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Stakeholder Analysis in the Management of Marine Conservation Area in Indragiri Hilir District

Analisis Stakeholder dalam Pengelolaan Kawasan Konservasi Perairan di Kabupaten Indragiri Hilir

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Abstract

Various human activities around the marine protected area in Indragiri Hilir Regency put considerable pressure on coastal and marine ecosystems. The Marine Protected Area of Solop Beach Pulau kecil Park in Indragiri Hilir Regency has been designated as a marine protected area to protect water areas, with a zoning system to realize sustainable management of fish resources and the environment. The research was carried out in October 2022 in the marine protected area in Indragiri Hilir Regency. This study aims to analyze the role of stakeholders involved in the management of marine protected areas in Indragiri Hilir Regency, which was carried out through in-depth interviews with informants, namely selected stakeholders. The results showed that the role of stakeholders in the management of marine protected areas in Indragiri Hilir Regency was grouped into: input (Provincial Environment and Forestry Service, Provincial Maritime Affairs and Fisheries Service and Ministry of Maritime Affairs and Fisheries), stake (Village Head), output (Managers, group's community, fishermen, and NGOs) and unused (Academics).

Keywords: Marine Protected Area, Indragiri Hilir, stakeholders

Abstrak

Berbagai kegiatan manusia yang berada di sekitar Kawasan Konservasi Perairan di Kabupaten Indragiri Hilir memberikan tekanan yang cukup besar terhadap ekosistem pesisir dan laut, Kawasan Konservasi Perairan Daerah Taman Pulau Kecil Pantai Solop di Kabupaten Indragiri Hilir telah dicadangkan sebagai Kawasan Konservasi Perairan sebagai upaya perlindungan terhadap kawasan perairan dengan system zonasi untuk mewujudkan pengelolaan sumberdaya ikan dan lingkungan yang berkelanjutan. Penelitian dilaksanakan pada bulan Oktober 2022 di Kawasan Konservasi Perairan di Kabupaten Indragiri Hilir. Penelitian ini bertujuan untuk menganalisis peran stakeholder yang terlibat dalam pengelolaan Kawasan Konservasi Perairan di Kabupaten Indragiri Hilir, yang dilakukan dengan wawancara mendalam kepada informan yaitu stakeholder yang telah dipilih. Hasil penelitian menunjukkan bahwa peran stakeholder dalam pengelolaan Kawasan Konservasi Perairan di Kabupaten Indragiri Hilir dikelompokkan menjadi: input (Dinas Lingkungan Hiidup dan Kehutanan Provinsi, Dinas Kelautan dan Perikanan Provinsi serta Kementerian Kelautan dan Perikanan), stake (Kepala Desa), *output* (Pengelola, kelompok masyarakat, nelayan dan LSM), dan unused (Akademisi).

Kata Kunci : Kawasan Konservasi Perairan, Indragiri Hilir, stakeholder

1. Introduction

The irreversible loss of critical ecosystems and the increasingly pronounced changes to social-ecological systems have fuelled public awareness of nature conservation and garnered support to temper global environmental change (Bernstein et al., 2008; Leiserowitz et al., 2019, Chan et al., 2020) and generate more equitable policies governing the use of natural resources (Smith & McDonough, 2001; Mace, 2014). A history of land acquisition disputes and regulations that favors public sector opinions on how governments manage resources creates a deeper divide between institutions and local communities. Investigations into the representation of stakeholder interests in environmental conservation have gained traction to better understand and enact the value of pluralism, as well as seeking to strengthen inter-institutional/constitutional relationships (Palomo et al., 2014; Cebrian-Piquera et al., 2020; Van Riper et al., 2020). Indeed, public involvement in land management decisions plays an important role in the success of conservation initiatives and relies on trust (Smith et al., 2013) and information exchange (Reed et al., 2010; Gould et al., 2019). Although a large body of literature has recognised that successful conservation initiatives need to involve listening to values in community perspectives, power dynamics and levels of trust (Smith et al., 2013; Stern & Coleman, 2015; Oldekop et al., 2016; Staddon et al., 2013). However, there is a limited empirical understanding of the combination of reasons why stakeholders have different perceptions of inclusiveness. The concept of inclusive conservation originated from a concern that different approaches to valuing nature were increasingly being debated rather than seen as complementary (Tallis & Lubchenco, 2014).

The Ministry of Maritime Affairs and Fisheries is targeting the development of 30 million hectares of Marine Protected Areas by 2030. Referring to Undang-Undang Republik Indonesia No 1 in the year 2014, conservation areas in coastal areas and small islands based on certain criteria are protected to realize sustainable management. The establishment of Marine Protected Areas is one way to protect, conserve, and utilize natural resources. The types of MPAs and categories are based on the purpose and objectives of the establishment of conservation areas that are adjusted to the fish resources, and social and cultural conditions of the area. Law Number 31 of 2004 concerning Fisheries, as amended by Law Number 45 of 2009, explains that fish resource conservation is an effort to protect, conserve and utilize fish resources, including ecosystems, species and genetics to ensure their existence, availability and sustainability while maintaining and improving the quality value and diversity of fish resources.

One of the regional marine protected areas (MPAs) is the Solop Pulau Kecil Island Park located in Indragiri Hilir Regency, Riau, which has been reserved in the Riau Governor's Decree No. 863/XI/2017. Keputusan Gubernur Riau No. 863/XI/2017, about MPA Reserve in Indragiri Hilir Regency. It has also been contained in the Riau Province's Coastal Zone and Small Islands Zoning Plan (RZWP3K) 2020-2040 document, which is just waiting for approval from the Ministry of Maritime Affairs and Fisheries of the Republic of Indonesia.

Indragiri Hilir Regency has considerable potential for marine protected areas. This potential can be utilized to support tourism, fisheries, and sustainable ecosystems. However, the management of marine protected areas in Indragiri Hilir District still faces various challenges, such as the lack of understanding and participation of the community, lack of coordination between related sectors, and lack of available resources. Therefore, stakeholder analysis in the management of marine protected areas in Indragiri Hilir District is very important. Stakeholder analysis can help identify various parties that have an interest or influence in the management of marine protected areas, either directly or indirectly. Thus, stakeholder analysis can help design more effective and sustainable management strategies, as well as minimize conflict and increase community participation.

2. Material and Method

2.1. Time and Place of Research

The research was conducted from April to December 2022. The marine protected area in Indragiri Hilir District was chosen as the research location because the area has great potential in storing aquatic biodiversity and contributing to maintaining ecosystem balance. The object of the research is stakeholders involved in marine protected areas in Indragiri Hilir District. The attributes studied are the influence and dependency of stakeholders and their interactions in marine protected areas in the Indragiri Hilir District.

2.2. Methods

The types of data collected include primary and secondary data. Primary data was obtained through direct observation and questionnaires to 35 expert respondents (stakeholder representatives) involved in the management of marine protected areas in Indragiri Hilir Regency, such as KKP, Provincial/District DKP, Provincial DLHK, Village Heads around marine protected areas, communities and fishermen, local NGOs and universities. Determination of respondents by *purposive sampling*, namely sampling is carried out based on certain considerations that the respondent is considered to know best about the data and information that is expected following the research objectives (Sugiyono, 2012).

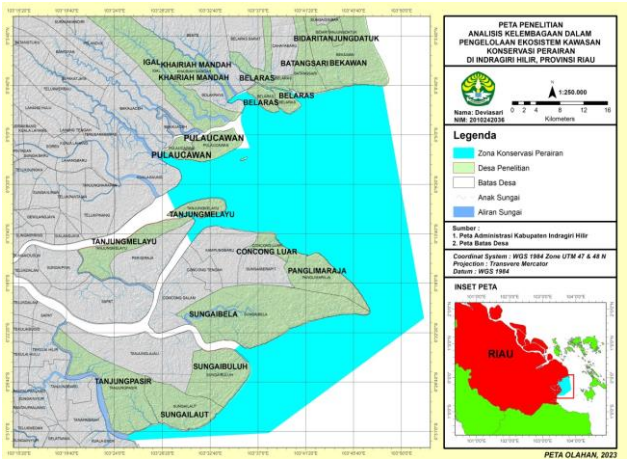

Figure 1. Location map of Indragiri Hilir district marine protected areas

2.3. Data Analysis

The research analysis uses prospective analysis. Prospective analysis to obtain determining factors (key factors) in formulating strategies (Bourgeois & Jesus, 2004). Based on this analysis, information on determining factors can be known according to the needs of stakeholders. The analysis of stakeholders in the management of marine protected areas in Indragiri Hilir District was conducted based on in-depth interviews with informants in the form of selected stakeholders with scores ranging from 0 (no influence), 1 (weak influence), 2 (moderate influence), and 3 (strong influence) (Hardjomidjojo, 2002). The scores obtained from the informants were then selected based on the value answers that often appeared, and then analysed based on the stakeholder grid by entering the score values into Microsoft Excel. The values entered into Microsoft Excel will form a matrix so that the position of stakeholders will be known, indicating the role of each stakeholder in the management of marine protected areas in Indragiri Hilir District.

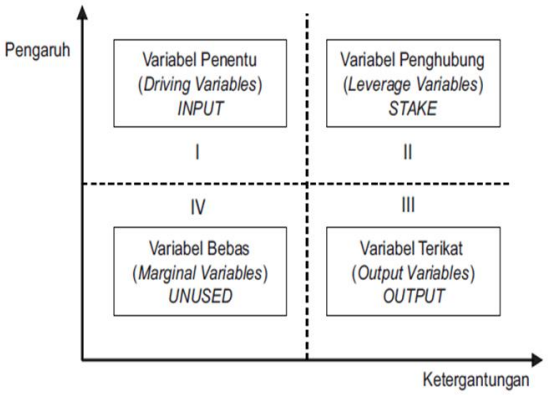

Figure 2. Stakeholder influence and dependency matrix (Bourgeois & Jesus, 2004)

Based on Figure 2, the stakeholder classification has a meaning according to the position in the quadrant where the factors are located according to (Hardjomidjojo, 2002), namely: 1) Quadrant I is to contain attributes that have strong influence and low dependence, 2) Quadrant II is an attribute that has strong influence and strong dependence, 3) Quadrant II contains attributes that have low influence and strong dependence, and 4) Quadrant IV is to contain attributes that have low influence and dependence

3. Result and Discussion

3.1 Stakeholder Identification

The results of stakeholder identification show that there are 35 stakeholders involved in the management of MPAs in Indragiri Hilir Regency, which come from Governments (Central and Local Governments), communities (Society), and academies (Higher Education). After the identification of stakeholders in Indragiri Hilir Regency's marine protected areas, a dependency and influence matrix was prepared.

The matrix is formed based on the description of informant questions expressed in quantitative measures (scores) of money and then classified based on the criteria of dependence and influence. Furthermore, the score value obtained is compared to the level of dependence and influence of each stakeholder in the form of a dependency and influence matrix using a stakeholder grid. The classification of stakeholders can be known from how much dependence and influence each stakeholder has in the Indragiri Hilir District marine protected area

Table 1. Stakeholder identification by the group in the Indragiri Hilir District marine protected area

Group	Stakeholders
Government	KKP, Provincial and District DKP, DLHK Prov Riau, Khairiah Mandah, Bente, Bekawan, Bidari Tanjung Datuk, Belaras, Batang Hari, and Igal villages (Mandah District), Tanjung Pasir and Sungai Laut villages (Tanah Merah District), Sungai Bela, Sungai Buluh, and Tanjung Melayu villages (Kuala Indragiri District), and Concong Luar and Panglima Raja villages (Concong District).
Community	Community and fishermen groups of Khairiah Mandah, Bente, Bekawan, Bidari Tanjung Datuk, Belaras, Batang Hari, and Igal villages (Mandah sub-district), Tanjung Pasir and Sungai Laut villages (Tanah Merah sub-district), Sungai Bela, Sungai Buluh and Tanjung Melayu villages (Kuala Indragiri sub-district) and Concong Luar and Panglima Raja villages (Concong sub-district), NGOs Yayasan Hutan Biru (YHB) and Yayasan Mitra Insani (YMI).
Academy	Researcher (Universitas Riau)

3.2. Stakeholder Dependency and Influence

The value of the level of dependence and influence of 35 stakeholders in the marine protected area in Indragiri Hilir District obtained four categories of stakeholders (Figure 2).

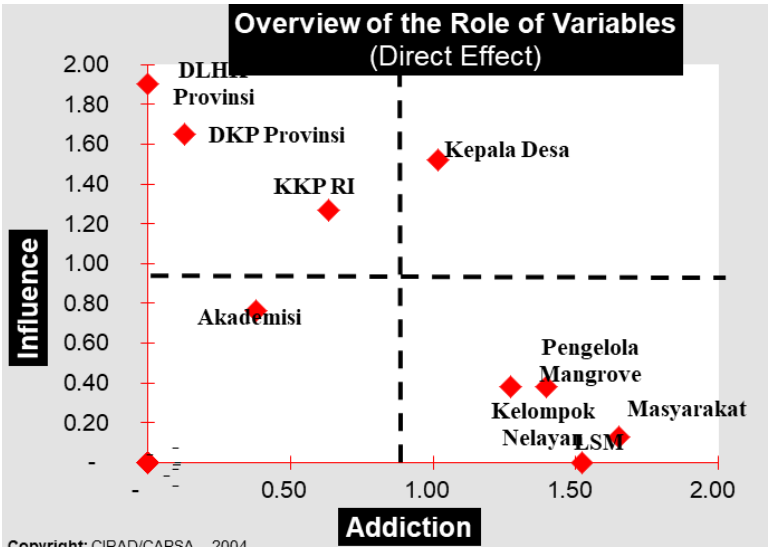

Figure 3. Stakeholder dependency and influence matrix of Indragiri Hilir District Marine protected areas

Input. Stakeholders in quadrant I mean that they have a high level of influence but low dependence. Most of the stakeholders in Quadrant I consist of central and local governments (Government). This position is occupied by 3 stakeholders, namely the Provincial Environment and Forestry Service, the Marine and Fisheries Service, and the Ministry of Marine Affairs. This party has a high influence because it has the power to influence other parties, one of which is through authority in decision-making, the power to suppress other parties (coercive), conditioning capabilities through manipulation of trust or opinion formation, ownership of science, knowledge and technology, labor, capital and other strategic resources, and cooperation networks (networks) owned. The government generally has a high influence on marine protected areas in Indragiri Hilir District, and its management in the form of monitoring the area. Although the dependency on the area is low, the input group has a great influence on the success of marine conservation objectives, including its availability in maintaining the area amid the dependency of stakeholders on the resources located in the area about economic, ecological and socio-cultural interests.

Stake. Stakeholders who have a high level of influence and dependence on the management of marine protected areas in Indragiri Hilir District. Stakeholders included in the Stake category consist of the village head. This is because the village head as the highest person at the local village level has the authority to supervise and be involved in monitoring the activities of his community. The Village Head has a high dependency and influence in the marine protected area due to the duties and functions carried out by the agency. This group generally plays a role in activities that require important decisions.

Output. Stakeholders who have low influence and high dependence. Parties included in the output category consist of 4 stakeholders, namely mangrove managers, community groups, fishermen, and NGOs. Community groups and fishermen have a fairly high dependence on the marine protected area because it is related to economic, ecological and socio-cultural interests. The community uses the area as a source of livelihood to fulfill their daily needs and utilize the coastal resources, such as capture fisheries and mangrove forest timber harvesting, which has been going on for a long time. Their low influence is due to their low capacity. To support the success of marine conservation, these community groups are empowered to make alliances and form an

institution or memorandum of understanding in the utilization of marine protected areas and aquatic biota habitats so that this institution will later have an influential position in marine protected areas in Indragiri Hilir District.

Unused. For stakeholders who have a low level of influence and dependence, the study results explain that academics are in quadrant IV. Academics only have dependence on research activities, as a fulfillment of the final assignment. Parties in this group need to be considered to be involved in decision-making according to their capacity.

NGOs and Academics have the same position, but based on the results of the study it appears that NGOs are in quadrant III, meaning that they have a high dependence on marine protected areas in Indragiri Hilir District. This is because NGOs already have a program in maintaining the existence of the area together with the local community and involve several government agencies to establish cooperation. So to make academics to be in the same quadrant as NGOs, namely having a high dependence on the area, academics must design programs in the development of the area such as educating the community with counselling, empowering the community in maintaining marine protected areas in Indragiri Hilir Regency.

According to Widodo et al. (2018) stakeholder correlation can take the form of cooperation, coordination, and coordination. Likewise, the stakeholder linkages identified in the Indragiri Hilir Regency marine protected area include communication, coordination and cooperation. Cooperation is carried out between stakeholders to achieve a common goal. In cooperation, there will be coordination and communication between the stakeholders involved. The service unit of the water conservation area in Indragiri Hilir District cooperates with several community groups such as NGOs and Pokmaswas in the villages around the area.

The cooperation carried out is certainly related to the maintenance of marine protected areas such as the management of protected resources, important fisheries habitats and joint supervision of management in the marine protected areas. Coordination of relationships between stakeholders and systematic arrangements regarding the implementation of tasks in marine protected areas, with the coordination of stakeholders, can complement each other and ensure the smooth functioning of management. Finally, communication is crucial to the achievement of coordination in cooperation. Through communication, MPA stakeholders can share information on management, including ideas and opinions on MPA management. Cooperative communication is found in this MPA between the MMAF, Provincial and District DKP and other local governments. The communication discusses the management and programs that will be implemented in the MPA. Instructive communication occurs when managers inform the rules and sanctions that apply to the Indragiri Hilir District marine protected area. Consultative communication is also established between service units and the community. The community can express their aspirations and criticisms along with suggestions for management in marine protected areas.

4. Conclusions

Stakeholders that play a role in the management of Marine Protected Areas in Indragiri Hilir Regency are KKP, Provincial/Regency Marine and Fisheries Service, Provincial Environment and Forestry Service, community and fishermen groups, NGOs and universities. Suggestions for further research to add private stakeholders (companies) related to waste disposal that can pollute the Marine Protected Area environment.

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