Thailand’s Disaster Management System

Presentation by
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ADRC Visiting Researcher
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• The Level of Disaster Intensity, Vulnerability, Managing Competency and Risk Levels of Thailand

• Thailand’s Disaster Situation Summary in 2007
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- National Disaster Prevention and Mitigation Plan
- National Civil Defence Plan B.E. 2548 (2005)
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Geographic features

- 5° and 21° N latitude
- 97° and 106° E longitude,
- Bordered by Laos, Myanmar, Cambodia, Gulf of Thailand, Malaysia, and Andaman
- 513,115 square kilometres.
- Main 4 regions
- Average height temperature of 34°C and the low of 23°C.
- Population about 65 millions
- Administrations 76 provinces 3 levels
II Disaster Situation in Thailand
The Level of Disaster Intensity, Vulnerability, Managing Competency and Risk Levels of Thailand

<table>
<thead>
<tr>
<th>Type of Disaster</th>
<th>Intensity Level</th>
<th>Vulnerability Level</th>
<th>Managing Competency Level</th>
<th>Risk Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Tropical Cyclone</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Low</td>
<td>Low</td>
<td>Poor</td>
<td>Moderate</td>
</tr>
<tr>
<td>Land slide</td>
<td>Moderate</td>
<td>Low</td>
<td>Poor</td>
<td>Moderate</td>
</tr>
<tr>
<td>Drought</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Fire</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Explosives</td>
<td>High</td>
<td>Moderate</td>
<td>Poor</td>
<td>High</td>
</tr>
<tr>
<td>Accident</td>
<td>High</td>
<td>Moderate</td>
<td>Poor</td>
<td>High</td>
</tr>
<tr>
<td>Human Epidemics</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
<td>Low</td>
</tr>
<tr>
<td>Agricultural Pest and Diseases</td>
<td>Moderate</td>
<td>Low</td>
<td>Poor</td>
<td>Moderate</td>
</tr>
<tr>
<td>Social Unrest</td>
<td>Low</td>
<td>Low</td>
<td>Poor</td>
<td>Moderate</td>
</tr>
<tr>
<td>Influx of Refugee</td>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Source: Nation Civil Defence Plan 2005, Civil Defence Secretariat Office Ministry of Interior, Thailand
## Thailand’s Disaster Situation Summary in 2007

<table>
<thead>
<tr>
<th>Disaster type</th>
<th>Frequency</th>
<th>People Killed</th>
<th>Total affected people</th>
<th>Damaged (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flood</strong></td>
<td>13</td>
<td>36</td>
<td>2,326,197</td>
<td>48,224,742</td>
</tr>
<tr>
<td>Water wood –induced Flash flood</td>
<td>2</td>
<td>46</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Drought</td>
<td>1</td>
<td>n/a</td>
<td>16,754,980</td>
<td>5,665,849</td>
</tr>
<tr>
<td>Cold Spell</td>
<td>1</td>
<td>n/a</td>
<td>5,910,339</td>
<td>n/a</td>
</tr>
<tr>
<td>Fire</td>
<td>1,901</td>
<td>45</td>
<td>9,761</td>
<td>25,022,622</td>
</tr>
<tr>
<td>Forest Fire</td>
<td>7,742</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Disaster type</td>
<td>Frequency</td>
<td>People Killed</td>
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<tr>
<td>------------------------------------</td>
<td>-----------</td>
<td>---------------</td>
<td>------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Storm</td>
<td>2,233</td>
<td>10</td>
<td>245,619</td>
<td>6,701,347</td>
</tr>
<tr>
<td>Thunderbolt-induced disaster</td>
<td>240</td>
<td>67</td>
<td>1473</td>
<td>264,249</td>
</tr>
<tr>
<td>Hail</td>
<td>3</td>
<td>592</td>
<td>2328</td>
<td>54,702</td>
</tr>
<tr>
<td>Sabotage</td>
<td>1022</td>
<td></td>
<td>920</td>
<td>2,173,685</td>
</tr>
<tr>
<td>Chemical &amp; hazardous material-induced disaster</td>
<td>41</td>
<td>9</td>
<td>1330</td>
<td>1,459,254</td>
</tr>
<tr>
<td>Transportation</td>
<td>101,765</td>
<td>12,591</td>
<td>79,162</td>
<td>132,011</td>
</tr>
</tbody>
</table>

Source: Department of Disaster Prevention and Mitigation, Ministry of Interior, Thailand
III Disaster Management System in Thailand
Disaster Prevention and Mitigation Act 2007

✓ Enacted on Nov 6, 2007
✓ Termination of Civil Defence Act 1979
✓ Termination of Fire Defence Act 1999
Disaster Prevention and Mitigation Act 2007

* 3 main policy-making and planning bodies (National, Provincial and Bangkok Metropolitan)
* Prime Minister or an assigned Deputy Minister as the National Commander
* DDPM is the core national government on DM
* authorize LAO to take responsibility on DM
Disaster Prevention and Mitigation Act 2007

Disaster classified into 3 categories

1) Man-made and natural disasters;

2) Disaster resulted from air raid during wartime; and

3) Disaster resulted from sabotage or terrorist attack
National Disaster Prevention and Mitigation Committee

Members

Chairperson - PM
V Chairperson 1 – Minister of Interior
V Chairperson 2 – Permanent Sec of Min. of Interior
Permanent sec. of Min of Defense
Permanent sec. of Min of Social Dev.
Permanent sec. of Min of Agriculture etc.
Experts & Military Commanders
Member&Secretary – DDPM’s DG

To set up Sub-Committee (s)

Duties

• Formulate the National Disaster Prevention and Mitigation Plan
• Approve the National Plan before submitting to the cabinet
• Integrated the development of Disaster Prevention and Mitigation System among all concerned sectors
• give recommendations, consultation, and support to concerned agencies
• propose regulation on remuneration, recompense and so on.

Chairperson - PM
V Chairperson 1 – Minister of Interior
V Chairperson 2 – Permanent Sec of Min. of Interior
Permanent sec. of Min of Defense
Permanent sec. of Min of Social Dev.
Permanent sec. of Min of Agriculture etc.
Experts & Military Commanders
Member&Secretary – DDPM’s DG
Provincial Disaster Prevention and Mitigation Committee

Members

Chairperson – Governor
Vice Chairperson – Deputy Governor/
   Military Commander/
   Chairman of Provincial Administration
   Organization
- Representatives from Provincial Government Services, Local Administration Organization, Private Sector/NGO’s
Member & Secretary – DDPM’s Provincial Chief

Duties

- Formulate the Provincial Disaster Prevention and Mitigation Plan
- Oversee and provide training for volunteer
- Oversee & investigate local admins. of preparing equipment
- Operate as government service unit at local admins. level to assist the disaster affected and other activities
BMA’s Disaster Prevention and Mitigation Committee

Members

- Chairperson – BMA Governor
- Vice Chairperson – BMA Permanent Secretary
- Government Agencies Reps.
  - DDPM’s Reps.
  - Private sector/
  - NGO’s Reps.
- Community Reps.
- Military Reps.
- Education Institution Reps.

Duties

- Formulate the Disaster Prevention and Mitigation Plan for Bangkok
- Oversee and train volunteer in BK
- Procure material, equipment, tools, vehicles and others
- Support and assist local admins. and the neighboring in disaster prevention
National Disaster Prevention and Mitigation Plan

- devised by National Disaster Prevention and Mitigation Committee
- the master plan for establishing provincial and Bangkok Metropolitan plan, and other related government agencies and local administrations’ operational plan.
- 3 levels - national, provincial, and Bangkok provinces
- reviewed every 3 years by DDPM
- The new National Plan has yet to be complete, so the 2005 National Civil Defence Plan is still in use.
## Substantial Part of 3-level Plan

<table>
<thead>
<tr>
<th>National plan</th>
<th>Provincial Plan</th>
<th>Bangkok Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Guide lines, measures and budget to support disaster prevention and mitigation operations</td>
<td>(1) The setting up of Special Command Center when ever disasters strike</td>
<td>(1) establish command center where disaster occurred</td>
</tr>
<tr>
<td>(2) Guide lines and methods for providing aids and mitigate the impacts of disasters</td>
<td>(2) Plan and procedures for local administrations for procuring tools, equipments, materials, hardware and vehicles in disaster prevention and mitigation operations</td>
<td>(2) plan and process to procure materials, tools, equipment, and vehicle for disaster prevention and mitigation</td>
</tr>
<tr>
<td>National plan</td>
<td>Provincial Plan</td>
<td>Bangkok Plan</td>
</tr>
<tr>
<td>---------------</td>
<td>-----------------</td>
<td>--------------</td>
</tr>
<tr>
<td>(3) Relevant government agencies and local administrations shall proceed operations under (1) and (2), and shall seek for availability and mobility of fund</td>
<td>(3) Plan and procedures for local administrations for procuring an early warning system and other equipments</td>
<td>(3) plan and process to procure signaling devices for notifying the occurrence of a disaster</td>
</tr>
<tr>
<td>(4) Preparedness perspectives on support personnel, equipments and other materials</td>
<td>(4) Operation plan for disaster prevention and mitigation at local administrations</td>
<td>(4) Bangkok Disaster Prevention and Mitigation Action Operation Plan</td>
</tr>
<tr>
<td>(5) Guide line on fixing, recovery and restoration to community right after disaster</td>
<td>(5) Cooperation plan to other relevant public charities.</td>
<td>(5) Coordination Plan with Public Charity Organizations in Bangkok</td>
</tr>
</tbody>
</table>
National Civil Defense Plan 2005

- Developed from the same plan yearly 2002
- Still serves as the master plan for agencies concerned
- Updated by DDPM every three years
- Comprise 2 components
  1) Disaster prevention and mitigation,
  2) Civil Defence for Security (Rear-Area Protection)
National Civil Defense Plan 2005

1) disaster prevention and mitigation

2) Civil Defence for Security (Rear-Area Protection)
Department of Disaster Prevention and Mitigation (DDPM)

- the central government agency to function of national DPM activities.

- power and authorities:

  1) formulates the National Disaster Prevention and Mitigation Plan for the committee
  2) Organizes and researches on procedures and measures
  3) Operates, cooperates, supports and assists all relevant agencies
  4) Guides, and provides consultancy, and train all concerned sectors
  5) Follow-up, assesses and evaluates all activities
18 DDPM regional Center
National Safety Council of Thailand

- focus on man-made and technological disaster management
- established in 1982 to solve the problem of road traffic accidents, chemical and occupational accident, accident in home and public venues, fire in high-rise building,
- chaired by the Prime Minister
- DG of DDPM is the member and the Secretariat
Difficulties of Thailand’s Disastrous Management

- having inadequate technical and technological know-how as well as systematic coordination among concerned organizations is the prominent problem of Thailand DM
- Thailand has coped with those disasters situation in line with the DPM Act 2007, concept of TDRM, and the following preparedness approaches
Disaster Preparedness Approaches:

Establishment of the Ministerial Integrated Disaster Prevention and Mitigation Action Plan on DM

• focusing on disaster management by participation of all involved agencies at provincial and ministerial, private and government sectors, and foundation and NGOs.
Disaster Preparedness Approaches:

Setting up the Strategic National Action Plan (SNAP):

- to provide direction of the country in understanding disaster risk reduction in line with the context of HFA.
Disaster Preparedness Approaches:

**Contribution of CBDRM to sustainable development:**

- Formulating the annual disaster prevention and mitigation plan
- Establishing the joint exercise, pursuant to the formulated plan
- Establishing the network and recruiting more Civil Defense Volunteer.
- Developing human resource
- Providing disaster management related equipments
- Erecting warning system.
Disaster Preparedness Approaches:

Enhancement the capacity of local authorities in disaster management:

• develop knowledge – how and skills of local government staffs in disaster management through training.

• equip local management
Enhancement the capacity of local authorities

- allocate annual central budget to local authorities for disaster management
- increase the numbers of community-based civil defence volunteers (CDVs) (1,087,690 CDVs)
Enhancement the capacity of local authorities

Provide efficient One Tambon One Search and Rescue Team (OTOS) covering the country (7,255 tambons).
Disaster Preparedness Approaches:

Emergency Response Team Development Project

- To response for each type of large scale hazards or incidents
Disaster Preparedness Approaches:

**Evacuation Plan and Drill:**

- formulate Provincial Evacuation Plan for corresponding to the threatening disaster within the province.
- conducted evacuation drill at least twice a year.
National Drill:

- National Drill or Crisis Management Exercise (C-MEX)
- to test capabilities of concerned government agencies (policy maker and operational units) with respect to the Civil Defence Plan 2005.
My Responsibilities Concerning to DM

- International cooperation on disaster management
  - DDPM-ADRC
  - DDPM-ASEAN

- Technical support for policy making process of the DDPM