

Strengthening National and Local Capacities for Vulnerability & Risk Reduction, Disaster Mitigation, Response and Recovery

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Managing Flood

- Small scale disasters relatively as compared to others like USA, Indonesia, Pakistan, Bangladesh, China and recently Philippine.
- Nevertheless, disasters needs the same mechanism i.e. **early warning, preparation, prevention, response, recovery, rehabilitation and reconstruction.**
- In 1970s, Malaysia already have the **Blue Print** in managing flood
- Through experiences, Malaysia are able to improve and extend the guideline on dealing with flood and other disasters that has been encountered
- An efficient and sound disaster management mechanism was formulated

Additional Index of Disaster

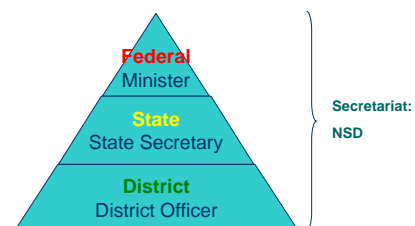
- Chemicals Explosion
- Structural Collapse that Involved Public Safety
- Mudslide and Landslide
- Haze
- Oil Spill
- Marine Collision
- Plane Crash
- Pandemic/ Endemic
- Drought

#5: Strengthen Disaster Preparedness for Effective Response at All Levels

Needs for Policy and Mechanism on Disaster and Relief Management

- Realizing on the **complexity** of disasters that occurred and the need for coordinated approach the government of Malaysia undertake to upgrade the present management on disaster
 - Commissioning Disaster Management and Relief Committee
 - Defining Disaster
 - Identifying Elements That Can Result in Disaster
 - Creation of Sub-System
 - Establishing Incident Command Post (OSCP)
 - Establishing a Disaster Operating Control Center (DOCC)
 - Identifying and Outlining Responsibility of Lead Agencies as well as Supporting Agencies
 - Identifying of the role of The Non Government Organization (NGOs)

Various Level of The Disaster Management and Relief Committee



What is In Place?

- Standard Operating Procedures (S.O.P.) on preparation, prevention, response, recovery and rehabilitation
- Three major S.O.P.
 - S.O.P. for flood (Chapter 1),
 - S.O.P. for industrial disasters (Chapter 2) and
 - S.O.P. for forest fire/open burning and haze (Chapter 3).
- National Contingency Plan for Oil Spill Combat
- S.O.P. for earthquake and tsunami disasters (after 26 December 2004) – in progress
- S.O.P. on Pandemic/ Endemic Preparedness Plans – on revision

Defining Disaster

- Incident that occurs in a sudden manner, complex in nature, resulting in the loss of lives, damages to property or the environment as well as affecting the daily activities of local community.
- Such incident requires the handling of resources, equipment, frequency and extensive manpower from various agencies as well as effective coordination and the possibility of demanding complex actions over a long period of time.

13 Disastrous Incidents

1. Natural Disasters i.e. Floods, Storm, Drought, Beach Erosion and Landslides
2. Industrial Disasters such as Explosions, Fire Outbreak, Pollution and Emission of Hazardous Materials
3. Accidents Involving Hazardous Materials
4. Collapse of High Rise Buildings or Special Structures
5. Air Accidents Occur in Buildings Area and Many People
6. Train Collisions and Derailments
7. Fire Outbreak in Large Areas/ High Rise Buildings/ Special Structures/ Many People

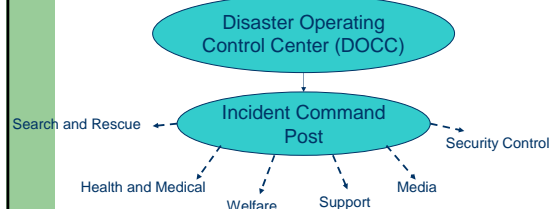
13 Disastrous Incidents

8. The Burst of a Hydro Dam or Reservoir
9. Nuclear and Radiology Mishaps Which May Probably Spread and Cause the Loss of Lives, Damage to Properties and Pollute the Environment
10. Emission of Poisonous Gas in Public Places
11. Haze Which Cause an Emergency Situation to the Environment and Jeopardizes Public Order, Govt. Administration and Country's Economic Activities
12. Air Disasters
13. Sea Disasters

Capacity Building

- Several agencies designated to be lead agency in specific disaster
 - Pandemic/ Endemic for human being (Ministry of Health)
 - Pandemic/ Endemic for bird/animal (Ministry of Agriculture)
 - Sea Disaster (Marine Department)
 - Air Disaster (Dept. of Civil Aviation)
 - Haze/ Open Burning (Dept. of Environment)
 - Nuclear and Radiology (Atomic Energy Licensing Board)
 - Chemical (Chemistry Dept.)
 - Search and Rescue Team (Multi Function) – Fire and Rescue Dept., Royal Malaysian Police, Malaysian Armed Forces, Special Malaysian Disaster Assistant and Rescue Team (SMART), Emergency Medical Team, Atomic Energy Licensing Board and Civil Defense Dept.

Sub System



Sub System

- Search and Rescue
- Health and Medical – i.e. Emergency Medical Services and Malaysian Armed Forces
- Welfare – i.e. Welfare Dept.
- Support – i.e. District Office, Municipal/Town Council, Malaysian Telecommunication Ltd.
- Media – i.e. Information Dept. and Broadcasting Dept.
- Security Control – Royal Malaysian Police

Establishment Proper Funding

- National Disaster Relief Fund (NDRF)
- Annual allocation from the Government
- Public Contribution
- Operating Expenditure from various agencies for recovery and reconstruction

Establishment of Early Warning System for Flood, Earthquake and Tsunami

- Early Warning System – Malaysian Meteorological Dept. and Malaysian Centre for Remote Sensing
- Monitoring, Forecasting and Warning - Malaysian Drainage and Irrigation Dept. and Dept. of Environment

Role of Non Government Organization (NGOs)

- To provide assistance in disaster mitigation, response, recovery, rehabilitation and construction;
 - Malaysian Red Crescent Society (MRCS) – medical assistance and rehabilitation
 - MERCY – medical assistance and rehabilitation
 - Haluan Malaysia – rehabilitation and reconstruction
 - Global Peace Malaysia – medical assistance and rehabilitation
 - Global Sikh Malaysia – health assistance and rehabilitation
 - AMAN Malaysia – rehabilitation and reconstruction
 - St. John Ambulance – medical assistance
 - Force of Nature – fund

Bilateral, Regional and International Cooperation

- **Bilateral**
 - MoU with Thailand
 - MoU with Indonesia (Disaster Cooperation and Assistance)
 - MoU with France (Disaster Cooperation and Assistance)
 - Singapore Civil Defense Force (SCDF) (Bilateral networking/ Cooperation and Assistance)

Bilateral, Regional and International Cooperation

- **Regional Membership**
 - ASEAN Committee on Disaster Management (ACDM) (Regional Cooperation and Assistance)
 - ASEAN Regional Forum (ARF) (Confidence Building)
 - Asian Disaster Reduction Centre (ADRC) (Information Sharing)
 - Asian Disaster Preparedness Centre (ADPC) (Educational and Training Cooperation)

Bilateral, Regional and International Cooperation

- **International Membership**
 - FEMA – (USA) (International Networking)
 - United Nations – International Search and Rescue Advisory Groups (UN – INSARAG) (Humanitarian Assistance Networking)
 - Typhoon Committee (Mitigation, Coordination and Early Warning Cooperation)
 - Participating in UN-ISDR (United Nations – International strategy for Disaster Reduction).
 - Malaysian Meteorological Department (MMD) – World Meteorological Organization

#4 Reduce the Underlying Risk Factors

Upgrading the Forecasting and Early Warning System

Malaysian Tsunami Early Warning System

- After the Asian Tsunami in Dec 2004
- Developed by Malaysian Meteorological Dept.
- Three technologically advanced deep water buoys to be deployed at locations around Malaysia.
- The first buoy was installed near Pulau Rondo, Sumatra on 30 December 2005
- The second buoy installed at Layang-Layang Island on the South China Sea in early March 2006
- The third buoy in the Sulu/ Sulawesi Sea by end of March 2006

Upgrading the Forecasting and Early Warning System

Flood Forecasting and Warning System

- Developed by Malaysian Drainage and Irrigation Dept.
- Currently two flood forecasting models have been applied i.e the Linear Transfer Function Model (LTFM) at Pahang River and the Tank Model at Kelantan River
- The agencies involve in flood relief have use the information to decide when they should mobilize their staffs and equipments to the areas that are potentially hit

Upgrading the Forecasting and Early Warning System

Information Dissemination

- Malaysian Drainage and Irrigation Department Dissemination System: Warning siren, Short Messaging System (SMS), telephone, fax and website <http://infobanjir.water.gov.my>
- Malaysian Meteorological Dept. Dissemination System: Short Messaging System (SMS), mass media, telephone, fax and website

Development Program by Town and Country Planning Dept.

• Flood Mitigation Structure i.e. The Stormwater Management and Road Tunnel (SMART)

- Developed by Malaysian Drainage and Irrigation Department
- The Stormwater Management and Road Tunnel also known as SMART Project is being developed to alleviate flash flood problems in the city. The 9.7 kilometers and 11.83 meters' in diameter tunnel integrates both stormwater management and motorway in the same tunnel.

Development Program by Town and Country Planning Dept.

- Applying the Building Code for Seismic Risk on High Rise Buildings for local planning at Kota Kuala Muda, Kedah
- Applying Other Relevant Code and Guideline With Regard to Development
 - Urban Stormwater Management Manual (MASMA) Guideline
 - Dept. of Environment – permissible density and cutting slope for development
 - Guideline on Development within gas pipeline
 - Permissible Height for Building Around Airport

The National Disaster Data and Information Management System (NADDI)

- Objective: to establish a central system for collecting, storing, processing, analyzing, and disseminating value-added data and information to support the relevant agencies in the mitigation and relief activities of disaster management in the country
- Emphasizes on the utilization of remote sensing technologies, Geographical Information System (GIS) and Global Positioning System (GPS) technologies to provide up-to-date and reliable data to support the three components of disaster management, namely,
 - (i) early warning,
 - (ii) detection and monitoring, and
 - (iii) mitigation and relief for pre, during and post disaster management activities.

Public Awareness Program

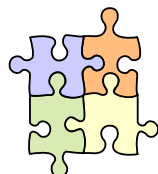
- Publication of Public Awareness Guideline on Disaster (on review)
- 26 December is declared as National Disaster Awareness Day

Progress and Situations of the Hyogo Framework for Action (HFA)

- HFA has been documented in UN World Conference on Disaster Reduction (WCDR) at Hyogo Japan on **January 2005**.
- Asian Conference on Disaster Reduction had been held in Beijing, China on **September 2005** to facilitate the implementation of HFA among Asian regions.
- HFA had been adopted by Malaysia during the National Disaster and Relief Management Committee Meeting chaired by the Deputy Prime Minister on **November 2005**.

Progress and Situations of the Hyogo Framework for Action (HFA)

- Malaysia is still in the phase of restructuring and reorganizing the disaster management system to fit in the HFA. Malaysia is also in the phase of enhancing the coordination of responsibility between the government bodies in terms of disaster management system.



THANK YOU