



**Asia-Pacific  
Economic Cooperation**

**APEC Capacity-building Workshop  
on Search and Rescue at Sea**  
*(18-19 July 2013, Nha Trang, Viet Nam)*

**Summary Report**

**Emergency Preparedness Working Group  
July 2013**

APEC Project No. **S EP 20/2012A**

Prepared by: Viet Nam and co-sponsors

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# **APEC Capacity-building Workshop on Search and Rescue at Sea**

*(18-19 July 2013, Nha Trang, Viet Nam)*

## **Summary Report**

### **I. INTRODUCTION**

On 18 - 19 July 2013, ***the APEC Capacity - building Workshop on Search and Rescue at Sea***, co-sponsored by Australia, Japan and Viet Nam was held in Nha Trang, Viet Nam. This is the first Workshop to be held under the Emergency Preparedness Working Group.

Participants at the Workshop were representatives from APEC member economies, representatives of international agencies in Viet Nam, relevant Viet Nam central and provincial agencies.

The Workshop was opened by H.E. Mr. Hoang Van Thang, Vice Minister of Agriculture and Rural Development of Viet Nam and Mr. Masanori Hisaki, Commander, Search and Rescue division, Japan Coast Guard.

The objectives of the Workshop are to enhance APEC economies' search and rescue capabilities by sharing experiences, lessons learned, current practices and new technological approaches; share information on APEC economies' domestic sea search and rescue rules and regulations; procedures for entry by foreign resources for marine search and rescue purposes; and on cooperation mechanisms in disputed and undefined marine areas; build APEC disaster management cooperation by establishing communication channels between economies' marine search and rescue agencies and between these agencies and relevant international bodies on the following: sea emergencies, weather forecasts, early warning systems and new regional/global agreements impacting on marine search and rescue efforts; and provide recommendations on operational policies and mechanisms and communication systems to ensure rapid and effective responses to distress situations at sea.

### **II. BACKGROUND**

Nowadays, as sea transport is one of the key links in the global supply chain, and majority of the goods are transported across borders by sea (approximately 90% of the international trade), sea transport has been contributing substantially to the global and regional economic development. The APEC region includes many critical international shipping routes but suffers significant economic losses and deaths at sea from marine accidents and natural disasters. Merchant shipping lines currently play an important role in international search and rescue activities. Strengthening APEC economies' marine search and rescue capacities would reinforce the search and rescue activities of merchant fleets, help protect regional supply chains and curtail the number of deaths at

sea.

APEC has attached great importance to cooperation on emergency preparedness over the last several years. In 2010, APEC Leaders agreed to create a secure community where economies should strengthen their resilience and capacity to manage emergencies and natural disasters. In 2011, Ministers agreed that enhancing supply chains to reduce time, cost and uncertainty of moving goods and services throughout the region continues to be a priority given its importance to trade and economic growth. In 2012, in the recent 24<sup>th</sup> AMM Statement, Ministers continue to stress the importance of improving supply chain connectivity through expanding cooperation in the field of disaster prevention and management.

The *"APEC Capacity - building Workshop on Search and Rescue at Sea"* directly responds to the above-mentioned instructions by APEC Leaders and Minister. The Workshop will help enhance capacity among APEC developing economies for better search and rescue operations in the Pacific and smaller seas in the region; identify best practices in marine search and rescue operations; and exchange views on how to strengthen cooperation and coordination both among APEC members and with relevant international organizations. In addition, it will establish communication channel between APEC members and with relevant international agencies on joint assistance, technical issues, sea emergencies, weather forecasts, early warning systems and new regional/global agreements impacting on marine search and rescue efforts.

### **III. DISCUSSION**

#### **OUTCOMES**

The APEC capacity building workshop on search and rescue at sea included one and a half day for presentations and discussions on ways to bolster APEC economies' marine search and rescue capabilities by sharing experiences and lessons learned; by defining the procedures, skills and equipment necessary for successful operations; examining how best to coordinate economies' marine search and rescue efforts; and by setting up communication channels among APEC economies and with international rescue bodies. The workshop's sessions are overwhelmed with enthusiasm and active discussions of all speakers and participants who all had an opportunity to share what they could take away from the workshop as well as to suggest potential APEC activities to enhance cooperation in this field. The workshop also includes an exercise in Nha Phu Island, Cam Ranh Bay in Khanh Hoa Province. Overall, the workshop achieved its main objectives as described in the project proposal in presenting best practices and providing a forum for the exchange of views among policy-makers, regulators and academic representatives. Moreover, all participants considered this as a valuable chance for networking among experts in the field of search and rescue with and outside the APEC region.

#### **KEY ISSUES DISCUSSED**

The two-day workshop was divided into four sessions and included an exercise in Nha Phu Island, Cam Ranh Bay in Khanh Hoa Province.

#### ***Opening remarks***

In his opening remarks, Viet Nam's Vice Minister for the Ministry of Agriculture and Rural Development, Dr. Hoang Van Thang, highlighted the connection between economic

growth, increased sea traffic, and disasters induced by climate change. He stressed that sea transport is a major component in global supply chains with the majority of goods traded across borders by ship, but there is an inherent risk associated with this mode of transportation. Dr. Thang believes APEC economies can make sea lanes and ports safer by working together. Emergency preparedness is priority for APEC and has been an important annual point made by Leaders having been first highlighted in the Vancouver Leaders' Declaration in 1997. This workshop contributes to the call by APEC Leaders in 2012 highlighting the importance of fostering greater scientific and technical cooperation in disaster preparedness, and the need to develop common standards for emergency early warning systems in regional transportation. This workshop also contributes to promote connectivity, one of the priorities of APEC 2013. Dr. Thang expressed hope that this workshop would be a good chance for all participants to share information on mechanisms and regulations on domestic search and rescue to save lives, as well as new approaches and technologies in search and rescue and disaster response.

**Session I on Experience sharing on search and rescue (SAR)** was chaired by Ms Pannapa Na Nan, Plan Policy Analyst, Research and International Cooperation Bureau, Department of Disaster Prevention and Mitigation of Thailand.

APEC member economies including Japan, Thailand, the Philippines and Viet Nam briefed the Workshop on the disaster management system in each country, shared their experience in developing operation systems on search and rescue and in establishing measures against massive disasters.

Japan introduced the missions of the Japan Coast Guard, which include maintaining maritime order and guarding the territorial seas and EEZ; saving lives; protecting the marine environment and preparing for disaster; exploring the ocean and ensuring the maritime traffic safety; and international cooperation. The representative of Japan also briefed about the Great East Japan Earthquake and Tsunami, which hit the country in 2011 and the role of the Japan Coast Guard in disaster response. Many lessons have been learnt from this incident, in order to improve the emergency response system at sea. In addition, Japan emphasized the importance of sharing knowledge and experience against disaster like this.

Thailand presented the Workshop the country's disaster management system, with the Department of Disaster Prevention and Mitigation being the central government agency responsible for disaster prevention and mitigation that aligns with global standards for the benefits of the Thai people in a sustainable manner. The CBDRM is highlighted, with focus on training for the communities and people. There a few forms of training for the people, such as the establishment of "one tambon one search and rescue team", emergency response team, Mr. Disaster warning.

Viet Nam presented its search and rescue system, with the National Committee on Search and Rescue being the coordinating agency for search and rescue. Viet Nam shares the basic situations of disaster and the difficulties presented due to natural disasters such as floods, fires, and typhoons. Viet Nam stresses that the main difficulties for search and rescue at sea are the lack of coordination among agencies, lack of professional tools for search and rescue and information on the operation at sea of fisherman, fishing boats.

The Philippines presented the Workshop its SAR system, with two main agencies in charge of coordination on disaster mitigation and response: The Philippines Coast Guard and the National Disaster Risk Reduction Management Council (NDRRMC). The representative of the Philippines shares the difficulties and lessons learnt from the Typhoon Bopha in late 2012.

Members shared the common views on disaster prevention and mitigation, namely:

- Preventive measures are key to disaster management.
- A strategic and solid plan for SAR is crucial for the efficient and effective management and response to disasters.
- Clear policy guidelines from the government are necessary to carry forward the plans for the prevention and mitigation of disasters.

**Session II on SAR procedure - New technology and tools** was chaired by Mr. Alan Toh, Commander DART Unit, Singapore Civil Defense Force and the speakers are from the People's Republic of China, the Republic of Korea, Viet Nam and the World Vision Vietnam.

China presented its maritime SAR organization (MRCC) and the newly developed support tools for enhancing SAR activities in the country. The MRCC is the main agency for organizing and commanding serious operations and marine pollution responses, establishing national SAR and marine pollution response system, coordinating international maritime cooperation and information exchange. As of SAR facilities, China is equipped with 4 SAR helicopter bases, 18 rescue bases, 73 rescue vessels and 1000 patrol vessels. Two newly developed tools for SAR at sea include (1) the compass lifesaving position-indicating radio beacon and (2) the assistant Decision-making system (ADMS) for SAR at sea.

Viet Nam briefed the Workshop on the preparation of the ASEAN Regional Disaster Exercise (ARDEX), which will be held in October 2013 in Viet Nam. This exercise is organized every year by ASEAN countries, to improve cooperation and coordination capacity in disaster emergency response and relief among ASEAN countries, enhance the understanding, experience and technical knowledge sharing and at the same time, evaluate the Standard operating procedure for regional standby arrangement and Cooperation for Joint Disaster relief and Emergency Response Operations (SASOP).

Korea presented the country's SAR procedure. Korea has been active in mobilizing resources and assisting countries in several disaster events in the region and the world (Japanese earthquake in 2011, Haitian earthquake in 2010, Indonesian earthquake in 2009, floods in Myanmar in 2008, Tsunami in Thailand in 2004 and many others). The representative of Korea suggested a closer cooperation and possibly a mechanism to work with INSARAG, in which Korea, with its heavy SAR team, will be happy to join. He informed that Korea would chair INSARAG 2014 in Asia and the Pacific Region and extended invitation to all participants of the Workshop. The event will be a good occasion to share SAR information between APEC and INSARAG.

The World Vision in Viet Nam briefed the Workshop on ASEAN cooperation and the emergency response mechanism within ASEAN through (i) The ASEAN Agreement on Disaster management emergency response (AADMER), which is binding and operates under the framework of the ASEAN's Social - Cultural Community pillar. The key components of AADMER are preparedness and response, risk assessment, early warning & monitoring, prevention & mitigation and recovery; (ii) The ASEAN Humanitarian Assistance Center (AHA), with the main roles of risk identification & monitoring, ASEAN arrangement, cooperation and emergency response.

Members noted the following points:

- The utilization of newly developed equipment and tools are very useful and effective, which will facilitate the search and rescue activities.
- The coordination among economies in the region, such as in ASEAN region, is crucial in the prevention and management of disaster. Some countries in the region have signed agreements for search and rescue and also agreement with commercial vessels, which requires the signing parties to assist in the event of disaster.
- The lessons learnt from recent major disasters in the region are valuable for developing efficient and effective preventive measures.

***Session III and IV on International efforts on search and rescue at sea and APEC cooperation for the promotion of reliable supply chain and strengthening connectivity*** was chaired by Dr. Nguyen Huu Phuc, Co - Chair of EPWG.

Singapore briefed the Workshop of the disaster situation in the Asia Pacific. The numbers show that most of the disasters happen in the Asia Pacific region. It is emphasized that there are many stakeholders involved in the event of disaster; therefore countries must be prepared to receive the appropriate assistance in case of emergency. This process may require more coordination and cooperation to avoid duplication. Some important mechanisms for cooperation at international and regional level include: (i) International: UNOCHA, INSARAG, UNDAC, APHP, UNEP; (ii) regional: SAARC, AADMER, ERAT. The delegate from Korea share on the Insarag External classification (IEC) which is an exercise program to select qualified rescue teams for overseas rescue operations. There are 6 classified teams in Asia Pacific (2 in Australia, 1 in Japan, 1 in the Republic of China, 1 in the Republic of Korea and 1 in Singapore).

The representative of Viet Nam Red Cross of the province of Thua Thien - Hue (Viet Nam) presented the organization structure of the provincial Red Cross offices. He shares experiences in search and rescue at the provincial level. The Viet Nam Red Cross in Thua Thien - Hue is one of the agencies to take part in the emergency response missions at provincial level. Its main responsibilities include assessment of disaster situation in the province, information dissemination for the prevention of disaster, training of rescue personnel and the community, emergency assistance in the event of disasters. He shares that there are many difficulties in the deployment of search and rescue missions due to (i) coordination between provincial agencies and between provinces, (ii) lack of appropriate fund and more modern SAR equipment. The lessons learnt include the need to have yearly plans for disaster prevention, building action plans and more importantly to enhance the capacity building activities.

Members had a very productive discussion about the international and regional mechanism on SAR and explored the possibility of strengthening cooperation between APEC members on search and rescue at sea. Participants reviewed how APEC can add value in this field.

Members noted the following points:

- The importance of disaster prevention and mitigation at community level.
- Frequent and active participation of international agencies in activities of APEC is valuable in obtaining updated information, common understandings and avoiding duplication of efforts.

- APEC members need to enhance cooperation to develop and implement strengthened and harmonized measures and best practices for emergency preparedness and search & rescue.

## **CONCLUSION AND RECOMMENDATIONS**

Member economies shared the views that APEC is the most-affected region by such natural disaster as flood, earthquake, tsunami, etc. It is important for each and every APEC economy to enhance emergency preparedness capacity, in particular search and rescue capacity aiming to reduce uncertainty of moving goods and services throughout the region, thus help to contribute to the sustainable economic development of the region and facilitate secure trade in the wake of natural disasters.

Taking into consideration the Leaders instructions as well as to promote efficient and secure movement of persons and goods, foster a resilient supply chain system and further enhance APEC's work on emergency preparedness, participants agreed on the following recommendations:

- Cooperation and coordination among economies should be strengthened and on a regular basis. The creation of a common platform and database on SAR profile can be considered to enhance cooperation and SAR operation in the region.
- It is important to assign focal points in APEC member economies to facilitate the flow of fast information so that search and rescue operations can be executed more efficiently.
- To follow up with similar workshops and other activities on search and rescue at sea.
- Capacity and network building is essential for effective and efficient management and response to disasters.

Members endorsed the 'Summary Report' of the APEC Capacity building workshop on search and rescue at sea.

The workshop was closed by Dr. Nguyen Huu Phuc, Co - Chair of EPWG. Member economies expressed appreciation to the host economy for a fruitful and well organized workshop.



## **Annex**

**Presentations from APEC Capacity-building Workshop on Search and Rescue at Sea, APEC#213-EM-04.1**



**Asia-Pacific  
Economic Cooperation**

**APEC CAPACITY BUILDING WORKSHOP ON  
SEARCH AND RESCUE AT SEA**

*(Nha Trang, Viet Nam, 18-19, July, 2013)*

**PROGRAM**

**Wednesday, 17 July, 2013**

Arrival of delegates

**Thursday, 18, July, 2013**

- 08.30 – 09.00**      **Registration**
- 09.00 – 09.30**      **OPENING SESSION**
- 09.00 – 09.10      **Opening remarks**  
**Dr. Nguyen Huu Phuc**  
APEC EPWG Co-chair
- 09.10 - 09.30      **Opening remarks**
- **Dr. Hoang Van Thang**  
Vice Minister of Ministry of Agriculture and Rural Development of Viet Nam  
Director of the Water Resources Directorate
  - **Mr. Masanori Hisaki**  
Commander  
Search and Rescue division, Guard and Rescue Department,  
Japan Coast Guard  
Co-sponsor of the workshop
- 09.30 – 09.45      Group photo
- 09.45 – 11.50**      **Session I: Experience sharing on search and rescue (SAR)**  
*Moderator:* **Ms. Pannapa Na Nan**  
Plan and Policy Analyst  
Research and International Cooperation Bureau  
Department of Disaster Prevention and Mitigation of Thailand
- 09.45 – 10.25      ▪ **Counter measures against massive natural disasters**  
**Mr. Masanori Hisaki**  
Commander of the Search and Rescue Division,  
Guard and Research Department,  
Japan Coast Guard

- **Thailand's disaster management and SAR activities**  
**Ms. Pannapa Na Nan**  
Plan and Policy Analyst  
Research and International Cooperation Bureau  
Department of Disaster Prevention and Mitigation of Thailand
- 10.25 - 10.45 Coffee break
- 10.45 - 11.25
  - **Major challenges in SAR activities in Viet Nam**  
**Mr. Nguyen Thanh Phuong**  
Disaster Management Center  
Ministry of Agriculture and Rural Development of Viet Nam
  - **Experiences from The Philippines on organizing SAR activities in major disasters**  
**Captain Angel F Lobaton IV**  
Commanding Officer,  
BRP Corregidor,  
Philippines Coast Guard
- 11.25 – 11.50 Discussion
- 11:50 – 13:30 Lunch break**
- 13:30 – 15:30 Session II: SAR Procedure – New technology and tools**  
Moderator: **Mr. Alan Toh**  
Commander DART unit  
Singapore Civil Defence Force
- 13:30 – 14.30
  - **Support tools for enhancing SAR activities**  
**Mr. Zhang Chongyang**  
Vice Director  
Ministry of Transport of the People's Republic of China
  - **ASEAN 2013 Disaster management scenario**  
**Mr. Pham Doan Khanh**  
Disaster Management Center  
Ministry of Agriculture and Rural Development of Viet Nam
- 14.30 – 14.50 Coffee break
- 14.50 – 15.30
  - **Korea SAR service**  
**Mr. Bang, Jang Won**  
Head of Rescue Division  
National 119 Rescue Service,  
National Emergency Management Agency  
Republic of Korea
  - **ASEAN cooperation on SAR**  
**Mr. Le Van Duong**  
World Vision
- 15.30 – 16.15 Discussion

**18.30 – 20.30 Welcoming dinner**

**Friday, 19 July, 2013**

**09.00 – 10.30 Session III: International efforts on search and rescue at sea**

**Moderator: Dr. Nguyen Huu Phuc**

APEC EPWG Co-chair

09.00 – 10.00

- **SAR cooperation in the Asia – Pacific region**

**Mr. Alan Toh**

Commander DART unit  
Singapore Civil Defence Force

- **Experience from Red Cross Viet Nam on SAR**

**Mr. Tran Nguyen Nguyen Thanh**

Deputy Director  
Thua Thien Hue Red Cross

10.00 – 10.45

Discussion

10.45 – 11.00

Coffee break

**11.00 – 11.45**

**Session IV: APEC Cooperation on Marine Search and Rescue – Promoting reliable supply chain and strengthening connectivity.**

**Moderator: Dr. Nguyen Huu Phuc, co-chair EPWG**

- **Members to make recommendations on APEC cooperation and coordination between APEC and relevant international organization**
- **Adoption of the summary report**

**11.45 – 12.00**

**Closing Remarks**

**Dr. Hoang Van Thang**

Vice Minister of Ministry of Agriculture and Rural Development of Viet Nam  
Director of the Water Resources Directorate

**12.00 – 13.30**

**Lunch break**

**13.30 – 16.30**


**Field trip**

**Saturday, 20 July, 2013**

Departure of delegates

# Countermeasures against massive natural disasters

- From experience of the response to the Great East Japan Earthquake -



**JAPAN COAST GUARD**

Date: July 18 2013

Masanori Hisaki (GDR.)  
Search and Rescue Division  
Guard And Rescue Department

1

## Contents

- I . Japan Coast Guard Profile
- II . Outline of the Disaster
- III . Lessons learned from The Great East Japan Earthquake

2

### I . Japan Coast Guard Profile

#### 5 Missions of Japan Coast Guard

- 1 Maintaining maritime order & Guarding the Territorial Seas and Internal Waters
- 2 Saving Lives
- 3 Protecting the marine environment & Preparing for disaster
- 4 Exploring the Ocean & Ensuring maritime traffic safety
- 5 International Cooperation

3

### I . Japan Coast Guard Profile

#### Location Map

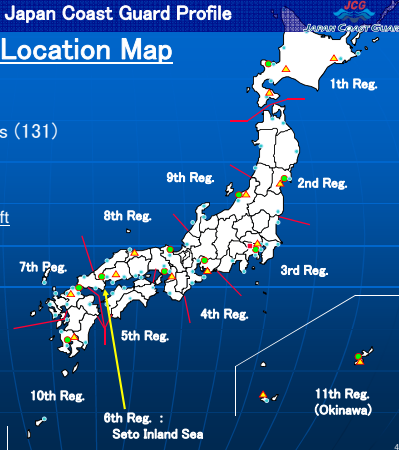
- Headquarters
- Regional HQs (11)
- Coast Guard Offices (131)
- ▲ Air Stations (14)

Patrol vessels and aircraft  
Vessels: 446  
Aircraft: 73

Personnel 12,689

Budget 176.5 billion JPY  
(≈ 1.382 billion USD)

As of FY 2013



4

### I . Japan Coast Guard Profile

#### Patrol Vessels

<p>Two helicopter carrying type</p>  <p>6,500GT L150m</p>	<p>One helicopter carrying type</p>  <p>3,200GT L105m</p>
<p>Large type</p>  <p>1,000GT L80m</p>	<p>Small (high speed) type</p>  <p>220GT L50m</p>

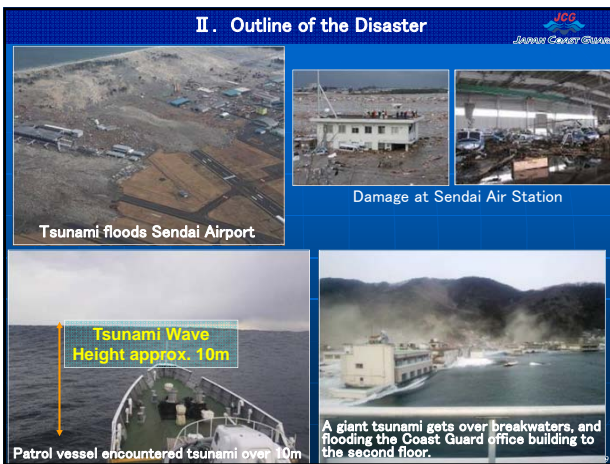
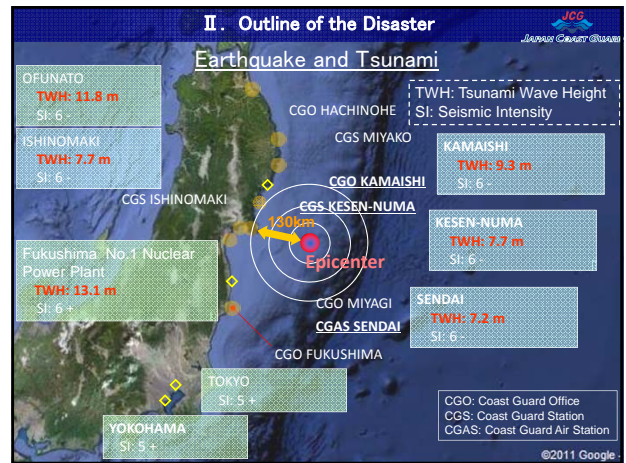
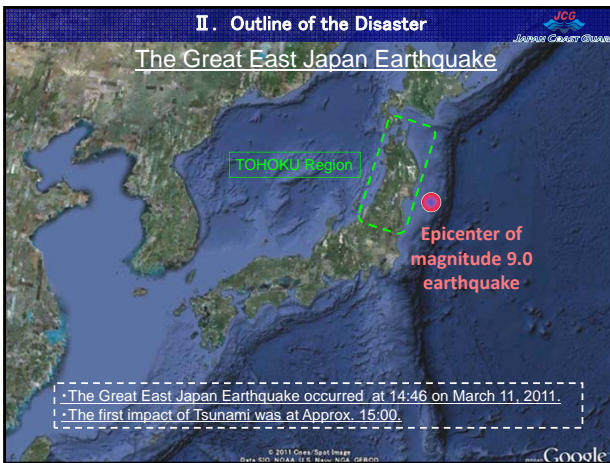
5

### I . Japan Coast Guard Profile

#### Aircrafts

<p>Gulfstream V</p> 	<p>Bombardier 300</p> 
<p>Super puma 332</p> 	<p>Agusta 139</p> 

6



II. Outline of the Disaster

Damage summary

■ Death:	15,883
■ Missing:	2,671
■ Rescued persons:	27,157
■ Total amount of damage:	Approx. 20trillion JPY ( ≒ 2,000 billion USD )

\* As of Jun. 10th, 2013

III. Lessons learned from The Great East Japan Earthquake

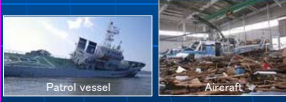
<ul style="list-style-type: none"> <li>Problems and Difficulties</li> <li>Countermeasures</li> <li>Improvement measures after the disaster</li> </ul>
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- Problems and Difficulties, Countermeasure taken by JCG
1. Initial response and establishment of response system
  2. Search and Rescue
  3. Response to the waterfront industrial complex fire
  4. Support for earthquake and tsunami victims
  5. Response to the nuclear disaster
  6. Securing safety of the marine traffic
  7. Ensuring emergency transportation routes and
  8. Hydrographic survey for disaster-affected ports and correction / revision of navigational charts

### 1. Initial response and establishment of response system

#### Problems and Difficulties

- The biggest earthquake ever recorded in Japan and massive tsunami waves that repeatedly hit a broad area caused great damage
- JCG's onshore facilities, vessels and aircraft suffered serious damage




#### Countermeasures

- Dispatched Patrol vessels/crafts, aircraft, etc. immediately as planned from all over the country, organized fleets at respective local disaster response headquarters
- Response system, including logistics such as supply and communication, was developed and enforced
- "Emergent JCG staff mobilization system\*" and "Automated JCG assets mobilization system\*\*" are effective at a major earthquake

\* Emergent JCG staff mobilization system:  
In case of emergency such as a major earthquake, JCG staff who are responsible for emergency response are determined to come to the office.

\*\* Automated JCG assets mobilization system:  
In accordance with the plans made in advance, JCG assets such as aircrafts and patrol vessels are mobilized to the incident site when a major earthquake occurs.

### 2. Search and Rescue

#### Problems and Difficulties

- A great number of requests for rescue were made from a broad range of the quake-struck areas due to the earthquake and tsunami waves which repeatedly hit the coastal area



#### Countermeasures

- Rescued by patrol vessels / crafts and helicopters
  - Response action within the first 72 hours after the incident is extremely important
  - Conducted rescue operations from the air effectively (App. 80% of the people whom JCG rescued was done by helicopter lift)
- Detection of survivors
- Search for the missing is still being carried out by vessels / crafts, aircraft, divers, etc.



### 3. Response to the waterfront industrial complex fire

#### Problems and Difficulties

- Aftershocks caused a fire from LPG tanks in a waterfront industrial complex
- Fire-fighting from land by FDMA was difficult due to cut off roads



The LPG tank of the Cosmo Oil Chiba refinery of Ichihara-shi exploded just after earthquake disaster and was burnt down

#### Countermeasures

- Fire-fighting from the sea was conducted using fireboats which had a self-protect-spraying (water shield) function all night long




※ It spent 10 days until extinguishment

### 4. Support for the earthquake and tsunami victims


#### Problems and Difficulties

- Lifelines (electricity, water, gas) and major traffic routes (roads, railways) suffered devastating damage
- Transporting supplies to the disaster-affected area became an important and urgent issue



#### Countermeasures

- Carried out transport of emergency relief supplies, transport of disaster victims, patrol activities in isolated communities, bathing services, etc.



Conveyance of support supplies


Feeding water      Bathing service

### 5. Response to the nuclear disaster

#### Problems and Difficulties

- Unprecedented nuclear hazard occurred due to radiator power loss caused by the tsunami (INES level 7)

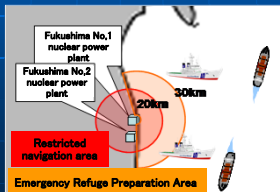
\*INES: International Nuclear Event Scale



Fukushima No.1 nuclear power plant

#### Countermeasures

- Navigational warnings were issued following the evacuation orders and the designation of evacuation zones by the gov. of Japan
- Patrol vessels were placed on alert and conducted warning and surveillance




Fukushima No.1 nuclear power plant  
Fukushima No.2 nuclear power plant  
20km  
30km  
Restricted navigation area  
Emergency Refuge Preparation Area

### 6. Securing safety of the Marine traffic


#### Problems and Difficulties

- A large quantity of rubble and ships swept away into the sea, and collapsed/inclined lighthouses threatened the safety of the marine traffic



#### Countermeasures

- Provided the necessary information for securing marine traffic safety through Navigational Warnings and Notices for Mariners
- Towed drifting ships and returned to the owners
- Removed floating objects
- Carried out restoration work on damaged aids to navigation



Damaged      Emergency      Temporary      Full restoration

Recovery step-by-step

## 7. Ensuring emergency transportation routes

### Problems and Difficulties

- Providing logistical support by ships faced extreme difficulties in entering ports because of drifting or sinking wreckage in the port



### Countermeasures

- Salvaged containers, etc. sunk in the port in cooperation with appropriate authorities
- Conducted a survey by the JCG's hydrographic vessels

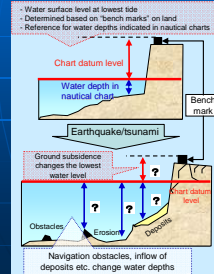


19

## 8. Hydrographic survey for the disaster-affected ports and correction / revision of navigational charts

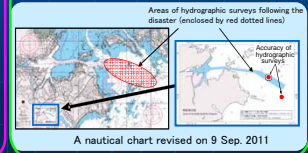
### Problems and Difficulties

- Variance with data such as shipping lanes indicated on the chart and water depth of quays was created with land subsidence caused by the earthquake and tsunami



### Countermeasures

- Carried out the determination of water depth to be listed in navigational charts and hydrographic datum which was to be the criteria for restoration construction of the damaged ports
- Conducted a hydrographic survey to correct the navigational charts and correction and revision of these



20

## Improvement measures after the disaster

### Issue 1 Establishment of a response system

1. Disaster prevention from tsunami and securing of a response system
  - Secure safety of personnel upon emergency summons
    - Select the routes of emergency summons using "Hazard map against earthquake/tsunami"
  - Early judgment on emergency mobilization
    - Making the check-list for judgment on emergency mobilization of Patrol vessels/crafts
  - Coordinate with agencies concerned over emergency takeoff of aircraft
2. Strengthen function of Disaster Response Headquarters
  - Review on organization of Disaster Response Headquarters (Establish an initial response system with a limited number of personnel etc.)
  - Prepare satellite communication equipment
3. Strengthen a backup system on the occurrence of a disaster
  - Review and strengthen mobilization (the "Mobilization plan of vessels and aircraft", "Personnel dispatch system") to suffered regional headquarters
  - Review a logistic support system (Supply system of emergency supplies, fuel, etc.)

21

## Improvement measures after the disaster

### 3. Strengthen a backup system on the occurrence of a disaster (cont.)

- Strengthen the ability of the patrol vessel and move the headquarters function to a patrol vessel when headquarters building was damaged

### Issue 2 Search and Rescue

- Clarify an operational policy for emergency mobilization, including prioritization of operations
- Effectively use the mobility of helicopters, helicopter-mounted patrol vessels, rescue divers, etc.
  - Response action within the first 72 hours after the incident is extremely important

### Issue 3 Provide information about damage and support for victims

- e.g. Conclude an agreement with local FM stations and provide information necessary for victims and evacuees in real time

### Issue 4 Publicize safety information related to the marine traffic quickly

- Visualize Notices to Mariners and Navigational Warnings to be user-friendly such information on decrease of water depth and floating objects, etc.

22

## Improvement measures after the disaster

### Issue 5 Response to navigation obstacles (floating objects at sea)

- Coordinate with agencies concerned over storage and disposal of recovered navigation obstacles and securing temporary berth for recovered drifting vessels

### Issue 6 Deploy disaster-resistant aids to navigation

- Make aids to navigation to be earthquake-resistant and independently-powered (solar powered), etc. to prepare for earthquake/tsunami

### Issue 7 Ensure emergency transportation routes

- Strengthen cooperation with related agencies such as Ports and Harbors Bureau, Port managers, etc.

### Issue 8 Prepare for earthquake/tsunami on Coast Guard Facilities

- Prepare Coast Guard Facilities etc. for earthquakes and tsunami (Make the Facilities earthquake-resistant and set the emergency power generator in high places)

23



Thank you for your attention!

24



# Thailand's Disaster Management and SAR activities

Department of Disaster Prevention and Mitigation,  
Ministry of Interior

## Content

- Thailand's Disaster Management
- DDPM and Emergency Response Teams: ERTs
- SAR activities during ASEAN Regional Forum Disaster Relief Exercise: ARF DiREx2013

## Welcome to Thailand!

Background Information:

Population: 69,518,155 (2011, World Bank)

GDP: 345.6 billion USD (2011, World Bank)

Capital: Bangkok (9 millions population)

Administrative Divisions: 76 Provinces



## Disaster Management System

- ▶ Disaster management system of Thailand is geared by the Disaster Prevention and Mitigation Act 2007 (B.E. 2550)
- ▶ It mandates **DDPM as the central government agency to operate any related activities on national disaster prevention and mitigation**
- ▶ It also identifies several mechanisms to ensure the implementation of disaster management system
  - Disaster Management Committee (National, Provincial and District level)
  - Disaster Prevention and Mitigation Plan



## Crisis Management

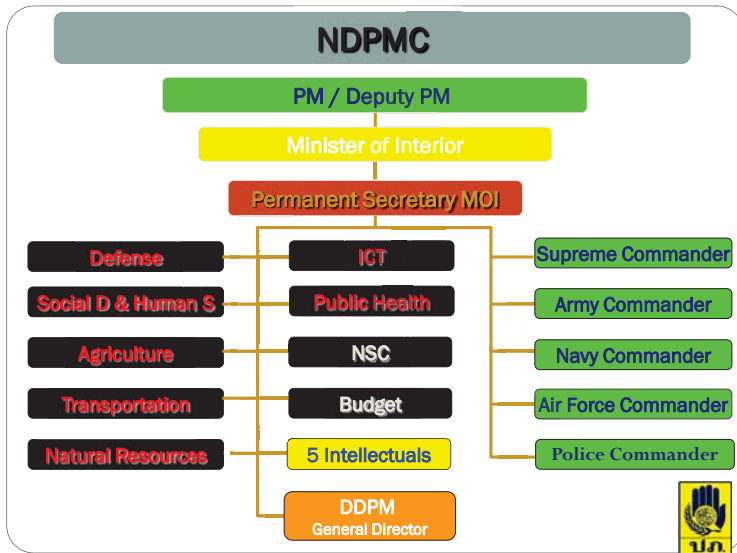
- National Disaster Prevention and Mitigation Plan (2010-2014)
- National Disaster Prevention and Mitigation Committee (NDPMC)
- Disaster Preparedness



## Level of Emergencies

Administration	DPM Act B.E. 2550 (Policy Making Body)	DPM 5-year Plan (Incident Commanding)
National	National Disaster Prevention and Mitigation Committee	<u>Level 4</u> (Extremely large scale disaster): PM/appointed Deputy PM  <u>Level 3</u> (Large scale disaster): DDPM DG/Minister of Interior
Regional	Provincial Disaster Prevention and Mitigation Committee	<u>Level 2</u> (Moderate): Governor
Local	Local Disaster Prevention and Mitigation Committee	<u>Level 1</u> (Small scale): Mayor/ Chief Executive/ Chief districts





กรมป้องกันและบรรเทาสาธารณภัย  
กระทรวงมหาดไทย

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## ROLE AND RESPONSIBILITY OF DDPM



กรมป้องกันและบรรเทาสาธารณภัย  
กระทรวงมหาดไทย

**การก่อตั้ง**

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**BASIC LEGAL FRAMEWORKS**

- ❖ GOVERNMENT ADMINISTRATION ACT 2002
- ❖ GOVERNMENT ORGANIZATION RE-STRUCTURING ACT 2002
- ❖ DDPM ORGANIZATION STRUCTURE REGULATION 2002

กรมป้องกันและบรรเทาสาธารณภัย  
กระทรวงมหาดไทย

**AUTHORITY**

---

DDPM SHALL BE THE CENTRAL AGENCY RESPONSIBLE FOR DISASTER PREVENTION AND MITIGATION OF THAILAND. DDPM SHALL HAVE THE FOLLOWING AUTHORITY:

1. FORMULATE POLICY, GUIDLINE AND MEASURES IN RELATION TO DISASTER PREVENTION AND MITIGATION
2. STUDY, ANALYSE, RESEARCH AND DEVELOP THE SYSTEMS OF DISASTER PREVENTION, DISASTER WARNING AND DISASTER MITIGATION
3. DEVELOP THE INFORMATION TECHNOLOGY RELATED TO DISASTER PREVENTION AND MITIGATION
4. PROMOT THE PARTICIPATION OF THE PEOPLE IN DISASTER MANAGEMENT ACTIVITIES
5. BUILE DISASTER PREVENTION AND MITIGATION AWARENESS



กรมป้องกันและบรรเทาสาธารณภัย

อำนาจหน้าที่

กระทรวงมหาดไทย

6. TRAIN AND IMPROVE SKILL IN DISASTER MANAGEMENT AND DISASTER VICTIMS ASSISTANCE IN LINE WITH THE LAWS AND REGULATION
7. PROMOTE, SUPPORT AND TAKE ACTION IN ASSISTING DISASTER VICTIMS AS WELL AS DISASTER RECOVERY ACTIVITIES
8. DIRECT AND COORDINATE THE OPERATION TO ASSIST THE DISASTER VICTIMS IN LARGE SCALE DISASTER
9. COODINATE IN DISASTER MANAGEMENT ACTIVITES WITH AGENCIES BOTH DOMESTIC AND INTERNATIONAL
10. OTHER RELATED AUTHORITY



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

VISION

DDPM IS THE CENTAL NATIONAL AGENCY  
REPNSEIBLE FOR DISASTER PREVENTION  
AND MITIGATION THAT ALIGNS WITH  
GLOBAL STANDARD FOR THE BENEFITS AND  
SAFETY OF THE THAI PEOPLE IN A  
SUSTAINABLE MANNER



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

MISSION

1. BUILD AND DEVELOP DISASTER MANAGEMENT SYSTEM OF THAILAND
2. DISSEMINATE AND EDUCATE KNOWLEDGE AND INFORMATION ON DM TO THE PUBLIC
3. EFFECTIVE DISASTER MANAGEMENT
4. ASSIST AND SUPPORT DISASTER AFFECTED PEOPLE
5. DISASTER REHABILITATION AND RECOVERY

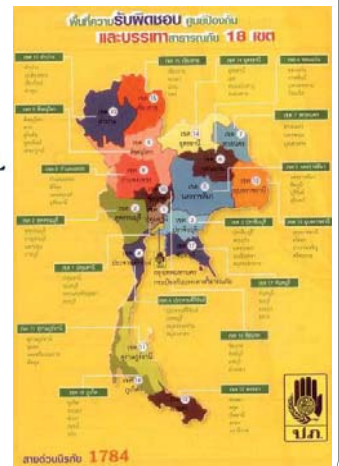


กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

ORG STRUCTURE

- HQ
- 12 REGIONAL CENTERS
- 76 DDPM PROVINCIAL OFFICES



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

Disaster Management Activities



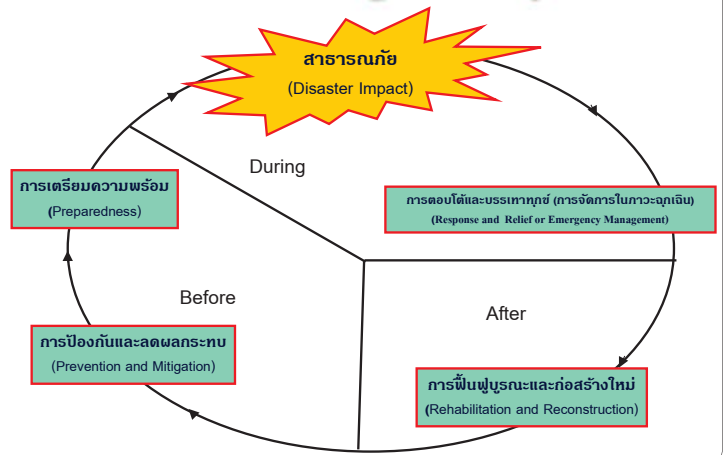
กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

### DM ACTIVITIES BY DDPM



## Disaster management cycle



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## Before

To prevent and mitigate the adverse impact of disaster using both structural and non-structural measures



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## STRUCTURAL MEASURES

The structural measure is used to increase efficiency, for example, in water drainage and storage

- water and canal cleaning and debris clearing
- dike and levies



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## STRUCTURAL MEASURE

➤ DDPM spent over 190M THB in 116 project in 2012



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## NON-STRUCTURAL MEASURE

(1) formulation of the National Plan for Disaster Prevention and Mitigation





กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## NON-STRUCTURAL MEASURE

### (2) Master Plans for all types of disasters



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กระทรวงมหาดไทย

### (3) disaster related simulation exercises

- National level (C-MEX)
- regional level
- provincial level
- district level



## Conducting plan exercises at all levels



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

## (4) COMMUNITY READINESS

### 1) conduct CBDRM Training for 6,314 communities

As of 20 March 2012



## Application of CBDRM in risk areas

400 communities at risk will be trained on CBDRM for flashflood and landslide each year. So far, 6,215 communities completed CBDRM course (as of 30 December 2011)





กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย (4) COMMUNITY READINESS

2) ONE TAMBON ONE SEARCH AND RESCUE TEAM : OTOS

Completed: 6,996 tambons

Data as of 20 Mar 2012



31

Development of OTOS (One Tambon One SAR Team)

Every Tambon or sub-district (7,255 tambons) should have their own SAR team. Now, we have OTOS established and well-equipped in 6,987 tambons .



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย (5) HR DEVELOPMENT

1) The Disaster Prevention and Mitigation Academy (DPMA)

- Offer over 43 courses for DDPM staffs, local government officials and general public
- Has 6 campuses in Chiang Mai, Prachinburi, Phuket, Pitsanulok and 2 others



32



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย (5) HR DEVELOPMENT

2) Emergency Response Team : ERT

Total number: 458 persons

As of 20 Mar 2012



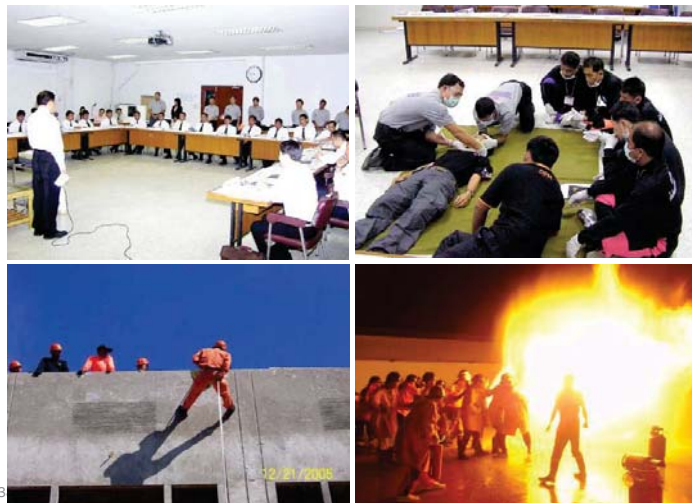
Emergency Response Team: ERT

- Initiated by the cabinet to build an emergency response capability within government unit
- First ERT was set up in 1997 with 190 trained emergency response officers
- Each officers is trained at DPM Academy: 45 days Basic ERT Training Course
  - Fire rescue, USAR, basic paramedic, traking, water rescue, rope rescue, car accident rescue, confined space rescue, etc.
  - HAZMAT and Forest Fire Rescue



33

## Development of Emergency Response Team (ERT) to be the high competent search and rescue resource



กรมป้องกันและบรรเทาสาธารณภัย  
กระทรวงมหาดไทย

(5) HR DEVELOPMENT

### 3) Civil Defense Volunteers

- ❖ 22 March is Civil Defense Volunteer Day
- ❖ Total number of trained CDVs 1,200,706 persons



Data as of 20 Mar 2012



## Capacity Development of Civil Defence Volunteer

At least 2% of population should be the member of CDV group. Now, we have 1,195,052 volunteers, accounted for 1.89 % of the population.



กรมป้องกันและบรรเทาสาธารณภัย  
กระทรวงมหาดไทย

(5) HR DEVELOPMENT

### 4) Mr./Ms. Disaster Warning

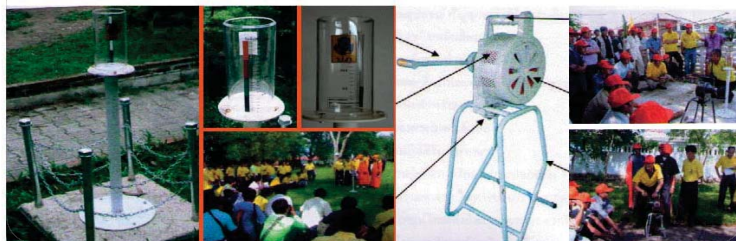
- Total: 20,296 person

Data as of 20 Mar 2012



## Development of Mr./Ms. Disaster Warning

Mr./Ms. Disaster Warning is trained to make sure that warning reaches the last mile. Nationwide, there are 20,296 mr./ms. Disaster warning at the village level.

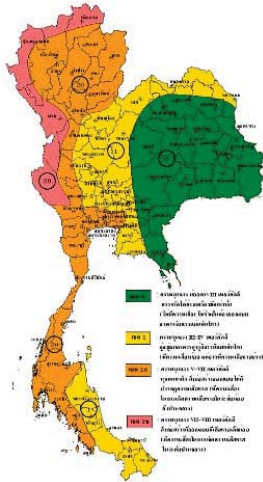




กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

### (6) WARNING SYSTEM



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

### 3.3 During

- Monitoring and Warning
- Activation of Command Center
- Coordination during emergency
- Backup Communication Line
- 1784 Hotline



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย



กรมป้องกันและบรรเทาสาธารณภัย

กระทรวงมหาดไทย

### 3.4 AFTER DISASTER

- Post disaster assessment
- Rehabilitation and recovery
- Disaster Relief







## ARF DiREx

**Voluntary Demonstration of Response** (ARF-VDR 2009) Luzon, Philippines. 4 - 7 May 2009 (Philippines & U.S.A) 

**Disaster Relief Exercise** (ARF DiREx 2011) Manado, Indonesia. 15 – 19 March 2011 (Indonesia & Japan) 

**Disaster Relief Exercise** (ARF DiREx 2013) Petchaburi, Thailand. 7 – 17 May 2013 (Thailand & RoK) 

### Themes

**"Well Coordinated  
Swift Response  
Save Life"**

### Objectives

- Advance and build capacity in the Civil-Military coordination in response to disaster.
- Advance the multinational disaster response progress.
- Address disaster relief issues at strategic, operation and tactical levels.

### Objectives

- Test existing SOPs / protocol / tools of ASEAN, regional, international and the host nation.
- Advance ARF participants ability to coordinate disaster relief.
- Advance host nation to response to humanitarian assistance requirements.

### ARF DiREx Calendar

May 2013							
Date	6	7	8	9	10	11	12
TTX	CIQ Arrival	Academic	TTX	Field Obs	Closing AAR	Depart	
FTX		FTX Brief	FTX Activities				

# ARF DiREx 2013: SAR Activities




# ARF DiREx 2013


- Scenario: Collapse Building, HAZMAT, Sea Rescue, Medical and Evacuation camp, and EOC
- DDPM Emergency Response Team joined the exercise (team of 12)



THANK YOU



  
 Asia-Pacific Economic Cooperation  
**APEC CAPACITY BUILDING WORKSHOP**  
**ON SEARCH AND RESCUE AT SEA**  
*(Nha Trang, Viet Nam, 18-19 July 2013)*



**MAJOR CHALLENGES IN SAR ACTIVITIES IN VIET NAM**

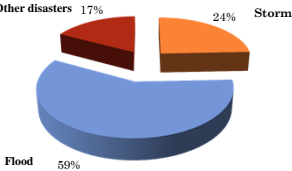
Presenter: *Nguyen Thanh Phuong*  
**Disaster Management Center of Viet Nam**  
 Tel: 844-3733 5686 Fax: 844-3733 6647  
 Email: [dmc@cfsc.gov.vn](mailto:dmc@cfsc.gov.vn)  
 Web: [www.cfsc.gov.vn](http://www.cfsc.gov.vn) / [www.dmc.gov.vn](http://www.dmc.gov.vn)

**Major natural disasters in Viet Nam**

Flood, storm, drought, landslide, forest fire ...




**Human loss caused by natural disaster (2001 - 2010)**

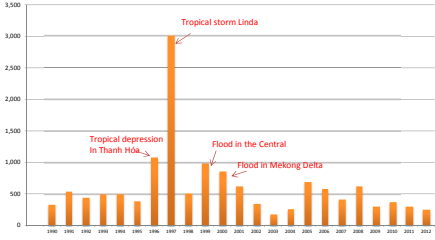


Other disasters 17%      Storm 24%  
 Flood 59%


Storm and flood are two kind of disasters that are most damaging in Viet Nam



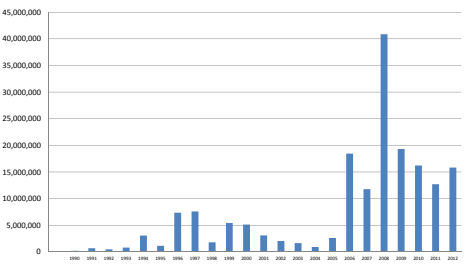
**Human loss**




Human loss tends to reduce



**Property loss**



Property loss tends to increase



**Organization structure**

National committee for SAR (VINASARCOM)

Chairman: Deputy Prime Minister,  
 Ministry of Defence, Prime Minister's Office,  
 Ministry of Agriculture and Rural Development,  
 Ministry of Natural Resources and Environment,  
 Ministry of Public Security, Ministry of Transportation, Ministry of Industry and Trade,  
 Ministry of Health, Ministry of Planning and Investment, Ministry of Finance,  
 The standing office is located in Ministry of Defence

SAR Steering committees of Ministries

Work under Vinasarcom, on a concurrent basis

SAR Steering committees of provinces; cities; districts and towns....

Work under Vinasarcom, on a concurrent basis

### BASIC SITUATIONS

1. Storms, depressions cause floods and tsunami
2. Forest fires.
3. Fires in buildings, urban areas, industrial zone, residence ...
4. Earthquakes and other accidents that may cause building collapses, tunnel collapses...
5. Oil spills



### BASIC SITUATIONS

6. Poison leaks and dispersions
7. Plane accidents in the territory of Viet Nam
8. Boat and ship accidents
9. Dike, pond and dam breaks
10. Rig fires and explosions
11. Serious road, railway and waterway accidents



### RESULTS

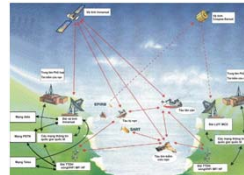
#### LEGAL BASIS AND POLICIES

- ❖ Master Planning Scheme on search and rescue until 2015, and 2020 vision (46/2006/QĐ-TTg dated 28/2/2006)
- ❖ Detail catalogue on tools for SAR activities and the list of projects to invest in production and to purchase equipment for SAR activities until 2020 (1656/QĐ-TTg dated 06/12/2007)
- ❖ Regulations for oil spill responses (103/QĐ-TTg dated 12/5/2005)
- ❖ Developing plan on preparing resources for nuclear plan incidents to submit to the Prime Minister

### RESULTS

#### MANAGEMENT AND INSTRUCTIONS

- ❖ Instructing standing SAR office of Ministries and local authorities to maintain online 24/24
- ❖ Reviewing and adjusting plans for emergency responses.
- ❖ Cooperate with Central steering committee for flood and storm to instruct ministries and relevant agencies to timely response to such disasters as flood, fire, storm....



SAR Information system model

### RESULTS

#### COOPERATIONS

- ❖ Cooperate closely with the Consulate Department, MOFA to timely respond to SAR activities involving foreign elements
- ❖ Establishing cooperation with other countries, propose neighbour countries to give shelters to boats and fishermen in time of storm and depression.
- ❖ Cooperate closely with ASEAN countries, the U.S., China, Russia and Japan... to share experience and lesson learnt on disaster management and SAR activities
- ❖ Enhance awareness of people on disaster management and SAR activities

### COORDINATION AND COOPERATION

- ❖ VINASARCOM
- ❖ Central Steering Committee for Flood and Storm
- ❖ Local steering committees for Flood and Storm and SAR
- ❖ Relevant ministries and agencies: Ministry of Foreign Affairs, Ministry of Health, Ministry of Transportation, Ministry of Defence...
- ❖ Forces directly involve in the rescue: National Army, Public Security, Volunteer...
- ❖ Specialized equipments

### MAJOR CHALLENGES

- ❖ Loose cooperation among agencies
- ❖ Lack of specialized equipments
- ❖ Poor management of boats and fishermen: lack of information, unqualified boats and ships, lack of lifebuoys...;
- ❖ Ambiguous working mechanism;
- ❖ Poor and unfeasible response plans in some local areas...;

### MAJOR CHALLENGES

- ❖ Subjectivism and lack of concentration, especially in local authorities and people
- ❖ Loose cooperation among local authorities
- ❖ Incorrect and late information, false alarms

### PRIORITIES OF THE COMING PERIOD



- ❖ Enhancing awareness and implementation on disaster management and SAR.
- ❖ Developing plan and prepare resources for responding to nuclear plant incidents

- ❖ Complete the plan for responding to climate change of VINASARCOM
- ❖ Maintain online 24/24 to timely respond to any problem
- ❖ Check and review response plan regularly to adjust if necessary

### PRIORITIES OF THE COMING PERIOD



Diễn tập Cứu hộ, Cứu nạn (Ảnh: Thanh niên)

- ❖ Improve the quality of trainings, hold more rehearsal
- ❖ Strengthen cooperation with other countries to share experience, lesson learnt and assist each other in case of emergencies
- ❖ Develop scheme on establishing training center and training ground for SAR
- ❖ Establishing a National Center for managing and responding to disasters (including SAR activities)

### PRIORITIES OF THE COMING PERIOD

- ❖ Establish Marine SAR center.
- ❖ Better-equipped tools for SAR activities: helicopters, patrol boats, oil spill response vessels....



SAR rehearsal (Image: Thanh niên)




THANK YOU

#### Contact

Disaster Management Center  
Water Resources Directorate  
No. 2 Ngoc Ha, Ba Dinh, Ha Noi  
Tel: +844 3733 5686  
Fax: +844 3733 6658  
Website: [www.ccfsc.gov.vn](http://www.ccfsc.gov.vn)  
Email: [dmc@ccfsc.gov.vn](mailto:dmc@ccfsc.gov.vn)

## SAR EXPERIENCES ON RECENT DISASTER (TYPHOON BOPHA)

CAPT ANGEL F LOBATON IV  
PHILIPPINE COAST GUARD




## PHILIPPINE COAST GUARD


- MISSION
  - “To promote safety of life and property at sea, safeguard the marine environment and resources, enforce all applicable laws within the Philippine waters, and conduct maritime security operations and other activities in support of national development”*

## PCG CORE FUNCTIONS


**MARITIME SAFETY**




**MARITIME LAW ENFORCEMENT**



**MARITIME SEARCH AND RESCUE**



**MARITIME SECURITY**



**MARITIME ENVIRONMENTAL PROTECTION**

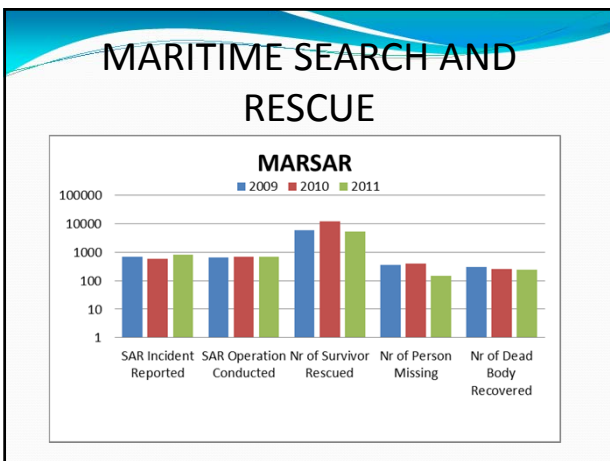


## MARITIME CHALLENGES

### PHILIPPINE MARITIME JURISDICTION



- Coastline - 36,289 kms.
- Maritime Area - 2,200,000 sq. kms.
- Maritime vs Land Area - 9 is to 1
- Number of Islands - 7,107
- Coral Reefs - 27,000 sq. kms.
- Mangrove Forests - 150,000 ha.
- Coastal Provinces - 58 out of 77
- Coastal Municipalities - 914 out of 1,385
- Coastal Barangays - 11,000 +



## REGIONAL AGREEMENTS ON SAR

- MOU bet the DOTC of the Philippines and the Ministry of Communications of the People's Republic of China on Maritime Cooperation (27 Apr 2005)
  - Maritime Safety
  - Marine Environmental Protection against Pollution
  - Port State Control
  - Human Resources Development
  - Information Exchange
  - PCG and China Maritime Safety Administration shall be responsible for the implementation of the MOU**

## REGIONAL ENGAGEMENTS ON SAR

- MOU bet the Manila Economic and Cultural Office in Chinese Taipei and the Taipei Economic and Cultural Office in the Philippines on Maritime Search and Rescue and Marine Environmental Protection Cooperation (21 Feb 2008)
  - Conducted SAR Table Top Exercise in Manila on June 2012
- MOA bet the Government of the Republic of the Philippines and Government of the Socialist Republic of Vietnam on Cooperation in Search and Rescue at Sea (26 Oct 2010)

## SAR SYSTEM

- NATIONAL DISASTER RISK REDUCTION MANAGEMENT COUNCIL (NDRRMC) – National government agency in charge (overall) of coordinating disaster mitigation and response
- PCG SAR SYSTEM
  - DISASTER PREVENTION AND MITIGATION
  - SAR PREPARATIONS
  - RESPONSE
  - RECOVERY AND REHABILITATION

## DISASTER PREVENTION/ MITIGATION

1. Use of Geohazard Maps to identify disaster prone areas and the need to transfer residents away from these areas.
2. Timely Dissemination of the latest weather forecast (LPA, Tropical Depression, Tropical Storm) to different PCG Units.
3. Advise fishing boats and other small sea craft not to venture out in the sea while larger sea vessels are alerted against big waves during inclement weather.

## DISASTER PREVENTION/ MITIGATION

4. Remind all PCG Districts on current regulations for:

Memorandum Circular Nr 01- 09 - Guidelines on Movements of Vessels During Heavy Weather

All vessels, regardless of tonnage, shall not be allowed to sail except to take shelter, as the situation may warrant, when Public Storm Warning Signal (PSWS) Nr 1 or higher is hoisted within its point of origin, the intended route and point of destination"

Memorandum Circular Nr 03 dated 02 February 01 - Guidelines on Movements of Motorboats/Vessels in the Absence of Weather Bulletin in the Locality

HPCG Standing Operation Procedures Nr 002-09 -Interim Guideline on PCG Alert Condition/Levels

5. Continuous monitoring on the progress of weather disturbance and immediately update all PCG Districts affected.

## DISASTER PREPAREDNESS

1. Coast Guard Districts, Stations, Detachments and Deployable Units (Sea Marshall, Anti – Terrorist Unit, Special Operations Group, K9 Unit, Explosive Ordinance Division, Oil Spill Response Team, Deployable Response Group, Medical Team, Air and Floating Assets) are alerted for possible dispatch.
2. PCG Search and Rescue Vessels/ Aircrafts were also placed on heightened alert for ready response to any maritime incidents wherein they were also tasked to monitor distress radio frequencies and movements of commercial vessels at 24-hour basis owing to their wider radio communication coverage.

## DISASTER PREPAREDNESS

3. Continuous conduct of training for PCG personnel (*Water Search and Rescue Training (WASAR), Maritime Pollution Exercise (MARPOLEX), Search and Rescue Exercise (SAREX), Cooperation Afloat Readiness and Training Exercise (CARAT), etc.*)
4. Regular conduct of Preventive Maintenance Schedule (PMS) to Search and Rescue assets and its equipment to ensure operational status (*vessels, aircraft, rubber boat, MARPOL equipment, etc*)
5. Forward deployment of PCG assets and personnel to strategic location and response centers.

## DISASTER RESPONSE

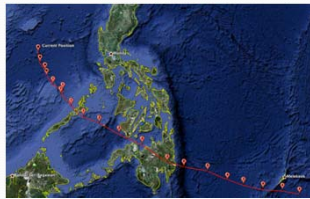
1. Deployment of PCG Search and Rescue Vessels, Aircraft and Response Teams (*Anti – Terrorist Unit, Special Operations Group, K9 Unit, Explosive Ordinance Division, Oil Spill Response Team, Deployable Response Group, Medical Team*)
2. Conduct lateral coordination with the different agencies
3. Monitor the progress of the deployment of Search and Rescue Vessels, Aircraft and Response Teams.

## DISASTER RECOVERY AND REHABILITATION

1. Coordinate with government and non government agencies on the distribution of relief goods, medical assistance and other rehabilitation activities to help the victims.
2. Provide floating and air assets, medical and response teams to assist during the relief and rehabilitation operations.

## TYPHOON BOPHA (PABLO)

- Entered PAR on 03 December 12 and made landfall on 04 Dec 12 along eastern Mindanao packing winds of more than 175 mph.
- Caused extensive damage to a large part of the provinces of Davao Oriental and Compostela Valley



## TYPHOON BOPHA (PABLO)

- Caused flash floods and mud/landslides
- Damage estimated \$1.5 – \$2 Billion
- Casualty 900-1000
- Initial 300 missing fishermen (most were rescued/ accounted for)
- 80,000 homeless

## ACTIONS TAKEN

- Dec 2 –
  - NDRRMC put on alert areas in Mindanao and Central/ Western Visayas Provinces. Forward deployment of relief goods and residents in areas projected to be hit by the Typhoon alerted for possible evacuation
  - PCG alerted operating units along the projected path.
  - Weather bulletin were monitored and regularly disseminated to all units

## ACTIONS TAKEN

- DEC 3
  - Signal No 1 raised (Central/ Wesrten Visayas/ Western/ Northern Mindanao Provinces) – all vessels were prevented from sailing
  - Signal No 2 raised (Surigao Del Sur/ Davao Oriental Provinces) – Vessels advised to seek shelter
  - Started evacuation of people living in low lying/ danger areas
  - Continuous monitoring of affected areas



## ACTION TAKEN

- DEC 4
  - Continuous monitoring of hardest hit areas
  - Initial report of casualties
- DEC 5
  - Deployed of floating assets SARV 3504/ 3502/ 003/ 002/ MCS 3004/ 3009 for SAR along the coasts of eastern Mindanao
  - Deployed of AFP/ PNP units for SAR
  - Deployed of PCG shore units to assist in SAR operations inland.
  - Deployed other SAR units for different gov't agencies

## ACTIONS TAKEN

- Dec 6-13
  - Continuous SAR operation (rescue of people swept to sea by flash floods, evacuation of survivors by sea from worst hit towns to safer places, ferrying by sea of other SAR teams to isolated towns, ferrying of relief supplies to isolated towns.
- Dec 14 onwards
  - Relief and rehabilitation operations conducted by all concerned agencies with assistance from other countries

## PROBLEMS ENCOUNTERED

- Flashfloods/ mud/landslides isolated coastal towns along the eastern coast of Mindanao
- Power supply at worst hit areas went down.
- Identified evacuation centers and medical facilities were also badly damaged
- Presence of floating logs/ debris made SAR at sea difficult and downright dangerous.
- Lots of missing fishermen due to insufficient warning

## LESSONS LEARNED

- Preventive/ Mitigation measures – were effective to the extent that no large passenger ferry/ cargo vessel became casualty. Need to improve storm warning dissemination to small fishing vessels already at sea. Likewise need to strictly enforce early evacuation efforts of residents in low lying/ disaster prone areas
- Forward deployment of SAR units contributed to quick response
- Forward deployment of relief supplies contributed to the quick distribution to survivors
- Close coordination of SAR units maximize the efficient and effective use of limited resources

**THANK YOU AND GOOD DAY**



## Support Tools For Enhancing SAR Activities

China Maritime Search & Rescue Center

## Framework of The Topic

- I. China Maritime SAR organization
- II. SAR Facilities
- III. Support Tools for enhancing SAR activities
- IV. The New Developed Tools for SAR

## I. China Maritime SAR Organization

China is the leading country of ocean shipping, operates a large Chinese flag fleet of 184,000 vessels with tonnages of 124,000,000, transports 90% of Chinese international trade goods.



China has 20 ports with turnover capacity over 2 billion tons, and 7 of them ranks Top-Ten in the world



China MRCC is responsible for all SAR operations for ships in distress, both within China waters, and China Maritime SRR.

## SAR Statistics of the China MRCC

### Year of 2009

- 1964 SAR operations carried out.
- About 7708 vessels and 302 aircrafts were coordinated /dispatched.
- About 18397 lives including 1009 foreigners were saved or assisted.
- SAR Efficiency 96.2%

### Year of 2010

- 2218 SAR operations carried out.
- About 8095 vessels and 345 aircrafts were coordinated /dispatched.
- About 23555 lives including 1458 foreigners were saved or assisted.
- SAR Efficiency 96.1%

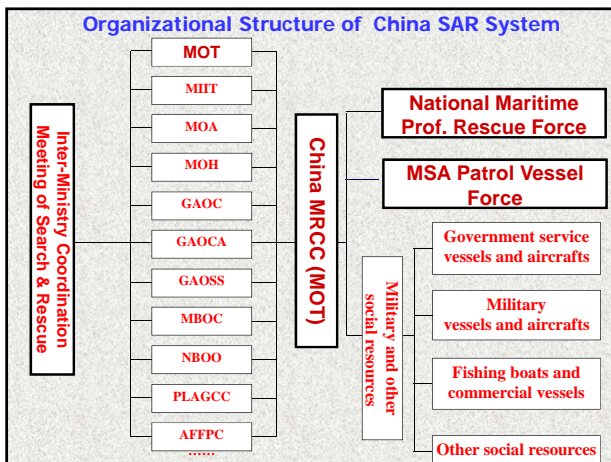
## SAR Statistics of the China MRCC

### Year of 2011

- 2177 SAR operations carried out.
- About 8636 vessels and 402 aircrafts were coordinated /dispatched.
- About 18712 lives including 1358 foreigners were saved or assisted.
- SAR Efficiency 96.7%

### Year of 2012

- 1953 SAR operations carried out.
- About 7316 vessels and 352 aircrafts were coordinated /dispatched.
- About 16392 lives including 1237 foreigners were saved or assisted.
- SAR Efficiency 96.7%



## Main Responsibilities Of China MRCC

- Organizing, coordinating and commanding serious SAR operations and marine pollution responses;
- Establishing national SAR and marine pollution response communication & information system;
- International maritime SAR and Oil Pollution Preparedness /Response (OPPR) cooperation and information exchange.
- Receiving And dealing with Piracy-attacking information.

## National Inter-Ministry Joint Conference Regime (NIMJCR)

The State Council approved to establish the **National Inter-Ministry Joint Conference Regime (NIMJCR)** in 2005, which established a highest strategy regime on National Maritime SAR Affaires.

NIMJCR conference will be held at least once a year to discuss cooperation between governmental and military agencies and solve the problem of SAR in China.

Provincial or local SAR networks were established by Provincial government to render assistances to SAR.

### 13 RCCs in provincial level along China coastline



Emergency SAR call number to report maritime accident

12395

## II. SAR Facilities

### SAR Facilities

- 4 dedicated SAR helicopter bases have been established along the coastal area with 20 helicopters in service.
- The number of the dedicated professional rescue vessels reaches to 73 in 18 rescue base; The number of the patrol vessels of the China MSA reaches to 1000.
- One 2000 ton-class and another three 3000 ton-class patrol vessels equipped SAR helicopter.

3000 Tonnage MSA Patrol vessel, with helicopter onboard



1000 Tonnage MSA Patrol vessel

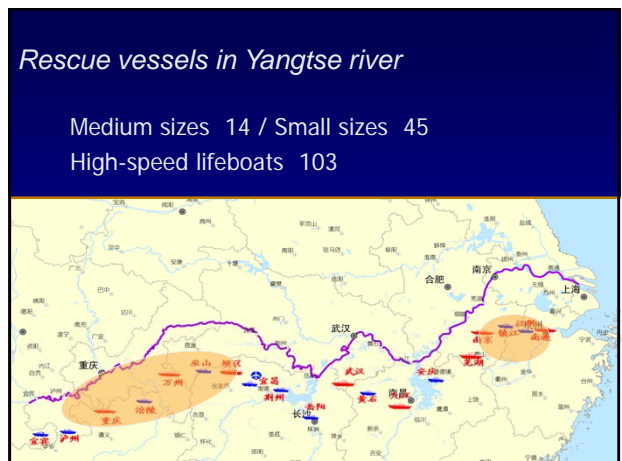


15 Meters MSA patrol vessel

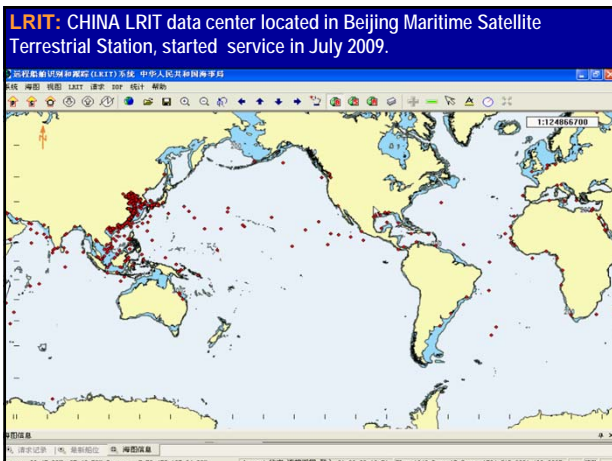
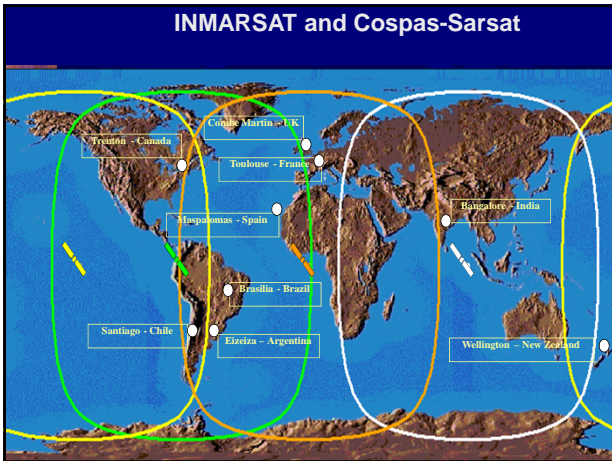
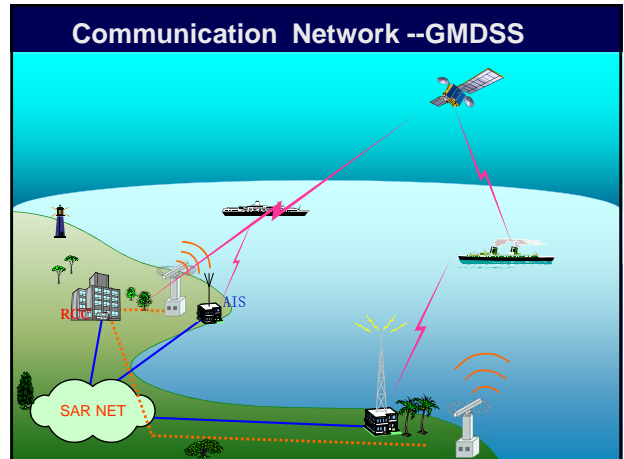


45 Meters MSA patrol vessel

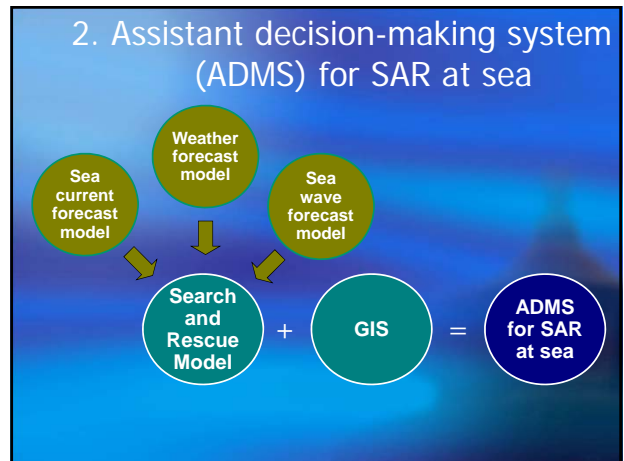
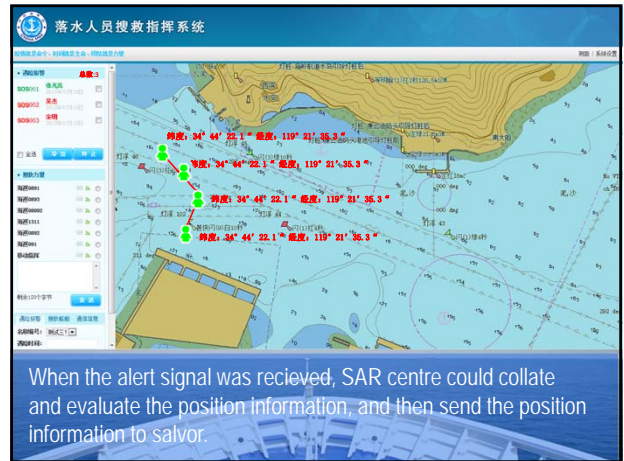
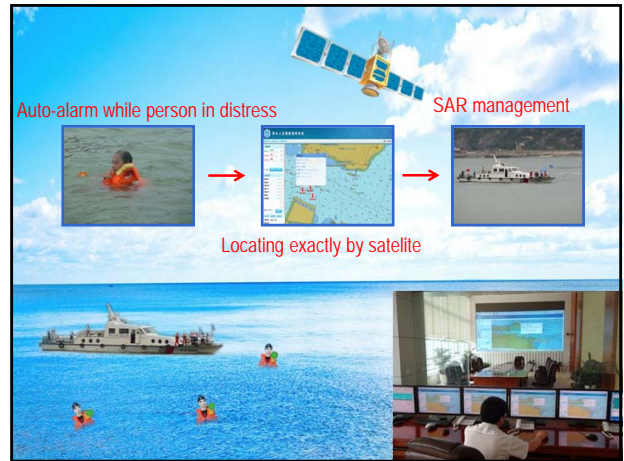
25 Meters MSA patrol vessel



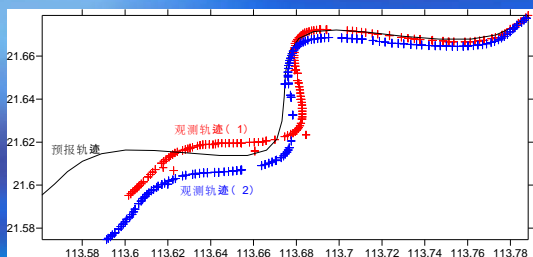
### III. Support Tools for enhancing SAR activities



- ### IV. The new developed Tools for SAR at sea
1. Compass Lifesaving Position Indicating Radio Beacon
  2. Assistant Decision-Making System (ADMS) for SAR at sea

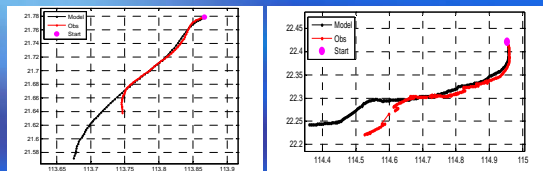


## 2. ADMS for SAR at sea



The forecast track and observation track of dummy person in distress.

## 2. ADMS for SAR at sea



The forecast track and observation track of unpowered vessels.

## 2. ADMS for SAR at sea



The system has assisted Guangdong SAR Centre to rescue about 44 persons in last year.

Thank you for your attention

CHINA MRCC



A SNAPSHOT ON AADMER & AHA Centre

Nha Trang 17 July 2013  
By Le Van Duong,  
National Humanitarian & Emergency Affairs (HEA) Coordinator,  
World Vision International in Vietnam  
<le\_van\_duong@wvi.org>

1

- i. ASEAN: An Overview
- ii. Three pillars of ASEAN
- iii. Birth of AADMER
- iv. AHA Centre
- v. APG

2


**i. ASEAN: An Overview**

ASEAN: One Vision, One Identity, One Community,



3

The Association of Southeast Asian Nations (ASEAN) consists of 10 countries with 600 million people. Every year, on average, the ASEAN region experiences losses related to natural disasters estimated at US\$ 4.4 billion\*



Country	Population	Area (km <sup>2</sup> )
MYANMAR	59,534,300	476,577
THAILAND	66,503,000	513,120
SINGAPORE	4,987,600	710
INDONESIA	231,303,500	1,905,300
VIETNAM	80,000,000	331,689
LAO PDR	5,922,100	236,800
PHILIPPINES	92,226,600	300,000
BRUNEI DARUSSALAM	406,200	5,765
Malaysia	28,350,000	329,558
Cambodia	14,957,800	181,036

\* Source: Advancing Disaster Risk Financing and Insurance in ASEAN Countries, World Bank, GFDRR, ASEAN, and UNISDR

4

ASEAN Secretaries-General



**Dr. Surin Pitsuwan**  
(12 Secretary General)




**H.E. Lê Lương Minh**  
(13 Secretary General)

5

**ii. Three pillars of ASEAN**

ASEAN's Community Building ....



ASEAN COMMUNITY 2015

- ASEAN POLITICAL SECURITY COMMUNITY
- ASEAN ECONOMIC COMMUNITY
- ASEAN SOCIO-CULTURAL COMMUNITY

NARROWING THE DEVELOPMENT GAP

### Where is AADMER under the ASEAN's Pillars?

- ASEAN Political-Security Community (APSC)**
  - Institution of ASEAN Political Security Community (APSC)
  - ASEAN Political Security Community (APSC) Council
  - ASEAN Foreign Ministers Meeting (AFMM)
  - Commission on the Southeast Asia Nuclear-Weapon-Free Zone (SEANWFZ) Commission
  - ASEAN Defence Ministers Meeting (ADMM)
  - ASEAN Law Ministers Meeting (ALAMMM)
  - ASEAN Ministerial Meeting on Transnational Crime (AMMTC)
  - ASEAN Regional Forum (ARF)
  - Committee of Permanent Representatives to ASEAN (CPRA)
  - ASEAN Intergovernmental Commission on Human Rights (AICHR)
- ASEAN Economic Community (AEC)**
  - Institution of ASEAN Economic Community (AEC)
  - ASEAN Economic Community (AEC) Council
  - ASEAN Economic Ministers Meeting (AEMM)
  - ASEAN Free Trade Area (AFTA) Council
  - ASEAN Investment Area (AIA) Council
  - ASEAN Finance Ministers Meeting (AFMM)
  - ASEAN Ministers Meeting on Agriculture and Forestry (AMAF)
  - ASEAN Ministers on Energy Meeting (AMEM)
  - ASEAN Ministerial Meeting on Science and Technology (AMMST)
  - ASEAN Telecommunications and Information Technology Ministers Meeting (TELMIN)
  - ASEAN Transport Ministers Meeting (ATM)
  - Meeting of the ASEAN Tourism Ministers (MATM)
  - ASEAN Working Group on Development Cooperation (AMBDC)
- ASEAN Socio-Cultural Community (ASCC)**
  - Institution of ASEAN Socio-Cultural Community (ASCC)
  - ASEAN Socio-Cultural Community (ASCC) Council
  - ASEAN Ministers Responsible for Information (AMRI)
  - ASEAN Ministers Responsible for Culture and Arts (AMCA)
  - ASEAN Education Ministers Meeting (AEMM)
  - **ASEAN Ministerial Meeting on Disaster Management (AADMER)**
  - ASEAN Ministerial Meeting on the Environment (AMME)
  - Conference of the Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution
  - ASEAN Health Ministers Meeting (AHMM)
  - ASEAN Labour Ministers Meeting (ALMM)
  - ASEAN Ministers on Rural Development and Poverty Eradication (AMRDPE)
  - ASEAN Ministerial Meeting on Social Welfare and Development (AMMSWD)
  - ASEAN Ministerial Meeting on Youth (AMMY)
  - ASEAN Conference on Civil Service Matters (ACCSM)
  - ASEAN Committee on Women (ACW)
  - ASEAN Commission on the Protection and Promotion of the Rights of Women and Children (ACPPC)

Here it is!

### iii. Birth of AADMER

### Trends and Predictions

**1970-1979:**  
•138 occurrences of disasters in Southeast Asia in the period 1970-1979

**2000-2009:**  
•Occurrences of disaster reached 508, an increase of 368 percent since the 1970s

**Emerging Trend:**  
•There will be almost 1,000 occurrences of disaster in the next decade, or an average of about 100 disasters per year

Country	1970-1979		1980-1989		1990-1999		2000-2009	
	No.	%	No.	%	No.	%	No.	%
Brunei Darussalam	-	-	-	-	1	0.29	-	-
Cambodia	-	-	1	0.47	13	3.83	16	3.14
Indonesia	37	26.81	78	36.79	80	23.6	152	29.92
Lao PDR	3	2.17	6	2.83	15	4.42	9	1.77
Malaysia	3	2.17	4	1.89	20	5.9	34	6.69
Myanmar	8	5.8	3	1.42	8	2.36	14	2.75
Philippines	75	54.35	87	41.04	116	34.22	145	28.54
Singapore	-	-	-	-	1	0.29	2	0.39
Thailand	5	3.62	11	5.19	37	10.91	54	10.62
Viet Nam	7	5.07	22	10.38	48	14.16	82	16.14
<b>Total</b>	<b>138</b>	<b>100</b>	<b>212</b>	<b>100</b>	<b>339</b>	<b>100</b>	<b>508</b>	<b>100</b>

Source: EM-DAT: The Office for Foreign Disaster Assistance (OFDA) International Disaster Database



### AADMER - FOR A MORE UNITED AND COORDINATED EFFORTS TOWARD DISASTERS WITHIN THE REGION

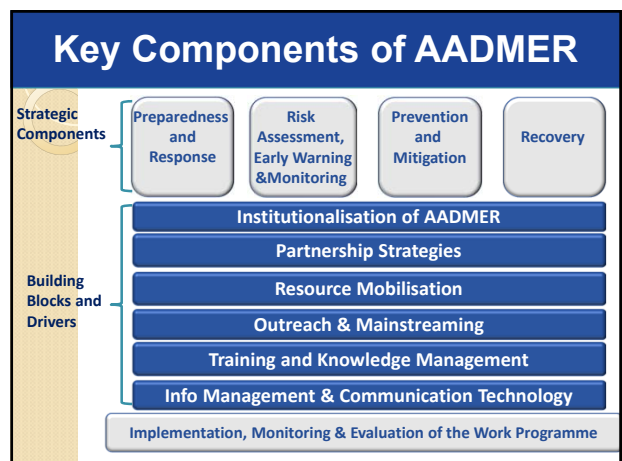
Signed in July 2005, ratified by all ten countries in ASEAN, entered into force on 24 December 2009

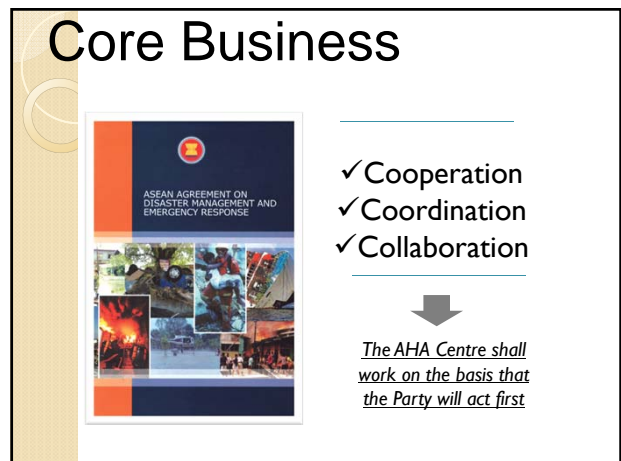
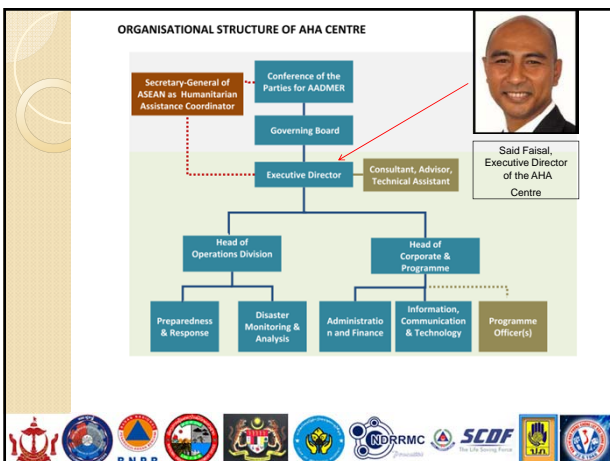
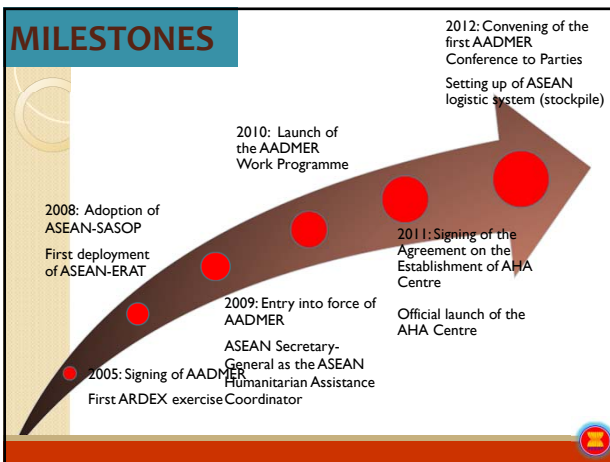
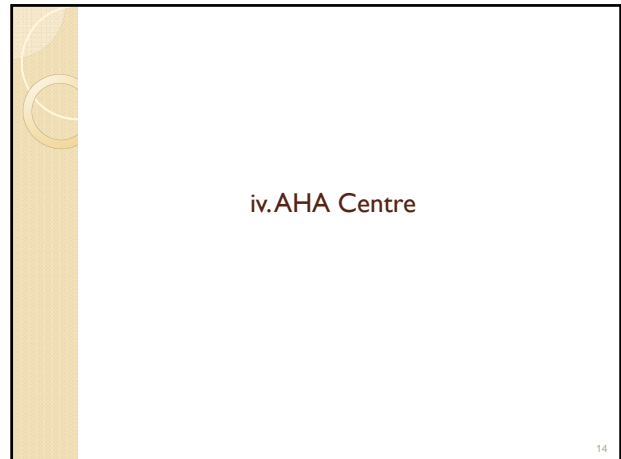
Objective: Reduce disaster losses in ASEAN region, and jointly respond to disaster emergencies

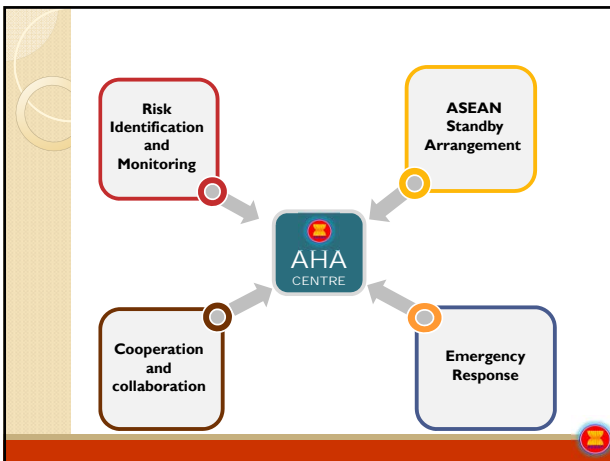
A legal framework for all ASEAN Member States and serves as a common platform in responding to disasters within ASEAN

ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre) as the operational coordination body and engine of AADMER

The first legal-binding document following Hyogo Framework for Action (2005-2015)







### STANDBY ARRANGEMENTS AND COORDINATION OF JOINT DISASTER RELIEF AND EMERGENCY RESPONSE OPERATION (SASOP)

**Guides and templates**

**Procedures for joint disaster relief and emergency response operations:**

- personnel, experts
- transportation
- communication equipment
- CIQ

**ASEAN regional disaster emergency response simulation exercises (ARDEX)**

### Two main areas:

**1 DISASTER MONITORING**

- Disaster Monitoring and Response System
- ASEAN DISASTER Information Network
- Situation update during disaster emergency
- Daily situation update
- Weekly situation update
- Utilising social media

**2 PREPAREDNESS & RESPONSE**

- Logistic Project
- ERAT
- WebEOC
- Standby arrangement
- Emergency response operations

### Disaster updates through Facebook

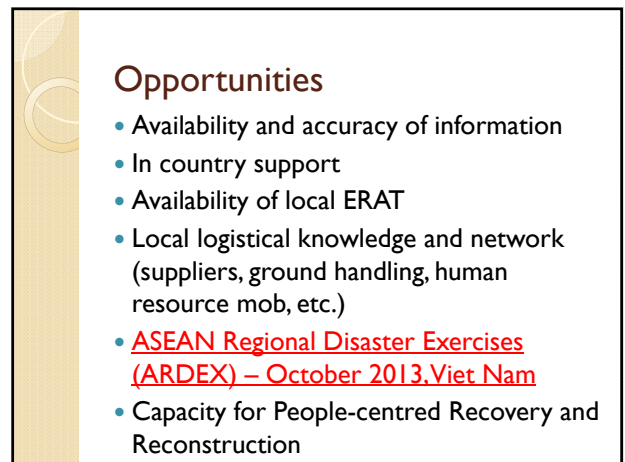
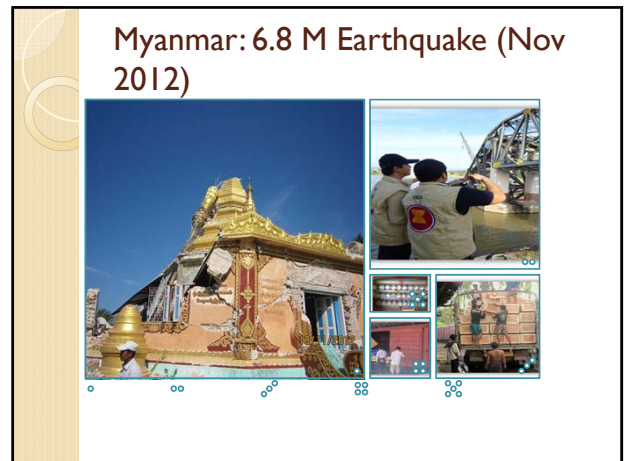
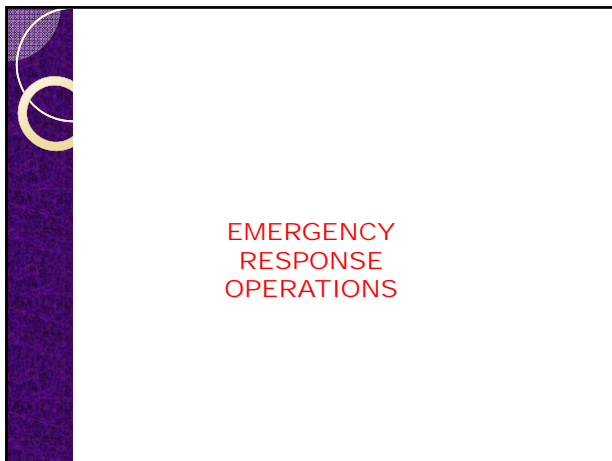
please join us at : [www.facebook.com/ahacentre](http://www.facebook.com/ahacentre)

and please don't forget to



### EMERGENCY RAPID ASSESSMENT TEAM (ERAT)

- 39 ASEAN ERAT members registered.
- Local ERAT members were mobilised during response to Myanmar Earthquake in November 2012 and Philippines Typhoon in December 2012








**Support implementation of AADMER by linking policies & practices, networking, synthesizing...**

Số tay thủ tục tác nghiệp chuẩn và bộ trí dự phòng và điều phối hoạt động ứng phó khẩn cấp và cứu trợ thảm họa ở cấp khu vực (SASOP)

Hiệp định ASEAN và quản lý thảm họa và ứng phó khẩn cấp AADMER

Hiệp định ASEAN và quản lý thảm họa và ứng phó khẩn cấp (AADMER) giai đoạn 2010-2015

Tài liệu thông tin truyền thông về Hiệp định AADMER cho Việt Nam (AADMER)



31

**step UP Women Girls**  
The *n*Visible Force of Resilience  
13 October 2012 - International Day for Disaster Reduction

What's next?

Women Girls  
The *n*Visible Force of Resilience  
International Day for Disaster Reduction  
13 October 2012

Children & Women of ASEAN  
step UP for Disaster Risk Reduction!

- ARDEX in Vietnam (Oct., 2013?)

...

32

This presentation used several information, photos and sharing from my friends, colleagues and media (Larry Marramis – Director, Cross Sectoral Cooperation, ASEAN Secretariat; Monpanga Lekkao – Emergency Medical Institute of Thailand, Anel Capili, AHA Centre...)

33

For more information, please visit

<http://www.asean.org/>  
<http://www.ahacentre.org/>

34

**Some food for thought:**

-It took almost 4 years for AADMER to be effective (from signing in 2005 to 2009)

- AHA Centre is a "two - year old boy" by Nov. 2013, how he will interact and grow with his brothers/sisters such as APEC- ADMER, TPP – ADMER (if any)?

35

**Thank You Very Much!**

36

**KOREA** 중앙 119구조단

## Search and Rescue Service



**Bang, Jang Won**  
National 119 Rescue Service

중앙 119구조단

## CONTENTS

1. DOMESTIC SAR
2. OVERSEAS SAR
3. APPLICATION OF SAR
4. ACTIVATION OF SAR



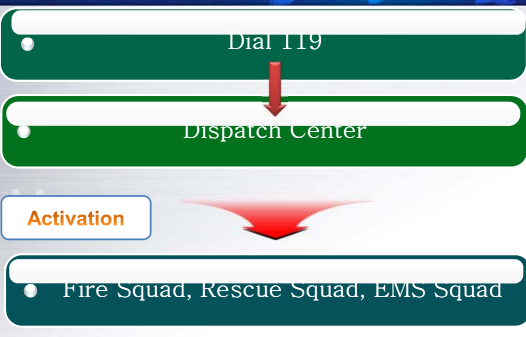
I . DOMESTIC SAR 중앙 119구조단

### Providers

- National Level**
  - NEMA
    - Fire Academy
    - NRS
    - Civil Disaster Prevention Institute
- Local Level**
  - 17 Fire HQs
    - 169 Fire Stations
      - 212 Rescue Squads
      - 1272 EMS Squads

I . DOMESTIC SAR 중앙 119구조단

### Deployment Process




2. OVERSEAS SAR 중앙 119구조단

### Provider

- KDRT**
  - Foundation
  - Overseas
  - Missions
  - Structures
  - Composition
  - Activities

- Aug 6 1996
- 11 Deployments
- 6 Divisions
- 41 Members
- UN INSARAG Chair



2. OVERSEAS SAR 중앙 119구조단

### Deployment Process




### OVERSEAS SAR

중양119구조단

**Deployment History**

- Viet Nam Air Crash in Cambodia(1997)
- Turkey Earthquake(1999)
- Taiwan Earthquake(1999)
- Algeria Earthquake(2003)
- Iranian Earthquake(2003)
- Tsunami in Thailand(2004)
- China Earthquake(2008)
- Floods in Myanmar(2008)
- Indonesian Earthquake(2009)
- Haitian Earthquake(2010)
- Japanese Earthquake(2011)

### 3. APPLICATION OF SAR

중양119구조단

**SARSAT**

**Distress Types**

- People
- Aircraft
- Ship

**COSPAS-SARSAT System Overview**

### 4. ACTIVATION OF SAR

중양119구조단

**Inland SAR Ops**

**Ground Forces**

- Specialized USAR Team
- K9
- Advanced Equipment

**Aviation Forces**

- Choppers
- Drones

### 4. ACTIVATION OF SAR

중양119구조단

**Inland SAR Ops Resources**

### 4. ACTIVATION OF SAR

중양119구조단

**SAR Ops at SEA**

**Organizations**

- Fire Service
- Coast Guard
- Navy

**Resources**

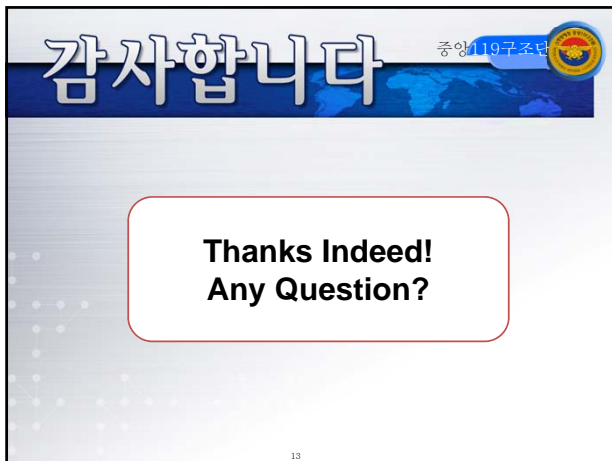
- Fire Aircraft
- Patrol Ship
- Navy Ship

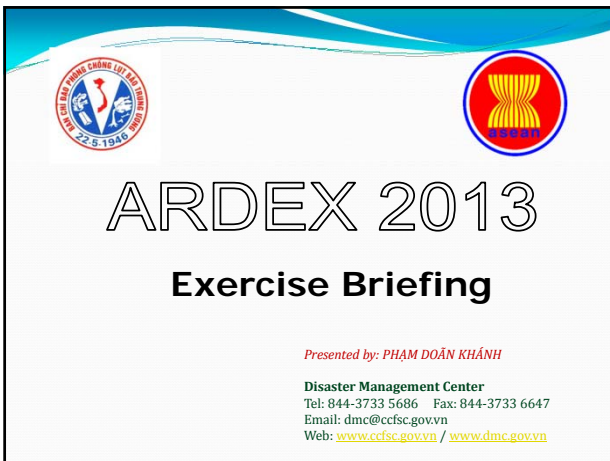
**Elaboration**

### 4. ACTIVATION OF SAR

중양119구조단





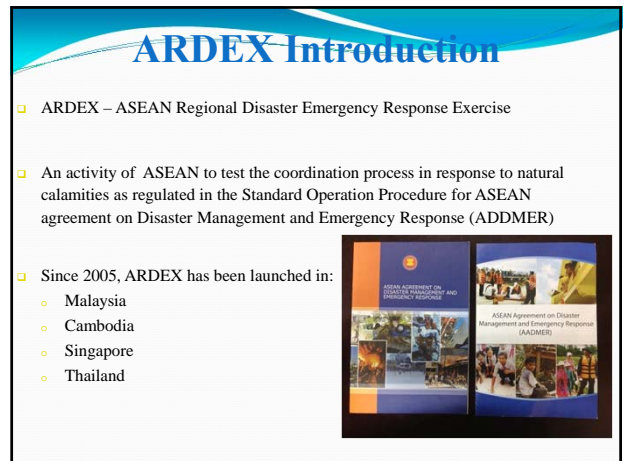


# ARDEX 2013

## Exercise Briefing

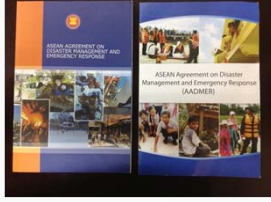
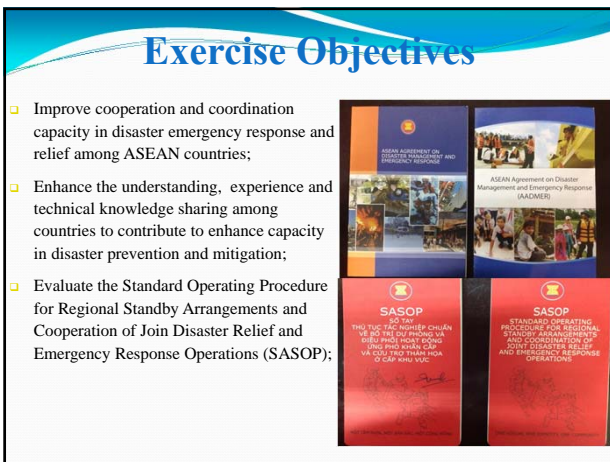
*Presented by: PHẠM ĐOÀN KHÁNH*

**Disaster Management Center**  
 Tel: 844-3733 5686 Fax: 844-3733 6647  
 Email: [dmc@ccfsc.gov.vn](mailto:dmc@ccfsc.gov.vn)  
 Web: [www.ccfsc.gov.vn](http://www.ccfsc.gov.vn) / [www.dmc.gov.vn](http://www.dmc.gov.vn)





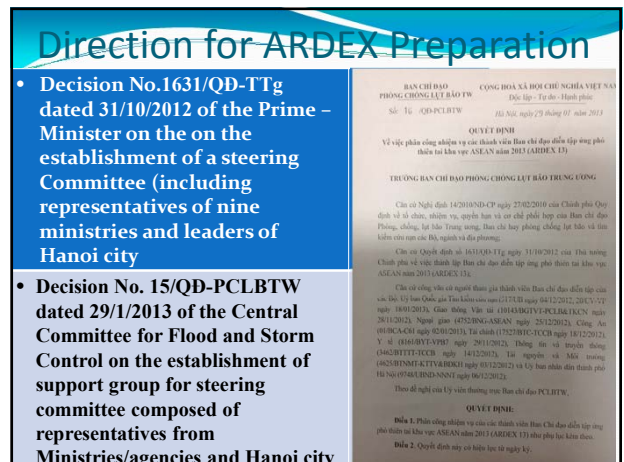
## ARDEX Introduction

- ARDEX – ASEAN Regional Disaster Emergency Response Exercise
- An activity of ASEAN to test the coordination process in response to natural calamities as regulated in the Standard Operation Procedure for ASEAN agreement on Disaster Management and Emergency Response (AADMER)
- Since 2005, ARDEX has been launched in:
  - Malaysia
  - Cambodia
  - Singapore
  - Thailand

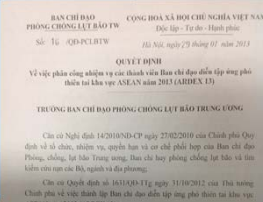
## Exercise Objectives

- Improve cooperation and coordination capacity in disaster emergency response and relief among ASEAN countries;
- Enhance the understanding, experience and technical knowledge sharing among countries to contribute to enhance capacity in disaster prevention and mitigation;
- Evaluate the Standard Operating Procedure for Regional Standby Arrangements and Cooperation of Joint Disaster Relief and Emergency Response Operations (SASOP);

## Direction for ARDEX Preparation

- **Decision No.1631/QĐ-TTg dated 31/10/2012 of the Prime – Minister on the on the establishment of a steering Committee (including representatives of nine ministries and leaders of Hanoi city**
- **Decision No. 15/QĐ-PCLBTW dated 29/1/2013 of the Central Committee for Flood and Storm Control on the establishment of support group for steering committee composed of representatives from Ministries/agencies and Hanoi city**




## ARDEX experience sharing

- Visit, discuss with Thailand and Singapore previous ARDEXs:
  - ARDEX 07
  - ARDEX 08






## Participate the 3rd ASEAN Exercise Design Workshop, April 23-26, 2013 Singapore Civil Defense Academy.



## ARDEX Preparation

Invite ASEAN Secretariat, executive director of AHA center and representative focal point of Singapore to Vietnam from 4 to 5 April to discuss to prepare for contents of exercise.



## ARDEX Preparation

**Central Committee for Flood and storm control (CCFCC)- MARD:**

- General guidance on the preparation and organization of exercise
- Chair to develop the overall plan of the exercise
- Develop scenario on response mechanism exercises
- Focal contact with the ASEAN Secretariat, the AHA Centre and ASEAN countries
- Chair Exercise planning team meetings, preparing the logistics work

**VINASACOM – Ministry of National Defense:**

- Chair to develop exercise scenario
- Design to construct the exercise sites
- Set up commander post, manage the exercise
- Organize to give license, control, manage the forces, equipment involving in search and rescue of international organizations
- Ensure security, safety in the exercise area in the exercise day

## ARDEX Preparation

- **Ministry of Foreign Affairs**  
Primary responsibility for foreign affairs and consul, in collaboration with the Ministry of Agriculture and Rural Development and other ministries perform other related duties during preparation and exercise organization
- **Ministry of Public Security**  
Chair to ensure security and smooth traffic during exercise. Primary responsibility for immigration procedures for search and rescue forces in the exercise
- **Ministry of Communication and Information**  
Make sure the communications, media coverage of the exercise process

## ARDEX PREPARATION

- **Ministry of Transportation**  
Coordinate to arrange the layout of the CIQ exercise area at Noi Bai international airport
- **Ministry of Finance**  
- Coordinate with the Ministry of Public Security directs General Department of Customs to implement CIQ procedures  
- Ensure budget for preparation and exercise
- **The People's Committee of Hanoi City**  
- To mobilize local forces to participate in military exercises  
- To coordinate with the Ministry of Public Security to ensure security and safety during exercise

## Exercise Scenario

<p>Super typhoon "NEPTUNE" with wind intensity of 12, 13 (130-150 km/h) and gusts level 14, 15 (170-180 km/h) lands in the area of Northern Delta provinces of Vietnam</p> <p>-Road, railway system and some airports have ceased operations</p> <p><b>+ Consequences:</b></p> <p>-Large scale inundation; some dyke systems are broken; some neighboring areas, public infrastructures have collapsed</p> <p>-About 2,000 dead, 500 missing, tens of thousands of people lost their shelters and in need of emergency assistance</p>	<p>Super typhoon "NEPTUNE" lands in Hanoi area leading to severe flood, breaks many dyke lines</p> <p>-Hundreds of houses collapsed and wiped out by the flood water</p> <p><b>+ According to report from Hanoi City:</b></p> <p>-1,000 dead</p> <p>-300 inhabitants missing</p> <p>-More than 10,000 people lost their houses</p> <p>-More than 5,000 people need to be evacuated and provided with emergency relief</p>
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## Exercise contents



Communication exercise



Emergency Rapid Assessment



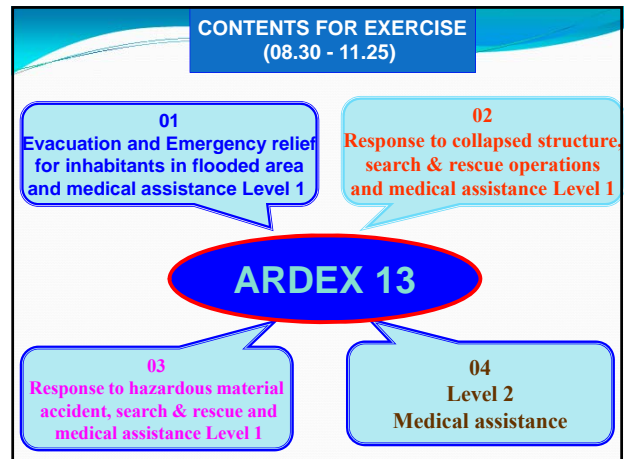
CIQ exercise



## Opening of exercise day

(07.45-08.10am, 23<sup>rd</sup> OCT)

- Prepare and Implement: VINASACOM
- Deputy Prime minister Hoang Trung Hai opening the exercise
- Location: Thuy An commune, Ba Vi district, Ha Noi



## ARDEX PARTICIPANTS

Planned Participants	Proposed participants
<ul style="list-style-type: none"> <li>- ASEAN – ERAT</li> <li>- Referee</li> <li>- ASEC, AHA Centre (ASEAN Coordinating Centre)</li> <li>- China, Korea, Japan</li> <li>- UN agencies: UN OCHA</li> <li>- ASEAN Teams</li> <li>- Vietnamese Teams</li> <li>- International organizations in Vietnam</li> </ul>	<ul style="list-style-type: none"> <li>- IFRC, Red Cross</li> <li>- Other international organizations (discussion)</li> </ul>

### Scenario 1: EVACUATION AND RELIEF FOR PEOPLE IN FLOODED AREA

At 02.30 on 20/10/2013, Typhoon "NEPTUNE" landfalls in Hanoi causing serious flooding, breaking many river dike lines; hundreds of houses collapsed and washed away by flood water

**CONSEQUENCE:**  
About 1.000 dead, over 300 people missing; above 10.000 people lost their houses completely, Over 5.000 people in need for evacuation and emergency relief

Flood area

### Scenario 2. RESPOND TO COLLAPSED STRUCTURE AND SEARCH & RESCUE OPERATIONS

Typhoon "NEPTUNE" caused damage to hundred of houses, apartments, schools, hospitals and public buildings in Hanoi area.

**CONSEQUENCE**  
In urban areas "A" there are more than 300 people stuck or buried in collapsed buildings

Collapsed house area:  
210m<sup>2</sup> x 3: 630 m<sup>2</sup>  
Exercise area: 1,4 ha

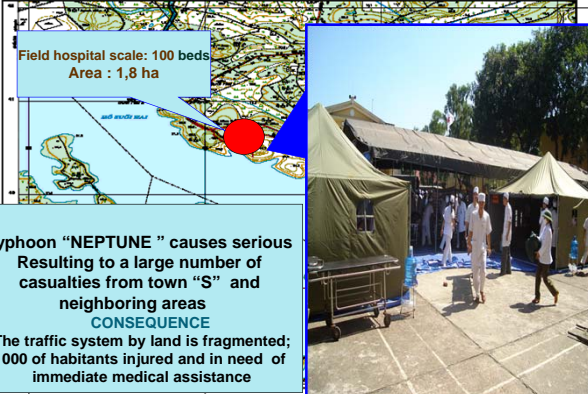
### Scenario 3. RESPONSE TO HAZARDOUS MATERIAL ACCIDENT AND SEARCH & RESCUE

Typhoon "NEPTUNE" caused serious damage to "Sao Mai" chemical production and trading company

**CONSEQUENCE**  
One store with 400 tons of HNO<sub>3</sub> collapsed causing some tanks of HNO<sub>3</sub> to leak affecting a large area of environment, air and water

Store area: 210 m<sup>2</sup>  
Exercise area: 0,8 ha

**Scenario 4.**  
**LEVEL 2 MEDICAL ASSISTANCE**



Field hospital scale: 100 beds  
Area : 1,8 ha

**Typhoon "NEPTUNE" causes serious Resulting to a large number of casualties from town "S" and neighboring areas**

**CONSEQUENCE**

**The traffic system by land is fragmented; 1000 of habitants injured and in need of immediate medical assistance**

## Tentative Time-line of Activities

Apr - Sep 2013

23-26 April	ASEAN Exercise Design Workshop held at Civil Defense Academy, Singapore
10 -11 July	1 <sup>st</sup> EPT Meeting
August	2 <sup>nd</sup> EPT Meeting (Video Conferencing or Face to face)
September	3 <sup>rd</sup> EPT Meeting (Video Conferencing or Face to face)

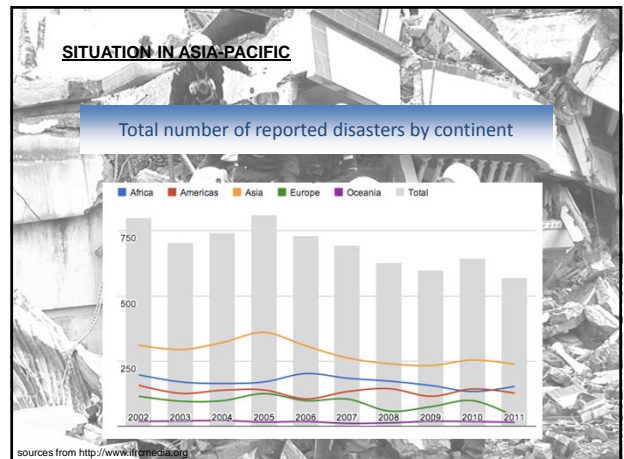
## Tentative Time-line of Activities

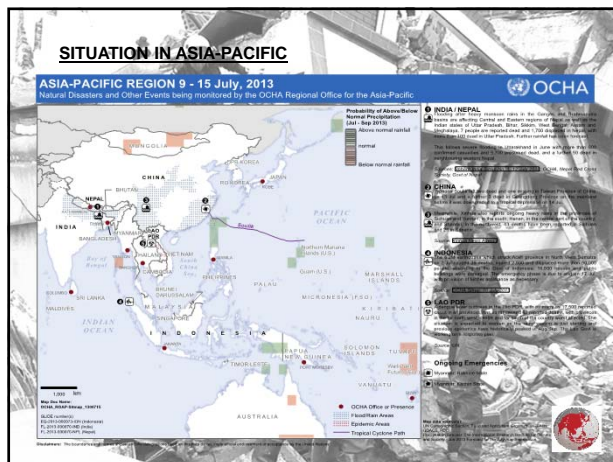
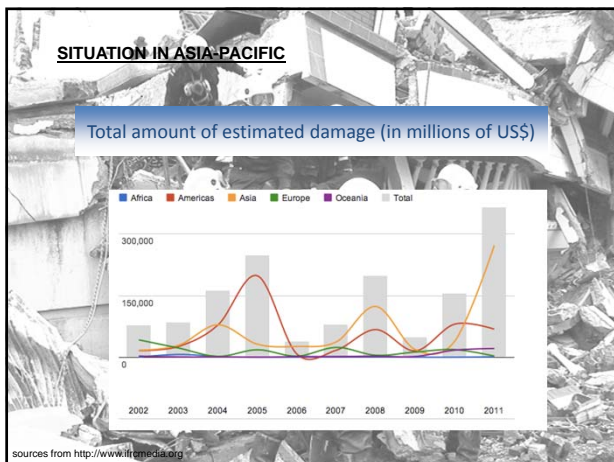
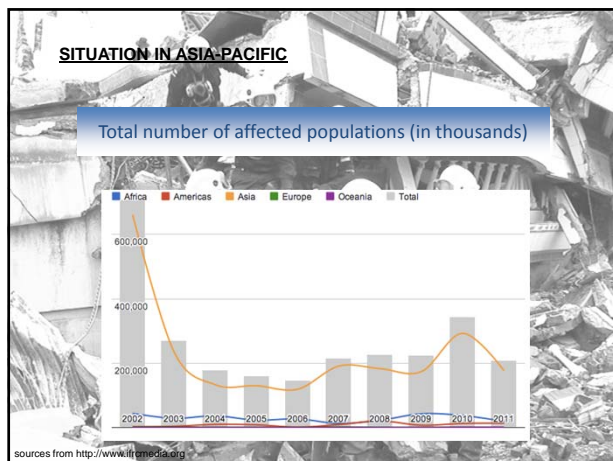
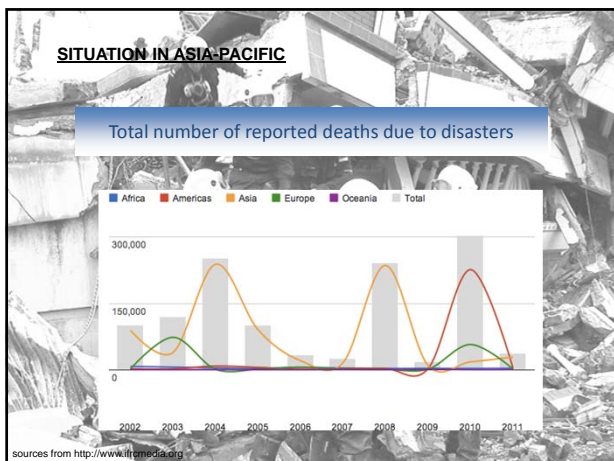
19 - 25 Oct 2013

19 Oct From: 09am to 15.00pm	<b>Sub-Exercise</b> Vietnam Focal Point requests for assistance & processing of offers of assistance (Communication exercise)
20 Oct From: 00.00-24.00	Arrival & in-processing of overseas' SAR teams at Airport CIQ
21 Oct	Opening of the exercise week ( 10.00- 11.30) and ARDEX Workshop (Part 1 from 13.30-17.00)
22 Oct	ARDEX Workshop (Part 2 from 09.00-12.00) All teams visit sites (From 13.00- 18.30)
23 Oct 06.00-16.30	<b>Exercise Day</b>
24 Oct 08.30-17.00	Evaluation Meeting (08.30-10.00) and Culture Activities (10.00-17.00)
25 Oct All day	Departure

## Thank you for your kind attention!







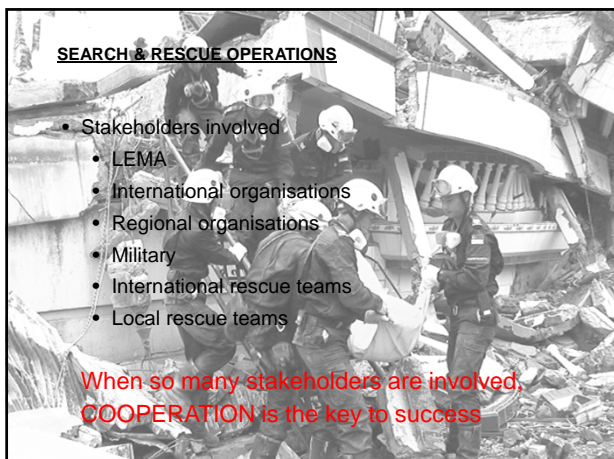
### SITUATION IN ASIA-PACIFIC

Some most recent devastating disasters in Asia-Pacific

- Typhoon Bopha in the Philippines in 2012
- Tohoku earthquake and tsunami in Japan in 2011
- Christchurch earthquake in New Zealand in 2011
- Typhoon Ketsana in the Philippines, Vietnam, Cambodia, Laos and Thailand in 2009
- Cyclone Nargis in Myanmar, Bangladesh, Sri Lanka, India and Yangon 2008
- Asian tsunami in 2004

Asia-Pacific continues to be hit hardest by disasters





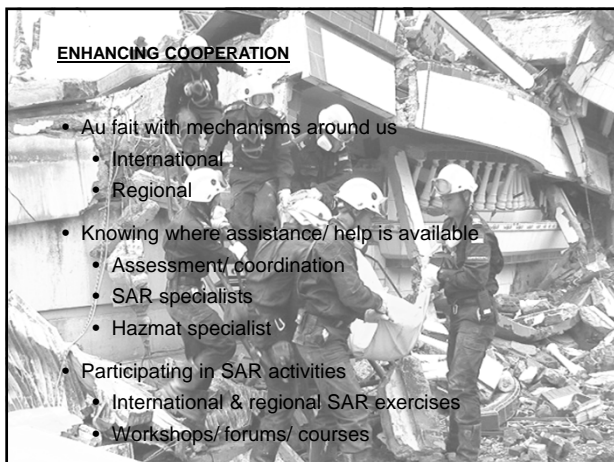
**SEARCH & RESCUE OPERATIONS**

- Stakeholders involved
  - LEMA
  - International organisations
  - Regional organisations
  - Military
  - International rescue teams
  - Local rescue teams

When so many stakeholders are involved, COOPERATION is the key to success



**Enhancing Cooperation**



**ENHANCING COOPERATION**

- Au fait with mechanisms around us
  - International
  - Regional
- Knowing where assistance/ help is available
  - Assessment/ coordination
  - SAR specialists
  - Hazmat specialist
- Participating in SAR activities
  - International & regional SAR exercises
  - Workshops/ forums/ courses



**Mechanisms**



**MECHANISMS FOR COOPERATION** 

**International Mechanisms**

**United Nations (UN)**

- UN Office for the Coordination of Humanitarian Affairs (UNOCHA)
  - International Search and Rescue Advisory Group (INSARAG)
  - United Nations Disaster Assessment and Coordination (UNDAC)
  - Asia-Pacific Humanitarian Partnership (APHP)
- UN Environment Programme (UNEP)
  - Joint Environment Unit (JEU)



**MECHANISMS FOR COOPERATION** 

**International Mechanisms**

- INSARAG is an inter-governmental network which deals with urban search and rescue and related disaster response issues
- Organised into the three regional groups: Africa/Europe/Middle East Region, Americas Region and Asia-Pacific Region





**MECHANISMS FOR COOPERATION**

**International Mechanisms**

**UN Disaster Assistance and Coordination (UNDAC)**

- Established in 1993 by the OCHA
- UNDAC Team is a stand-by team of disaster management professionals
- Can be deployed within hours to carry out rapid assessment of priority needs and to support national authorities and the UN Resident Coordinator to coordinate international relief on-site



**MECHANISMS FOR COOPERATION**

**International Mechanisms**

**APHP@SG**

- Asia-Pacific Humanitarian Partnership (APHP) is a support module to provide UNDAC Teams with specified equipment to support operations and establishment of the On Site Operation Coordination Centre (OSOCC), modeled after International Humanitarian Partnership (IHP) in Europe




**MECHANISMS FOR COOPERATION**

**International Mechanisms**

**Joint Environment Unit (JEU)**

- UN emergency response mechanism that provides int'l assistance to countries facing environmental emergencies
- Hazmat Assessment Unit (Singapore) Mobile Laboratory (Netherlands)





**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

**South Asian Association for Regional Cooperation (SAARC)**

- SAARC Agreement on Rapid Response for Natural Disaster (ARRND)
- Obliges Member States to take legislative and administrative measures to implement agreement provisions
- Signed in 2011; in the process of ratification



**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

**Association of Southeast Asian Nations (ASEAN)**

- ASEAN Agreement on Disaster Management and Emergency Response (AADMER)
- Enables Member States to mobilise and deploy resources for emergency response
- Signed in 2005 and entered into force in 2009



**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

**AADMER Work Programme (2010-2015)**


**Strategic Components:**

- Risk Assessment, Monitoring and Early Warning
- Prevention and Mitigation
- Preparedness and Response
- Recovery

**Building Blocks:**

- Institutionalisation of AADMER
- Partnership
- Resource Mobilisation
- Information Management and Comm. Tech.
- Outreach and Mainstreaming
- Training and Knowledge Management
- Monitoring and Evaluation

- Endorsed by the ASEAN Committee on Disaster Management in March 2010 as a rolling plan



**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

ASEAN Coordinating Centre for Humanitarian Assistance (AHA Centre)



SPPT Building 2, J. Thamrin, 29<sup>th</sup> Floor (800 sqm)

**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

ASEAN-ERAT

**Emergency Rapid Assessment Team**

- Can be mobilised within 8 hrs of notification
- Coordinated by the AHA Centre
- Supports the National Focal Point/s and Competent Authorities of the disaster affected Member State/s in the initial phases of the disaster



**MECHANISMS FOR COOPERATION**

**Regional Mechanisms**

Past ASEAN-ERAT Deployments

2008 – Myanmar, Cyclone Nargis  
 2009 – Lao PDR, Typhoon Ketsana  
 2010 – Indonesia, Tsunami affected Mentawi Islands  
 2011 – Thailand, Floods



Aftermath of Typhoon Ketsana



Aftermath of Cyclone Nargis



**OTHER PLATFORMS FOR COOPERATION**

International SAR Classification

INSARAG External Classification (IEC)




Upcoming SCDF IER  
 Venue: Singapore  
 Date: 25-28 Sep, 2013



**OTHER PLATFORMS FOR COOPERATION**

International Organisation-led Simulation Exercises

INSARAG Asia-Pacific Regional Earthquake Response Exercise (INSARAG Ex)




Upcoming INSARAG Ex 2013  
 Venue: Kota Kinabalu, Malaysia  
 Date: 4-7 Nov 2013

**OTHER PLATFORMS FOR COOPERATION**

Regional Organisation-led Simulation Exercises

ASEAN Regional Forum Disaster Relief Exercise (ARF DiREx)



ARF DiREx 2013  
Venue: Cha-Am, Thailand  
Date: 6-10 May 2013

**OTHER PLATFORMS FOR COOPERATION**

Regional Organisation-led Simulation Exercises

ASEAN Regional Disaster Emergency Response Simulation Exercises (ARDEX Ex)



Upcoming ARDEX 2013  
Venue: Hanoi, Vietnam  
Date: 19-23 Oct 2013

**OTHER PLATFORMS FOR COOPERATION**

SAR Exercises

Joint Search & Rescue Exercise (SARex)



SARex 2012  
Venue: Perlis, Malaysia  
Date: 26-29 Nov 2012

**OTHER PLATFORMS FOR COOPERATION**

International Joint Rescue Drill

International Fire Chiefs Association of Asia (IFCAA)



IFCAA 2012  
Venue: Hokkaido, Japan  
Date: 21-22 Jun 2012

**OTHER PLATFORMS FOR COOPERATION**

SAR Workshop

International Elite Rescuers Exchange Workshop (IERE Workshop)



IERE Workshop 2013  
Venue: Singapore  
Date: 11-13 Sep 2013

**OTHER PLATFORMS FOR COOPERATION**

SAR Skills Competition

Singapore Global Fire Fighters & Paramedics Challenge (SGFPC)




SGFPC 2013  
Venue: Singapore  
Date: 14-15 Sep 2013



 **Red Cross Society's participation to enhance capacity and coordination of rescue at sea**




 **VIET NAM RED CROSS SOCIETY**

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Red cross society is the social organization of the masses, activities for humanitarian objectives - peace - friendship, contributing to the goal of a prosperous people, a strong country, social justice, democracy, civilization and happiness of people.


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 **I. INTRODUCTION**

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- ❑ Established on 23<sup>rd</sup> November in 1946
- ❑ As a member of international Red Cross Committee on 1<sup>st</sup> November in 1957 and Red Cross Society - Red Crescent on 4<sup>th</sup> November in 1957
- ❑ Operating in the country, under the Constitution and laws of the Socialist Republic of Vietnam , the society's statutes and 7 principles of Red Cross movement : humanity , impartiality, neutrality, independence, voluntary , unity , universal.

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 **Viet Nam Red Cross Society**

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- ❑ **7 fields of activities:**
  - Emergency assistance, humanitarian relief
  - Healthcare
  - First Aids
  - Blood, tissue and organ donation
  - Reuniting families separated by war and natural disasters
  - Dissemination of humanitarian values
  - Disaster preparedness and response

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**Viet Nam Red Cross's activities on Disaster preparedness and response**

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- ❑ Contributing to reduce the risk of disaster, loss of lives and property when disaster strikes, including:
  1. Propagating and disseminating the knowledge, instructing for members, volunteers and people skills on prevention and disaster response;
  2. Organizing forces, facilities and other physical condition for disaster preparedness and response;
  3. Managing the evacuation, relocation and protection of the people, rescuing people and community activities for recovery after a disaster

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**Viet Nam Red Cross's activities on Emergency assistance**

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- ❑ To support timely and directly victims of war, natural disasters, epidemics, fires, traffic accidents and other accidents, disasters, including:
  - a) Relieve in cash or kind and help overcome the initial difficulties;
  - b) Emotional and psychological support.

\* To ensure the principle of priority areas, the most difficult subjects and emergency relief in cash and kind are provided immediately after disasters ...

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 **VIET NAM RED CROSS ORGANIZATION**

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**Including:**

- + Viet Nam Red Cross Society;
- + Red Cross of provinces and cities under the Central Government;
- + Red Cross of district or equivalent;
- + Red Cross of communes, wards and towns.

The establishment, division, separation, merger, consolidation or dissolution of the organization are carried out in accordance with the law.

 **VIET NAM RED CROSS ORGANIZATION**

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Society's forces including staff members, youth, volunteers:

- **63 provincial and city societies**
- **638 district, town and city societies**

+ **18.101 specialized staff**  
+ **4.480.196 members**  
+ **3.290.478 youth**  
+ **16.810 local societies**  
+ **239.974 volunteers**

 **II. Thua Thien Hue Red Cross Society**



The block contains four photographs: 1. A building with a Red Cross sign. 2. A bridge over a river. 3. A group of people in red shirts practicing first aid on a stretcher. 4. A group of people in a river, some in red shirts, engaged in a water rescue activity.

---

Thua Thien Hue Red Cross Society:

- **09** district, city and town societies
- **01** Assault Youth Team
- **03** local societies
- **18** provincial specialized staffs
- **22** district's specialized staffs
- **152** town's specialized staffs
- **2.781** village societies, schools
- **43.122** members

**Why do Red Cross Society join rescue operation?**

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Result from community's demand : according to the evaluation of locals' vulnerable and in the high-risk due to natural disasters, capacity building for disaster management of community school is very necessary.

**The legal basis:**

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According to the Law on Red Cross activities (No. 11/2008/QH 12) and the Red Cross Charter amendment (2012) stated: Red Cross activities involved prevention, disaster response;

Project cooperation agreement: "Raising awareness and community-based disaster management community" (1002 scheme) between MARD and Vietnam Red Cross Central;

Vietnam Red Cross Society is a member of the International RedCross, Red Crescent movement and the International Committee of Red Cross.

## 1. Prevention and response to natural disasters and social work

- ❑ DISASTER MANAGEMENT CAPACITY IN Community :
  - 13 provincial officials, 9 district officials is trained for disaster management by Viet Nam Red Cross Society and non-governmental organizations.
  - BUDGET FOR DISASTER RESPONSE FROM ANNUAL 500-700 MILLION CONTRACT
  - 03 special CARs, 03 HIGH SPEED canoes, 03 disaster preparedness CENTERS In Phu Loc, Phu Vang, Huong Tra Province
  - 01 provincial disaster preparedness team,

## THE OUTCOMES IN RECENT YEARS

- ❑ Disaster Risk Reduction Project funded by the German Red Cross and Ministry of Foreign Affairs of Germany from 2010 - 2012 (2 stages) implemented in 12 communes, 6 districts . Implemented budget by the Provincial Assembly > 4.6 billion.
- ❑ Project of Strengthening disaster preparedness for vulnerable communities sponsored by Save the Children 2011 - 2013 (2 stages) implemented in 20 communes, 3 districts. Implemented budget by the Provincial Assembly is > 6.2 billion.

## Assess the vulnerability and disaster preparedness capabilities

- ❑ Organizing 32 VCA evaluations for 32 communes with a high risk of catastrophe. After assessment, based on local needs, the provincial Red Cross support 01 building project;
- ❑ Training in Disaster preparedness for cadres' and villages' staffs: danger, disaster, disaster preparedness action plan;
- ❑ Training in disaster preparedness and rescue operation for 32 assault youth teams (20 members / team) and supply rescue equipments



## Establish assault youth teams on rescue in 32 communes



Image on rescue training at Vinh Hai commune, Quang Thanh



## TRAINING ON RESCUE SKILLS

TT Hue Red Cross have 6 CADRE people (Community Action for Disaster Response) trained on emergency response to disaster by Asian Disaster Preparedness Centre



Thua Thien Hue trained 10 teams on disaster response for the communes: Phu Ho, Phu Luong Vinh Loc, Loc Binh, Thanh Thuy, Thuy Phu, Phong An, Phong Thu, Thuy Dieu and Huong So



First Aid  
 *Drowning save*  
 Fire fight  
 Protecting houses...






Practice on Evacuating and rescuing victims

Practice on rescuing victims: community and school



Evacuating by road and river



Implementation of the project funded German's Red Cross



Evacuation drills in schools funded by Save the Children organization



Provide disaster preparedness equipment





### Support for small projects



Develop early warning systems .....

### Swimming lessons for students Quang Loi commune



### Swimming pool with nets and buoys in Quang An commune



### Water supply system in Vinh Hien - Phu Loc



### Provide float : 7000 pieces



The communication activities in the community

- Organize competition on emergency preparedness, climate change in the social ...



The disaster management activities at school



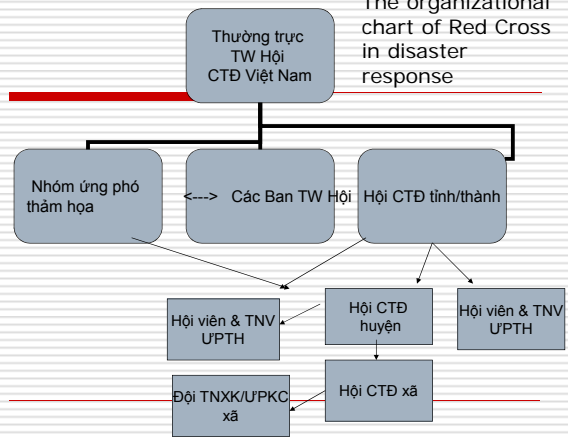
2. Coordinating rescue operations

- The Red Cross is a member of the steering committee for prevention of flood and storms, thus there is close coordination, communication mechanism, timely reporting.
- Develop an annual disaster response plan, report the Provincial People's Committee and Vietnam Red Cross Society
- Collect baseline information and propose demand for emergency relief to Viet Nam Red Cross Society
- Guide and support the assault youth teams for disaster response
- Receive and organize emergency relief

Meeting's images in operating coordinator mechanism on rescue in Loc An commune, Vinh My, Quang Ngai - 2012



The organizational chart of Red Cross in disaster response



### 3. Difficulties

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- ❑ Few training courses on rescue operation
  - ❑ Budget and facilities are limited
  - ❑ Coordination and updating information in a number of localities are not timely and not synchronized
- 

### 4. Learned lessons

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- ❑ Develop a disaster preparedness plan at the beginning of the year and the annual collaboration program
  - ❑ Organize VCA activities for areas with a high risk of disaster
  - ❑ Organize training activities, exercises, community media, contests and supply disaster preparedness equipments...
  - ❑ Regularly update information and train for Staff, volunteers
- 

### III. Mission – Solution (TT Hue)

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1. Prevention and response to natural disasters :
    - Actively coordinate with the government and people's organizations in disaster prevention
    - Relieve immediately, rescue victims, timely report. The relief is timely, fair, ensure credibility with the international friends and people.
    - Organize rapid response forces at the local
- 

2. Collaborate with other organizations and individuals internationally and domestically

- Continue to build good cooperation between Thua Thien Hue Red Cross Society and International Red Cross Society - International Confederation of Labour, the International Committee of the Red Cross and National Red Cross, the traditional partners (NAV, Save the Children , SRD ...) in training and improving disaster preparedness skills
- Doing research on humanitarian needs in the province, promoting effective implementation of humanitarian projects of the traditional partners and new partners such as disaster preparedness, climate change, development projects for the poor, children.
- Mobilize domestic and foreign individuals and enterprises to participate in humanitarian relief programs, the supply of disaster preparedness equipment

Thank you!

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