

# Thailand on disaster risk management 2011

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## Scope on Current status of the disaster risk management in Thailand

1. Thailand : general Information
2. Natural Hazards
3. Disaster Management System
4. Disaster management Strategy, Policy & Plan
5. Budget Size on National Level
6. Recent Major Projects on DRR
7. My work & What I would like to study in Japan ?



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## General information

|  |   |
|--|---|
| <b>Area:</b> 513,115 sq. km.(198,114 sq. mi.); equivalent to the size of France          | <b>Government Type:</b> Constitutional  |
| <b>Population :</b> 66.68 million.<br>(source : Thailand National Statistic Office 2009) | <b>Independence:</b> Never colonized  |
| <b>Capital City :</b> Bangkok  | <b>Executive :</b> King (chief of state), Prime Minister (head of government).  |
| <b>Climate:</b> Tropical monsoon.  | <b>Religions:</b> Buddhist 93%–94%, Muslim 5%–6%, Christian 1%, Hindu, Brahmin, other.                                |
| <b>Average temp. :</b> 27 °C   | <b>Languages:</b> Thai (official language); English is the second language of the elite; Malay and regional dialects. |
| <b>Nationality:</b> Thai.  | <b>Literacy :</b> 95.9% male, 92.6% female.   |
| <b>Ethnic groups:</b> Thai 89%, other 11%;   | <b>Life expectancy :</b><br>70.51 male, 75.27 female  |
|       | <b>Currency :</b> Baht (30.93 ; 1 USD and 38.25 : 100 JPN as of 25 Feb. 2011)   |

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## Geography



Four regions are distinguished:

**North**; mountainous, forested areas.

**Central** Plain with the Chao Phraya River Basin and some other, smaller rivers basins; including Eastern, & Western area

**North-East**, also known as the Khorat Plateau;

**South** on the northern half of the Malay Peninsula.

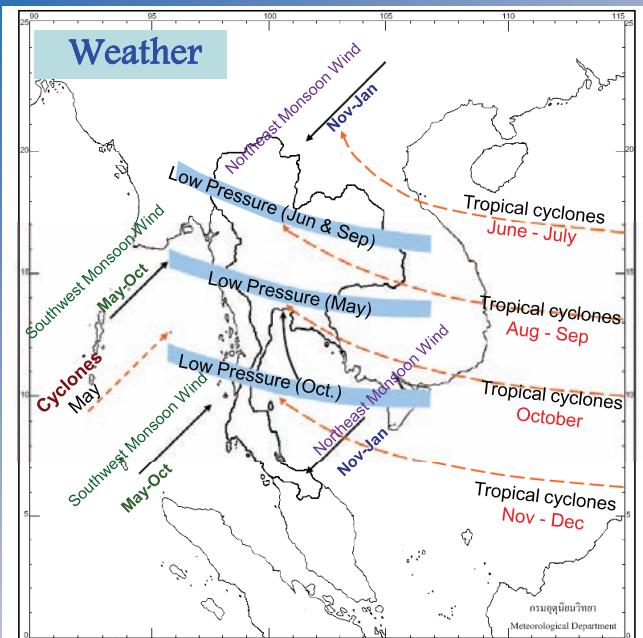
**Administrative** : 77 provinces, including Bangkok municipality and recently new province, sub-divided into 877 districts, 7,255 tambon administration, and 74,944 villages.

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## Weather



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## Natural Hazards in Thailand

| Disaster            | Severity | Vulnerability | Management | Tendency |
|---------------------|----------|---------------|------------|----------|
| Flood               | High     | Medium        | Medium     | High     |
| Landslide / Mudflow | High     | Medium        | Poor       | High     |
| Windstorm           | Medium   | Medium        | Medium     | Medium   |
| Drought             | High     | Medium        | Medium     | Medium   |
| Fire                | High     | Medium        | Medium     | Medium   |
| Explosive           | High     | Medium        | Medium     | Medium   |
| Earthquake          | Low      | Low           | Poor       | Medium   |
| Accident            | High     | Medium        | Poor       | High     |
| Tsunami             | High     | Medium        | Medium     | Medium   |

Source : DDPM Adjust in 2010

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## Natural Hazards

Flash Flood surrounding the central and southern part of Thailand . Flooding is the worst disaster in 2010 and in 50 years



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## Recently Major Disasters



Most disasters are associated with water. Large volume water flows down to the mouth of Chao Phraya river through Central basin Gulf of Thailand, influenced by Southwest monsoon.



Recent years, the amount of water exceeded the capacities of either rivers & reservoirs, causes flooding annually, followed by the increasing of sea level, this phenomena occurs every year in rainy season.



Flooding is a common and annual occurrence in this part of the world, a combination of inadequate drainage should be consideration.

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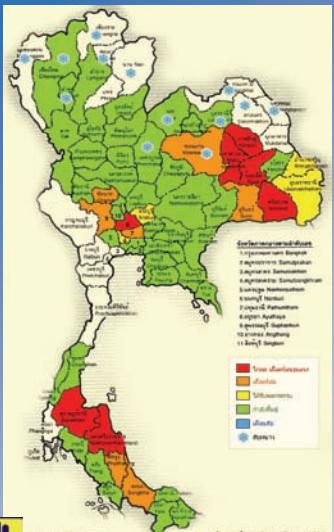
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## Tropical depression become to Cyclone in Southern parts of Thailand 2010



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## Flood in 2010



Flooding flows down to BKK through 51 provinces by southwest monsoon season, takes places annually between June until October; then in November affected to the South.



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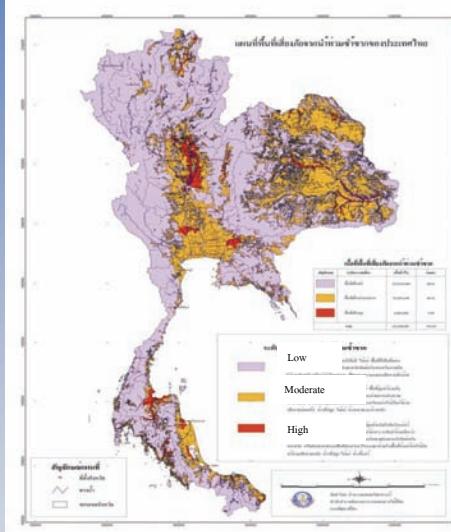
## FLOOD PRONE AREA 2010

**8,663,221** affected people 51 Provinces

**257** dead in **29** provinces  
93 in Central region,  
78 in South region,  
55 in Northeast region,  
28 in North region,  
3 in East region.

### Cause of Death

- 227 drowning
- 17 Electrocution
- 6 Landslide
- 3 Falling tree
- 3 Shock/fainted
- 2 Fire
- 1 Lack of oxygen



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## Land slide & Mud Flow



A landslide in Nakhon Sri Thammarat, caused by excessive rains

Landslides and mud flow occur frequently due to the influence of monsoon, heavy rain in northern which are mountainous including the south .



photo credit : www.disaster.go.th

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## Flood 2010

### Economic damage 32-54 Billion baht



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## PIPOON Landslide & Mud Flow 22 November 1988



Pipoon Landslide disaster was caused by a week long heavy rain. It occurred On 22 November 1988 at Kratoom Sub-District, Pipoon District, Nakhon Si Thammarat province This event killed 769 local residents

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## NAMHO Land Slide & Mud Flow 10 August 2001



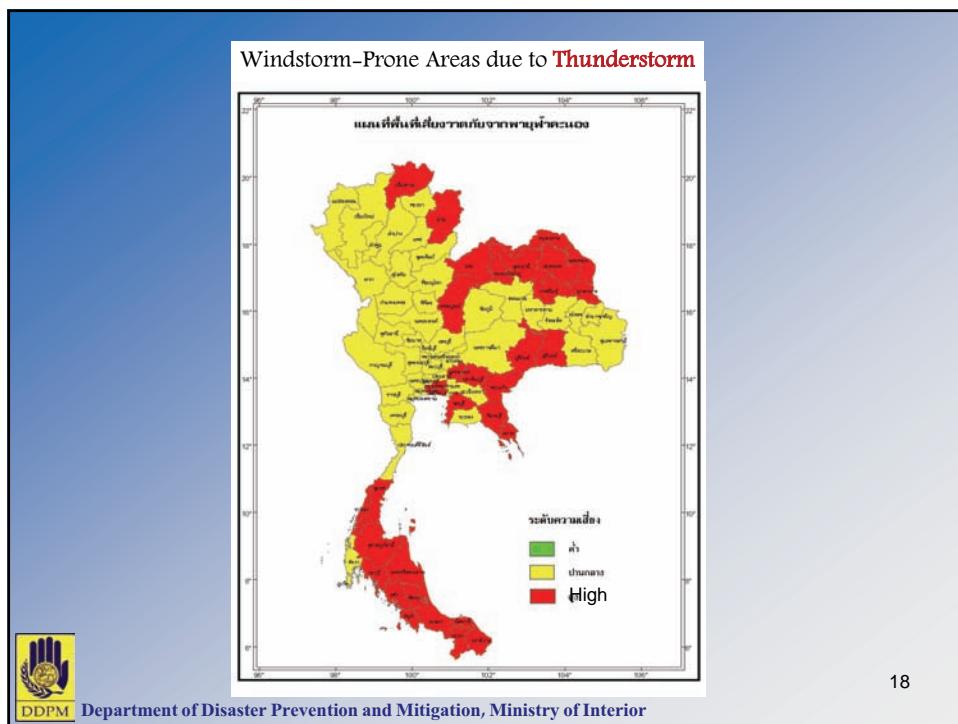
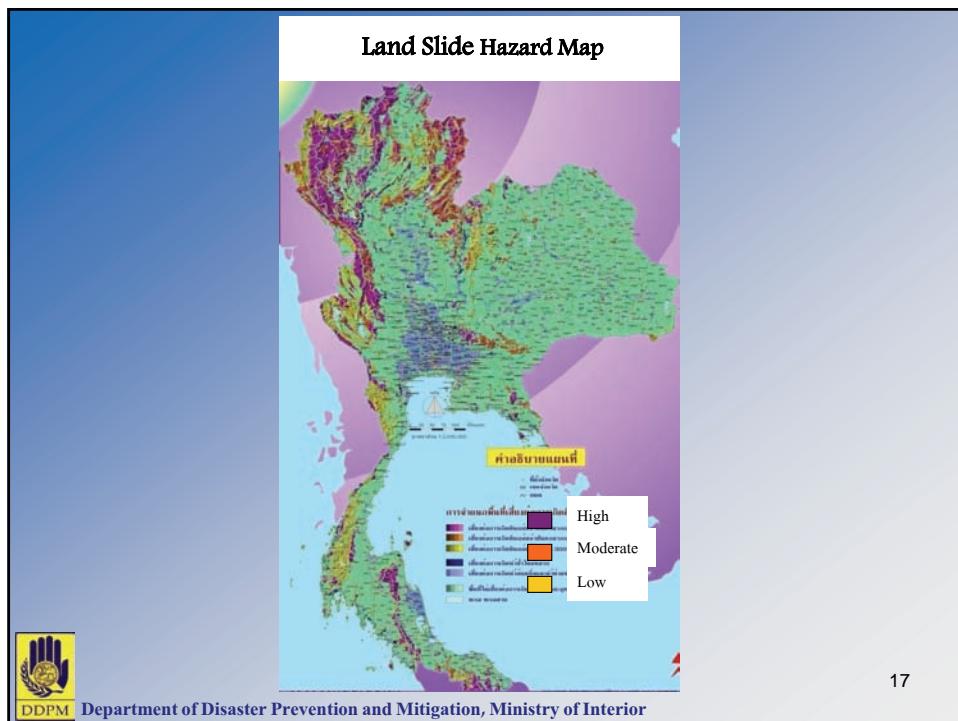
Worst landslide disaster since 1988. More than 131 people perished. Two villages were completely destroyed.

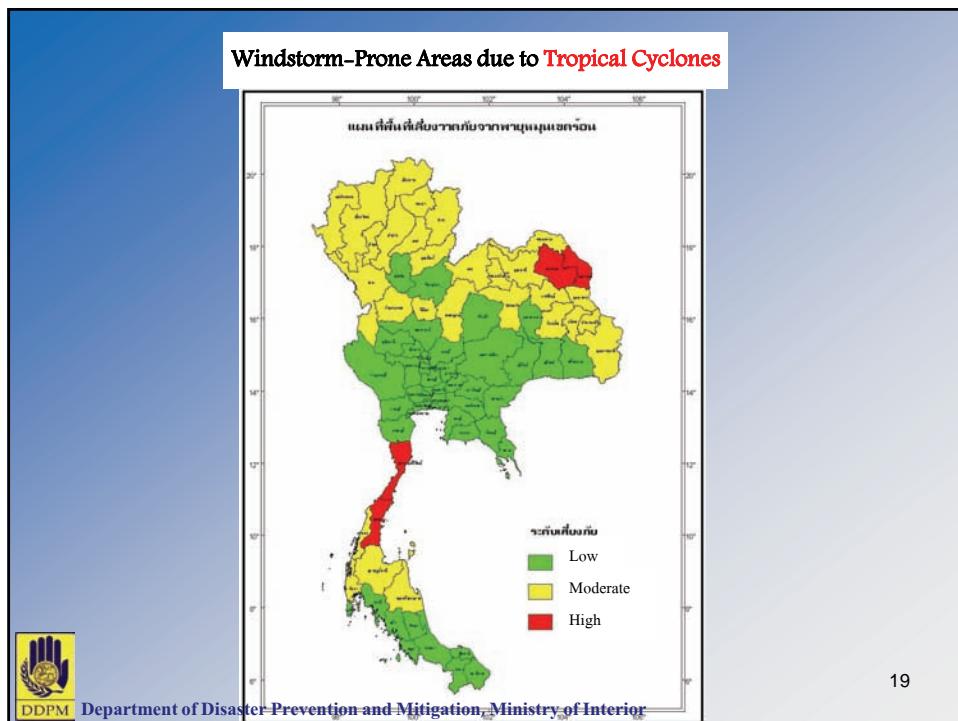


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**Typhoon GAY**  
Chumporn province , 4 November 1989



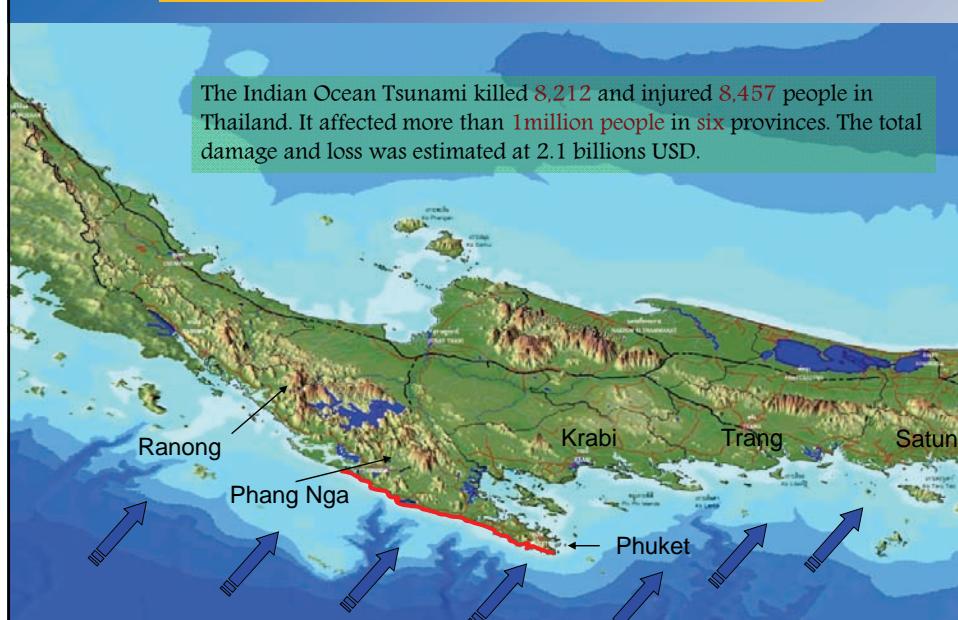


The only typhoon ever hit Thailand. The speed was estimated at 120 km/hour. More than 25,000 people were affected and 654 were perished. About 809 boats and ships were sunk. This disaster brought the total loss and damage at 11,687million THB. (333 M.USD)

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**The Indian Ocean Tsunami**  
9 a.m. December 26, 2004



The Indian Ocean Tsunami killed 8,212 and injured 8,457 people in Thailand. It affected more than 1million people in six provinces. The total damage and loss was estimated at 2.1 billions USD.

**The Indian Ocean Tsunami 26 Dec. 2004 in Thailand  
total loss 399.78 M. USD**



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**The Indian Ocean Tsunami,  
killed 5,395 , affected 58,550 in 6 provinces**



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# Disaster Management System

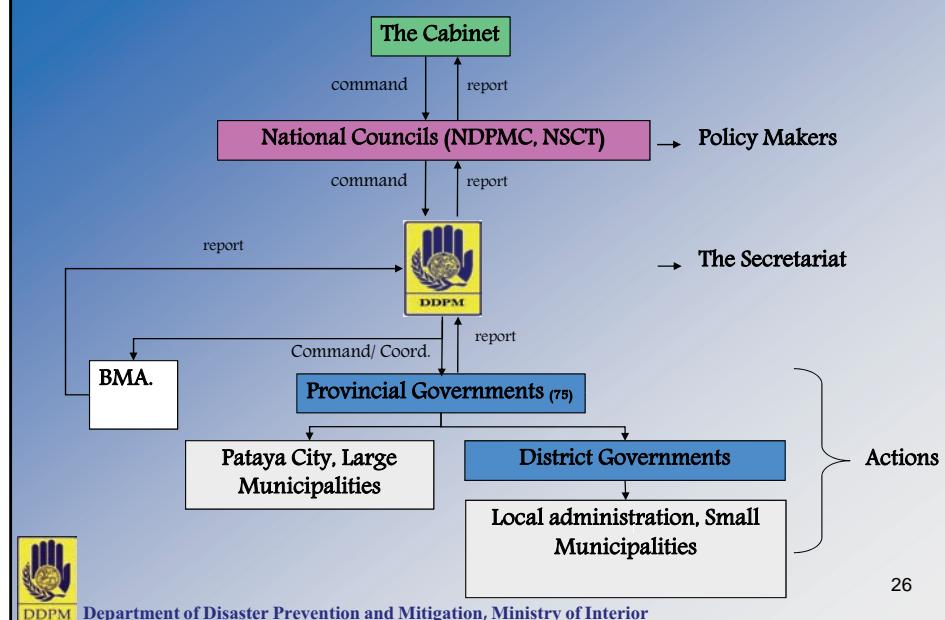
based on  
Disaster Prevention and Mitigation Act 2007  
Come into force on 6 November 2007

## Institutional arrangement

- 1.National Disaster Prevention and Mitigation Committee (NDPMC)
  2. The Commander in chief.
  3. The Secretariat of NDPMC.
  4. The Directors in the Incident Commander
- All D.M. activities are directed and controlled by the Directors at 3 levels.  
(a) National (b) Provincial and (c) Local

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# Disaster Management System



## **NDPMC**

### **National Disaster Prevention and Mitigation Committee**

- Based on the DPM Act 2007
- NDPMC is a policy maker, chaired by Prime Minister or designated Deputy Prime Minister and DG. of DDPM is the Secretary 34 members, and various sub-committee
- Minister of Interior is the Commander in - chef; in large - scale of emergency response.



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## **NSCT**

### **National Safety Council of Thailand**

- NSCT is a policy maker body in technological disaster management
- NSCT is chaired by Prime Minister or designated Deputy Prime Minister
- NSCT comprises 34 members from a wide range of sectors



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# National Master Plan for DPM

**Part I : Disaster Prevention and Mitigation Principle**

**Part II : Standard operating procedures (SOPs)**

**Part III : National security issues.**

**Part I : Disaster Prevention and Mitigation Principle** 9 chapters,

- (1) Disaster Situation and Management System
- (2) Policy, Vision, Objectives, and Goals
- (3) Strategies, Work Plan and Countermeasures
- (4) Disaster prevention and Mitigation
- (5) Disaster Preparedness
- (6) Management during disaster emergency
- (7) Post Disaster Management
- (8) Roles of relevant agencies
- (9) Implementation



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# National Master Plan for DPM

## **Part II: SOPs for Disasters.**

14 chapters on different disasters :

Flood and Landslides, Tropical Cyclone ,Urban Fire,Chemicals &hazardous materials, transportation-related accidents, Drought, Cold Snap, Haze & wild Fire, Earthquake & collapse Building,Tsunami , Human epidemic, Plant epidemic, Animal epidemic, and Cyber terrorism.

## **Part III : Disaster Prevention and Mitigation in the Aspect of National Security Issues** comprise 5 chapters.

Principle of National security.

Prevention and Suppression of sabotage

Prevention and Mitigation of Disaster caused by Mines

Prevention and Mitigation of Disaster caused by Air Raid

Prevention and Suppression of Riot and Violent Protest



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## Disaster Management Strategy 2012-2016

Good governance in disaster prevention and mitigation

Capacity Building in D.M

**Goal : to reduce/ avoid losses from hazards, assure prompt &appropriate assistance to victims by achieve rapid & effective recovery.**

Increasing D.M. Networking

Systematic & Sustainable in Re-habilitation & Recovery



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## Department of Disaster Prevention and Mitigation (DDPM)

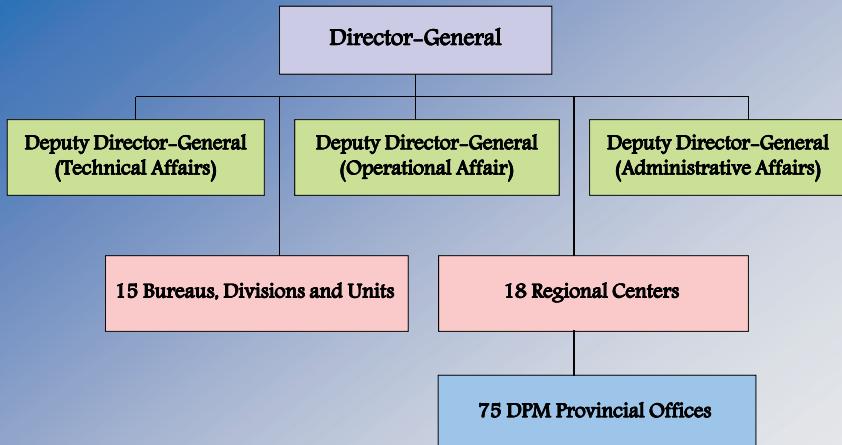
- Established in 2002, under MOI
- Performs the Secretariat Tasks for NDPMC and NSCT
- Has over 4,000 Staffs, with 18 branch in regional offices
- And having staffs in 75 provinces throughout the country



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## DDPM ORGANIZATION STRUCTURE



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## DDPM's MISSION



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Photo credit : [www.Disaster.go.th](http://www.Disaster.go.th)

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## Budget Size 2003 -2010

| Year | THB           | USD : JPN |
|------|---------------|-----------|
| 2003 | 1,066,412,900 | 34 : 2822 |
| 2004 | 1,312,578,500 | 42 : 3486 |
| 2005 | 1,685,362,700 | 55 : 4565 |
| 2006 | 2,437,850,700 | 79 : 6557 |
| 2007 | 1,948,805,800 | 63 : 5229 |
| 2008 | 2,184,972,800 | 71 : 5893 |
| 2009 | 2,315,783,900 | 75 : 6225 |
| 2010 | 2,541,163,000 | 83 : 6889 |

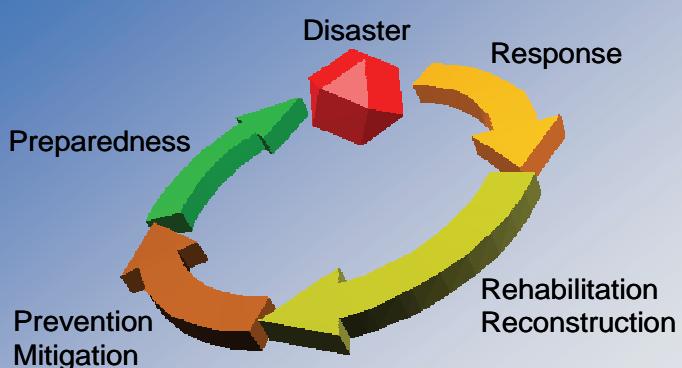


As of 24 Feb 2011 : 1 USD = 30.50 THB = 82.06 JPN

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## Major mission on Disaster Risk reduction



Source : ADRC



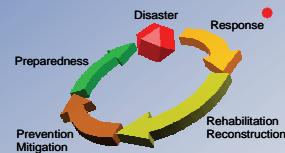
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## DDPM in Response

### □ Principle

When a disaster occurs, emergency staffs of local government acts first with support from local volunteers such as Civil Defense Volunteers (CDVs) etc. Response crews from neighboring local governments, district government, provincial governments, Armed forces etc. are mobilized in case of a large scale disaster.



### □ Roles of DDPM in response

- (1) provides training for the first responders
- (2) co-worked with all provincial and local G.O. followed by the disaster emergency plan
- (3) supports the search and rescue operation with its own personnel
- (4) serves as the coordination center in a large-magnitude disaster. DDPM has 24/7 disaster emergency operation center in all provinces.



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## DDPM in reconstruction & rehabilitation

### □ Disaster Emergency Relief Fund

In any case of disaster, the government pay some amount of money to the victims through the **Disaster Emergency Relief Fund**. The fund is available at DDPM provincial office in every province.



### □ The Central Government Emergency Fund

To rebuild public utilities and infrastructure, the government can use the money from the **Central Government Emergency Fund**.



### □ Local government Fund

Encouraged by DDPM, local governments nowadays tend to establish an emergency fund for assistance their residents in case of a disaster.



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## To Prevent & Mitigate Disaster

### □ To prevent and Mitigate Disaster

- Established Master plan for
  - Flood Windstorm & Mudflow.
  - Tsunami,
  - Earthquake & Collapse building etc.



-Installation of Early warning instrument



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## DDPM in Preparedness' s activity



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## DDPM's Preparedness

DDPM has supported the provinces to carry out preparedness related activities as follow;

- Formulating disaster prevention plan.
- Training the officials and Civil Defense Volunteer.
- Educating the public.
- Procuring equipments, vehicles and other amenities for safety
- Providing temporary shelters.
- Conducting annual exercise & drills.



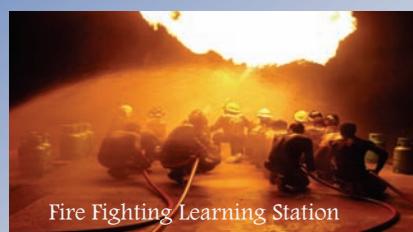
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Disaster Prevention Learning Center  
is highly requested and urgently wanted .



Swimming pool for water rescue



Fire Fighting Learning Station



First Aid Practice



Fire Fighter in school



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## Challenges

- ⌚ Urgently needs to reform D.M system & mechanism.  
Sharing experience in D.M. through various cooperation activities.
- ⌚ D. M. is mainly managed by MOI, need to improve both two sides ; officials and the communities.  
Thailand has been networking with inter. Org. or other agencies. Cause DRR should be everyone's mission .
- ⌚ More than 50,000 villages at risk in different kind of disaster. Therefore, it is a huge task to make the country 100% safe from disasters.  
The transfer of lesson learned, best practice & assistance from outside Japan will be beneficial to Thailand; in order to develop the existing D.M. to be more efficient and established safety culture to be sustainable society.



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## International Disaster Reduction Cooperation

- ⌚ member of ASEAN cooperation in D.M.
- ⌚ member of ADRC since 2004.
- ⌚ member of Typhoon Committee in 1968.
- ⌚ partners with a number of Inter.Org. in disaster reduction programs and activities such as ADPC,GTZ, UNDP and JICA.
- ⌚ Other cooperation: ARF, ASEAN DIALOGUE PARTNERS etc.

**DDPM's staff would like** to learn through experts to increase effectiveness of disaster prevention, response, and relief and recovery.



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## Research Plan

Title : Comparative study on Dissemination of Disaster Prevention Activities for Communities

My work : As a coordinator in task force of CBDRM; the 4 years plan in project on Capacity Development in D.M. (JICA&DDPM)

Objective : for scale up disaster prevention activity in Thai communities which introduce new practices in different styles of drill or exercise for specific target groups; for kids or public.



Concept /approach : by transfer & sharing knowledge, technical know - how in CSR's activities. Kaeru Caravan "Learning with fun", community participation by Card Game ; "Crossroad" by the spirit of friendship, sympathy and forgiveness in public awareness on disaster prevention as "self-help society" with sustainable and safety community.

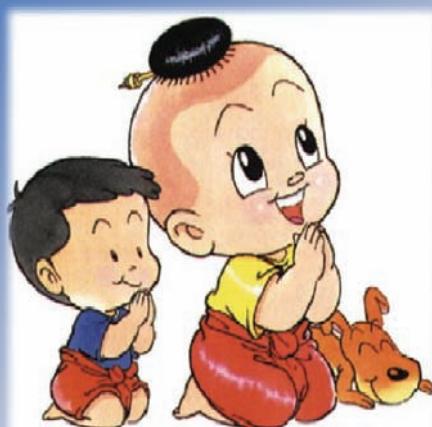


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## Thank you for your kind Attention



Source : Thailand Country report 2009 and revised in 2010  
[www.disaster.go.th](http://www.disaster.go.th)



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