

#### **Disaster Medicine** Where are we now?

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#### When do we start?





Date/Year	Incident	Natural, Human- made or Combination	Property, Material, Crop or Other Losses (USD)	Number of Deaths
1926	Flood known as "The storm forest flood"	Natural	Thousands of hectares of forests destroyed	NA
19 October 1968	Collapse of Four-Story Building – The Raja Laut Tragedy	Human-made	NA	NA
1988	Sultan Abdul Halim Ferry Terminal–Royal Inquiry	Human-made	Injured 1,634 people	32
1991	Bright Sparklers- 1991(Royal Inquiry)	Human-made	Millions	22
21 June 1992	Choon Hong III oil tanker explodes and burns (Royal Inquiry)	Human-made	NA	13
1992	Fire and explosions at South Port Klang	Human-made	Millions	10
December 1993	Collapse of Highland Towers apartments	Human-made	Tens of Millions	48
June 1993	Genting Highlands Landslide	Combination	Millions	20
29 August 1996	Pos Dipang landslide- mudslide	Combination	NA	44



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December 1996	Floods brought by Tropical Storm Greg in Keningau (Sabah State)	Combination	300 million	241
1997	El Nino in 1997 which led to severe droughts, forest fires & haze	Combination	Millions in lost tourist revenue, health costs & business losses	NA
June 1999	Japanese Encephalitis Virus Outbreak	Combination	Millions	60
February 1999	Landslide at Sandakan, Sabah	Combination	Millions	17
2000	Floods caused by heavy rains in Kelantan and Terengganu	Combination	Millions	15
December 2004	Asian Tsunami	Natural	Millions	68
November 2002	A luxury home collapsed in Ulu Kelang area	Combination	Millions	8
November 2002- May 2003	Severe Acute Respiratory Syndrome (SARS)	Combination	Millions	NA
2003-2007	Avian Influenza 2003 - 2007	Combination	Millions	NA
2005	Haze	Combination	NA	NA
December 2006 & January 2007	Floods in Johor State	Combination	489 million	18
2008	Floods in Johor State		21.19 Million	28
2010	Floods in Kedah and Perlis	Combination	8.48 Million (Aid alone)	4
2011 & 2012	La Nina in 2011 and 2012 (which brought floods)	Natural	NA	NA







#### 1971 – Flood in Pahang







#### **Establishment of Permanent Flood Control Commission**





#### Structural Measures

i. Improvement of river channel by dredging and canalisation
ii. Construction of levees or embankment
iii. Construction of flood diversion channel
iv. Construction of flood retention reservoir
v. Use of ponds for flood attenuation
vi. Poldering (ring bund)

#### Non-Structural Measures

- i. Control of development both inside and outside flood plain
- ii. Flood risk analysis and mapping
- iii. Control of land use change
- iv. Resettlement of population from flood-prone areas
- v. Flood proofing
- vi. Flood forecasting and warning system











#### December 1993













#### **Inland Major Disaster Management Mechanism** 18 Mei 1994





## **National Security Council Directive 20**

11 May 1997

Directive on policy and mechanism in management of disaster in Malaysia



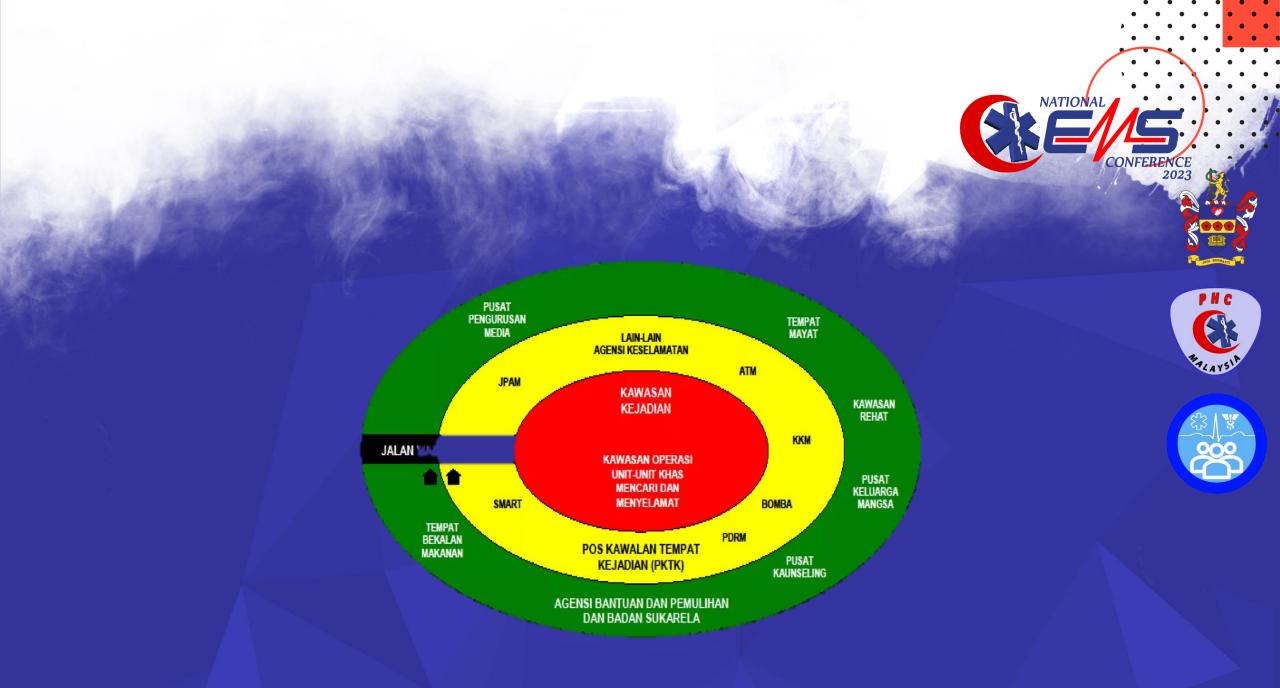
## **National Security Council Directive 20 REVISED**

11 May 2012

Directive on policy and mechanism in management of disaster in Malaysia



















## **Prehospital Care and Disaster**



#### WHAT IS THE FUTURE?







#### DISASTER MEDICINE SPECIALIST??







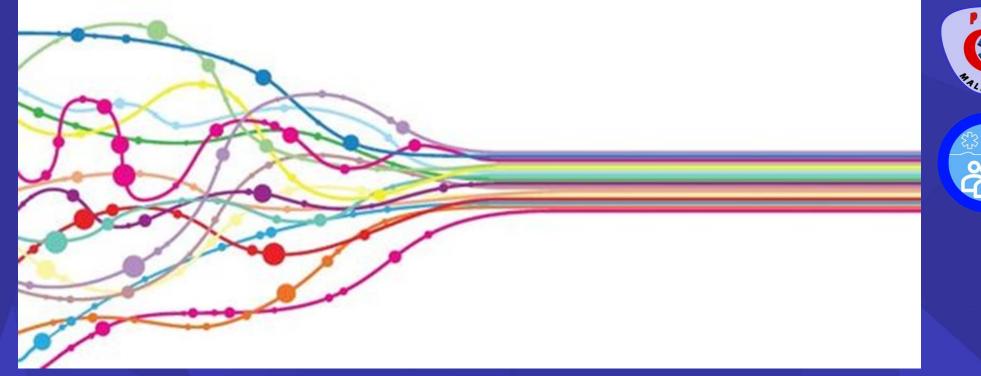
# Disaster Medicine Conference 2023















#### **5 Things How Can We Be BETTER.**







#### Understand that DISASTER ALWAYS LOCAL



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The main responder always be local personnel and supported by the governing body.





### Systematic Disaster Medicine Training and Fellowship







#### INVEST more on RESEARCH and DEVELOPMENT







#### DRILL to FAIL















#### **Integrating Internationally Response System**









### AND SO MUCH MORE.

#### Congratulations ASST. PROF. DR. MOHD SYAFWAN BIN ADNAN 20 for the appointment Chairman Southeast Asia Chapter World Association for Disaster and Emergency Medicine

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tor Disaster and time

