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by Hayatul Ismii
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Management Fisheries Resources Based on Customary Law as an Effort to Maintain River Sustainability in Lubuk Siam Village, Kampar, Indonesia

H Isni, U Hasnah *, S Sukma

Faculty of Law, University of Riau, 28125, Indonesia

*ulfia.hasnah@lecturer.unri.ac.id

Abstract. Natural resources are the largest contributor to state revenues. The management of fishery resources must be utilized for the welfare of the community, so that in its implementation must involve all parties including indigenous peoples. The involvement of people, especially indigenous peoples in the management of natural resources, becomes important as an effort to preserve indigenous values in the management of fishery resources. This research aimed to find out; (1) Management of fishery resources by indigenous peoples in Lubuk Siam village; (2) The concept of sustainability in the management of fishery resources by indigenous peoples in Lubuk Siam village. This research uses qualitative research methods with a rationalistic approach. Use qualitative methods and implementation of qualitative methods. Although the rational approach emphasizes the process of analyzing and researching problems, it searches for data from the main source (such as face-to-face interviews). The respondents in this study were the Head of Lubuk Siam Village, Ninik Mamak Adat Suku Melayu, Community and Youth Leaders, and related Village Institutions. The existence of the community with its customary law is an important social capital to maintain the balance of natural resources, especially in the field of fisheries through local wisdom that maintained from generation to generation. This becomes important to avoid patterns of massive and excessive exploitation. The results show that; (1) The management of fishery resources by indigenous peoples in Lubuk Siam Village is based on the value of local wisdom under the coordination of Ninik Mamak and the Village Government which includes lubuk management, river management, and lake management. (2) The concept of sustainability in the management of fishery resources by indigenous peoples in Lubuk Siam Village is reflected in customary orders and prohibitions and customary sanctions agreed as part of maintaining the sustainability of fishery resources.

1. Introduction
Fisheries are an important resource for life so it must be mandated as much as possible for the welfare of the community as mandated in Article 33 of the 1945 Constitution. The existence of the constitution as the main pillar of the state seeks to be a link between the state and its citizens as a system. As a law, the constitution seeks to coordinate its power and society as an indivisible unity in order achieve national goals [1].

This is important because natural resources are the largest contributor to state revenues. As a potential natural resource, fisheries have strategic economic value for the fulfillment of people's living needs [2]. This potential is in line with the characteristics of the Indonesian state as an archipelago. Indonesia has
17 thousand islands with 2/3 of the entire region is a water with the potential for abundant and diverse fish resources, making the prospect one of the strategic economic activities for state revenue. In order to maximize the potential of the fish resources, the management of fishery resources must be in line with sustainability, meaning that the approach to exploitation of fishery resources must be interpreted in a balanced manner between conservation and economic aspects. This understanding must be incarnated in every fishery actor [3]. Fishery resources become important and strategic resources for Indonesia, including as an economic source, quality food sources, and the provision of labor in the fisheries sector [4].

In line with sustainable development, related to the use of fishery resources and their habitats need to be maintain, as mentioned in Law No. 31 of 2004 and Law No. 45 of 2009, that the management of fishery resources is base on the principle of sustainability [5]. Riau province has characteristics that are typical in the field of fisheries. The characteristics can be see in several aspects. Omit production, fisheries business in Riau Province includes land fisheries sources and marine fisheries. The most fish producing centers include Rokan Hilir Regency 68,160.2 tons, Kampar Regency 59,550.9 tons and Indragiri Hilir Regency 44,128.8 tons. These three regions account for almost 80% of fishery production in Riau Province based on data from BPS Riau Province in 2017.

Omit landscape or position, Riau Province is a strategic area that is on the international trade route (Indonesia-Singapore, Malaysia and Thailand). Meanwhile, riau Malay community is very thick with a strong history in maritime culture [6].

Fisheries resource management must pay attention to the balance of the environment, the existence between exploitation and existing fishery resources so that in fishery exploitation must pay attention to the pattern of sustainability of natural resources so that it can be enjoy in the future [7]. This is do as an effort to preserve biological resources in the field of fisheries so that it can be enjoy by the next generation. This effort is face with 2 (two) argumentative phenomena, the fulfillment of people's living needs as a source of economic livelihood and argumentate the maintenance of sustainable biological resources. In this case, the reasons for poverty, the lack of availability of jobs, and the increasing daily economic demands provoke the emergence of various attempts at momentary and haphazard exploitation (illegal) that threaten the availability of fishery resources in the future. So it is necessary to synergize that combines the desires of the community with its economic demands with the government's objectives to preserve aquatic resources from damage [8].

This sustainability principle should integrate patterns of use or exploitation with fisheries management planning. This is do as an effort to avoid ecological degradation and even financial losses from the economic and social side [9]. Fisheries resource management is an obligation as an integrated effort in the collection, planning, policy and decision making, allocation of fisheries, and implementation of legislation directed to achieve the goal of sustainability of biological resource productivity and other special objectives that have been agree, as much as possible for the prosperity of the community [10].

According to Charles, A.T. in his book "Sustainable Fisheries Systems", said that there are 3 (three) main components in the fishery system, the natural system, human system, fisheries management system. The outlook for sustainable fisheries development should accommodate and guarantee aspects of ecological sustainability, socio-economic sustainability, community sustainability, and institutional sustainability [11].

Exploitation of fisheries needs to maximize the potential of all parties, including the involvement of indigenous peoples. This involvement relate to existence and recognition of indigenous communities that often have to deal with the existence of the state in the management of natural resources. Involvement as intended in the form of recognition of the existence of traditional institutions that become an important instrument to strengthen institutional aspects as part of the alignment of fisheries sector development [12]. Traditional institution is expected to be able to regulate the pattern of environmental exploitation or fishery resources so that its sustainability is maintaine.
Resource states that about 370 million members of indigenous peoples live in more than 70 countries around the world (5% of the world’s population). Meanwhile, 80% of all biodiversity on planet earth is scattered across 22% of the earth’s territory that is home to indigenous peoples. When biodiversity threatened, it also threatens the relationship between indigenous peoples and their homeland that has been going on for a long time and generations [13]. System or recognition there are at least 2 (two) things that related to political action and legal action. Constitutional conditional recognition as referred to in the 1945 Constitution is very detrimental to the existence of indigenous peoples. The loss is in the form of restrictions on recognition based on the political will of state law so that the existence or recognition is only valid after be recognize according to state law first. If it is associate with the right of use of natural resources, that the state obliged to meet the development needs of the people in all fields, both as individuals, and groups. Besides, the state obliged to include the people in the development process, and to distribute the results of development to all the people [13].

Fisheries management in Indonesia is regulated in the laws and regulations. This is a logical consequence of the constitutional recognition that Indonesia is a State of Law (Article 1 paragraph (3) of the 1945 Constitution). This means that in every management of state government must be based on law or policy whose final orientation is as stated in the fourth paragraph of the Opening of the 1945 Constitution which contains about the purpose of the Indonesian state, namely, protecting the entire Indonesian nation and all Indonesian blood, advancing the general welfare, educating the life of the nation and participating in implementing world order.

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Effort in realizing the constitutional purpose of this country is the government given the authority to regulate every joint of people’s lives including in the field of fisheries whose most purpose is to realize the welfare of the people (Article 33 paragraph (3) of the 1945 Constitution). The constitutional authority of the state realize with the right to control the state. This right of control must be interpreted as the implementation of the will of the people, and all forms of activities and administrative actions of the state must be oriented in the best interests of the people [2].

Sometimes, a plan is not in line with reality. In the development of use or exploitation of fishery resources tend to be massive leading to use that does not know the limits of territorial toleration and the use of tools or technologies that are not friendly aggravates the condition of existing fishery resources. Thus, there is an assumption that today’s fishery use is no longer a search for options, but is locking in the condition that there is no choice in the development and use of existing fishery resources [14]. This is a reason for the need for supervision or policy intervention in modern development to strike a balance between the distribution of benefits related to community development and environmental hazards, especially the participation of indigenous peoples through local wisdom [15].

In practice it is also found that people, especially indigenous peoples, have their own rules in managing resources that believed to be communal property. Instruments made by the community are generally in the form of local agreements that are often not contained in written manuscripts but delivered in the form of oral speech from generation to generation. The means born of indigenous peoples often referred to as customary law. Customary law is binding and has legal consequences in the form of sanctions for each violator. The sanctions are very local [16]. The existence of the community with its customary law is an important social capital to maintain the balance of natural resources, especially in the field of fisheries through local wisdom that maintained from generation to generation. This becomes important to avoid patterns of massive and excessive exploitation [17]. The participation of indigenous peoples in economic development, especially in the field of fisheries, expected to be an
initiator of economic development towards the welfare of the people as mandated in the state's objectives [18].

Based on the description above, the purpose of this study is to elaborate on the management of fishery resources by indigenous peoples in Lubuk Siam village and outline the concept of sustainability in the management of fisheries resources by indigenous peoples in Lubuk Siam village.

2. Methodology
The study carried out in Lubuk Siam Village, Kampar Regency, Teratak Reed District. This type of research is a juridical sociological study that views law as a social symptom that can be seen in the observation of people's lives. The legislative approach is to regulate the use in research, and is a way to use legislation and regulation. To support normative research, empirical research was also carried out to tool Indigenous empowerment models in the management of fishery resources by indigenous peoples in Lubuk Siam Village Kampar Regency. Empirical research is focus on models of indigenous peoples' local wisdom in sustainable fishery resource management [19] The interviewees for this study were the head of Lubuk Siam Village, Ninik Mamak Adat Suku Melayu, community and youth leaders, and related village agencies. So, that the answer to the problem in this study.

The type and source of data used in this study is primary data (data obtained from the first source through direct interviews from selected respondents who are competent at the research site) and secondary data (data obtained from available sources, such as laws and regulation documents and relevant reading literature).

To get the necessary data, data collection techniques used through interviews (data collection techniques used to get sources through regular question and answer) and literature research (legal and related reading literature).

The population in this study is the entire indigenous legal community in Lubuk Siam village and the indigenous institutions authorized to manage fisheries. The respondents in this study were the Head of Lubuk Siam Village, Ninik Mamak Adat Suku Melayu, Community and Youth Leaders, as well as related Village Institutions. Sampling is the use of purposeful sampling techniques. Primary data and secondary data obtained through this research activity will be identify according to a specific goal group, then will be analyz then presented by describing, explaining, and describing by the problems in this study.

3. Results and Discussion
3.1 Management of fishery resources by indigenous peoples in Lubuk Siam Village of Kampar regency
Law No. 31 of 2004 on the management of fishery resources has changed to Law No. 45 of 2009 on the management of fisheries. In fact, every integrated and applicable process is to increase all existing fishery potential to achieve the greatest goal for the community while maintaining the standard of sustainability of existing biological resource productivity.

The sustainability of productive fishery resources is achieved when it meets 3 (three) criteria that affect sustainable fisheries management patterns. These three criteria are a unity that affects each other, (1) Criteria for fisheries and environment sources, (2) Standards for the management or use of fishery resources for the social life of the community. (3) As a legal standard for the legalizadation of fishery management. With these criteria, the role of the government through legislation becomes the basis for the sustainability of fishery resources both in exploitation and sustainability of biological resources. So, the existance of such legislation must be able to ensure the optimization of use and fair distribution for the surrounding community [20].

Lubuk Siam Village is one of the examples of tourist villages. This village is in Siak Hulu District which has an area of + 12,000 ha. Judging from the topography and contours of the land, Lubuk Siam Village of Siak Hulu Subdistrict is generally in the form of lowlands (or watersheds) and hills that are at an altitude between above sea level with an average temperature ranging from 25 to 320 Celsius.
Lubuk Siam Village consists of 4 (Four) Hamlets, 5 (five) RW and 9 (Nine) RT. The administrative boundaries of the government of Lubuk Siam Kecamatan Siak Hulu Village are as follows: North (New Village and Pandau Jaya Village), East (Tanjung Balam Village), South (Kepau Jaya Village and Lubuk Sakat Village), West (Teratak Buluh Village). (Pesona Padang Rumpit and Lake In Lubuk Siam Village, Riau – Example Of Desa [Kemendesa.go.id].

Indigenous peoples in Lubuk Siam village in the management of fishery resources have their own patterns or often termed with local wisdom that is part of a hereditary cultural tradition and is considere as a good thing and must done as is. There are two large tribes in the indigenous people in Lubuk Siam Village, the Chamigo tribe and the Malay tribe. These two tribes are each led by a Customary Stakeholder called Ninik Mamak. (Interview with Mr. Amri Jono, Head of Lubuk Siam Village, August 2021). According to the Village Chief, that the role of ninik mamak in Lubuk Siam Village is very large covering every aspect of life such as marriage, adat, circumcisions, and community ceremonial activities such as traditional arts celebrations, Islamic holiday celebrations or state holidays and village development activities. The role and participation of ninik mamak includes planning, implementation and evaluation of activities. So, in this case, ninik mamak acts as a partner of the village government in every community and government activity.

The role of the organization is very important in institutional development. Organization is as a means to realize values and objectives in institutional development including local institutions that attach to the maintenance of values to protect forces in society [21]. Management of fishery resources in indigenous peoples in Lubuk Siam Village includes 3 (three) things, river management, lubuk management, and lake management. (Interview with Datuk Ulak Imi (Ninik Mamak Suku Melayu), August 2021). Fisheries management carried out, community group, and on behalf of the village with the approval of ninik mamak owner of the rights to the management location. Omit river management and the customary provisions that apply only related to licensing, in the form of laying kembang (fish handlers). While the management of fisheries in the lake carried out with an auction system with a period of 2 (two) years, meaning that only the winner of the auction entitled to take fish resources in the lake by the terms and conditions set by ninik mamak together with the village government. This model is part of sharing shared mastery and use, so that every citizen (tribe) has the opportunity to enjoy existing fishery resources in Lubuk Siam. (Interview with Mr. Amri Jono, M. Pd; Head of Lubuk Siam Village, August 2021).

3.2 Sustainable Concept in Management of Fisheries Resources by Indigenous Communities in Lubuk Siam Village

The purpose of a country’s economic development is to promote the welfare of society. Welfare obtained through the use of existing natural resources such as fishery resources. Fisheries are an important source for the availability of food and animal protein for the community. So, that all economic activities related to fisheries exploitation are important so that they can be cultivate for the welfare of the community. But, besides to the welfare aspect, the economic exploitation of fishery resources must guarantee the principles of sustainability and the principles of being friendly [11].

The basic concept of sustainability is how a balanced relationship created between humans and nature in the management of natural resources. This means that the process of meeting current needs carried out without reducing the ability of the next generation in meeting their living needs for natural resources. This is reflected in fair interaction or intergenerational interaction [22]. Environmentally sound concepts should reflect in the sustainability of quality, the diversity of natural resources, and the availability of resources that can be enjoyed today and future generations. As well as the guarantee of a real and structured effort to realize the balance of the existing environmental ecosystem with an agreed pattern of exploitation [22].

In general, sustainable natural resource management has been found in Indonesia, especially management based on local community wisdom. The management of resources based on local wisdom
includes water resources, fish, forests and business patterns [8]. The diversity of fishery resources in Lubuk Siam Village is the result of natural and community planning. The so-called nature is the source of fishery located in the waters of Lubuk Siam Village, relying on the circulation of the existing fishery ecosystem. Many types of fish inhabit the waters of Lubuk Siam village either lubuk, river, or lake, including baung, selais, selancah, tapan, eur, toman, subuhan fish, ingir-ingir, setap, betook, belida, betutu, kapiek, barau, motan, warakiu fish, and paweh fish [23]. While the diversity of fishery sources planned by the community in the form of nurseries and cork and baung fish farms. This is seen from the routine activities of the community and community groups in the management of fishery resources that are farmed, ranging from feeding or supplements 2-3 times a day, maintaining the routine of the harvest period, by the agreed time rhythm in the form of per year, per 6 months or per 8 months. The form of local wisdom of indigenous peoples in Lubuk Siam village to maintain the concept of sustainability can be seen in the auction pattern, where every citizen (tribe) has the right to manage fishery sources. The potential management of sand and rock resources is also regulated, as part of maintaining the balance of the potential environment and existing fishery resources in the village, lubuk and river. There are several customary rules that must be adhered to about the management of this fishery source, that is; (1) It is not permissible to take or manage fishery resources without permission from ninik mamak and the village government, (2) Maintain ethics and attitude while in the river, bottom, and lake, (3) Prohibition of bathing or swimming in the bottom, rivers, and lakes for migrants, (4) Tekait fishing and side-by-side must be with the permission of ninik mamak and the village government and must be accompanied by local residents, (5) Prohibition of taking rocks and sand without permission ninik mamak and the village government, (6) Fishing uses certain equipment such as fishing rods, nets, gunung (traps), and mawitu (large net tools). (Interview with Datuk Ulak Imi (Ninik Mamak Suku Melayu), August 2021)

As a form of commitment to these customary values, for those who violate the provision are given a kind of customary sanctions in the form of fines both in the form of money, buffalo, and goats adjusted to the type and level of errors made based on the consideration of ninik mamak and the village government. But sometimes the sanctions are in the form of imprisonment for violations of common state law after first agreed by ninik mamak and the village government. The practice of indigenous peoples' local wisdom in Lubuk Siam village is proven to be able to protect natural resources from damage, able to provide an understanding of orderly behavior patterns, foster a sense of shared ownership of existing fishery resources. These principles are respected and practiced by the community as a form of community collective awareness of customary values.

Conclusion
Management of fishery resources in indigenous people in Lubuk Siam village in the form of lake management, lubuk management, and river management. The management of fishery resources must be balance and ensure the availability of fishery resources for a long period of time. So that the value of customs and local wisdom becomes an important means in the framework of sustainable fishery resource management.

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