A SUCCESSFUL CASE OF DISASTER MANAGEMENT IN JAPAN

Presented by: Ross Sovann
Disaster Management and Policy Advisor to the National Committee for Disaster Management, Royal Government of Cambodia
Visiting Researcher of ADRC, January-June 2005

Outline of the Presentation

1. Overview of Disaster Management in Cambodia;
2. Overview of Disaster Management in Japan;
3. Leaning Outputs;
4. Recommendation and Action Plan
5. Observation on ADRC and VR Program
Overview of disaster management in Cambodia

• Food and Drought are primary natural disasters
• Hamper livelihood and living condition
• Rationally, they are continue to occur and increase in frequency and intensity

Response is only ad hoc with food and commodity assistances

Required More comprehensive Disaster Emergency Management:

Areas require assistance:
1. Legal systems and Policy on Disaster Management;
2. Comprehensive Disaster Management Strategy;
3. Disaster Preparedness and Response;
4. Disaster Management Information System; and
5. Public Awareness and Early Warning.
Overview of disaster management in Japan

- Typhoons (July - October)
- Heavy Monsoon Rain (May - July)
- Floods
- Landslides
- Earthquakes
- Tsunamis
- Volcanic Eruptions
- Snow Avalanches

Japan has wide variety of natural disasters
Overview of disaster management in Japan

Because of improvement of disaster counter measures:

• Number of disaster reduced;
• Damaged minimized;
• Number of death tolls declined

Key areas of Learning and Research Outputs

1. Disaster Management Systems;
2. Disaster Management Plan and Budget;
3. Disaster Management Strategies; and
4. Disaster Countermeasures;
1. DISASTER MANAGEMENT SYSTEMS IN JAPAN

1.1. Legal System of Disaster Management

The Disaster Countermeasures Basic Act: the foundation for disaster management in Japan. The main contents of the act are:

1. Definition of jurisdictions and responsibilities for disaster management,
2. Disaster management system,
3. Disaster management plan,
4. Disaster preparedness,
5. Disaster emergency response,
6. Disaster recovery,
7. Financial measure, and

Special Characteristic of the Basic Act

- Central Disaster Prevention Council chaired by the Prime Minister: National Coordinating Body with all relevant Ministers & Japanese Red Cross, Public Broadcasting, Semi-Public Sectors

- Annual Government Official Report on Disaster Countermeasures: The Cabinet must officially report the disaster countermeasures to the National Diet

- Formulation of “National Basic Disaster Management Plan for Disaster Prevention”: The Disaster Management Operation Plan (Sectoral) The Local Disaster Management Plan

- Investment for Disaster Prevention: Flood Control & Land Conservation Works Forest Conservation Meteorological Observation Mt. Fuji Rader Site, Meteo-Sats Emergency Telecommunication Systems

- Emphasis on Strong Link of Information Flow among Various Sectors: Stronger Coordination among various government sectors & Red Cross Involvement of Semi-Public Sectors
1. DISASTER MANAGEMENT SYSTEMS IN JAPAN

1.2. Organizational Systems of Disaster Management

National Government

(Prime Minister is elected by the National Diet)

47 Prefectural Governments

(Governor is elected by the residents)

3,018 Municipalities

12 major Major Cities

(Mayor is elected by the residents)

Organization of the Government of Japan

The Prime Minister is the Head of the Cabinet and is the Chairman of the Central Disaster Management Council
A. The Central Disaster Management Council of Japan

Prime Minister, Minister of State for Disaster Management

Inquiry | Report | Offer Opinion

Central Disaster Management Council
Chairman: Prime Minister
Members: Minister of State for Disaster Management and all Cabinet Ministers (17 persons)
- Chief of Designated Public Corporations (4 persons)
- Governor of the Bank of Japan
- President of Japan Red Cross Society
- President of Japan Broadcasting Corporation
- President of Nippon Telegraph and Telephone Corporation
- People of experience or academic standing

Organization for Technical Research

Secretary Organization
Chairman: Parliamentary Secretary of the Cabinet Office
Advisor: Deputy Chief Cabinet Secretary for Crisis Management,
Vice-Chairman: Director-General for Disaster Management
Deputy Manager of Fire and Disaster Management Agency
Secretary: Chief of bureau of each ministry and agency

At the time of large-scale disaster, the Government establish a Headquarters for Major Disaster Management (headed by the Minister of State for Disaster Management)
or Headquarter for Urgent Disaster Management (headed by the Prime Minister) to lead the emergency response measures.
B. The Local Disaster Management Council of Japan

Governor
Vice Governor

Chief of Emergency Management
Special Advisor to the Governor for Civil Participation, Cooperation and Gender

Policy Planning & Administration Department

Policy Planning & Coordination
Lifestyle & Social Service Department
Industry & Environment Department
Agriculture, Forestry & Fisheries Department

Public Works & Development Department

Public Works Bureau

Treasurer

Superintendent of Public Enterprise

Superintendent of Prefectural Hospitals

Public Safety Commission

Police Headquarters

Board of Education

Treasury Department

Public Enterprise Agencies

Prefectural Hospital Agencies

All Local Government has their Mayors (Administrative Heads) elected by citizens and the legislative body elected by citizen.

C. Sectoral Organizational System

PASCO Private Company plays role in GIS-Data related to disaster management

Emergency Room in Kobe disaster Hospital

Under the Disaster Countermeasures Basic Act, public institutions as well as legal bodies involved in public business designated by the Prime Minister (such as the Bank of Japan, and corporations running public operations such as electricity and transport) are designated to participate in the Central Disaster Management Council.

They are obliged to work in disaster management by working out with formulate plan and responsibility of resources for the implementations.
1.3. Disaster Management Information Communication System and Network

In order to carry out disaster preparation measures, emergency disaster measures and restoration measures smoothly, collecting, processing, analyzing and transmitting information of the disaster quickly and accurately is a prerequisite.

Cabinet Office’s disaster response network

- Central Disaster Management Radio Communication Network
- Fire, Disaster Management Radio Communication Network
- Prefectural Government Disaster Management Radio Communication Network
- Municipal Disaster Management Radio Communication Network
- Other communication Networks

Designated Administrative Organs
- Prime Minister’s Official Residence
- Cabinet Office
- Ministry of Land, Infrastructure and Transport
- Fire and Disaster Management Agency
- National Police Agency
- Defense Agency
- Maritime Safety Agency
- Meteorological Agency
- Other Designated Administrative Organs
- Japan Red Cross Society and Other Designated Public Corporations

- Central Disaster Management Radio Communication Network
- Fire, Disaster Management Radio Communication Network
- Prefectural Government Disaster Management Radio Communication Network
- Municipal Disaster Management Radio Communication Network
- Other communication Networks
Disaster Management Plan and Budget

**Disaster Management Plan**

- National level
  - Basic Disaster Management Plan
  - Disaster Management Operation Plan
- Central Disaster Management Council
- Designated Administrative Organs
- Designated Public Corporations

**Disaster Budget**

The budgetary appropriation for disaster management is classified into four categories:
- Disaster Management Research and Development;
- Disaster Preparedness;
- National Land Conservation, and
- Disaster Recovery and Reconstruction

<table>
<thead>
<tr>
<th>Fiscal Year (FY)</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research and Development (Disaster Risk and Coping Strategies)</td>
<td>424</td>
<td>327</td>
<td>303</td>
</tr>
<tr>
<td>Disaster Preparedness</td>
<td>7,909</td>
<td>9,336</td>
<td>7,527</td>
</tr>
<tr>
<td>National Land Conservation</td>
<td>15,867</td>
<td>15,241</td>
<td>14,967</td>
</tr>
<tr>
<td>Disaster Recovery and Reconstruction</td>
<td>2,517</td>
<td>2,416</td>
<td>2,455</td>
</tr>
<tr>
<td>Total</td>
<td>26,717</td>
<td>27,320</td>
<td>25,252</td>
</tr>
</tbody>
</table>

Note: FY2005: 3.07% of Total National Budget (821,829)
3. Disaster Management Strategies

- Disaster Risk Research and Coping Strategy Development
- Disaster Emergency Management
  1. Disaster Preparedness
  2. Disaster Emergency Response
  3. Disaster Recovery and Rehabilitation
- Disaster Risk Management and Reduction
### 1. Disaster Risk Research and Coping Strategy Development

| 1. | Investigation of occurrence mechanism of Abnormal Natural Phenomena | Investigation of occurrence mechanism, and development of technology for forecasting the occurrence of large-scale earthquakes, large-scale volcano eruptions, abnormal localized torrential rain, abnormal water shortage etc. |
| 2. | Disaster Quick Response System (disaster management IT, emergency medicine and life saving systems etc.) | Systems for minimizing damage by quick response when a disaster or an accident occurs. |
| 3. | Countermeasures to Reduce Damage due to Massive Disaster in Highly Populated Urban Areas | Systems for supporting technologies to reduce damage (including measures for fire fighting), smooth and quick recovery and reconstruction countermeasures, self-help and mutual help in highly populated urban zones in case of the occurrence of abnormal natural phenomena. |

### Disaster Risk Research cont’d...

| 4. | Systems for Protecting Pivotal Functions and Cultural Assets | Systems for disaster-proofing headquarters functions related to social and economic activities and protecting public property such as cultural assets, scientific technologies and research installations etc. |
| 5. | Ultra-advanced Disaster Management Support System | Systems to support the next stage of disaster management such as high-level observation and communication systems utilizing space and low-orbit satellites, mobile equipment, transportation devices with high mobility, robots capable of rescue activities in disaster. |
| 6. | Advanced Road Traffic System (Intelligent Transportation System, ITS) | Systems to support the transportation of people and physical distribution at the time of disaster as well as during the period of reconstruction, and also systems that reduce traffic accidents. |
Disaster Risk Research cont’d…

| Countermeasures for Land, Sea and Air | Countermeasures that contribute to safety in response to changes and/or increases in ground, sea and aviation traffic demand and/or characteristics. |
| Countermeasures for a Deterioration of Infrastructure | Countermeasures for infrastructure facilities to prevent accidents and disasters caused by deterioration and to increase its durability. |
| Safety Measures for Hazardous Materials, Crimes etc. | Countermeasures for solving problems due to the negative impact at the time of Industrialization, ensuring safety against hazardous materials or systems due to the development of new technologies and preventing crimes in public areas. |

2. Disaster Emergency Management

A. Disaster Preparedness

Improvement of Disaster Prevention Facilities:

- Observation equipment such as meteorological satellites, weather observation radar and seismometers;
- Materials and machinery required for emergency response such as firefighting equipment, water tanks and power generators;
- Systems for liaising and communicating emergency information such as telecommunications or broadcasting facilities;
- Transportation vehicles such as helicopters, ships and automobiles;
- Facilities for evacuation and headquarters for disaster countermeasures;
A. Disaster Preparedness

B. Disaster Emergency Response

- Immediately collect and analyze information on the state and scale of the damage;
- Exchange the information with related persons and organizations;
- Establish the system for executing disaster emergency response;
- Establishing a headquarters for emergency response Emergency Coordination Meetings (As a nation, the director general of each ministry and agency gather at the Prime Minister's official residence immediately after a disaster occurs);
- Provided search and rescue, evacuation, food and commodities assistance;
Disaster Relief is to provide support both spirit and materials to the affected people. However, Provision of Disaster Relief it does not mean the Disaster has been totally relief!

(Satoru Nishikawa, Director of Preparedness, Cabinet Office of Japan)
Steps in Disaster Response of Cabinet Office, Government of Japan (The Niigata Earthquake)

Response to Situations and Demands at the Affected Sites

- Emergency calls to the officials in charge of disaster response who rushed to the Crisis Management Centre within Prime Minister's Office.
- Setting-up an emergency coordination team consisting of senior government officials, headed by the Minister of State for Disaster Management.
- Immediate information analysis

Emergency Response

- Dispatch of an emergency survey team to the affected areas
- Mobilization of Search and Rescue Teams
  - Police, Firefighting, Self-Defense Forces
- Full-scale search & rescue activities
- Nationwide emergency assistance
  - Emergency medical evacuation
  - Food & Water
  - Blankets & Clothes
  - Prevention of secondary disasters such as landslides
  - Temporary repairs of infrastructure & lifeline
B. Disaster Emergency Response

Organization of Disaster Emergency Response of the Cabinet Office

1. Information Reception
   - 24-hr system
   - Simultaneous communication to ministries, agencies and emergency organizations
   - Emergency concentration

2. Communicate Information to Prime Minister's Official Residence and Related Organizations
   - Prime Minister's Official Residence
   - Cabinet Information Collection Center
   - Related ministries and agencies

3. Determine the Level of Damage
   - Liaison Conference of Ministries and Agencies Concerned with Disaster Management
   - Establishment of Disaster Countermeasure Headquarters
   - Decision-making and implementation of disaster countermeasures

C. Disaster Recovery and Rehabilitation

Disaster Recovery Project: The recovery of damaged public engineering facilities, educational facilities, welfare facilities and agricultural, forestry and fishery facilities is either conducted directly by the Government or put into practice by the local government with subsidies from the Government.

Disaster Relief Loans: Persons engaged in agriculture, forestry or fishery, small enterprises and low-income people who incurred damage are eligible for a variety of low interest loans with rather generous conditions as compared to normal ones.
C. Disaster Recovery and Rehabilitation

Disaster Compensation and Insurance: Damaged enterprises or persons engaged in agriculture, forestry or fishery business could obtain compensation for economic losses. In addition, the Government provides earthquake insurance.

Tax Reduction or Exemption: For the affected persons, measures are taken for the reduction, exemption and postponed collection of income and residential taxes.

Tax Allocation to Local Governments and Local Bonds: For the affected local governments, measures such as delivery of special tax allocations and permission to issue local bonds are taken.

Designation of Extreme-Severity Disaster: When a disaster causes extremely severe damage, it is designated a “extreme-severity disaster.” Various special measures are to be taken for disaster recovery projects.

Assisting the Reconstruction Plan: Assistance is provided for the local government reconstruction plans that should be quickly and accurately formulated and executed.

Assistance for the Recovery of Victims Livelihood: Assistance is provided for victims to restore their self-supporting livelihood. Disaster condolence money, disaster impediment sympathy money, money for support of reconstructing livelihoods of disaster victims and loans such as disaster support funds and livelihood welfare funds are available.
C. Disaster Recovery and Rehabilitation

3. Disaster Risk Management and Reduction

Risk Management and Reduction Programs

1. National Land Conservation Program
   - Soil conservation project to prevent mountainous regions from collapsing and discharge of mountain soils and sediments;
   - River improvement;
   - Construction of dams for flood control;
   - Soil erosion control project to prevent sediment discharge and debris flow;
   - Landslide prevention project to prevent and decrease landslide disasters;
   - Steep slope countermeasures project to prevent earth falls etc.;
   - Coastline conservation project;
   - Sewage system project;
   - Agricultural land and facilities disaster management project;
   - Land subsidence countermeasures project;

2. Disaster Resistant Projects
   - Fireproofing buildings;
   - Earthquake resistant building;
   - Evacuation routes, areas and facilities for disaster preparation bases;
   - Green space for disaster preservation;
   - Improving and reinforcement of existing buildings, public facilities and seismic retrofit of lifeline facilities;
3. Disaster Risk Management and Reduction

Risk Management and Reduction Programs

3. Other Program

• Increase disaster Management consciousness and Dissemination of Disaster Management Knowledge;

• Disaster Management Drills;

• Local Voluntary Disaster Management Organizations and Volunteer Activities;

• Environment and disaster Management Education (Miko High School, Tohoka University);
River-flood Management

Installation of underground river pipe

Sediment Protection Counter Measure

Gate to protect river water to use during drought
Environment Promotion Project

Living in harmony with environment

ACTION PLAN

Long-term Institutional Development Process

Comprehensive Disaster Emergency Management: preparedness, response and Rehabilitation;

Institutionalization of CBDM working with partner: UN, IOs an NGOs;

Mainstreaming disaster management into different sectors;
ACTION PLAN

Institutional Development of NCDM
1. Development and enactment of Law on Disaster Management
2. Development of the National Policy on Disaster Management;
3. Formulation of Basic Disaster Management Plan;
4. Necessary reform or reorganize NCDM structure and functions
5. Disaster Management Capacity Building Programs

Improvement Short and Medium Team of Emergency Management
1. Line Ministries’ Operation Plans
2. Provincial and District Disaster Contingency Plans
3. Community Based Disaster Preparedness Action Plan

Institutionalization of Community Based Disaster Management (CBDM)

• Support NGO and Local government agency in-charged of disaster coordination;

• Promote CBDM as a tool for Government’s decentralization; therefore, local mechanism to implement CBDRM at a village level must be set up and function throughout the country;

• Joint long-term process of CBDM with partner IOs and NGOs;

• Lessons learnt be shared and sold with/to all DM concerned agencies/practitioners both governmental and non-governmental;
• A joint policy/strategy, principle for National CBDM participatorily developed and adopted by the Government;

• Replication of CBDM by the government is committed and supported. CBDM strategy will be full involvement of local government;

• National policy for disaster management is in place to facilitate the institutionalization of CBDM;

• Real and applicable guidelines for mainstreaming disaster management into government’s agenda and national development be introduced and supported to prove benefit and effectiveness;

Observation and Recommendations to ADRC

Vision
A Hub of Regional Cooperation in Asia lead the Asian Region to further prosperity, safe, peaceful, and comfortable lives

Objectives
Activities:
Information Gathering and Sharing, Capacity Building, and International Cooperative Projects.
Observation and Recommendations to VR Program

Important Program
Promote disaster Management Discipline

Process
Should be better arranged:
Pre-course Arrangement;
Need for mentor;
Time and Working Arrangement;
Benefit of the Program

Overall, I appreciate very much to the ADRC and its Visiting Researcher Program that provided me the opportunity to stay and learn many things from Japan. I learned, not only the disaster management, but also about the beautiful country, the nice culture and the good people of this country. I am so grateful to the leaderships and all staff of the ADRC for their kindness, support and good cooperation. My appreciation and gratitude are also extended to the Government of Japan and its people for their continued support and assistances to the people of Cambodia. Hope that the memory of my stay would share in the strengthening of friendship and relationship of the two countries.
Arigato gozaimasu
Thank You