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**Intergovernmental
Oceanographic
Commission**

The Indian Ocean Tsunami Information Centre

WG1 Meeting
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IOC-UNESCO and BMKG Partnership Agreement

ICG IOTWMS Tasked IOTIC



Requests IOTIC and Working Group 1 develop community education materials on the natural warnings signs for tsunamis generated by non-seismic and complex sources;

Leaflets / Flyers

Based on Existing Tsunami Safety Flyers (ITIC)

English, Bahasa (Indonesia), Samoa, Tongan and Spanish

Budgeted in 2023 IOTIC-BMKG → USD 2.250 (Layout and Design)

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TSUNAMI

Tsunamis can be detected using our human senses. Recognize a tsunami's natural warning signs.

FEEL

- Big local earthquakes may cause tsunamis.
- **FEEL** the ground shaking severely, or for a long time?

SEE

- Tsunami may be preceded by rapid fall in sea level as the ocean recedes, exposing reefs, rocks, and fishes on the sea bottom.
- Tsunami often come ashore as a wall of water, and quickly flood inland.
- **SEE** an unusual disappearance of water, or oncoming wall of water?

HEAR

- Abnormal ocean activity, a wall of water, and approaching tsunami create a loud "roaring" sound similar to that of a train or jet aircraft.
- **HEAR** the roar?

RUN

- Don't wait for official evacuation orders.
- Immediately leave low-lying coastal areas.
- Move inland to higher ground.
- **RUN** if you see a tsunami coming!

TSUNAMI

1. All earthquakes do not cause tsunamis, but many do. When you know that an earthquake has occurred, stand by for a tsunami emergency message.
2. An earthquake in your area is one of nature's tsunami warning signals. Do not stay in low-lying coastal areas after a strong earthquake has been felt.
3. Tsunamis are sometimes preceded by a noticeable fall in sea level as the ocean retreats seaward exposing the seafloor. A roar like an oncoming train may sometimes be heard as the tsunami wave rushes toward the shore. These are also nature's tsunami warning signals.
4. A tsunami is not a single wave, but a series of waves carrying a massive volume of water that can flood and inundate land for hours. The first wave may not be the largest. Stay out of danger areas until an "all-clear" is issued by a recognized authority.
5. A small tsunami at one point on the shore can be extremely large a few kilometers away. Don't let the modest size of one make you lose respect for all.
6. All warnings to the public must be taken very seriously, even if some are for non-destructive events. The tsunami of May, 1960 killed 61 people in Hilo, Hawaii because some thought it was just another false alarm.
7. All tsunamis are potentially dangerous, even though they may not damage every coastline they strike.
8. Never go down to the shore to watch for a tsunami. When you can see the wave, you are too close to outrun it. Most tsunamis are like flash floods full of debris. Tsunami waves typically do not curl and break, so do not try to surf a tsunami.
9. Sooner or later, tsunamis visit every coastline in the Pacific and all oceans. If you live in a coastal area, be prepared and know nature's tsunami warning signals.
10. During a tsunami emergency, your local civil defense, police, and other emergency organizations will try to save your life. Give them your fullest cooperation.

TSUNAMI

1. Be aware of tsunami facts. This knowledge could save your life!
2. Share this knowledge with family and friends. It could save their lives!
3. Determine if you live, work, play, or transit a coastal low lying area or tsunami evacuation zone.
4. Follow the advice of local emergency and law enforcement authorities. Do not return until authorities say it is safe.
5. Stay away from bodies of water. If you are at the beach or near the ocean, and you feel the earth shake, move immediately inland to higher ground. Do not wait for a tsunami warning to be issued. Stay away from rivers and streams that lead to the ocean due to strong tsunami wave action and currents.
6. Take shelter.

If you live in a tsunami evacuation zone and hear that there is a tsunami warning, your family should evacuate your house. Walk in an orderly, calm manner to the evacuation site or to any safe place outside your evacuation zone.

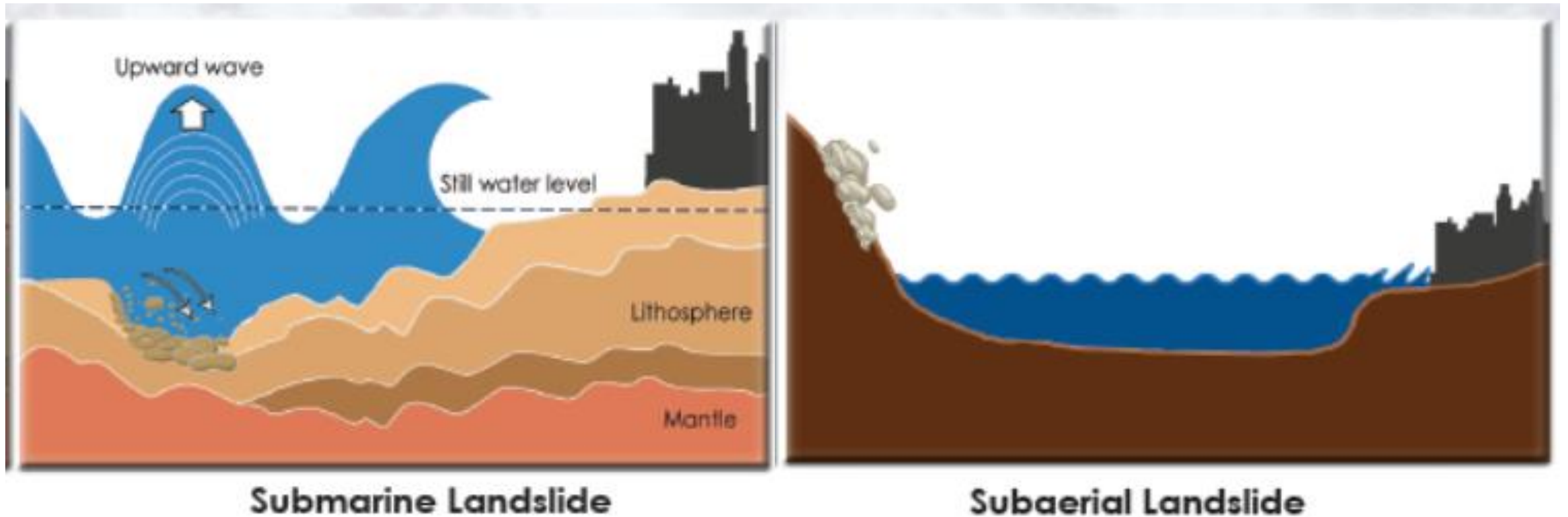
If you are in school and you hear there is a tsunami warning, you should follow the advice of teachers and other school officials.

If you are unable to quickly move inland, high, multi-story, reinforced concrete buildings may provide a safe refuge on the third floor and above.

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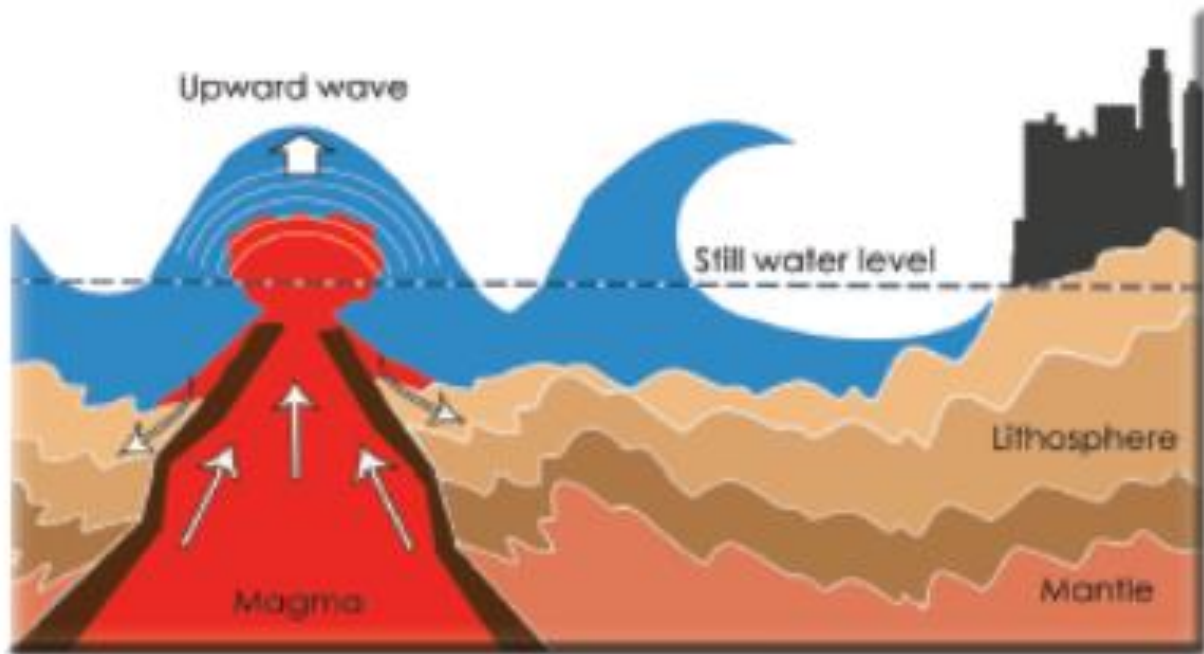
Source: Landslides



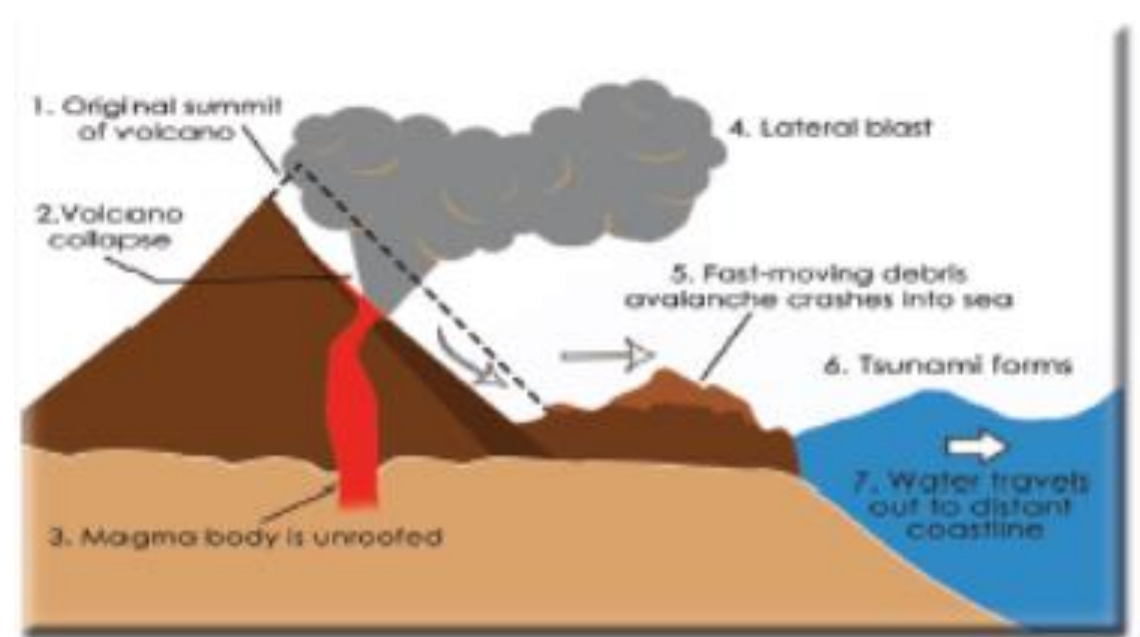
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Source: Volcano Eruptions



Volcanic Eruption Underwater

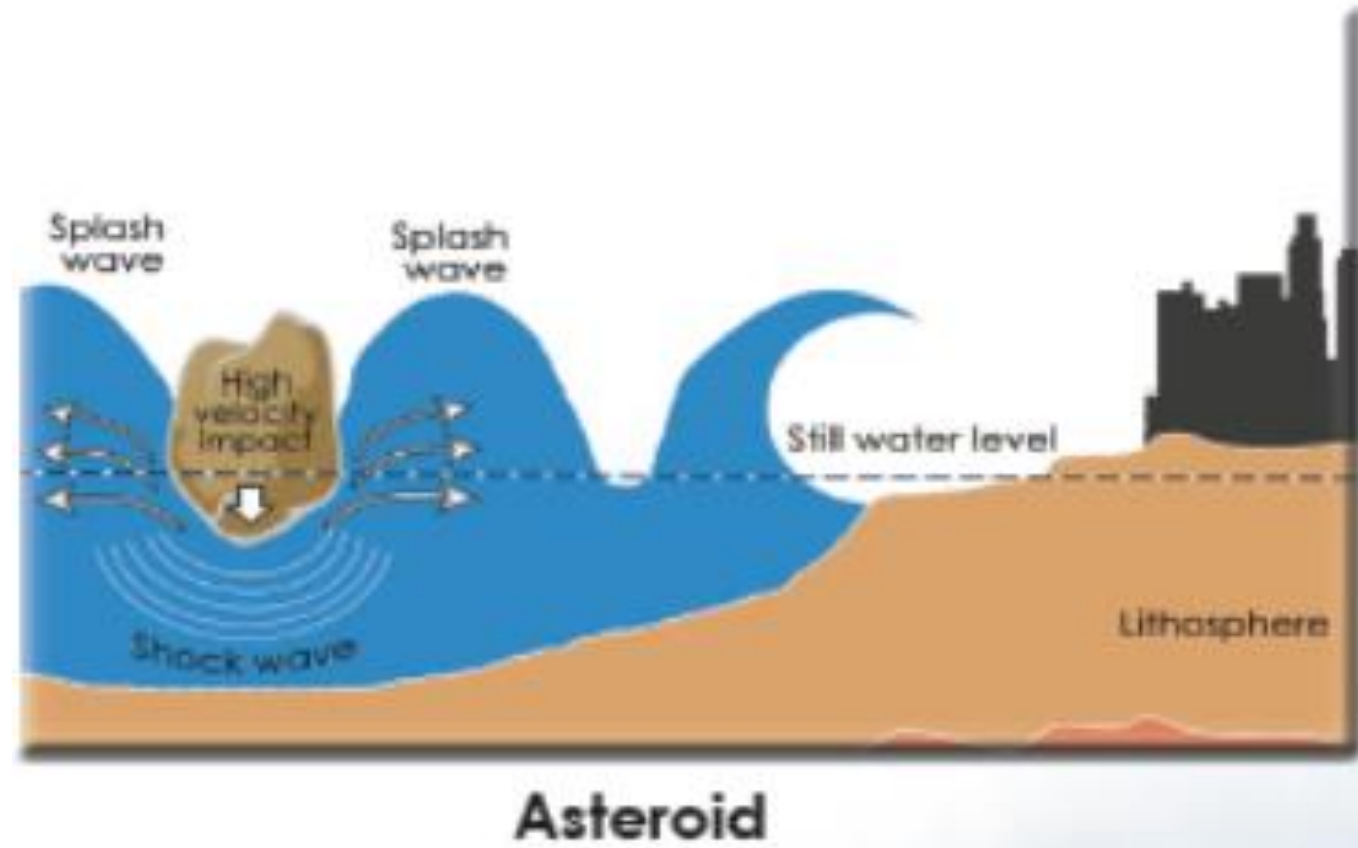


Volcanic Eruption on Land

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Source: Asteroid / Meteor (?)



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Steps:

1. IOTIC and WG-1 Members Develop 1st Draft
2. 1st Consultation with experts (TOWS Experts, TICs, Other Experts)
3. Revise 2nd draft
4. 2nd Consultation with experts
5. Layout and Design → 3rd Draft
6. Final Consultation with experts
7. Final Layout and Design

Online
Workshops

A blue-bordered rectangular box containing the text "Online Workshops" is positioned to the right of the list. Three blue arrows point from the left side of the box to the second, fourth, and sixth items in the list, indicating that online workshops are used for these specific consultation steps.

Thank you



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***IOC-UNESCO Indian Ocean Tsunami Information Centre
IOTIC-BMKG Programme Office***

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