International Journal of Innovative Research and Scientific Studies, 8(3) 2025, pages: 4764-4774

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

Enhancing coastal resilience through policy implementation and community empowerment

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Abstract

This study aims to examine the implementation of coastal policies and community empowerment in Simeulue Regency, a remote island area in Indonesia, in order to strengthen coastal resilience amid socioeconomic and environmental challenges. Using a qualitative approach with descriptive-analytical methods, the study explores policy execution and empowerment practices through in-depth interviews, focus group discussions, and document analysis involving local stakeholders such as government officials, coastal communities, and private sector actors. The findings reveal that policy implementation is hindered by regulatory misalignment between national, provincial, and district governments, weak inter-agency coordination, limited infrastructure, and low community participation. Empowerment programs, while targeting key sectors such as fisheries, marine-based industries, and tourism, often fail to address local needs due to top-down planning and inadequate stakeholder collaboration. Strengthening coastal resilience in Simeulue requires inclusive governance, enhanced coordination among government levels, and stronger community-driven empowerment models supported by infrastructure investment and access to technology and education. The study provides actionable insights for policymakers and development practitioners to design more adaptive and participatory coastal development frameworks. Integrating local knowledge, improving inter-sectoral synergy, and fostering multi-stakeholder partnerships are critical to sustaining community empowerment and resilience in remote island regions.

Keywords: Coastal resilience, Community empowerment, Participatory governance, Policy implementation, Simeulue, Sustainable development.

DOI: 10.53894/ijirss.v8i3.7609
Funding: This study received no specific financial support.
History: Received: 15 April 2025 / **Revised:** 19 May 2025 / **Accepted:** 21 May 2025 / **Published:** 3 June 2025

Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

As the world's largest archipelagic country, Indonesia has a coastline stretching over 81,000 km and a marine area covering approximately 3.1 million km². This vast potential positions Indonesia as one of the countries with significant opportunities for managing coastal and marine resources [1]. Coastal areas and small islands play a strategic role in national economic development, serving as a primary source of livelihood for coastal communities. The economic potential generated from this sector includes fisheries, marine tourism, and the sustainable exploitation of natural resources, all of which contribute significantly to national economic growth [2, 3]. However, despite its significant potential, coastal management continues to face various challenges, particularly in Simeulue Regency, Aceh Province. These challenges encompass environmental, social, and economic aspects, necessitating a holistic and sustainable policy-based approach to ensure the balanced optimization of coastal resource utilization. This region is highly dependent on the fisheries, marine resources, and tourism sectors, yet it still struggles with high poverty and unemployment rates, limited economic diversification, and suboptimal policy implementation [4, 5].

The government has implemented various policies to optimize coastal area management, such as Law No. 1 of 2014 on the Management of Coastal Areas and Small Islands, which aims to establish an integrated management approach. Additionally, the Ministerial Regulation of Marine Affairs and Fisheries No. PER.07/MEN/2008 emphasizes the importance of providing social assistance to empower coastal communities [6]. However, in its implementation, these policies face various challenges, including a lack of inter-agency coordination, limited financial resources, low community participation, and technical difficulties in policy execution [7]. In Simeulue Regency, these challenges are further exacerbated by its isolated geographical conditions, inadequate infrastructure, and dependence on external markets to meet basic needs [8].

Data from the Central Statistics Agency [9] indicates that the poverty rate in Simeulue Regency reached 18.98%, showing an increasing trend compared to the previous year. This rise in poverty aligns with the overall poverty condition in Aceh Province, which ranks as the fifth poorest province in Indonesia, with a poverty rate of 15.53% (Figure 1). This trend suggests that the policies implemented have not yet had a significant impact on improving the welfare of coastal communities.

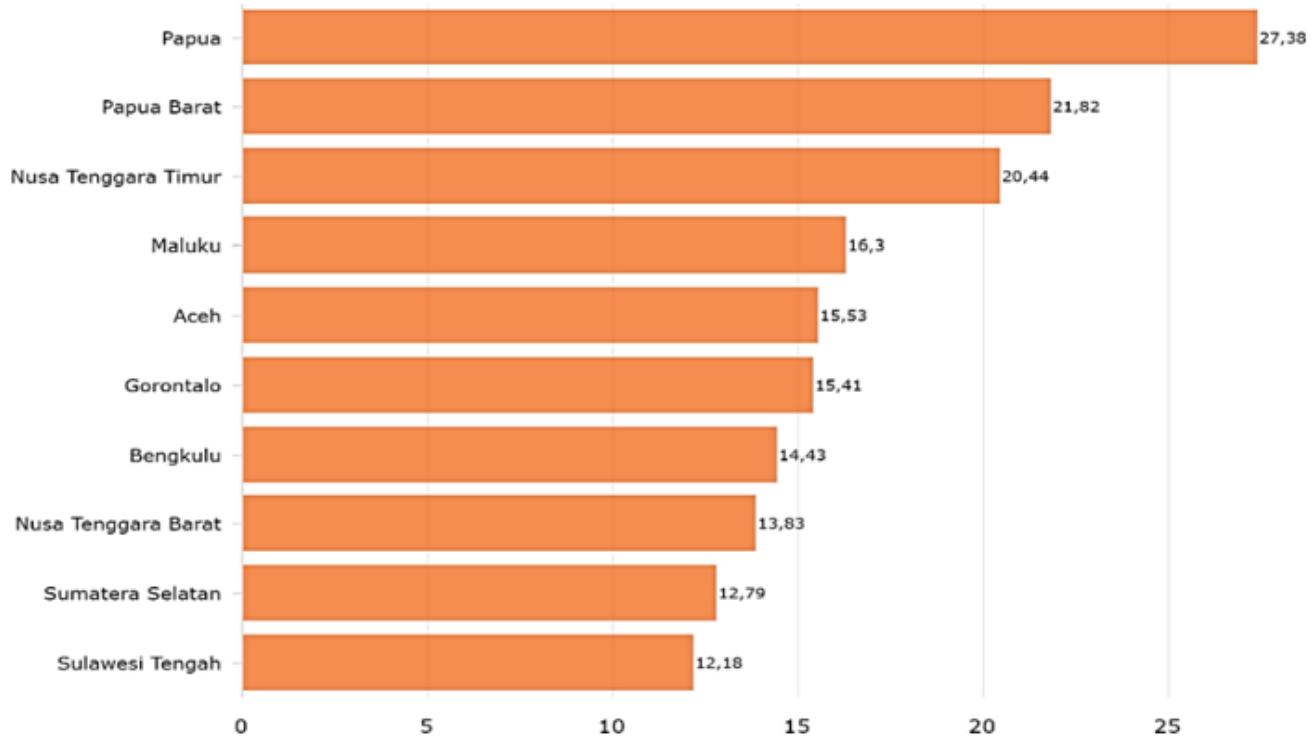

Figure 1.
The Ten Provinces with the Highest Poverty Rates in Indonesia (September 2021).
Source: Central Statistics Agency Republic of Indonesia 2022.

Furthermore, an analysis of poverty levels by region indicates that Simeulue Regency is among the areas with the highest poverty rates in Aceh. Table 1 presents the trends in poverty rates across several regencies and cities in Aceh from 2016 to 2020.

Table 1.
Percentage of Poor Population in Simeulue Regency and Other Regencies/Cities in Aceh (2016–2020).

No	Regency	2016	2017	2018	2019	2020
1	Simeulue	19.93	20.20	19.78	18.99	18.49
2	Aceh Singkil	21.60	22.11	21.25	20.78	20.20
3	Aceh Selatan	13.48	14.07	14.01	13.09	12.87
4	Aceh Timur	15.06	15.25	14.49	14.47	14.08
5	Aceh Utara	19.46	19.78	18.27	17.39	17.02
6	Aceh Barat Daya	18.03	18.31	17.10	16.26	15.93
7	Banda Aceh	7.41	7.44	7.25	7.22	6.90
8	Sabang	17.33	17.66	16.31	15.60	14.94
9	Langsa	11.09	11.24	10.79	10.57	10.44
10	Lhokseumawe	11.98	12.32	11.81	11.18	10.80
11	Subulussalam	19.57	19.71	18.51	17.95	17.60
12	Provinsi Aceh	16.73	16.89	15.97	15.32	14.99

Source: Central Statistics Agency Republic of Indonesia 2022.

In addition to the high poverty rate, unemployment in Simeulue also exhibits a concerning trend. The open unemployment rate (TPT) in Simeulue reached 5.71% in 2021, an increase from 5.47% in the previous year. The primary factors contributing to the high unemployment rate include limited employment opportunities in the formal sector and the community's reliance on the fisheries sector, which has not yet been optimally managed. From a theoretical perspective, the successful implementation of public policies is influenced by several key factors, including the clarity of policy objectives, the availability of resources, coordination mechanisms, and the involvement of stakeholders [10]. This study adopts the "A Framework for Policy Implementation Analysis" developed by Mazmanian and Sabatier to evaluate the effectiveness of coastal area management policy implementation. This framework emphasizes that policy success is highly influenced by three key factors: the technical complexity of the issues being addressed, the policy's ability to structure the implementation process, and external factors affecting policy execution.

Based on the identified issues, this study aims to analyze the implementation of policies related to the resilience of coastal communities in Simeulue Regency, assess the extent to which community empowerment has contributed to enhancing coastal resilience, and identify barriers in policy implementation and community empowerment that impact coastal resilience in the region.

By addressing various challenges in policy implementation and community empowerment, this study is expected to contribute to the development of a more sustainable, participatory, and adaptive policy framework to improve the well-being of coastal communities in Simeulue Regency. The findings of this research will provide valuable insights for policymakers, academics, and practitioners in the fields of public administration and coastal management, while also offering evidence-based recommendations to enhance the effectiveness of coastal governance.

2. Literature Review

2.1. Policy Implementation in Coastal Area Management

The implementation of public policy is a decisive phase that determines whether intended policy objectives translate into real-world outcomes. Classical models such as Sabatier and Mazmanian [10] identify three essential components that affect implementation success: policy clarity, institutional capacity, and the degree of external influence. These components are especially relevant in coastal zone management, where jurisdictional fragmentation, regulatory overlaps, and decentralization challenges are prevalent [11].

In the context of Simeulue Regency, policy execution faces numerous barriers such as limited resources, weak coordination among agencies, and insufficient community participation. Van Meter and Van Horn [12] emphasize the importance of aligning policy objectives with local capacities, while [13] identify communication, disposition, and administrative support as critical to effective policy delivery. Grindle [14] adds a political dimension, highlighting that policy outcomes are shaped by power dynamics and the interests of various stakeholders.

Recent frameworks such as multi-level governance and adaptive policy implementation provide more nuanced approaches that account for cross-scale institutional arrangements and environmental uncertainty [15, 16]. These approaches are particularly suitable for coastal settings, where climate variability and community vulnerability demand flexible, participatory governance. Maryanto et al. [16] emphasize the necessity of reconnecting policy design with biosphere stewardship, urging that effective coastal governance must embed ecological resilience within multi-level institutional frameworks.

Table 2.
Contemporary Policy Implementation Models Relevant to Coastal Area Management.

Implementation Model	Key Concepts	Relevance to Coastal Management
Sabatier and Mazmanian [10]	Policy clarity, technical complexity and external factors	Structural and legal basis for evaluating policy effectiveness
Van Meter and Van Horn [12]	Policy standards, implementing structures and target group characteristics	Fit between national goals and local conditions
Edwards [13]	Communication, resources, disposition and bureaucratic structure	Coordination among coastal institutions and stakeholders
Grindle [14]	Political context, actor behavior, institutional dynamics	Understanding how local politics shape implementation outcomes
Shipman and Stojanovic [11]	Integrated Coastal Management, policy coherence, decentralization	Managing fragmentation and overlap in multi-jurisdictional governance
Schultz et al. [15]	Cross-scale collaboration, ecosystem governance and adaptive capacity	Building resilient governance structures in uncertain coastal and marine contexts

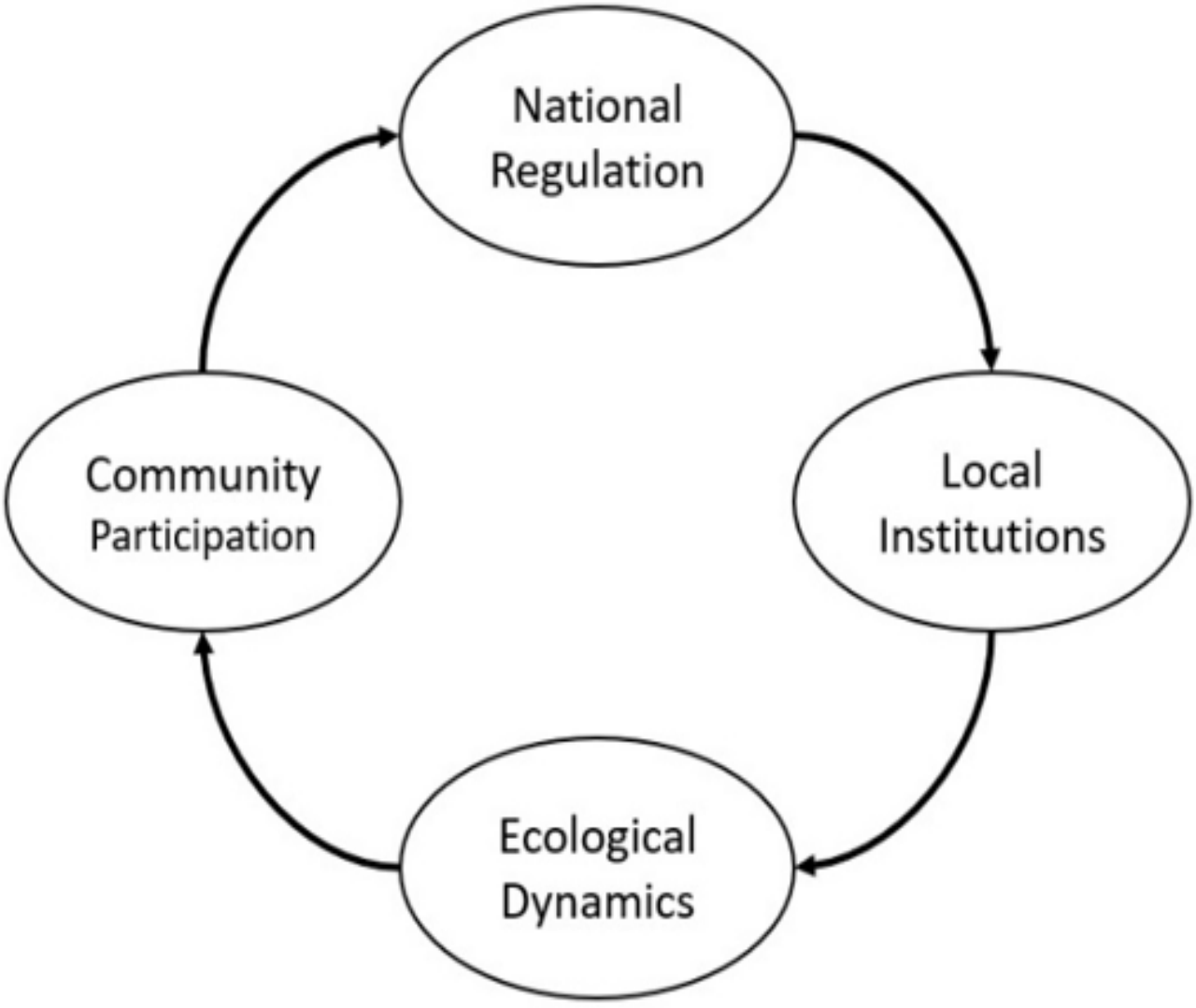

Figure 2.
Illustrates the cyclical interaction among national regulation, local institutions, community participation, and ecological dynamics within a multi-level coastal policy system.
Note: A circular diagram depicting linkages between national regulation, local institutions, community participation, and ecological dynamics.

2.2. Coastal Communities and Challenges in Empowerment

Coastal communities in Indonesia consist of traditional, indigenous, and local populations who reside in and depend on marine and coastal ecosystems. In Simeulue, community livelihoods are largely based on small-scale fisheries and agriculture, both of which are highly sensitive to environmental degradation, infrastructure limitations, and market access [16].

Empowerment of coastal communities is critical not only for poverty alleviation but also for sustainable marine resource governance. The WK Kellogg Foundation framework outlines three progressive dimensions of empowerment: enabling (providing access and removing structural barriers), empowering (enhancing local skills and confidence), and protecting (institutionalizing rights and safeguards). However, implementation in many remote island regions remains fragmented and largely top-down, failing to align with the actual needs and priorities of locals [17, 18].

A significant barrier to empowerment is the exclusion of local communities from planning and decision-making processes. Inadequate coordination between government agencies, limited capacity among civil society actors, and dependence on short-term external funding contribute to the ineffectiveness and unsustainability of many empowerment programs. Addressing these issues requires integrated strategies that connect national policy with grassroots initiatives in a participatory and adaptive manner.

While previous studies have explored coastal policy implementation and community empowerment independently, few have systematically analyzed how both dimensions interact within decentralized and outer island governance systems. In particular, there is limited empirical research examining how community-based empowerment strategies can enhance the implementation of coastal policies in remote regions like Simeulue. This study addresses that gap by proposing an integrated framework that combines classical implementation models with localized empowerment approaches to foster adaptive and resilient coastal governance.

2.3. Conceptual Framework of the Study

This study proposes an integrated conceptual framework that synthesizes classical policy implementation theory and contemporary empowerment approaches through the lens of decentralized governance. The framework recognizes that effective coastal resilience depends on three interrelated dimensions:

1. Institutional Capacity and Coordination: The functionality of governance structures at various levels
2. Community Engagement and Empowerment: The extent to which local actors are involved and supported
3. Policy Alignment and Coherence: harmonization of goals, instruments, and execution mechanisms

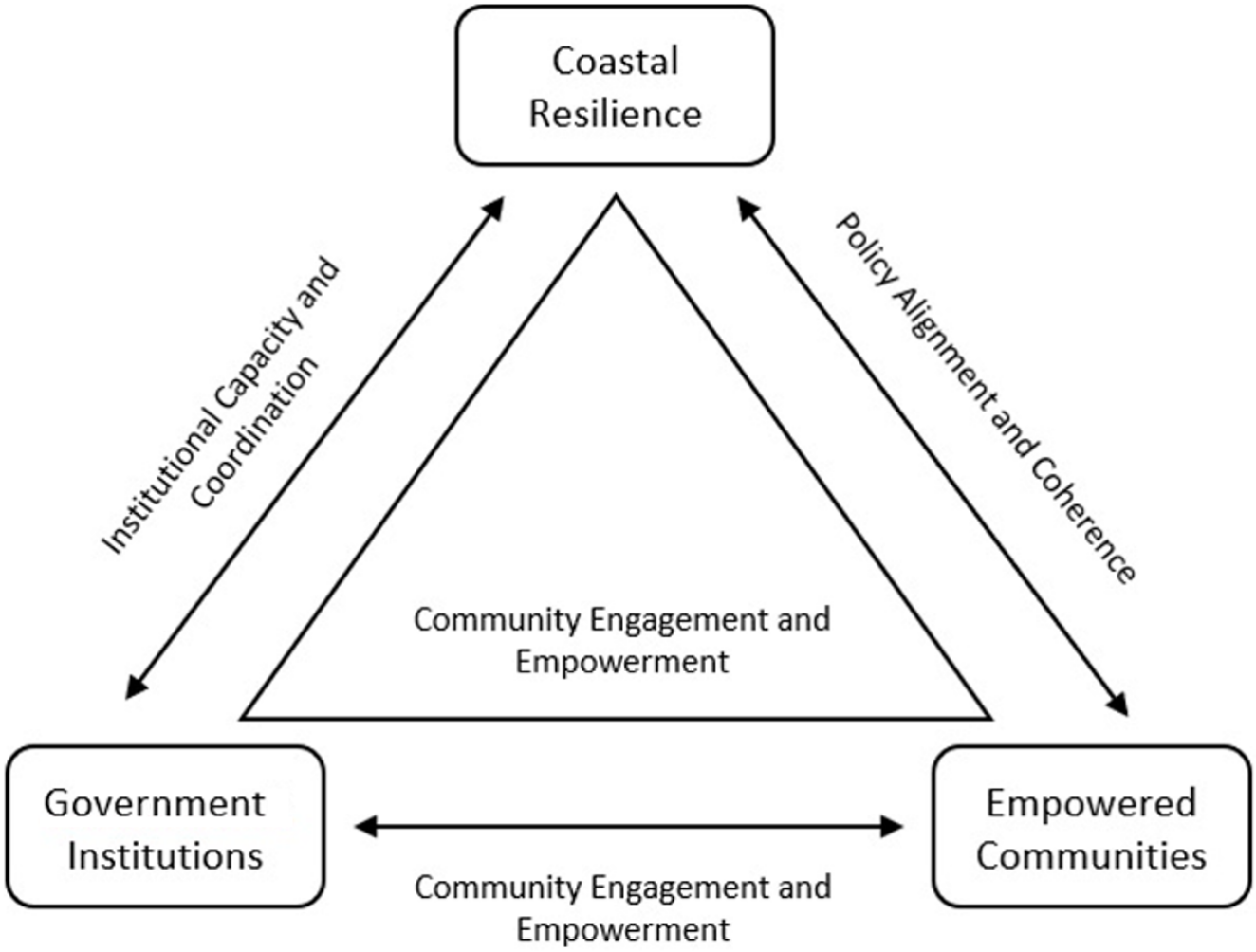

Figure 3.
Presents the conceptual framework of the study, showing the dynamic relationships among government institutions, empowered communities, and coastal resilience outcomes, all framed within a coherent policy system.
Note: A triangular framework showing dynamic interactions between government institutions, empowered communities, and coastal resilience outcomes, framed within a policy system.

3. Methods

This study employs a qualitative approach with a descriptive-analytical method to understand the implementation of coastal area management policies and the effectiveness of community empowerment in Simeulue Regency. The qualitative approach enables an in-depth exploration of the social, economic, and policy dynamics that influence the implementation of public policies in coastal areas [19]. The descriptive-analytical method is used to depict existing conditions, analyze challenges in policy implementation, and evaluate the effectiveness of community empowerment within the context of coastal and small island management in Simeulue Regency.

This study is conducted in Simeulue Regency, Aceh Province, which is characterized as an archipelagic region with a high dependence on the fisheries, marine, and tourism sectors. The regency also faces significant economic challenges, with a poverty rate of 18.98% in 2021, exceeding the provincial average in Aceh. These data indicate the necessity of a more in-depth analysis of the effectiveness of coastal area management policies implemented in the region. The study involves key stakeholders, including local government officials, coastal communities, academics, and business actors engaged in the management of coastal resources.

Primary data were collected through in-depth interviews, participatory observations, and Focus Group Discussions (FGDs) with various stakeholders. Semi-structured interviews were conducted to explore the experiences, challenges, and perceptions of policy actors regarding the effectiveness of policy implementation and community empowerment programs. FGDs were organized to gather collective perspectives from coastal community groups, particularly fishers, fisheries sector entrepreneurs, and local leaders involved in coastal resource management. Additionally, field observations were carried out to assess existing infrastructure, patterns of coastal resource utilization, and interactions between the community and the government in policy implementation.

In addition to primary data, this study also utilized secondary data obtained from local policy documents, statistical reports, government regulations, and relevant academic studies. Secondary data were used to support field findings and provide a more comprehensive empirical foundation for the analysis.

To ensure data validity, this study employed source triangulation, method triangulation, and theory triangulation. Source triangulation was conducted by comparing information from various informants and policy documents. Method triangulation was applied by cross-referencing interview results with field observations and document analysis, while theory triangulation was used to examine research findings within the frameworks of policy implementation and community empowerment theories.

Data analysis was conducted interactively using Miles and Huberman's analytical model, which consists of data reduction, data presentation, and conclusion drawing. Data reduction was carried out by selecting relevant information from interviews, observations, and secondary sources. Data presentation was structured in the form of narrative descriptions, supplemented by visualizations such as tables and figures, to provide a clearer depiction of the policy implementation dynamics in Simeulue Regency. The conclusion-drawing process followed an inductive approach, identifying patterns, relationships, and key factors influencing the success or failure of the analyzed policies. Figure 1 illustrates the interactive data analysis model by Miles and Huberman**,** which is employed in this study. This model depicts the interaction between each stage of the data analysis process, from data reduction to conclusion drawing**,** supported by the empirical evidence collected during the research.

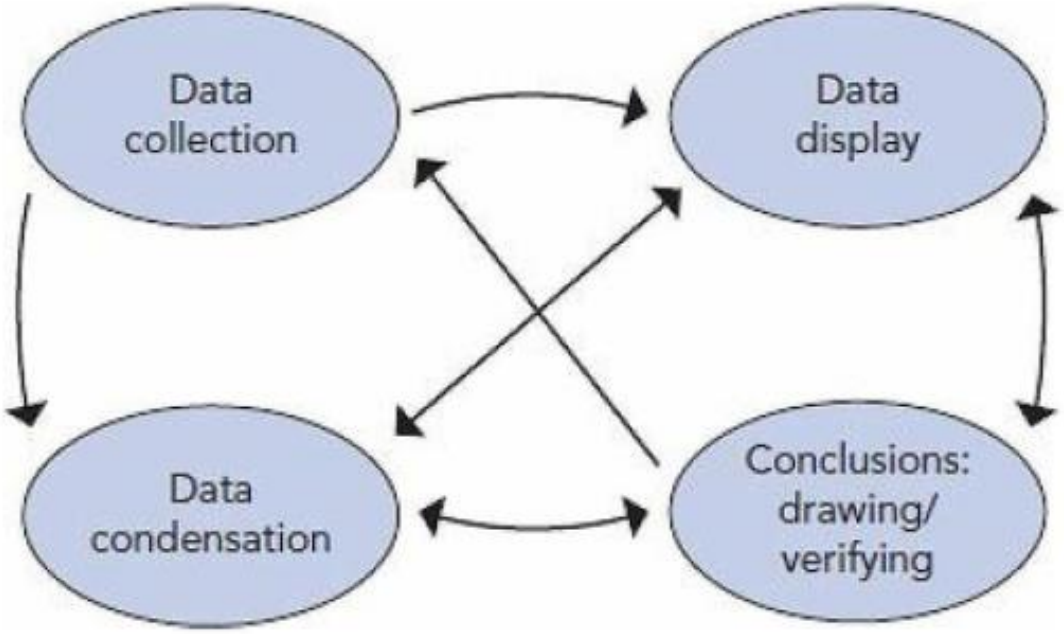

Figure 4.
Miles and Huberman's Data Analysis Model.
Source: Miles et al. [20].

With a systematic methodology and an empirical data-based approach, this study is expected to provide a deeper understanding of the factors influencing the implementation of coastal area management policies and the effectiveness of community empowerment strategies in Simeulue Regency. The findings of this research are anticipated to serve as a foundation for formulating more adaptive, inclusive, and sustainable policy recommendations for coastal area management in Indonesia.

4. Results and Discussion

4.1. Policy Implementation for Enhancing Coastal Community Resilience in Simeulue Regency

Complexity of Coastal Policy Implementation in Simeulue Regency. The implementation of coastal community resilience policies in Simeulue Regency faces structural, technical, and administrative challenges. Based on the approach of [10] the effectiveness of policy implementation depends on three key factors: (1) legal and regulatory capacity, (2) technical and administrative conditions, and (3) external factors influencing policy success.

However, this study finds that coastal area management policies in Simeulue Regency remain ineffective due to poor inter-agency coordination, limited resources, and low community participation in decision-making. As a result, weaknesses in policy implementation have led to ineffective community empowerment programs, overlapping regulations, and the lack of a strategic role for local governments in enhancing coastal resilience.

Unsynchronized Institutions and Regulations. One of the main obstacles in coastal policy implementation in Simeulue is regulatory changes following the enactment of Law No. 23 of 2014, which shifted coastal area management authority from district governments to provincial governments. The impacts of this regulatory change include: (1) Loss of local government control, requiring districts to wait for provincial directives before planning and implementing coastal programs. (2) Coordination gaps among agencies, as many policies fail to consider the local conditions of Simeulue's coastal communities. (3) Limited budget allocation, as coastal resilience program funding is managed at the provincial level, restricting the district's ability to adapt policies to local needs. Jentoft and Chuenpagdee [21] assert that the success of coastal policy implementation is highly dependent on strong relationships among stakeholders, including the government, communities, and the private sector. However, this study finds that stakeholder relationships in coastal policy implementation in Simeulue remain weak, thereby affecting policy effectiveness.

Overlapping Authority and Lack of Inter-Agency Coordination. The misalignment between national, provincial, and district policies has led to overlapping authority in coastal policy implementation. The findings reveal that multiple agencies, including the Department of Marine Affairs and Fisheries, the Tourism Office, and the Provincial Fisheries and Marine Office, are involved in coastal management policies. However, weak inter-agency coordination has resulted in several key issues: (a) Uncoordinated programs, leading to overlapping initiatives and reduced effectiveness. (b) Unclear decision-making processes due to the absence of a structured coordination system. (c) Minimal policy monitoring and evaluation, as each agency prioritizes different objectives, with no integrated oversight system. Dahuri et al. [22] emphasize that the successful implementation of integrated coastal management policies requires a holistic approach that balances economic, social, and environmental sectors.

This integration can only be achieved through strong coordination among various stakeholders, including government institutions, local communities, and the private sector. Effective coordination ensures that policies are comprehensive,

adaptive, and responsive to the dynamic challenges of coastal areas. However, in the context of Simeulue, this integrated approach has yet to be fully realized. The absence of effective multi-sectoral coordination has led to fragmented policy implementation, where programs often fail to align with local needs and environmental sustainability principles. Consequently, efforts to enhance coastal resilience and sustainable resource management remain suboptimal, highlighting the need for improved governance frameworks and participatory decision-making mechanisms.

Low Community Participation in Policy Implementation. One of the primary obstacles to coastal policy implementation in Simeulue is the low level of community participation in both policy planning and execution. The findings indicate that many coastal residents are not actively involved in the policymaking process, leading to a lack of ownership over government programs. This limited participation results in several critical issues, including low public awareness of the importance of coastal policies, which often leads to ineffective program implementation.

Additionally, many empowerment programs fail to align with actual community needs, as policies are predominantly formulated using a top-down approach without adequately considering local socioeconomic conditions. Consequently, policy sustainability remains weak, as communities do not perceive a sense of responsibility for maintaining the outcomes of these initiatives. Addressing these challenges requires enhanced participatory governance mechanisms, ensuring that coastal communities play an active role in both policy development and implementation, ultimately fostering more effective and sustainable coastal management efforts. In this context [23] emphasizes that community empowerment plays a crucial role in policy implementation, highlighting that policies involving active public participation tend to be more successful than those solely reliant on government decisions.

Therefore, the government must strengthen community engagement in coastal policy implementation, particularly in the planning, execution, and monitoring phases. Ensuring inclusive participation in these processes is essential for enhancing policy effectiveness, fostering local ownership, and promoting sustainable coastal management.

Limited Infrastructure and Resources in Policy Implementation. In addition to institutional challenges and low community participation, the implementation of coastal policies in Simeulue is also hindered by limited infrastructure and human resources. As an archipelagic region, Simeulue faces restricted access to transportation, technology, and essential fisheries-supporting facilities, which significantly affects policy execution. The lack of adequate infrastructure for coastal management, including ecosystem monitoring facilities and well-equipped fishing ports, poses a major obstacle to effective policy implementation. Moreover, the limited availability of coastal management experts is exacerbated by restricted access to training and education, which hinders the capacity development of local human resources.

Additionally, the low utilization of technology in coastal monitoring results in traditional and less efficient resource management practices. Addressing these challenges requires investment in infrastructure development, capacity building, and technological innovation, ensuring more effective and sustainable coastal policy implementation.

4.2. Community Empowerment in Simeulue Regency

The empowerment of coastal communities in Simeulue Regency serves as a key strategy to enhance regional economic resilience and community well-being. Given its geographical characteristics as an archipelagic region, empowerment initiatives in Simeulue are not solely focused on economic growth but also emphasize social and environmental sustainability to create a self-reliant and competitive society. According to Kartasasmita [23], community empowerment consists of three fundamental aspects: enabling, which involves creating a supportive environment for community development; empowering, which provides opportunities and access for communities to actively participate in development; and protecting, which ensures that community rights are safeguarded to prevent marginalization in the development process. In the context of Simeulue, empowerment strategies have been directed towards community assistance programs, increased access to resources, and capacity building in local resource management.

The fisheries and marine sectors play a crucial role in Simeulue's coastal economy, with significant potential in capture fisheries, aquaculture, and seafood processing. Various programs have been implemented to improve the livelihoods of fishers and fisheries entrepreneurs, including training and technology assistance aimed at equipping fishers with modern fishing techniques and sustainable aquaculture practices. However, limited infrastructure and a shortage of extension officers remain key challenges. Another initiative involves facilitating access to productive assets, enabling fishers to acquire modern fishing equipment and production facilities to enhance catch yields and income.

Additionally, efforts have been made to strengthen fisher institutions through the establishment of fisher groups and fisheries cooperatives, improving their market access and business capital opportunities.

Beyond fisheries, Simeulue has significant potential in coastal resource-based industries, including seaweed cultivation, salt production, and seafood processing. The development of seaweed farming remains underutilized due to limited access to cultivation technology and marketing channels. Similarly, community-based salt production is being promoted by the government, though it faces challenges related to inadequate infrastructure and market access. Additionally, efforts to diversify seafood-based businesses, such as fish floss and smoked fish production, aim to enhance the added value of local fisheries products and strengthen economic resilience.

The community-based tourism sector also holds great potential in Simeulue, with 39 tourism sites, including 24 coastal tourism destinations, suitable for ecotourism development. To support this sector, the government has introduced training and certification programs for homestay operators, tour guides, and tourism entrepreneurs. Furthermore, digital marketing strategies are being promoted to enhance tourism visibility and attractiveness, encouraging local communities to utilize digital platforms for tourism promotion. Additionally, the government is fostering partnerships with investors and academic institutions to develop sustainable tourism infrastructure and innovative tourism products.

Despite comprehensive community empowerment programs in fisheries, coastal industries, and community-based tourism, significant challenges persist. Limited participation, budget constraints, and weak inter-agency coordination hinder effective implementation. Addressing these issues requires stronger stakeholder collaboration, increased financial support, and integrated policy frameworks to ensure inclusive and sustainable coastal empowerment in Simeulue Regency.

4.3. The Role of Community Empowerment in Increasing Coastal Resilience

Coastal community empowerment plays a vital role in strengthening economic, social, and environmental resilience in coastal areas. However, in Simeulue Regency, empowerment initiatives face multiple challenges, including low community participation in policy planning, weak institutional support, and limited access to technology and education. According to Kartasasmita [23], community empowerment comprises three key dimensions: Enabling, which creates an environment conducive to development; empowering, which grants communities authority in decision-making; and protecting, which safeguards community rights and ensures sustainable development. In Simeulue, empowerment strategies remain predominantly top-down, limiting community participation in decision-making.

A major challenge in coastal community empowerment is the misalignment between national regulations and local needs. The enactment of Law No. 23 of 2014, which shifted coastal management authority to provincial governments, reduced the ability of district governments to implement locally tailored programs. Consequently, many initiatives are ineffective as they fail to consider socioeconomic realities. Furthermore, low policy literacy and limited information access hinder community participation in empowerment programs. Hidayat [24] highlights that many fishers are unaware of their rights and responsibilities in coastal resource management, restricting their engagement in government and private sector initiatives. Additionally, Berkes [25] emphasizes that collaboration among government, the private sector, and academia is essential for developing innovative solutions.

However, in Simeulue, private sector involvement remains limited, reducing empowerment effectiveness. To strengthen coastal resilience, empowerment strategies must be inclusive and community-based. Kiptiah and Huda [26] argue that local wisdom-based empowerment fosters a stronger sense of resource ownership, making policies more effective. Dahuri et al. [22] emphasize that government-private-academic partnerships are crucial in addressing budget constraints and improving program effectiveness. Strengthening community institutions, such as fishing cooperatives, enhances bargaining power and integration into economic systems.

Access to technology and education is another critical factor. Dari et al. [27] highlight the role of digitalization in fisheries, improving market access, aquaculture technology, and early warning systems. Additionally, Kaida and Toban [28] emphasize that continuous education and training enhance community capacity for sustainable resource management.

If effectively implemented, coastal community empowerment can enhance resilience in Simeulue. Dahuri et al. [22] argue that successful empowerment programs increase community awareness, improve adaptation to environmental changes, and strengthen economic independence. The positive impacts include stronger social resilience, increased community participation in policymaking; economic resilience, where marine-based business diversification reduces dependence on traditional fisheries; and environmental resilience, promoting community-led conservation efforts.

Despite its potential, structural and institutional barriers persist. Low participation, weak stakeholder coordination, and limited access to technology and education continue to challenge coastal resilience efforts. Therefore, empowerment strategies must be more inclusive, community-driven, and supported by government, academia, and the private sector. If properly implemented, coastal community empowerment will serve as a pillar for sustainable resilience in Simeulue Regency.

5. Conclusion

The findings of this study indicate that the implementation of coastal policies and community empowerment in Simeulue Regency continues to face structural, administrative, and social challenges. The effectiveness of coastal policy implementation remains limited due to regulatory misalignment among national, provincial, and district governments, weak inter-agency coordination, low community participation, and inadequate infrastructure and human resources. These challenges have led to ineffective community empowerment programs, overlapping regulations, and the absence of a strategic role for local governments in strengthening coastal resilience.

Efforts to empower coastal communities in Simeulue have been directed toward various sectors, including fisheries and marine industries, coastal resource-based industries, and community-based tourism development. However, the success of these programs remains constrained by low community participation, budget limitations, restricted access to technology, and minimal involvement of the private sector and academia. As a result, local communities tend to be passive beneficiaries rather than active participants in the empowerment process.

To enhance the effectiveness of policy implementation and community empowerment, a more inclusive and community-driven approach is required. Several key recommendations include strengthening coordination among national, provincial, and district governments to ensure policies are more responsive to local needs; promoting community-based empowerment approaches by encouraging active community participation at every stage of policymaking; fostering partnerships with the private sector and academia to drive innovation and improve access to technology and markets; enhancing human resource capacity and supporting infrastructure to ensure the sustainability of empowerment programs; and optimizing coastal resource-based economic diversification, including seafood processing, seaweed farming, and ecotourism development, with direct community involvement.

If effectively implemented, these strategies can position coastal community empowerment as a fundamental pillar in building stronger and more sustainable coastal resilience in Simeulue Regency. The success of empowerment programs will

contribute to enhanced social, economic, and environmental resilience, equipping coastal communities with the capacity to adapt to climate change, mitigate natural resource degradation, and navigate economic uncertainties in the future.

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