



PREP-3: Outreach and public awareness and education resources are available and distributed

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Indian Ocean Tsunami Ready Workshop
Tanjung Bena, Bali - Indonesia
22-26 November 2022



Acknowledgment
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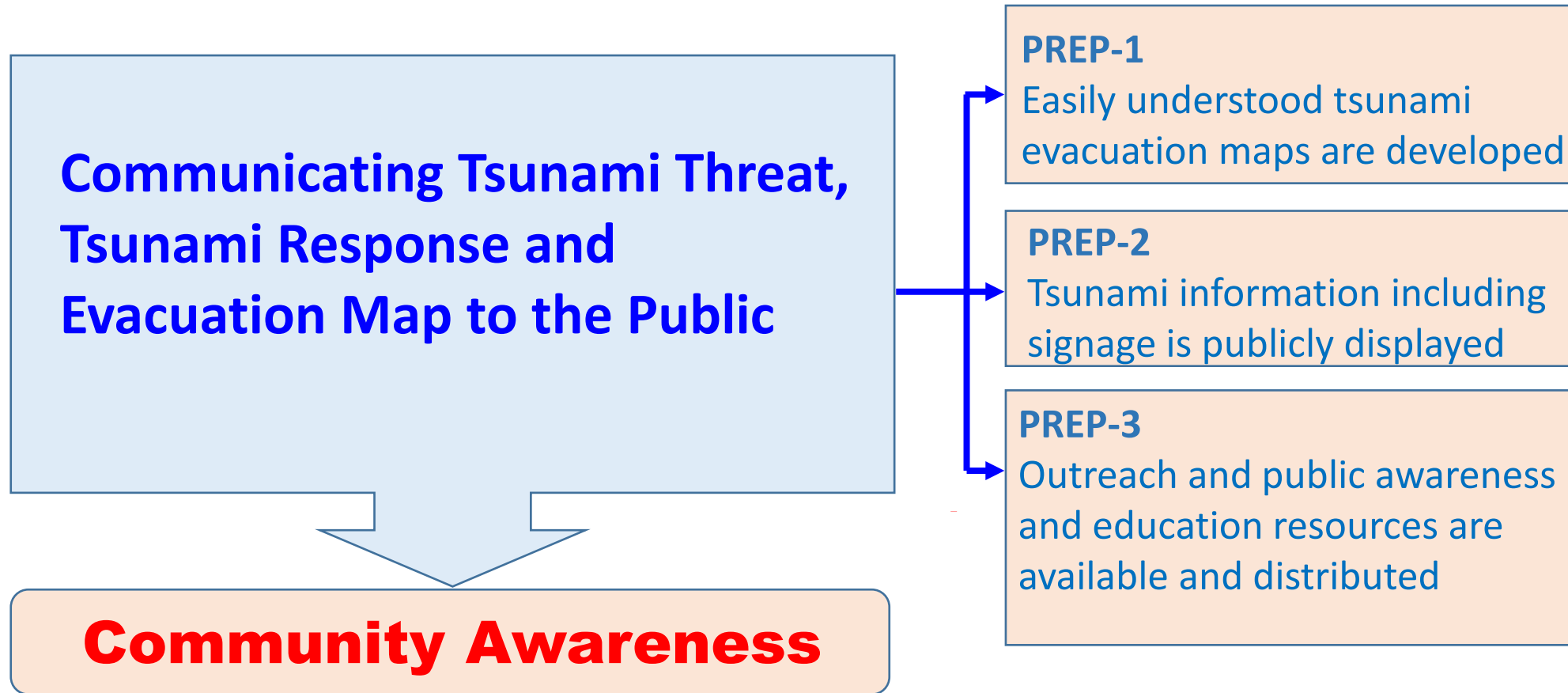
Introduction

Education has been shown to be very important for raising community awareness. There are many ways in which this can be achieved and the most effective ways are those that are tailored to the local circumstances, such as culture, lifestyle, communications infrastructure etc. and the location-specific tsunami threat

This section describes the development of and different methods for distributing tsunami awareness material based on experience gained in many regions and countries around the world

To achieve the indicator, distribution of outreach and public education material should use three or more diverse methods

Connections between Public Information indicators



Important contents of Tsunami Education and Outreach Material

Tsunami evacuation maps

- Hazard zones, evacuation routes, safe areas, assembly points

When and how to respond to warnings

- Including natural warning signs for communities with local tsunami threat

Safety tips

- What to do before, during and after a tsunami



BE TSUNAMI SMART, KNOW THE NATURAL SIGNS



All tailored to local information needs and based on location specific tsunami threats

Outreach methods

A wide range of outreach methods can be employed and new methods can be devised. Outreach material should always be tailored to meet local information needs and should be based on location-specific tsunami threats. Three or more methods should be used, including:

- Brochures and flyers distributed at public venues and/or bulk mailed to local residents and businesses.
- Comics and boardgames
- Newspaper articles and inserts.
- Public utility/service industry bill safety notices .
- Local faith-based and civic organization bulletins/mailings.
- Local radio and television.
- Billboard, roadside, highway or educational signs.
- Historical markers and interpretative signs.
- Websites/Social media.
- Bulk email.

Most effective outreach methods

Will depend on culture and communications infrastructure at specific communities. For example, the following have been found to be most effective in Pakistan

- Booklets and flyers distributed to students and Information Boards installed near schools. This has been found to be the most sustainable in Pakistan
- Electronic media including FM radio, TV and cable networks. This is the quickest method for widely disseminating information to a mass audience



Possible physical locations for distribution of material

Locations for the distribution of outreach material will depend on the nature of the material, for example if it is in brochure, leaflet or poster format or in electronic media format. Schools are good locations to distribute educational material and every school requesting recognition should receive copies of all material. Some other examples include:

- Schools
- Visitor centres and local tourist businesses (e.g. restaurants, bars etc)
- Hotels, motels and campgrounds
- Public libraries
- Community centres
- Kiosks or information centres (e.g. malls, stores etc)
- Childcare centres
- Banks
- Utility companies
- Health centres
- Ports of entry

Comments on locations for distributing material

Locations for distributing tsunami material will be highly dependent on the circumstances at individual communities and the most effective locations should be assessed by the TRLC in consultation with outreach experts

In general, schools have been found to be the most receptive to receiving tsunami information and training. This is useful for sustainability as children learn about tsunamis at school and can pass this knowledge on to their families at home

There may be resistance to receiving and displaying tsunami information at some locations. For example, some facilities in tourist locations may not want to display information because they believe it may deter tourists. Again, the TRLC will need to exercise judgement when disseminating public information

Useful sources of information

- ITIC – International Tsunami Information Center
 - <http://itic.ioc-unesco.org>
- IOTIC – Indian Ocean Tsunami Information Centre
 - <http://iotic.ioc-unesco.org>
- CTIC – Caribbean Tsunami Information Centre
 - <http://ctic.ioc-unesco.org>
- NEAMTIC – North East Atlantic and Mediterranean Tsunami Information Centre
 - <http://neamtic.ioc-unesco.org>





Examples of Public Awareness and Education Material

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Tsunamis

1

Antes

Esté siempre preparado(a), un tsunami puede ocurrir en cualquier momento

- a) Prepare un plan familiar de emergencia
- b) Tenga a mano un maletín de seguridad
- c) Conozca las zonas de evacuación y los lugares de Asamblea
- d) Identifique las rutas de evacuación



2

Señales

Esté atento(a) a cualquiera de estas señales

- a) Terremoto muy fuerte (se hace difícil caminar, se caen objetos)
- b) Terremoto de larga duración
- c) Mensaje oficial de la CNE
- d) Cambio repentino en el nivel del mar
- e) Ruido fuerte del mar



3

Terremoto

Protégase en caso de terremoto

- a) Agáchese
- b) Cúbrase
- c) Agárrese

Evacuación

4

Salga de la zona de evacuación
(En orden de preferencia:)

- a) Vaya a un lugar alto y alejado de la costa
- b) Súbase a un segundo piso o más alto
- c) Súbase a un árbol
- d) Vaya a un lugar de reunión (refugio)
- e) Si hay tiempo, lleve las embarcaciones costa afuera a 100m de profundidad



Regreso

5

Quédese fuera de la zona de evacuación hasta que las autoridades le indiquen que ha pasado el peligro.

Esto puede llevar varias horas



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A simple guide to nine essential items you should pack BEFORE a disaster or emergency occurs.

Plan 9

1 Water

Bottled water. One gallon per person, per day, for at least 7 days, for drinking and sanitation.

- Keep the water in a cool, dark place and change to a fresh supply every six months.



2 Food

Nonperishable food. A supply of at least 7 days of food per person.

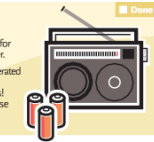
- Ready-to-eat canned meat, fruit and vegetables
- Powdered milk and soup
- Crackers, granola, trail mix
- Manual can opener



3 Radio

A battery-powered radio for listening to news and weather.

- Consider buying a crank-operated or solar-powered radio.
- Don't forget extra batteries! Buy them in advance in case they're in short supply.



4 Medications

Collect at least a month's worth of any prescription medicines you're taking.

- Be sure to note the expiration date so you don't keep them past their date.



5 Clothes

Collect one change of clothes and footwear per person.

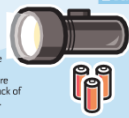
- Consider packing blankets, rain gear and outerwear in case of inclement weather.
- If you wear glasses, consider packing a spare pair.



6 Flashlight

Keep a bright flashlight in case there's no electric power.

- Consider getting a lantern-style light for hands-free use.
- Don't use candles! They're a fire hazard and are easy to lose track of when the lights come back on.



7 Hygiene Items

Just the basics like soap, toilet paper and a toothbrush.

- Moist towelettes can be useful for quick sanitation.



8 First Aid

Basics such as antiseptic, gloves, bandages and non-prescription medicines.

- You can buy a pre-made kit at most pharmacies or grocery stores.



9 Cash

Enough money (in small bills) to purchase extra food, water or other items, for at least 7 days.



For more information about emergency preparedness, contact some of the following organizations:

Hawaii Department of Health	www.health.hawaii.gov
Hawaii Emergency Management Agency	www.scd.hawaii.gov/preparedness.html
Dept. of Emergency Mgmt. (Oahu)	www.honolulu.gov/em.html
American RedCross	www.redcross.org
Centers for Disease Control and Prevention	www.cdc.gov
Federal Emergency Management Agency	www.fema.gov
Department of Homeland Security	www.ready.gov

HNL.Info **STAY INFORMED**

Urgent Traffic Bulletins, Emergency Information, Severe Weather Alerts, City Information and much more.

Empowered lives. Resilient nations.

1

WHAT IS TSUNAMI?

It is a series of waves in the sea produced by a strong earthquake, landslide or volcanic eruption.

2

WHEN DOES IT HAPPEN?

It can occur at any time and arrive in a few minutes to the coast. Tsunamis travel at the speed of a supersonic jet or plane

3

EFFECT OF A TSUNAMI

It floods the coast and devastates everything. A tsunami wave can grow up to 10 meters high or even more

SIGNS OF A TSUNAMI

FEEL

Strong earthquakes, shake severely or for long time

SEE

*A descent of the sea level
*A wall of water approaching the coast

HEAR

An approaching tsunami creates a loud roar.

RUN!

Get away from the coastal zones and look for the highest areas

TSUNAMI EVACUATION DRILL

- STEP 1**: Hear a loud sound emitted by simulating a strong earthquake
- STEP 2**: cover yourself, crouch and hold
- STEP 3**: Evacuate to the established place
- STEP 4**: Meet at assembly point
- STEP 5**: Count
- STEP 6**: The simulator coordinator will report on the end of the action

Source: COPECO HONDURAS, IOTIC, ITIC, LIPI


Text on the back of an Evacuation Map

Cedeño, Honduras

Mensajes Oficiales de Tsunami para Honduras

En Honduras Sí Ocurren Tsunamis

Alarma Personal Para Terremotos y Tsunamis LOCALES



Alerta Roja

- Impacto de Tsunami Confirmado
- Mantenerse en los puntos de reunión
- Siga las instrucciones de los encargados de emergencias

Los Tsunamis en Honduras no son tan frecuentes pero sí han ocurrido y pueden volver a ocurrir en cualquier momento. Las costas Sur y Norte son vulnerables.

En Centro América han ocurrido unos 49 tsunamis desde los tiempos coloniales. Se generaron a consecuencia de terremotos en fallas cerca a las costas del Pacifico, como del Caribe y también distantes .

Uno de los tsunamis que afectó las costas hondureñas ocurrió el 4 de agosto de 1856. El mismo se generó en el Golfo de Honduras cerca de Belice y bañó toda la costa norte: Tela, La Ceiba, Trujillo y llegó hasta Gracias a Dios.


También se han registrado tsunamis en la parte sur, en el Golfo de Fonseca.

Los Terremotos ocurren de forma súbita, y en el caso que sean cercanos y generen tsunamis, las olas pueden llegar antes que le llegue una alerta oficial. Siga estas recomendaciones:

Protéjase durante el terremoto:
Agáchese, Cúbrase y Sujétese

Salga rápidamente de la zona de evacuación por tsunami en cualquiera de las siguientes situaciones:

- Después de **SENTIR** un terremoto fuerte que te tumbe o dure más de veinte segundos
- Si **VE** un repentino aumento o disminución del nivel del mar
- Si **OYE** un ruido extraño o fuerte que viene del mar





Alerta Amarilla


- ¡Peligro de Inundación!
- Si está en la zona de evacuación, salga, *Diríjase* hacia los puntos de reunión
- Siga las instrucciones de los encargados de emergencias

¿Qué es un Tsunami?

- Un tsunami es una serie de olas causada por una fuerte perturbación de un cuerpo de agua.
- Estas olas pueden llegar en unos minutos, pero continuar por horas. Las olas arrasan con todo lo que encuentran a su paso ya sea cuando inundan la costa o cuando retroceden.
- Los tsunamis pueden ser producidos por grandes terremotos localizados en la costa o en el fondo marino, un deslizamiento o una erupción volcánica.
- En Honduras se encuentran fuentes potenciales de tsunamis que se pueden generar localmente y también existen fuentes regionales y distantes , al otro lado del océano.

¡¡PROTÉJASE, VIVA PARA CONTARLO!!!



Alerta Verde

- Posibles corrientes peligrosas
- Salir del agua, playa, puertos marinos
- Estar en Observancia
- Siga las instrucciones de los encargados de emergencia

Boletín Informativo

¡¡PROTÉJASE, VIVA PARA CONTARLO!!!


No hay peligro

Estar atento a información oficial

Boletín Informativo

¡¡PROTÉJASE, VIVA PARA CONTARLO!!!

Para Más Información
Comisión Permanente de Contingencias (COPECO)
<http://copeco.gob.hn/>
y CODEL Cedeño
En caso de Emergencia llamar 911



¡¡PROTÉJASE, VIVA PARA CONTARLO!!!

FOR YOUR SAFETY !

EARTHQUAKE READY



- Be alert, a strong or long earthquake may trigger a tsunami in short time.
- Move away from beaches and river banks, and seek information on what has happened.

TSUNAMI WARNING READY



- Seek warning information from BMKG on national TV, local radio, or public announcement in your area.
- If there is a sound of siren or other warning dissemination devices, evacuate immediately.

BMKG Warning information provides tsunami THREAT LEVEL for each region

MAJOR WARNING

Highest threat level, **The communities must evacuate !**

WARNING

Medium threat level, but still dangerous, **The communities must evacuate !**

ADVISORY

Low threat level, **The communities must move away from beaches and riverbanks !**

EVACUATION READY



- Upon feeling the earthquake or receiving tsunami warning, evacuate immediately to designated safe locations.
- Follow the evacuation route and signage, if available.
- If you don't know the location of the safe zone, run as far as possible from the coast

WARNING INFORMATION DISPLAY ON NATIONAL TV

Information on the time of origin of the earthquake

Information on the magnitude of the earthquake

Information on the epicenter of the earthquake

Information on the regions with tsunami warning :

- Red colour = **MAJOR WARNING** level
- Orange colour = **WARNING** level
- Yellow colour = **ADVISORY** level

Information on the regions with tsunami warning

Prepare yourself from now !

- **Learn about tsunami and its signs !**
- **Find information from your local government about tsunami evacuation procedures in your area !**
- **Plan with your family on how to respond to a tsunami !**

Summary of PREP-3

- ✓ Education is very important for raising community awareness. There are many ways in which this can be achieved and the most effective ways are those that are tailored to local circumstances
- ✓ Tsunami education and outreach material distributed to the public should include tsunami evacuation maps and information about when and how to respond to tsunami warnings
- ✓ There are many different outreach methods that can be utilised and again these should be tailored to local circumstances, including culture, communications infrastructure, lifestyle etc.
- ✓ Locations for physical distribution of outreach material should be chosen for maximum awareness raising impact. For example in schools, hotels, visitor centres, public libraries, community centres, health centres
- ✓ Schools have been found to be most receptive to receiving tsunami outreach information and training. This improves sustainability of awareness raising outcomes as knowledge gained at school can be transferred to the wider family unit at home
- ✓ There may be some resistance to receiving and displaying tsunami information at some locations, e.g. hotels and tourist locations