Lessons Learned as ADRC Visiting Researcher

by Areerat Wijitpatchcharaphon
Outlines

I  Thailand Disaster Management System
II  Thailand’s experience from 2004 Tsunami
III  Lessons learned from Japan
IV  Report on Comparative Study of Flood Prevention Plan at Local Government Level in Thailand and Japan
V   Study Visit and impression of Japan
VI  Welcome to Thailand
I. Thailand Disaster Management System
Deaths caused by types of disasters

- **tsunami**: 8212, 63%
- **flood**: 2178, 17%
- **severe weather**: 1582, 12%
- **landslides**: 1091, 8%
- **earthquake**: 0, 0%
- **drought**: 0, 0%

Source: Report of Ministry of Interior
Typhoon Gay in 1989

458 people in Chumporn province were killed
Namkor Landslide on 10th August 2001
The Indian Ocean Tsunami

Ranong
Phang Nga
Krabi
Trang
Satun
Phuket
<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>Flood</td>
<td>13</td>
<td>36</td>
<td>2,326,197</td>
<td>48,224,742</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>Storm</td>
<td>2,233</td>
<td>10</td>
<td>245,619</td>
<td>6,701,347</td>
</tr>
<tr>
<td>Drought</td>
<td>1</td>
<td>n/a</td>
<td>16,754,980</td>
<td>5,665,849</td>
</tr>
</tbody>
</table>

Source: DDPM, Ministry of Interior
Disaster Management System in Thailand

- Disaster Prevention and Mitigation Act 2007
- National Disaster Prevention and Mitigation Plan
- National Civil Defence Plan B.E. 2548 (2005)
II. Thailand’s experience from 2004 Tsunami
Response and relief

- Establishment of relief coordinating center
- Search and Rescue activities
- Assignment of institutions/persons in charge
- Providing basic necessaries to the victims
- Volunteer center
Tsunami 2004

Volunteer Center in Pang Nga, Thailand

Temporary shelter

SAR Activity
Rehabilitation and Recovery

- Provision of compensation relief fund, dwelling houses, vocations, mental and physical care center
- Environment restoration

Building temporary houses

Beach clean up
• Rehabilitation of coral reefs, mangrove forests, sea grass, assessment of sea water quality and marine creature habitat clean-up.
<table>
<thead>
<tr>
<th>Preparedness</th>
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<tbody>
<tr>
<td>Materializing Early Warning System.</td>
</tr>
<tr>
<td>Public Awareness and Education.</td>
</tr>
<tr>
<td>Enhancing the Capacity of Local Authority.</td>
</tr>
<tr>
<td>Formulation of Evacuation Plan and Drill.</td>
</tr>
<tr>
<td>Tsunami Memorial Parks and Museums Construction</td>
</tr>
</tbody>
</table>
➢ Tsunami Memorial Parks and Museums Construction

Early Warning Tower

Evacuation drill
International Tsunami Museum
III. Lessons Learned from Japan
National Disaster Management System

Disaster Countermeasure Basic Act 1961

Prime Minister

Central DM Council

Formulate and promote implementation Basic DM Plan


23 Mins
Formulate and promote implementation of DM operation Plan

Cabinet Off.

Cabinet Sec.

63 Public
Prefectural and Municipal Disaster Management System

**Prefectural DM Council**
Formulate and promote impln. of DM Plan

**Municipal DM Council**
Formulate and promote impln. of local DM Plan

residents
Problems of DM System in Japan

- lack of major stakeholders’ involvement during the planning process
- lack of policy consideration
- lack of coordination system among jurisdiction in case of wide-area disaster
Wide Area Disaster Management Base

Regional Base

Affected Areas

Evacuation Facilities

Transport Network

Central Base

Regional Base

Regional Base

Regional Base
Establishment of Wide Area DM Base

Functions

- Stockyard of food, goods, equipment
- Transport base
- Area for Search and Rescue (SAR) and Base Camp
- Communication Center
- Evacuation Place
- Emergency Medical Treatment (EMT)
- Base for Reconstruction & Rehabilitation
Tragic loss of lives and properties

Great Hanshin-Awaji EQ
Lessons from Hanshin-Awaiji EQ

- Coordinate efforts between individual and government in Disaster Management
- Transmit the lessons through the next generation
- Apply lessons in Disaster Reduction Activities
- Focus on Activities of Community Based - Rescue and Fire-fighting, Wide-area Disaster Relief and Medical System, Volunteer, and Mental Care
- Set Evacuation Center
- Give significance of quick damage assessment, recovery infrastructure
<table>
<thead>
<tr>
<th>Lessons from Hanshin-Awaiji EQ and the Way Forward</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Reopen the Stores and <strong>Local Business Support</strong></td>
</tr>
<tr>
<td>➢ Recycle waste products that result from disaster</td>
</tr>
<tr>
<td>➢ Promote the development of <strong>disaster-resistant urban infrastructure</strong></td>
</tr>
<tr>
<td>➢ Establish <strong>laws</strong> taking care of large-scale disaster</td>
</tr>
<tr>
<td>➢ Coordinate <strong>financial supporting</strong> by the Central Gov.</td>
</tr>
</tbody>
</table>
Lessons from Japan and Thailand in handling unprecedented disaster

- **Learn** to gain knowledge on regional disaster and memorize the way to survive through disaster-fighting drill and education for disaster prevention.
- **Protect** the everyday life by own way based on the educated knowledge.
- **Plan** the town by in-area people and consider to the environmental effect together with the strength to face disaster.
- **Enhance** the network of Volunteer.
- **Build up** the strength of CBDRM.
IV. Report on the Comparative Study of Flood Prevention Plan at local government levels in Thailand and Japan
- It is a part of the tasks to be accomplished by ADRC’s VR program. The study of flood prevention could help enhancing the capacity of government officials in the management of flood prevention.

- Japan is one of the countries in the world that has the reputation of having advanced practices of flood disaster prevention.
**Purpose:** The local governments in Thailand can apply recommendations from the study for the establishment of the action plans as well as for the formulation of Local Disaster Prevention and Mitigation Plan.

**Scope:** Shizuoka City Regional Disaster Prevention Plan was used to give a clear picture of Japanese system.

- the Bangkok Prevention and Mitigation Plan was studied to reflect how a local government in Thailand has managed to cope with flood disaster.
Flowchart of Study Framework

Flood Management System in Japan

Shizuoka City Flood Prevention Plan

TDRM
- Prevention & Mitigation
- Preparedness
- Response
- Recovery & Rehabilitation

Recommendations

Tentative Plan of Action for Devising Local Flood Prevention Plan of Thailand

Flood Management System in Thailand

BKK Flood Prevention Plan
The issues of study

1. Flood Management System in Japan
   - General Features and Types of River
   - Legislation and Institution
   - Basic Flood Management Strategies
   - Comprehensive flood management measures
   - Comprehensive flood control program
The issues of study (cont.)

2. Flood Management System in Thailand
   - Major causes of floods in Thailand
   - Organizations Responsible For Flood Control
   - Government Policies on Flood Control
   - Flood Management Master Plan
   - Flood Control Programs in Thailand
   - Flood Management Countermeasures
   - Problems of Flood Control Implementation and solving
Reccomendations

- Flood Prevention Plan of Shizuoka City, Japan is perfectly completed with the many details of flood control measures in line with Total Disaster Risk Management (TDRM):

- Flood Prevention Plan of Bangkok is incompletely filled by few points of flood management
The significant inputs:
- Flood prevention measures in line with TDPM
- Another issues: prevention of epidemic, water resource management, urban planning and zoning, agricultural management, influence of climate change, establishment of national responsible body, coordinating between various sectors concerned, encouraging responsibility of individual to flood solving
- National policy, strategy, and regulation of flood management
Tentative plan of Action for Devising Local Flood Management Plan of Thailand
V. Study Visit

By Taking part in JICA Course of Comprehensive Disaster Risk Management 2009

1. Crisis Management Office City of Kobe
2. Disaster Response Office, Network Operation Dept. NTT West Corporation
3. Kansai Electric Power Co., Inc
4. Osaka Gas Engineering Co., Ltd.
5. Hyogo Emergency Medical Center
6. Osaka Prefecture Office
7. Water Control Office - Nishi/West
V. Study Visit

8. Japan Broadcasting Corporation, NHK, Tokyo
9. Japan Meteorological Agency
10. Japan Research Institute
11. International Center for Water Hazard and Risk Management
12. Geographical Survey Institute
13. Arakawa River Flood Control Office
15. Japanese Red Cross Society
16. Disaster Management of Temples in Kyoto
17. Nigawa-Yurino-cho Landslide Museum
V. Study Visit

18. Unzen Fugen Shiyakan and Ono-Koba Sabo Miraikan Museum, Akamatsutanigawa River Construction Site and Mt. Unzen Disaster Memorial Hall


20. Nojima Fault Preservation Museum

21. Kobe City Chuo Fire Station

22. Disaster Prevention Research Institute, Kyoto University,

23. Earthquake-proof Retrofit of Buildings in Migake
V. Study Visit

By ADRC’s Program

1. Kobe University
2. “Weathercock House” affected by the Hanshin-Awaiji Earthquake
3. Disaster Reduction Museum
4. Kobe Monitoring Observatory Site
5. Participation in the JICA forum on climate change and disaster
7. Give lecture Yamaguchi University’s students on DM
8. Akiyoshidai (Quasi-Natural Park and Special Natural Monument) and Akiyoshi Contrast, Yamaguchi
9. Hiroshima Peace Memorial Museum, and the world Heritage Itsukushima Shrine
10. Give lecture Fujitokoha University’s students, on DM
11. Have lecture at Shizuoka Prefecture
Some photographs from Study Visits
V. Impression of Japan
Japan is beautiful as it has four magnificent places of four seasons.
Japanese people
Strict self-control
Good at in cooking
Lively
Very kind

Religious belief
Welcome to Thailand
The Land of Smile
Delicious food
Buddhism and Happiness
Thai’s Beloved King

• The King Bhumibol Adulyadej of Thailand
• the democratic king
• the world’s longest reigning monarch over 60 years
• over 2000 royal projects established nationwide
• was presented UNDP Human Development Lifetime Achievement Award
Thank you

SAWASDEE