



UNESCO-IOC Tsunami Ready Recognition

Community Evacuation Planning





TSUNAMI READY INDICATORS	
I	ASSESSMENT (ASSESS)
1	ASSESS-1. Tsunami hazard zones are mapped and designated.
2	ASSESS-2. The number of people at risk in the tsunami hazard zone is estimated.
3	ASSESS-3. Economic, infrastructural, political, and social resources are identified.
II	PREPAREDNESS (PREP)
4	PREP-1. Easily understood tsunami evacuation maps are approved.
5	PREP-2. Tsunami information including signage is publicly displayed.
6	PREP-3. Outreach and public awareness and education resources are available and distributed.
7	PREP-4. Outreach or educational activities are held at least three times a year.
8	PREP-5: A community tsunami exercise is conducted at least every two years.
III	RESPONSE (RESP)
9	RESP-1. A community tsunami emergency response plan is approved.
10	RESP-2. The capacity to manage emergency response operations during a tsunami is in place.
11	RESP-3. Redundant and reliable means to timely receive 24-hour official tsunami alerts are in place.
12	RESP-4. Redundant and reliable means to timely disseminate 24-hour official tsunami alerts to the public are in place.

UNESCO-IOC Tsunami Ready Indicators



PREP-1. EVACUATION MAP Easily understood tsunami evacuation maps



Nuku'alofa, Tonga

PREP-2. TSUNAMI INFORMATION Information including Signage Displayed



UNESCO-IOC Tsunami Ready Indicators

PREP-3. OUTREACH AND EDUCATION RESOURCES

Outreach, public awareness and education resources available and distributed

PREP-4. OUTREACH AND EDUCATION ACTIVITIES.

Held at least 3 times a year



SUNAMI: AUA ETE TOE FAATALI!
TSUNAMI: RUN FOR YOUR LIFE!

O FA'AILOILO E TE ONO VAAIA

TSUNAMI WARNING!

AMERICAN SAMOA

Samoa



UNESCO-IOC Tsunami Ready Indicators



PREP-5. TSUNAMI EXERCISE Annual Community Tsunami Exercise



Exercise Pacific Wave 2022 PICT Regional Exercise



Tonga

Cedeño,
Honduras,
2017

Context setting

Before we can:

- Commit to PREP 3 & 4 (Outreach & Education), and
- Commit to PREP 5 (Tsunami Exercises),

We need to:

- Plan for evacuations in the community

Community Evacuation Plans:

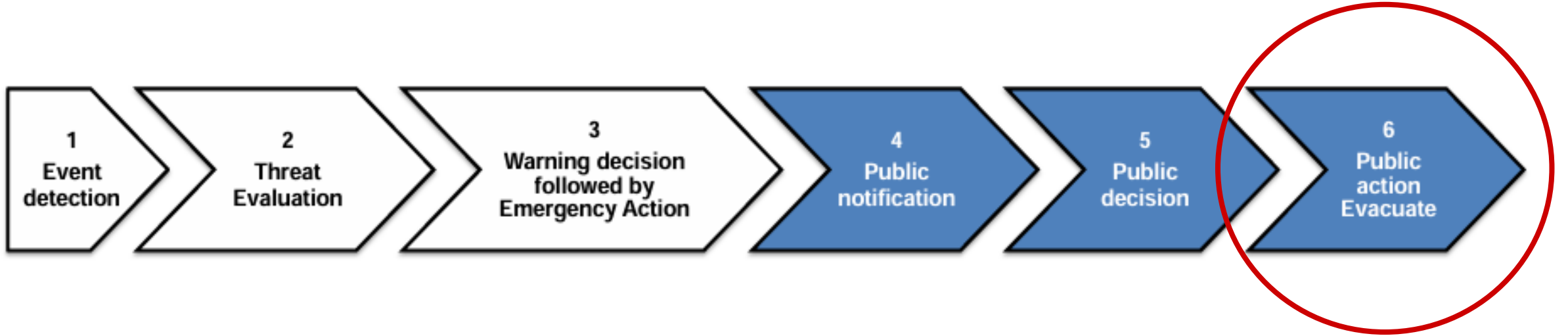
- Are part of Community Response Plans, which in turn -
- Are informed by National Tsunami Response Plans

II	PREPAREDNESS (PREP)
4	PREP-1. Easily understood tsunami evacuation maps are approved.
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7	PREP-4. Outreach or educational activities are held at least three times a year.
8	PREP-5: A community tsunami exercise is conducted at least every two years.



III	RESPONSE (RESP)
9	RESP-1. A community tsunami emergency response plan (ERP) is approved
10	RESP-2. The capacity to manage emergency response operations during a tsunami is in place
11	RESP-3. Redundant and reliable means to timely receive 24-hour official tsunami alerts are in place
12	RESP-4. Redundant and reliable means to timely disseminate 24-hour official tsunami alerts to the public are in place

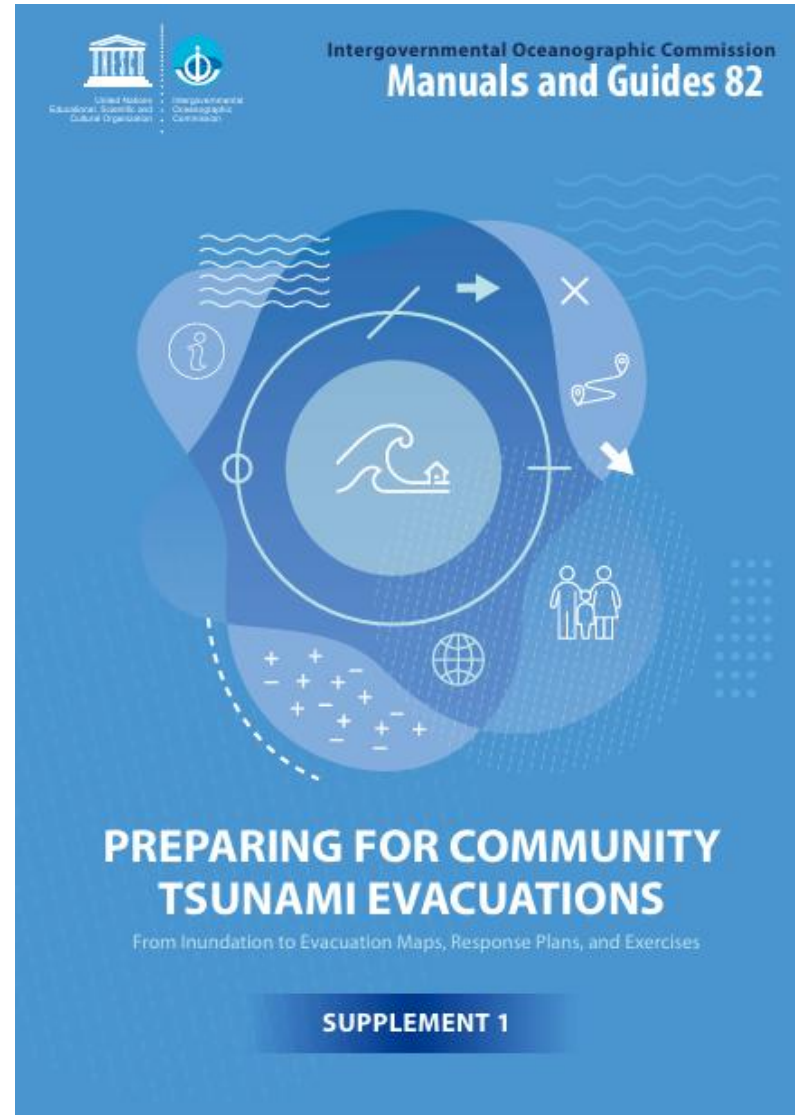
Evacuation: The final step in the warning process



When to and Where to evacuate:

- Reliable and practical community-level **evacuation plans & procedures** (forming key parts of the Community Response Plan)

Evacuation Planning: Guideline



Manuals and
Guides 82
TSUNAMI
EVACUATIONS ...

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Guidebook for Tsunami Evacuations

Planning for Tsunami Evacuations Guidebook

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Handbook of Tsunami Evacuation Planning

SCHEMA (Scenarios for Hazard-induced Emergencies Management),
Project n° 030963, Specific Targeted Research Project, Space Priority

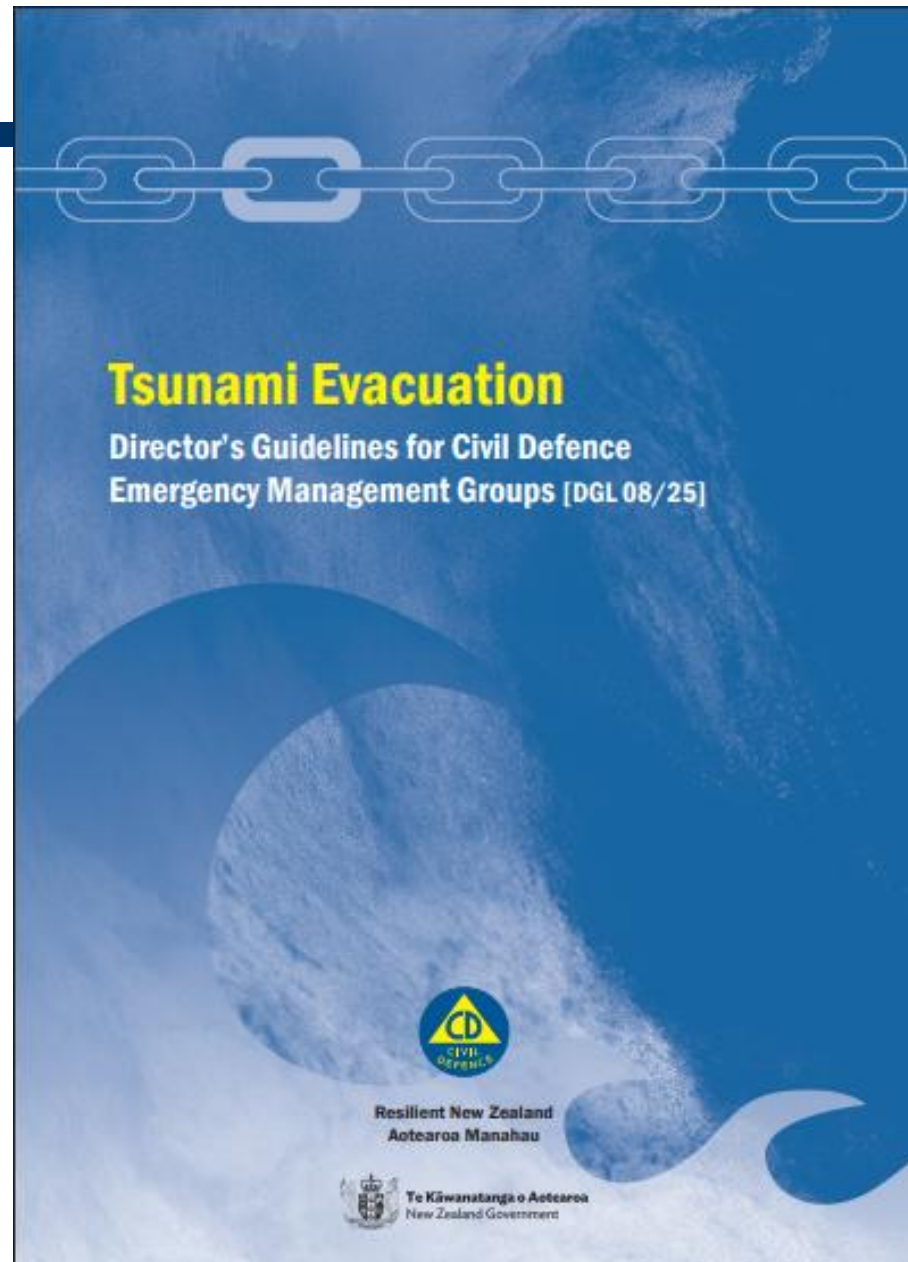
S. Scheer, A. Gardi, R. Guillande, G. Eftichidis, V. Varela, B. de Vanssay,
L. Colbeau-Justin



EUR 24787 EN - 2011

- Strategy for tsunami hazard risk reduction.....
- .1 Scientific basis of the decision process for tsunami warning
- .2 Evacuation plan: objectives and goals
- .3 What is an evacuation plan?
- .4 Evacuation plan as part of a strategy including early warning, preparedness, awareness
- .5 Current practice in other countries
- .6 UNESCO – IOC
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- Methodology of evacuation plan generation.....
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- .2 Risk and impact analysis for the definition of the plan background and input (step 1)
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- Sociologic aspects of hazard acceptance and evacuation: analysis on the SCHEMA test site at Setubal (Portugal).....
- .1 Context and presentation of the study
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- .1 Absence of early warning system
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[Link](#)

Evacuation Planning:

- The process for identifying areas potentially at risk from tsunami, and the actions required to ensure the safety of people while evacuating from those areas. It is fundamental that evacuation plans are integrated with the tsunami early warning system, as well as with other public and private sector emergency plans. Evacuation plan components should cover: types of evacuation (e.g. voluntary, mandatory) and the management of the respective phases (e.g. decision, notification, process, shelter, return).

Evacuation Procedures:

- Guidance to emergency services at the local level; thereby, ensuring evacuation zones are closed off and secured until the tsunami warning is cancelled and the threat of a tsunami no longer exists. Once areas have been evacuated, roadblocks, barricades, and/or a system of patrols should be set in place to keep the public from returning to evacuation zones and to keep people with malicious intent out. The decision to allow re-entry (e.g. all-clear) will be made by Emergency Management officials.

Baseline information needed:

- Tsunami inundation data (“wet” areas, “safe” areas)
- Community data (population demographics, infrastructure, roads, animals)
- Tsunami travel times (distant/regional/local sources)
- National & local warning arrangements
- Evacuation map (routes, assembly sites/shelters, vertical evacuation)
- Emergency responders, facilities & comms available

Tsunami evacuation plans: 5 Parts

- 1. Establish evacuation time**
- 2. Establish evacuation order arrangements**
- 3. Determine evacuation management arrangements**
- 4. Establish SOPs**
- 5. Determine community awareness arrangements**

1. Evacuation time (how long will it take?)

Consider:

- Start time - distant vs regional vs local sources
- Vulnerable population in hazard zone(s)
- Routes & Obstacles
- Night/day
- Walking speed, Evacuation distance (MG82 Suppl. 1 p 40)

Set evacuation times:

Zone / area	Assembly point	Est evac time (Day)	Est evac time (Night)
X	X	X	X
X	X	X	X

Establish SOPs for deciding evacuations

MG 82 Suppl 1, p 47

Town-Watching Tsunami Evacuation Checklist			
District		Date	
Name of person		Evacuation Point	
Evacuation route		Situation	
Traffic? (e.g. heavy traffic in the morning, what type of traffic, motor cycles, cars, buses)			
Width/Type of roads? (e.g., narrow, wide, asphalted)			
Stairs? (e.g., yes, no, required)			
Street lights? (e.g., sufficient, insufficient, blackout possible)			
Evacuation signs? (e.g., few, absent, sufficient, obscured, more necessary)			
Time required to evacuate? (e.g., 30 – 40 minutes for elderly)			
Other (e.g., concrete block walls that could fall and block routes, power lines that could fall - so dangerous to evacuate)			

Evacuation points	Situation
High ground or a structure/building? (e.g., high ground)	
Is the elevation high enough compared to the expected tsunami height? (e.g., OK, elevation 38 m)	
Easily accessible? (e.g., yes)	

Other (e.g., this point is on the top of mountain, so measures for cold temperatures are necessary; is there a roof in case of rain)	
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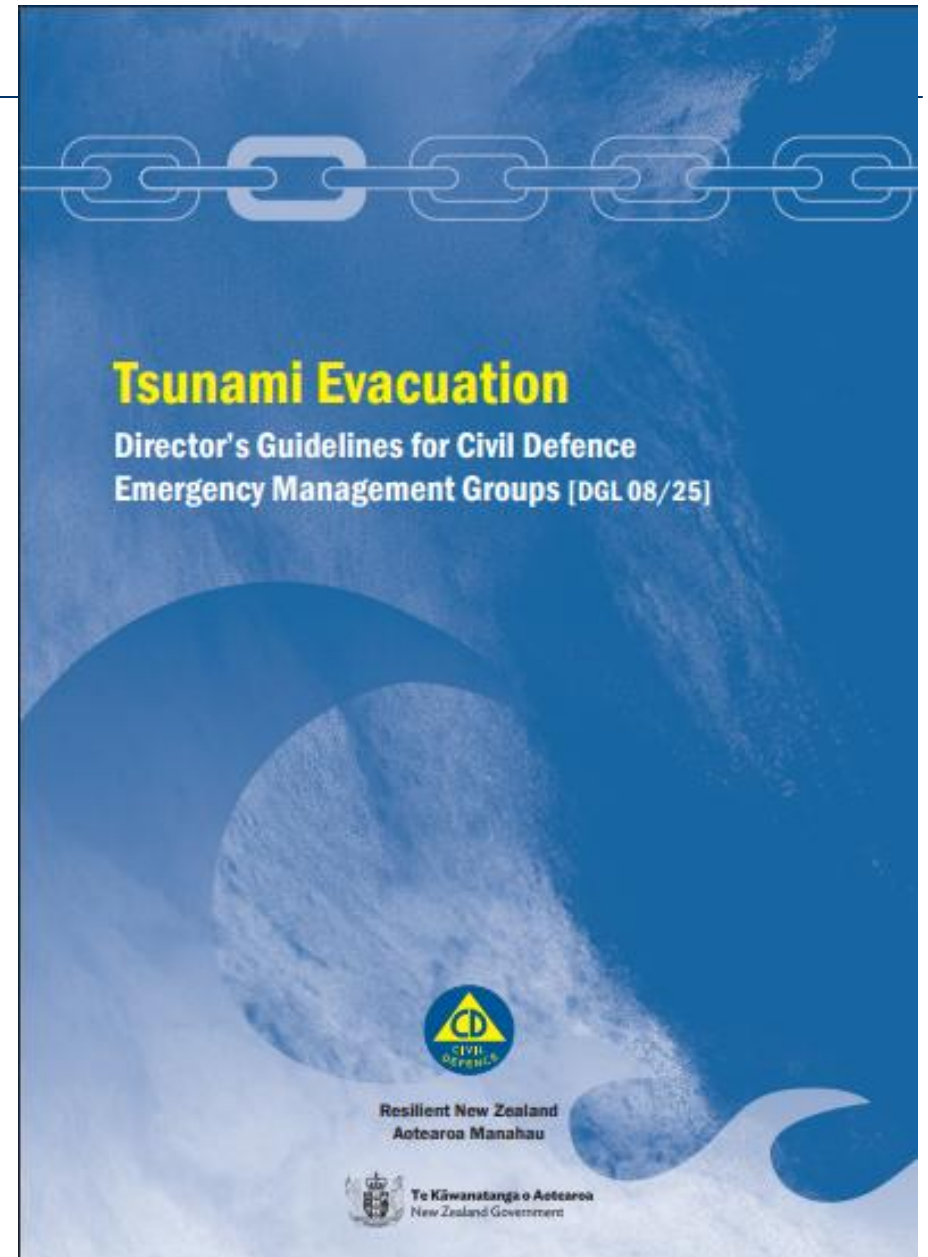
Evacuation Route Obstacles (Yes, No, Details, such as few, many, etc.)	Situation
Block concrete walls (Risk of collapse)	
Utility poles (Risk of falling over)	
Power lines (Risk of falling)	
Old trees (Risk of falling over)	
Vending machines (Risk of overturning?)	
Signboards (Risk of falling)	
Area with high density of wooden buildings (Risk of fire)	
Area with inflammables (gas station, boiler) (Risk of fire and explosions)	
Railway crossing (Risk of being impassable)	
Bridge (Risk of collapse and unpassable)	
Multi-level crossing (Risk of collapse and unpassable)	
Other (areas prone to liquefaction, landslides)	

[Walking tsunami route Tauranga](#)

[New blue zone](#)

[Tauranga Evac Zone Maps](#)

[Blue zone national guideline](#)



Tsunami Evacuation Director's Guideline 2025

Tsunami risk awareness and evacuation preparedness are key to keeping our communities safe.



What's new?

A **Blue Zone** will replace all other tsunami evacuation zones across Aotearoa New Zealand. The Blue Zone should be evacuated following a long or strong earthquake.

One tsunami evacuation zone makes tsunami evacuation much simpler, especially for local tsunami. These tsunami could arrive within an hour, meaning there is no time for an official warning.

The new guideline provides a nationally consistent approach to tsunami evacuation. The intended audience is Civil Defence Emergency Management (CDEM) Groups and local authorities.

When will the changes happen?

CDEM Groups have until July 2031 to update their zones. Progress towards this will be checked in two years' time.

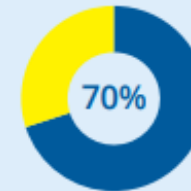


All of Aotearoa New Zealand's coastline is exposed to tsunami risk



Half a million

Approximate number of people in Aotearoa New Zealand who live in tsunami evacuation zones



Percent of people who may successfully evacuate with current tsunami awareness and preparedness rates

The guideline is available for download at: civildefence.govt.nz/cdem-sector/guidelines

Along with the Blue Zone, the new guidance also has information on:

Tsunami evacuation maps

Tsunami evacuation routes

Tsunami zones for planning

Tsunami signage

Community engagement & public education

2. Evacuation order arrangements

- Natural warnings - self evacuation
- Official evacuation orders:
 - ✓ Who decide? (also “safe to return”)?
 - ✓ Who issue them?
 - ✓ How are they communicated?
 - ✓ Do they include instructions?

[NZ EMA Protocol](#)

3. Evacuation management arrangements

- **Assign & describe responsibilities** for:
 - ✓ Who leads? From where?
 - ✓ Evacuation support (communication, directing traffic, etc)
 - ✓ Special support (i.e. vulnerable people)
 - ✓ Shelter support
 - ✓ Cordons
 - ✓ Communication with relevant higher level authorities

4. Establish SOPs, i.e. for:

- ✓ Communicating evacuation order
- ✓ Response communication (i.e. between responders/agencies)
- ✓ Evacuation support (information, directing traffic, checks, etc)
- ✓ Special support (i.e. vulnerable people)
- ✓ Shelter support
- ✓ Cordons
- ✓ Communication with relevant higher level authorities

5. Community awareness arrangements

- Determine & describe how (who, what) community awareness will be established about:
 - ✓ Natural tsunami warnings (long or strong earthquake, etc)
 - ✓ Official tsunami warning arrangements
 - ✓ Evacuation arrangements
- Consider:
 - ✓ Simple & clear messages
 - ✓ History / traditional knowledge
 - ✓ School projects
 - ✓ Cultural / community events

[Determine evacuation time](#)

[Explaining a tsunami evacuation map](#)

[Walking tsunami route Tauranga](#)

[New blue zone BoP](#)

[New maps BoP](#)

[Tonga HTH](#)



Thank You - Questions?

(Reference: IOC Manuals & Guides 82)

