

# MALAYSIA

## I. Natural hazards in Malaysia

### 1.1 Natural hazards likely to affect the country

Wind storm, epidemic, wave surge, slides, floods, drought, wild fires

### 1.2 Recent major disasters

year	dis_subset	killed	injured	total_affected	dam (US '000s)
2004	Flood	13	0	15000	
2005	Flash Flood	4	0	600	
2004	Tsunami	80	767	5063	14600
2005	Wild Fires	0	0	0	—
2004	Storm	0	0	1000	—
2004	Storm	1	0	40000	—

*Source: "EM-DAT: The OFDA/CRED International Disaster Database, www.em-dat.net - Université catholique de Louvain - Brussels - Belgium"*

At 0059 GMT on 26 December 2004, a magnitude 9.3 earthquake ripped apart the seafloor off the coast of northwest Sumatra, Indonesia with the epicenter at latitude 3.10N and longitude 95.50E. The earthquake occurred 680 kilometers from Kuala Lumpur. This unprecedented tsunami had killed hundred thousands of people and destroyed massive value of properties in several countries bordering the Indian Ocean including Malaysia.

Relief efforts were deployed by various government agencies such as Royal Malaysian Police, Malaysian Fire and Rescue Department, Malaysian Armed Forces, Welfare Department as well as Non Governmental Organizations (NGOs), among others. During this period, the government collected up to RM78.95 million from generous people of Malaysia (from the government sector, private sector, non-government bodies and individual) for National Disaster Relief Fund (NDRF). From the NDRF, the government spent RM51.3 million for post tsunami recovery and reconstruction exercise.

## II. Disaster Management system

### 2.1 Administrative system

*Conventional long form:* none

*Conventional short form:* Malaysia

*Government type:* constitutional monarchy

*Capital:* Kuala Lumpur  
*Administrative divisions:* 13 states (negeri-negeri, singular - negeri) with three components, city of Kuala Lumpur, Labuan, and Putrajaya

## **2.2 Legal system, legal framework**

The National Security Council (NSC) Directive No. 20 states the mechanism on the management of disasters including the responsibilities and functions of the various agencies under an integrated emergency management system. The directive states that when a disaster occurs, The Disaster Management and Relief Committee have to be established at three different levels depending on the severity of the disaster, i.e. at the Federal, State and District. The committee at the Federal level is chaired by the Minister appointed by the Prime Minister, where the most recently was chaired by Malaysia's Deputy Premier. The State level is chaired by State Secretary while the District level is chaired by District Officer, whereby the NSD is the secretariat at each level. Being the Secretariat, NSD is responsible in coordinating all forms of disaster relief efforts as well as monitoring the progress and development of these efforts.

## **2.3 Structure of disaster management**

The National Security Division (NSD) in the Prime Minister's Department is responsible for coordination of all activities related to disaster.

Disaster Management And Relief Committee carries out the responsibilities of the NSC in coordinating all the activities related to disaster management. The Disaster Management and Relief Committee was established at three different levels, i.e. at the Federal, State and District levels, whereby the NSD is the Secretariat. The main functions of the Disaster Management and Relief Committee (DMRC) are as follows:

Federal level, DMRC is responsible in the formulation of national policies and strategies regarding the alertness and the preparation of various agencies involved in the handling of disasters.

DMRCs at the State and District levels are required to implement policies and strategies as follows:

- ensure sound coordination among the agencies involved in the handling of disasters and determine the roles of the principal emergency services (Police, Medical and Fire Department) and other supporting services;
- activate the Disaster Operation Control Centre at District, State or

Federal Level whenever required;

- coordinate and mobilize resources and logistics available from Government agencies and if necessary also from the private sector;
- coordinate assistance and rehabilitation to disaster victims; and
- carry out “post mortem” and report upon completion of the disaster operations for the purpose of recording and performance evaluation for future reference and planning.

Other organizational arrangements:

#### On-Scene Control Post (OSCP)

An On-Scene Control Post (OSCP) will be opened immediately as soon as disaster has occurred. The On-Scene Commander will be either the OCPD, CPO, or the Director, Internal Security and Public Order Royal Malaysia Police, depending on the level of disaster. The main functions of the On-Scene Commander are as follows:

- To make an early assessment at the scene of potential or actual disaster and immediately activate OSCP if deemed necessary.
- To identify the equipment and logistic requirement in handling the disaster.
- To coordinate the functions of various agencies involved in search and rescue operation.
- To report and advise the Disaster Management and Relief Committee at their respective level.

Special Malaysia Disaster Assistance And Rescue Team (SMART) was established in 1995(NSC Directive No.19). It is responsible to the Director, Crisis and Disaster Management Unit, NSD. SMART comprises of 85 officers and personnel from the Fire and Rescue Department, Royal Malaysia Police and The Armed Forces. The Team is equipped with specialized skills and equipment's to respond to any search and rescue operation in any major disaster on land which is beyond the capabilities of the existing principal emergency services Search and Rescue (SAR) teams. The team members were trained in SAR training institutions abroad such as the USA, Sweden, Australia and Singapore. The decision on the mobilization and the deployment of the SMART team is made by the Director, General of the NSD or the Director, Crisis and Disaster Management Unit.

Malaysian Meteorological Service (MMS) provides information and warning occurrences and adverse weather phenomena to the general

public through the mass media or to other government agencies directly involved in disaster mitigation. A Central Forecasting Office has been established in the Meteorological Headquarters to monitor closely the weather and sea conditions over the Malaysian region.

Drainage And Irrigation Department Of Malaysia (DID) takes charge of : flood Control Measures, coordinate flood relief operations at federal, state and district levels in coordination with the National Disaster Management and Relief Committee in 1997, implementation of structural flood mitigation measures, provision of flood forecasting and warning services, and flood forecasting and warning services (FFW).

Social Welfare Department is the main organization in charge of disaster relief and rehabilitation works (NSC Directive No. 20 on Policy and Mechanism of Disaster Management and Relief)

## 2.4 Priorities on disaster risk management

### 1. Risk and Vulnerability Analysis

Such analysis should be mandatory in the appraisal of all development projects. Pilot risk mapping projects and hazard and vulnerability analysis should be conducted at the micro-level using where appropriate, Geographic Information System (GIS) and Remote Sensing (RS) technology.

### 2. Non-Structural Mitigation Measures

#### 1) Disaster Management System

The need to strengthen national disaster management organizational structures and support them with sound administrative, financial arrangements and assets mobilization.

#### 2) Training

To increase in training activities in the country through international support and cooperation by multilateral and bilateral organization, NGO's and others. Also to undertake training programmes for core disasters management personnel as well as supporting personnel in order to enhance disaster coordination and response.

#### 3) Public Awareness

The need for more sustained public awareness programs directed at local communities in disaster prone areas through international cooperation and assistance.

#### 4) Forecasting And Warning Systems

The need to improve in the methods and technology of warning system for flood, landslides and forest fire.

#### 5) Hazard Mapping

The need to improve hazard mapping at macro and micro level.

### 3. **Structural Mitigation Measures**

The need to implement structural mitigation measures in both engineered and non-engineered structures, such as landslide control measures, river embankments and etc. International cooperation in the transfer of knowledge and expertise in the structural measures could greatly improve disaster reduction system in the country.

## III. **Disaster management plan**

### National DM Strategy of Malaysia

Mission: To advance national disaster management through effective coordination and integrated approach in the building of a culture of prevention, protection/public safety in the community.

Vision: A safe environment for the community through disaster management and sustainable development in the 21<sup>st</sup> century.

#### Main Components

- A. Development. Reduce the risk of the community from disasters through continuing development of disaster management capabilities in mitigation, preparedness, response and recovery.
- B. Partnership. Establish a national approach to disaster management through coordinated and integrated system involving multi-agency and sectoral commitment in the respective level of government administration and NGOs.
- C. Education and Training. Develop and promote disaster management education and training for officials of related agencies and community for effective enhancement of disaster handling and awareness
- D. Community Awareness. Develop a national approach to fostering and enhancing the community's awareness of risks, and encourage involvement in prevention /mitigation, preparedness, response and recovery strategy.
- E. Civil Protection/Public Safety. Promote and support the development of a Malaysian Civil Protection /Public Safety capability and durability that is responsive to threats of hazards and disasters.
- F. International Cooperation. Promote and develop international cooperation networking for exchanging, sharing and training on disaster management as well as cooperating in rendering and receiving of disaster assistance.

#### **IV. Budget size on national level**

Although, there is no specific budget that was allocated for any particular disaster risk reduction, nevertheless, disaster risk reduction efforts are done by respective agencies within the government's machinery where they are experts at. For example, Malaysian Centre for Remote Sensing (MACRES) had established the National Disaster Data and Information Management (NADDI) while the National Tsunami Early Warning System was commissioned by the Malaysian Meteorological Department and the Stormwater Management and Road Tunnel (SMART) project, which functions as a Flood Diversion Channel or Tunnel, was developed by Malaysian Drainage and Irrigation Department. On the other hand, National Disaster Relief Fund under the NSD has been set up by the government in channeling the funds needed in disaster relief efforts. The Malaysian government has set aside a sum of RM50 million per year for this fund.

#### **V. Progress and situations of the Hyogo Framework for Action (HFA)**

"Hyogo Framework for Action (HFA) 2005-2015: Building the Resilience of Nations and Communities to Disasters" 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. Malaysia has just adopted the HFA in the National Disaster and Fund Management Committee Meeting on November 2005 during the National Disaster and Relief Management Committee Meeting chaired by the Deputy Prime Minister. Malaysia is still in the phase of restructuring, 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.

#### **VI. Projects on disaster reduction headed by Ministry**

The National Disaster Data and Information Management System (NADDI) is coordinated by NSD and MACRES. The objective of NADDI is 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. NADDI 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, that are, (i) early warning, (ii) detection and monitoring, and (iii) mitigation and relief for pre, during and post

disaster management activities coordinated by NSD and implemented by relevant authorities.

After the Asian Tsunami in Dec 2004, Malaysian Tsunami Early Warning System was developed by Malaysian Meteorological Department. It involves three technologically advanced weather water buoys to be deployed at locations around Malaysia. All in all, including the equipments, tsunami analysis modeling system and dissemination components will cost about RM19 million.

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.

## **VII. ADRC Counterpart**

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