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The Role of Traditional Local Institutions in Managing Customary Forest Hemaq Beniung in Juaq Asa Village, East Kalimantan, Indonesia

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Abstract:

Indonesian forest management system mandates that the forest is controlled by the state and that its management is given to the entrepreneur so that the people in and around the forest only de facto control and utilize the forest. In de jure, the community does not have legal access to direct use of the forest. This condition causes tenurial conflicts between the community and the Company. The purposes of the research were:

- To identify and analyze the ecological, socio-cultural and economic benefits of the Hemaq Beniung Customary Forest (hutan adat),*
- To observe the mechanisms for implementing traditional/customary local institutions in the management,*
- To observe and analyze the challenges and obstacles to implementing traditional local institutions (customary rules/laws) in the management of the customary forest,*
- To verify the success of the management of the Hemaq Beniung Customary Forest in realizing a prosperous society and ecosystem sustainability.*

The research was carried out from December 2021 to June 2022. The research site was in the Hemaq Beniung Customary Forest, Juaq Asa Village, West Kutai Regency. Sources of primary data were respondents and the Hemaq Beniung Customary Forest Management, as well as field surveys in customary forest areas. Secondary data were from references or journals as well as written documents. The method of data analysis is descriptive qualitative by describing a condition or event in a systematic and accurate way that can answer questions such as what, where, when and how. The results of the study have documented the role of adat through customary law, which is very central in managing the Hemaq Beniung Customary Forest. The customary laws that have been studied and documented include prohibitions and regulations to protect customary forests and how to fine those who violate customary rules. Meanwhile, the detailed procedures for customary fines are carried out verbally through a customary court (Sidang Adat). The role of customary law in preserving Customary Forests is central because all violations of the Customary Forest are carried out by the Customary Institution. Even violations or crimes in the village are also carried out through the Adat. The success of Hemaq Beniung Customary Forest Management was because the Customary Institution has met the Successful Criteria provided by Agrawal and Sustainability Principles by Ostrom. Obstacles and challenges to the implementation of customary law in conserving Customary Forests have been identified by four aspects:

- Land allocation, where the villagers themselves become obstacles to the development of Customary Forests because they do not have a mindset for forest conservation,*
- The value of customary fines, where the 'unwritten' rules require traditional leaders who really understand the intricacies of customary law,*
- Regeneration of the implementation of customary fines where the interest of the younger generation to study law and customary fines is decreasing even though customary fines must be carried out carefully by a competent person,*
- Government recognition has supported the successful implementation of Customary Forests.*

Keywords: Customary forest, customary law, hukum adat, hemaq beniung, dayak, west kutai regency

1. Introduction

In his remarks as a speaker at the World Leaders Summit on Forest and Land Use at the Scottish Event Campus, Glasgow, Scotland, in 2021, Indonesian President Joko Widodo emphasized, "The policy of sustainable forest management in Indonesia is environmental and economic and social considerations, partnerships with forest communities. The success of climate management in Indonesia can be achieved because it implements forest management that combines economic and social aspects. Social Forestry is made so that forest conservation must be accompanied by creating a proper social and economic life for the surrounding community. This is important because 90% of the world's population, including 34% of the total number of villages in Indonesia, is located on the border or in forest areas, and millions of Indonesian people depend on the forestry sector for their lives.

In 2019, Indonesia managed to reduce emissions from forests and land use by 40.9% compared to 2015. Indonesia's forest deforestation also reached its lowest rate in the last 20 years as the world lost 12% more primary forest than the previous year."

The function of forests in Indonesian economy is to provide forest products both in the form of wood and non-timber. Non-timber forest products can be in the form of rattan, tree sap, fruit, bark, animal feed leaves, honey, medicinal ingredients, cosmetic ingredients, game animals and so on (Sibero et al., 2021). Furthermore, the function of forests from an ecological point of view is hydrological or water system functions, resisting erosion, preventing landslides and preventing floods. Some people make a living and depend on forest products that are taken directly from the forest, both in the form of wood and non-timber (Saragih, 2011; Belcher et al., 2004). A forest management system that mandates that forests be controlled by the state and whose management is given to private companies makes the people in and around the forest only de facto control and utilize the forest, while de jure, they do not have legal access to use the forest directly.

This condition causes tenurial conflicts between communities in and around the forest and business permit holders or forest area managers who obtain valid permits from the government. This became one of the backgrounds for the birth of the Social Forestry program launched by the Government through the issuance of Minister of Environment and Forestry No. 9 of 2021 concerning Social Forestry Management.

With the above legal framework, communities in and around forest areas can gain legal access to forest area management under the term Social Forestry, which provides five alternative management schemes: Village Forest, Community Forest, Community Plantation Forest, Customary Forest, and the Forestry Partnership.

From a number of social forestry agreements that already exist in East Kalimantan Province, one of them is the Hemaq Beniung Customary Forest, which has been given its designation through SK.4618/MenLHK-PSKL/PKTHA/PSL.1/9/2017 dated 5 September 2017 concerning Determination Inclusion of Customary Forests Hemaq Beniung to the people of Juaq Asa Village covering an area of \pm 48.85 ha in Juaq Asa Village, Barong Tongkok District.

The existence and success of customary forest is, of course, inseparable from the application of local customary rules, which are local knowledge and wisdom in managing forests and the environment. Kleden (2022) states that adherence to customary law is an essential requirement in customary forest management. In its implementation, it is also inseparable from various obstacles and challenges, both from internal indigenous peoples and from outside, such as government bureaucracy or laws and regulations that are not in line with the spirit of forest management through customary rules. So far, this customary forest has remained sustainable, so it is necessary to study the role of traditional local institutions in its management.

Many customary forests have been managed by various indigenous communities in Indonesia, including in East Kalimantan. Management of customary forests is generally limited to local knowledge and culture and, of course, quite good because it is in accordance with the principles of successful and sustainable customary forest management. The problem is that most of the customary rules used to manage customary forests are still in oral form, so one day, they can be lost because they are not documented in writing. In addition, the economic and environmental benefits of the customary forest are not yet known, and internal and external challenges have not been identified, as well as steps taken by local institutions to overcome them.

The aims of this study were:

- To identify and analyze the socio-economic, cultural and ecological benefits of the Hemaq Beniung Customary Forest,
- To take an inventory of the variety and examine the mechanisms for implementing traditional local institutions of the Dayak Tunjung community in Juaq Asa Village in the management of the Hemaq Beniung Customary Forest,
- To observe and analyze the challenges and obstacles to implementing traditional local institutions (customary rules/laws) in the management of customary forests,
- To evaluate academically the success of managing Indigenous Forests using the Sustainability Criteria of Ostrom (2003) and the Successful Criteria of Agrawal (2002) in realizing a prosperous society and ecosystem sustainability.

2. Methodology

2.1. Research Site and Time

The research was carried out for 5 (five) months, starting from November 2021 to June 2022. The research location was the Hemaq Beniung Customary Forest, Juaq Asa Village, West Kutai Regency, East Kalimantan, Indonesia. The distance from the capital of West Kutai Regency in Sendawar to this location is about 8 km. This location was chosen because the Himuq Beniung Customary Forest is one of the Customary Forests where this area still has the characteristics of a primary

forest, which is well-maintained even though it is near a residential location and has been supported by the West Kutai Regency Government.

2.2. Data collection

Data were collected in three ways:

- Focus Group Discussion (FGD) with the Village Forest Management Board (*Badan Pengurus*), customary heads, and community leaders.
- In-depth interviews with village heads, customary heads, forestry service staff, and
- Direct field surveys to customary forest locations together with the management agency.

The data collected included traditional local institutions, Customary law and the role of customary law in preserving the Hemaq Beniung Customary Forest, the socio-economic, cultural and environmental benefits of the existence of Customary Forests, verification of the implementation of Ostrom's theory (2003) and Agrawal (2002), obstacles and the challenges of managing the Hemaq Beniung Customary Forest.

2.3. Data Analysis

This research is a social research using a qualitative descriptive approach. A qualitative descriptive approach has the goal of describing a population, condition, or event in a systematic and accurate manner that can answer questions like what, where, when and how. This approach does not use statistical numbers but the descriptive presentation, describing a symptom and event that occurs to be the focus of attention to then be described (Rukajat, 2018; Suwendra, 2018).

In brief, data analysis is:

- Grouping data and information that has been collected through in-depth interviews with key-informants, field observations, video/audio recordings,
- Data reduction is a stage of qualitative data analysis technique, which is simplification, classification, and removal of unnecessary data so that the data can produce meaningful information and facilitate drawing conclusions,
- Data display or data presentation is a stage of qualitative data analysis techniques where a set of data is arranged systematically and is easy to understand. The data collected will be presented in the form of matrix, graphs, tables or charts so that the data are arranged in a relationship pattern that is easy to understand,
- Verification to see whether the data reduction results are valid to draw data conclusions still referring to the research objectives.

3. Results and Discussion

3.1. Description of Research Site

The research location is in Juaq Asa village, located about 8 km from the capital of West Kutai district, Sendawar. The area of the village is 1,860 ha, with a population based on the 2021 Village Monograph of 664 people divided into 201 families, with the majority of the Dayak Tunjung ethnicity around 95%. The main income of the community is from agriculture-plantation, especially rubber for 168 people, fishery and handicraft industry for 5 families, followed by construction laborers and employees as well as civil servants. During the fruit season, people's income comes from fruits such as *durian* (*Durio zhibetinus*), *rambutan* (*Nephelium lappaceum*), *cempedak* (*Artocarpus integer*), *langsai* (*Lansium domesticum*), *kwini* (*Mangifera odorata*), *kapul* (*Baccaurea macrocarpa*) etc.

The Hemaq Beniung Customary Forest, with an area of 48.5 ha, was originally a protected forest that began to be guarded in 1900 by a community leader, Soki and has been maintained by several families from generation to generation even though many residents wanted to clear the forest for fields or take wood. The Hemaq Beniung Customary Forest is one of the five Protected Forests of Juaq Asa Village, consisting of *Hemaq Tepahangk*, *Jengan Penganan*, *Bintang Lingiq*, *Batang Puok* and *Uhuk Sungai Lete*. According to Rusdianto (2021), in general, Hemaq Beniung has primary and secondary forest cover with altitudes ranging from 78 m to hilly areas with an altitude of 140 meters above sea level.

The supporting facilities that have been built in and around this customary forest include:

- A two-floor meeting room,
- The guard post used by the guards is *Satpol PP* (community police task force) of West Kutai Regency with a rotation of 3-4 people every day,
- Hygienic bathrooms and toilets,
- Quest Houses that can be used for overnight stays by tourists,
- A jungle track made of ironwood 300 meters long that enters from the Guest House into the customary forest area, making it very easy for visitors to enjoy the nuances of the Customary Forest,
- There are five gazebos made of ironwood in the forest area

3.2. The Benefits of Socio-Economic, Culture and Ecology of Adat Hemaq Customary Forest

In social forestry, especially Customary Forests, the Minister of Forestry of Indonesia (Nurbaya, 2018) described five basic principles and values, namely:

- Utilization for welfare,
- Community participation,
- Respect for ecology (natural function),
- Forest conservation and protection (balance/homeostasis) and

- Awareness of preservation, recovery and rehabilitation

Based on the principle of utilization for welfare above, the economic benefits of the Hemaq Beniung Customary Forest that have been enjoyed include receipt of entrance tickets to the Hemaq Beniung Water Attraction and entry tickets to the Indigenous Forest Area. Before the COVID-19 pandemic, benefits from Water Tourism entrance tickets and other benefits from the Customary Forest were around Rp. 100 million in a year.

During the 2020-2022 COVID-19 pandemic, there was no benefit because there were no visitors, and it is hoped that in 2023, conditions will recover. Another economic potential is the rental of a Gazebo in a Customary Forest area, which has been continuously being improved. The most abundant fruits in the Customary Forest area are as already described above. Among them, *durian* (*Durio zhibetinus*) is the most valuable. As stated in the customary rules, residents are free to take cempedak fruit but in a limited amount, in the sense that it is only for self-consumption.

Based on the principle of respecting the functions of nature and forest conservation and protection, the cultural benefit is to make customary forests part of traditional ceremonies carried out by the Tunjung ethnicity, the majority in several villages around the customary forests. During the *Kwangkai* and *Beliatn* ceremonies, various types of plants needed for the ceremony were taken from the secondary forest around the respective villages. If it turns out that the plants needed are not available, then the location of the Customary Forest is the last alternative to get them. This is done so that the potential of customary forests remains sustainable.

In detail, the socio-cultural and environmental benefits of customary forest are:

- Indigenous forest is a reservoir for several tributaries (Beniung River), which are a source of water for tributaries that are now dammed and have become the Hemaq Beniung Water Tourism Object. Apart from being a source of water for Natural Tourism Objects, the river originating from the Customary Forest is also used by residents for drinking water. This drinking water is also used to fill water reservoirs that can be sold around to residents who need water. River water sourced from customary forest environmental services has the potential to be developed as bottled water (gallons) because the discharge is quite large and continues to flow even though the dry season is rather long and the accessibility is very smooth,
- The fresh air enjoyed by the residents of Juaq Asa Village is inseparable from the existence of the customary forest, which is only about one km from the village,
- Ecological benefits that are no less important are habitat and biodiversity conservation of various types of flora and fauna.

Most of the land around the Customary Forest has been cleared for rubber and other agricultural land so that this Customary Forest can be said to be "the last habitat" for various types of flora and fauna that are increasingly rare, such as hornbills, hornbills and other flora and fauna that require primary forest as a habitat for breeding. For example, hornbills (*Buceros bicornis*) can only lay eggs and hatch in large, high tree holes. Identification of biodiversity in this location can be an object of study for other parties. The spiritual and religious meaning of the Indigenous Forest is as a place to collect various plants for the needs of traditional ceremonies.

3.3. Traditional Institution in Managing Customary Forest

A traditional institution is an organization that grows in society and develops according to the dynamics of society. Village traditional institutions are tasked with empowering village communities, participating in planning and implementing development and improving village community services. The characteristics of local institutions include being long-lived for a certain period, growing with a number of backgrounds, having specific goals, having norms, and having a number of rules and values originating from their citizens.

According to Johansen et al. (2010), Dayak Tonyooi is a Dayak sub-tribe that lives in West Kutai Regency East Kalimantan. The Dayak Tonyooi sub-tribe originally lived in a nuclear family and also in the form of an extended family, which originally lived in one unit and lived in a long house or *Lamin*. Thus, in a unified place where they live, they feel a kinship affinity and grow very strong social cohesion.

Likewise, with the Tonyooi or Tunjung ethnicity in Juaq Asa Village who initially lived in a long house. The rules that were used when living in the long house were unwritten customary rules. Even though it is not written down, customs cannot be violated or opposed but must be obeyed and carried out by members of the community. If anyone violates the customs, they will get punishment directly from the community in the form of customary sanctions that have been mutually agreed upon in the form of customary law or a curse.

With regard to forest management, including the Hemaq Beniung Customary Forest, the traditional local institution that manages customary forests is the Dayak Tunjung Customary Institution, commonly called the Traditional Head, which performs various rituals, including the *Pakant Talunt* ritual. *Pakant* is a custom or belief of the Dayak Tunjung community, which is to give food, and *alunt* means forest. *Pakant Talunt* means feeding the forest owner so that the forest continues to provide prosperity to the people. This ritual is carried out as an effort by the community to avoid danger when clearing land or visiting tourist attractions, including Hemaq Beniung, which in the Tunjung dialect is called *mogaq talunt*.

According to the Head of Juaq Asa Village, in its current situation, the *Pakant Talunt* ritual is being carried out less and less because the majority of residents believe in Christianity. However, the spirit to protect the forest is maintained so that it continues to benefit the people by making customary rules to preserve the Hemaq Beniung customary forest. The local institution as the executive body that manages this customary forest is the Hemaq Beniung Customary Forest Management Board (*Badan Pengelola Hutan Adat*).

Prior to the existence of the Management Board, which now has a written structure, the local traditional institution found in Juaq Asa Village was the Customary Head. At that time, the meaning of the Traditional Head was the Traditional Head and his staff and customary rules in an unwritten form. The Hemaq Beniung customary forest is managed by a Management Body consisting of the Village Head, who is ex-officio Chair of the Management Board, with a total of 23 Members representing ethnicities and genders who are proportional. This number is in accordance with the criteria presented by Agrawal (2002) and Ostrom (2001), which stated that customary forest as a form of common property does not need to be too large but can represent the characteristics of the existing community. Even though there are not too many, they must be representative of the villagers.

The Management Body is tasked with compiling customary rules evaluating and supervising the implementation of these customary laws. Some of the customary rules regarding customary forests are that residents may not make fields or gardens, may not be sold to other parties, are prohibited from pledging this land to obtain a loan from a bank, are prohibited from hunting/catching/killing any animals within the customary forest area, even if there are people those who are suspected of hunting or setting snares, the Officer or Management Agency will ask for information from the person for processing, are prohibited from burning forests or clearing fields and other land clearing activities in the Customary Forest area, are prohibited from cutting any trees without permission from the Customary Institution, may not take Timber forest products and non-timber forest products for personal gain (other than for customary ritual needs), may only collect fruit that has fallen, for example, durian and cempedak in limited quantities. This rule, according to Imang et al. (2008 & 2009), is the same as the Tana' Ulen rule for the Dayak Kenyah community in Batu Majang Village, Mahakam Ulu Regency, where residents are not allowed to open fields in the area.

Challenges and obstacles to implementing traditional local institutions (customary rules/laws) in customary forest management

Since the establishment of the Hemaq Beniung Customary Forest, various challenges have arisen, both challenges and obstacles in allocating land for customary forests, both from the residents themselves and from residents outside the village. The following are obstacles and challenges to implementing customary law to preserve the Beniung Hemaq Customary Forest from various aspects as follows:

- *Land Allocation:* Since this land was to be allocated as a protected forest (the term used at that time), the opposing view of the people at that time was that there was no point in maintaining the forest because there was nothing that could be extracted from the forest. Residents argue that it is better if this forest is cleared into fields or gardens where the results can be enjoyed immediately at harvest time. However, Pak Soki persisted and provided an understanding that one day the forest would disappear and it was feared that posterity would no longer be able to see primary forest, especially wood with large buttresses;
- *The Nominal Value of Customary Fines/Charge:* challenges in applying customary law for violations of customary forests, among others, because those who violate the rules do not have the money to pay according to the value of customary fines, which is determined to be equivalent to 'antang' where one 'antang' is around IDR 400,000 (USD 286). As already mentioned, customary rules are flexible, meaning that if the violator of customary rules cannot pay a fine according to what is stipulated by customary law, the customary leader can reduce the value of the fine according to the ability of the offender. However, if it turns out that the violator still cannot pay, then the Adat will reduce the value of the fine again. So, customary parties can only reduce the value of customary fines to a maximum of three times. After that, the violator must pay a minimum fine that has been set. This shows that Adat is flexible but still has to be educational so that any violations must be fined by custom, but still pay attention to the ability to pay those who violate custom. In this case, there must be very mature considerations from: Traditional leaders and regeneration of procedures for implementing customary fines. Detailed execution of customary fines is usually carried out 'orally' or 'not in writing.' Determination of customary fines 'orally' is due to the fact that in each case that occurs, there must be an in-depth study and understanding from the traditional leaders about the amount of the fine or how many 'barriers' are reasonable for each case of violation. Therefore, customary fines may only be carried out by someone who truly understands *adat*. This is where the problem arises due to the lack of young people who can inherit customary law and are willing to learn customary law from a senior customary leader.

3.4. Evaluation of Customary Forest Management Using the Ostrom Sustainability Criteria (2003)

The success of the management of Hemaq Beniung Customary Forest as Common Pool Resources (CPRs) can be assessed from various indicators with the aim of seeing whether the management is in accordance with these indicators or if there are still deficiencies that need to be corrected. One of the indicators used in Common Pool Resources in various developing countries is the Ostrom method (1990) and Ostrom et al. (2003). Ostrom's eight Sustainability Principles are:

- *Clearly Defined Boundaries, in Terms of Resource Unit and Membership:* As mentioned above, the management of the Hemaq Beniung Customary Forest has complied with this principle, which is indicated by the presence of clear boundaries between the customary forest boundaries and the surrounding land. For example, the boundary between the Customary Forest and the land belonging to the residents of Kampung Juaq Asa is marked by the issuance of a Land Certificate for the residents through the 2021/2022 Complete Systematic Land Registration Program (PTSL = *Pemetaan tanah sistematis lengkap*). With this certificate, the boundaries in written form of a certificate already exist so that the descendants of the owners of the surrounding land cannot break into the customary forest area. On the other hand, customary forest areas are also safe because, at the time of making the certificate through the PTSL program, both parties agreed on the land boundary points and are subject to the

customary forest map that was made by the regional government, in this case, the West Kutai District Forestry Service in 2014. Imang et al. (2009) stated that without clear boundaries, common property is difficult to manage because people cannot enter it carelessly. Furthermore, Ciriacy-Wantrup and Bishop (1975), namely:

- The presence of boundaries concerning who is allowed to be appropriate from a CPR has been used as a characteristic of 'common property' as contrasted with 'open access.' In relation to this principle, Hemaq Beniung Customary Forest uses the principle of 'common property' for the utilization of environmental services, for example, enjoying the fresh air, enjoying the natural feeling of the existing jungle, as well as clean water resulting from the existence of the customary Forest. On the other hand, the principle of 'closed access' is applied to the use of products from customary forests in the form of timber and wild animals. No one is allowed to take wood or hunt any animals, including birds, from inside the Protection Forest,
- Clearly defined boundaries and closing a CPR to 'outsiders': The principle of clear boundary boundaries has been implemented by the Management Body because it considers that if the boundaries are unclear and not written down, this will trigger boundary conflicts in the future. The rules made apply not only to outsiders but also to Juaq Asa Villagers themselves or insiders,
- For practical reasons, most resource conflicts are related to boundaries. In terms of boundary issues, the Management Body has resolved boundary issues with the residents of Kampung Juaq Asa through PTSL.
- *Proportional Equivalence between Benefits and Costs:* Each activity expects benefits from these activities, both material (cash) and non-material benefits, including environmental services, and it is expected that there is a balance between the costs incurred and the benefits received. The costs incurred to manage the Hemaq Beniung Customary Forest can be divided into two, namely costs incurred directly by the Management Agency or from the Village Fund and costs paid/issued by other parties or donors, for example, the Government, NGOs, private companies and individuals without any conditions. The costs incurred by the Management Board or Juaq Asa village are mostly used to build Water Tourism Objects in the form of making dams for ponds, procuring rowing boat facilities, gazebo facilities, bathing and toilet areas, places of worship, wooden bridges around the pond and other supporting facilities for needs of water tourism. Funds to build this facility were taken by the Village Business Entity Program (Bumka = *Badan usaha milik kampung*). The costs for developing the Hemaq Beniung Customary Forest object mostly come from funds from other parties, such as the Regency Forestry Service and coal companies such as PT. PAMA, PT. BEK, PT. TCM for the Archipelago Fruit Diversity Conservation Program.
- *Collective-Choice Arrangements:* Customary Forest Management has implemented the principle of "arrangements based on joint decisions," where all rules made are always carried out collectively based on deliberation. When there are other parties who will help, it is usually only limited to conveying ideas and becoming a facilitator. However, the final decision regarding customary rules is still made collectively. Septya, Ayu and Fatma (2020) also stated the same thing that there needs to be a joint decision in drafting rules.
- *Monitoring by Actively Auditing the Common Conditions:* This principle has been carried out by the Management Body by actively monitoring the condition of the Customary Forest together with the Police Task Force (*Satpol PP*) of West Kutai Regency. In fact, every Monday, the Head of Juaq Asa Village trains Satpol PP members to practice marching at the main Gazebo/Post to enter the Customary Forest. The aim is to coordinate and provide enthusiasm and discipline for Satpol PP Members in carrying out supervisory and monitoring duties. Every day, 4 Satpol PP members take turns on duty at the Indigenous Forest entry post to prevent the destruction of customary forests. This is also in accordance with Juaq Asa Village Regulation No. 01 of 2017 Article 7, which states that High Officials, in collaboration with the relevant Regional Apparatus Organizations (OPD) in West Kutai, are required to provide guidance and supervision over the protection of the Hemaq Beniung Customary Forest which is the responsibility of the Customary Law Community.
- *Graduated Sanctions:* As mentioned above, anyone who violates customary forest regulations will be subject to customary fines, both for residents of the village itself and residents of other villages or outsiders. If the same person commits a second violation in the Customary Forest, the fine will be heavier. The size of customary fines is determined based on 'antang,' and the number of these can only be determined by a traditional leader who deeply understands the philosophy of customary law. Rules like this, according to Imang et al. (2009), also apply to the management of Tana' Ulen ethnic Dayak Kenyah, where fines are determined by local traditional leaders.
- *Conflict Resolution Mechanism:* There is already a conflict resolution mechanism, both boundary conflicts with neighboring villages, as well as internal conflicts that occurred with the residents of Juaq Asa Village itself. Village officials and the Management Board play an important role in this mechanism and always involve all parties involved to find a solution. If deliberation cannot reach a consensus, the Higher Officials usually make a report to the Police for follow-up. So far, all conflicts have always been resolved according to custom, by way of deliberation, and none has yet reached a report to the Police, including disputes over the boundaries of the residents' land with the Management Body. An example of a quite severe case has occurred where there was an unscrupulous villager who claimed to be the heir of the "land owner" who was in Customary Forest area. The person had slashed two hectares of forest land and ignored customary prohibitions. However, when threatened to be reported to the Police, the person concerned agreed to settle it according to custom and the Management Body also agreed to settle it through deliberation.
- *Minimum Recognition of the Right to Organize:* The West Kutai Regency Government has shown recognition of the Hemaq Beniung Customary Forest along with several other Customary Forests by issuing Regional Regulation of

West Kutai Regency Number 09 of 2014 concerning the Designation of Hemaq Beniung, Kekau Customary Forest and Hemaq Pasoq Areas as Customary Forests.

- *Nested Enterprises*: Before the COVID-19 pandemic, the Customary Forest and Water Tourism had been visited by many local residents. However, since the pandemic, visits have decreased drastically. In 2022, conditions were not recovered, and there were still very few tourists. However, the Management Body continues to maintain and improve existing facilities so that visitors will increase in the future. The length of the track made of ironwood in the Customary Forest is also planned to be extended so that more objects can be enjoyed by visitors. Currently, the length of the track is still limited, which is around 300 m. The future plan is to make a further jungle track by making paths to all parts of the Indigenous Forest so that visitors or researchers can easily reach all forest areas.

3.5. Evaluation of Customary Forest Management Using Agrawal Successful Theory (2002)

In addition to the Ostrom Principles as discussed above, the 'Success Principles' (Agrawal, 2002) are also used, namely, the principles of customary forest management based on four criteria, namely:

- *Resource System Characteristics – Small Size, Well-Defined Boundaries*: According to Agrawal, in a reasonably broad context, there is no specific mention of the ideal area. However, the point is that it must be well controlled. The area of this Customary Forest is only 48.5 ha and can be controlled by the Management Board, which is considered to have met the criteria for this area. From the boundary aspect, the Management Body has also secured customary forest by making land certificates through the PTSL program for all land owners bordering customary forest so that in the future, no land owner can claim customary forest as private property.
- *Group Characteristics – Small Size, Clearly Defined Boundaries, and Interdependence among Group Members*: The Hemaq Beniung Customary Forest Management Board consists of 23 people. The head of the Customary Forest Management Agency is Adrianus, S.Pd, in this case, the ex-officio Juaq Asa Village Head as Chair of the Management Board. The criteria for a member are that they must understand customary rules and customary forests. They have a high commitment to maintaining forest sustainability. The selection of the Management Body has considered the representation of ethnicity and gender.
- *Locally Devised Access and Management Rules, Easy Enforcement of Rules, and Graduated Sanctions*: In this case, there is an institution that manages customary rules regarding the management of customary forests have been made in such a way that it is easy and flexible enough to apply customary sanction to any violations. Customary fines can only be determined by traditional leaders who master the customary law of Juaq Asa village. Because these customary fines are quite flexible, the size or amount of customary fines is generally 'oral' or 'unwritten.' This form of oral customary rules is carried out to avoid 'inappropriate,' 'customary fines' by incompetent people. Later, the Customary Leader will determine in detail the amount of the fine with certain considerations, so it should not be determined rigidly by just anyone.
- *Central Government Should Not Undermine Local Authority*: In the case of the Hemaq Beniung Customary Forest, the central and regency governments have acknowledged its existence through Minister of Environment and Forestry Decree Number: 4618 of 2017 concerning the Establishment of the Listing of Hemaq Beniung Customary Forest, and West Kutai Regional Regulation Number: 9 of 2014 concerning the Establishment of Hemaq Beniung Customary Forest. So, it can be said that there are no bureaucratic obstacles from the government regarding customary forest management. This acknowledgment from the government is one aspect that supports the implementation of the Hemaq Beniung Customary Forest, which allows for donation support from individuals, the private sector and the government.

4. Conclusion

Ecological, social, economic and cultural benefits are the last primary forest ecosystem in the Juaq Asa Village area to function as a reservoir of clean water habitat for wildlife, especially primary forest for breeding and recreation. Economic benefits as a source of water for the Hemaq Beniung water tourism object, a producer of consumable forest fruit and a source of clean water, and providing various types of plants in carrying out traditional rituals, as a location or object of research. The traditional local institution behind the management of the Hemaq Beniung Customary Forest is the Village Customary Institution, which is implemented through the establishment of the Customary Forest Management Agency. The rules made by the Management Agency in managing Customary Forests are basically local wisdom or customary rules that have been in force in the Juaq Asa Village area. The mechanism for implementing rules and fines still follows customary rules that have long been practiced in this village. The role of local institutions is central because all violations of the Hemaq Beniung Customary Forest are committed by Customary Institutions. Even violations or crimes in the village are also carried out through the Customary Council. If it cannot be resolved customarily, it can proceed to the Police (positive law).

Internal challenges and obstacles in customary forest management include:

- The threat of encroachment from the villagers because they do not have a mindset for forest conservation,
- The nominal value of 'unwritten' customary fines requires traditional leaders who really understand the intricacies of customary law,
- The interest of the younger generation to really study law and customary fines is decreasing even though customary fines must be carried out carefully by competent people.

On the other hand, the external challenges are encroachment and poaching from outsiders, which are difficult to control because access is free from various points (out of the main gate).

From the academic evaluation and verification of the success of managing the Hemaq Beniung Customary Forest in realizing a prosperous society and ecosystem sustainability, it is known that the Management Body has already implemented four Success Criteria from Agrawal and eight Sustainability Criteria from Ostrom. Fulfillment of these criteria is a number of factors supporting the success of customary forest management.

It is recommended that the younger generation needs to be involved in managing customary forests from now on so they understand the importance of preserving Hemaq Beniung customary forests. The government and the private sector need to support the Customary Forest Management Agency, in particular, to build deep jungle-tracks in the forest to facilitate supervision and also make it easier for visitors to gain access to all areas of the Indigenous Forest.

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6. References

- i. Agrawal, A. (2002). Common Resources and Institutional Sustainability. In: Ostrom, E., Dietz, T., Dolsak, N., Stern, P.C., Stonich, S., and Weber, E.U. (Eds.), *The Drama of the Commons*. National Academy Press, Washington, DC, pp. 41–85.
- ii. Belcher, B.; Rujehan; Imang, N.; Achdiawan, R. 2004. Rattan, rubber, or oil palm: cultural and financial considerations for farmers in Kalimantan. *Economic Botany* 58(Supplement): S77–S87.
- iii. Biro Pers-Stpres. 2021. Presiden Jokowi saat menjadi pembicara pada World Leaders Summit on Forest and Land Use yang digelar di Scottish Event Campus, Glasgow, Skotlandia, Selasa (2/11/2021) (ANTARA/HO-Biro Pers Setpres/Luka).
- iv. Ginoga K, Erwidodo. (2001). Dampak krisis ekonomi terhadap kondisi hutan dan masyarakat sekitar hutan: Kasus di hutan produksi Sumatera Selatan. Dalam: *Jurnal Sosial Ekonomi*. 02(01) hal 15–30.
- v. Imang N. and Kueng, J.H. (2005) *Konservasi Seni-Budaya dan Kearifan Lokal Dayak Basap di Kutai Timur (Cultural and Local Knowledge Conservation of Dayak Basap in Kutai Timur)*, Samarinda, Indonesia, 99 pp.
- vi. Imang, Ndan; M. Inoue, M.A. Sardjono. 2009. Importance of Boundaries in Customary Resource Management under Decentralized Policies. *Journal of Forest Economic*, Vol. 55 No. 3.
- vii. Imang, Ndan; M. Inoue; M.A. Sardjono. 2008. Tradition and the Influence of Monetary Economy in Sweden Agriculture among the Kenyah People of East Kalimantan Borneo. *International Journal of Social Forestry* 1 (1).
- viii. Imang, Ndan', Nella Naomi. 2020. Conceptualization of Traditional Knowledge for Adoptive and Sustainable Agriculture by the Indigenous Basap Dayak, East Kalimantan, Indonesia. *THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES*. Vol. 8 Issue 9.
- ix. Kleden, I. L. 2022. Kearifan Lokal Masyarakat Dayak Tunjung Dalam Pengelolaan Hutan Adat Hemaq Beniung Kampung Juaq Asa Kabupaten Kutai Barat. *Skripsi Fakultas Kehutanan Universitas Mulawarman*.
- x. Makoto Inoue, Daisuke Terauchi, Koji Fujii, Kazuki Tsunoda, Noriko Okubo, Yukari Takamura, Herman Hidayat, Ndan Imang, Martinus Nanang, Peter Voo & Tapan Kumar Nath. 2021. Understanding Local Peoples' Participation as 'Means' and 'Ends' in Protected Areas Management: A Qualitative Study in the Heart of Borneo. *Journal of Sustainable Forestry*. ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/wjsf20>.
- xi. Nurkhalis, Harnios Arief, Tutut Sunarminto. 2018. Analisis Stakeholders dalam Pengembangan Ekowisata di Hutan Adat Ammatoa Kajang Sulawesi Selatan. *Jurnal Pariwisata*, Vol. 5 No. 2 September 2018.
- xii. Johnson, K.A. & Nelson, K.C. (2004). Common Property and Conservation: The Potential for Effective Communal Forest Management within a National Park in Mexico. *Human Ecology* 3 (6), 703–733.
- xiii. Ostrom, E. (2001). Reformulating the Commons, Protecting the Commons. In: Burger, J., Ostrom, E., Norgaard, R.B., Policansky, D., and Goldstein, B.D. (Eds.), *Framework for Resource Management in the Americas*. Island Press, Washington.
- xiv. Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. Cambridge University Press, 280 pp.
- xv. Ostrom, E., Dietz, T., Dolsak, N., Stern, P.C., Stonich, S., and Weber, E.U. (2003). *The Drama of the Commons*. National Academy Press, Washington DC, 521 pp.
- xvi. Pambudhi, Paulus Matius, Harmonis, Ariyanto, Zainul Arifin, Yosua Naibaho. Feasibility study Tahura Kabupaten Kutai Barat. *Pemkab Kutai Barat*.
- xvii. Rusdianto, 2021. *Profil Hutan adat Hemaq Beniung (Laporan)*.
- xviii. Saragih, Bernaulus. (2011). *Economic value of non-timber forest products among Paser Indigenous people of East Kalimantan*. Desa Putera Press, Jakarta.
- xix. Sardjono, M.A. (2004). *Mosaic Sosiologis Kehutanan: Masyarakat Lokal, Politik dan Kelestarian Sumberdaya (Sociological Mosaics of Forestry: Local Community, Politics and Resource Sustainability)*. Center for Social Forestry (CSF) - Unmul, MIALS, the Ford Foundation. Jakarta, 300 pp.
- xx. Septya, Ayu dan Fatma (2020). *Kedudukan Dan Perlindungan Masyarakat Adat Dalam Mendiami Hutan Adat (Position and Protection of Indigenous Peoples in Occupying Indigenous Forests)*. *Jurnal Legislatif* vol 4 no 1 tahun 2020.
- xxi. Sibero, M.T., Ivan Permana Putra, Retno Murwani. 2021. *Deskripsi dan Potensi Jamur Makro Asal Hutan Adat Penembahan, Desa Juhar, Kabupaten Tanah Karo, Sumatra Utara (Description and Potential of Macro Mushrooms*

from the Penembahen Customary Forest, Juhar Village, Tanah Karo District, North Sumatra). Jurnal Mikologi Indonesia Vol 5 no 1/2021.