

Duano's Local Wisdom in Preserving Marine Ecosystem at Jambi Coastal Area

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Abstract. This research was conducted in Kuala Tungkal, Tanjung Jabung Barat, Jambi, with a qualitative approach. It aims to identify *Suku Duano*'s local wisdom towards environmental conservation in Tanjung Jabung Barat. The results showed that they had the local wisdom on the preservation of the marine environment such as, using a simple catching tool that more effective to catch specific fish and do not damage the marine ecosystem, using palm leaves to catch fish and used a board called *papantungka* to catch the clam. *Suku Duano* had special knowledge about specific areas of marine products in which way they knew when and where the right place for fishing. They had special ceremony after fishing as a form of gratitude to The God. This local wisdom has guided the tribe member to avail the resources wisely and not excessively. But recently, this local wisdom has decreased because of modernization

Keywords: *Suku Duano*, Sea People, local wisdom, marine ecosystem

1. Introduction

Suku Duano, one of the *Orang Laut* (sea people) tribes, that inhabited at the Jambi coastal area, especially at KampungLaut village in Kuala Tungkal. Like other tribes, the former *Suku Duano* lived on a boat and got their needs of life from the sea. But nowadays, the community has lived settled either independently or through the housing program of the government. In the majority, the livelihood of *Suku Duano* is fishing the fish, prawns, and clams [2]. Although their needs still pertain to subsistence (for personal needs), their economic structure has developed. They had great skill and knowledge about marine ecosystem. So that, the *Suku Duano* can adapt with the environmental change to survive. For example, when facing the East wind season make it hard to go fishing, they're going to find another option of subsistence as a source of income.

Traditionally, *Suku Duano* has its life patterns in interacting with marine ecosystems. A set of rules and taboos of living in society are part of human wisdom to keep nature. For example, they had caught fish by used a simple tool that made from palm leaves. So that, they just catch specific fish and does not damage the ecosystems, especially the place where fish lays their egg. Also, *Suku Duano* has a tradition called *manongkah* to catch clams in a meadow expanse of mud with the use of a board called *papantungka*. However, modernization change their mindset and way of life. Many local wisdoms began to lose its existence and the impact is depletion of the natural preservation tradition of



society(interview Cik Mamat, 2018). Also, decreasing of local wisdom impact to decrease their identity as *sea people*. The aim of this article is to identify the *Suku Duano*'s local wisdom in preserving the marine ecosystem both those that still survive in society as well as those who have disappeared. Also, this article analyzes the impact of the changes towards the *Suku Duano*'s character, and the opportunities for empowerment of local wisdom in government preservation program in the coastline.

2. Method

This article was written based on field research conducted in January 2018 in Tanjung Jabung Barat with a qualitative approach. Data collect by observation and in-depth interviews. Researchers determined the informant by purposive sampling. They are the figures of the *Suku Duano* and village government unit known as *Rukun Tetangga* (RT). As a comparison, the analysis of this article also uses secondary data regarding conditions in other areas.

3. Result and Discussion

3.1 *Suku Duano at Tanjung Jabung Barat Regency*

Suku Duano is one of the *Suku Laut* ethnic who inhabits the area around the sea of Riau and Jambi. Each tribe of community has specific characters, even *Suku Duano* lives in the region of Riau and Jambi, they also have different characteristics [11]. *Suku Laut* reputed as the community that has high knowledge and skills about the sea, they have special skill to recognize their territory. Each group of the community has a specific area that borders on the territory of another group. Their settlement movement patterns are influenced by seasonal monsoon winds and availability of natural resources in certain parts of the sea in every season [1][13]. Since the Srivijaya Kingdom until the heyday of Malacca, Johor and other kingdoms in the central part of Sumatra, they had an important role in the structure of the Kingdom as in the cruise fleet and became part of the army as at Srivijaya period. In addition to binding with the Kingdom, most of them also involved independently in a cruise on the trade route from the Straits of Malacca or become pirates [13][16].

Based on the folklore, *Suku Duano* arrived at the sea area of Jambi through an expedition. According to the explanation of Cik Mamat (2018) which is one elder of *Suku Duano* in Tanjung Jabung Barat, their predecessor came from sea area of Indragiri hilir, Riau, aboard a large raft called *Rakit kolek*. This groups which historically was the descendant of *Minangkabau* people sailed to various areas in the Strait of Malacca and then got to the coastal regions of Jambi. In addition to living in an area of the sea, *Orang Laut* also lives on the river close to the mouth of the sea, like those that exist in Jambi who lives about 30 km from the sea as an effort to protect themselves from the pirates [1]. This situation continued up to the present, where the *Suku Duano* settled in Batanghari watersheds.

Suku Duano of the Tanjung Jabung Barat Regency has long lived on the downstream of the Batanghari river. Several of them already have residential buildings. They live across several RT, particularly in RT 05 Kampung Nelayan village. From 130 families of citizen in RT 05, 30% are *Suku Duano* (about 40 families). They already gather with other tribes, such as the Bugis, Banjar, Melayu and Javanese. The rest, a total of 17 families *Suku Duano* also live in the residential complex of fishermen at RT 26 Tungkal II village.

Cik Mamat (2018) explained that they already feel siblings with other tribes. They do feel more comfortable for living among them, but it does not prevent them to mingle with other tribes. According to the chairman of the RT 05 Kampung Nelayan village, social contacts, and communication, as a condition of social interaction [15] of *Suku Duano* within communities around are already well. Contact and communication take place in various places, such as markets, stalls, and a variety of civic activities. Opportunities and the chance to interact with the surrounding society is quite extensive, because society in general is also always receive their existence, meaning that the community is quite open and willing to collaborate with *Suku Duano*.

The fact that *Suku Duano* began to blend in with other tribes gave rise to the phenomenon of cultural assimilation, either through daily interactions or marriages. This led to the assimilation of some *Suku Duano* community is no longer bring their tribe hereditary factors such as skin color, face shape, and body shape. The changes are not only on physical character but also the thoughts and patterns of life. Their traditions no longer handed down to the next generations, for example language, the tradition of fishing, and others rules of their culture. *Suku Duano* also began to adapt the modern life. These transformation and adaptation in their life pattern then form a special evolution as rendered by Marshall D. Sahlins and Elman Service [8]. This adaptation is affected by changes in environmental conditions, such as wind, rain, and waves that can no longer in suspect, as well as a proliferation of modern instruments in the maritime economic activities. A changing of the environment had impact on their life pattern as an adaptation.

3.2 *Suku Duano's Local Wisdom on Marine Ecosystem*

Local wisdom is a view of life and knowledge that is embodied in the activities of the local community in meeting the necessities of life [5]. Local wisdom of *Suku Duano* is very closely related to the utilization of the resources of sea. Local wisdom consists of two important elements, the man thought patterns and nature with its changes [4]. *Suku Duano* utilize the resources in a good manner and avoid the excessive attitude. This is apparent from their proverb "Do not spend all resources today, use them sparingly, so we will not regret it later".

The main sources of the *Suku Duano's* local wisdom of harmonious are the teaching of the Islamic religion, old beliefs, customs and philosophy of the importance of learning and study nature. One example of the local wisdom is that the fishermen will not sail on Friday. The sea became a sacred place is respected. Then, they still believe in things mystical and taboo and there are things that must be preserved for example the attitude of courtesy in speaking or not speaking recklessly at sea because they believe that there is supernatural life at sea that could harm them if they can't keep their speech at the sea. They also belief that shells were brought to the place of arrest. So, they do not take all shells. Little shells were left to be taken in the future when fully grown and larger. The same principle was also applied by other tribes namely *Suku Bajau* in Gorontalo province, i.e. they provide opportunities on biota, such as fish to reach the adult stage and the breed first before being arrested [20]. The same taboo is done by the indigenous communities in the Maluku through rules of *sasi*, namely the rules for harvesting the fish at a certain time and a certain kind of fish [10]. A device that used to catch fish that made by palm leaves is still simple to use and do not damage the place fish lay eggs. Devices that are used to catch scallops and clam are also simple, i.e. using a board called *papantungka* (Cik Mamat, 2018). A simple and inexpensive catching toolis also used by the *Suku Bajau* to catch specific fish and do not disrupt other biodiversity that is not a target of the catch [20]. *Suku Duano's* local wisdom is passed down orally to next generation. The local wisdom is still maintained to this day and used as a behave foundation in the daily *Suku Duano* fishermen. The local wisdom is a manifestation of the high degree of *Suku Duano's* knowledge about sea and utilization of marine resources.

Other local wisdom of *Suku Duano* society is each Tribe group is responsible for maintaining a certain territory and entitled to all the resources that were there. However, if there is an abundance of resources, *Orang Laut* from other regions can take that resources with a system of mutual borrowing. Another interesting thing is, *Orang Laut* have the habit to live switch adapted to the ecological conditions (wind) and the number of resources. *Orang Laut* will move on to areas that were overflowing resources. So, there is no excessive exploitation of the resources [1]. In other words, they have a high understanding of keeping sea area with the principle "human beings adjust to natural conditions". Local wisdom of *Suku Duano* in the management of natural resources in the coastal region of Tanjung Jabung Barat has based on ecological principles and understanding and the preservation of ecosystems, i.e. by the constitution No. 5 of 1990 [19] years of conservation natural resources biodiversity and the ecosystem. In article 1 paragraph 2 noted that conservation of natural resources biodiversity is the management of natural resources biodiversity that uses done wisely to ensure the continuity of its preparation with maintains and improves the quality of diversity and its value. The local wisdom of *Suku Duano* has long been a pattern of behavior that leads to the

conservation of the environment and preservation of the natural resources, even long time before the publication of the legislation, the *Suku Duano* has been earlier applying patterns of behavior. The wisdom packaged in simple language, in the form of a philosophy which contains the substance of value and behaves.

In addition, with attention to the phenomenon of *Suku Duano*'s local wisdom, they have a wisdom knowledge about relationship between man and nature and the environment, which Buttel[3] termed New Ecological Paradigm (NEP), in which humans are not supposed to do exploits that would undermine the sustainability of nature and the environment. There is nothing in the natural resource management conducted by their freely exploit the nature and the environment, under the pretext of over confidence that nature and the environment for human wellbeing Human Exceptionalism Paradigm (HEP).

3.3. *The Changing in the Patterns of life and Abrasion of the Identity*

Suku Duano's local wisdom in maintaining environmental sustainability began eroded by time. In fact, adaptation is one of the basic concepts in the Ecological Anthropology. In this case, that refers to the process of occurrence of reciprocal relations between living things and the environment around. According to Haviland[6], humans adapt through the medium of culture at the time they are developing efforts to ground in accordance with the resources that they find and also the limits of the neighborhood where they live. Local wisdom of using the simple capture tool is lose competitiveness with sophisticated and modern tools. The resources became much less due to excessive exploitation. Palm leaves and *papantungka* lost by *songko* board machine. Clam can no longer catch every day because the *songko* machine catches the small to large clam. Beliefs in honor of sea and God through the traditional ceremony and with the rules of taboo is not relevant to the mindset of today's society. The community considers the mindset and modern culture better than local wisdom that they've got [14]*Suku Duano* lost their culture and identity.

Until 1980, sea is still the main source of life of *Suku Duano*. Being a fisherman is their livelihood to feed the family, with most of the remaining ancestral skills. Later, the skills and knowledge of its existence and do not inherit well in the following generation. The younger generation was no longer interested to join the sail together elders and even not interested anymore to become fishermen. The fishing profession is not interesting. Least two decades, the younger generation already adapts to the new lifestyle.

Meanwhile, for some condition, this local wisdom which is the cultural and identity of *Suku Duano* can be the answer for the preservation of the environment. This local wisdom needs to be understood and applied by the community. Abrasion of local wisdom are caused by many factors and this abrasion not only occur in this community, but also in other tribes, such as the case at the *Suku Bajau* in the Wakatobi, Sulawesi Tenggara [17]. According to [21] and Thamrin[18] trust of local people against the power of local wisdom that once embraced and owned can be done with 1) develop institutional local community, 2) enhances the appreciation of the local culture like abstinence and prohibition; hallow a place, a variety of indigenous proverb. Another thing that also becomes important is finding communication solutions that fit the modern system to deliver local wisdom [7]. Another thing that is considered important is giving the customary social sanctions or penalties upon the acts of violation of such local wisdom, as done by the people of the tribe of sea that existed in Raja Ampat. The Tribe community of the Sea applies the system of application i.e. *sasi* rules in an area and be penalized the customary if broken [12]. Another example such as village rules about participation sustainable coastal resource management in the Panglima Raja village, Indragiri Hilir, Riau [21].

Application of similar rules could be a solution to maintain existing local wisdom, although certainly got a challenge from various parties. This challenge becomes more severe with the emergence of a policy taken by the local government is to move some of *Suku Duano* members to the distant settlements from the sea and the River, away from the place of their livelihood. It is certainly different from the philosophy of life *Suku Duano*. Another thing that is important is to involve local communities in conducting the action in the environment to avoid conflicts and inaccuracy use of such policies [9].

4. Conclusion

Suku Duano's pattern of life indicates that there is local wisdom in exploiting and preserving the environment of the coastal district of Tanjung Jabung Barat. This local wisdom traditions beginsince in deciding time doing fisheries, developing and using the tools catch seafood in a simple ceremony, in honor of the sea, a commitment not to throw rubbish into the sea, the trust is no secret zones in the sea and a commitment to not use *songko* machine in collecting shells, but rather to use a palm leaf. In addition to the changes to the conditions of the environment, Government policy is also not right on target against local wisdom, it can be seen from the Government's policy to provide assistance to the *Suku Duano* resettlement, where the House provided far from the sea, until the *SukuDuano* have difficulty traveling or away from the place of their livelihood. It is certainly changing the mindset of the former sea turned over to farming, selling, and rush. Local wisdom will be eroded because they are no longer live in the sea. The local wisdom in maintaining environmental sustainability began eroded by time.

Suku Duano tribe knowledge about nature and their skills on the sea no longer unloaded on the next generation. The younger generation of *Suku Duano* no longer interested to join the sail together elders and even not interested anymore to become fishermen. Currently, the *Suku Duano* is undergoing a transition of identity. Life habits became identity of the tribe, started to lose the existence. The influence of modernization of institutional functions, loss of custom, settlement patterns, and government policies become the drivers of loss of local wisdom which played an important role in maintaining environmental sustainability in marine ecosystems in the Jambi area.

5. References

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