

# EARLY WARNING SYSTEM AND DISASTER MANAGEMENT CONCEPT IN INDONESIA



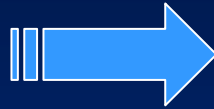
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# INDONESIA



- Population: >220 million people
- Land: 1,904,569 km<sup>2</sup>
- Ocean: 3,288,683 km<sup>2</sup>
- Island: 17,508
- Villages: 70.000
- 43.000 Villages (64%) No Access Telecommunication



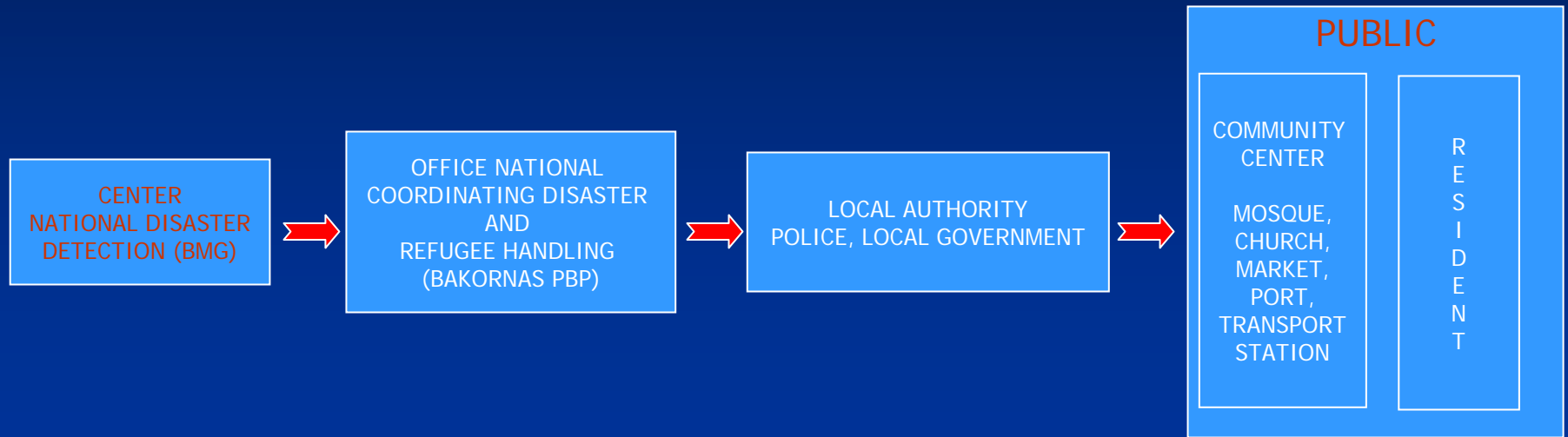


# **BIG DISASTER HAPPENED IN INDONESIA**

- EARTHQUAKE AND TSUNAMI IN ACEH  
(Dec 26, 2004)
- EARTHQUAKE IN YOGYAKARTA  
(May 27, 2006)
- EARTHQUAKE AND TSUNAMI IN  
PANGANDARAN, WEST JAVA  
(July 17, 2006)

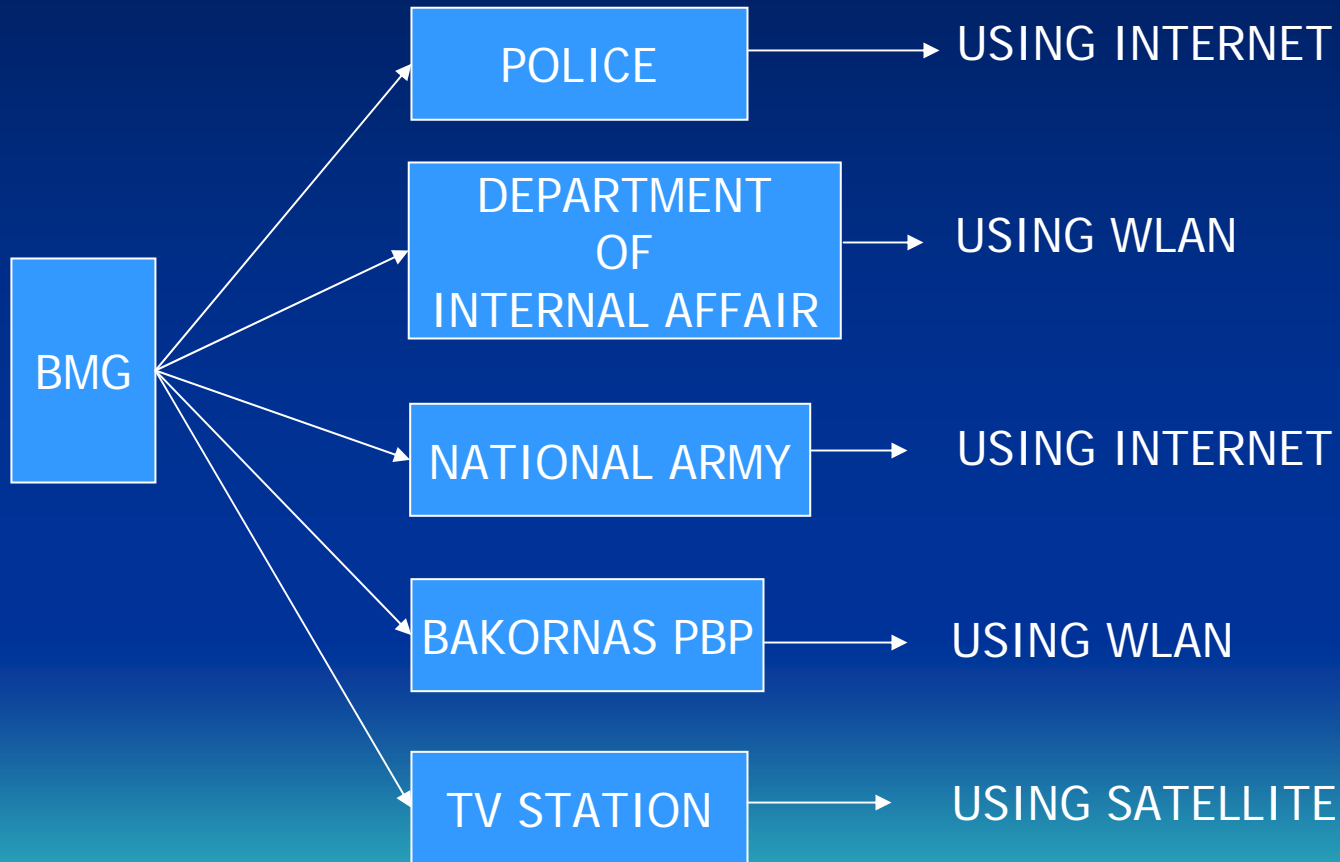


# FLOW OF DISASTER INFORMATION





# NETWORK CONECTION (SHORT TERM PLAN)





# Disaster Information Format to Public through Multi Mode Media

- **Broadcast Mode** → Information target is public
  - Terrestrial Sound Broadcasting (FM, AM) → Audio news
  - Terrestrial TV Broadcasting → Telops (breaking news)
  - Cellular phone → sms broadcast / text
  - Internet → e-mail, portal
- **Multicast Mode** → Information target is local authority
  - Satellite TV and Sound Broadcasting → Telops (breaking news)
  - Satellite phone → voice, text, and picture
  - Cellular phone → voice, text
  - Telephone/Fax → voice, picture, text
  - Internet → e-mail, portal
  - Radio Amateur and Citizen Band → voice, text
- **Others** → Information target is residential
  - Police radio communication system (Handy Talkie, cellular, etc) → voice
  - Siren, Bell, Loudspeaker, Display, Traditional Instrument, etc → voice, text
  - Public place: mosque, church, temple, market, etc → voice



# Terrestrial Sound and TV Broadcast

- **Sound Broadcasting (FM and AM):**
  - Very cheap receiver terminal, most people already have
  - Free to air
  - Broadcast to public within its coverage
  - Only voice information
  - Coverage: limited to its coverage (the most wider coverage in Indonesia is Public Broadcaster RRI: cover almost 80% Indonesian territory)
- **TV Broadcasting**
  - Most people already own TV receiver set
  - Free to air
  - Broadcast to public within its coverage
  - Audiovisual Communication
  - Coverage: limited to its coverage (the most wider coverage in Indonesia is Public Broadcaster TVRI: cover almost 80% Indonesian territory)





# Action Plan

- Determining Government focal point on disaster warning
- Establishing Standard of Procedure (SOP)
- Coordination with Indonesian broadcasters and telecommunication providers
- Coordination with related government entities and also local authority including possible involving community center
- Establishing additional infrastructure, if necessary.





# Immediate Action

- Request broadcaster and telecommunication operator to provide hotline with Center of Disaster Detection (24 hours a day, 7 days a week, 365 days a year)
- Request broadcaster either public, commercial or pay-TV (satellite and cable), to provide facility to insert flash news, teletext, etc, in case of disaster/emergency.
- Request telecommunication (cellular, PSTN) to provide priority emergency line to early warning system to avoid traffic congestion
- Request ICT community to facilitate and enhanced capacity building (human resources capability) of related government entities to operate properly of telecommunication, broadcast and internet infrastructure
- Prepare education to the public regarding disaster anticipation through broadcasting TV and Sound program, internet, etc





THANK YOU

