

**8TH GENDER, AQUACULTURE,
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**Vulnerability to and Safety From
Hydro-Meteorological Hazards of
Women Fishers in Small Island
Communities of Carles, Iloilo,
Philippines**

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Small islands and the multiple layers of risks

- Home of the poorest and most vulnerable groups in the Philippines;
- Not only physically isolated, but also economically, socially and politically;
- Political and socio-economic processes in the pre-disaster context determine different levels of vulnerability within communities (Swain, 2007; Wisner et al., 2004; as cited by Achberger, 2015).
- Frequently, they possess limited capacities to address multiple challenges emanating from natural and anthropogenic risks;
- Most exposed to extreme climate, weather and other hazards. (CCS, MaCEC & SAC-Northern Quezon, 2011)
- An archipelagic country, the Philippines is exposed to various natural and anthropogenic hazards due to its geographic location in the Pacific Ocean where most typhoon and ITCZs occur; consistently among the top 10 most at risk countries all over the world over the last decade;
- Women (children, PWDs, elderly, and other vulnerable groups) are more likely to suffer the most after a large-scale disaster due to social and cultural reasons and existing gender norms (Bradshaw & Fordham, 2013).



Small islands and the multiple layers of risks



Objectives of the study

This study looks into the progression of vulnerability to and safety from hydro-meteorological hazards (HMHs) commonly experienced by fishers in small island communities of Carles, Iloilo, Philippines particularly the Gigantes group of islands.

Specifically it aims to:

- characterize women fishers in small island communities;
- identify various local HMHs experienced by Gigantes island communities;
- present the progression of vulnerability of women fishers to hydro-meteorological hazards;
- highlight the progression of safety through the lens of women fishers

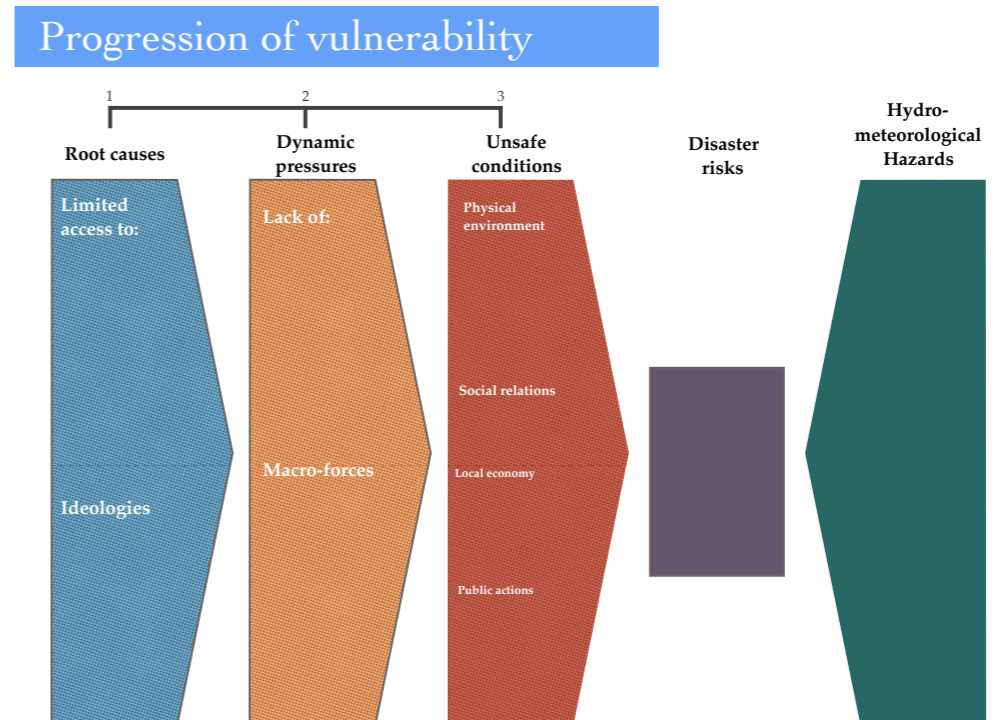


Photo credit: Jorge S. Ebay

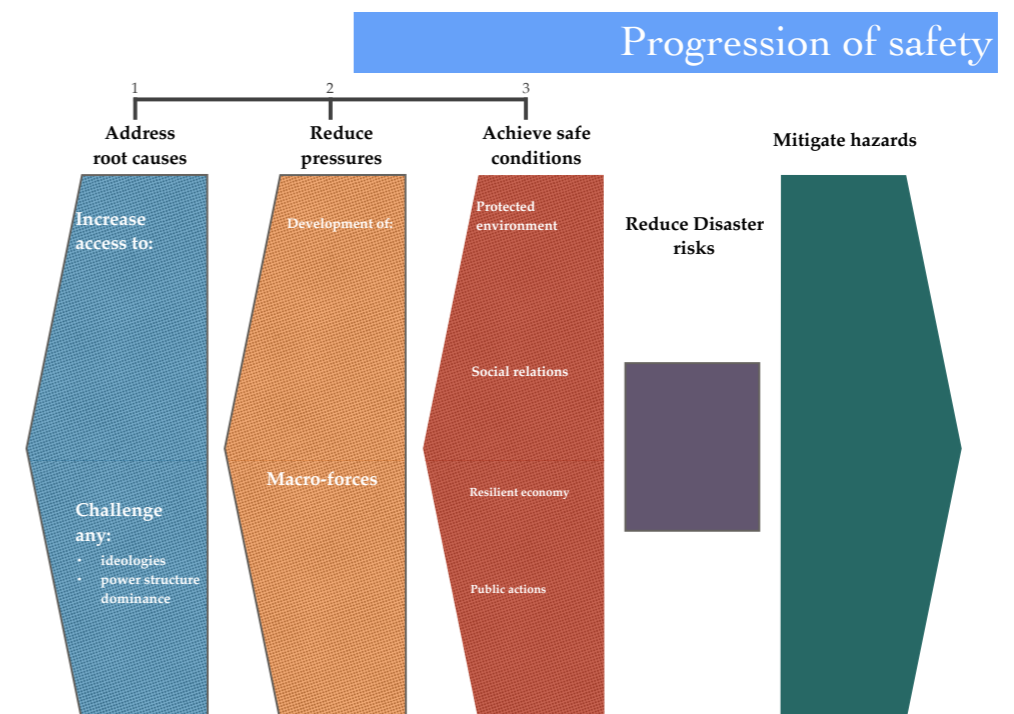


Framework of analysis

- This study uses the Pressure and Release (PAR) Model by Wisner, et. al. (2004) and the Gendered Crunch Model modified by Oxfam (2012) as a tool for analysis. This model demonstrates how disasters occur when natural hazards affect vulnerable people.
- “Three layers of social processes that cause vulnerability are: root causes, dynamic pressures and unsafe conditions. The root causes lead to dynamic pressures that explain how the unsafe conditions have arisen and persisted” (Oxfam GB, 2012).



- “The “pressure” between hazards and vulnerabilities should be released to reduce disaster risk. Hazards should be mitigated to reduce their intensity, thus affect vulnerable population less. Vulnerability should also be reduced at different levels: activities need to be undertaken to turn “unsafe conditions” into “safer conditions”, “dynamic pressures” will be reduced and “root causes” will be addressed” (Oxfam GB, 2012).



Methodologies



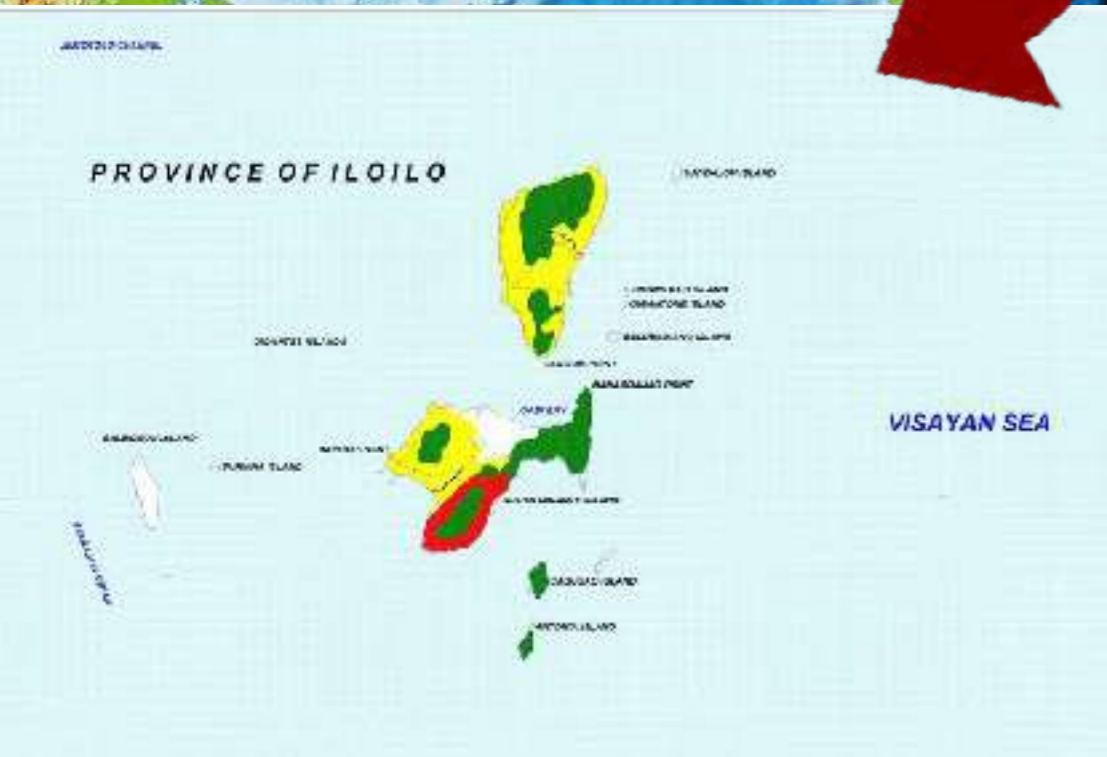
- Key informant interviews
- Focus group discussions
- direct observations and informal dialogues
- review of previous project reports



Locale of study: Gigantes Islands, Carles, Iloilo, Philippines



- **Gigantes Group of Islands** (composed of 2 main islands and 11 islets) is located in the municipality of Carles off the northwest tip of Iloilo Province, Central Philippines.
- Located **25 kilometers away from mainland Carles** and accessible through boats that ply the open waters of Visayas Sea (1.5 to 2 hours)
- Composed of Barangays Asluman, Granada, Gabi and Lantangan
- **Combined population** in Gigantes is 13,114 with 2,666 households; **Female: 6,279, Male: 6,839 (as of 2015)**.
- Home to endemic species of frog (*platymantis insulatos*) and lizard (*gecko gigantes*)





Locale of study: Gigantes Islands, Carles, Iloilo, Philippines



- “Gigantes Islands occupy a 5 km² area in the northwest corner of the Visayan Sea. Their waters are **one of the most productive fishing grounds** in the country, where small-scale fisheries contribute a large percentage to the fish catch” (Hermes et al. 2004 cited by Acabado, et.al, 2018).
- Fishery in Gigantes Islands include fish, shell, crab, squid, lobster and sea cucumber (using fishing gear catching squid, gill nets, gleaning, lines, traps, and other gear such as compressor dive, spear fishing, and trawl (FPE & ICODE, 2013)).
- On land, notable features such as limestone karst forests, caves, and white sand beaches provide higher potential for eco-tourism development (FPE & ICODE, 2013).

Risk Profile of Gigantes Islands, Carles, Iloilo, Philippines



- Livelihood is **heavily dependent upon fishing** and other fisheries-related trades
- Topography is dominated by steep karst limestones inhospitable to cultivation
- Average of **poverty incidence** is **80%**
- Considered as **geographically isolated and disadvantaged area (GIDA)**
- Farthest and poorest cluster of island barangays of Carles, Iloilo
- Health professional to population ratio: 1: 6,500
- Malnutrition rate (0-71 months old): 30%
- Dwindling supply of water during dry spell
- Age Dependency ratio: 71.23%
- Has 2 island high schools, 4 island elementary schools, 1 primary school and 4 day care centers.
- **70% of households** live within the **40-meter no build zone**

Women respondents

- Average household gross daily income (in PhP) 700.00 (13 USD)
- Major source of income of the majority - fishing, fish trading, scallop shucking &/trading
- Marital status of the majority - married with husbands mostly fishers, too.
- Number of school-aged children - 2 to 7 children
- Multiple roles:
 - household chores such laundry, cooking, etc.
 - child-care
 - financial manager
 - fisher
 - community roles (e.g., community health worker)
- One respondent started fishing at 11 years old; one has been fishing for 40 years
- Fishing as source of livelihood and provision for family's daily food.
- Helped husband in fishing to reduce labor costs



Women's roles in fishing

- Women who go with their husbands to fish usually are assigned to:
 - *Ariya lambat* - deployment of fish nets
 - *Hawið buya* - deployment of marker
 - “Lineman”
 - *Manugbatak/ ariya lambat* - loading and pulling out of fishnets
 - *Manugbira pundo* - deployment of boat anchors
 - *Manugbugsay* - paddling
 - *Manugsinsay* - multiple line fishing
- Gleaning
- Post harvest:
 - assigned in removing of scales from fish and salting of fish
 - *Manugtilang* - scallop shells schucking
- longest duration of fishing at the sea is from 4:00 AM to 2 PM *and* continues until there is enough catch to pay for the pump boat fuel

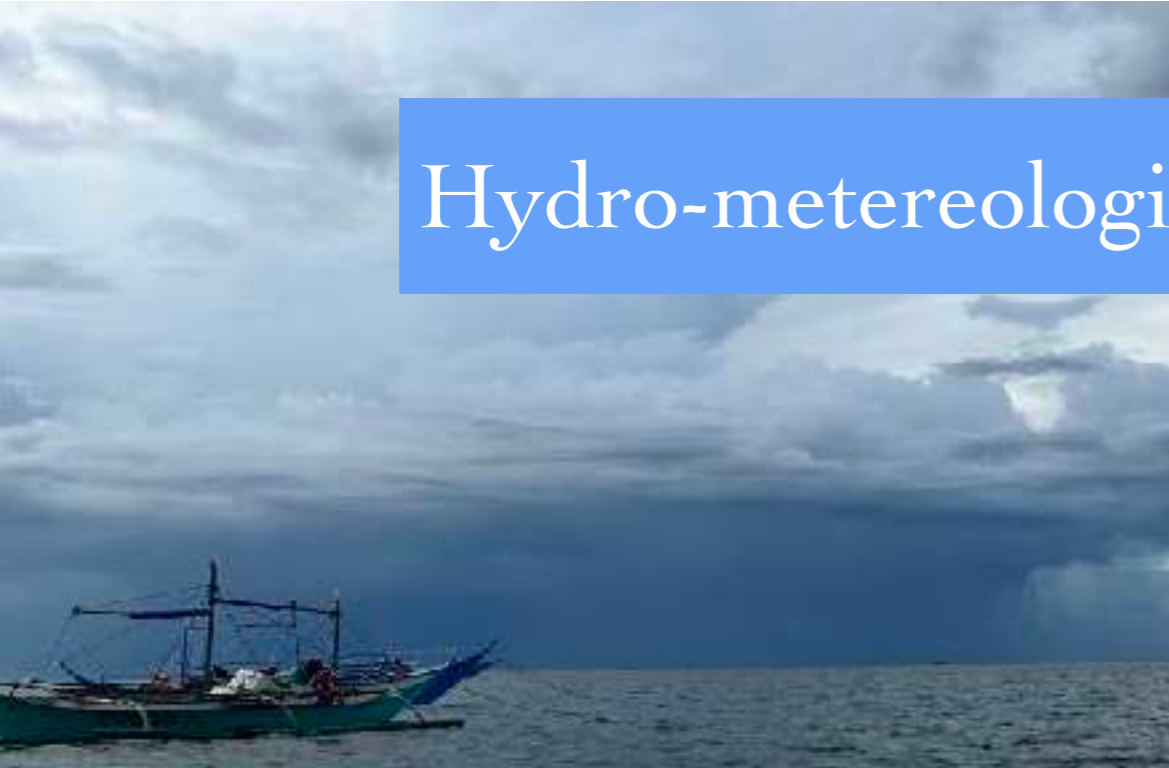


Hydro-meteorological hazards in small island communities

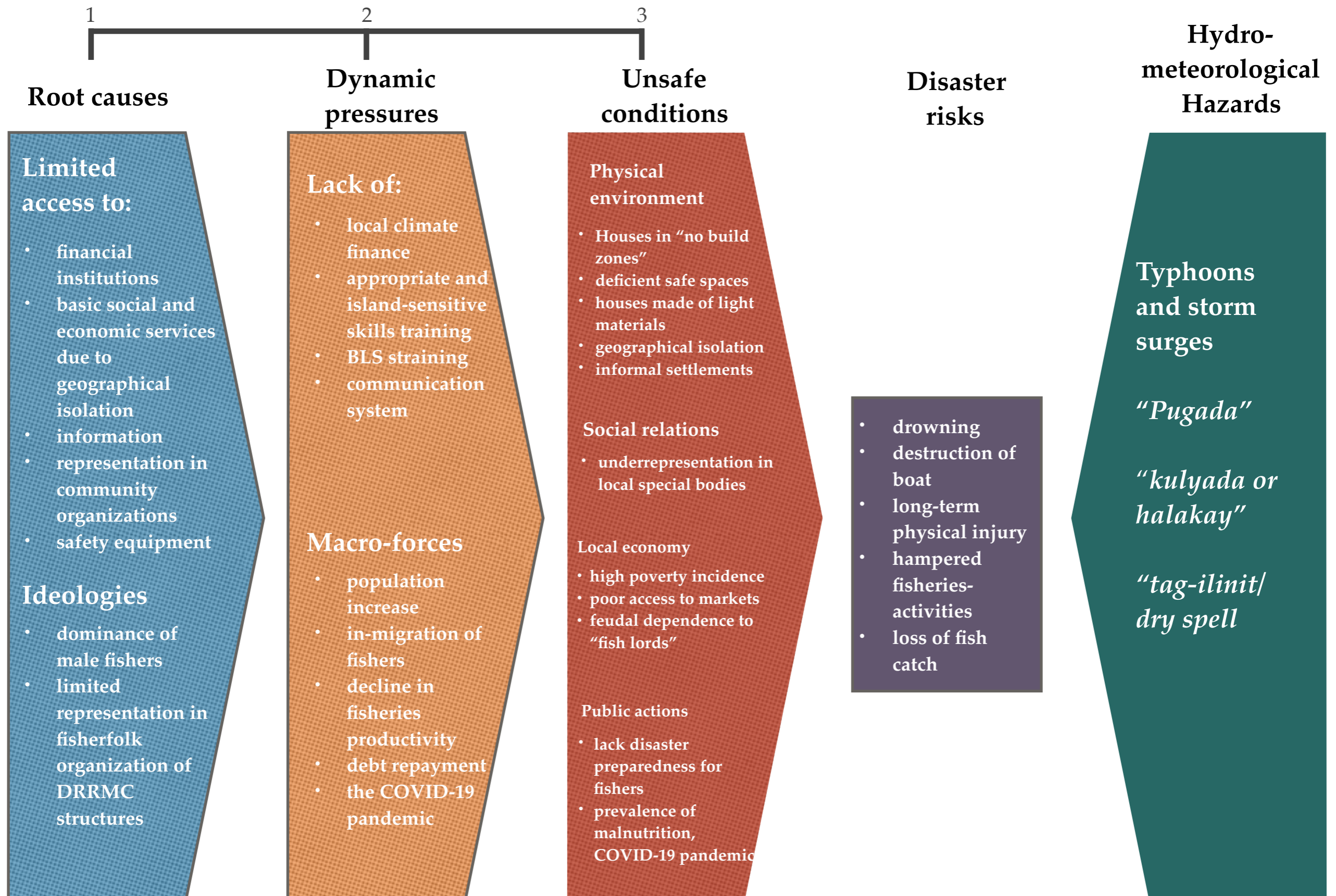
“HMHs are features of the earth system, which include the hydrological cycle, and the weather and climate system components. They are often associated with, or reliant on, each other, triggering another hazard in a cascading manner, which results in significant damage to societies and properties” (Mcbean, 2013)

In Gigantes Islands, they commonly experience...

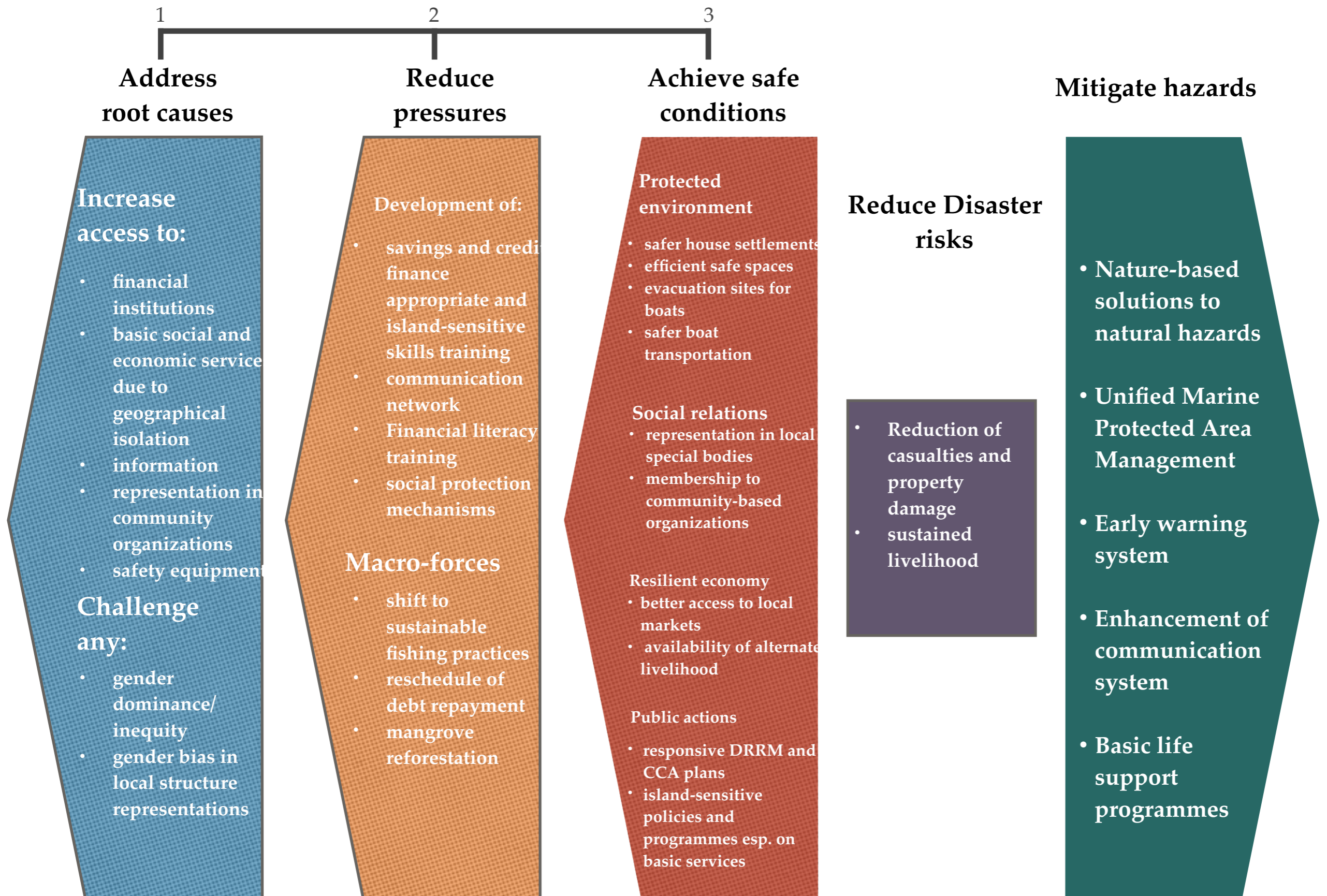
- **Typhoons and storm surges** - the strongest ones occur usually from October to December; *Typhoon Fensheng (2008)*, *Supertyphoon Haiyan (2013)*, *Typhoon Phanfone in (2019)*, *Typhoon ‘Odette’ (2021)*
- **“Pugada”** - sudden onset of strong winds mostly with lightning and rain and higher waves; formation of dark clouds; based on the surface of the sea, fishers know that there is a high possibility of pugada during “pataob” (going high tide); most frequent during monsoon seasons
- **“kulyada or halakay”** prolonged strong winds mostly with rain that lasts for days or weeks or months; occurs during monsoon seasons
- **“tag-ilinit”** (tagpamigado or lean season) - dry spell; during summer



Progression of vulnerability



Progression of safety



Way forward

- Moving beyond the recognition of roles of women fishers to fishing practices (Ferrer, 2022) as important considerations to achieving genuine fisheries development.
- Root causes of dynamic pressures that impede their safety and resilience should be addressed. In this way, their vulnerabilities to HMMs and other natural and anthropogenic hazards are reversed towards the achievement of their desired safety, sustainability, and resilience.
- Contribute to integrated frameworks to broaden the conceptual and analytical scope of study such as the intersectional lens (Galappaththi et al 2021)



Thank you!

