End To End Tsunami Warning – Stakeholders, Roles & Responsibilities, SOPs, Linkages

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Outline

- Stakeholders
- Linked by SOPs
End-to-End Tsunami Warning

EQ Tsunami

Country Alert System

Emergency Alert System & Mass Media

Natl / Provincial / Local Govt

Public

Tsunami WARNING! EVACUATE

ITIC, SeismicReady Consulting 2009, after Japan Cabinet Office 2005
End-to-End Tsunami Warning

Stakeholders

* Regional Tsunami Warning Centres (RTWC)
* National Tsunami Warning Centres (NTWC)
* Disaster Management Offices (DMO)/ Local Authorities
* Emergency Services
* Media
* Public
Regional Warning Centres (Intl RTWC)

(PTWC, US NTWC (formerly WC/ATWC)

- Regional Monitoring & Detection (24/7)
- International collation/sharing of data
- Issue Regional Threat Advice to National Tsunami Warning Centres
- Cancel Regional Threat
National Warning Centres (NTWC)

- Local (Country-specific) Monitoring & Detection (24/7) using RTWC or natl data streams
- Receive RTWC Alerts (TWFP)
- Assess information to determine local threat
- Issue Warnings to DMO’s, media & agencies
- Cancel National Warnings
- Research & Public Education (with stakeholders)
Disaster Management Offices
(National and Local Authorities)

- Receive Warnings from NTWC
- Activate local public alert systems as needed
- Decide on & Manage Evacuations
- Communicate ‘All Clear’ (safe to return)
- Signage
- Public Education (with other stakeholders)
Emergency Services

- Support DMO/Local Authorities with
  - Public alerting
  - Evacuation
  - Law & Order
  - Response after tsunami has struck
    (Search and Rescue, etc)
Media (radio, television)

- Convey Official Warnings (National & Local)
  
  * But also:
  
  - Convey Unofficial Warnings
  
  * Therefore:
  
  - Can cause or counter public response
  
  * International media can mis-report warning regions/countries causing public confusion
Public

- End Receiver of Warnings
- Convey Official and Unofficial Warnings
- To minimize their confusion, they must be educated to understand:
  - Official Warnings (how will they be warned)
  - Natural Warnings (what to look out for)
  - Where and What to do
    - Evacuation zones
    - Routes & Safe zones
  - How to respond if evacuation zones are not defined
End-to-End Tsunami Warning

Stakeholder Relationships
End-to-End Warning SOP – Activities

NTWC RTWC msg Receipt, Natl Assess & Notify SOP

Evacuation, Emergency Svcs SOPs

Hazard ?

Safety Threat ?

Public Responds Public Aware Pre-event
- Signage, Evac Maps
- Natural Warnings
- Exercises

RTWC Detect, Assess & Notify SOP

DMO Receipt, Evac Decide, & Notify SOP

EQ +0 min

Wave Attacks Lives Saved

T+15
Stakeholder Coordination is Essential

TSUNAMI COORDINATION COMMITTEE
Hazard Assessment
Warning Coordination & EM Preparedness & Mitigation

- Science and Engineering
- Emergency Management
  1st Responders (police, fire, water safety)
  medical svcs, search & rescue

- Warning Center

Civil Society & NGOs:
- Community organizations: (social, gender, cultural, age, language, religious ...)
- Disaster response & relief
- Trade, commerce, workers

Government Agencies:
- Regional Planning
- Social Infrastructure Works
- Agriculture & Forestry
- Health & Sanitation
- Environment, Transportation...

Local Communities
Mass Media
Energy, Telecomm
Tourism
Private Sector
International Agencies

ITIC, SeismicReady Consulting, 2009
Thank You

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