

Community Resilience and Livelihood Transition in the Central Coast of Vietnam

A Case Study in Thua Thien Hue Province

300,000 people rely on the largest lagoon system in Southeast Asia. Over the last decade, their world has been upended by compounding natural and human-induced shocks.

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Context and Problem Statement

Coastal communities are facing multiple and overlapping shocks

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- Study area
- Thua Thien Hue is one of the most climate-vulnerable coastal provinces in Central Vietnam.
- It is home to the Tam Giang–Cau Hai lagoon, the largest brackish lagoon system in Southeast Asia.
- Local livelihoods depend heavily on fisheries, aquaculture, small trade, wage labor, and seasonal migration.



A Decade of Compounding Shocks

The Insight: Human-induced systemic crises now outweigh localized natural weather events in perceived severity and livelihood disruption.

1

The 2016 Formosa Formosa Environmental Disaster

Mean Severity: 3.42

Human-induced industrial waste discharge. Deemed most severe, particularly by offshore and coastal fishing households.

2

COVID-19 Pandemic

Mean Severity: 3.16

Severe market and supply chain disruption, heavily impacting industrial and wage-labor households.

3

Chronic Stressors

Resource Depletion (2.97) & Natural Disasters (2.87)

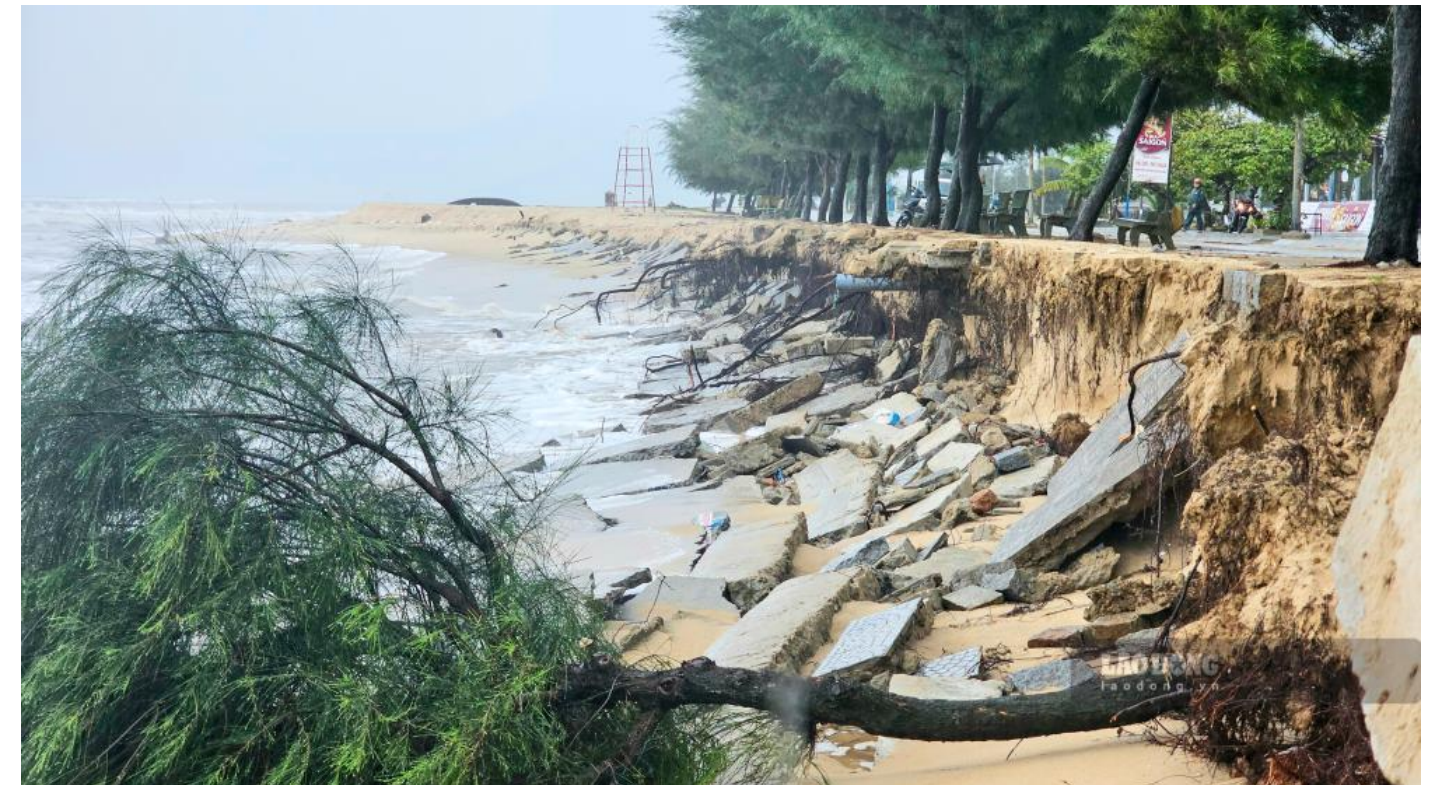
Gradual environmental degradation and acute localized weather events.

Major shocks affecting local livelihoods

- Environmental shocks: frequent typhoons, floods, coastal erosion, and sea-level rise.
- Industrial shock: the 2016 Formosa marine pollution disaster, which severely affected fishing activities, seafood markets, and household confidence.
- Economic shock: the COVID-19 pandemic, which disrupted tourism, mobility, jobs, and market access.

Core problem

- Coastal households are not exposed to just one shock at a time.
- Instead, they must continuously adjust their livelihoods under compound environmental and socio-economic pressures.



Research Objectives & Key Questions

Main objective

Analyze how coastal households transform livelihoods in response to environmental and socio-economic shocks, and what this means for adaptive capacity and resilience.

Key questions

- What patterns of livelihood transition emerge as long-term adjustment?
- How do different transition pathways affect household resilience?
- Do transitions reduce vulnerability—or shift risks to new areas (e.g., environment, market exposure)?

Conceptual Framework: Livelihood Transition

Beyond coping: two pathways of adaptation

1) Intra-sectoral (incremental)

Staying in the same sector, but changing “how”

- Change gear, target species, or fishing area
- Shift from capture to lagoon/nearshore aquaculture
- Adapt marketing channels (e.g., direct/online sales)
- Adjust labor within the household (seasonal or part-time)

2) Inter-sectoral (fundamental)

Leaving the original sector to start something new

- Move into wage labor (construction, factory, services)
- Start small trade or micro-business
- Switch to farming/livestock where feasible
- Tourism/service roles when markets are available

Focus: How do these shifts change future vulnerability and resilience—at both household and resource-system levels?

Methodology

Mixed-methods livelihood mapping

Household survey (n = 300)

Structured questionnaire on livelihoods, shocks, and perceived outcomes.

Participatory Rural Appraisal (PRA)

Community discussions, livelihood timelines, and local validation of changes.

Sampling: three functional zones

Thuan An (Estuary)

Intensive capture fisheries and fish trade.

Vinh Thanh (Coastal/Lagoon)

Nearshore fishing and lagoon aquaculture focus.

Phu Dien (Low-lying, more non-farm)

Higher share of non-agricultural income activities.

Timeline: Changes tracked from 2013 to 2025

Key Findings (1): Transformation Dynamics

Shocks drive diverse livelihood adjustments

Rate of fundamental change

24.6% of households changed their primary occupation (inter-sectoral shift).

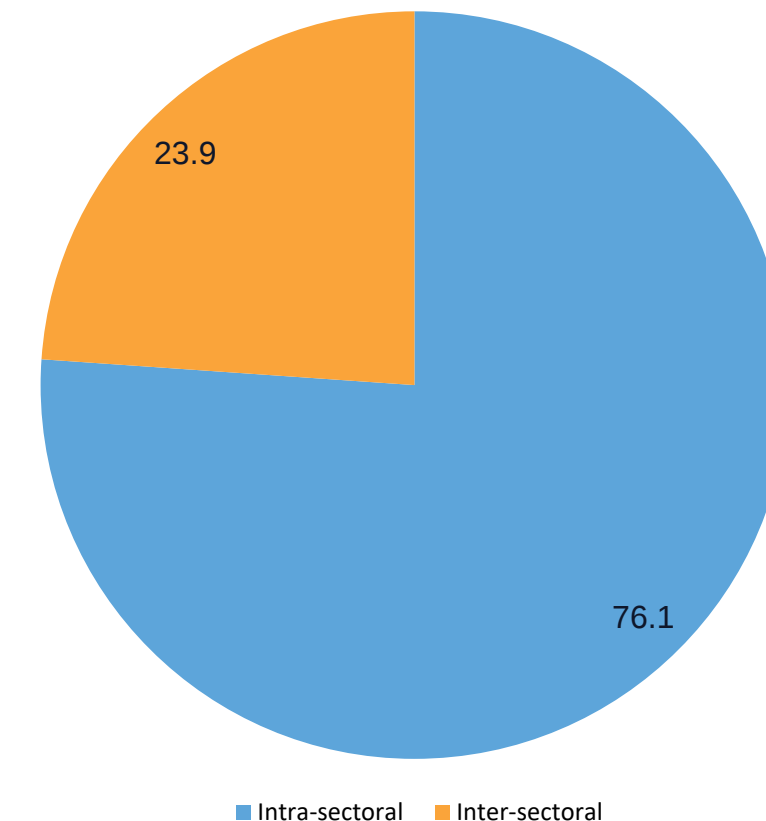
Most severe shock (perceived)

2016 Formosa incident rated highest severity (Mean = 3.42), often forcing radical adaptation.

Dominant pattern

Most change remained within fisheries: 76.1% of transformations were intra-sectoral.

Share of livelihood transformations within fisheries



Interpretation: Most households “stay” in fisheries, but adjust practices rather than exit.

Key Findings (2): Outcomes & Determinants

Recovery is perceived positively—yet sustainability risks remain

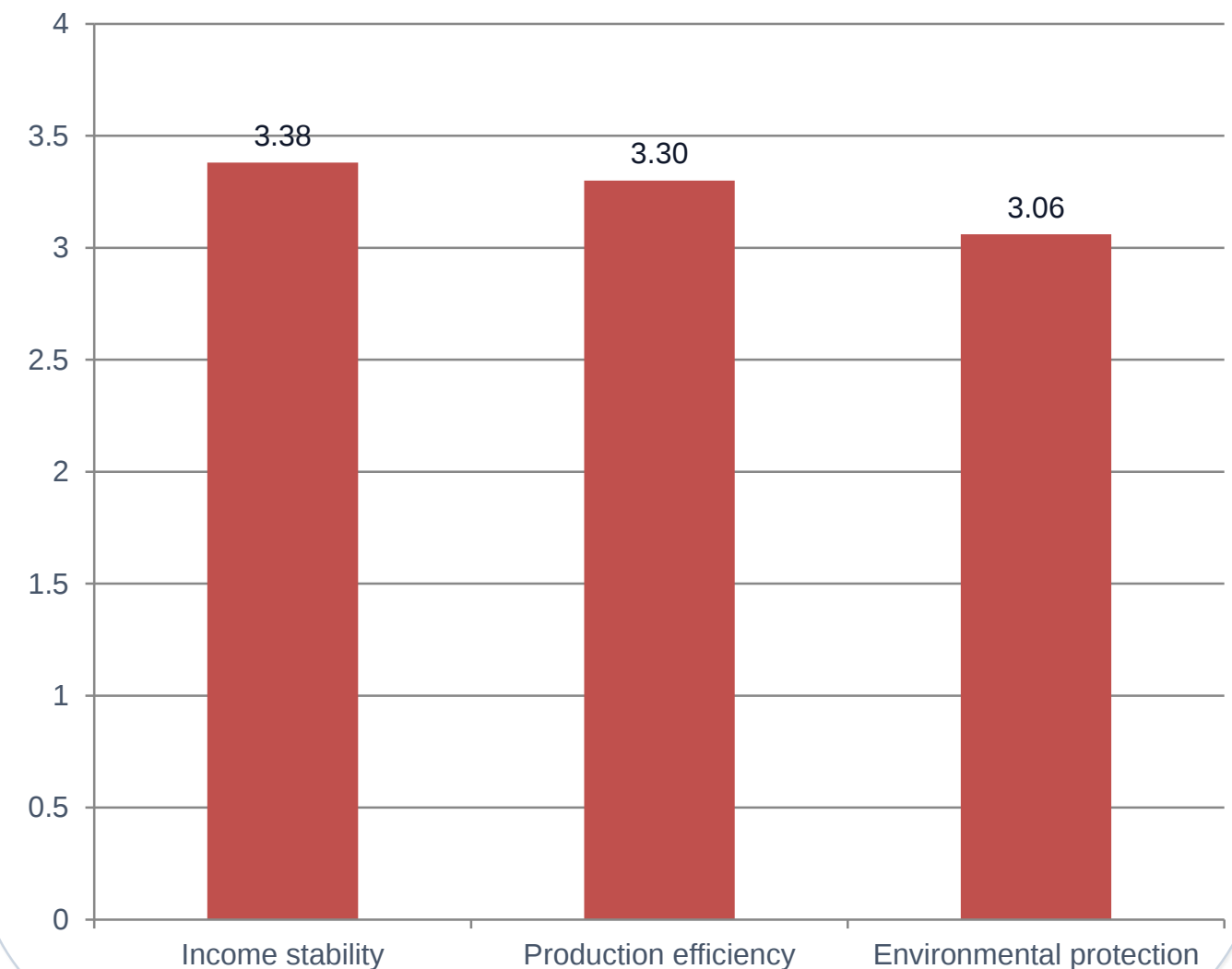
Determinants of more successful transition

- Higher educational level
- Local job availability
- Access to support programs
- Strong social networks

Key tension

Economic recovery can improve, while pressure on marine resources continues.

Perceived outcomes (mean scores)



Conclusions

Transformation: survival mechanism or path to sustainability?

1) Communities are resilient and dynamic

Households actively reconfigure livelihoods under repeated environmental and socio-economic shocks.

2) Transition is often reactive

Most livelihood changes are driven by short-term survival needs rather than long-term planning.

3) Structural dependence remains

Without support, many households stay tied to a single, vulnerable resource base (marine ecosystems).

Takeaway: Household resilience does not automatically translate into system sustainability.

Policy Implications

Systemic support for sustainable transitions

1. Targeted vocational training

Market-relevant skills beyond agriculture/fisheries (youth, women, vulnerable groups).

2. Improve access to finance

Lower barriers to preferential loans for diversification and transition costs.

3. Sustainable resource governance

Shift from open-access exploitation to co-management and public–private collaboration.

4. Integrated disaster planning

Early warning, community preparedness, and risk reduction linked to livelihood planning.

Goal: enable households to diversify in ways that are both resilient and environmentally sustainable.

Navigating the Next Storm

"Resilience is not just surviving the last disaster; it is having the capital, the skills, and the systemic capacity to navigate the next one."

