The Framework for Disaster Management and Emergency Response in The Kingdom of Thailand

BY

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1. THAILAND FACTS & FIGURES.
2. RANK ORDER OF DISASTER RISK IN THAILAND
3. DISASTER MANAGEMENT
4. NATIONAL DISASTER PREVENTION AND MITIGATION PLAN 2010 – 2014
1. Thailand Facts & Figures

**Total area**: 513,120 sq km
- Water: 2,230 sq km
- Land: 510,890 sq km

**Land boundaries**: 4,863 km

**Borders**:
- Burma: 1,800 km
- Cambodia: 803 km
- Laos: 1,754 km
- Malaysia: 506 km

**Coastline**: 3,219 km

**Arable land**: 27.54%

**Population**
- 67,764,033 (Dec 2010 est)
- World ranking: 20

**Age structure**:
- 0-14 years: 19.9%
- 15-64 years: 70.9%
- 65 years and over: 9.2%

**Median age**: 34.2 years
- Male: 33.3 years
- Female: 35.2 years

**Population growth rate**: 0.566%
- World ranking: 147

**Birth rate**:
- 12.95 births/1,000 population
- World ranking: 153

**Death rate**: 7.29 deaths/1,000 population
- World ranking: 123
1. Thailand Facts & Figures

- **Fertility rate:** 1.66 children born/woman  
  World ranking: 172

- **Infant mortality rate:** 16.39 deaths/1,000 live births  
  World ranking: 108

- **Life expectancy at birth:** 73.6 years  
  - Male: 71.24 years  
  - Female: 76.08 years  
  World ranking: 113

- **Education expenditure:** 4.1% of GDP (2009)  
  World ranking: 103

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**COMMUNICATIONS**

- **Airports:** 105  
  **Railways:** 4,071 km

- **Telephones**
  - **Fixed lines:** 7.024 million  
    World ranking: 27
  - **Mobile:** 83.057 million  
    World ranking: 14
  - **Internet users:** 17.48 million  
    World ranking: 23

*Source: National Statistical Office, Bank of Thailand, World Bank, CIA World Factbook*
2. RANK ORDER OF DISASTER RISK IN THAILAND
<table>
<thead>
<tr>
<th>Hazard</th>
<th>Vulnerability</th>
<th>Management</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Flood</em></td>
<td>High</td>
<td>Moderate</td>
<td>High</td>
</tr>
<tr>
<td>Typhoon &amp; Storm surge</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Low</td>
<td>Low</td>
<td>Poor</td>
</tr>
<tr>
<td>Landslide</td>
<td>Moderate</td>
<td>Low</td>
<td>Poor</td>
</tr>
<tr>
<td>Drought</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Fire</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Explosion</td>
<td>High</td>
<td>Moderate</td>
<td>Poor</td>
</tr>
<tr>
<td>Major Accident</td>
<td>High</td>
<td>Moderate</td>
<td>Poor</td>
</tr>
<tr>
<td>Epidemic</td>
<td>Low</td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Pest</td>
<td>Moderate</td>
<td>Low</td>
<td>Poor</td>
</tr>
<tr>
<td>Civil Unrest</td>
<td>Low</td>
<td>Low</td>
<td>Poor</td>
</tr>
<tr>
<td>Refugee Influx</td>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

## Rank Order of Disaster Risk in Thailand*

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Subjective Rank</th>
<th>Numeric Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flood</td>
<td>High</td>
<td>2.39</td>
</tr>
<tr>
<td>Major Accidents</td>
<td>High</td>
<td>2.37</td>
</tr>
<tr>
<td>Explosion</td>
<td>High</td>
<td>2.34</td>
</tr>
<tr>
<td>Typhoon</td>
<td>Moderate</td>
<td>2.31</td>
</tr>
<tr>
<td>Drought</td>
<td>Moderate</td>
<td>2.24</td>
</tr>
<tr>
<td>Fire</td>
<td>Moderate</td>
<td>2.20</td>
</tr>
<tr>
<td>Landslide</td>
<td>Moderate</td>
<td>2.15</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Moderate</td>
<td>1.97</td>
</tr>
<tr>
<td>Civil Unrest</td>
<td>Moderate</td>
<td>1.92</td>
</tr>
<tr>
<td>Refugee Influx</td>
<td>Moderate</td>
<td>1.87</td>
</tr>
<tr>
<td>Pests</td>
<td>Moderate</td>
<td>1.77</td>
</tr>
<tr>
<td>Epidemics</td>
<td>Low</td>
<td>1.63</td>
</tr>
</tbody>
</table>

Flood in Thailand 2011.
<table>
<thead>
<tr>
<th>No.</th>
<th>Type of Disaster</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Flood</td>
<td>58.28</td>
</tr>
<tr>
<td>2</td>
<td>Drought</td>
<td>18.53</td>
</tr>
<tr>
<td>3</td>
<td>Pest Epidemics</td>
<td>4.93</td>
</tr>
<tr>
<td>4</td>
<td>Cold Spells</td>
<td>4.32</td>
</tr>
<tr>
<td>5</td>
<td>Storm</td>
<td>3.18</td>
</tr>
<tr>
<td>6</td>
<td>Avian Flu</td>
<td>2.30</td>
</tr>
<tr>
<td>7</td>
<td>Fire</td>
<td>0.94</td>
</tr>
<tr>
<td>8</td>
<td>Tsunami</td>
<td>0.82</td>
</tr>
<tr>
<td>9</td>
<td>Intermittent Rain</td>
<td>0.33</td>
</tr>
<tr>
<td>10</td>
<td>Civil Unrest</td>
<td>0.25</td>
</tr>
</tbody>
</table>

As of Sept 30, 2012
3. Disaster Management : DM

DISASTER MANAGEMENT AT NATIONAL AND LOCAL LEVEL
CAUSES OF DISASTER

- Security Treat
- Man Made Disaster
- Natural Disaster
STRUCTURE OF DISASTER MANAGEMENT
(Disaster Management Cycle)

(Disaster impact)

Pre-disaster

(Preparedness)

Disaster/Crisis

(Emergency Response)

Post-disaster

(Prevention and Mitigation)

(Rehabilitation and Reconstruction)
Disaster Management Mechanisms

1. Disaster Management Structure
   - Policy Level: National Disaster Prevention and Mitigation Committee
   - Command and Control Level
   - Operation Level
Disaster Management Mechanisms

2. Disaster Prevention and Mitigation Plan
   - National Disaster Prevention and Mitigation Plan
   - Master Plan for each Disaster Sub Type
   - DPM Provincial Plan
   - Annual Plan Exercise at all level
4. NATIONAL DISASTER PREVENTION AND MITIGATION PLAN

2010 – 2014
It is composed of 3 components;

Component 1: Disaster Management Principle
Component 2: Types of Disaster Management Procedures
Component 3: Types of Security Disaster Management Procedures which are composed of their principles
Types of Disaster

14 Types of Disaster
- Flood and Landslide
- Tropical Cyclones
- Fire
- Chemical and Hazmat
- Transport Hazard
- Drought
- Cold Spell
- Forest Fire and Haze
- Earthquake & Building Collapse
- Tsunami
- Human Epidemic
- Plant Disease and Pest
- Animal Epidemic
- Information and Technology Treat

4 Types of Security Treat
- Sabotage
- Mine and Land Mine Treat
- Air Treat
- Protest and Riot
## Level of Disaster Scale and Incident Commander

<table>
<thead>
<tr>
<th>Level</th>
<th>Severity</th>
<th>Incident Commander</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Small Scale Incident</td>
<td>Local Authority Org, Head such as Mayor, Local Chief Authority</td>
</tr>
<tr>
<td>2</td>
<td>Medium Scale Incident</td>
<td>Provincial Governor/ BMA Governor</td>
</tr>
<tr>
<td>3</td>
<td>Large Scale Incident</td>
<td>Central Commander / National Disaster Management Director</td>
</tr>
<tr>
<td>4</td>
<td>Extreme Scale Incident</td>
<td>The Prime Minister or the Designated Deputy Prime Minister</td>
</tr>
</tbody>
</table>
Extreme large-scale disaster (Level 4 Scale)

Prime Minister or Deputy Prime Minister entrusted

Single Command

National Command Headquarters (NC HQ)

Minister of Ministry of Interior (National Commander)

Incident Command Post (ICP) (Level 3-4)

Provincial Command Center

Provincial Director

District Command Center

District Director

Bangkok Metropolitan Command Center

Bangkok Metropolitan Director

Bangkok Metropolitan Incident Command Post (Level 3-4)

Bangkok Metropolitan Director Assistant

Municipality Command Center

Local Director

Tambon Administration Organization Command Center

Local Director

Pattaya City Command Center

Local Director
Thank you & Sawasdee

www.disaster.go.th

Hotline 1784