



TSUNAMI EVACUATION MAPS

EXAMPLES:

BRGY. CONCORDIA, BOLINAO

BRGYS IN CALATAGAN, BATANGAS

CTAS COMMUNITIES



How to develop a tsunami-prepared community?

Tsunami evacuation planning

3.1 Tsunami evacuation map – shows areas identified as **safe** and areas that are within the **hazard zone**

Essential information provided in this map:

- 1) Areas threatened by tsunami **inundation**
- 2) Location of **designated safe areas** where people should gather in case of tsunami
- 3) Recommended **routes** to the safe area for people to follow which are normally indicated as arrows
- 4) Other significant information such as **landmarks** for people to identify location

How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

- Acquire a **tsunami hazard map**
- Acquire **detailed community map**
 - update the community map (road systems, elements-at-risk)
 - determine the population to evacuate

Discussion on assignment

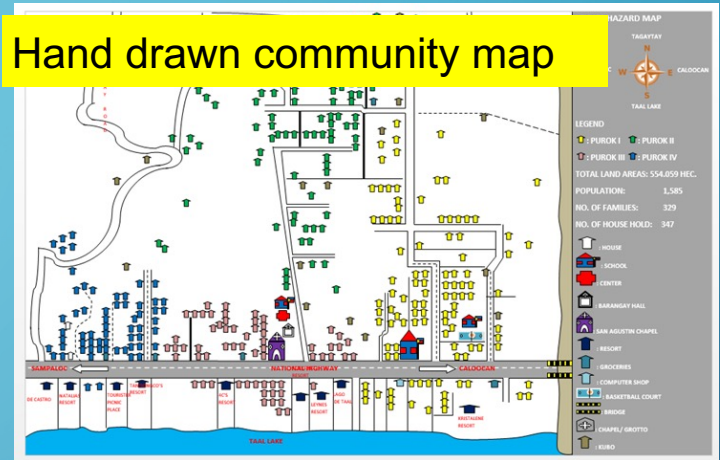
From Bautista, 2021

How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

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Hand drawn community map



REDAS-EDM



Community map using HazardHunterPH

How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

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REDAS Tsunami Hazards Simulation Module (TsuSIM)



Capabilities:

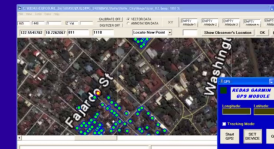
- 1) Generate Tsunami Simulation
- 2) Generate Tsunami Inundation
- 3) Generate Tsunami Animation
- 4) Plots Tsunami Arrival Times
- 5) Plots Tsunami Marigrams

Collecting Exposure Database through Actual Building Survey: Using the REDAS Exposure Data Mapper (EDM) using GeoMapperPH



Using Portable Android Devices

- With built-in GPS
- Built-in Camera (3MP)
- 3G / WiFi (Access Google Map)
- SQLITE Database



From Bautista, 2021

REDAS-TsuSim and its Exposure Database Module - GeoMapperPH

How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

Identify **safe evacuation areas**

- site is **outside** identified tsunami hazard zone
- site can be **reached by foot** within the shortest possible time
- **total area** of the site can hold the community to be evacuated
- site can be **easily identified**



How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

Recommend **evacuation routes**

- safest, shortest/fastest
- wide streets
- if possible, no bridges
- away from other hazards
- limited overhead power lines and similar hazards
- “walk along routes” to check ground condition



How to develop a tsunami-prepared community?

Designing a tsunami evacuation map

Hold **small workshop** for community leaders to finalize maps

- create working map with the tsunami inundation zone, identified evacuation areas and routes



How to develop a tsunami-prepared community?

Develop **complete version** of the map

- finalize map out of **inputs from the group workshop**
- should be **simple and easy to read**
 - tsunami hazard zone
 - safe evacuation areas
 - recommended evacuation routes
 - local landmarks



Tsunami prone



160meters →

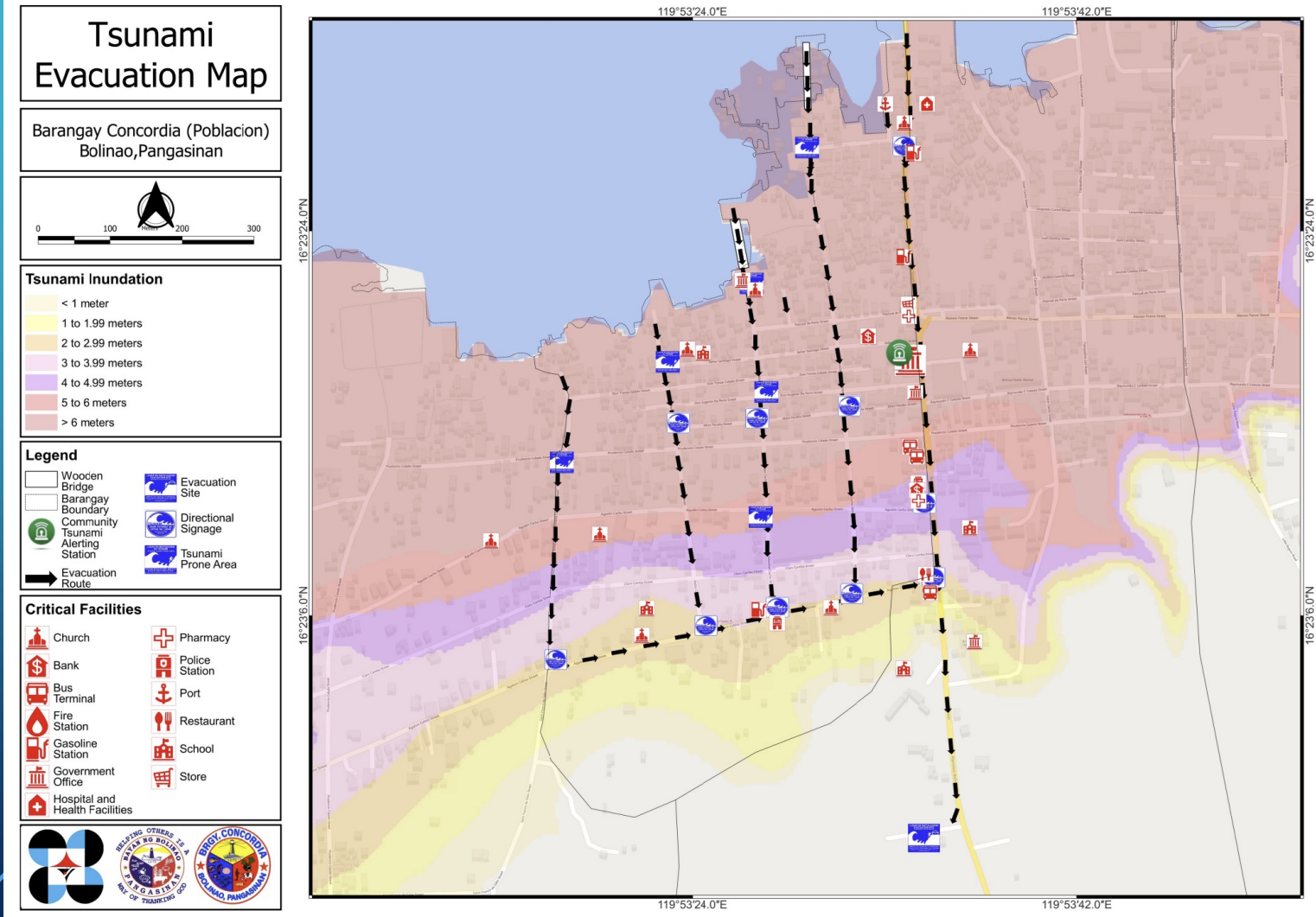
Directional



Evacuation area

Tagalog
Surigaonon
Boholanon
Waray

Tsunami evacuation map – shows areas identified as safe and areas that are within the hazard zone





3R Tsunami Ready Community

Risk Reduction and Resilience

Brgy. Concordia, Bolinao, Pangasinan

Group Photo



Mayor Celeste

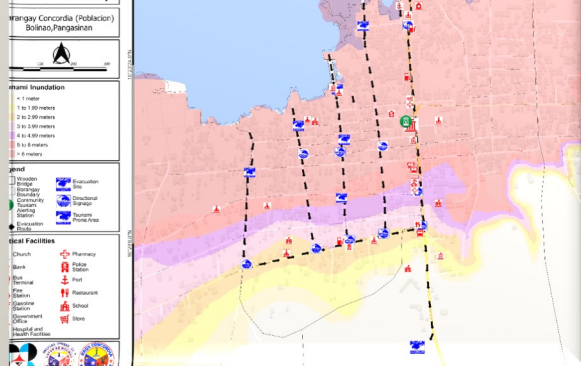
Consultations, Lectures, IECs, Workshops



Evacuation Map



Evacuation Map





Information Campaign

3R Tsunami Ready Community

Risk Reduction and Resilience

Calatagan, Batangas



3R (Risk Reduction and Resilience) - Tsunami Prepared Community
in Calatagan, Batangas

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Coordination Meeting for the 3R Campaign project – Tsunami Ready Community

OCD IV-A



PSTO Batangas



DOST IV-A



PDRRMO Batangas



MDRRMO Calatagan

3R Campaign Project conducted a community-level survey in all coastal barangays of Calatagan, Batangas



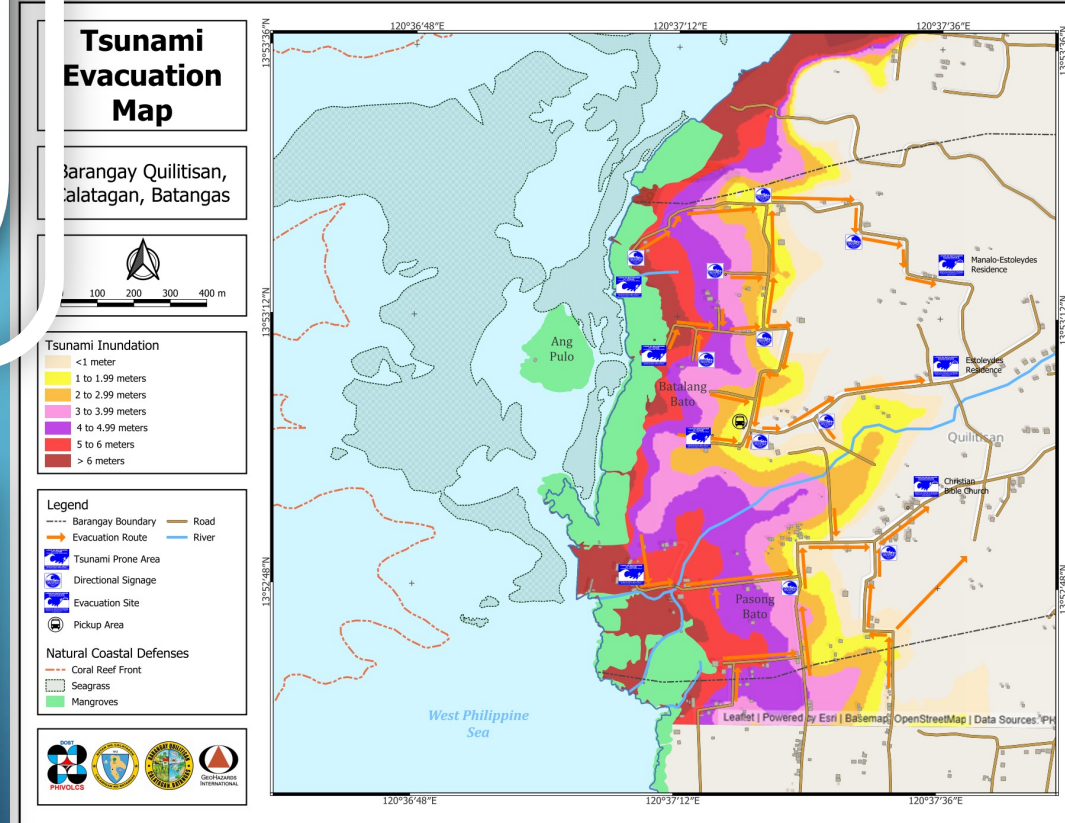
Workshops: Evacuation Planning



Validation of evacuation maps and signage locations



Brgy Quilitisan



Workshop

Challenges

Possible solutions

Evacuation Area

Routes