

Stakeholder Analysis of Coastal Management Policy in Indonesia

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Abstract. The coastal regions had a great ecosystem and potential for the sustainability of life. At the same time, growing human and environmental pressures in coastal areas significantly impact coastal systems. Various problems arise in the development and utilization of the coastal regions. The issues have prompted the importance of studying coastal area management policies. Specifically, legal uncertainty in the management of utilization has initiated the formulation of the RZWP3K policy. This study uses stakeholder analysis to map the actors involved and their influence on coastal area management policies. The study was conducted using a qualitative method and stakeholder analysis to explore and classify the actors shaping coastal area management policies. The stakeholder's analysis method used variables of interest and influence to classify stakeholders into Key players, Context setters, Subjects and Crowds. Multiple objectives and concerns between the competing interests of different stakeholders are obstacles to the policy formulation process for coastal management. This study recommends that the government maintain stakeholders by keeping them informed, actively groomed, monitored and managed, or satisfied. This paper contributes to conceptual stakeholder analysis literature to analyze coastal area management policies.

Keywords: Stakeholders Analysis; Coastal Management Policy.

1 Introduction

This study examines the mapping of actors in coastal area management policies. Act mapping is carried out through stakeholder analysis (SA) as a robust policy analysis and formulation tool. It has considerable potential in natural resource policies and developing the program and activities [1]–[3]. The object of this study is the coastal area which is an area that has excellent ecosystems and potential for the sustainability of life. Nearly two-thirds of the global human population is concentrated along the coast [4]. Mapping actors are carried out on coastal area management policies in Kepulauan Riau Province, Indonesia, where 96% of the area is water, and 4% is land. It is estimated that 45% of the population of the Kepulauan Riau live in coastal areas, and about 35% of industrial sites in the Kepulauan Riau are located in coastal areas. This is the basis for research on actor mapping in coastal area management

policies. It is interesting to study to describe the involvement of actors concerning their authority and interests.

The involvement of various actors that does not only refer to a single actor shows that the policy process is not centralized. Therefore, stakeholder analysis is needed to generate information, especially regarding policy actors in the decision-making process. Stakeholder analysis in policy research is a way to understand information about behaviour, interests, agendas, and influences on actors that are considered relevant to the decision-making process [3], [5], [6].

This condition is represented through formulating policies for coastal area management in Kepulauan Riau Province, namely the Draft Regulation issued at the level of district government (Ranperda) on the Zoning Plan for Coastal Areas and Small Islands (RZWP-3-K). Formulating the RZWP-3-K encourages various policy actors to be involved in policy-making. This is regulated in the Ministry of Maritime Affairs and Fisheries No: 23/Permen-KP/2016 concerning the Planning and Management of Coastal Areas. Article 22 regulates the stages of preparing the RZWP-3-K document, including a. data collection and processing; b. preparation of initial documents; c. public consultation; d. preparation of intermediate documents; e. public consultation; f. preparation of final documents; and g. determination. The department conducts public consultation on the initial RZWP-3-K document as intended to obtain input, feedback, or suggestions for improvement from related ministries/institutions/Agencies, DPRD, associated agencies, universities, Non-Governmental Organizations (NGOs), Community Organizations (ORMAS), Society, business world, and key stakeholders.

This study will map the actors involved in formulating coastal area management policies based on their authority and interests [3]. This is because archipelagic provinces have coastal potential but, on the other hand, also face problems of spatial use conflicts, legal certainty, and the threat of environmental damage in the middle of the regional development process. Specifically, legal uncertainty in utilization management is caused by the postponement of the RZWP3K policy. At the same time, The RZWP3K policy becomes an essential requirement to be established immediately. The determination of the RZWP3K policy for the Zoning Plan for Coastal Zone and Small Islands (RZWP3K) is a form of the government's commitment to the sustainability of sustainable coastal areas. The RZWP3K policy minimizes conflicts in environmentally friendly coastal areas by prioritizing the interests of the general public (Maritim.go.id, 2018). Stakeholder analysis maps the actors involved in coastal area management policies. The stakeholder's interest and influence will classify stakeholders into crucial players, context setters, subjects, and crowds. Thus, the stakeholder's roles, influences and interests can be identified as material for formulating a stakeholder management strategy to realize sustainable coastal area management policies.

2 Research Method

The approach used in this study is qualitative [7]. The qualitative approach in this study is appropriate because it is an approach or searches to explore and understand a symptom or phenomenon [8]. Data mining in words and texts is carried out to understand the symptoms into information that can be analyzed and interpreted [9]–[11]. The analysis is carried out by applying actor mapping through stakeholder analysis by carrying out the following steps:

- a. Identifying stakeholders and their interests, methods that can be used to identify are through written records or census data that can provide information; through an oral or written report of an event by identifying the people involved; or use a checklist of possible categories of stakeholders [12].

- b. Differentiating and categorizing stakeholders, the approach in this step can be made to characterize and classify stakeholders with two Top-down approaches with analytical categorization. One popular method uses interest and influence to classify stakeholders into players, context setters, subjects, and crowds. This classification can later help to determine recommendations for actions that must be taken for each stakeholder in each quadrant, for example, actively fostered, monitored and managed and so on.
- c. Investigating the relationship between stakeholders can be done using the relationship matrix method between actors [3], [6].

3 Result

3.1 Coastal Management in Kepulauan Riau

The territorial waters of the Riau Archipelago Province are (97.65%) or 415,231.79 km², which is wider than the land area, which is 9,982.88 km² (2.35%). The Geospatial Information Agency 2017 also noted that the Kepulauan Riau Province is a coastal area consisting of thousands of large and small islands where the total length of the coastline is about 8,561.33 km, the ocean area is about 101,920 km², and the small islands are 2,408 islands (Gazetter, 2012). The condition of the Kepulauan Riau Province makes it a place with fantastic coastal and marine resource potential. However, from the results of in-depth interviews and literature studies, it was found that the Kepulauan Riau Province experienced management problems for coastal areas:

- a. Management of the potential of coastal areas cannot boost the economy of the Kepulauan Riau Province. The economic growth of the Riau Archipelago Province occupies the 33rd position out of 34 provinces in 2017 (jurnalmaritim.com, 2018), and the potential for the management of coastal and marine areas only contributes 1% to the PAD of the Kepulauan Riau Province.
- b. Although water areas dominate the Kepulauan Riau Province, the development has not been oriented to the marine and fisheries sector.
- c. Socio-economic activities that have not been carried out with careful planning result in environmental degradation threats to coastal areas.

Some of these problems then become practical reasons for sustainable coastal area management, namely economic development while still paying attention to the environment through the policy of the Zoning Plan for Coastal Areas and Small Islands (RZWP3K). So in 2012, based on the mandate of Law Number 27 of 2007 concerning the Management of Coastal Areas and Small Islands, the Kepulauan Riau Province and the Regency and City Governments developed a policy on the Zoning Plan for Coastal Areas and Small Islands (RZWP3K). As a result, districts and Municipalities set a 0-4 mile management plan, and Kepulauan Riau Province 4-12 miles. However, after the amendment to Law NO. 32 of 2004 became Law no. 23 of 2014, which then regulates the authority of regional regulation 0-12 in the Province and Regulation of the Ministry of Maritime Affairs and Fisheries Number 23 of 2016 concerning Planning for the Management of Coastal Areas and Small Islands, in 2017 adjustments and transitions were carried out which were initially carried out in the Regency/City transferred to the provincial government.

The problems in the coastal area management policy with formulating the Zoning Plan for Coastal Areas and Small Islands never end. The rejection of the debate until the suspension has coloured the policy formulation process until 2022 and has not been ratified for implementation since it was re-formulated in 2017. Based on this, there is no formal basis in the form of Regional

Regulations in the management of coastal areas, and the Kepulauan Riau Province has not been able to minimize conflicts by utilization of environmentally friendly sites and prioritizing the interests of the general public as the policy objectives of the Coastal Zone and Small Islands Management Plan (RZWP3K).

4 Discussion

4.1 Identifying Stakeholders

The critical stakeholders identified were the Ministry of Maritime Affairs and Fisheries (KKP), Ministry of Agrarian and Spatial Planning (ATR/BPN), Governor of Kepulauan Riau Province, Department of Maritime Affairs and Fisheries of the Kepulauan Riau Province (DKP), the Department of Public Works and Spatial Planning of the Kepulauan Riau Province (PUPR), the Department of Environment and Forestry of the Kepulauan Riau Province (DLHK), the Regional Spatial Planning Coordinating Board for the Kepulauan Riau Province (BKPRD), the Regional People Representative Council (DPRD) of the Kepulauan Riau Province. These agencies are of crucial importance based on legal authority as policymakers and policy implementers, as well as providing consultation, correction, technical guidance, and approval of policy materials.

Table 1. Level of Key Stakeholder's Influence and Interest.

No	Stakeholder Category	Role	The Impact Level		The Level of Importance	
			Low	High	Low	High
1.	Marine and Fisheries Ministry	Regulator, Implementor, and Evaluator		✓		✓
2.	Ministry of Agrarian and Spatial Planning	Regulator, Implementor, and Evaluator	✓		✓	
3.	Governor of Kepulauan Riau Province	Regulator, Implementor		✓		✓
4.	Department of Maritime Affairs and Fisheries of the Kepulauan Riau Province (DKP)	Regulator, Implementor		✓		✓
5.	Provincial Public Works and Spatial Planning Office	Regulator, Implementor		✓	✓	
6.	Provincial Environment and Forestry Service	Regulator, Implementor		✓	✓	
7.	Regional Spatial Planning Coordination Agency (BKPRD)	Regulator, Implementor		✓	✓	
8.	The Regional People Representative Council (DPRD) of the Kepulauan Riau Province	Regulator, Implementor, and Evaluator		✓		✓

Then the main stakeholders include the Coordinating Ministry for Maritime Affairs and Investment (Menko Marves), National Planning Agency (Bappenas), Ministry of Environment and Forestry (KLHK), Ministry of Home Affairs (Kemendagri), Ministry of Transportation (Kemenhub), Raja Ali Haji Maritime University (UMRAH), Entrepreneurs, Coastal Communities, Fishermen, Small Fish Cultivators, Salt Farmer. The existence of coastal management policies will impact them even though they do not have the authority or legality to formulate policies. They can provide input, both aspirations and demands for their interests.

Table 2. Level of Stakeholder's Influence and Interest.

No	Stakeholder Category	Role	The Impact Level		The Level of Importance	
			Low	High	Low	High
1.	Coordinating Ministry for Maritime Affairs and the Investment Republic of Indonesia	Regulator, Implementor,				
2.	Coordinating Ministry for Maritime Affairs and the Investment Republic of Indonesia	Regulator, Implementor,				
3.	Ministry of Environment and Forestry Republic of Indonesia	Regulator, Implementor				
4.	Ministry of Home Affairs Republic of Indonesia	Regulator, Implementor, Evaluator				
5.	Ministry of Energy, Minerals and Resources Republic of Indonesia	Regulator, Implementor,				
6.	Ministry of Transportation Republic of Indonesia	Regulator, Implementor,				
7.	Maritim Raja Ali Haji University	Regulator, Implementor, Advocate, Facilitator				
8.	Entrepreneurs <ul style="list-style-type: none"> • Developer, Agung Podomoro • PT BAI • PT Guna Karya Nusantara, • PT Mitra Tama Daya Alam Bintan, • PT Bukit Lintang Karimun, • PT Kim Jaya Utama, • PT Indospora Bumi Persada, • PT Yuliana Jaya, • PT Combol Bahari Perkasa, • PT Merak Karimun Lestari, • PT Sarana Trans Sejahtera 	Regulator, Implementor				
9.	Coastal Community	Regulator, Implementor				
10.	Fisherman	Regulator, Implementor				
11.	Cultivator	Regulator, Implementor				
12.	Farmer	Regulator, Implementor				

Meanwhile, NGOs, citizen organizations, GKNI, and KNTI support stakeholders. In this case, they do not have the authority to formulate. Still, they are the parties who advocate, are intermediaries, and have concern for the impacts caused by the management of coastal areas.

Table 3. Level of Secondary Stakeholder's Influence and Interest

No	Stakeholder Category	Role	The Impact Level		The Level of Importance	
			Low	High	Low	High
1.	Non-governmental organization <ul style="list-style-type: none"> • Study Center Maritime for Humanity • Public coalition for Fisheries Justice • Ecological Foundation 	Impelemntor, Advocate, and Facilitator		✓		✓
2.	Community Organization	Implementor, Advocate, and Facilitator	✓		✓	

No	Stakeholder Category	Role	The Impact Level		The Level of Importance	
			Low	High	Low	High
3.	Indonesian National Entrepreneurship Movement (GKNI)	Implementor, Advocate, and Facilitator	✓		✓	
4.	KNTI	Implementor, Advocate, and Facilitator	✓		✓	

4.2 Differentiating Between and Categorizing Stakeholders

The results of the grouping and categorization of the level of influence and interest of stakeholders in coastal management policies of the Kepulauan Riau Province can be seen in Figure 2. The group and categorization consist of:

- Key players: Ministry of Maritime Affairs and Fisheries (KKP), Governor of Kepulauan Riau, Governor of Kepulauan Riau Province, Department of Marine Affairs and Fisheries of Kepulauan Riau Province (DKP), Department of Environment and Forestry of Kepulauan Riau Province (DLHK), Regional House of Representatives (DPRD) of Kepulauan Riau Province, Coordinating Ministry for Maritime Affairs and Investment (Menko Marves), and the Entrepreneurs.
- Context setter: Regional Spatial Planning Coordinating Board for the Kepulauan Riau Province (BKPRD) and the Public Works and Spatial Planning Office for the Kepulauan Riau Province (PUPR)
- Subject: Ministry of Environment and Forestry (KLHK), Ministry of Home Affairs (Kemendagri), Ministry of Transportation (Kemehub), Raja Ali Haji Maritime University (UMRAH), and Non-Governmental Organizations (NGOs)
- Crowd: Ministry of Agrarian and Spatial Planning (ATR/BPN), Coastal Communities, Fishermen, Small Fish Cultivators, Salt Farmers, citizen organization, GKNI, KNTI.

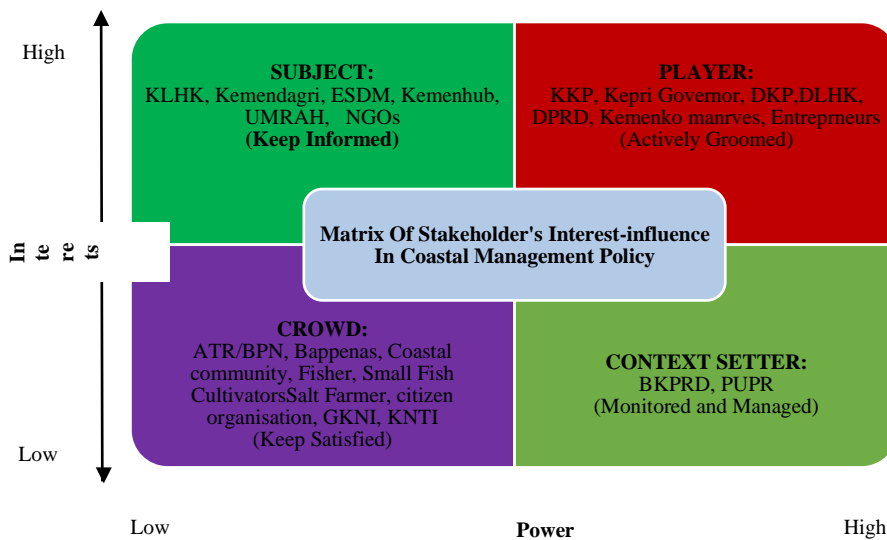


Fig 1. Matrix of Stakeholder's Interest-influence In Coastal Management Policy

For example, the Governor of the Kepulauan Riau Province is interested in the existence of coastal area management, which regulates the utilization of the potential of coastal areas for the economic development of the Kepulauan Riau Province. The context setter category consists of the Regional Spatial Planning Coordinating Board for the Kepulauan Riau Province (BKPRD) and the Public Works and Spatial Planning Office for the Kepulauan Riau Province (PUPR). It is based on their strong influence because they have the authority to formulate policies, but because they are not in their field, namely the Kepulauan Riau Province Public Works and Spatial Planning Department, which focuses on land-based spatial planning rather than coastal spatial management.

Meanwhile, the Ministry of Environment and Forestry (KLHK), Ministry of Home Affairs (Kemendagri), Ministry of Transportation (Kemenhub), Raja Ali Haji Maritime University (UMRAH), and Non-Governmental Organizations (NGOs) are categorized as subjects because they have low influence, but have high importance. In this case, Non-Governmental Organizations (NGOs) can provide input in formulating coastal management policies. Still, the minimal quantity of representation has implications for the lack of quality political bids.

The crowd category consists of the Ministry of Agrarian Affairs and Spatial Planning (ATR/BPN), National Planning Agency (Bappenas), Coastal Communities, Fishermen, Small Fish Cultivators, Salt Farmers, Citizen Organisation, GKNI, KNTI. It on low influence and importance. Some parties in this category, not only because of their field of discussion, such as the Ministry of Agrarian Affairs and Spatial Planning but also have minimal knowledge related to coastal area management policies such coastal communities.

4.3 Investigating Stakeholder Relationship

Each actor's categorization needs to be the final result—actor mapping through an investigation of the relationship between stakeholders. There are several methods of investigating relationships with 1) Actor-linkage matrices, 2) Social Network Analysis provides insights into patterns of communication, trust, and influence between actors in social networks, and; 3) Knowledge Mapping analyses the content of information between these actors [3]. This study uses a commonly used method, namely Actor-linkage matrices, which explains the relationship between stakeholders, using keywords to determine whether the relationship between each stakeholder is conflict, complementary, or cooperation.

Based on mapping and stakeholder analysis results, the actor mapping process describes the actors in formulating coastal area management policies, namely RZWP3K, which involves various types of actors or multi-actor. One of the key players is having relevance at the central level, and several ministries are involved in formulating the Kepulauan Riau Province RZWP3K policy, especially the Ministry of Maritime Affairs and Fisheries (KKP). Although the RZWP3K Policy regulates the spatial planning of coastal and marine areas, ministries with different fields and affairs also provide colour in the policy formulation process. However, their involvement deserves attention due to the lack of cooperation and coordination to focus on their respective matters. Furthermore, the problem of overlapping authorities also marks the relationship between the Central Government and the Regional Government. In addition, the involvement of other actors such as NGOs and academics is not very significant in quality because they are in quantity and do not match other actors, so they have a slight political offer.

The results of this study confirm the results of previous studies [1] that stakeholder analysis can be usefully applied to various policy and management contexts but is more relevant (and critical) in complex situations where there are problems of compatibility between objectives and stakeholders, such as natural resource management in the policy coastal area management. One of the characteristics of this research is Multiple objectives and concerns among stakeholders.

There are potentially crucial differences in perspective regarding resource use, for example, between economic, social, and environmental viewpoints and the competing interests of different stakeholders. In addition, this study, in line with other studies [2], [3], [5], [6], [13], [14] that some of the challenges and limitations of existing approaches and proposes several new methods and combinations of ways that can more effectively identify and categorize stakeholders and help understand the relationships between stakeholders.

5. Conclusion

This study examines the involvement of various stakeholders in coastal management policies in the Kepulauan Riau Province and conducts stakeholder mapping. Our findings in the stakeholder analysis, especially in managing natural resources, especially coastal areas, are characterized by multiple objectives and concerns among stakeholders. It has led to obstacles in ratifying legal products of regional laws and regulations, namely the Regional Regulation on RZWP-3-K. The category of stakeholders in the Matrix of stakeholder's interest-influence in coastal management policy by influence and interest. These two variables certainly determine the discourse built in the policy formulation process. As a result, until now, the Province of Kepulauan Riau has not yet had a formal basis for managing coastal areas as mandated by the central government in the form of Regional Regulations. These results also provide recommendations on the government's efforts to follow up with each stakeholder on coastal area management policies by keeping informed, actively groomed, monitored and managed, or satisfied

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