

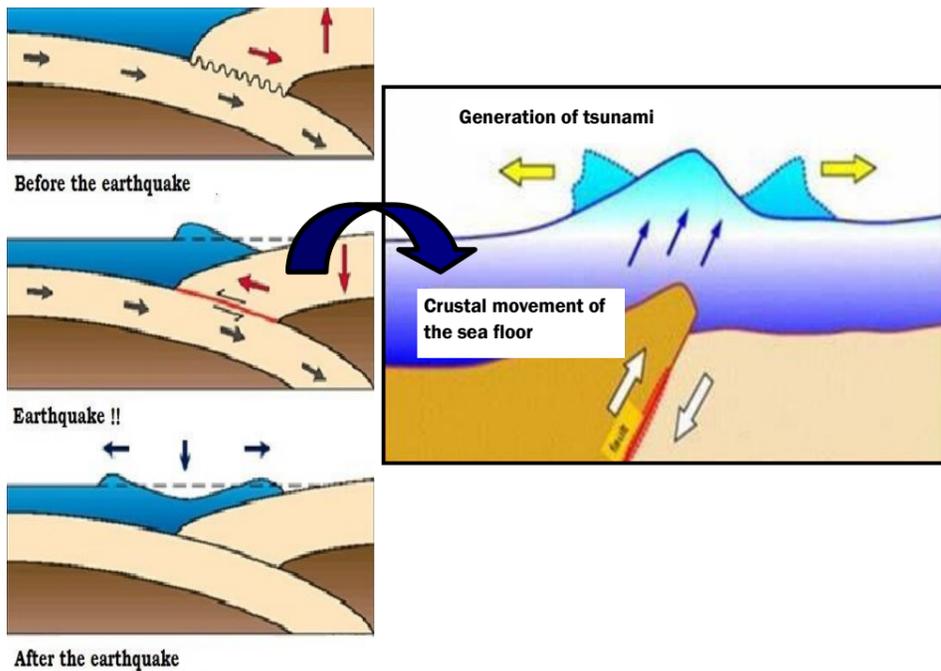


TSUNAMI AND YOUR COMMUNITY

WHAT IS TSUNAMI ?

A tsunami is a series of water waves that is caused by a major disturbance of the sea floor. The disturbance can be:

- » A strong earthquake
- » An underwater landslide, or
- » An underwater volcanic eruption



History of tsunami in Papua New Guinea

Evidence of pre-historical tsunami in the PNG region is preserved in the geological record as tsunami deposits in coastal areas. The earliest written record of observed tsunami in the region relates to an event in 1856: Aralu Village on the Rai Coast east of Madang was swept away at night by tsunami leaving no survivors.

Statistically on average about one tsunami event is likely to occur somewhere in PNG in any given year. The recent occurrences of tsunami in the PNG region that claimed lives include:

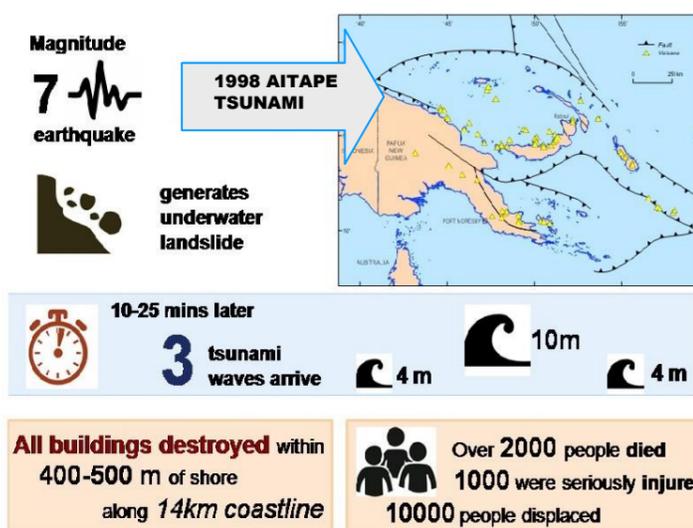
- ♦ **17 July 1998**, offshore Sissano lagoon, Aitape, Sandaun Province about 2200 deaths
- ♦ **16 November 2000**, eastern Bismarck Sea, New Ireland Province 4 deaths
- ♦ **09 September 2002**, northern PNG coast near Wewak, East Sepik Province – 4 deaths
- ♦ **11 September 2011**, a distant source tsunami (Japan tsunami) impacting Wewak, East Sepik Province – 2 deaths

Lessons learnt from the 1998 Aitape tsunami

In the evening of Friday 17 July 1998 at 6.49 pm local time, a major earthquake (M7.1) occurred about 40 kilometres from the coast of Sissano lagoon near Aitape in Sandaun Province. This earthquake triggered an underwater landslide which generated the catastrophic tsunami. The tsunami accompanied by roaring noises reached the shore about 15-20 minutes later. The tsunami completely wiped out Warapu Village, shattered Arop Village and caused devastation to other neighbouring villages in the vicinity. Three separate waves arrived at the coast several minutes apart and inundated the area.

The ground shaking from the earthquake was very strong which caused panic, confusion and anxiety amongst the population. Many people did not have the chance to escape from the shoreline or to evacuate from the tsunami hazard zone because of insufficient time between the earthquake and the tsunami.

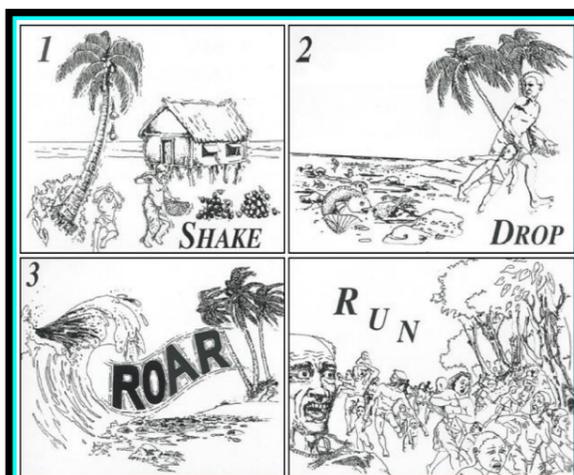
The timeline of how the tsunami was initiated and then came ashore and impacted the coastline is outlined below.



Apart from the lives lost and the destruction of property including domestic animals, many people suffered long lasting injuries and traumatised. The impact of such large scale devastation has brought about a range of hardships which is still evident today.

Such infrequent and large scale disaster from tsunami will impact our coastal areas in future. Two lessons from the Aitape tsunami are:

1. It is difficult to give effective warnings in PNG for tsunami formed locally, say in the Bismarck Sea or Solomon Sea, because of the great speed of the tsunami waves.
2. The best indicator of an impending tsunami is the strong causative earthquake nearby. Tsunami often follows soon after the earthquake shaking.



TSUNAMI WARNING SIGNS

- 1) A VERY STRONG EARTHQUAKE
- 2) A SUDDEN CHANGE IN SEA LEVEL
- 3) A ROARING NOISE FROM THE SEA

WHAT TO DO

1. DO NOT WAIT FOR OFFICIAL TSUNAMI WARNING
2. QUICKLY MOVE TO HIGH GROUND OR FURTHER INLAND TO ABOUT 500 METRES FROM THE SHORELINE
3. BE PREPARED TO ASSIST OTHERS
4. BE PREPARED TO STAY AWAY FROM THE COAST FOR A WHILE

For more information, contact:

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