# THE APPLICATION CONSTRUCTION OF *FALA KANCI* TRADITIONAL HOUSING AS SIMPLE HOUSE EARTHQUAKE RESISTANT FOR THE FUTURE IN BOBANEHENA VILLAGE, WEST HALMAHERA


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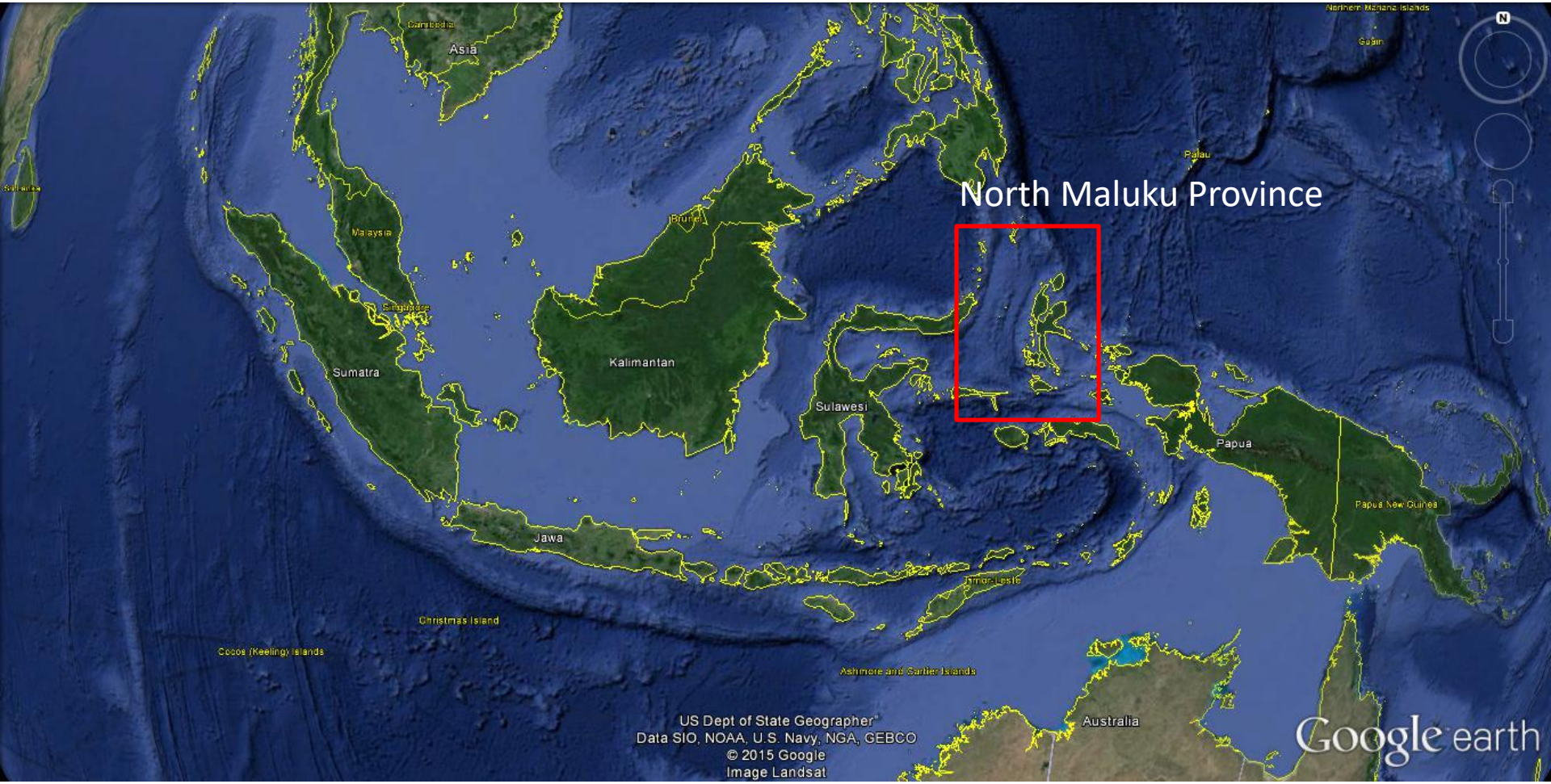
# Outline

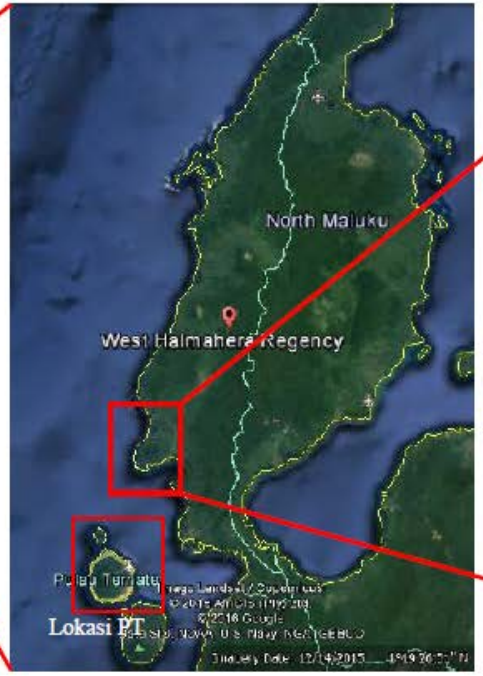
1. Location of Bobanehena Village, West Halmahera
2. Tectonic Setting and Damage of Earthquake
3. The aims of research
4. Methodology
5. Budgeting

# Map of Indonesia



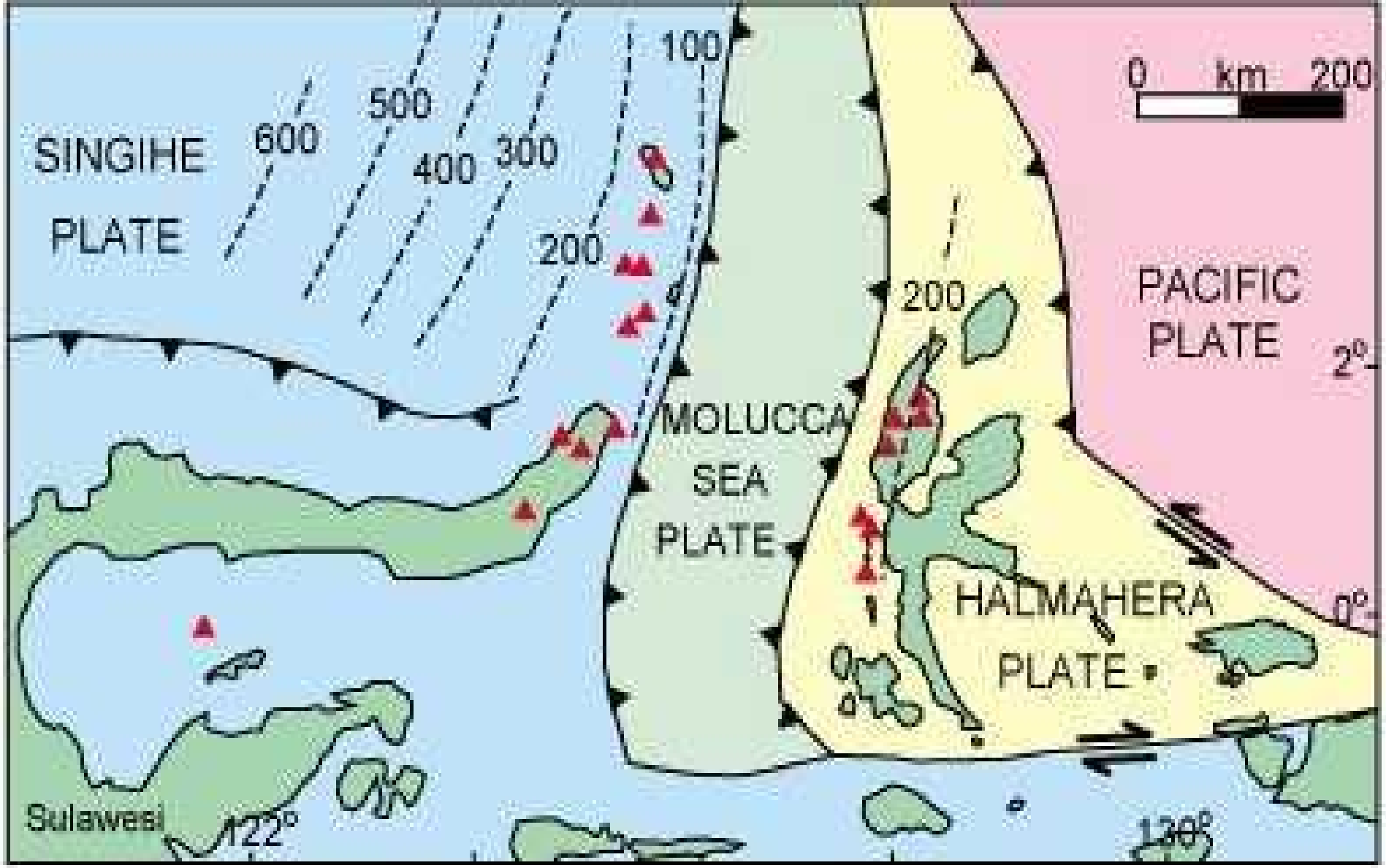
# Location of Bobanehena Village, West Hamlahera


North Maluku



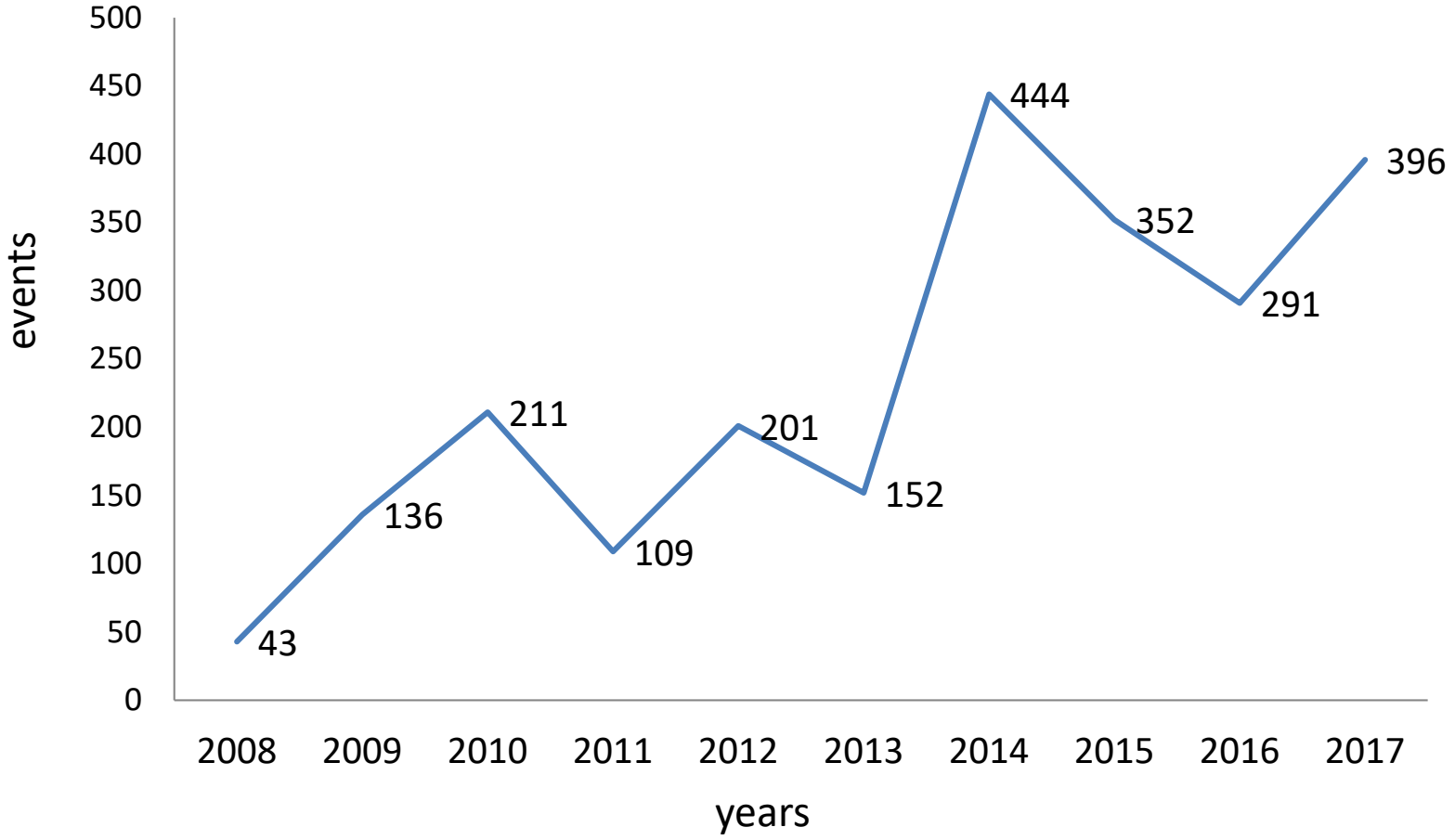

West Halmahera


Bobanehena Village

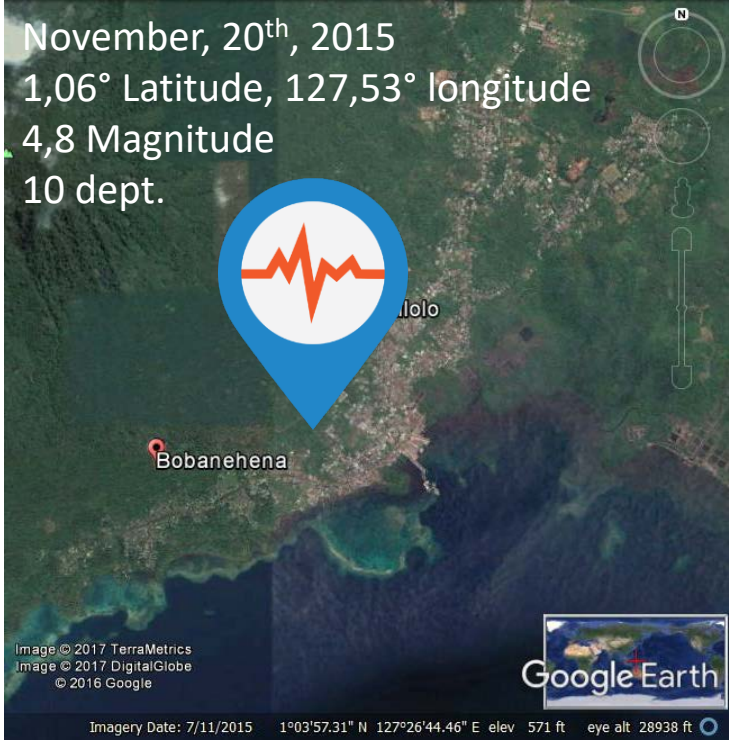



**Configuration of Tectonic Plate and Volcano's Spread in Halmahera-North Sulawesi (Source: Hamilton, 1979).**

# Data of Events Earthquake in West Halmahera



**Modern House, 2015**




1.939 people

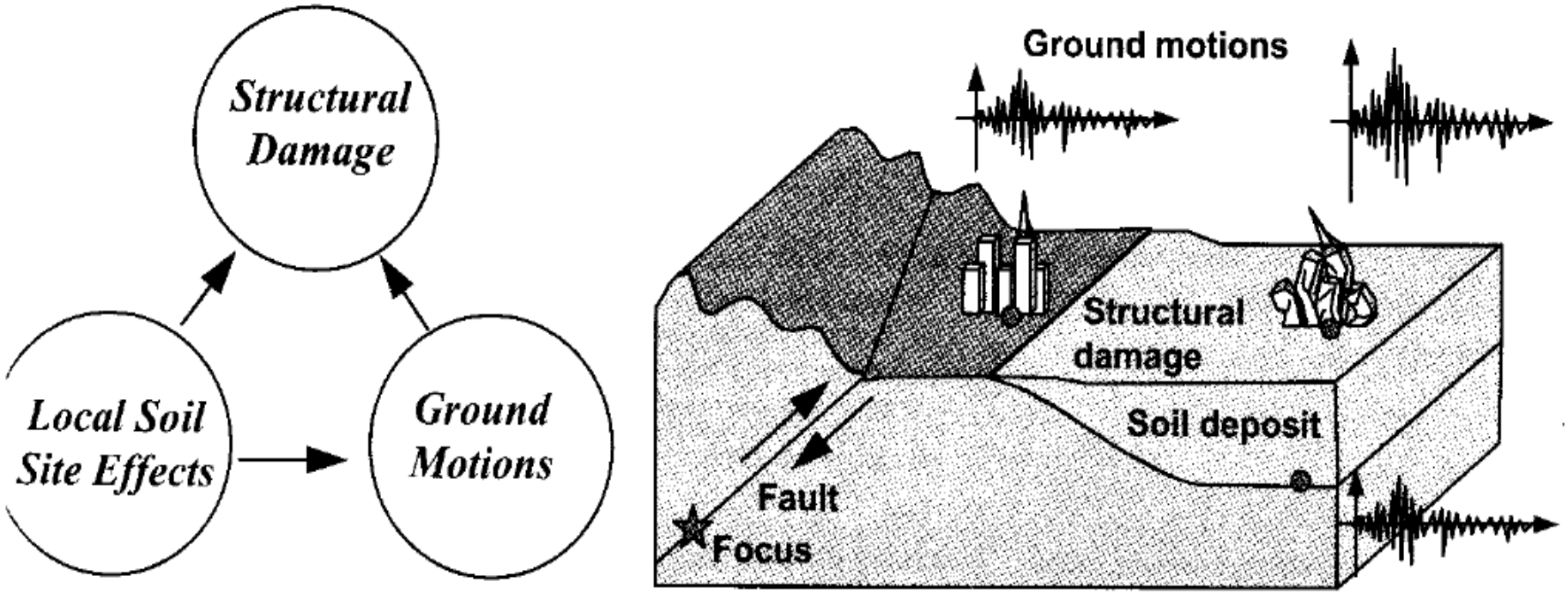
324 Houses

**Traditional House, 2015**

318 Houses:
113 Houses Hard damage
84 houses damage
121 houses minor damage

Source: BPBD West Halmahera, 2015

Why Traditional Housing of *Fala Kanci* can be resistant of earthquake?

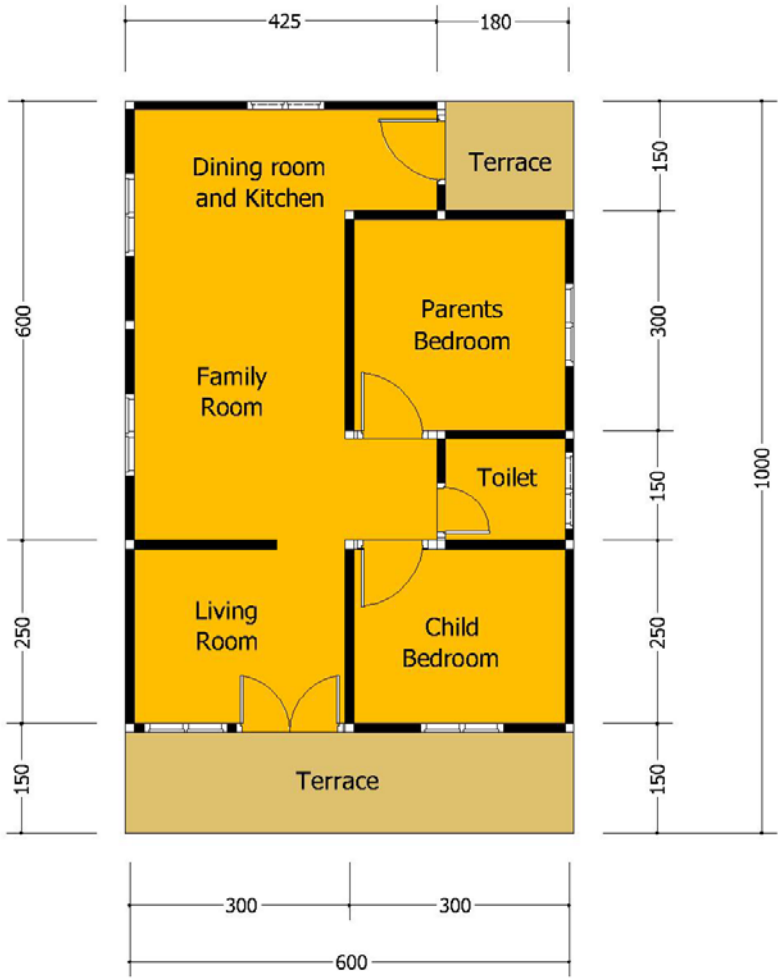



Approximate Relation between Local Site, Ground Motion and Structure Damage
Source: Pawirodikromo, 2012.

# The purposes of research

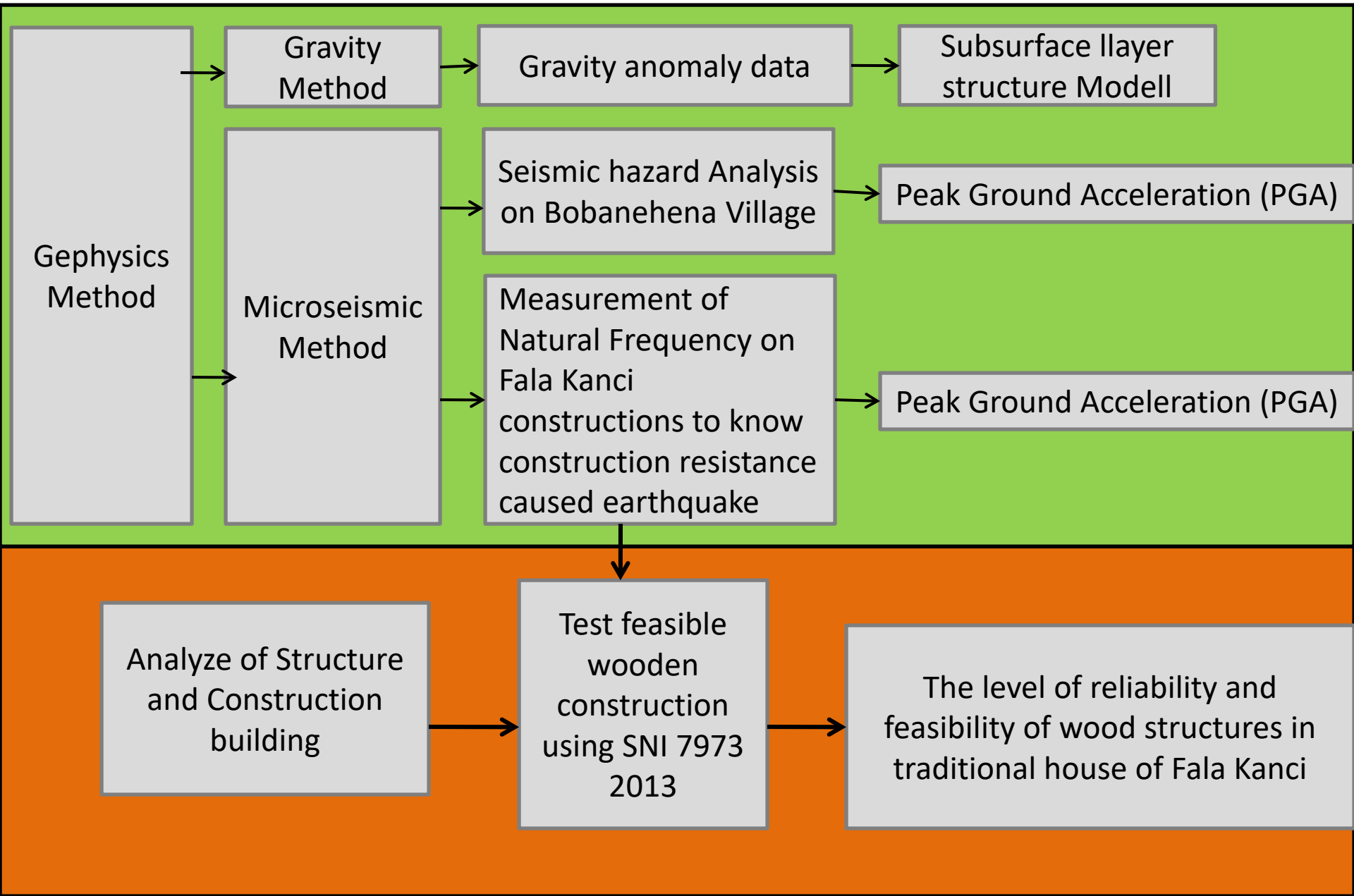
1. To identify the subsurface structures of the soil layer in the settlement of Bobanehena village
2. To determinate the earthquake susceptibility (PGA Value)
3. to test the feasibility of *Fala Kanci* house to the earthquake load.

# Application of Fala Kanci as Simple House Earthquake resistant





# Methodology



# BUDGET

IDR

| Component | Budget plan (IDR) |
|---|---|
| Test of building structure | 36,550,000 |
| Prototype of House (*Fala Kanci*) | 28,535,000 |
| Test of local soil condition | 23,500,000 |
| Method of Microseismic | 24,650,000 |
| Physic model of Geology structure | 37,975,000 |
| Method of Gravity | 28,665,000 |
| Publication | 20,000,000 |
| Transportation | 25,000,000 |
| **Amount** | **224.875.000** |

# Thank You..


View from Ternate Island
1000
PULAU MATAREA DAN TIDORE
BANK INDONESIA
W J 0139881
DENGAN RAHMAT TUHAN YANG MAHA ESA BANK INDONESIA
MENGELUARKAN UANG SEBAGAI ALAT PEMBAYARAN YANG SAH DENGAN NILAI
SERIBU RUPIAH
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