



2010 TAIWAN ITW ON NATURAL DISASTER REDUCTION (MAY 10-14)



South China Sea



SHARRIN B AHMAD
MALAYSIAN NATIONAL
SECURITY COUNCIL



AMZURA BT AMRAN
MALAYSIAN METEOROLOGICAL
DEPARTMENT





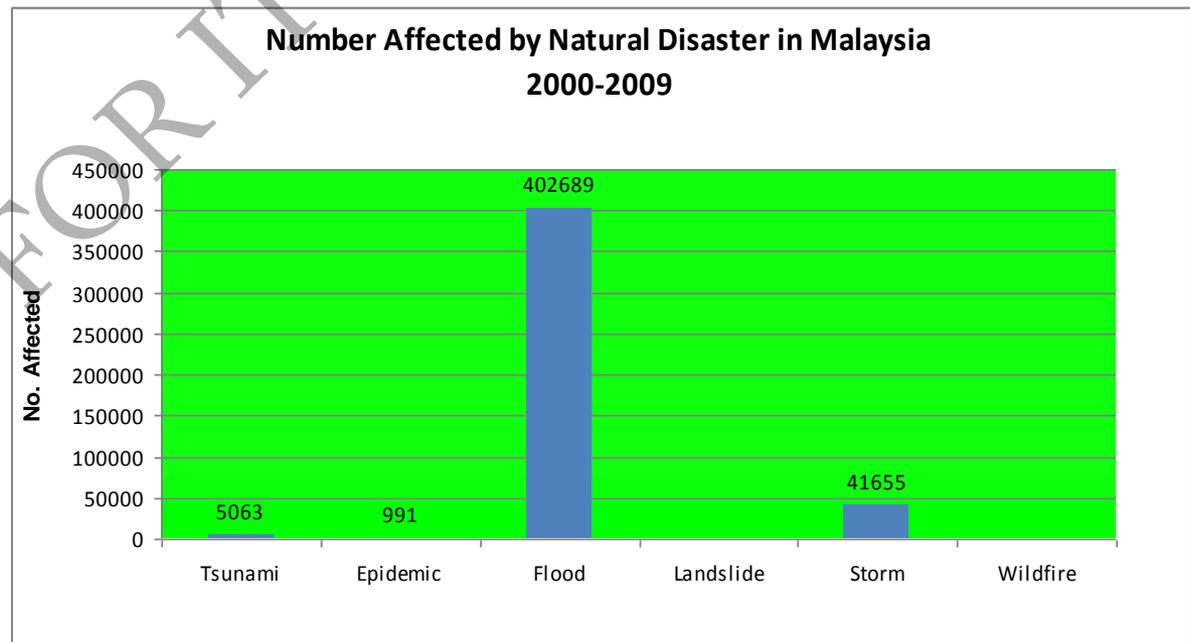
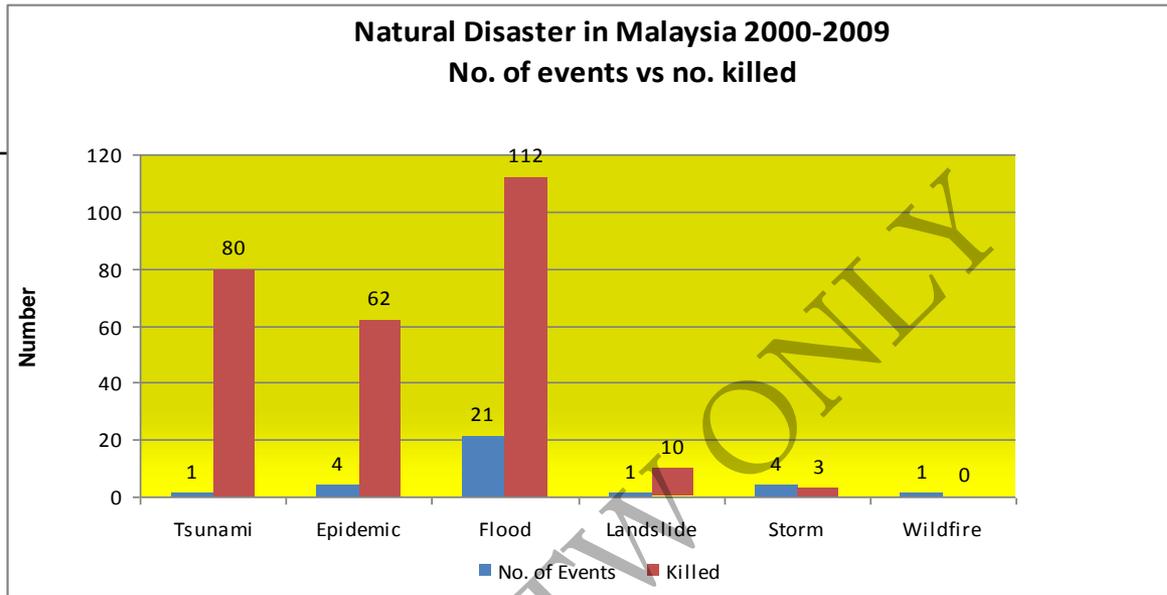
INTRODUCTION

- committed to providing effective **meteorological** and **seismological** services
- for improved protection of life, property and the environment, increased safety on land, at sea and in the air, enhanced quality of life and sustainable economic growth.
- It has been appointed by the government to **monitor weather and earthquake situations** as well as to issue significant bad weather and tsunami warnings to enhance the socio-economic security of the nation.





Natural Disaster in Malaysia



Source:
EM-DAT:Emergency
Events Database



Top 10 Disaster event in Malaysia



Disaster	Date	No Killed
Tsunami (seismic activity)	26/12/2004	80
Epidemic	Jul-07	56
Flood	12/7/2007	29
Flood	1/11/2007	17
Flood	12/10/2004	13
Flood	21/11/2000	12
Flood	22/12/2001	11
Mass movement wet	31/01/2002	10
Flood	23/11/2005	9
Flood	19/12/2006	6

Source:
EM-DAT:Emergency Events Database



Natural Hazards affecting Malaysia

○ Weather related Hazards

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



○ Geophysical Hazards

- Earthquakes
- Regional Tsunamis
- Landslides
- Volcanic Eruptions



WEATHER MONITORING, FORECASTING AND WARNING SYSTEM



Radar Observation



Surface Observation



Marine Observation



Buoy



Weather Camera

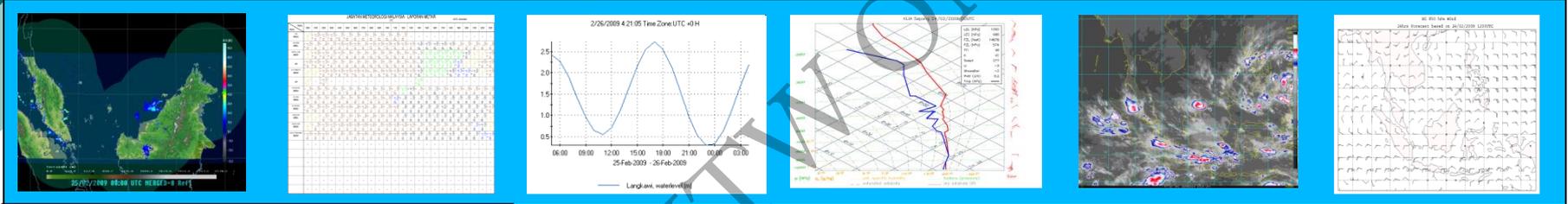


Upper Air Observation



Satellite Observation

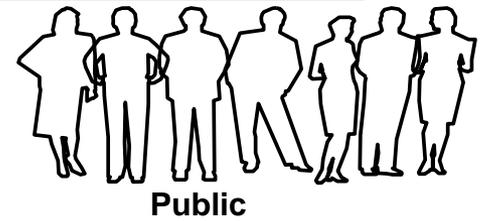
Data Collection and Analysis



Weather Forecast Centre



Weather forecast/Warning Dissemination



Public



Weather Forecasting & Tsunami Operation Centre





Tsunami 2004 , affected areas in Kedah



Kuala Muda, Kedah



Rebak Marina, Langkawi

IKONOS - 4 MAC 2002



SPOT5 - 5 JAN 2005



Kuala Teriang, Kedah

IKONOS - 4 MAC 2002



SPOT5 - 5 JAN 2005



Tsunami 26 December 2004 in Penang





Need for Early Warning Systems

Established just after the **December 26, 2004 Tsunami**.

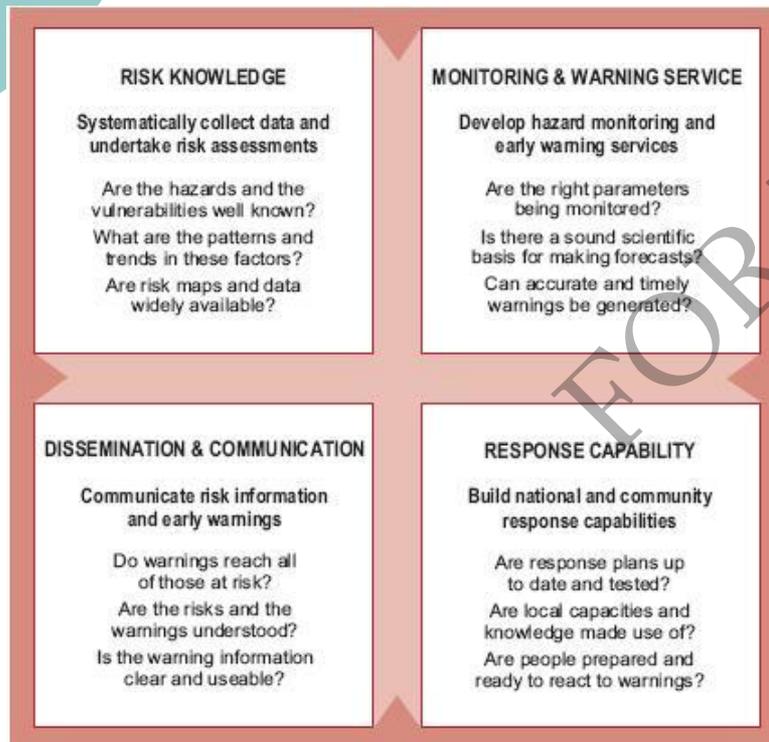
To enable the provision of **timely and effective early warning** to the public in the event of the occurrence of a tsunami generated over the Indian Ocean, South China Sea, Sulu Sea or the Pacific Ocean that will affect Malaysia.

FOR INTERNAL USE ONLY



End-to-End Early Warning System

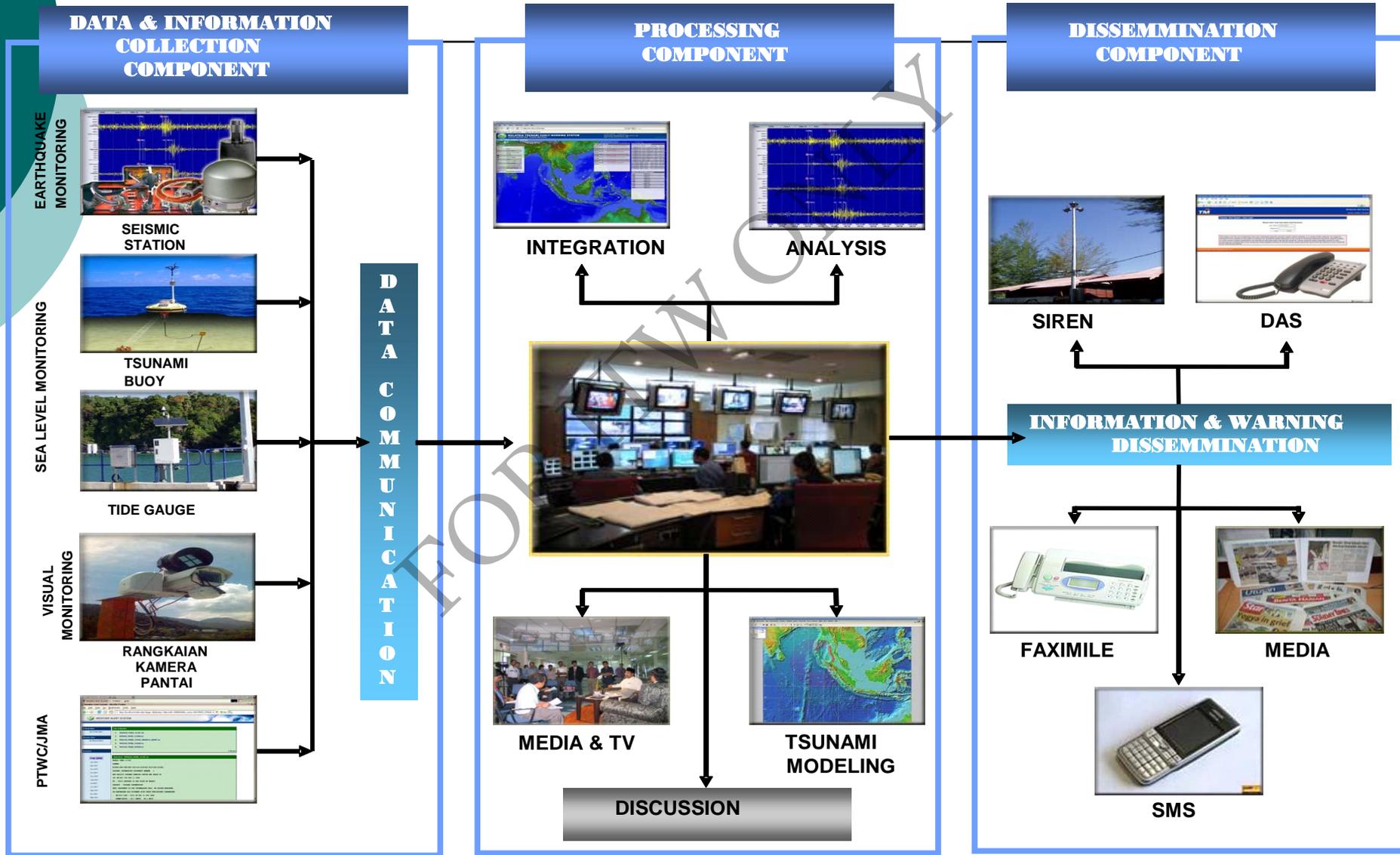
The objective of end-to-end early warning systems is to empowered individuals and communities threatened by hazards to act in sufficient time and in appropriate manner so as to reduce the possibility of personal injury, lost of life, damage to property and the environment, and loss of livelihoods.



- **A complete and effective early warning system comprises four inter related elements**
 - **Risk Knowledge –**
 - Systematically collecting data and undertake risk assessments
 - **Monitoring and Warning Service**
 - Developed hazard monitoring and early warning services
 - **Dissemination and Communication**
 - Communicate risk information and early warning
 - **Response Capability**
 - Build national and community response capabilities
- **A weakness or failure in any one part could result a failure in the whole system**



Malaysian End-to-End Tsunami Early Warning System

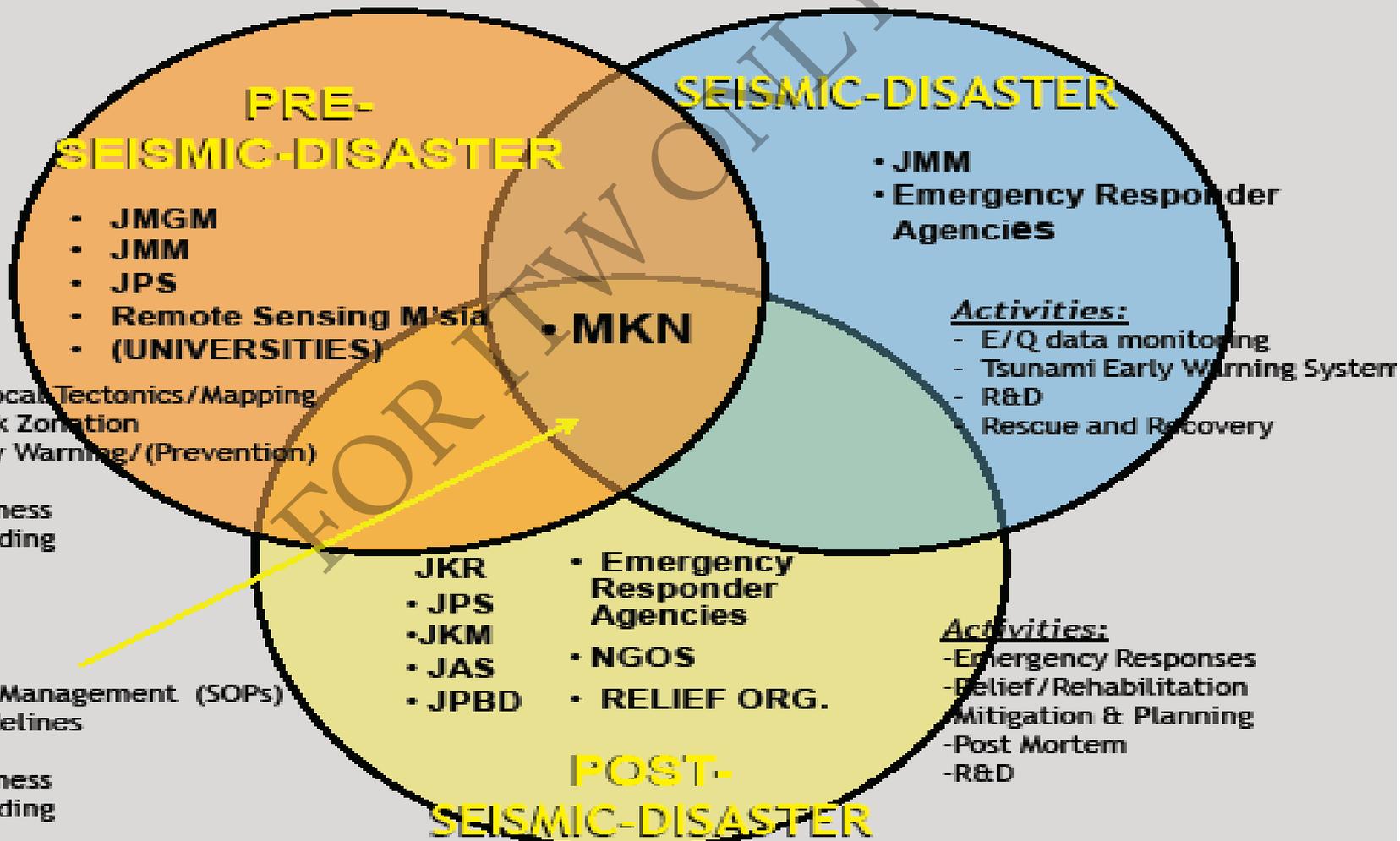




International Cooperation

- Sub - Committee of Meteorology and Geophysics (SCMG)
- Sub – Regional Forrest Fire Arrangement (SRFA)
- ASEAN Earthquakes Information Center (AEIC)
- Japan Meteorological Agency (JMA)
- Pacific Tsunami Warning Center (PTWC)
- WMO Typhoon Committee
- WMO Regional Association V
- IOC - Indian Ocean Tsunami Warning System (IOTWS)
- IOC - Pacific Tsunami Warning System (PTWS)
- Inter-governmental Oceanic Commission (IOC)
- United Nation Educational, Scientific and Cultural Organization (UNESCO)
- World Meteorological Organization (WMO)

Managing Earthquake & Tsunami Hazard





ENHANCING PREPAREDNESS AND RESPONSE CAPABILITY





Public Awareness Program on Earthquake



Public Address by Minister



Briefing to Private Company



Multi-Agency Briefing Session



Local Government and Public



Public Awareness Program on Tsunami



EXHIBITION



DIALOG SESSION



COMMUNITY INVOLVEMNT



Q & A SESSION WITH PRESS



Tsunami Drill Exercises



Save Evacuation Area



Siren located at mosque rooftop



Route to tsunami save evacuation zone.



Fire and Rescue Department involvement.



Mitigation Project Implemented



SMART - Stormwater Management and Road Tunnel

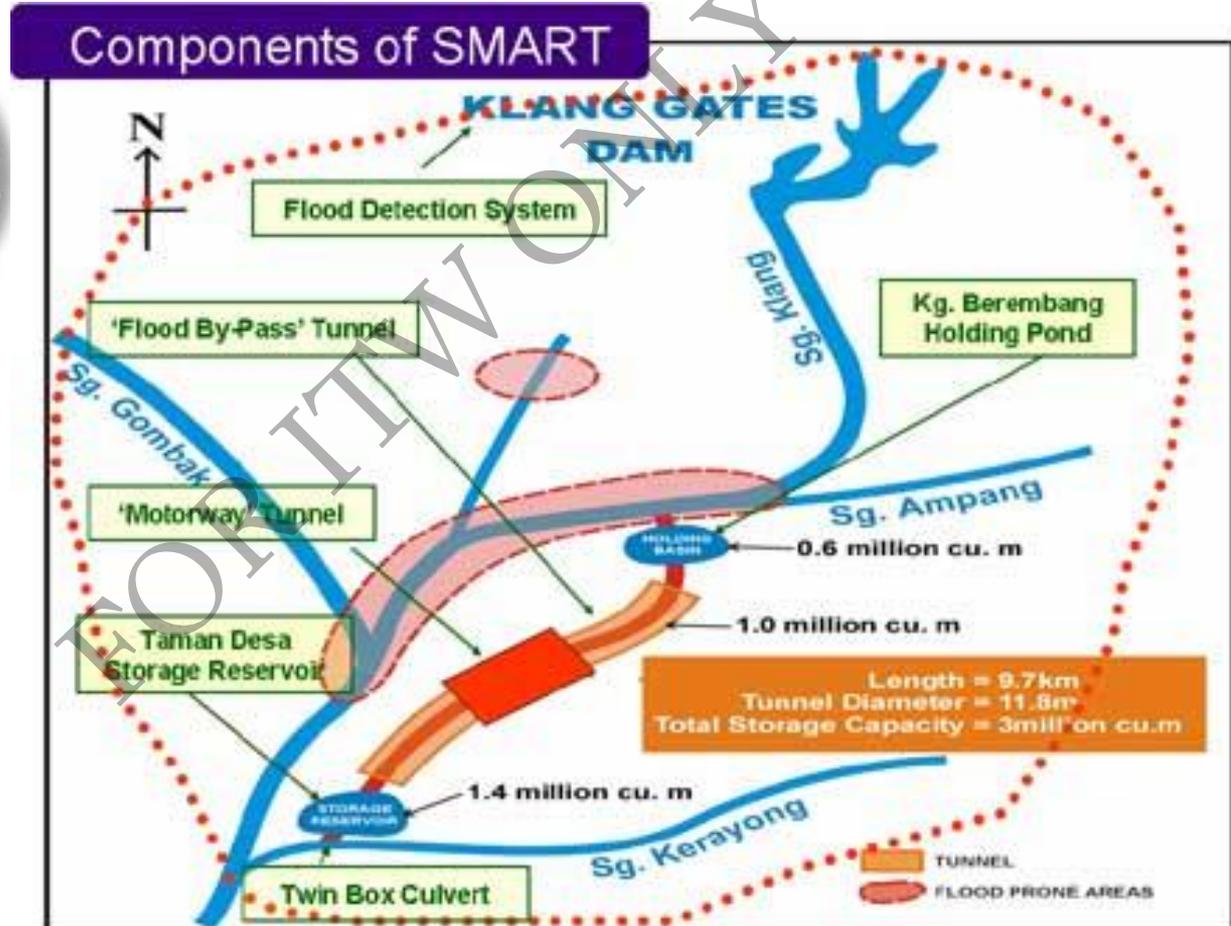
Primarily objective; to mitigate the recurring floods in the city of Kuala Lumpur by diverting large volumes of flood water from entering this critical stretch via a holding pond, bypass tunnel and storage reservoir

Secondary objective is to relieve traffic congestion at the main Southern Gateway to the city centre by turning SMART tunnel into motorway tunnel system.





Mitigation Project Implemented

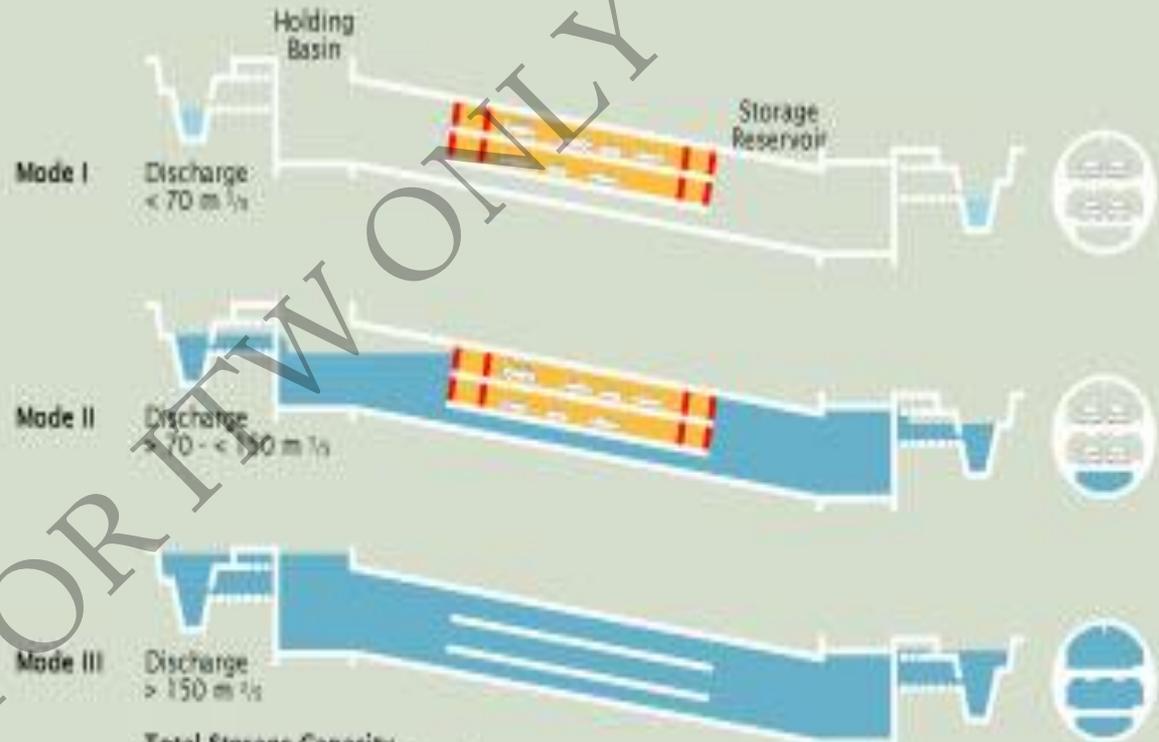




Mitigation Project Implemented



MOD OPERASI TEROWONG SMART OPERATIONAL MODES OF THE SMART TUNNEL



Total Storage Capacity
3 Million Cubic Meters at 3 main components

Inlet 600,000m ³	Northern Section	Motorway Tunnel 250,000m ³ 750,000m ³	Southern Section	Outlet 1,400,000m ³	3,000,000m ³
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**Thank You
for
Your Attention**





MALAYSIA NATIONAL SECURITY COUNCIL

POLICY AND MECHANISM IN THE MANAGEMENT OF NATIONAL DISASTER AND RELIEF IN MALAYSIA (NSC DIRECTIVE NO. 20)

FOOTNOTES ONLY

FIRE EXPLOSION AT BRIGHT SPARKLES IN SUNGAI BULUH (22-KILLED/103-INJURED)

COLLAPSE OF THE SULTAN ABDUL HALIM JETTY BUTTERWORTH (32 - KILLED/1674 -INJURED)

COLLAPSE OF HIGHLAND TOWERS CONDOMINIUM IN HULU KELANG (48- KILLED)

DISASTERS IN MALAYSIA

FIRE EXPLOSION OF CHOON HUNG III VESSEL AT PORT KELANG (10-KILLED)

MUDSLIDE AT THE ABORIGINES' AT VILLAGE IN POS DIPANG, KAMPAR, PERAK (44 - KILLED)

TROPICAL STORM "GREG" IN KENINGAU, SABAH (4,925 HOMES DESTROYED PROPERTIES WORTH 130 MILLION DESTROYED) (230-KILLED)

LANDSLIDE AT KM 34 NEAR THE EXIT ROAD TO GENTING HIGHLANDS (20-KILLED)

The need to have an integrated disaster management system to deal with any kind of disaster

The need to formulate a policy and mechanism of Disaster Management in an integrated, coordinated and systematic manner to manage and handle disasters on land.

LESSON LEARNED

The need to have a sound system of coordination among agencies in search and rescue operations as well as relief and rehabilitation.

The need to have a specialised and highly skilled search and rescue team.



**NATIONAL SECURITY COUNCIL
DIRECTIVE NO. 20
(The Policy and Mechanism on
National Disaster and Relief
Management)**

Following the tragedy of the collapse of Highland Towers Condominium, the Malaysian Cabinet made a decision to form a mechanism under the National Security Division, Prime Minister Dept for the management of on scene incident in major disaster on land.

NATIONAL
SECURITY
COUNCIL'S
DIRECTIVES



RESTRICTED

NATIONAL SECURITY COUNCIL

DIRECTIVE No. 20

FOR ITW ONLY

THE POLICY AND MECHANISM
ON
NATIONAL DISASTER AND RELIEF
MANAGEMENT

NATIONAL SECURITY DIVISION
PRIME MINISTER'S DEPARTMENT

RESTRICTED

NSC DIRECTIVES NO. 20

EXECUTIVE ORDERS BY PRIME MINISTER'S

To reduce casualties and minimise damage to properties.

To prevent disasters from spreading.

To coordinate relief and rehabilitation to victims.

To coordinate relief and rehabilitation to victims.

To outline a Policy on Disaster Management and Relief on LAND according to the level of disaster.

To preserve the environment.

To immediately bring back the situation to normalcy.

To establish a Management Mechanism with the purpose of determining the roles and responsibilities of the various agencies involved in handling disaster.

POLICY OF DISASTER MANAGEMENT

- To have an integrated system of disaster management with emphasis on the concerted and coordinated actions.
- Integrated disaster management system means “a combined and coordinated response of the various agencies in the management of disaster”.
- Coordinated and concerted actions means “the harmonious integration of all agencies involved with the objective to handle the disaster efficiently and bringing the situation back to normalcy”.

Accidents involving the transportation, channeling and transferring of hazardous materials.

Nuclear and radiological mishaps.

Pandemic (H1N1)

The burst of hydro dam or reservoir.

Trains collisions or derailments.

TYPES OF DISASTERS

Industrial disasters : fire, explosion and emission of hazardous materials, channeling and transferring of hazardous materials.

Fire outbreak in large areas - forest fires/ open burnings

Natural disasters : floods, storm, draughts, beach erosion, landslides or disaster resulting from storm and heavy rain.

Collapse of high-rise buildings.

The emission of poisonous gas in public places.

Air accidents that occur in populated areas.

Haze, which causes environmental disaster

Flood In Kota Bharu



SUBMERGED SCHOOL: Flood waters engulf a school in a village in Kota Bharu where water levels rose as high as two metres on Sunday following heavy rains.



TO THE RESCUE: Civil defence personnel preparing to evacuate flood victims stranded in front of the 219-room, four-star New Pacific Hotel in Jalan Pengkalan Chepa, Kota Bharu, yesterday. Floods worsened in Kelantan with two more drowning cases reported and a total of 5,794 people evacuated.



UNDERWATER: Kota Bharu was under one to two metres of floodwaters due to the overflowing of Sungai Kelantan yesterday.



Bungalow Collape (land slide) In Gombak, Kuala Lumpur



RESCUE OPERATIONS: Scores of rescue workers searching the debris of the bungalow trying to locate the girl in Gombak last night. — STARPIC by AZHAR MAHMOUD

Eight-year-old girl dies in bungalow collapse

KUALA LUMPUR: The back portion of a bungalow perched on a hill in Taman Harmonis, Gombak here collapsed following a three-hour down-pour, killing an eight-year-old girl. The girl, Haseenah Azman, was sleeping in the back room of the single-storey bungalow together with her 12-year-old sister when a landslide at about 11.30pm brought down the room and kitchen with it. However, witnesses said the girls

father managed to pull the elder daughter out of the rubble. She escaped with minor injuries. Scores of workers and volunteers from the Smart Team, Fire and Rescue Department, volunteers from the Malaysian Red Crescent Society, Civil Defence and police were at the scene carrying out rescue operations soon after the incident. Dr Azman said he heard some

strange noises and went to check on the room. He realised the back portion had collapsed and managed to rescue his elder daughter. When he was about to rescue Haseenah, the wall collapsed and buried his daughter. Relatives and friends kept a close watch and refused to allow journalists and photographers to enter the scene of the incident. Director of Putrajaya's Rescue 911

unit Ghazali Abd Rahman said his men arrived at the scene at 12 midnight, about 20 minutes after fire department officers reached the site. "We are assisting them and after two hours of search, the body of the girl was found at 1.50am in the debris," he told reporters. Gombak Setia assemblyman Yuszahari Yusoff was at the scene helping out in the search operations.



BEBERAPA orang anggota Smart dan Bomba mengangkat mayat Haseenah Azman, 8 tahun yang tertimbus dalam kejadian tanah runtuh di Taman Harmonis, Gombak semalam. — Gambar ASWAD YAHYA

Tsunami In Malaysia



HAVOC in Penang

AGENCIES ROLES AT DISASTER SITE

SEARCH AND RESCUE

- SMART
- Police
- ATM
- Fire and Rescue Department
- Civil Defence Department
- ETC

EMERGENCY MEDICAL SERVICE

- Hospital
- Malaysia Red Crescent
- St. John Ambulance
- ETC

WELFARE

- Social Welfare Department
- Voluntary Organisation
- ETC

SUPPORT

- Local Authorities
- Public Works Department
- Telephone Board
- Electricity Board
- The Army
- The Police
- ETC

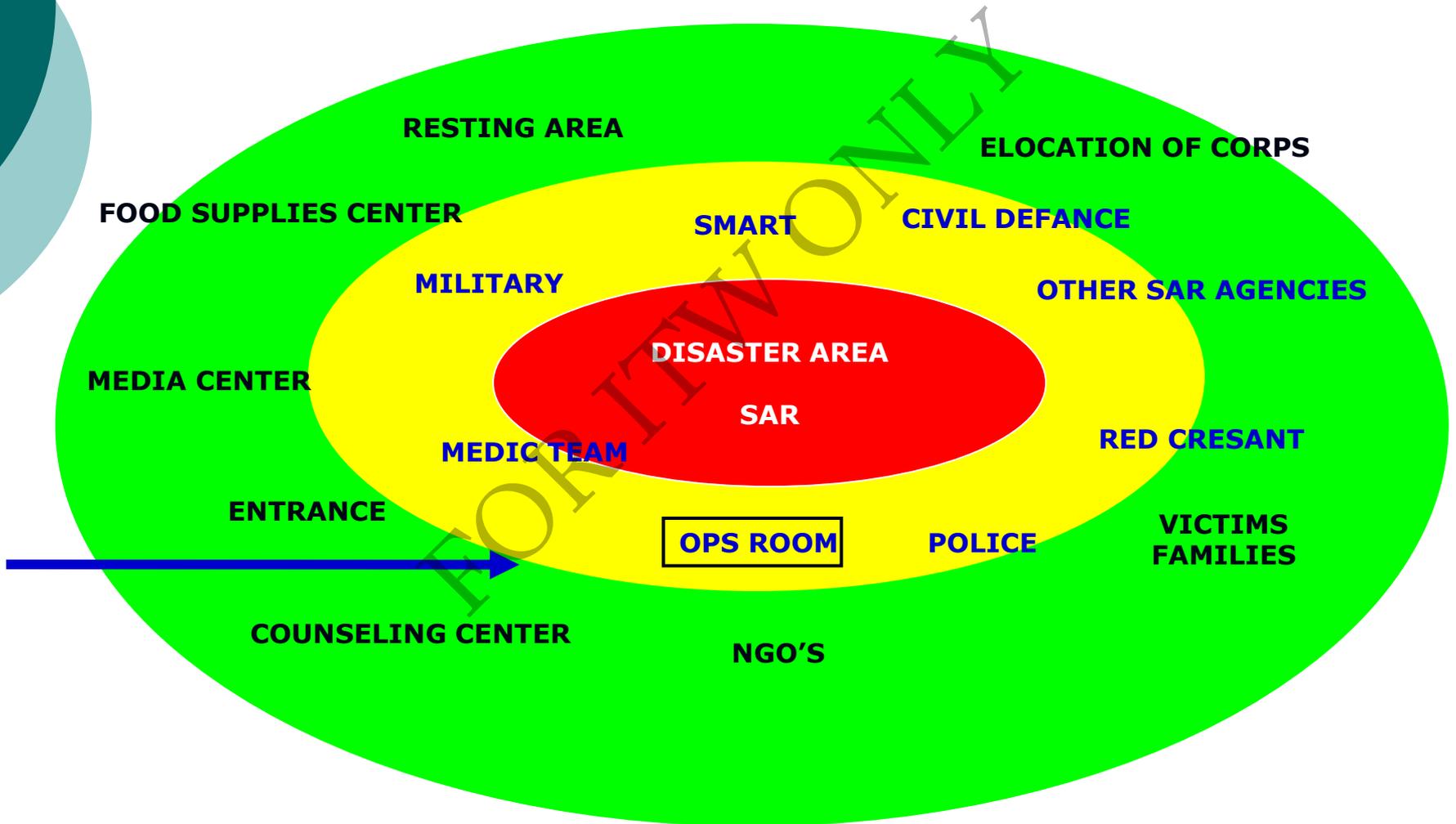
MEDIA

- Information Department
- Broadcasting Department

SECURITY CONTROL

- The Police
- RELA
- ETC

COMMAND & CONTROL



CONCLUSION

The elements of disaster management have broad application. There is no single and specific method in handling a disaster. The application and method of disaster management do not only depend on types, location and levels of disaster, but also depend on the effectiveness and good system of management as well as the total commitment of Agencies involved in handling a disaster.



THANK YOU

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