

8°3'58"N, 123°48'22"E

accuracy: 5m

Use of GIS-mapping tools in local community resilience work

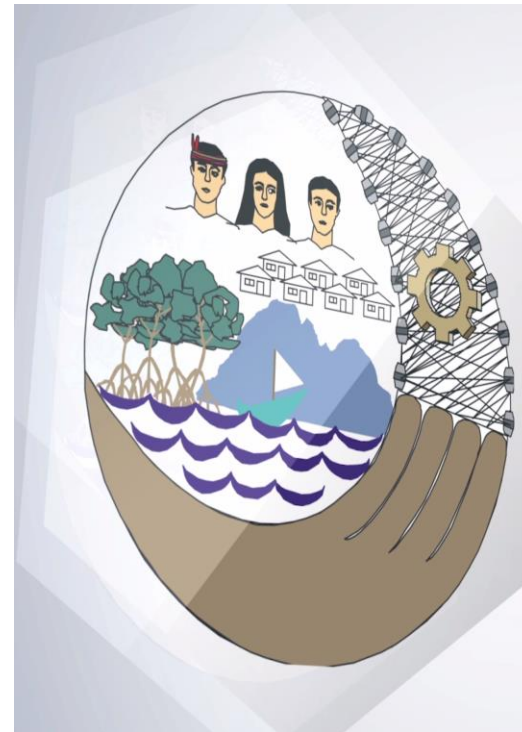
Arlina "Arlene" Mahinay
VSO Philippines

21 June 2018



Altitude
82 m

VSOP-LAFCCOD initiative



LAFCCOD

Lanao Aquatic and Marine
Fisheries Center for
Community Development

VSO Philippines is part of VSO International, a development organization that works through volunteers.

VSO Philippines' and LAFCCOD'S resilience programme focuses on:

- resilience in the context of conflict (main)
- resilience in the context of natural hazards



Location of resilience work of VSO Philippines and LAFCCOD: Tukuran, Zamboanga del Sur



This site: Tukuran

Tukuran population: 39,820 (as of 2015 census)

Groups of people in Tukuran:

- > Moros (Muslim)
- > Christians
- > Indigenous peoples

Specific villages/barangays supported: 8

- > Alindahaw, Lower Bayao, Militar Panduma Senior, San Carlos, Santo Nino, Sugod, Tagulo



Where the 8 villages/barangays
are located

Major man-made and natural disasters that hit Tukuran in the past decades

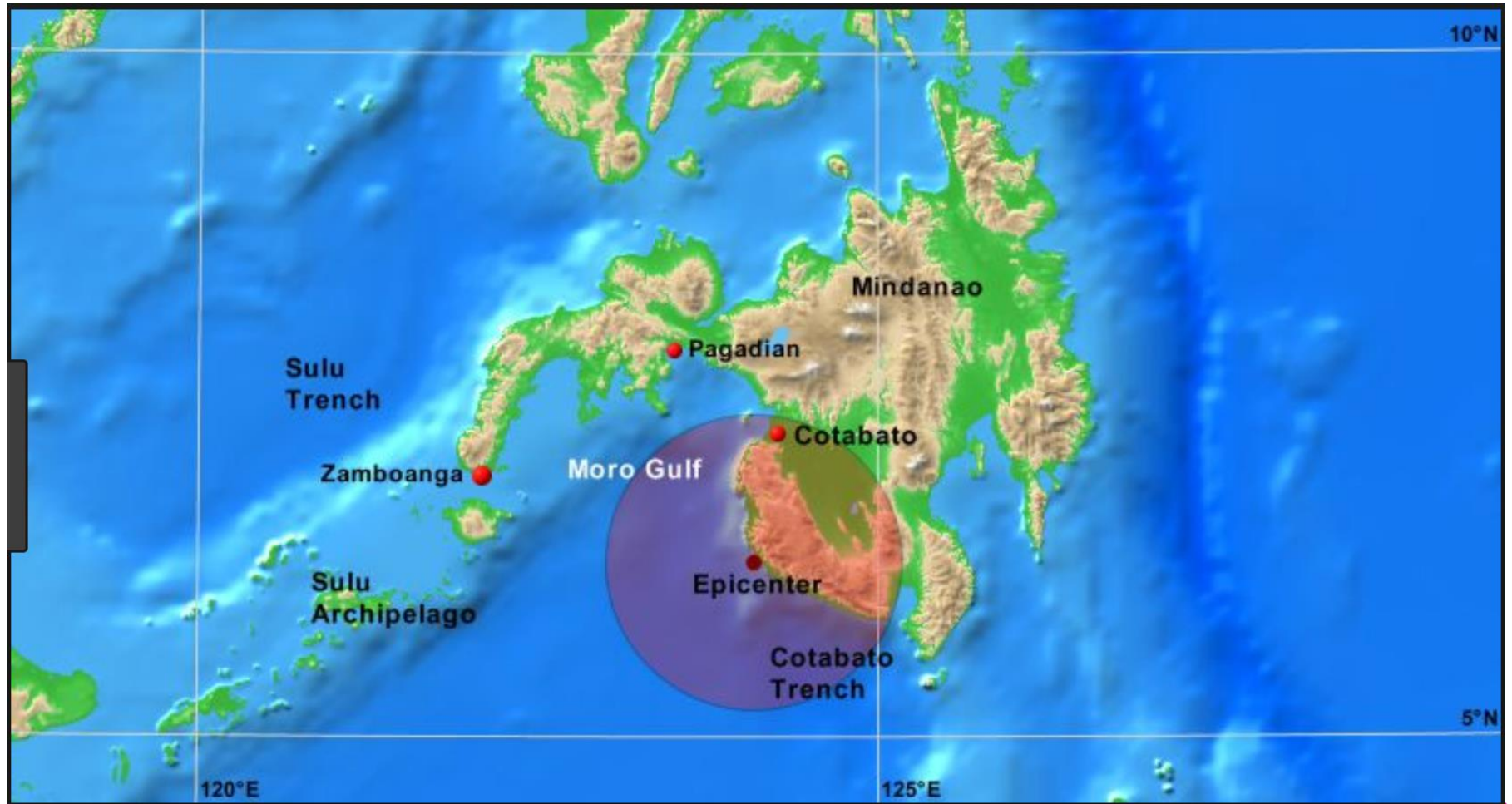
1. Barracuda-Ilaga conflict in the 1970s

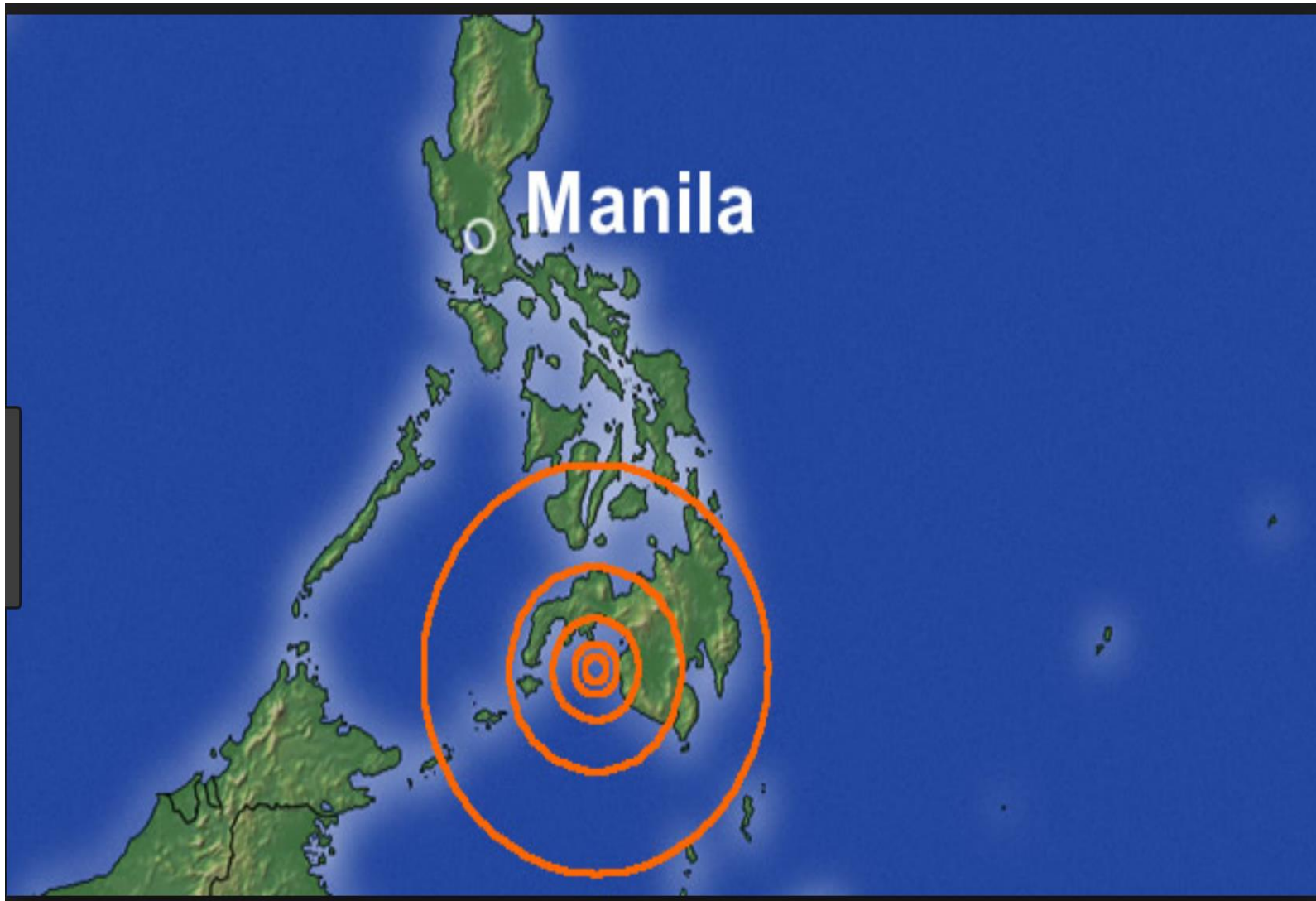


Which resulted in the displacement of Muslim and Christian communities...



Earthquake in Moro Gulf (1976)





2. Tsunami that hit Tukuran (Moro Gulf) in 1976



Source: Wikipedia

3. Communist insurgents-government conflict



Even small flooding would have huge impact to people



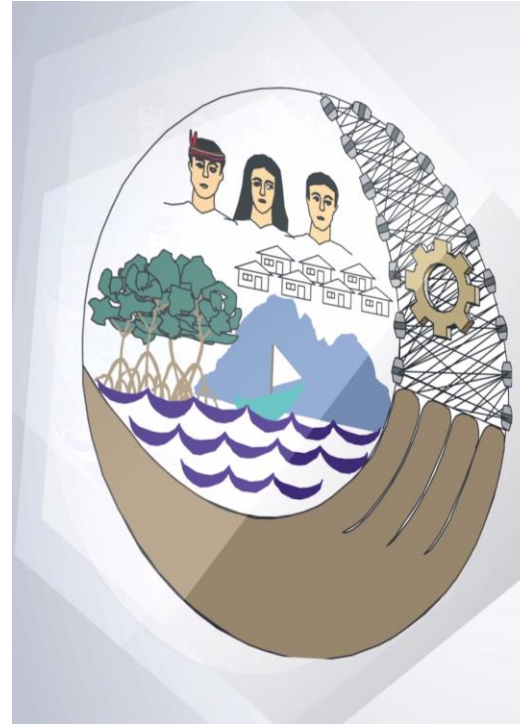








VSOP-LAFCCOD initiative



LAFCCOD

Lanao Aquatic and Marine
Fisheries Center for
Community Development

community resilience work



20



Example: timeline



Seasonality calendar

Seasonal Calendar: Flor, Tinong, Susan, Neneng

Event/Act.	J	F	M	A	M	J	J	A	S	O	N	D
▶ Panahon sa tingnayan (Habagat)												
- Bagyo ^{- Kanyagay}						x	x	x	x	x		
- Kucog ang hangin/Balud-Kulyada ^{- Salatan - Pilapil}												
* Tingnanum sa humay (salud)						x	x					
- Pagharvest sa Humay										x	x	
* Tingnanum sa mais (Panuig) season					x							
- Harvest							x					
* Pagtanum sa mais (Panguilang) dili season									x			
- Harvest												x
▶ Vegetables Gardening												
- Kalabasa - Okra				x								x
- Talong - Papaya												x
- Tinangkong - Lanas								x				x
- Mongos - tanungutan								x				x
▶ Tanum sa Mela												
- Harvest					x	x						
▶ Panahon sa Amihan	x	x	x									
▶ Daghang makuhang mga Lamayagan, Cutok Bayot, Bariles, MG, Big Eye, Tuliran	x	x	x									
▶ Nihit ang pagpakuha sa Isda								x	x			
▶ Pagpakuha sa mga Samit sa Baryas ug pansat								x	x			

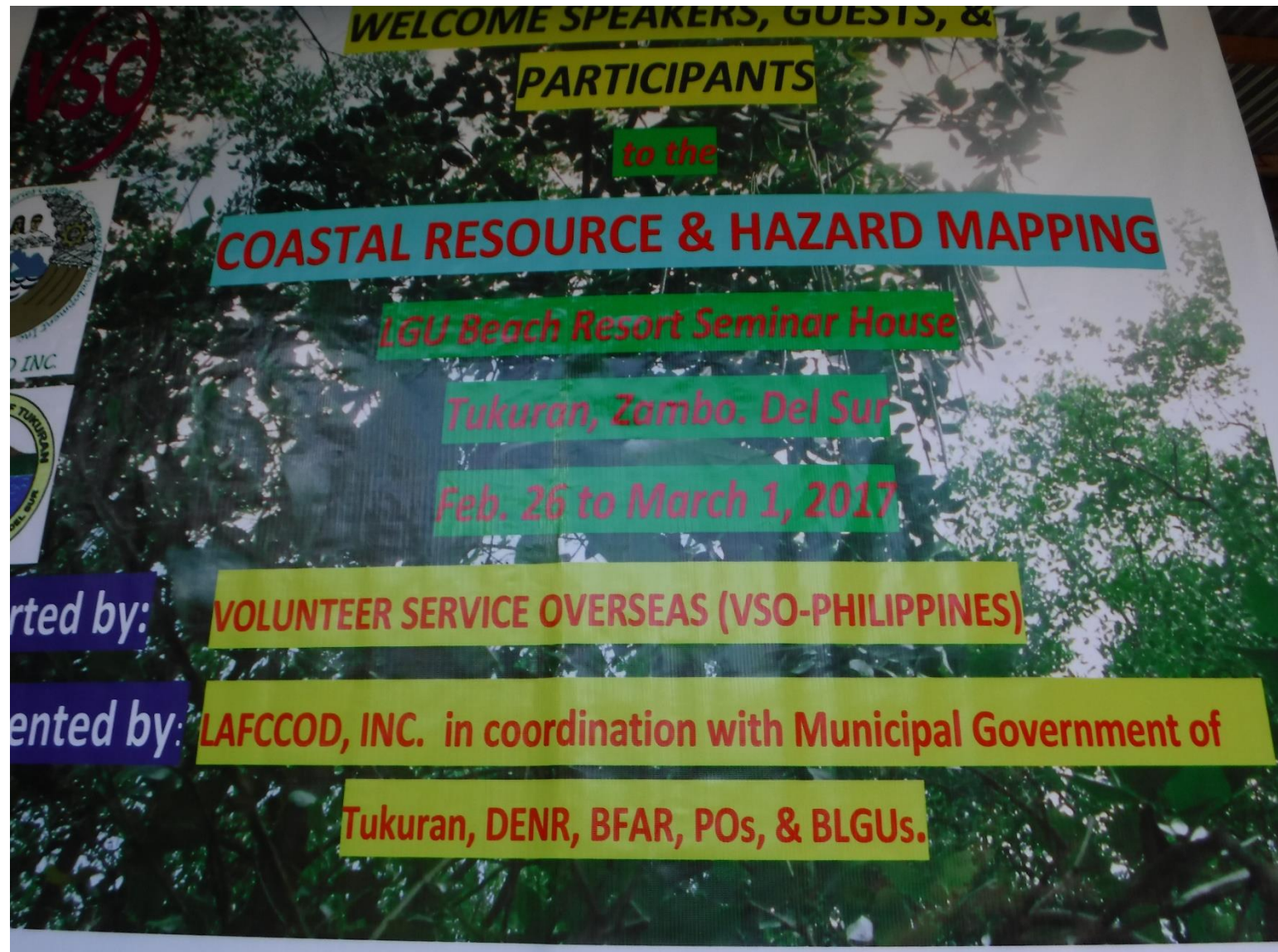
Resource mapping



Resource mapping



Hazard mapping exercise



The coordinates as reflected in the geo-cam



Geo-mapping exercise



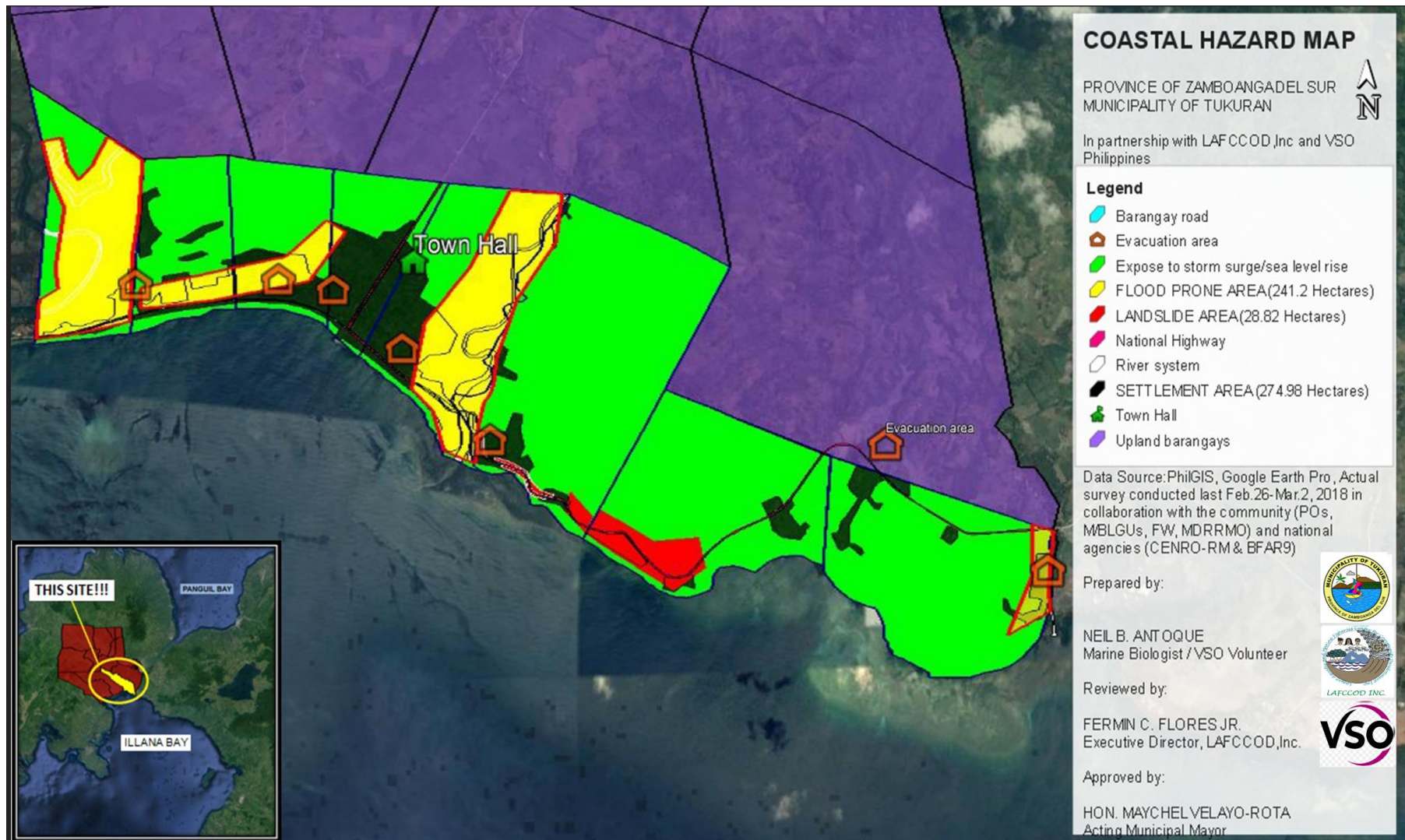
Geo-mapping activity



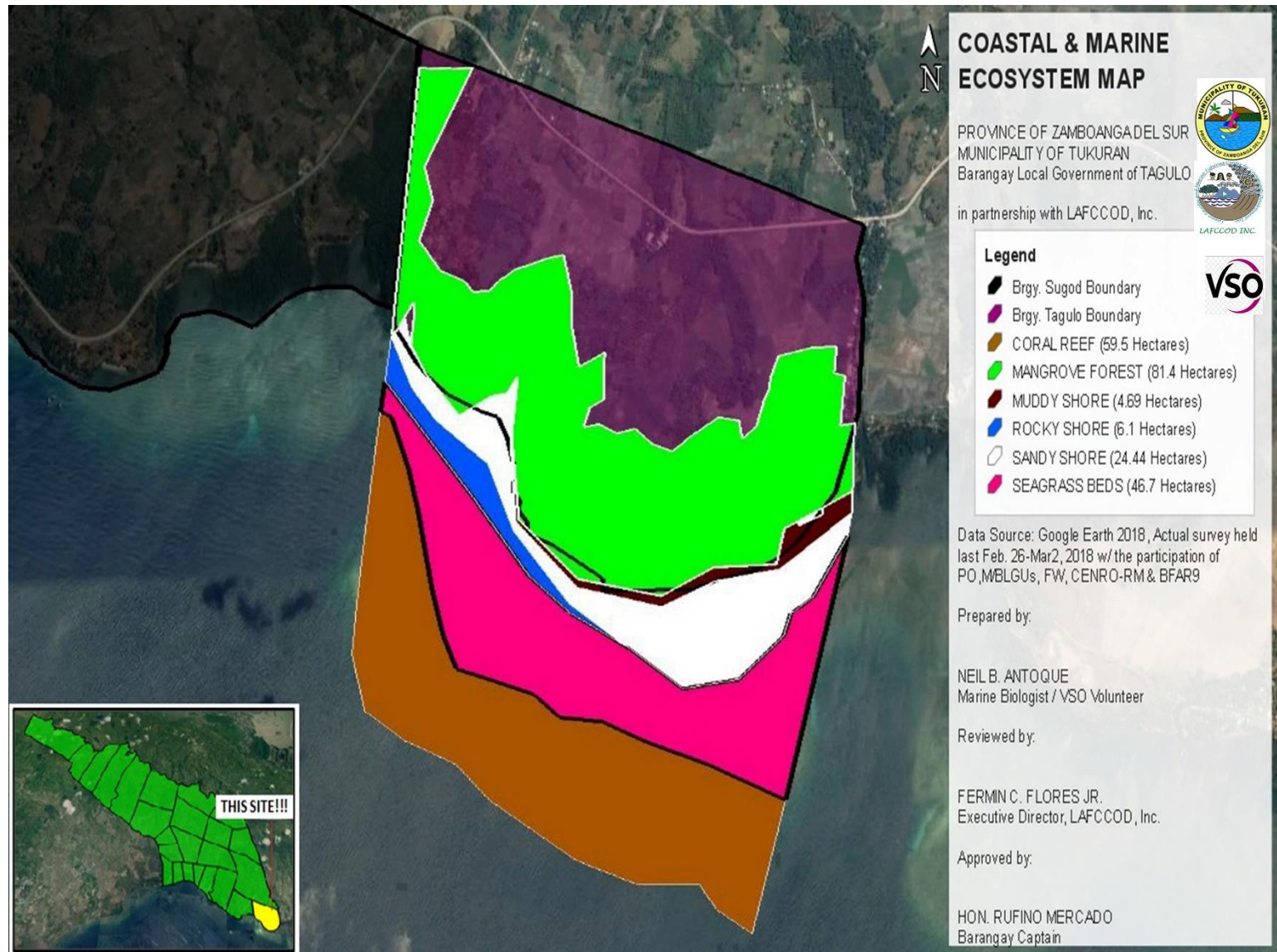




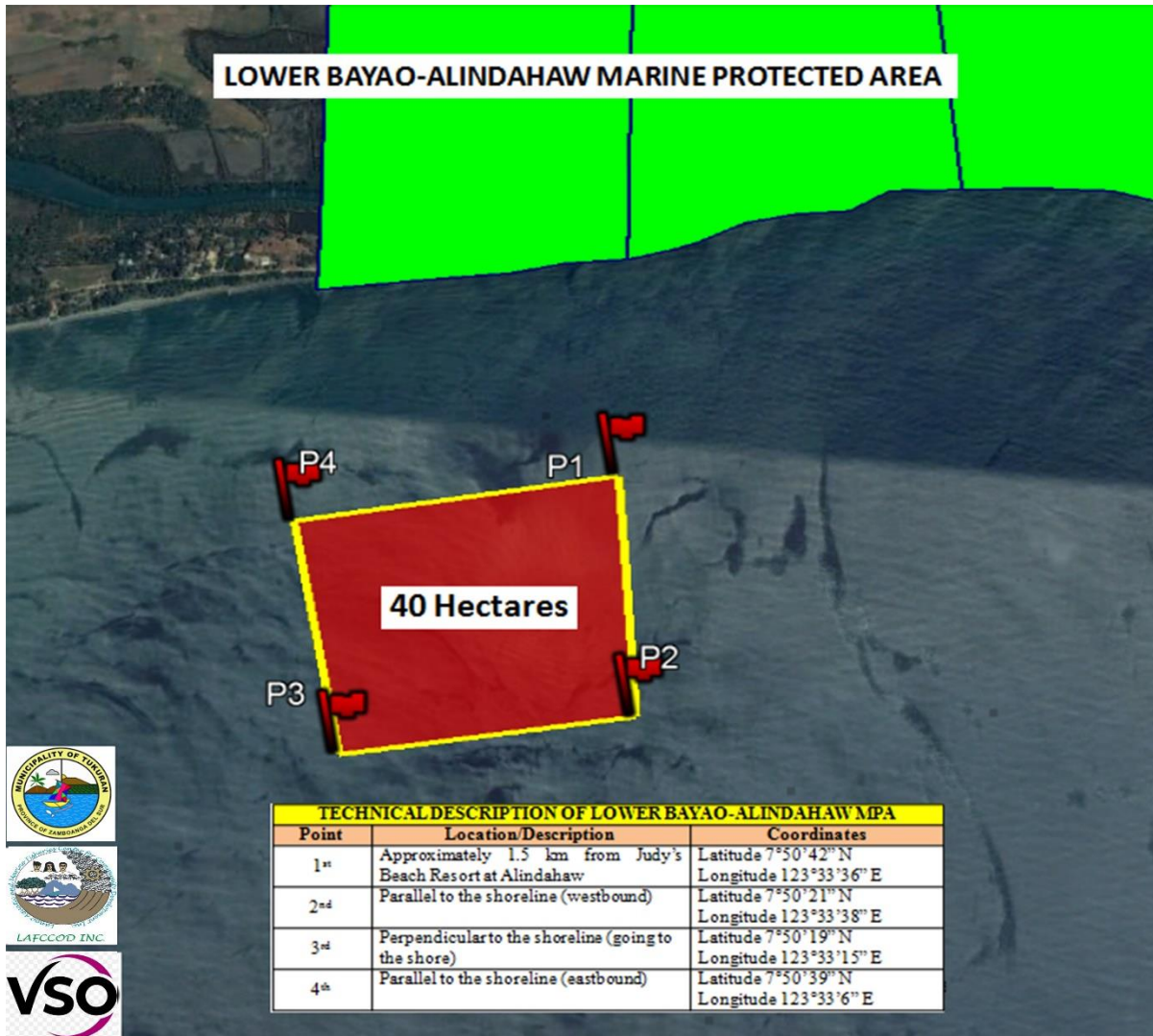
Map produced from geo mapping exercise



Eco-system map



Map of the marine sanctuary



NATIONAL LAW RA10654 SEC.101

PAGLABAG:
PANGINGISDA SA MGA LUGAR NA IDINEKLARANG **MARINE PROTECTED AREA, FISHERIES RESERVE, REFUGE O SANKTWARYO**



KAPARUSAHAN:

Mga Pananagutang Administratibo

(1) Municipal fishing:

- Pagkumpiska ng huli at mga gamit pangisda;
- Multa: PHP20,000.00, o dalawang (2) beses ng halaga ng huli, alinman ang mas mataas;
- Community service kung walang kakayanang magbayad ng multa

(2) Small-scale commercial fishing:

- Pagkumpiska ng huli at mga gamit pangisda;
- Multa: PHP200,000.00, o dalawang (2) beses ng halaga ng huli, alinman ang mas mataas;

(3) Medium-scale commercial fishing:

- Pagkumpiska ng huli at mga gamit pangisda;
- Multa: PHP600,000.00, o dalawang (2) beses ng halaga ng huli, alinman ang mas mataas;

(4) Large-scale commercial fishing:

- Pagkumpiska ng huli at mga gamit pangisda;
- Multa: PHP1,000,000.00, o dalawang (2) beses ng halaga ng huli, alinman ang mas mataas;

Mga Pananagutang Kriminal

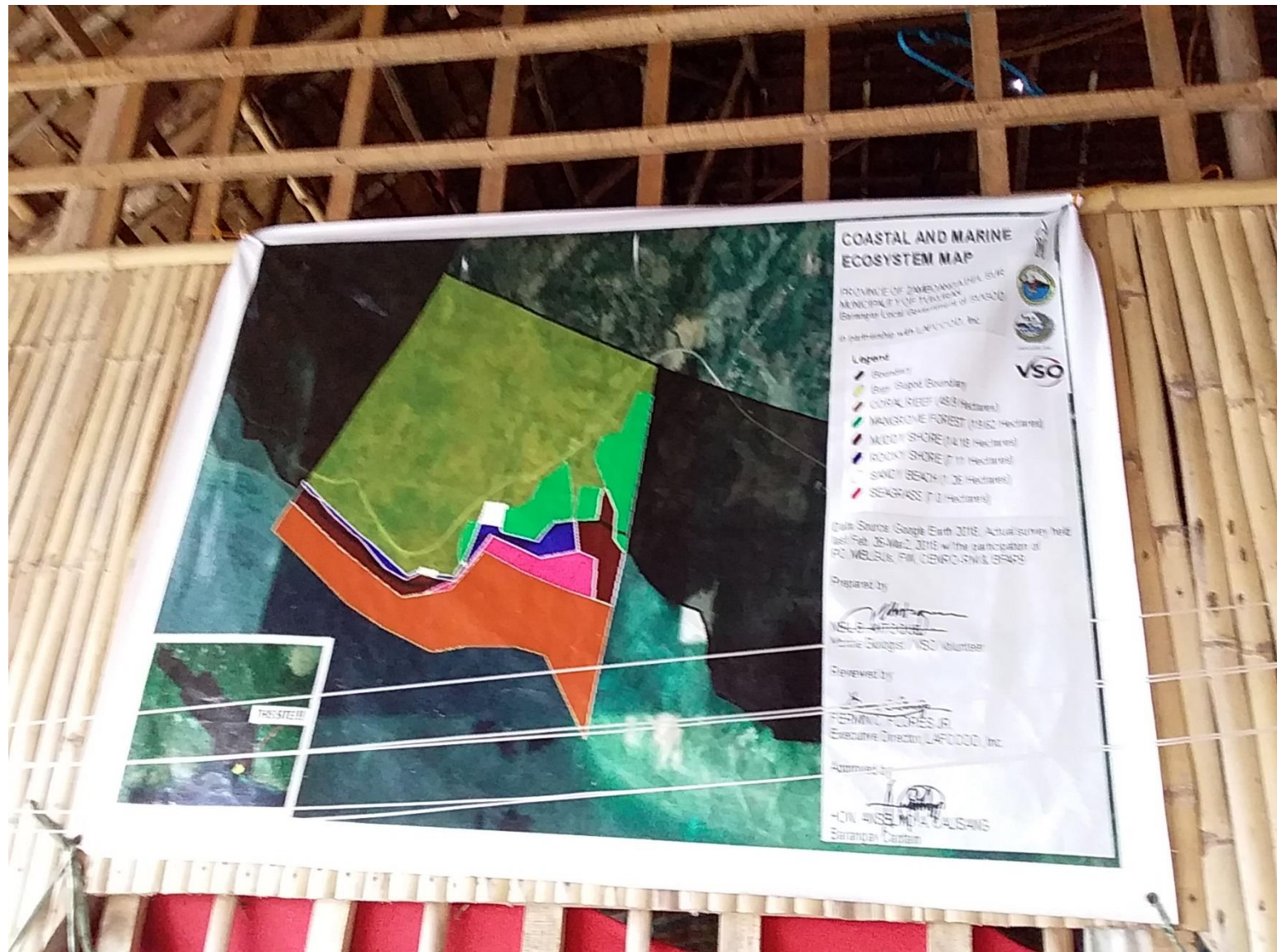
- Pagkablango ng dalawang (2) taon hanggang anim (6) na taon;
- Multa: Halagang doble ng multa para sa kasong administratibo;
- Pagkumpiska ng huli at mga gamit pangisda;
- Pagkansela ng lisensya o permit.

MUNICIPAL ORDINANCE no. 13-04-2004: CRM Code

Section 6A.01. Penalty.

Under existing municipal ordinances, any person violating the provision or provisions of this ordinance shall be meted the penalty of imprisonment of not less than 10 days to not more than 6 months, or a fine of not less than **Php1,000.00** but not more than **Php2,500.00**, at the discretion of the court, taking into account the gravity of the offense.

Map displayed in the village center





Key learnings:

- The output is accurate and scientific, yet easy to understand and use by people
- It was not only the people from the local government units who were inspired by this. The use of the geo-mapping app also made the youth interested to participate in the exercises.
- Any smart phone can be used
- Can be used off-line.
- The maps inspire people to discuss more extensively about their plans to address resilience-related issues
- Because it is visual, the resources, or the presence of hazards became even more concrete for people, and help them in analyzing their situation
- A good focal point in encouraging people to discuss extensively
- Inspire the LGU to participate and work together with community people.

Thank you!

