



(RESEARCH ARTICLE)



## Lived experiences of coastal residents towards governance insights

Bernales Kate Joules M \*, Biñas Kristine J, Pancho, Rene B and Arcega Ian B

*Capiz State University, College of Management, Roxas City, Capiz, Philippines.*

World Journal of Advanced Research and Reviews, 2026, 30(02), 1446-1456

Publication history: Received on 09 April 2026; revised on 17 May 2026; accepted on 19 May 2026

Article DOI: <https://doi.org/10.30574/wjarr.2026.30.2.1402>

### Abstract

Grounded in conditions of marginalization, coastal residents navigate everyday life amid uncertainty and vulnerability, yet with resilience, carrying both stories of hardship and hope. This study explored the lived experiences of coastal residents in Barangay Cogon, Roxas City, Capiz, to generate governance insights grounded in community realities. Guided by the socio-ecological systems framework and resilience theory, the research employs a qualitative phenomenological design to capture the experiences, challenges, and adaptive capacity of coastal residents. Data were gathered through in-depth, semi-structured interviews with coastal residents engaged in diverse livelihoods and analyzed using reflexive thematic analysis. Findings revealed that coastal residents experience constant exposure to environmental risks, which significantly disrupt their livelihoods and daily living conditions. Economic instability, characterized by low-income employment, limits their ability to meet basic needs, including food, education, and housing. Despite these challenges, residents demonstrate adaptive capacity through livelihood diversification, informal borrowing, reliance on social support systems, and the cultivation of endurance and faith. However, these adaptive capacities often remained short-term and reinforced cycles of vulnerability. The study further highlighted governance gaps, including weak policy implementation, limited access to services, and insufficient community participation, which contributed to a disconnect between formal governance interventions and lived realities. These findings underscore the importance of integrating local knowledge and lived experiences into policy-making processes. The study concluded that effective governance requires inclusive, responsive, and participatory approaches that address the multidimensional vulnerabilities of coastal residents while strengthening their adaptive capacities and long-term resilience.

**Keywords:** Adaptive Capacity; Coastal Residents; Challenges; Governance Insights; Lived Experiences

### 1. Introduction

Coastal communities serve as important spaces where people build their daily lives through strong social ties and dependence on marine resources. However, life in these settings is closely tied to the surrounding environment, shaping how residents conduct their routines, livelihoods, and interactions.

In the Philippines, 8.6 million people live in coastal zones due to the economic and environmental importance, yet these areas remain highly vulnerable to disasters, poverty, and environmental risks [1, 2]. Over 15 million people were displaced by disasters, particularly in coastal and low-lying areas, from 2020 to 2022 [3]. These vulnerabilities are heightened by poverty and ongoing dependence on coastal resources, which constrain communities' capacity for adaptation [4].

Fishing remains the main livelihood in many coastal communities; however, it is often unstable and linked to low income and limited access to basic services [5, 6]. To cope, residents adapt through strategies such as modifying fishing methods and using environmental signs to predict weather changes [7, 8]. In Barangay Cogon, residents also rely on small-scale

\* Corresponding author: Bernales Kate Joules M

trading, transportation, labor, and informal businesses, though these livelihoods are affected by market and environmental conditions. As a result, many coastal families depend on multiple income sources to meet their daily needs, reflecting the diverse and adaptive nature of coastal livelihoods [9, 10].

Despite existing governance frameworks such as the Local Government Code of 1991 and coastal management ordinances, challenges, including weak policy implementation, restricted resource access, and low community participation, continue to affect coastal residents. In Barangay Cogon, Roxas City, these realities highlight the need to understand how residents experience everyday life, confront challenges, and develop adaptive strategies within their social-ecological environment. Guided by Constructivism, the Socio-Ecological System Framework, and Resilience Theory, this qualitative study explored the lived experiences, challenges, adaptive capacities, and governance insights of coastal residents, aiming to inform more inclusive and sustainable coastal governance.

### **1.1. Statement of the Problem**

Specifically, it sought answers to the following inquiries:

- What are the lived experiences of coastal residents?
- What challenges emerge from the lived experiences of coastal residents?
- How do coastal residents adapt to the experiences within their socio-ecological context?
- What governance insights can be drawn from the lived experiences of coastal residents based on the results of the study?

---

## **2. Materials and Methods**

### **2.1. Research Design**

This study used a qualitative phenomenological approach grounded in constructivist viewpoints to explore and understand the lived experiences of coastal residents. The phenomenological design was appropriate for this study, as it sought to understand how individuals experienced, adapted to, and gave meaning to living in coastal, disaster-prone areas. Rather than measuring variables, the design focused on shared meanings and common patterns across participants' experiences. According to Berg, the phenomenological study method is a research method that refers to the meanings, conceptions, definitions, qualities, metaphors, symbols, and descriptions of objects [11].

### **2.2. Context of the Study**

This study explored the lived experiences, challenges, and adaptive capacities of coastal residents in Barangay Cogon, Roxas City, Capiz, to gain a comprehensive understanding of their needs and to inform the development of targeted interventions.

Barangay Cogon, Roxas City, Capiz, was selected as the study locale due to its coastal location and vulnerability to environmental hazards. According to the 2020 census, the barangay has a population of 2,204, representing 1.23% of Roxas City's total population. Situated approximately 3.5 meters above sea level, the community is highly susceptible to coastal flooding and storm surges, as evidenced by damages caused by high waves during disasters.

### **2.3. Participants of the Study**

The participants of this study were 18 coastal residents of Barangay Cogon whose daily lives and livelihoods are shaped by their proximity to the sea.

Participants were selected based on inclusion criteria to ensure relevance to the study. Eligible participants were coastal residents aged 18 or older who had lived in the community for at least 3 years and had experienced environmental risks such as flooding, storms, and coastal erosion. They also came from varied livelihood backgrounds affected by seasonal and economic conditions and belonged to households with dependents, allowing the study to capture household-level vulnerabilities. Only those who voluntarily agreed and provided informed consent were included.

Residents who did not meet these conditions were excluded, including those living outside coastal areas, individuals under 18, those with less than three years of residency, and those whose livelihoods were not affected by coastal or seasonal conditions. Individuals without household dependents were also excluded to maintain consistency in the analysis of household vulnerability patterns. In addition, a socio-demographic questionnaire was used to collect background information such as age, sex, education, civil status, household size, years of residency, employment, income

source, and weekly earnings. These data supported the interpretation of participants' lived experiences and emerging patterns in the study.

#### **2.4. Research Instrument**

The primary research instrument was a researcher-made semi-structured interview guide translated into Hiligaynon to ensure participant understanding. The instrument was validated by research experts for clarity, relevance, ethics, and alignment with the study objectives. One-on-one semi-structured interviews were conducted to explore the lived experiences, challenges, and adaptive capacities of coastal residents, while allowing for flexibility to address emerging themes. Interviews were held in private settings, audio-recorded with informed consent, and transcribed verbatim to ensure accurate and reliable analysis. Participants were fully informed about the study's purpose, procedures, risks, benefits, and their right to withdraw, while confidentiality and ethical research practices were strictly observed throughout the study.

#### **2.5. Data Analysis Procedure**

This study used Reflexive Thematic Analysis (Braun & Clarke, 2012), a flexible qualitative approach for identifying and interpreting recurring themes within participants' experiences [11]. Grounded in constructivist perspectives and a deductive theoretical approach, the method enabled the researchers to explore the lived experiences, challenges, and adaptive capacities of coastal residents. The analysis followed Braun and Clarke's systematic process: transcribing and translating interviews, familiarizing with the data, generating codes, developing and reviewing themes, and finalizing and interpreting the findings. Audio-recorded interviews were transcribed verbatim and validated by participants to ensure accuracy and credibility. This approach allowed the researchers to capture the lived experiences, challenges, and adaptive capacities of coastal residents in a structured yet in-depth manner, providing insights that support the development of responsive and sustainable interventions for coastal communities.

---

### **3. Results and Discussions**

#### **3.1. Lived Experiences of Coastal Residents**

Coastal residents described their lived experiences as survival-based, with safety and security constantly uncertain due to persistent exposure to environmental risks. Their daily lives are shaped by typhoons, flooding, and strong waves that repeatedly damage homes and disrupt routines, leaving them in a continuous state of vulnerability. Many participants viewed disasters as an unavoidable part of coastal living, recalling experiences of displacement, unsafe evacuations, and destruction during severe storms such as Typhoon Yolanda. A participant shared, "The storms are really intense. I can't even enter my house... it takes about a week before I can go back inside. Water and sand get in. What can we do? That's just how it is; we really can't do anything." Even residents living farther inland reported being affected by strong waves and flooding, showing that environmental hazards extend beyond the immediate shoreline. Although evacuation is a common response, participants also described challenges, including overcrowded or distant evacuation sites, flooded routes, and limited access to nearby safe shelters, highlighting gaps in disaster preparedness and infrastructure. These experiences are supported by the Intergovernmental Panel on Climate Change (2022), which notes that coastal communities are facing increased risks from storms, rising sea levels, and flooding, which threaten their homes and security [12]. Additionally, Nakamura and Llasat (2017) highlight that gaps in disaster responses, including shortages of evacuation centers, remain a contributing factor in experiences of coastal residents [13].

Fishing emerged as the primary source of livelihood and survival, supporting daily needs, children's education, and household expenses. Many participants acknowledged the importance of their proximity to the sea, as one of them noted, "Because of fishing, my children got to graduate." These findings are supported by the Food and Agriculture Organization (2022), which explains that small-scale fisheries play a crucial role in supporting food security, income, and education for millions of coastal families worldwide [14].

However, fishing also exposes households to periods of food scarcity and income loss during unfavorable weather, leading some families to rely on shared resources during shortages. A participant shared, "If there is fishing, then there is no hunger. But if there is no fishing, then hunger is inevitable." These experiences are supported by Muringai et al. (2019), who explain that the impacts of climate and weather are significant among small-scale fishers, and that, in the event of disruptions, residents experience food insecurity due to their reliance on daily income from fishing [15].

In many cases, fishing practices are passed down through generations, reflecting limited access to alternative education and employment opportunities and reinforcing long-term economic dependence on the sea. A participant expressed, "This is our life here, from the time we were young until now, fishing." At the same time, residents expressed a strong

attachment to their homes, explaining that relocation is constrained by financial constraints, a lack of alternative skills, insecure land tenure, and emotional ties to the community. Many stated that they have no other place to go, while others highlighted informal settlement arrangements that further restrict mobility. This combination of economic dependence and place attachment makes relocation both impractical and emotionally difficult. The intergenerational nature of fishing reflects findings by Finkbeiner and Basurto (2015), who noted that fishing skills and livelihoods are often passed down within coastal families [16]. Additionally, Adger et al. (2016) & McMichael et al. (2019) explained that poverty, resource dependence, and insecure housing often prevent coastal households from relocating to safer areas [17].

Beyond material conditions, coastal residents also experience significant psychological strain due to financial instability and environmental uncertainty. Participants described feelings of fear, stress, and helplessness during storms, health emergencies, and periods of no income. However, this emotional strain coexists with a contrasting perception of the sea as a source of comfort and relief, where calm conditions provide opportunities for rest, healing, and improved well-being. This dual relationship reflects the complex emotional connection between residents and their environment, where the same natural setting that generates risk also offers restoration. Cooper and Stewart (2017) explained that when households experience uncertainty, they may find it challenging to meet their basic needs, which can cause stress and anxiety, affecting individuals' ability to fulfill their duties effectively [18]. Similarly, Lund et al. (2018) highlight the effects of shocks like illness, accidents, or loss of income worsen household poverty and psychological stress [19]. On the other hand, White et al. (2020) suggested that engaging in coastal environments can improve physical health, reduce stress, and support emotional well-being [20].

In addition to these experiences, Participants further expressed dissatisfaction with government services, citing an unequal and inconsistent distribution of assistance, favoritism, political influence, and unfulfilled promises. As a result, government assistance is viewed as both helpful and unreliable, with short-term relief failing to address long-term needs. One of the participants shared, "Even if your home is destroyed, you cannot avail of help. In terms of emergencies, the government can assist, but when it comes to damaged homes, like if your house is ruined, you still cannot receive aid." Over time, these experiences have also contributed to declining trust in government institutions, as participants expressed frustration over unmet promises, delayed support, and perceived unfairness, leading many to rely more on self-help and community-based coping strategies. In the Philippines, Porio (2023) pointed out that the quality of disaster response and social protection programs is hampered by politicization, weak targeting, and uneven distribution [4].

Overall, the lived experiences of coastal residents reflect the interplay of environmental vulnerability, livelihood insecurity, restricted mobility, psychological strain, and institutional gaps. Although fishing remains the primary source of livelihood and sustains daily household needs, it is highly seasonal and weather-dependent, making income unstable and insufficient for long-term economic security. As a result, many households rely on informal and low-paying work, borrowing practices, and shared family labor to cope with recurring shortages and financial hardship, reinforcing economic dependence and limiting opportunities for upward mobility. Strong place attachment limits relocation, while inconsistent and politicized governance weakens trust and reduces the effectiveness of support systems. Guided by the Socio-Ecological Systems Framework, these findings highlight how environmental, economic, and institutional factors collectively shape coastal life. Strengthening inclusive governance and aligning interventions with Sustainable Development Goals 8 (Decent Work and Economic Growth) and 10 (Reduced Inequalities) are essential to enhance resilience and ensure that coastal communities are not left behind.

**Table 1** Lived Experiences of Coastal Residents

Major Themes	Emerging Themes	Description	Narrative	Frequency
	Living with Constant Coastal Risks	Repeated exposure to typhoons, flooding, and storm surges damages homes, disrupts daily life, and forces frequent evacuations, making risk a normal part of coastal living.	P1: "The storms are really intense. I can't even enter my house".	5 (P1, P3, P6, P12, P13,)
	Livelihood Survival	Fishing remains the main livelihood and food source, but unstable income forces residents to work long hours, diversify	P2: "When we are able to fish again and the catch is good, we	13 (Except P1, P9, P10, P12, and P16)

		livelihoods, and continue fishing across generations.	<i>manage to pay off our debts."</i>	
	Limited Mobility Due to Place Attachment	Poverty, place attachment, and insecure housing limit relocation, leaving many residents in hazard-prone coastal areas with few alternatives.	P12: <i>We have no other place to go."</i>	8 (P1, P2, P3, P4, P12, P14, P17, P18)
Lived Experiences of Coastal Residents	Psychological Strain vs. Source of Comfort	Financial hardship and disaster risks create stress and emotional exhaustion, although the sea also provides comfort and a sense of relief during calm conditions.	P16: <i>"When my wife had an accident, I feel like surrendering. My head aches."</i>	3 (P10, P16, P18)
	Inequity and Inefficiency in Service Delivery	Respondents viewed government services as unequal, inconsistent, and influenced by favoritism and political bias.	P6: <i>When it comes to assistance, we are not included."</i>	7 (P2, P4, P6, P11, P12, P13, P14)
	Unreliable Government Assistance	Government assistance was unevenly distributed, though some residents received rice subsidies and aid programs.	P13: <i>"I really haven't received much from the government in terms of assistance."</i>	8 (P1, P5, P7, P8, P9, P13, P15, P16)
	Lack of Trust and Credibility in Government Institutions	Participants expressed growing disappointment, skepticism, and declining trust in government institutions.	P18: <i>"There really isn't anything, just empty promises."</i>	2 (P3, P18)

### 3.2. Challenges emerged from the lived experiences of Coastal Residents

Coastal residents in Barangay Cogon, Roxas City, Capiz, experience persistent and interconnected challenges driven by environmental hazards and economic instability. Frequent typhoons, flooding, and storm surges regularly disrupt daily life, damage homes, and threaten safety. These environmental risks directly affect fishing activities, which are the primary source of livelihood for the community. Because fishing is highly dependent on weather conditions, income becomes irregular and often stops entirely during rough seas or extreme weather events, leaving households with little to no financial support. A participant explained, "It is difficult when... when there are waves and storms, then we cannot fish, it's hunger, we cannot go out to sea." In response to these unstable conditions, residents engage in a range of informal, low-paying livelihood activities, including sari-sari store vending, laundry work, construction labor, tricycle driving, and fish drying. However, these alternative sources of income remain inconsistent and insufficient to cover basic household needs. One of the participants shared, "It is truly difficult. It is very difficult because, of course, my work was only doing laundry. Before, my husband was just a tricycle driver. The income was just so small." Even when residents attempt to diversify their livelihood strategies, earnings remain low due to limited local economic opportunities and the informal nature of their work. As a result, many families depend on multiple small and unpredictable income sources, which still fail to ensure financial stability. These challenges are validated by Saha et al. (2024), who highlighted that coastal households are highly vulnerable due to their dependence on climate-affected sources, with exposure to seasonal conditions directly undermining fishing activities [21]. While residents diversify into small businesses, construction, or informal work, these sources remain irregular and insufficient to sustain household needs [22].

Financial hardship further intensified the vulnerability of coastal residents, affecting food security, utilities, healthcare, and the ability to support large families. One participant explained, "Sometimes, you return home without catching anything, leaving you with no means to buy rice." In addition, participants shared experiences of delayed electricity payments, borrowing money during periods of no income, and struggling to provide food and medical needs for household members. Despite continuous labor, income often remained insufficient to meet daily expenses, particularly during disasters or emergencies. These challenges are further supported by Daza (2021) and Sussman et al. (2022), who state that financial hardship in coastal communities is compounded by recurring disasters, unstable income, and limited access to essential services, making short-term aid insufficient [23, 24]. As a result, households facing financial shortages often sacrifice medical care and utilities to prioritize food. This underscores that financial hardship is

multidimensional, affecting food, health, and basic services, and requires sustainable government interventions rather than temporary relief.

These economic difficulties contribute to broader social consequences, particularly in education and health, further deepening the vulnerability experienced by coastal households. Financial hardship often limits parents' ability to provide daily school allowances, transportation, school materials, and other educational needs, resulting in school absences, disrupted learning, and reduced participation among children. In some cases, children are compelled to assist in fishing, fish drying, or household labor to help sustain family income, placing additional pressure on their education and well-being. According to Subade et al. (2023), financial hardship, particularly during crises, compels children to engage in fishing or household labor, further interrupting their education and overall well-being [25].

At the same time, adults in coastal communities are exposed to physically demanding, labor-intensive work that requires long hours under harsh, unpredictable environmental conditions. Fishing, fish processing, construction work, and other informal occupations expose residents to physical exhaustion, sleeplessness, stress, illness, and heightened vulnerability to accidents and declining health. One participant recalled working almost continuously in fish packing activities, stating, "We would only sleep for an hour... it was really exhausting." Others associated aging, illness, and unexpected emergencies with reduced work capacity and greater financial strain, although some residents normalized continuous labor as necessary for survival and maintaining physical strength. These experiences illustrate how livelihood activities not only sustain households but also place considerable physical and emotional burdens on residents, particularly when limited income compels them to continue working despite exhaustion or poor health. Existing studies by Laraqui et al. (2023), Ogendi et al. (2019), Zytoon and Basahel (2017), and Dalisay (2025) similarly emphasized that coastal livelihoods expose residents to occupational fatigue, psychological stress, accidents, and long-term health risks associated with physically demanding labor and environmental exposure [26, 27, 28, 29].

Residential insecurity further intensifies the vulnerability of coastal residents, as many participants experienced flooding, storm surges, damaged homes, and repeated displacement during typhoons and extreme weather events. Residents described evacuating to overcrowded or distant evacuation centers, rebuilding homes after disasters, and enduring unsafe housing conditions within hazard-prone coastal areas. Others acknowledged living in informal settlements with insecure land tenure, which limits their ability to invest in safer, more permanent housing. Over time, these conditions reinforce long-term instability, as households are unable to achieve safety, financial security, or improved living conditions. These challenges are supported by Walker et al. (2025) and Isabedra (2020) who similarly explained that repeated disasters, displacement, and inadequate housing conditions contribute to long-term residential insecurity in coastal communities [30, 31].

Overall, these interconnected challenges demonstrate a cycle of vulnerability in which livelihood instability, financial hardship, educational disruption, health strain, and residential insecurity continuously reinforce one another, leaving coastal residents highly exposed to environmental risks and economic uncertainty. Although residents continue to endure and adapt through continuous labor, livelihood diversification, and family support systems, these strategies often remain centered on survival rather than long-term stability and upward mobility. In line with Sustainable Development Goal 8 (Decent Work and Economic Growth), there is a need to strengthen access to stable, sustainable, and decent livelihood opportunities beyond seasonal and informal labor to improve economic security among coastal households. At the same time, these findings align with Sustainable Development Goal 10 (Reduced Inequalities), emphasizing the importance of reducing the social and economic vulnerabilities experienced by marginalized coastal communities through equitable access to education, healthcare, disaster assistance, housing support, and inclusive social protection programs that promote long-term resilience and social inclusion.

**Table 2** Challenges Emerged from the Lived Experiences of Coastal Residents

Major Theme	Emerging Themes	Description	Narrative	Frequency
	Unstable Livelihood	This characterizes the livelihood of coastal residents as weather-affected, uncertain, and unstable.	P10: <i>"If it keeps raining, and the weather is bad, we have no income because there is no work."</i>	9 (P1, P5, P6, P10, P11, P12, P13, 15, P16)
	Financial Hardship	Coastal residents find the situation overwhelmingly challenging with how their	P18: <i>"There are many hardships, truly, life is very difficult. Sometimes, you</i>	5 (P11, P15, P16, P17, P18)

		income is not enough to sustain their daily needs and food consumption.	<i>return home without catching anything, leaving you with no means to buy rice."</i>	
Challenges of Coastal Residents	Educational Disruption and Child Welfare	With the challenges in environmental risk exposure and finances, children's education and welfare in the coastal community is disrupted.	P3: <i>"It's really difficult, because we truly cannot manage. It's really hard. We don't even have anything to give for allowance, no money at all."</i>	2 (P3, P5)
	Embodied Health Strain	Beyond economic challenges, coastal residents often felt physical exhaustion that leads to health strain.	P7: <i>"You can't work hard when your condition is already weak or fragile. You can't really manage, so it's truly hard."</i>	5 (P2, P4, P7, P16, P18)
	Residential Insecurity	Access to safe and stable housing and secure land are seen to be a challenge by the coastal residents.	P14: <i>"When there is a typhoon, it is difficult. Our house was even destroyed. It was flooded."</i>	5 (P2, P5, P13, P14, P16)

### 3.3. Adaptive Capacity of Coastal Residents within their Social-Ecological Context

Amid compounded environmental risks and economic difficulties, coastal residents in Barangay Cogon, Roxas City demonstrate adaptive capacity shaped by their lived realities of typhoons, flooding, storm surges, and unstable livelihoods. These adaptive capacities are reflected in endurance, faith, livelihood diversification, reliance on borrowing, and strong family- and community-based support systems, which collectively enable residents to cope with unstable, unpredictable conditions.

Despite these hardships, coastal residents exhibit internal strength rooted in endurance, acceptance, and faith. Participants explained that environmental risks, unstable livelihoods, and financial insecurity are not temporary disruptions but normal conditions that must be endured to survive. Others rely on religious faith and prayer as an adaptive capacity when conditions become overwhelming, using spirituality to maintain emotional stability and hope. At the same time, some participants report that despite years of effort and adaptation, their overall situation has remained largely unchanged, suggesting that while these internal strategies sustain daily survival, they do not necessarily lead to long-term improvement. Instead, endurance and normalization of hardship function as immediate coping strategies that help residents persist amid uncertainty. These findings support the Resilience Theory of Rutter (1987) and the work of Lazarus and Folkman (1984), which emphasize endurance and emotional regulation as important coping mechanisms under stress [32, 33].

To adapt with unstable fishing income, residents engage in alternative livelihoods such as small-scale trading, construction work, and temporary labor, reflecting continuous efforts to meet household needs despite limited employment opportunities and low educational attainment. These findings align with Panella and Elazegui (2015) and Duce (2015), who emphasized livelihood diversification as an important adaptive strategy in hazard-prone coastal communities [34, 35]. When income becomes insufficient, borrowing from informal lenders, relatives, or neighbors becomes a necessary survival mechanism for food, education, and emergencies, although it also reinforces debt and long-term financial vulnerability. Similar findings were identified by Pomeroy et al. (2020), Xavier et al. (2015), and Yuan et al. (2024), who noted that informal borrowing is a common coping strategy among small-scale fishing households facing economic instability [25, 36, 37].

Beyond individual strategies, adaptive capacity among coastal residents is deeply rooted in family and community-based support systems. Participants emphasized that survival is sustained through shared labor, resource distribution, and mutual assistance among relatives, neighbors, and community members. Household members, including children, contribute to livelihood activities such as fishing and fish drying to supplement income, while community cooperation provides emotional and practical support during hardship. Juang (2024) similarly identified social capital and kinship ties as critical elements of resilience, while Jozaei (2018) emphasized that communities often compensate for limited institutional support through collective labor and resource sharing [38, 39]. Overall, adaptive capacity within the community emerges as a multi-layered process shaped by the interaction of individual coping, livelihood strategies,

borrowing practices, and strong social networks. While these strategies enable residents to endure daily challenges, they also reveal persistent structural vulnerabilities that constrain long-term security and upward mobility.

**Table 3** Adaptive Capacity of Coastal Residents within their Social-Ecological Context

Major Themes	Emerging Themes	Description	Narrative	Frequency
	Internal Strength as Adaptive Capacity	Participants narrate their experiences in a manner that reflects endurance, acceptance, and faith as intertwined aspects of their daily existence.	P11: <i>Of course, I am used to it, since childhood, I am used to hardship, I am also used to whatever there is, endure it, be thankful.</i>	11 (P1, P2, P3, P4, P5, P6, P10, P11, P15, P16, P18)
Adaptive Capacity of Coastal Residents within their Social-Ecological Context	Livelihood Diversification as Adaptive Capacity	Determined residents don't stop looking for ways to earn a living. This shows a relentless effort to sustain households amid uncertainty.	P1: <i>"I go out and look for opportunities, doing small trading."</i>	4 (P1, P9, P15, P18)
	Reliance on Borrowing for Survival	Borrowing is a major survival tool for many coastal residents, who are constantly vulnerable to economic hardships.	P3: <i>"We borrow because if we don't borrow, then we really have nothing."</i>	5 (P1, P2, P3, P5, P11)
	Family and Community-Based Support System	Adapting in coastal communities is not just about the individual; it is significantly shaped by relationships. People living in these areas depend heavily on family and community support, making survival a collective effort.	P2: <i>"You know... sometimes... even in the current state of my grandchildren, they already help with fishing. That's what they earn, and they don't have to steal."</i>	6 (P2, P5, P7, P8, P11, P13)

#### 4. Conclusions

Living in a coastal community exposes residents to recurring environmental risks such as storms, flooding, and strong waves, which have become normalized aspects of daily life. Despite recognizing these dangers, coastal residents remain due to strong place attachment, dependence on marine resources, limited livelihood alternatives, and a lack of capacity to relocate. This results in a dual situation where residents endure hazardous conditions while relying on the same environment for survival. Although they demonstrate resilience, these conditions impose significant physical, emotional, and psychological burdens that are often internalized to supplement household needs.

These lived experiences give rise to interconnected challenges, particularly unstable livelihood, financial hardship, health strain, educational disruption, child welfare, and residential vulnerability. Fishing and other livelihoods of the residents are highly dependent on season and availability of opportunities, leading to unstable and insufficient earnings. Even with livelihood diversification, income remains low and irregular, making it difficult to meet basic needs, support education, and recover from disaster-related losses. This further contributes to intergenerational poverty and forces both men and women to engage in physically exhausting work despite health risks.

Government support, while present, is often perceived as temporary, inconsistent, and inequitably distributed, leading to reduced trust in institutions and increased reliance on self and community-based coping mechanisms. Coastal residents display adaptive capacity by enduring hardships, borrowing money, and relying on diversified labor and

family support, but these primarily short-term strategies may perpetuate long-term financial strain, especially through debt.

Overall, the study concludes that the realities of coastal residents are shaped by the intersection of environmental vulnerability, economic instability, and governance gaps. While adaptive capacity is evident, it remains insufficient to overcome systemic challenges. Addressing these issues requires sustainable, inclusive interventions that strengthen livelihoods, enhance disaster preparedness, ensure equitable governance, and improve access to basic services, thereby achieving long-term resilience and a higher quality of life.

---

## Compliance with ethical standards

### *Acknowledgments*

The authors sincerely acknowledge and extend their gratitude to all individuals and institutions who contributed to the completion of this study, particularly the participants, families, panel experts, Barangay officials, and the university, whose support, guidance, and cooperation made this research possible.

### *Disclosure of conflict of interest*

The authors declare no conflicts of interest regarding the publication of this paper.

### *Statement of ethical approval*

This study adhered to ethical standards to protect the participants' rights, privacy, and well-being. Formal approval was secured from the Dean of the College of Management and the Barangay Captain of Barangay Cogon, Roxas City, Capiz prior to data collection. Informed consent was obtained from all participants after explaining the study's objectives, methods, possible risks, and benefits. Participation was voluntary, and participants were free to refuse or withdraw at any stage without consequences.

### *Statement of informed consent*

Confidentiality and anonymity were strictly observed. No identifiable personal information was disclosed, and all data were securely stored and permanently disposed of after completion of the study in compliance with Republic Act No. 10173, or the Data Privacy Act of 2012. Researchers also ensured a respectful and supportive interview environment to minimize discomfort.

### *Data presentation*

During the preparation of this manuscript, Grammarly, ChatGPT, Microsoft Copilot, and Perplexity were used for grammar checking and literature assistance. All information, citations, and sources were reviewed and verified, and the authors take full responsibility for the content of this publication.

---

## References

- [1] Arcilla RV, Arcilla MC. Livelihood vulnerability to the hazards of climate change among coastal communities in Virac, Catanduanes. *J Environ Sci Manag.* 2023;26(1):45–62.
- [2] International Organization for Migration. Coastal populations and migration patterns in the Philippines. Manila: IOM Philippines; 2021.
- [3] Climate Tracker Asia. Displacement by disasters in coastal areas: 2020–2022. Climate Tracker Asia; 2025.
- [4] Porio E. Coastal vulnerabilities and governance challenges in the Philippines. *Philipp Sociol Rev.* 2023;71:123–45.
- [5] Israel DC, Banzon CC. Fishing livelihoods instability and basic services access. Philipp Inst Dev Stud Discussion Paper Series No. 1998-12. Quezon City: PIDS; 1998.
- [6] Labayo RD, Prea J. Socioeconomic conditions of fishing households in Albay Gulf. *J Fish Aquat Sci.* 2021;16(3):123–39.
- [7] Monsanto DLE, Panela MJT. Changing fishing methods and weather prediction in coastal communities. *J Coast Res.* 2023;39(4):567–82.

- [8] Corro EJ, Monsanto DLE. Weather prediction from environmental changes in fishing communities. *J Coast Res.* 2024;40(2):345–59.
- [9] Mabanta ML. Low productivity and financial challenges in fishing households. *Philipp J Agric Econ.* 2021;25(2):67–85.
- [10] Asong ZC, Israel DC, Banzon CC. Coastal families and multiple income sources. *Philipp J Dev.* 2002;29(1):89–112.
- [11] Berg BL. *Qualitative research methods for the social sciences.* 6th ed. Boston (MA): Pearson; 2007.
- [12] Braun V, Clarke V. Thematic analysis. In: Cooper H, Camic PM, Long DL, Panter AT, Rindskopf D, Sher KJ, editors. *APA handbook of research methods in psychology.* Vol. 2. Washington, DC: American Psychological Association; 2012. p. 57–71. doi:10.1037/13620-004.
- [13] Intergovernmental Panel on Climate Change. *Climate change 2022: Impacts, adaptation, and vulnerability.* Geneva: IPCC; 2022.
- [14] Nakamura H, Llasat MC. Disaster response gaps in coastal communities. *Nat Hazards.* 2017;85(1):345–62.
- [15] Food and Agriculture Organization. *The state of world fisheries and aquaculture 2022.* Rome: FAO; 2022.
- [16] Muringai RT, Xavier GF, Pomeroy R. Climate impacts on small-scale fishers. *Fish Fish.* 2019;20(5):890–905.
- [17] Finkbeiner EM, Basurto X. Intergenerational transmission of fishing skills. *Hum Ecol.* 2015;43(3):415–27.
- [18] McMichael C, Dasgupta S, Adger WN. Informal coastal settlements and relocation challenges. *Glob Environ Change.* 2019;59:101987.
- [19] Cooper D, Stewart K. *Does money affect children’s outcomes?* York: Joseph Rowntree Foundation; 2017.
- [20] Lund C, Brooke-Sumner C, Baingana F. Economic shocks and psychological stress in vulnerable households. *Soc Sci Med.* 2018;203:1–9.
- [21] White MP, Alcock I, Grellier J. Coastal environments and mental well-being. *Sci Rep.* 2020;10(1):1940.
- [22] Saha SK, Mohammed EY, Allawan AJ. Climate-affected coastal livelihoods and vulnerability. *Mar Policy.* 2024;161:105987.
- [23] Mohammed EY, Saha SK, Allawan AJ. Irregular income sources in coastal livelihoods. *Ocean Coast Manag.* 2023;238:106589.
- [24] Daza M. *Long-term needs of coastal communities during COVID-19.* Manila: Philippine Disaster Resilience Foundation; 2021.
- [25] Sussman F, Daza M, Rafon RC. Financial hardship in Philippine coastal communities. *Disaster Prev Manag.* 2022;31(4):456–72.
- [26] Subade MS, Pelayo RE, Liana MA. Financial hardship and child welfare in coastal households. *Child Youth Serv Rev.* 2023;145:106789.
- [27] Laraqui CH, Caubet A, Soulaymani A. Occupational health risks among fishermen. *Int Marit Health.* 2023;74(1):45–56.
- [28] Ogendi J, Herath G, Kotagama H. Respiratory problems associated with coastal living. *Environ Health.* 2019;18(1):45.
- [29] Zytoon MA, Basahel AM. Occupational burnout and fatigue among fishermen. *Int J Ind Ergon.* 2017;62:1–10.
- [30] Dalisay SN. Women fisherfolk and health strain in coastal communities. *Gender Place Cult.* 2025;32(4):512–30.
- [31] Walker J, Isabedra JM, Marcos RC. Repeated displacement and housing insecurity after disasters. *Int J Disaster Risk Reduct.* 2025;98:104123.
- [32] Isabedra JM. Vulnerability assessment of coastal households in Oriental Mindoro. *J Coast Conserv.* 2020;24(4):1–15.
- [33] Rutter M. Psychosocial resilience and protective mechanisms. *Am J Orthopsychiatry.* 1987;57(3):316–21. doi:10.1111/j.1939-0025.1987.tb00041.x.
- [34] Lazarus RS, Folkman S. *Stress, appraisal, and coping.* New York: Springer; 1984.
- [35] Panela LM, Elazegui D. Layered adaptive capacity in coastal households. *Clim Dev.* 2015;7(4):345–59.

- [36] Duce S, Pomeroy R, Barclay RC. Livelihood diversification in rural coastal communities. *Mar Policy*. 2015;58:89–98.
- [37] Xavier GF, Muringai RT, Pomeroy R. Normalizing recurring hazards in Philippine coastal communities. *Disasters*. 2015;39(4):678–95.
- [38] Yuan Y, Crona B, Nyström M. Coping strategies in small-scale fisheries households. *Mar Policy*. 2024;161:105987.
- [39] Juang PS. Social capital as major factor in fishing communities' climate adaptation. *Dev Res J*. 2024;12(1):34–52.
- [40] Jozaei F, Berhithu TB, Galappaththi EK. *Social vulnerability and social-ecological resilience in coastal areas*. Lincoln: University of Nebraska-Lincoln; 2018.