



# DISASTER RISK REDUCTION FORUM IN TANJUNG BENOA VILLAGE

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



# Dr. I Wayan Deddy Sumantra, S.Sn., M.Si



- Badung, 23 April 1981
- Jl. Setra Gandamayu III, No.09. Lingk. Tengkulung, Tanjung Benoa
- [wd.mantrapatra@gmail.com](mailto:wd.mantrapatra@gmail.com)
  
- Lecturer at UHN IGB. Sugriwa Denpasar
- Head of Pioneer Youth Forum of Bali
- Head of FPRB (Disaster Risk Reduction Forum) Tanjung Benoa Village

# Tanjung Benoa Village



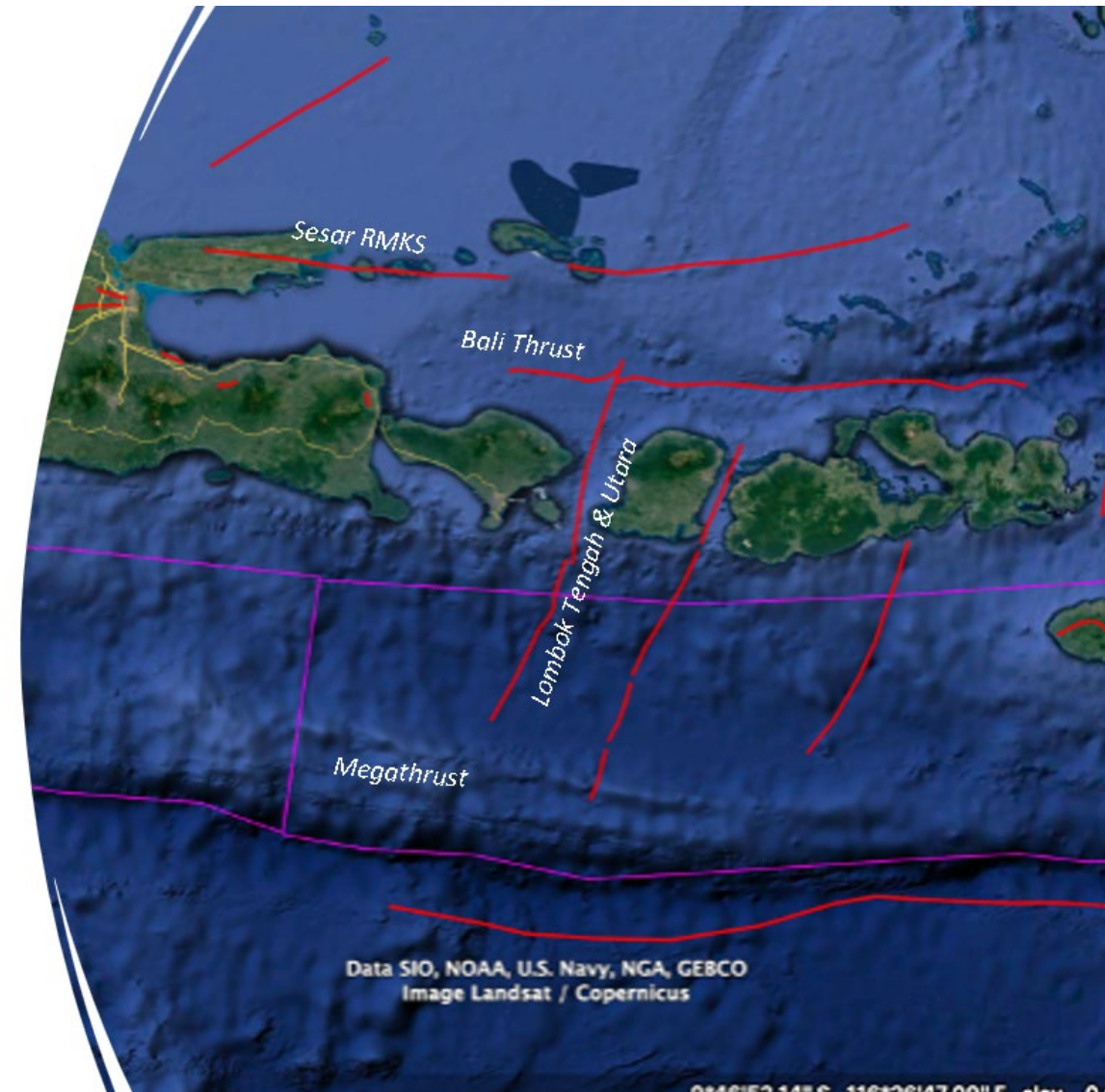
- Tanjung Benoa Village is a **small densely peninsula** located in the south of Bali.
- Tanjung Benoa Village is a home for **5,832 residents** (census data in 2021) with an **area of 1.7375 km<sup>2</sup>**, .
- The village is located in a **relatively low-land and flat area** surrounded by beautiful beaches.
- Tanjung Benoa is one of the **tourist destinations** in Bali which is famous for its watersport activities.
- The **number of tourists** visited the Tanjung Benoa Village was approximately **1800 (normal season) to 2600 (peak season) people daily**.
- Tanjung Benoa Village is **tsunami prone area** due to the existence of the **Megathrust Zone** as the earthquake source in the south of Bali.

# Earthquake and Tsunami Hazard Potential

Earthquake sources in Bali:

1. RMKS Fault : Back Arc Thrust (Max Magnitude Mw 7.8)
2. Flores Back Arc Thrust (Bali Segment with Max Magnitude Mw 7.4)
3. Lombok North Fault : Strike Slip (Max Magnitude Mw 7.6)
4. Lombok Central Fault : Strike Slip (Max Magnitude Mw 7.5)
5. **Subduction zones: Megathrust segment Bali-Sumba (Max Magnitude Mw 8.5)**

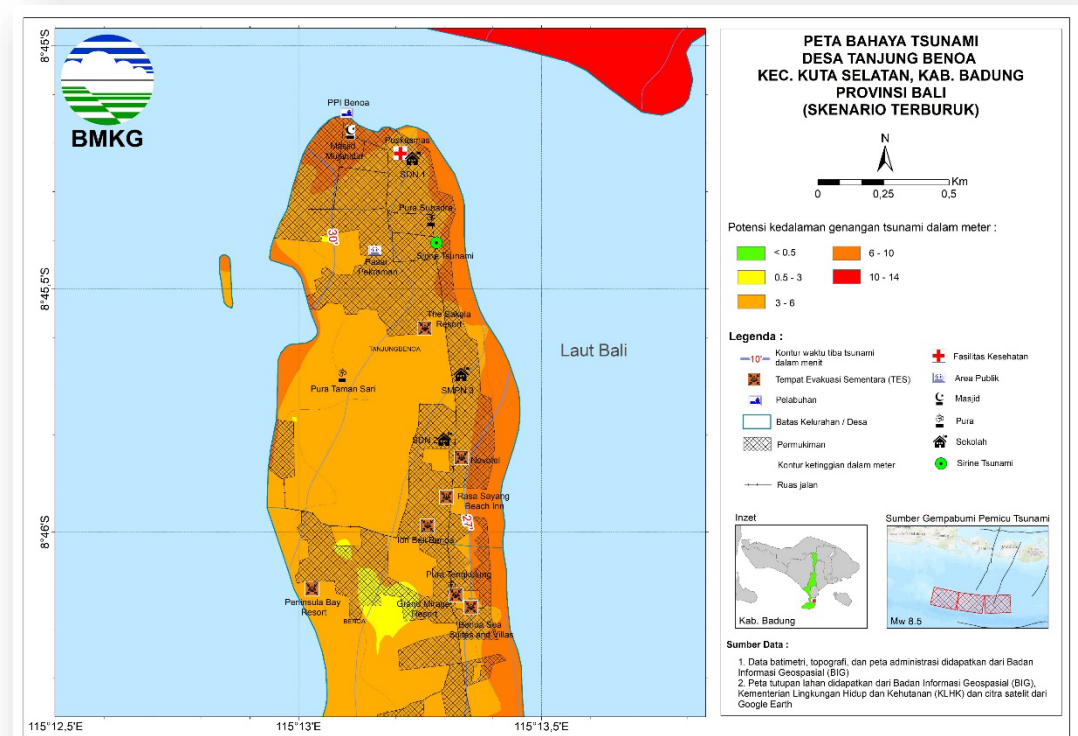
(The National Research Center for Earthquake, 2017)





# Tsunami Hazard Modelling

- Megathrust segment Bali-Sumba have a potential of earthquake with **maximum magnitude of Mw 8.5** (The National Research Center for Earthquake, 2017).
- Tanjung Bena Village is located in a relatively **low-land and flat** with the highest points are in the centre of the peninsula with approximately **3.5 meters above mean sea level**
- **The tsunami model** shows that the coastal area of Tanjung Bena Village can be potentially hit by a **tsunami** with a height of **6-10 meters** (Indonesian Meteorological, Climatological and Geophysics Agency, 2022).
- The entire area of Tanjung Bena Village can be potentially **flooded by the tsunami with 3-6 meters depth**.



# Disaster Risk Reduction Forum



Disaster Risk Reduction Forum (FPRB) of Tanjung Benoa Village is the lead organization in the management and implementation of disaster risk reduction and preparedness in Tanjung Benoa Village.

The purpose of establishing the FPRB is to accommodate interested parties in advocating for disaster risk mitigation in Tanjung Benoa Village, especially for earthquake and tsunami disasters.

# Collaboration with National and International Institutions, Organizations and Companies for Disaster Mitigation

## Earthquake Disaster Field School

In collaboration with BMKG (Indonesian Agency for Meteorological, Climatological and Geophysics Services), FPRB strengthened the understanding of earthquakes and tsunamis hazard in Tanjung Benoa to the community, Updated the tsunami hazard map for Tanjung Benoa, prepared a tsunami evacuation route map, and consulted on 12 indicators of Tsunami Ready Community.



## Installation of Tsunami Evacuation Route Signs

In collaboration with BMKG and BNPB (National Agency for Disaster Management), FPRB Tanjung Benoa installed 45 tsunami evacuation route signs, tsunami information boards and tsunami evacuation map boards in Tanjung Benoa Village, funded by BMKG, UNDP, and BRI (Bank Rakyat Indonesia)



# Identified Local Resources in The Community

## Economic Resources

- FPRB encourages the local authorities (Head of Customary Villages) In Tanjung Bena to allocate their annual budget (from Bali Province Government) for disaster emergency fund.
- FPRB is establishing good relations with business actors, especially tourism businesses, in Tanjung Bena and encourage them to allocate their CSR fund for disaster mitigation project in Tanjung Bena.

## Infrastructure and Logistic Resources

- FPRB and Village Authorities signed agreements with hotel managers, terraced villa owners, and terraced house owners in Tanjung Bena, allowing to use their buildings as temporary evacuation sites/assembly areas in the event of a tsunami hazard.
- FPRB signed agreements with retail business actors in Tanjung Bena to support for food supplies in an emergency situation.
- FPRB signed agreements with health care center in Tanjung Bena to support for medical assistance in an emergency situation.

## Social Resources

- FPRB is establishing good relations with local organizations and communities in Tanjung Bena to work together with their members as a changed agents to educate people in Tanjung Bena about disaster mitigation through their routine meetings and group activities.



# Organizing The Tsunami Drill in The Community of Tanjung Benoa Village

FPRB plays an important role to organize and accommodate the Tsunami Drill events in Tanjung Benoa Village in collaboration with national and international organizations or institution.

- Tsunami Fun Drill in collaboration with BMKG, 2022.
- Tsunami Drill in SDN 02 (elementary school) Tanjung Benoa for the purpose of Assistant Secretary-General and Director of the Regional Bureau for Asia and the Pacific, United Nations Development Programme (UNDP) visit, 2022.
- Tsunami Drill in SMPN 3 Kuta Selatan (Junior High School) on the occasion of GPDRR delegations field trip in Tanjung Benoa, 2022.
- Tsunami Drill in collaboration with BMKG as part of Earthquake Disaster Field School agenda, 2021.
- Tsunami Drill in SDN 02 Tanjung Benoa in collaboration with UNDP and Japan, 2017.



# Disaster Resilient Recognition

## January 2022

Tsunami Ready Recognition by National Tsunami Ready Board (BMKG, KemenkoPMK, Kemenkomarves, Kemendagri, BNPB, BPBD, BRIN, ITB, IABI, U-INSPIRE Indonesia)

## May 2022

Tsunami Ready Community Recognition by UNESCO-IOC

## November 2022

Disaster Resilient Village Recognition (Kelurahan Tangguh kategori Tangguh Utama) by National Agency for Disaster Management (BNPB).





