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COUNTRY REPORT

BY:

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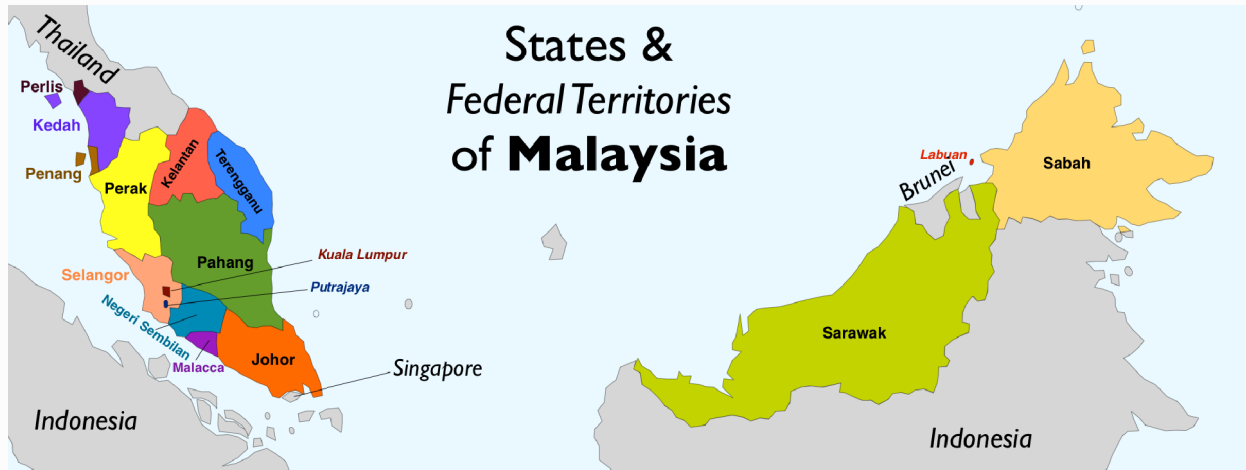
MINISTRY OF ENERGY, SCIENCE, TECHNOLOGY, ENVIRONMENT AND CLIMATE CHANGE (MESTECC)



CONTENTS

- General Information
- Natural Hazards in Malaysia
- Major Disasters for the Past Few Years
- Disaster Management System in Malaysia
- Early Warning System
- Research Plan

GENERAL INFORMATION



GENERAL INFORMATION

KEY STATISTICS ON POPULATION & DEMOGRAPHY 2017 MALAYSIA



TOTAL POPULATION
32.0 MILLION

MALAYSIAN	28.7 MILLION	URBAN	75.5%
NON MALAYSIAN	3.3 MILLION	RURAL	24.5%
POPULATION DENSITY		97 PERSONS/KM	
TOTAL LABOUR FORCE *		14.7 MILLION	

MAIN STATISTICS

HOUSEHOLD & LIVING QUARTERS

Total Living Quarters
8.5 million

Total Household
7.7 million

Average Household Size
4.1 persons



LIFE EXPECTANCY AT BIRTH

72.7 years

77.4 years



VITAL STATISTICS *

Live Birth per hour
58 live births

Death per hour
19 deaths

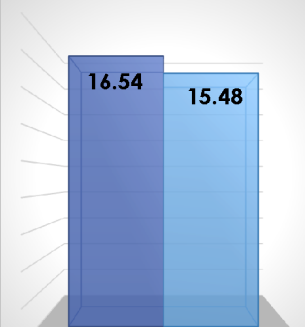
Live Birth
508,203

Total Death
162,201



* Statistics are for the year 2016

Gender Ratio in 2017



Million

■ Males ■ Females

GENERAL INFORMATION

CLIMATE OF MALAYSIA

- Uniform temperature (max. 33°C, min. 23°C)
- High humidity (70 – 90 %)
- Average annual rainfall is 2,400 mm for Peninsular Malaysia, 3,800 mm for Sarawak and 2,600 mm for Sabah
- Winds are generally light
- 2 monsoon's season (2 Inter-monsoon period in between)
 - Northeast Monsoon (Nov – Mar)
 - Southwest Monsoon (May – Sept)
 - 2 Inter-Monsoon (April & Oct)

NATURAL HAZARDS IN MALAYSIA

Weather related Hazards:

- Floods / Flash Floods
- Strong Wind and Rough Sea
- Thunderstorms / Lightings
- Tropical Storms / Typhoons
- Landslides
- Forest Fires / Haze
- Droughts



Geophysical Hazards

- Earthquakes
- Local / Regional Tsunamis
- Landslides



MAJOR DISASTERS FOR THE PAST FEW YEARS

Year	Disaster	Killed	Injured	Total affected	Damage (USD)
2015	Earthquake	18	22		20m
2014	Flood	25		541896	298
2009	Flood			8470	
2008	Flood			10210	
2008	Landslide	11	15	1422	
2007	Flood	33		158000	25m
2006	Flood	19		138000	343m
2005	Flood	17		100000	66m
2005	Mud flood	3		2793	
2004	Tsunami	68			

FLOODS 2014



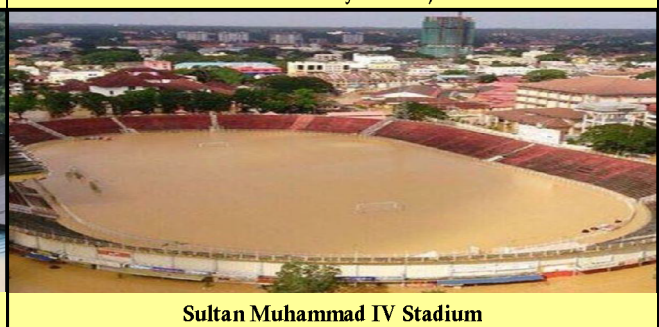
Kelantan



Manik Urai Secondary School, Kelantan

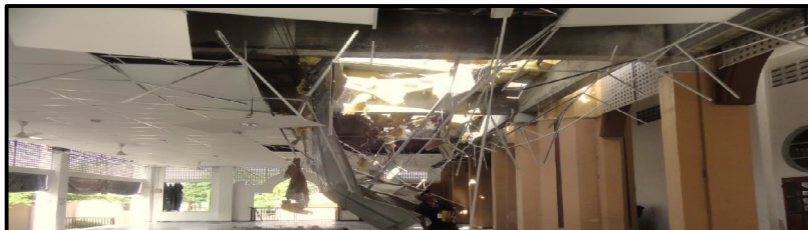


Kampung Tiong, Guang Musang



Sultan Muhammad IV Stadium

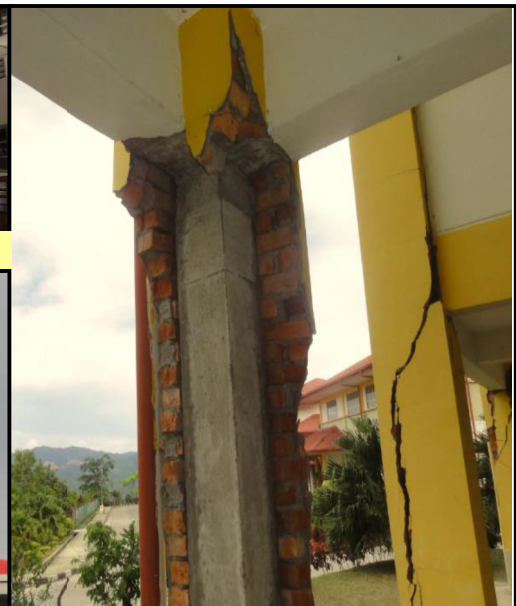
RANAU EARTHQUAKE 7:15am, 5 Jun 2015



Ranau Mosque



Ranau Temple



Ranau

DISASTER MANAGEMENT IN MALAYSIA

- Establishment of NADMA [\(1984\)](#)
- NADMA Roles & Responsibilities
- Directive No. [10](#)
- Disaster Management Mechanism
- Preparedness Step
- Disaster Prevention and [Mitigation](#)
- Recovery Program After Disaster

Establishment of NADMA Malaysia

The **N**ational **D**isaster **M**anagement **A**gency
(NADMA) under the Prime Minister's Department taking over
the responsibility from the National Security Council

1 OCTOBER 2015

Lesson learned from “yellow water flood” in 2014

** Cabinet Meeting 26th August 2015*

NADMA Roles & Responsibilities

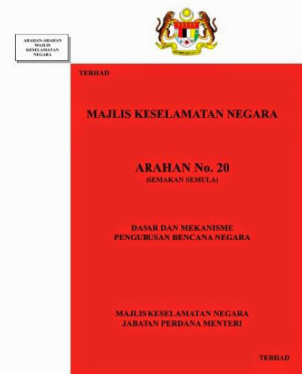
- Malaysia's National Focal Point for Disaster Management
- Formulation National Disaster Management Policy
- Regulate the Implementation of policies
- Coordinate Disaster Risk Reduction Initiative
- Coordinate Disaster Relief Exercise
- Implement Public Awareness Programme
- After Action Review (AAR)*
- Managing Disaster Relief Trust Funds
- Secretariat of National Disaster Management Committee
- Head of Humanitarian Assistance Disaster Relief delegation
- Deployment of SMART team

Directive No. 20 (NSC No. 20): The Policy and

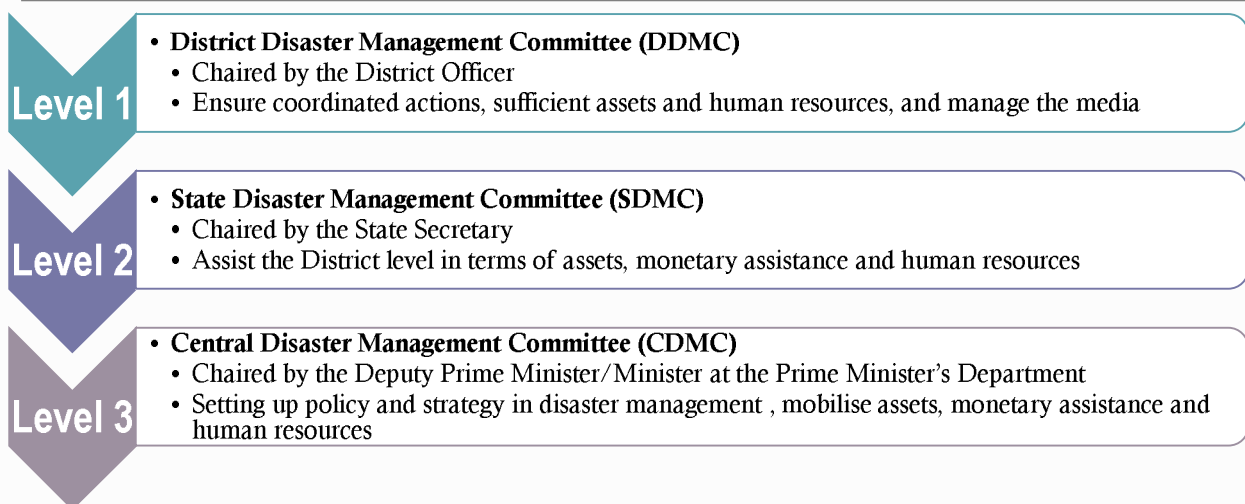
Mechanism for National Disaster and Relief Management

- Main guideline for DM in Malaysia.
- Mechanism on the management of disasters including the responsibilities and functions of related agencies under an integrated emergency management system.
- Supported by other S.O.P which outline the mechanism as well as roles & responsibility of various agencies for specific disasters, i.e. flood; open burning, forest fire, haze, industrial disasters and etc.

established on May 11, 1997



Disaster Management Mechanism



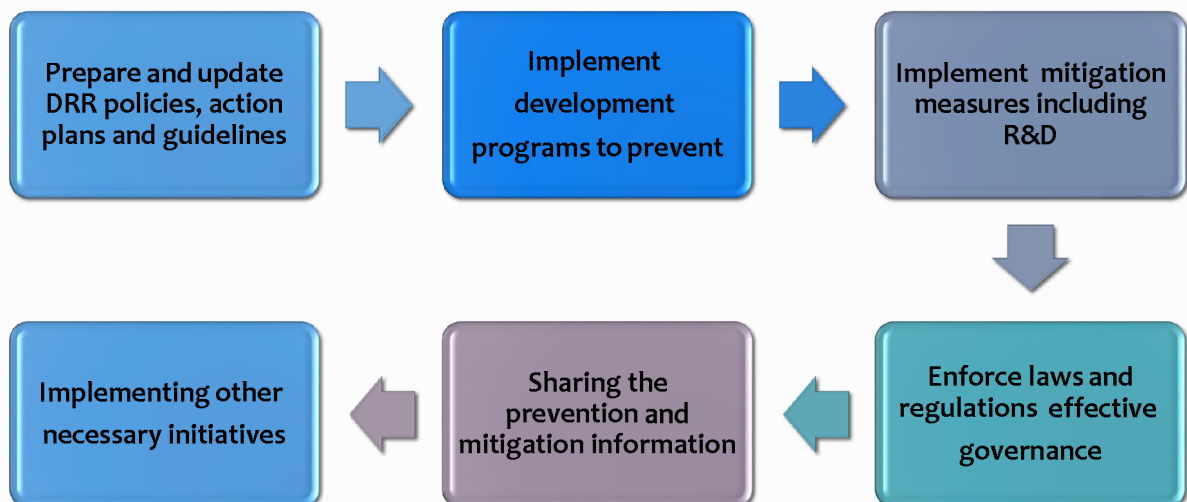
Preparedness Step

“Each party shall, individually or jointly...”

Preparedness Initiatives	Early Warning System	Inter Agency Exercise/ Drill	Awareness	Training
<ul style="list-style-type: none"> Identify, monitor update disaster risk profile Improve human resource and competency, equipment, communication and networking technology, finance and others for effective disaster response Prepare own ERP and BCP 	<ul style="list-style-type: none"> Plan for effective warning system Share information with related parties 	<ul style="list-style-type: none"> Inter-agency or Intra-agency Involve multi-sectoral stakeholders Plan and organize continuously (periodically) 	<ul style="list-style-type: none"> Participate communities at risk areas Enhance capacity building against disaster Manipulate media influence 	<ul style="list-style-type: none"> Internal capacity building Enhance understanding and capabilities on handling disaster

Disaster Prevention and Mitigation

“Each party shall, individually or jointly...”



Recovery Program After Disaster

- Rehabilitation and reconstruction programs should be implemented immediately after a disaster occurs. Government agency, statutory, private and voluntary bodies involved, responsible for implementing damage assessment, restoration and reconstruction of public infrastructure under their jurisdiction.
- DDMC and SDMC are responsible for assessing, planning and recommendations to CDMC on the proposed rehabilitation and development programs to take into account the concept of Disaster Risk Reduction.
- CDMC are responsible for deciding restoration and redevelopment program that will be implemented and set the relevant government agencies or parties for its implementation.

EARLY WARNING SYSTEM

Malaysian Meteorology Department (MMD)

- Tsunami Early Warning System
- Weather Forecasting

Malaysian Department of Irrigation and Drainage (DID)

- Telemetry System: Flood Forecasting Model and *Infobanjir*

Malaysian Center for Remote Sensing (MACRES)

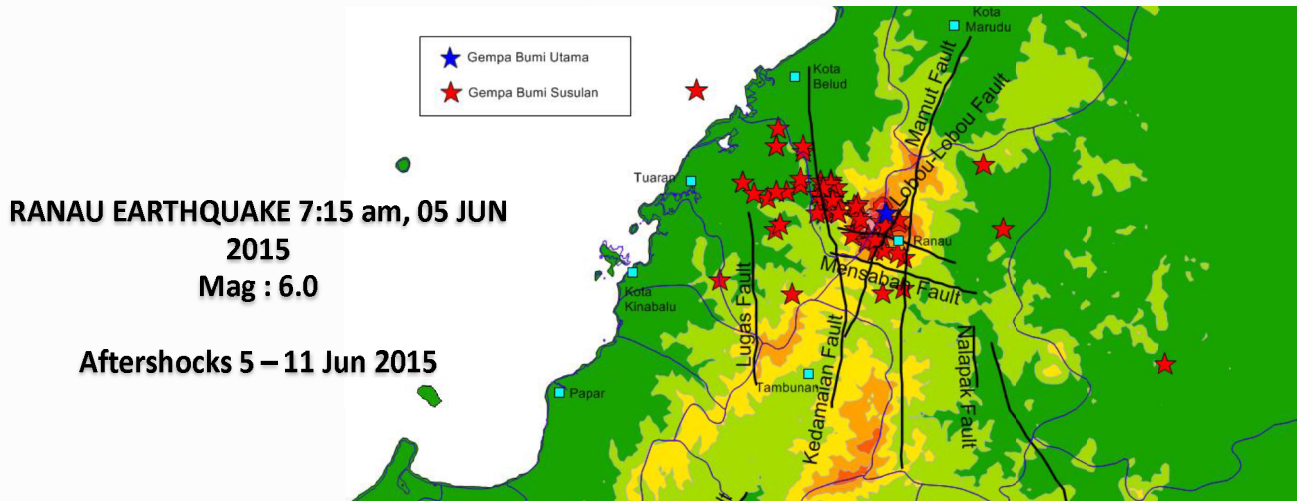
- Disaster Management Application System

Department of Environmental (DOE)

- Air Pollutant Index (API) - Haze

RESEARCH PLAN

Background



Specific Aims

Desired Field(s) or Subjected(s) of Research:

Reducing the risk of earthquake disaster by increasing preparedness in Sabah

The main objective of this research is to enhance disaster preparedness among local agencies, organisations and communities in Kundasang, Sabah (Mount Kinabalu areas) through the development and implementation of an earthquake emergency response plan.

