



GIS Application for the Development of Emergency Evacuation Route Plan

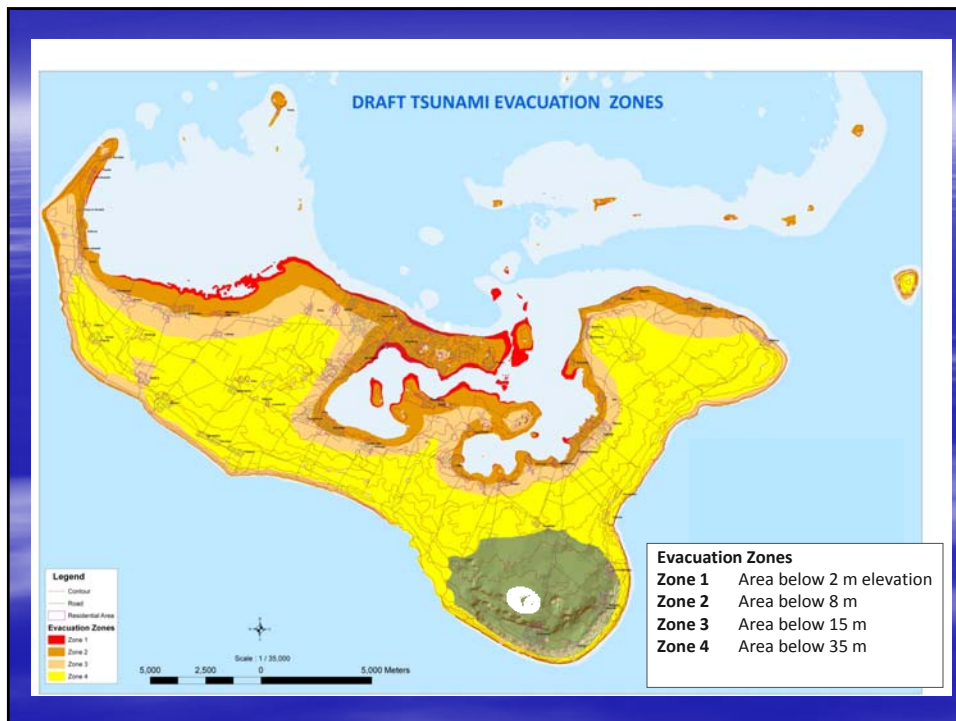
Ministry of Lands, Survey & Natural Resources, TONGA

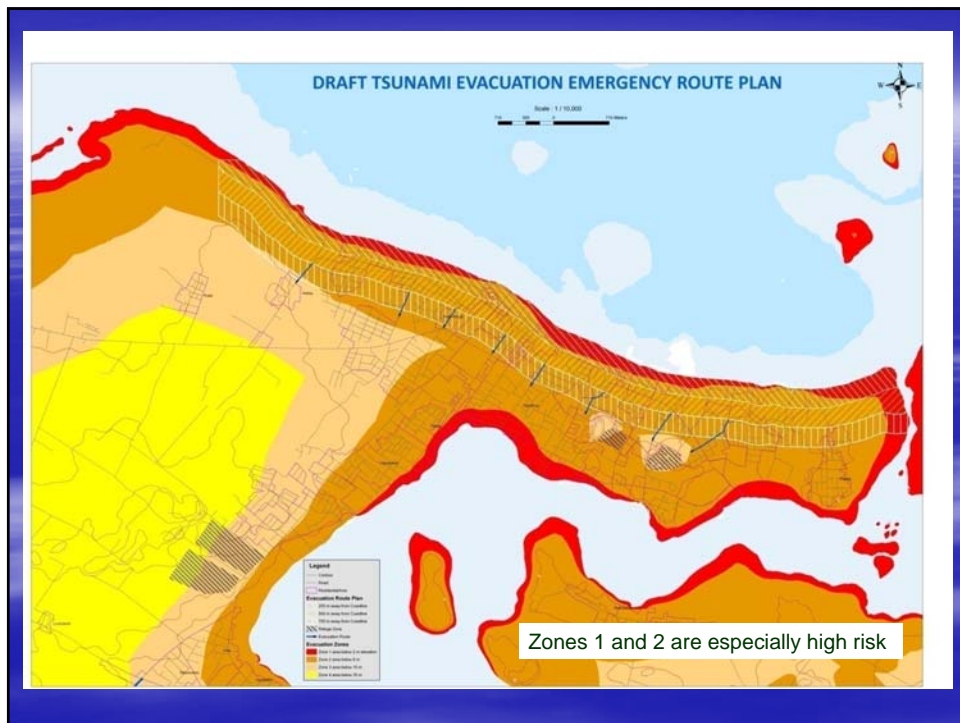
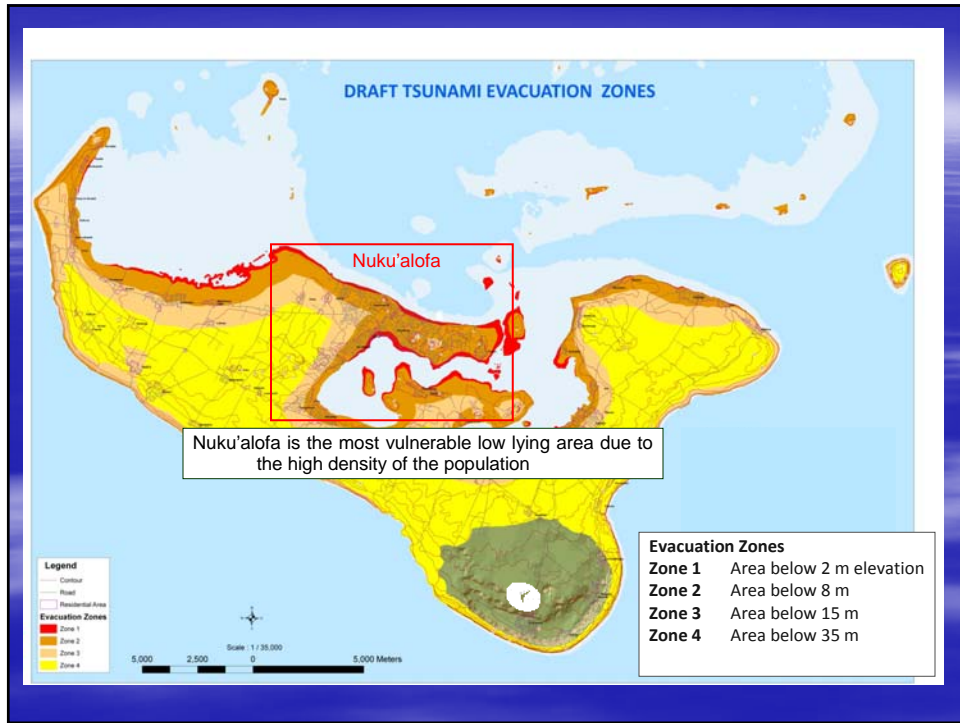
Objective:

- To develop an Emergency Evacuation Route Plan to ensure safe movement of the people at identified routes to minimize the time to evacuate to safe areas.

Background

- No Evacuation Route Planning has been developed
- Nuku'alofa is the most vulnerable low lying area due to the high density of the population
- Daily and increase traffic jam occur at every peak time at locations of 3 km away from Nuku'alofa low lying area. An indication of similar crisis to occur at evacuation movement.
- The recent Tsunami that affected Niuatoputapu Island is a wake up call to develop an Emergency Evacuation Route Plan.





Public Awareness

- Through the media (TV, Radio & Newspaper)
- School training programme
- NGOs, Church and District meetings.
- Route Sign / Road Name
- Warning Sound

Cont !

Public Awareness

Some of the Tsunami Safety Rules

- All warnings to the public must be taken very seriously, even if some are for non-destructive events.
- Never go down to the shore to watch tsunami
- Do not stay in low-lying coastal areas after a strong earthquakes has been felt

Some of the Tsunami Preparedness

- Be aware of tsunami facts
- Share this knowledge with family and friends. It could save their lives
- Determine if you live, work, play, or transit a coastal low lying area or tsunami evacuation zone
- Follow the advice of local emergency and law enforcement authorities
- Stay away from bodies of water
- 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 to an orderly, calm manner to the evacuation site or to any safe place outside your evacuation zone
- If you are at school and you hear there is a tsunami warning, you should follow the advice of teachers and other school officials

Public Application of the Emergency Evacuation Route Plan

- National Consultant coordinated among Government Ministries associated with developing Natural Disaster Management Plan

Government Ministries
Ministry of Works (National Disaster Management Office)
Ministry of Lands, Survey & Natural Resources
Ministry of Defense
Ministry of Police
Ministry of Transport
Prime Ministers' Office (Information Section)
Ministry of Education
MAFFF (Ministry of Agriculture, Forestry, Food & Fisheries)
TCC

Cont !

Public Application of the Emergency Evacuation Route Plan

1. First National Trial using “evacuation route plan”.

- The first release of the warning sound
- How long and how many people to take each evacuation route

Analyse Data obtain from the first trial.

Data to be collected from the first National Trial

Location	Percentage of the population per area responded	Route No. Route Name	No. of People taking the route	Time taken (mins)

2. Second National Trial

Base on the result from the first trial

1. Review the evacuation routing plan if required
2. Second trial should be to confirm on the review evacuation routing plan.

National Trial is important to be done once every year for the public to practically familiar with the warning sound and the movement to take.

Expected Impact of the Result:

- Safe movement of the people from low lying area to safe areas during evacuation period
- Good understanding of the evacuation route planning that identifies minimum time to evacuate.
- Assist people to know the shortest road to take, direction to higher elevation zone, road access for pedestrians and traffic.
- Information to indicate route with distance and directions would avoid traffic jam and delay in the people arrival at safe zone before tsunami strikes.



Mālō 'Aupito

*Wishing You All a Merry Christmas
and
A Happy New Year*