

# World Tsunami Awareness Day

To protect  
the precious lives of people  
around the world

What's Your  
Tsunami Preparedness?

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November 5<sup>th</sup>



# Concept of “World Tsunami Awareness Day” for UN international day

## 1 Propose to establish the 5<sup>th</sup> of November of every year as “World Tsunami Awareness Day”

Tsunami are a relatively rare type of natural disaster, but they have also caused devastating damage in many countries around the world. They pose a serious threat which could hinder the achievement of sustainable development. The resolution to establish the World Tsunami Awareness Day was adopted by consensus at the United Nations (UN) General Assembly in December 2015. This resolution was jointly proposed by 142 countries, as a follow up to the Third UN World Conference on Disaster Risk Reduction (WCDRR) held in Sendai and the 2030 Agenda for Sustainable Development, with the aim of protecting the precious lives of the people around the world by raising awareness of precautionary measures against tsunami.

## 2 The threat of tsunami in many countries around the world

Tsunami triggered by earthquakes mainly occur in the coastal areas. However, people from any country can visit coastal countries for business or vacation. Many foreigners have lost their lives in tsunami that occurred in coastal countries, as witnessed in Indonesia, Thailand, and other countries in the wake of the tsunami off the coast of Sumatra and in the Indian Ocean. When large scale tsunami occur, the damage they inflict crosses borders. the threat of tsunami is a shared concern in many countries of the world. The number of tsunami victims can be reduced if the Member States and the international community cooperate to deepen their understanding of tsunami and raise awareness of the importance of taking precautionary measures against them.

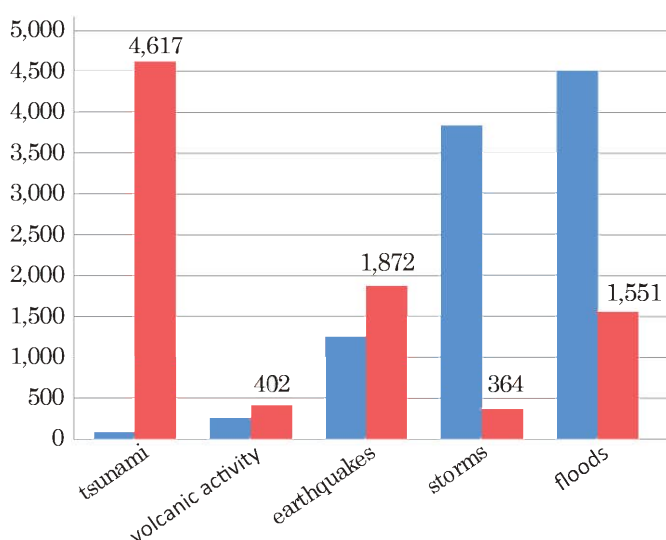
## 3 Follow-up to the World Conference on Disaster Risk Reduction

The best way to prevent the damage of tsunami is to quickly disseminate and share the necessary information, through “early warning.” The Sendai Framework also incorporates new elements including the importance of investing in DRR and “Build Back Better.” It is noteworthy that the increasing the availability and access to multi-hazard early warning systems was agreed as one of the targets. The Sendai Framework for DRR also points out the importance of ensuring “the use of traditional, indigenous and local knowledge and practices.” Japan believes that the number of tsunami victims will be reduced by increasing such awareness among the international community through the establishment of “World Tsunami Awareness Day” as a follow-up to the Sendai Framework as well as the 2030 Agenda, thereby contributing to the achievement of the targets of these agenda.

## 4 Good practices to protect the precious lives of the people

The proposed date is based on an anecdote and example of a good practice known in Japan as “Inamura-no-hi” (the burning of rice sheaves) which took place on the 5<sup>th</sup> of November 1854. Japan suggested this date, because “World Tsunami Awareness Day,” is intended to serve to protect the precious lives of people, and thus it should be associated with an example of “traditional, indigenous and local knowledge and practices” such as “Inamura-no-hi.”

### The importance of constantly raising awareness of TSUNAMI



Compared to other natural disasters, tsunami are relatively rare natural disasters. However, once they occur, they cause enormous damage. In 100 years, 58 tsunamis have claimed more than 260,000 lives; averaging more than 4,600 deaths per occurrence. This rate is much higher than any other natural disaster including storms (such as tropical cyclones), floods and earthquakes.

■ Occurrence ■ Deaths per Occurrence

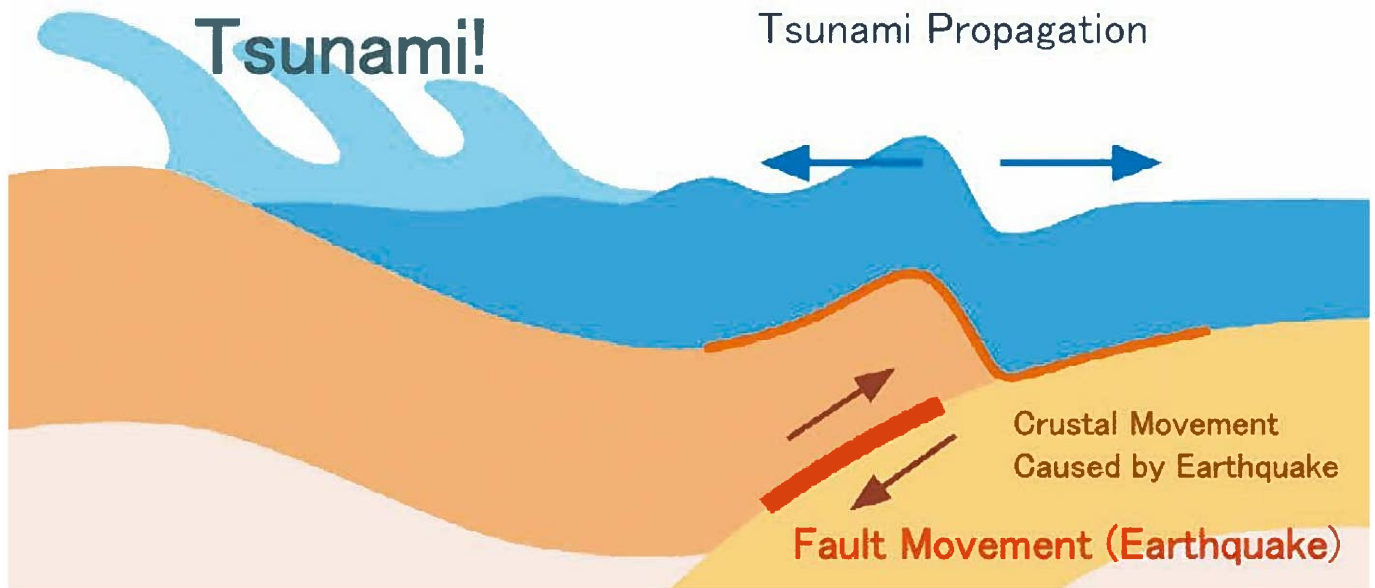
D. Guha-Sapir, R. Below, Ph. Hoyois - EM-DAT International Disaster Database  
- [www.emdat.be](http://www.emdat.be) - Université Catholique de Louvain - Brussels - Belgium.



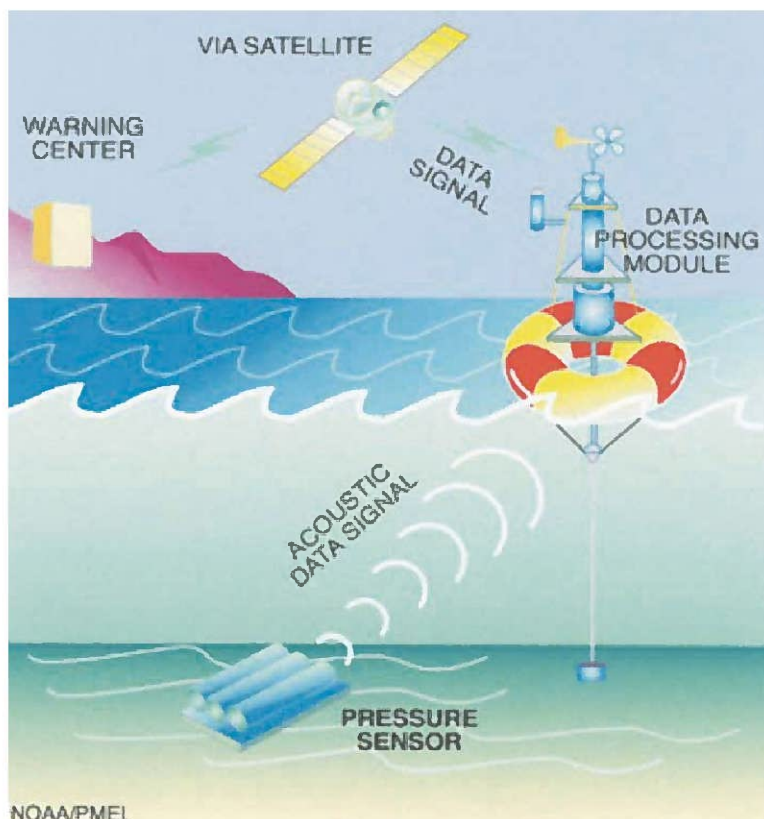
# What causes TSUNAMI?

Tsunami are generated by sudden submarine topographic movement, such as:

- Submarine volcanic eruptions;
- Landslides near a coastline or at the bottom of the ocean; and
- Submarine crustal deformations accompanying earthquakes.



An effective tsunami warning system reaches all persons in danger  
before the tsunami hits



Source: NOAA/PMEL, Sketch of the DART System

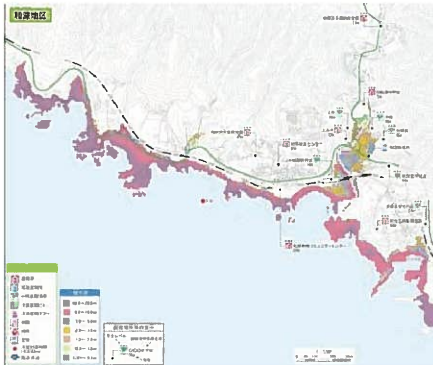
As a result of the 2004 Indian Ocean tsunami, tsunami warning systems are now implemented globally.

Real-time data from ocean-bottom pressure sensors and offshore GPS wave buoys are now helping tsunami warning centres to issue or cancel warnings and other alerts more quickly and accurately.

For a distant tsunami, real-time earthquake and sea level monitoring to confirm the generation of a destructive tsunami, followed by an immediate warning to the public, is critical.

For a local tsunami where there may not be time for an official warning, people must already know a tsunami's natural warning signals and respond immediately.

# How to prepare for and recover from TSUNAMI disasters



(1) Tsunami Hazard Maps



(2) Signboards Indicating Tsunami Hazard Areas or Evacuation Areas



(3) Evacuation Drills  
"Let's Check the Evacuation Route!"



(4) Early Warning Systems



(5) Construction of Breakwaters



(6) Construction of Artificial Hills

## The importance of investing in Disaster Risk Reduction

At the time of the Sumatra earthquake, Male Island, the capital and largest island of the Republic of Maldives, was also hit by a tsunami that was estimated to be as high as three meters.

Nonetheless, seawalls and offshore breakwaters which had been built with Japan's assistance protected the island. While the city of Male was flooded, no one was killed and there was no major damage. No houses were swept away.

Male Island is only one meter or so above sea level and has a flat landscape, where, in the past, the seacoast was protected simply by off shore coral reefs. These factors caused the island to suffer from periodic flooding due to tidal waves. For example, the cyclone of 1987 flooded one-third of the island, paralyzing the capital city.

After numerous field surveys and technical guidance, Japan decided to provide assistance through a fifteen-year project to establish measures against coastal flooding. As a result, the entire Male Island is now protected by sea walls approximately six kilometer in

circumference.

One local resident reportedly said, "Without Japan's assistance, Male Island would have disappeared." Furthermore, President Gayoom of the Republic of the Maldives also commented, "The seawalls built for Male Island through Japan's assistance saved the people of Male from disaster."

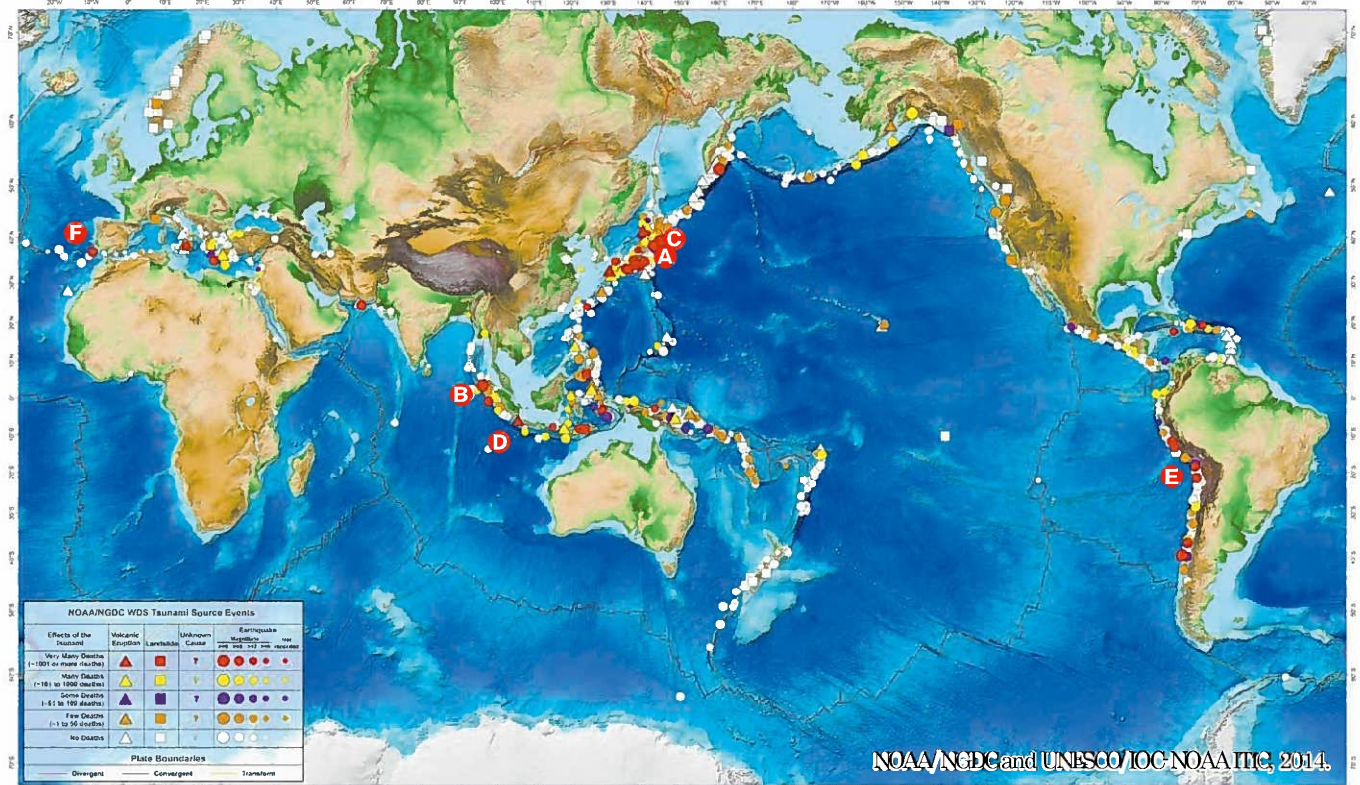


Seawalls built around the Male Island



# TSUNAMI disasters spread all over the World

Tsunami Sources 1610 BC to AD. 2014 from Earthquakes, Volcanic Eruptions, Landslides, and Other Causes



Most destructive tsunami causing 15,000 or more deaths since 1700

- A** 2011 East Japan: more than 18,000 deaths and missing
- B** 2004 Indian Ocean: more than 227,000 deaths
- C** 1896 Sanriku, Japan: 27,000 deaths
- D** 1883 Krakatoa, Indonesia : 36,000 deaths
- E** 1868 Northern Chile : 25,000 deaths
- F** 1755 Lisbon earthquake, Portugal : 50,000 deaths



A town submerged in water after a tsunami  
(2004 Indian Ocean Tsunami)



Tsunami sweeping toward a coastal city  
(2011 East Japan Tsunami, Miyako City)



# History tells the importance of precautionary measures of TSUNAMI

“Inamura no Hi (the burning of rice sheaves)” is based on a historical event that took place during a massive tsunami disaster, resulting from the Ansei Nankai Earthquake of 1854. The tsunami struck Hiromura, a little village on the Kii Peninsula in western Japan (present Hirokawa town, Wakayama Prefecture).

After feeling the earthquake, Hamaguchi Goryo, a farmer who lived in the village, anticipated that a big tsunami would come when he noticed the lowering of the tide and a rapid decrease in the level of well water.

He guided his fellow villagers to evacuate to higher ground by setting fire to his precious sheaves of rice, his whole year's harvest, as a signal of warning.

From the hill top, the villagers saw the tsunami destroy their village. They understood that it was the fire that saved them.

Hamaguchi Goryo's deeds and story continued with his efforts to lay the groundwork for disaster preparedness among his community and to build the village back better than before.

He implanted the seeds of prevention and preparedness amongst people to prepare for future disasters. Using his own money, he devoted to build a 5m high 600m long embankment, and to plant trees along the coast to mitigate future tsunami.

This was a 4 year project which united the community, and was a key contributor to providing job opportunities for villagers whose livelihoods and homes were affected by the tsunami.

Today, Hamaguchi Goryo's spirit of disaster preparedness is passed on in efforts such as the accumulation and use of indigenous and local knowledge on disasters, and the construction of seawalls against tsunami.



Hiromura Embankment built by Goryo

## Lessons from “Inamura-no-hi”

- 1) Importance of early warning
- 2) Use of the traditional, indigenous and local knowledge
- 3) Importance of investing in DRR and “Build Back Better”

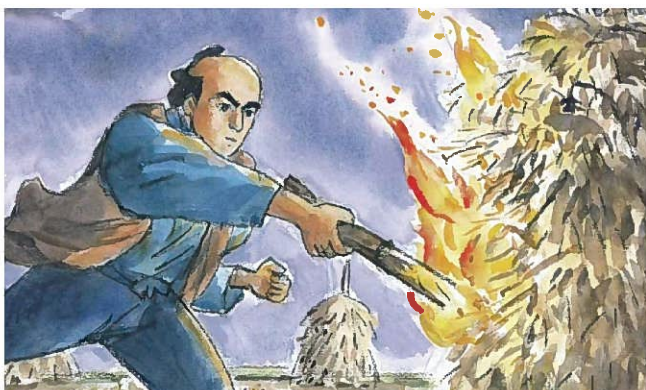
➔ These elements are stipulated in the Sendai framework for Disaster Risk Reduction 2015-2030.

## An Epic that Saved Islanders from the Indian Ocean Tsunami

There is a small island where only a few out of the 78,000 islanders died in the 2004 Indian Ocean tsunami, even though it was close to the epicenter of the earthquake, which caused more than 220 thousand deaths and missing persons in total. It is the Island of Simeulue in the Aceh province of Indonesia.

On Simeulue, the islanders have passed down the lessons of a great tsunami they experienced about 100 years ago through an epic song which teaches the wisdom of their ancestors: “if there is an earthquake and the sea water is receding, escape to the mountains.”

In 2004, when the earthquake struck and the islanders saw water receding from the shore, they quickly ran to the 30-meter high hill, and managed to save many precious human lives.



Goryo setting fire to his rice shaves