

How to Protect Livelihoods and Empower Rural Coastal Communities to Achieve Sustainable Welfare: Evidence from Banten Province, Indonesia

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ABSTRACT

Livelihood system protection and rural coastal community empowerment are necessary due to numerous issues regarding sustainable welfare that require programs and policies that could enhance livelihood system quality and economic power. This study elaborates on how the efforts of livelihood system protection and coastal community empowerment in Indonesia are implemented at the local level (region). The discussion will indicate how protection and empowerment can be done and their dynamics. How is the evidence of these efforts and how coastal communities can achieve sustainable welfare, especially in Banten Province. The study employs a qualitative descriptive method. Data are analyzed from policy documents, statistical data, and other secondary data. The research results suggest that the livelihood system protection intended provides support and assistance to address issues related to the livelihood system of the coastal village communities. Overcoming the existing issues requires capacity building and community skills to better economic activities. Capacity building is conducted by implementing empowerment and parties that perform the protection and empowerment must be the state, regional government, and related stakeholders. This, however, also requires the participatory will of the communities. The provision of facilities and infrastructures needed for coastal economic activities must be the priority and is followed by how to provide sustainability for all livelihood systems in the coastal villages. The livelihood system will have sustainability if the coastal village communities possess the capacities to develop the economy innovatively, creatively, and profitably based on the conditions of the natural resources, coastal potential, spatial plans, the defined coastal zone, regional technical skills, culture, institutions, and coastal economic conditions

Keywords: livelihoods, empower, rural coastal communities, sustainable welfare

INTRODUCTION

Indonesia has an area of 8.3 million km that consists of 1.9 million km² of terrestrial area (22.89%) and 6.4 million km² of water area (77,11%). It has 16.671 big and small islands with 12.681 beach coastal villages and 12,543 non-beach coastal villages. The state is interested in and responsible for coastal rural community welfare. The state administers planned, directed, and sustainable coastal community protection and empowerment to achieve its goal of the welfare of the people. Coastal village communities rely on fish resources, environmental conditions, facilities and infrastructures, business certainty, capital access, knowledge, technology, and information; therefore, they require protection and empowerment. For that reason, the government of Indonesia set a Law of the Republic of Indonesia No. 7/2016 on the protection and empowerment of fishermen, fish farmers, and salt farmers, which are the largest communities of coastal village communities.

Banten Province has a water area of 11,486.72 km², with a coastline length of 499.62 km. It has 61 small islands and 133 coastal villages that comprise 13,854 fishing households. Fishery production in 2018 was 100,631.536 tons. It has 1,262 units of fish processing and 9,157 units of fish marketing in the coastal areas (Badan Pusat Statistik, 2020).

It is necessary to perform protection of livelihood systems and empowerment of coastal village communities since they still encounter issues to achieve sustainable welfare. Hence, it is essential to carry out empowerment programs for fishermen, fish farmers, and salt farmers to improve their skills. The community empowerment programs aim to create productive and protected fishery and salt economic businesses.

An indicator of coastal community prosperity level is the farmer's exchange rates (NTP) of the fishery subsector, which is the majority livelihood of the coastal communities. The NTP fluctuated at the national level from 2010-2018 where in 2010 it was 105.56 and in 2018 was 105.99. The NTP achieved its lowest point in 2015, which was 102.38, and its highest point in 2011 at 106.24. The NTP of Banten Province in the fishery sub-sector in 2017 was 106.77 and increased to 108.04 in 2018; however, it decreased in 2019 to 101.07 and in 2020 to 98.37. This illustrates that the coastal community's prosperity level and economic development fluctuate (DKP Provinsi Banten, 2019).

The fluctuating economic development was due to the dynamics in fishery resources. The dynamic creates problems for fishermen, especially small and traditional fishermen. An income fluctuation phenomenon occurs due to catch fluctuations. Moreover, weather chaos causes disorder in determining fishing locations and time as well as a significant loss at sea. On the other hand, over-fishing and illegal fishing phenomena contribute to the catch fluctuation that affects coastal community's income. Therefore, the state considers the need to set a policy on the protection and empowerment of coastal communities to protect their livelihood and address their social and economic problems.

The paper elaborates on how the efforts of livelihood system protection and empowerment of coastal communities in Indonesia are implemented at the local (regional) level. The discussion will cover how protection and empowerment can be conducted and its dynamics and how the efforts are implemented and how the coastal communities could achieve sustainable welfare, especially in Banten Province.

RELATED LITERATURE

A coastal village community is a community that lives and stays along the coastline and coastal areas of small and big islands. Coastal areas that are related to coastal and marine ecosystems have a high risk from climate change impacts. Overcoming it requires coastal area management and comprehensive adaptation of communities that interact with coastal and marine resources (Zikra, 2015; Sinay and Carter, 2020). Climate change triggers the phenomenon of sea level rise, global warming, and extreme weather that have implications for coastal natural resources. Extreme waves and changes in sea temperature and coastal morphology affect the livelihood resources of coastal communities. Consequently, it is necessary to understand climate and its influence on the subsistence rights of coastal rural communities that could, directly and indirectly, affect community livelihoods that demand policies and planning of coastal community management to address climate change dynamics (Golo and Eshun, 2018).

Understanding survival strategies that comprise institutional and household strategies and the utilization of existing social capital become crucial for coastal communities (Sudrajat, 2016). Indonesia as an archipelago state experiences the effect on the dynamics of the community economy. Coastal village communities that are mostly small/traditional fishermen and small fish farmers have limitations to cope with problems of the natural resources dynamics and coastal economy. They have a low economic level due to their lack of ability to capture economic opportunities; hence, a specific economic policy is needed for coastal villages (Rukin et al., 2018). Unfavorable social and economic conditions aggravate environmental health due to the inability to meet the needs for sanitation, clean water, and health facilities.

In Indonesia, the majority of coastal village communities consist of fishermen and fish and salt farmers. Fishermen are coastal communities that catch fish as their livelihood. They comprise small fishermen,

traditional fishermen, labor-fishermen, and owner-fishermen. Small fishermen do not use fishing boats or large fishing boats size of 10 gross tons (GT) to catch fish. The livelihood of the traditional fishermen is in the water with cultural and local wisdom-based inherited traditional fishery rights. Labor-fishermen are fishermen who work in the fishing businesses. Owner-fishermen are fishermen who own boats and fishing business. Fish farmers cultivate freshwater fish, brackish water fish, and sea fish. Small fish farmers are subsistence farmers. Landowners have a right to land for cultivation activities. Salt farmers conduct salt business activities. Small salt farmers own a salt field of fewer than 5 hectares. Salt field owners have a right to land used for salt farming.

Indonesia has formulated various policies and regulations on coastal communities. Several important regulations are related to fishery and marine and the management of coastal areas and small islands. The state and other stakeholders, such as NGOs, have acknowledged the importance of coastal community protection and empowerment. For example, an empowerment project by the Coastal Community Development Project (CCDP). The project took place in Indonesia from September 2012 to December 31, 2017. It aimed at increasing livelihood through social and economic development, sustainable natural resources management, and access to the market via innovative and participatory approaches. The projects succeeded in increasing income and reducing poverty (Cavatassi et al., 2019;Thein et al., 2019). This suggests that coastal natural resource management is closely related to the empowerment of coastal communities that are poor and require protection and social and economic empowerment (Sara and Hamid, 2011; Cahaya, 2015; Hajar and Yenni, 2017, Rahim, 2018; Chen et al, 2020).

METHOD

The research discussion employed a qualitative descriptive method. Data were studied from documents of policies, statistics, and other secondary data. The discussion was an in-depth discussion on a specified topic so it could provide a deep understanding of how the efforts of protection and empowerment of coastal communities and its dynamics in Indonesia and how the coastal communities could achieve sustainable welfare. The analysis that focuses on central level regulations provides a design of setting that is implemented in the important aspects at technical and implementation levels.

RESULT

The coastal community protection aims at providing support and assistance to resolve their livelihood issues. To do this will require capacity building and community abilities for better economic activities. Capacity building is conducted through empowerment. Parties that must perform the protection and empowerment are the state, regional government, and related stakeholders; however, the participatory will of the community is also necessary. The provision of infrastructures and facilities needed for coastal economic activities must be the predominant consideration and followed by how to provide sustainability for all efforts. Economic activities will sustainable if communities have the capacity and capability to develop innovative, productive, and profitable businesses. Natural disaster risks in coastal areas, particularly, are factors to protect coastal communities. This is related to geographical and geological situations and climate change. The priority is the existence of security and safety assurance in business and in living in coastal areas by providing formal legal assistance.

The Planning of Livelihood System Protection and Empowerment Efforts of Coastal Communities

These efforts must begin with systematic, applicable, directed, transparent, and accountable planning. The planning for protection and empowerment efforts for coastal communities in Banten Province is integrated with national and regional development plans and adjusted to national and regional financial capability and income. A guided blueprint will prevent the efforts to contradict other development efforts. The planning

regards the conditions of natural resources, coastal potential, spatial plans, defined coastal zone, local technical skills, culture, and the institutions and conditions of coastal economic actors.

Law No. 7/2016 on the protection of coastal communities that include fishermen, fish farmers, and salt farmers is the legal foundation that must be implemented through the planning stages of coastal community protection and empowerment efforts. The planning must be based on (1) identification of the existing natural resource carrying capacity, (2) fishery and marine potential, (3) human resource potential, (4) spatial and coastal planning, (5) science and technology needs, (6) the needs for the provision of facilities and infrastructures, (7) local social, economic, and cultural systems, (8) coastal demography, and (9) economic growth in the sector. The local government of Banten Province sets a more implementable policy through the Regional Regulation of Banten Province No. 3/2018 on the protection and empowerment of coastal and small island communities. The protection and empowerment of Banten coastal communities are intended to achieve better and sustainable welfare. To realize the goal involves the roles of regional government in protecting and empowering the communities. The planning of coastal community protection and empowerment efforts consists of (1) zoning system of coastal areas, (2) coastal community settlement arrangement, (3) economic empowerment, (4) improvement of environmental health aspect, (5) human resources capacity building through formal and informal education, (6) development of creative economy and tourism areas, and (7) regulation of policies on the management of coastal, marine, and small island resources. The planning of coastal community protection is specifically arranged to guarantee that the communities have several important things in their economic activity, among others, easy access to fishery business facilities, business capacity assurance, and facilitate risk uncertainty guarantee in fishery business and legal assistance. The coastal communities also have a right to guarantee health and education, access to capital, and certainty in product marketing.

The coastal community empowerment in Banten Province is planned to (1) facilitate an increase in knowledge, attitudes, and skills of the communities, (2) develop profitable businesses by facilitating access to credit or social assistance, (3) develop supporting institutional aspects and community organization, (4) provide training on entrepreneurship and suitable technology, (5) improve the added value of the fishery and marine commodities, and (6) facilitate the business partnership.

The planning of protection and empowerment efforts of coastal village communities requires community and stakeholders' participation and is conducted through coordination between central government, regional government, regional apparatus, and communities. Involving all parties could produce integrated planning and accommodate the interests of all parties and mutual commitment to achieve goals.

The Implementation of the Efforts of Community Livelihood System Protection and Empowerment from the Marine and Fishery Strategies of Banten Province

The plan and strategy of the Fishery and Marine Department in 2017-2022 include protection and empowerment efforts in the strategic plan and priority programs. This indicates that the economy of coastal communities can be improved if the protection and empowerment efforts are well implemented. Social, economic, and environmental problems of the coastal communities must be addressed with real and solution actions.

Table 1. Analysis of Action, Problems, and Strategic Plan of Marine and Fishery Development of Banten Province

Action	Problem	Strategic Plan
Provision of coastal economic infrastructures/facilities	Infrastructures/facilities are not optimally available	The provision of clean water facilities, add access to roads and environmental roads, irrigation for fish farming, electricity network, the provision of fuel, health services, and education

Increase access to the business capital of a coastal economy	Access to capital is uneven and not optimally reached	Provide specific capital for small and medium enterprises, open access to capital to banking institutions, and disseminate revolving funds for processing and fishing business
Eradication of illegal fish imports	Illegal fish imports exist	Improve supervision of business actors in fish imports and their distribution
Eradication of illegal fishing	Operation of integrated supervision of the utilization of marine and fishery resources	Operation of integrated supervision of the utilization of marine and fishery resources
Development of science on coastal resources	Lack of science and technology utilization	Improve research activities and cooperation with other research institutions/universities
Economic empowerment of underprivileged communities, especially farmers and fishermen	Poverty and economically disadvantage	Open access to capital and business and improve the capacity and capability of poor societies to escape the poverty
Development of creative economy and tourism-based economic areas	Less optimum coastal tourism	The legal legitimacy of the arrangement of economic and tourism areas and involving local community economic participation
Productivity improvement of the coastal economic businesses	Low economic productivity	Develop production centers with superior products that increase income.
Enhancement of product and market diversity for fishery commodities	Less product diversification	Diversify fishery businesses, open new domestic/foreign market opportunities and, improve of product quality.
Policy and regulation-based coastal resource management	Less optimum coastal resource management	Improve sustainable coastal area conservation and economic valuation of coastal resources and legal protection of coastal natural resources.
Development of minapolitan areas	Less optimum of a participatory-based regional development program	Poverty alleviation by increasing community income, improving production technology, utilizing technology-based resources, and providing a small-scale household economy in coastal areas
Achieve coastal economic industrialization	Lack of industry infrastructures and investment	Develop market-oriented superior products, increase private investment, equip fishery industry infrastructures, develop industry technology, and guarantee product quality
Attention to Aquaculture	Low aquaculture production	Improve cultivation technology, equip aquaculture infrastructures/facilities, and add modern aquaculture businesses
Supervision program of coastal, marine, and fishery areas	Violation still exists against the utilization of coastal, marine, and fishery resources	Coastal resources supervision, legitimacy of control and supervision institutions, equipping facilities/tools needed for monitoring, legal settlement of violations, and strengthening the authority of monitoring and control institutions of coastal areas

Source: Data Processed from the Document of Strategic Plan of Marine and Fishery Department of Banten Province and Results of FGD

A strategic plan is arranged to guide the implementation of a development action plan for a period of five years. The regional government and stakeholders use the guideline in implementing development priority programs. Problems in the marine and fishery sectors in each region are specific. In Banten Province, the problems are focused on a lack of infrastructure, low production level, poverty, less optimum coastal resource utilization, lack of business capital, limited implementation of science and technology, and lack of supervision and protection of coastal management. These problems are addressed using real actions by implementing planned and directed coastal development programs. The formulation of priority development programs indicates an effort to solve the problems and achieve the goals.

Table 2. Marine and Fishery Development Priority Programs in Banten Province

Program	Outcome
Governance Program	Increase Community Satisfaction Index value
Marine, coastal, and small island resource management program	Increase fisherman's exchange rate (NTN), resource management according to zoning plan and conservation, and coastal economic business permit
Capture Fishery Production Improvement Programs	Increase the production of capture fisheries, the availability of infrastructures/facilities of ports and fisheries, and fishing business permit
Aquaculture Production Improvement Programs	Increase aquaculture production, the availability of aquaculture infrastructures/facilities, and aquaculture business permit
Marine and Fishery Resource Supervision Programs	Increase supervision of water areas, business actors, and activities of coastal natural resource utilization according to the established regulations
Fisheries Competitiveness Improvement Program	Increase the number of coastal economic businesses, fishery investment, quality standardization of business products, and fish consumption for communities

Source: Processed Data

The priority programs focus on governance to assure that standardization of development implementation programs by the development administrators meet the existing standard operating procedures and regulations. This is important to achieve the predefined performance of the programs. The improvement of capture fishery production and aquaculture is closely related to fishery industrialization. The production system must be integrated with upstream and downstream industries to increase added value and production competitiveness. The approach requires good governance and the arrangement of industrial systems and management. The goal is to improve the economic capabilities of all parties involved in the coastal economic activities.

The management of marine, coastal, and small island resources aims to enhance the community's economy through the optimum utilization of resources. This includes regional spatial planning and coastal zoning that allow coastal environmental conservation to guarantee environmental sustainability. The supervision of marine and fishery resource utilization is intended to eradicate violations of resource utilization, such as illegal fishing and other activities that could damage coastal resources.

Table 3. Analysis of Coastal Community Protection and Empowerment

Aspect	Protection and Empowerment
Coastal development policies and strategies	Integrate with the national medium-term development plan (RPJMN) and regional medium-term development plan (RPJMD)
	The administrators are the Department of Marine and Fishery of Banten Province in coordination with regional government at the regency/city level
Activity	Business activity protection
	Community empowerment
	Added value
Target	Fishermen and farmers
	Coastal communities
	Fishing businesses, business groups, traders, small business actors
Types of protection	Provision of infrastructures and facilities for fishery business and easy access
	Guarantee of the fishing business and business risks in capture fishery and aquaculture activities
	Facilitate assistance and legal protection
	Provision of health and education guarantee
	Provision of fishing insurance and life insurance
	Protection against easy access to capital and marketing
	Protection against coastal natural disaster risks
Types of Empowerment	Capital empowerment and easy access to credit
	Efforts to improve knowledge, skills, attitudes, and behaviors of communities
	Develop community institutional aspects and establish community groups
	Activate fishery cooperatives and joint business groups
	Social assistance to coastal communities
	Technical training in fishing business and entrepreneurship
	Training of added value improvement of fishery commodities, extension, and mentoring activities
	Strengthen business partnership
Organizational empowerment	
Guidance and Supervision	Highest supervision by the Governor
	Coastal and small island resource management
	Supervision by the government's internal control officers
Community participation	Community and stakeholders' participation in coastal natural resource management planning
	Participation in consultation forum and development planning deliberation
	Facilitate access to information
	Partnership with stakeholders and third parties
Funding	Regional budget of Banten Province
	Other funding sources

Source: Processed data

The protection and empowerment of coastal communities in Banten Province refer to the regulations at the national and local levels, Law No. 7/2016 on the national medium-term development plan and regional medium-term development plan (Pemerintah Daerah Provinsi Banten, 2018). The activities are set in the strategic plans and action plans that contain direction, goals, targets, guidance and supervision, involvement of community participation, and activity funding. This will provide a guideline for action plans that involve all communities both directly and indirectly.

DISCUSSION

The efforts of community protection and empowerment have challenges in planning and implementation aspects (Pemerintah Republik Indonesia, 2016). The action plan will face its dynamics when it is implemented. Three important principles in the achievement of the activities namely, how the efforts could solve poverty problems and low community's economic capacity, improve coastal resource management optimally, and protect business activities and coastal environmental resources. Poverty alleviation of coastal communities in Banten Province involves commitment from regional government and stakeholders to plan activities that activate the economic businesses of local communities with independence. Even when the plan has contained in the action plan, other challenges occur when the action plan is implemented in real activity. This suggests that in the dynamics of coastal development to alleviate poverty, the implementation of development activities is not fully in accordance with existing plans. Challenges must be faced include solving issues of capital, production, and entrepreneurship skills, improving fishery industrialization, and strengthening small business institutions. The efforts must be directed and integrated. The context of protection and empowerment becomes absolute in all aspects to overcome the following challenges: (1) Low production of capture fishery and aquaculture, (2) Low increase in the number of coastal economic business groups, (3) Low quality of assurance systems and standardization of fishery products and other coastal products, (4) Low income of fishermen/fish farmers, (5) Low economic contribution of marine and fishery sector to regional economic growth, (6) Lack of port facilities and infrastructures, (7) The low number of superior products of coastal economic centers, (8) Lack of availability of marine and fishery products, (9) Low in quality, the added value of security, and competitiveness of fishery products and other coastal products, (10) Lack of technology implementation in fishery economic activities and other coastal economies, (11) Limited facilities and infrastructures of aquaculture and low aquaculture human resources that have skills and knowledge in aquaculture, (12) Coastal economic business is traditional in terms of business actors, business management, product processing, and marketing; hence, product quality assurance did not meet the standard technical and hygienic requirements.

Regarding coastal resources management, the problem is how to utilize natural resource potential optimally. Banten Province has substantial natural resource potential with a waters area that has a long coastline (499.62 km). Three water areas unite in the region, namely Sunda Strait waters, Indian Ocean waters, and the Java Sea. There are small islands that have fishery and coastal economic potential. The geographical conditions form marine and fishery resource potential superiority. Development programs related to the improvement of coastal resource management must be able to answer challenges in terms of the low quality of human resources due to the low level of formal or informal education. Moreover, the low capacity of community institutions must be improved in a planned and directed manner. Other challenges that must be addressed are: (1) Lack of database on the condition and potential of marine and fishery resources in Banten Province and its supporting analysis devices; and (2) Lack of utilization of marine resources that is in line with the zoning of coastal areas and small islands, (3) Marine space and conservation are not managed, (4) Lack of maintenance in the carrying capacity and quality of marine and fishery resources.

Efforts in protecting every business activity and coastal environmental resources are part of the marine and fishery resource supervision system that has been formulated by the regional government. The goal is to improve the compliance and conformity of management action to the efforts to protect coastal resource

sustainability. The primary challenge is how to improve the effectiveness of internal supervision by the government apparatus and stakeholders to enhance public service quality in the field of coastal resource supervision to the communities. Additionally, other challenges must be considered since the ability to overcome them will be a key to success. Those challenges are: (1) The minimum coverage area of Banten waters that can be supervised by the supervisory apparatus of the Department of Marine and Fishery, (2) Lack of supervision and law enforcement that causes uncontrollable marine and fishery resource exploitation due to the lack of quality and quantity of law enforcement officers in the field, (3) Damage in vital habitats in marine and coastal areas caused by pollution, human factors, or natural disaster factors due to the lack of knowledge, awareness, and participation of coastal communities in protecting the preservation of coastal resources

CONCLUSION

The coastal community protection aims at providing support and assistance to overcome the livelihood problems of the coastal village communities. Overcoming problems requires capacity building and community skills for better economic activities. Capacity building is conducted by implementing empowerment. The planning of livelihood system protection and empowerment of coastal communities in Banten Province is integrated into the national and regional development plans and adjusted to the national and regional financial abilities. A guideline will prevent the efforts conducted to contradict other development efforts. The planning will consider natural resource conditions, coastal potential, spatial plans, defined coastal zoning, regional technical skills, culture, institutions, and conditions of coastal economic actors and it is aimed at improving welfare. The efforts for protection and empowerment are implemented in the strategic plans and coastal regional development priority programs. This suggests that the coastal community economy can be enhanced if the efforts of protection and empowerment are well implemented. Social, economic, and environmental problems of coastal communities must be addressed in real and solution actions. The dynamics of coastal development aimed at improving welfare must solve challenges in, among others, capital, production, and entrepreneurship skills, improve the fishery and marine industrialization, and strengthen business institutions. These efforts must be directed and integrated and could optimize the utilization of the existing coastal natural resource potential with marine and fishery resource supervisory systems that have been arranged by the regional government.

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