



EU DG-ECHO CoastWAVE Project Workshop
Standard Operating Procedures (SOP) Planning and
Implementation for Tsunami Response in NEAM Region

Jointly organized by IOC-UNESCO and EC-JRC

Designing Tsunami Warnings and Evacuations

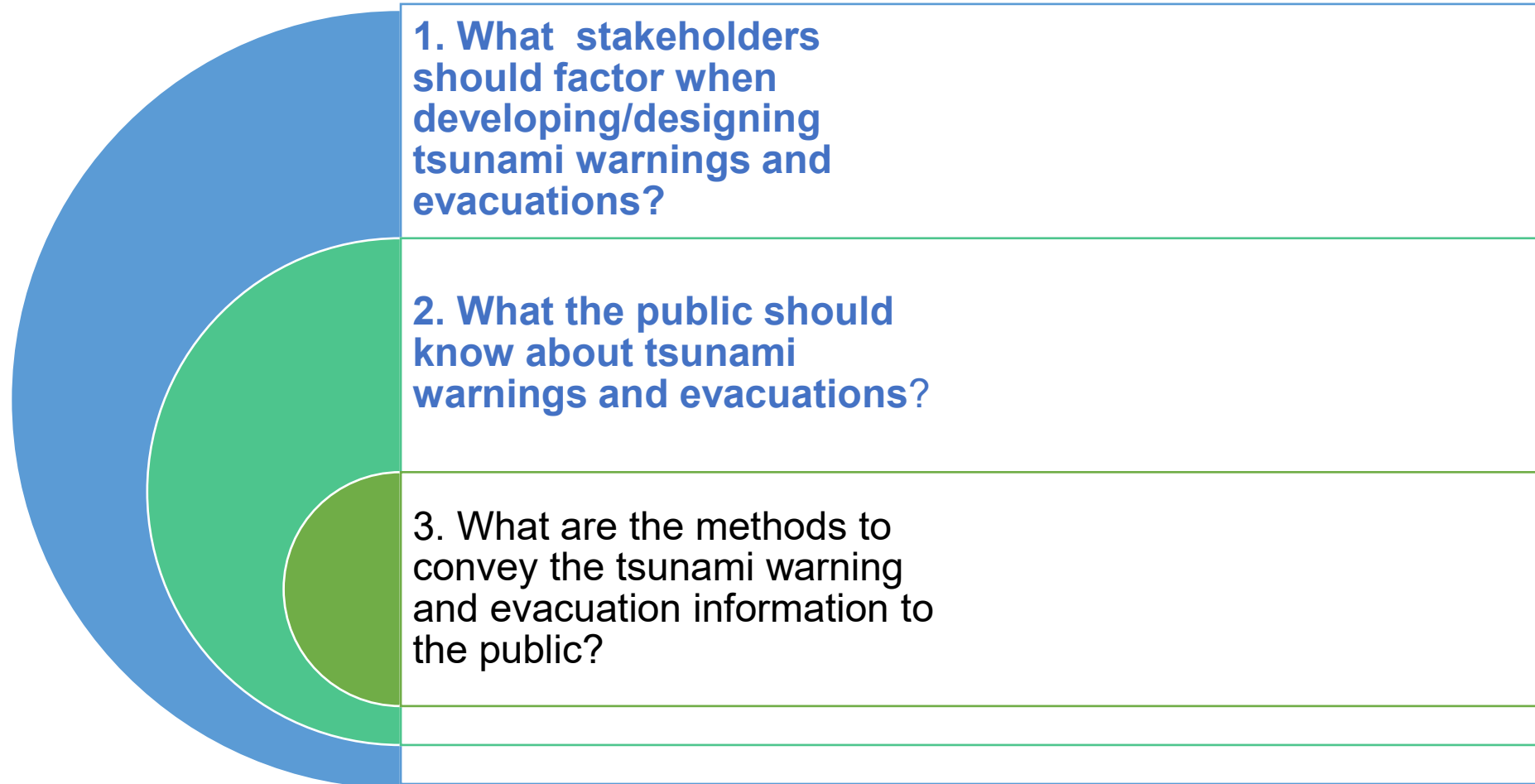
What Experts and the Public Should Know.

Based on MG 76 and MG82 Module 3

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Key Questions



Public Awareness

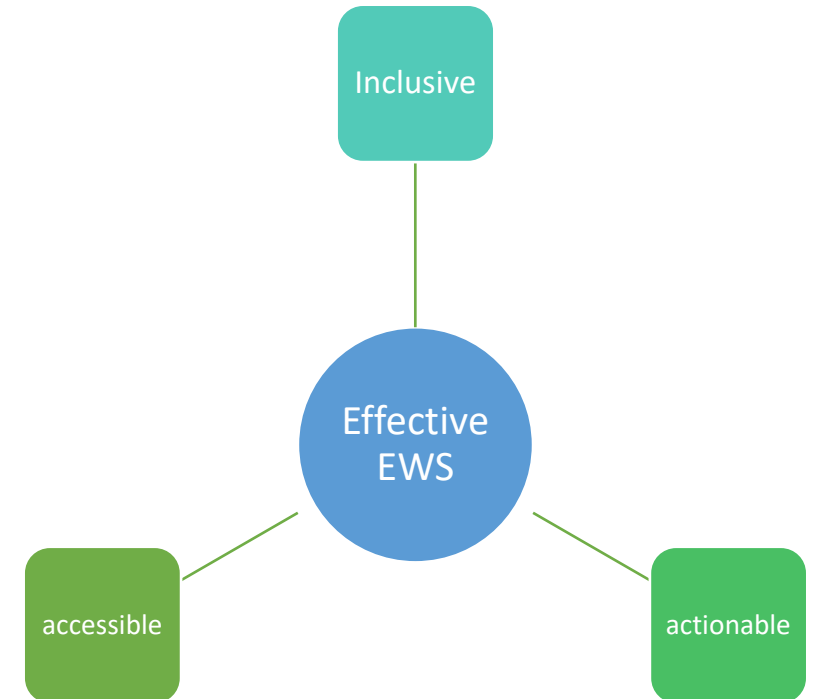
- The **Tsunami Response Plan** covers the arrangements for **warnings**, **evacuations**, and **public awareness**.
- Tsunami response plans is closely associated with public awareness to ensure the public understands what to do.

What Stakeholders Should Consider/Factor When Designing Tsunami Warnings and Evacuations /Awareness

Key Attributes of an Effective EWS/MHEWS

Effective M/HEWS

1. **Inclusiveness** of the needs, perspectives, priorities, and meaningful participation of the many different people in society, which vary according to their age, sex, disability, gender roles, sexual orientation, literacy, language, cultural practices, race, geographic location, socio-economic position, among many others;
2. **Accessibility** to all, ensuring that information can reach everyone who may be impacted, and in a way that can be easily understood by all, regardless of their individual circumstances including disability, literacy, and language; and
3. **Actionability**, providing information that includes potential impacts and **recommended action** that people should take, which enables people to reduce their disaster risk, and potential damages and loss.



What Stakeholders Should Consider/Factor When Designing Tsunami Warnings and Evacuations /Awareness

The following are important considerations in developing/designing Tsunami Warnings and Evacuations / Awareness

Community Perceptions

- Social perceptions influence understanding, behavior and decision making.

Local and Traditional Knowledge

- Local and indigenous knowledge refers to the understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings.
- For rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life (UNESCO , LINKS).
- LINKS can be a powerful tool
- However, in general, local traditional knowledge alone will not be enough to ensure an effective community response.
- Traditional knowledge may be limited in application in NEAM countries?

What Stakeholders Should Consider/Factor When Designing Tsunami Warnings and Evacuations / Awareness

Community Needs and Focus

- To be effective, activities and material should be tailored to the country or area-specific community needs.
- Factors such as geography, demographics, language, cultural, religious and social orientations should influence the awareness approach.
- Vulnerable, at risk and most impacted groups include:
 - Indigenous peoples living in marginalized conditions or in exposed areas;
 - People with disabilities living in inequitable conditions;
 - Children or elderly people highly dependent on others

What Stakeholders Should Consider/Factor When Designing Tsunami Warnings and Evacuations/Awareness (Con't)

Governance and Public policy

- High level Institutional arrangements/policies and strategies and any tensions or conflicts.
- Efforts able to sustain itself over political cycles and generations

A multi-faceted Approach

- **Formal and informal approaches and norms**

What Stakeholders
Should
Consider/Factor
When Designing
Tsunami Warnings
and Evacuations/
Awareness (Con't)

Content of Information

Basic information about the tsunami hazards, with specific reference to the country or area.

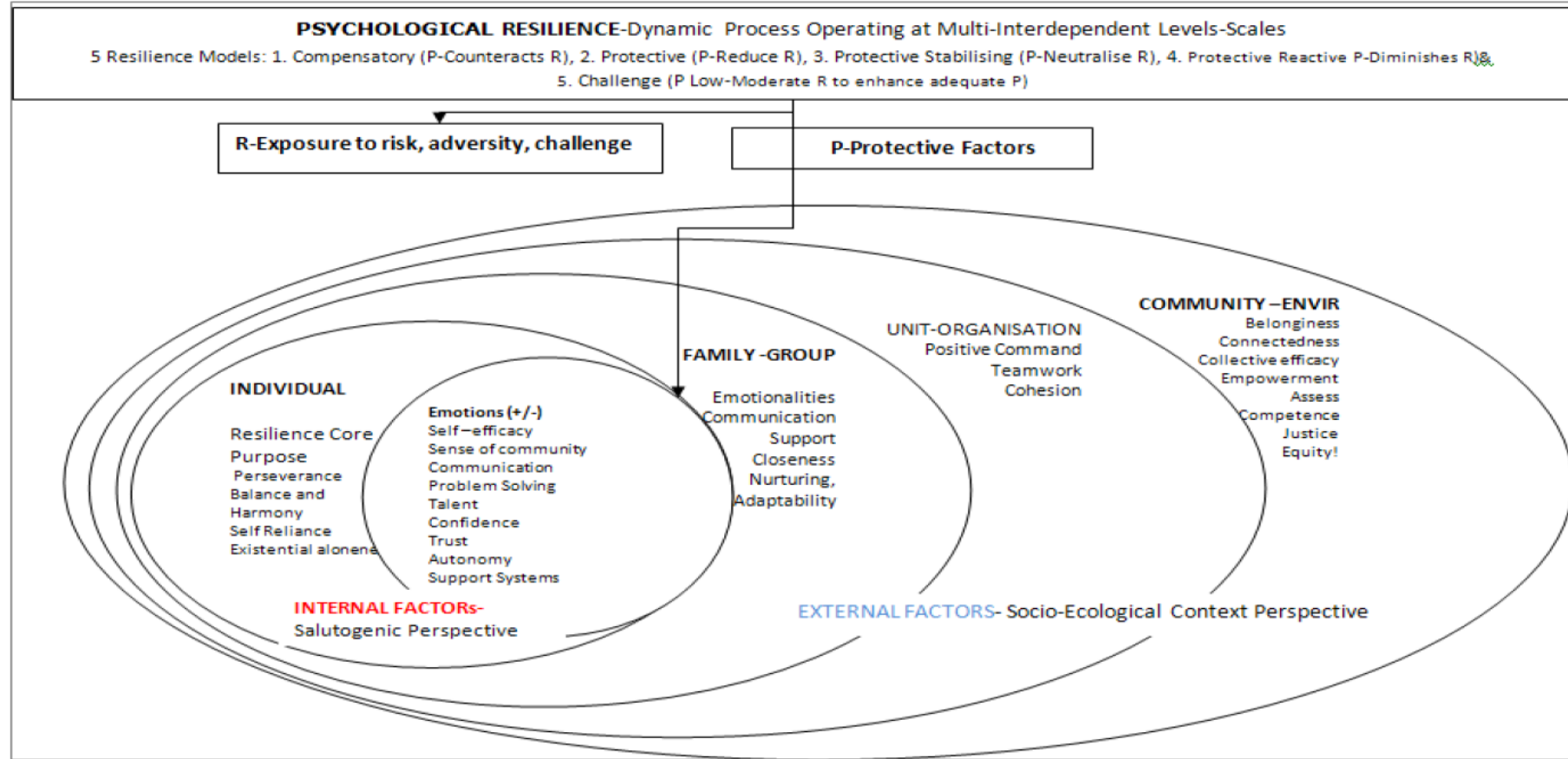
Information on historical tsunami events and their impacts, including local and/or traditional knowledge of past events.

Tsunami modelling results

Important role of communities in preparedness and mitigation.

Create empowerment and encourage communities to become more self-reliant.

Focus on Collective Action instead of Individual Action, however Collective Action starts with Individual Action

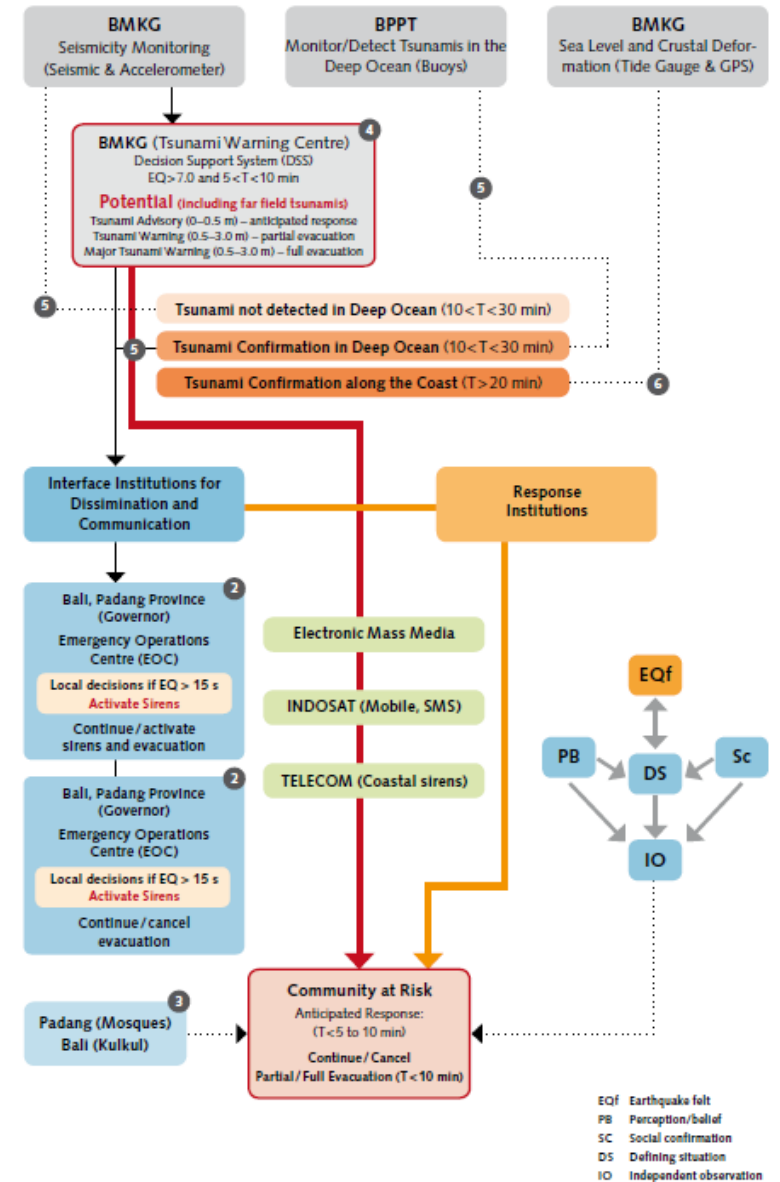


emBRACE Project, Birkmann, Chang Seng et al, 2012

What Stakeholders Should Consider/Factor When Designing Tsunami Warnings and Evacuations/Awareness (Con't)

- People's behaviors and reactions are often complex and non-linear.
- **Reactions/responses** based on event felt, perceptions/belief, social confirmation, defining situation and own observations.

Figure 53: Integrated local adaptive people-centred and national TEWS approach



What the Public Should Know About Tsunami Warnings and Evacuations

Hazard and Risks (Risk Knowledge)

- General tsunami science – what is a tsunami, what causes a tsunami, how fast does it travel, how big are the waves, how long are the waves dangerous.
- What are my tsunami hazards – historical tsunamis and their impact, local or indigenous knowledge.
- How to recognize a tsunami – natural warning signs.

Warning and communication

- The country's tsunami warning system – where will warnings come from, how and when will they be communicated and what information will they contain (and not contain).
- When and how, and from whom, will I receive tsunami warnings?

Response and Evacuation

- Tsunami evacuation arrangements – what the evacuation zones and routes are, how the instruction to evacuate will be issued, what to take, where the assembly sites are, and where to listen or look for the all-clear.
- What are the natural signs and how do I respond to them, Tsunami safety rules (for people on land, in the water and in small boats) (self-evacuations).
- What do I do when a tsunami warning is issued?
- Where do I go when I have to evacuate – on land, in the water, on boats.
- When and how will I know it safe to return to my home?