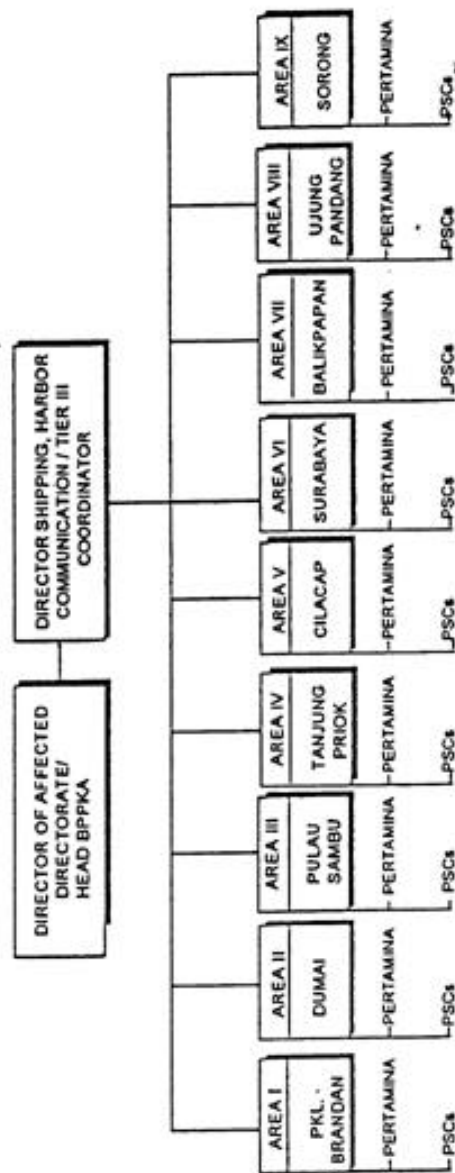


● : OIL TERMINAL; ■ : GAS TERMINAL; △ : SHIP TO SHIP TRANSFER



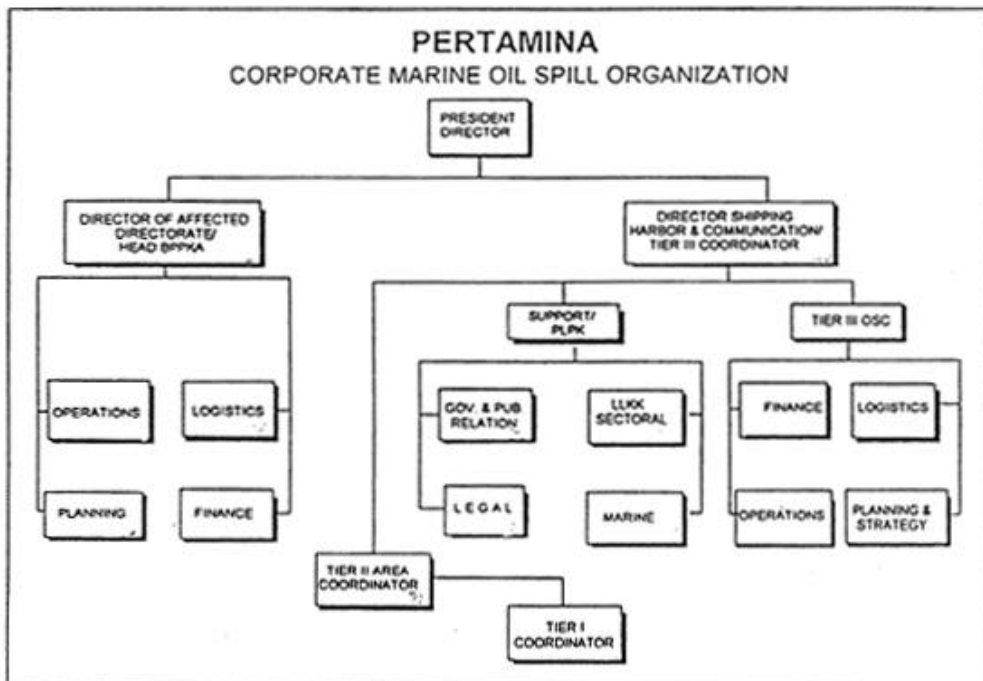
# P E R T A M I N A

## NETWORK OF TIERED CONCEPT FOR CONTINGENCY PLANNING



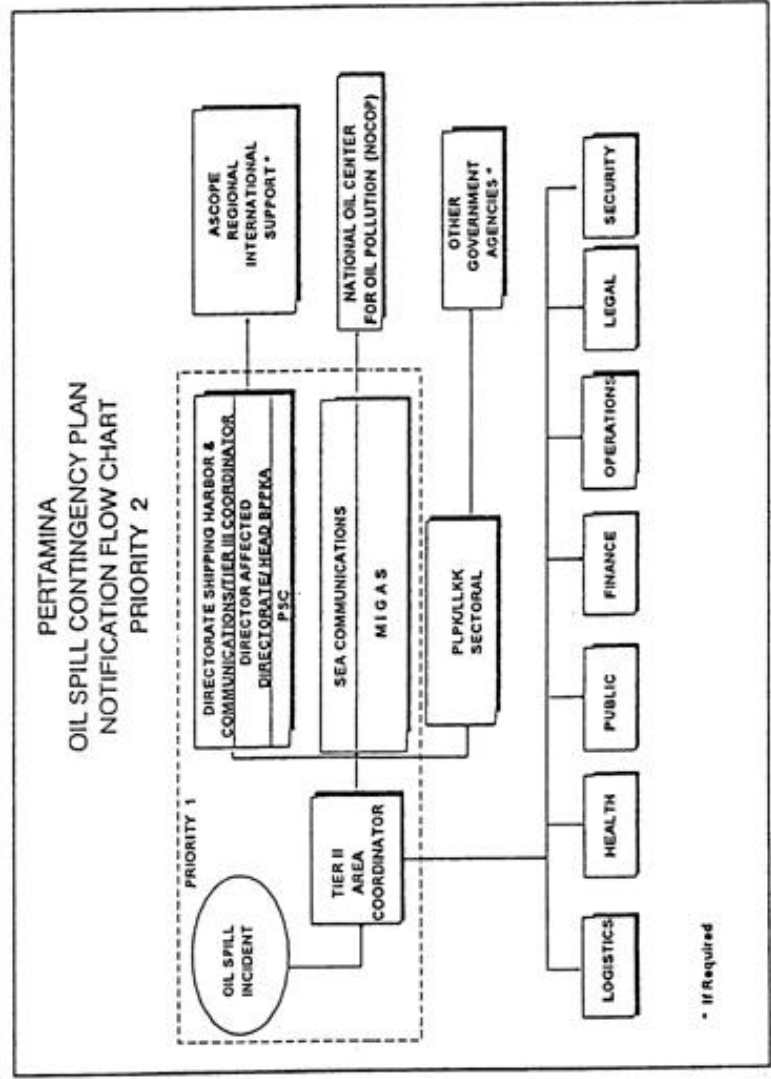
Note : PSC = Production Sharing Contractor

**PERTAMINA**  
**TIER 3 ORGANIZATION**



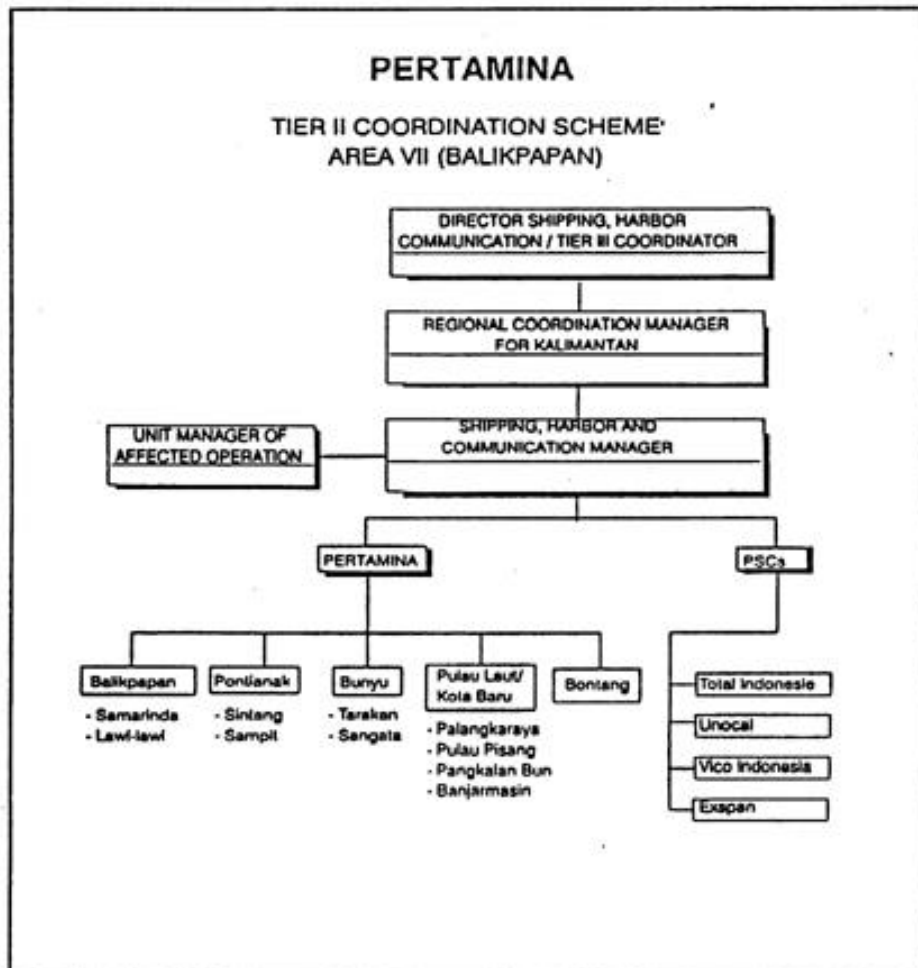
# P E R T A M I N A

## TIER 3 NOTIFICATION



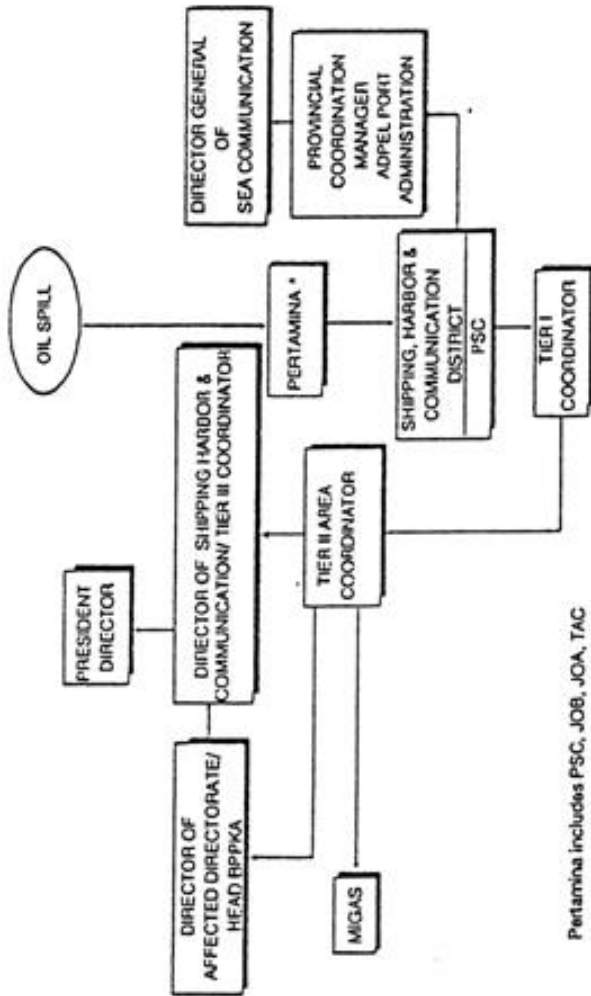
# P E R T A M I N A

## TIER 2 - ORGANIZATION



# P E R T A M I N A

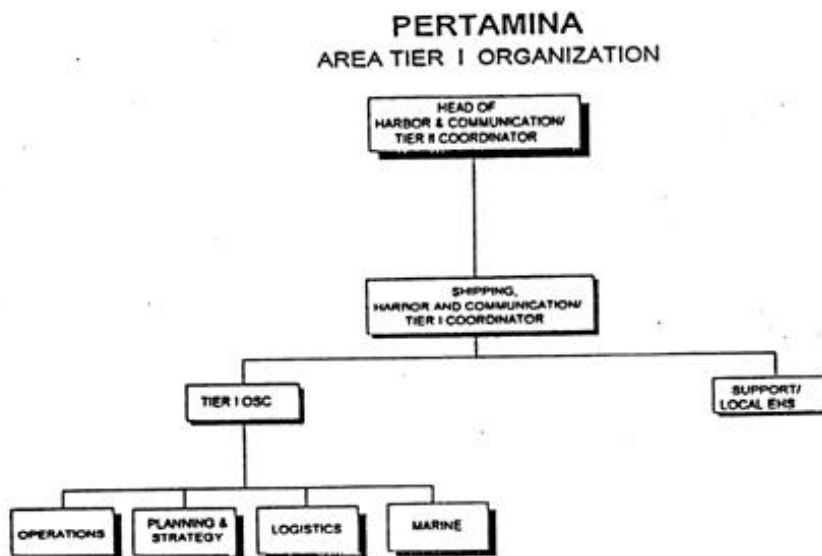
## TIER 1 OR TIER 2 NOTIFICATION (Priority 1)



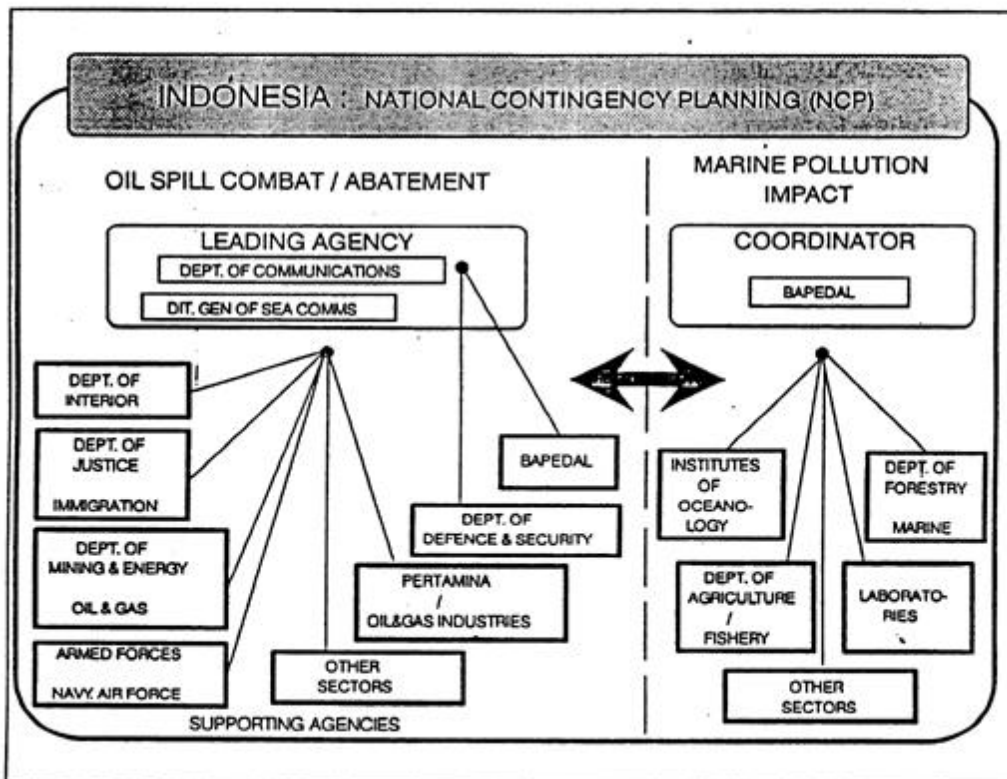
Note : PSC = Production Sharing Contractor ; JOB = Joint Operation Body;  
JOA = Joint Operation Agreement; TAC = Technical Assistance Contract

# P E R T A M I N A

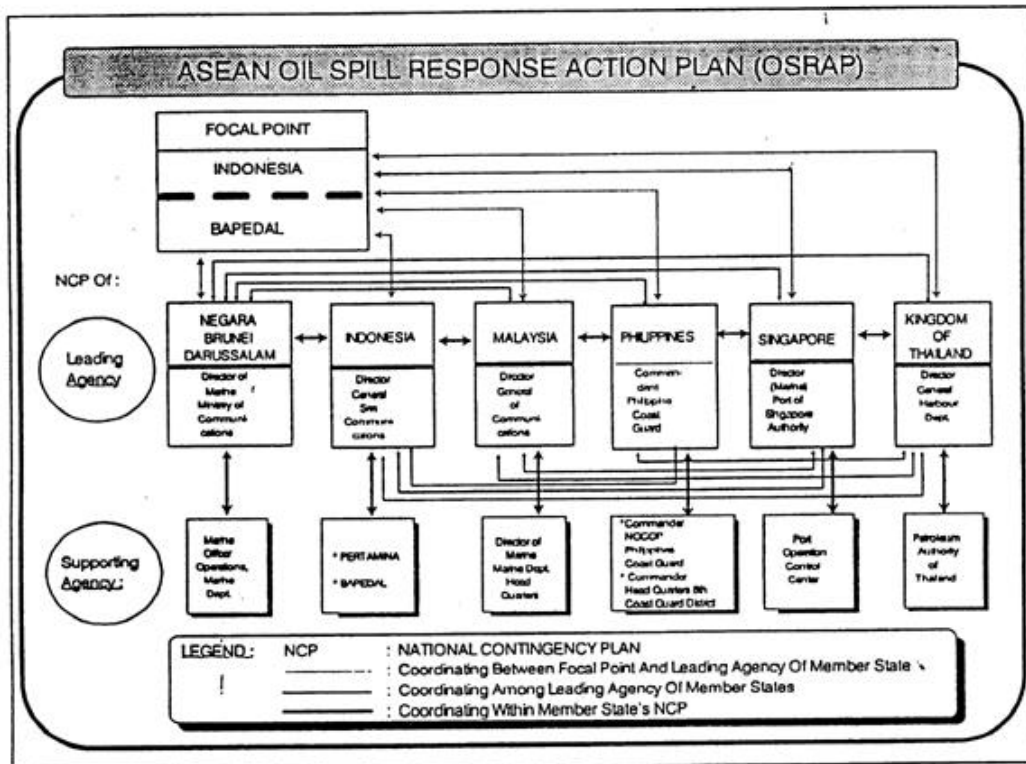
## TIER 1 - ORGANIZATION



# INDONESIAN NATIONAL CONTINGENCY PLANNING ON OIL SPILL (draft)



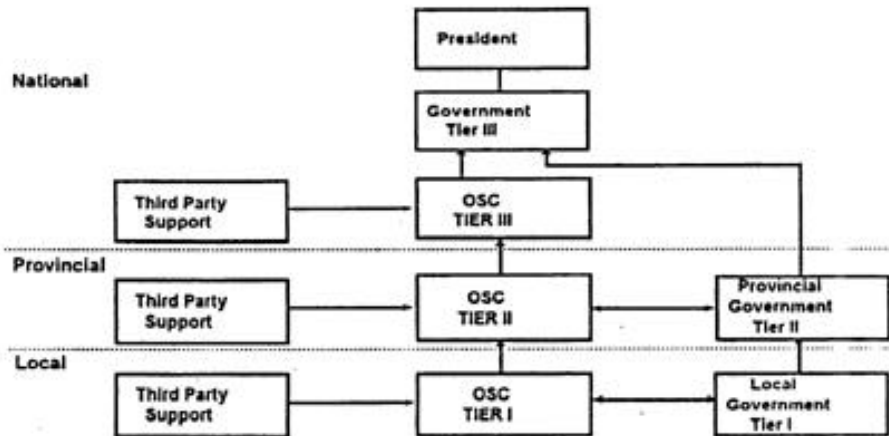
# ASEAN OSRAP (OIL SPILL RESPONSE ACTION PLAN)





**COORDINATION WITHIN NATIONAL FRAMEWORK**

**COORDINATION WITH THE GOVERNMENT AND OTHER PARTIES**



**RELATIONSHIP OF PLANS**

