

INSTITUTIONAL SYNERGY IN SUSTAINABLE PEATLAND MANAGEMENT

SINERGISITAS KELEMBAGAAN DALAM PENGELOLAAN LAHAN GAMBUT BERKELANJUTAN

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ABSTRACT

The main highlight in peatland resource management to date has been the weak institutional synergy directly related to peatland management. This study aims to analyze institutional synergy in sustainable peatland management in the Giam Siak Kecil-Bukit Batu (GSK-BB) Landscape area of Bengkalis Regency. The research design used a mixed approach by combining quantitative and qualitative methods to determine the sustainability of institutional dimensions in peatland management. RAPPEAT analysis was used to analyze the sustainability index of institutional aspects. The results showed that the index and sustainability status of the institutional dimension of peatland management were categorized as less sustainable. Based on the MDS analysis, the institutional dimension only has an index of 49.8%. This result directly illustrates that peatland management in this landscape is not yet oriented towards the institutional dimension.

Key words: Institutional synergy, peatland, management, sustainability

ABSTRAK

Sorotan utama dalam pengelolaan sumberdaya lahan gambut sampai saat ini adalah sinergi kelembagaan yang terkait langsung dengan pengelolaan lahan gambut yang masih lemah. Penelitian ini bertujuan untuk menganalisis sinergisitas kelembagaan dalam pengelolaan lahan gambut berkelanjutan di kawasan Lanskap Giam Siak Kecil-Bukit Batu (GSK-BB) Kabupaten Bengkalis. Desain penelitian menggunakan pendekatan campuran dengan menggabungkan metode kuantitatif dan kualitatif untuk mengetahui keberlanjutan dimensi kelembagaan dalam pengelolaan lahan gambut. Analisis RAPPEAT digunakan untuk menganalisis indeks keberlanjutan aspek kelembagaan. Hasil penelitian menunjukkan bahwa indeks dan status keberlanjutan dimensi kelembagaan pengelolaan lahan gambut termasuk kategori kurang berkelanjutan. Berdasarkan analisis MDS diperoleh data bahwa dimensi kelembagaan hanya memiliki indeks 49,8%. Hasil ini secara langsung memberikan gambaran bahwa pengelolaan lahan gambut di lanskap ini belum berorientasi pada dimensi kelembagaan.

Kata kunci: Sinergi kelembagaan, lahan gambut, pengelolaan, berkelanjutan

PENDAHULUAN

The utilization of natural resources (SDA) to meet the needs of human life has occurred since the beginning of human life (Christanto, 2014). Natural resources that are open access can be easily degraded. Similarly, communal ownership tends to lead to the "tragedy of the commons" (Widarmanto, 2018). Meanwhile, in the subsequent development of institutional science, it was found that communal ownership can avoid the "tragedy of the commons". Community social institutions that can last a long time are characterized by the existence in the community of various mutual agreements in the form of laws that are respected by all members of the community (Firmanda, 2017).

Communities living in the GSKBB Landscape area derive their livelihoods from peatlands in the form of cultivation and forestry. Traditionally, the community has a land tenure system (Qomar, 2017). Currently, there are three land tenure regimes in the area: common property, private property and state property. Land tenure by the state is in the form of conservation forests, production forests and protected forests (Nopiansyah, 2017). In the management of this area, there are various stakeholders, each of which has different interests and influences that change over time. In their interactions, among stakeholders there is the potential for cooperation, complementarity, and sometimes conflict (Islamy, 2018).

The increasing population density and the increasingly narrow area for agricultural businesses

force people to optimize the land that is still available. The clearing of peat swamp forests for agriculture, however, is still more dominant in causing environmental problems and making life difficult for the surrounding community (Susanto, 2020). Therefore, it is necessary to provide information to the farming community so that their insights and knowledge about what commodities can be cultivated to optimize the use of peatlands (Esperanza, 2021). This is where the institutional function comes into play. To overcome the above problems, efforts need to be made to strengthen farmers' institutions (such as: farmer groups, labor institutions, input provider institutions, output institutions, extension institutions, and capital institutions) and are expected to protect farmers' bargaining position (Zulkarnaini et. al, 2020).

Institutional functions can run well, especially in peatland management if they have the right strategy (Firmansyah, et. al, 2017). Taking into account the situation and changes in agricultural development and the challenges that exist, it is very necessary to prepare an effective development communication strategy in supporting development. Farmer institutions are formed basically have several roles, interorganizational tasks to mediate between the community and the state, (b) resource tasks include the mobilization of local resources (labor, capital, materials, information) and their management in achieving community goals, (c) service tasks may include service requests that describe development goals or coordination of local community requests, and (d) extraorganizational tasks require local requests to the bureaucracy or outside community organizations against interference by outside agents (Zulkarnaini et. al, 2022).

One of the weaknesses in peatland resource management in the GSKBB Landscape is the lack of empowerment of all parties directly related to peatland utilization. This is reflected in their low role in planning and management processes. To some extent, management systems that have been known for generations are not utilized by interested stakeholders (Keliwar, 2013). Various parties related to peatlands, including the government (central/regional), academics, communities, non-governmental organizations (NGOs) and the private sector, have not yet shown their maximum role. In fact, it is important for communities from peat areas to increase their knowledge through a coaching process that must be directly related to local conditions (Prabowo, 2020).

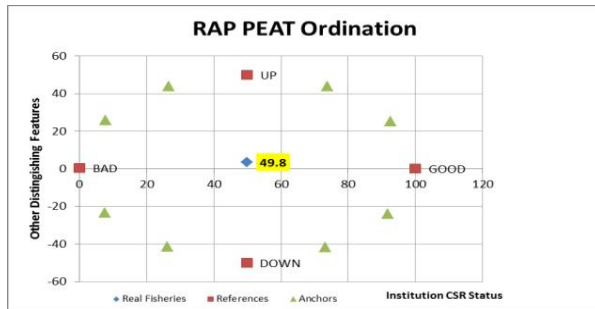
METODE

The design of this research used a mixed approach by combining quantitative and qualitative methods. The initial stage of this research was carried out to take a comprehensive picture of the situation and problems, especially regarding the people living in peatlands in the GSKBB landscape, then formulated a model design based on these conditions. To determine the sustainability of peatland management, computer programming RAP-PEAT was used. The aim is to obtain ecological sustainability in peatland management in the GSKBB landscape. The sustainability analysis using the Rapfish was carried out through several stages as follows: (i) Determination of sustainable attributes of peatland management which dimensions institutional; (ii) Scoring attribute on an ordinal scale based on the sustainability criteria of dimension; (iii) Inputting the value of the assessment results of attribute into the software; (iv) Preparation of index and sustainability status of peatland management.

HASIL DAN PEMBAHASAN

Efforts to realize peatlands as a model of land management and sustainable development approaches certainly require the support of all parties (Whitfield et.al, 2011). Therefore, it is important to harmonize policies and strengthen community institutions as users of the area. The government as the manager responsible for maintaining the sustainability of the area seems helpless to deal with it. This situation shows that peatland management policies have not yet achieved the desired goals and objectives in an effort to protect them from damage and extinction. Peatland management does not seem to be followed by changes in stakeholder behavior, presumably because there are still differences in vision, interests and perceptions between stakeholders regarding the existence of peatlands.

Tolvanen, et al (2013) state that future peatland management and protection schemes need to emphasize extensions that prioritize collaborative learning between the actors involved, so that these extensions can enable and enable the development of management capabilities at the local level. To determine the sustainability status of the institutional dimension of peatland management policy in the GSKBB Landscape, the attributes that are expected to influence are: (1) availability of formal regulations, (2) involvement of customary institutions, (3) role of formal institutions, (4) legality of the area, (5) law enforcement, and (6) local wisdom.



Gambar 1. Institutional Dimension Sustainability Index

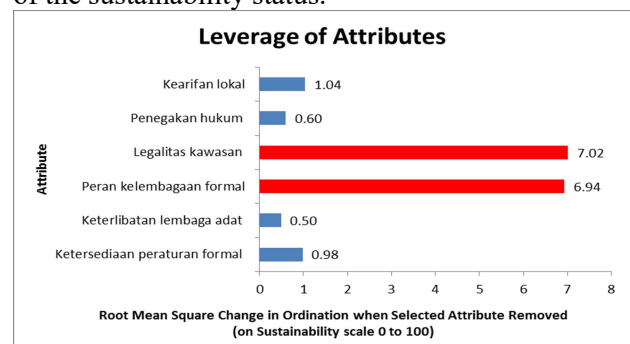
Based on the results of the RAPPEAT analysis in Figure 1 above, the sustainability index value of the institutional dimension is 49.8%. This value explains that the sustainability of the institutional dimension of peatland management policy in the GSKBB Landscape is less sustainable (<50). This needs to be considered, because the role of institutions in peatland management is very important. The role of institutions is not only to regulate natural resources, but furthermore to regulate each stakeholder that has an interest in the peatland ecosystem itself.

The dominant actors that control and utilize the GSKBB Biosphere Reserve land are BBKSDA Riau in the core area, companies holding forestry licenses in the buffer zone, and plantation license holders and farming communities in the transition area. The GSKBB Biosphere Reserve land, especially in the core area and part of the buffer zone, is Common Pool Resources (CPRs) so it is difficult to overcome the existence of free riders, namely migrant farmers and capital owners, resulting in conflicts between the community and forestry license holders and BBKSDA Riau continues to increase and the threat of forest and land fires is getting higher. As a result, the area of forest cover in the core area and buffer zone continues to decrease, while the area of smallholder plantations is expanding (Qomar, 2017).

There are local institutions (rules) that have been running well, for example, institutions built by fishers in the waters of the GSKBB Biosphere Reserve who still use traditional fishing gear. These local institutions are able to conserve fish even though user restrictions and the number of resource units that can be utilized are not regulated because the fish population is still abundant. However, these local institutions still need to be integrated with the management plan and arrangement of the Giam Siak Kecil and Bukit Batu SM area to make it stronger as a core area.

Weak social and institutional ties are also evident in Masyarakat Peduli Api (MPA), a volunteer group formed specifically to respond to, prevent and extinguish forest and land fires at the village level. The weak institutionalization of MPAs can certainly weaken efforts to deal with forest and land fires so that they cannot be carried out optimally. Limited human resources and fire extinguishers in each village are another obstacle in mitigating forest and land fires.

After analyzing the sustainability index of the institutional dimension, the next step is to conduct a Leverage analysis to determine the attributes that are sensitive to the sustainability of the institutional dimension. The results of the RAPPEAT analysis for the institutional dimension showed that the attributes that most influence the sustainability of the institutional dimension are regional legality (RMS = 7.02) and the role of formal institutions (RMS = 6.94). Kavanagh and Pitcher (2004) state that the RMS value indicates the magnitude of the role or influence of each attribute on the sensitivity of the sustainability status.



Gambar 2. The Role of Each Aspect Attribute of the Institutional Dimension Expressed as a Value RMS (Root Mean Square)

Figure 2 above shows that the most sensitive attribute is area legality. Peatland management policy is indeed a very complex matter because it occurs with various background problems (Arifudin et al, 2017). One of them is the issue of land ownership related to peatland management and utilization. Land ownership in the GSKBB Landscape, which is dominated by outsiders and managed by workers who also come from outside the village, causes land tenure to be not optimal, so that fires can occur at any time without being prevented early on. In addition, the community is generally interested in cultivating oil palm, but unfortunately the land is always burned repeatedly. Then there are peat restoration activities, as an effort to restore degraded peatlands due to drought and fire. However, restoration activities are not easy to carry out, where communities feel restoration is a good option to

avoid recurrent peatland fires, but they question the direct economic benefits and technical constraints such as flooding that disrupts cultivated oil palm plantations.

The next sensitive attribute is the role of formal institutions. The existing institutional capacity to adopt the biosphere reserve concept in the GSKBB Landscape appears to be weak. This fact can be seen from the absence of changes in the behavior of the community and other stakeholders to conserve biodiversity and carry out sustainable development in this area (Jazuli, 2015). This is thought to be due to differences in vision, interests and perceptions between stakeholders. Formally, the management of resources in the core area and buffer zone of the GSKBB falls under the state-owned regime, managed by public institutions or granted government organizations, and the mismatch of power by the state. Due to the absence of adequate management and supervision by the government, the ownership regime tends to be "non-property" or "open access" (Hermanto et. al, 2021), thus fueling the overuse of natural resources with the influx of illegal encroachers, timber thieves, animal poachers, and other free riders.

Based on these data, in an effort to improve the sustainability status of the institutional dimension, it is necessary to pay serious attention to the sensitive attributes of area legality and the role of formal institutions as stated by Which, et. al (2012) that area legality needs to be improved to support the strengthening of institutional management. The authorities must firmly take action against illegal activities of land conversion. However, it is also necessary to pay attention to other attributes such as law enforcement and local wisdom of local communities.

KESIMPULAN

The existing condition of institutional aspects in the context of peatland management in the GSK-BB Landscape of Bengkalis Regency has undergone significant changes that lead to less sustainable governance. The sustainability index and status are categorized as less sustainable. The results of the MDS analysis showed that the institutional dimension has a less sustainable index of 49.8%. These results illustrate that peatland management policies in this landscape are still oriented towards other dimensions such as ecology and economy. Stakeholder synergy and organizing mechanisms are needed to coordinate and integrate various programs by prioritizing the interests of the community.

Multi-stakeholder coordination is important, because this landscape is quite large with many stakeholders who have different interests and influences.

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