

Agrarian Culture in the Northern Coastal Community of Belitung Island

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Abstract. The availability of environmental resources is one of the fundamental considerations in satisfying the needs of human life. This understanding leads to the assumption that inland area provide agricultural resources, while coastal areas provide aquatic resources. In the coastal areas of the Belitung Regency, this general understanding does not hold true. Communities in the region tend to use terrestrial resources and practice agriculture as a subsistence system. This paper discussed the selection of environmental resources used by the community of Sungaipadang village in Sijuk district, Belitung regency. The discussion was considered from the perspective of the paradigm of environmental possibilism, which assumed that the determining factor in environmental adaptation is the historical and cultural background of society. The aim of this paper was to analyze the historical background of agrarian culture in Sungaipadang village, which is geographically located in a coastal area. The data source was the result of an investigation that was part of research on the selection of environmental resources used by the community in Sungaipadang village. The research method was qualitative and data collection was done through observation and interview. The identification of informants was based on their expertise in the social and cultural system of Sungaipadang village in particular and the Malay community of Belitung in general. An inductive paradigm with an emic approach was used for the analysis. The research findings revealed that the Sungaipadang community tends to be driven by the context of the community's cultural history in their decisions to adapt to their environment. The agricultural activities of the Sungaipadang community was a knowledge system that was passed down from generation to generation. It was inferred that the Sungaipadang community's adaptation strategy was to use environmental resources that supported agricultural activities.

Keywords: agrarian culture, coastal community, environmental resources, cultural history

1. Introduction

The coastal zone is a transitional area between land and sea whose land is still affected by aquatic activities, and sometimes invaded saltwater intrusion. In addition, some coastal areas are still affected by land activities such as sedimentation and freshwater flow [1], [2]. Generally, the environmental resources of coastal areas are used as aquatic resources, so the people living in this area make their living from fishing. Based on observations of researchers, the general view that fishermen are identical as a community subsistence system in the coastal areas does not occur in the coastal areas in Belitung Regency. Community in the coastal area of Belitung Regency does not use marine and fishery resources but tend to use land resources, such as agriculture as a subsistence system.

From a cultural perspective, agriculture is defined as land cultivation and economic activity to meet human needs and survival [3]. Agriculture is an attempt to obtain food by growing crops and raising animals [4]. Land management activities to meet needs and survive are a form of human interaction with the environment. In general, human interaction with the environment is called adaptation [5]. Steward, in his cultural ecology theory, states that human interaction with the environment is a reciprocal relationship influenced by the cultural system that develops in the community group [6]–[9]. The paradigm of ecological possibilism is based on the assumption that the natural environment influences the way of life of human beings, but is not the decisive factor. Adherents of the possibilism paradigm assume that the human environment plays an active role in interacting with the environment, which is motivated by its culture. This view is consistent with Boaz's statement that the environment provides people with various opportunities, but the driving factors in determining the choices made are history and culture [10], [11]

This paper aims to provide an overview of the history and agrarian culture in Sungaipadang Village to explain the reasons for choosing environmental resources as livelihood for the community in the study area. The data source in this paper is the result of the first phase of research, which is part of a study on cultural ecology models in coastal community in Sungaipadang village, Sijuk district, Belitung regency.

2. Method

The method used in this investigation is a qualitative method. In this case, the research was conducted from the perspective of environmental possibilism, which assumes that humans play an active role in adapting to their environment so that they are able to take advantage of their natural environment. This ability is influenced by the culture, which is formed not only because man has mastered his ecological niches, but also because of complex historical and superorganic processes [7], [11].

Data were collected through observation, where the researcher observed the behavior and activities of the community in the study area. The observations were used to answer research questions about the potential of environmental resources and how the Sungaipadang village community uses its environmental resources. This study also observed material cultural remains in the study area to reconstruct the history and agrarian culture of the Sungaipadang village community in the past. In addition, data collection was conducted using interview

techniques. This technique was used to answer research questions about the socio-cultural system of Sungaipadang village. Therefore, the selection of informants was based on the informants' understanding and expertise of the social and cultural system of Sungaipadang village in particular and the Malay community of Belitung in general. Based on the criteria described above, the researchers decided that the informants in this study were village leaders, traditional leaders such as dukun kampong and other traditional officials, cultural experts, and historians. In order to check the validity of the data in this study, the researcher used a triangulation technique that aims to check the validity of the data. This technique is used in the data collection phase where the researcher simultaneously checks the credibility of the data by comparing the observed data with the interview data and compares the interview data by asking the same questions to different informants.

In the data analysis, the researcher used research procedures of the cultural ecology approach to explain the origins, characteristics, and patterns of specific cultures in a community group in a specific geographic area by analyzing the relationship between the environment and resource use technology, environmental and production resources [12]. Based on this research procedure, the collected data are classified into three categories, namely historical background, environmental resources, and livelihood system of Sungaipadang village community. Data interpretation is the last phase of this research. In this phase, the researcher attempts to draw conclusions from the results of the analysis and data synthesis conducted in the previous phase. This conclusion takes the form of an overview of agricultural history and culture so that it can explain the reasons for choosing environmental resources as a livelihood for the community in Sungaipadang village, Sijuk district, Belitung regency.

3. Result

The research area is administratively located in Sungaipadang village, Sijuk district, Belitung regency, Bangka Belitung Islands province. Sungai Padang village is located in the northern part of Belitung Island and is downstream of the Padang River watershed. In this section, the Padang River flows into Calang Bay, which is located between Mount Sabangraya and Mount Palembang. In the northern part of the estuary is a small island called Pulau Kuale, which appears to protect the mouth of the Padang River when viewed from the sea. The coastline in the Padang River estuary forms a bay between two capes, namely Tanjung Arabulan on the west side and Tanjung Batubedil on the east side [13]. The soil texture in the area of Sungaipadang village is dominated by sandy areas formed by the weathering of granite and kaolin. There is also a layer of podsolic soil in this area, which is suitable for agricultural land due to its high mineral content, but does not have such a high water content. The groundwater layer in this area is also relatively close because it can be penetrated at a shallow depth, which is evident from the depth of the well, which ranges from 3 to 5 meters [13].

3.1 The Historical Background

The village of Sungaipadang has a long history. The village community of Sungaipadang consists of indigenous people who have lived in the village for generations. Like most people

on Belitung Island, the original inhabitants of Sungaipadang village are Malays. Archaeological remains such as Chinese pottery fragments found in the area indicate that Sungaipadang village has been inhabited since at least the XIII-XIV century. The existence of archaeological sites also indicates that settlements in the past were located inland rather than on the coast [13]. Earlier dwellings were located near farms or fields and were alternate dwellings that followed the cultivation season. The produce from their farms or fields was used for daily needs. In addition to agricultural activities, the village community of Sungaipadang also collected forest products for trade in the past [14]. Settlements in this inland region flourished until the end of the XIX century. Archaeological remains from this period include ancient burials associated with Chinese ceramic fragments from the XIX-XX century [13], [15].

According to historical data, the village of Sungaipadang was one of the first places explored by the government of the Dutch East Indies at the end of the XIX century. When the Dutch East Indies government opened a tin mining operation in this village, a number of infrastructures were also built, including a road network connecting the districts with Tanjungpandan. Since the Billiton Maatschappij used the inland as a tin mining area, the village community of Sungaipadang was relocated to a coastal area [13], [14]. This resettlement was essentially to facilitate the mobilization of tin mining activities [16]. The new settlement continues to grow to this day.

3.2 Environmental Resources

Environmental resources are anything in the environment in which humans live, both in the form of natural and man-made resources that are useful and have value for human life [17]. Based on its geographical location, the environmental resources of Sungaipadang village can be divided into two areas: land resources and aquatic resources [17]. Statistical data from Sijuk district in figures 2021 released by the Central Bureau of Statistics of Belitung Regency show that land resources cultivated by Sungaipadang village community are crops such as pepper, oil palm, coconut, rubber, coffee, and sugar palm. Chronologically, pepper is a crop that has been cultivated in the past. Archaeological research has shown that this plant has been known to the inhabitants of Belitung Island since the XVII century, when the island was under the rule of the Palembang Darussalam Sultanate [18]. Sugar palm has also been used by the inhabitants of Belitung Island at least since the time when the island was controlled by the Palembang Darussalam Sultanate [19]. Other plants currently grown by the Sungaipadang village community were introduced in 1992.

The 2008 monograph of Sungaipadang village indicates that coconut cultivation began in 1992, oil palm cultivation in 2007, and rubber cultivation in 2009. The aquatic resources used by the residents of Sungaipadang village come from the sea located in the northern part of the village. These resources include reef fish, clams, squid, crabs, and crayfish. Generally, these aquatic resources are used by the community for daily needs. Only at certain times are the reef fish caught by the community sold to collectors who come from Tanjungpandan. In addition, some members of the Sungaipadang village community use shrimp to process them into shrimp paste.

3.3 Livelihood System

In this study, the observation of the livelihood system in the study area focuses on the livelihood system realized through the use of environmental resources. Accordingly, the livelihoods under consideration are farmers and fishermen. According to the Sungaipadang village office in 2019, the number of people in Sungaipadang village who make a living by using environmental resources is 500. The livelihood system of Sungaipadang village community is dominated by agricultural activities. Pepper and oil palm dominate the agricultural activities of the Sungaipadang village community. These products are sold to wholesalers in Tanjungpandan as well as to industries on Belitung Island. Coconut and rubber are also grown in this village, but are not the main source of income for the community.

Unlike agricultural activities, which are the main source of income for the Sungaipadang village community, fishing is practised by the community only at certain times. However, the Sungaipadang village monograph indicates that in 1971, there were efforts by entrepreneurs from Tanjungpandan to house the community's catch. In 1992, Sungaipadang village residents were introduced to grouper farming, but this has not yet made the activity a major source of income.

Although the area of Sungaipadang village has the potential for tin mining, the community does not use these resources for livelihood. From the observation, since 2004, unconventional tin mining permits have led to the reuse of tin mining sites that had been abandoned by PT Timah. According to the informant, the miners were not from Sungaipadang village but from other areas. However, when the tin price is high, sometimes there are people in Sungaipadang village who also mine. This is done to raise capital to buy seeds to grow crops, especially oil palm.

From the results of the observations and interviews, it appears that the community in the study area uses its environmental resources, especially through agriculture and fishing. Normally, people engage in agricultural activities from morning until late afternoon. In the evening, they go out to sea until just before midnight. However, in certain months, they only engage in agricultural activities. People in the study area are familiar with the term western monsoon, which occurs in November, December, and January. In these months, there is a strong wind, so the waves on the sea are very high and dangerous, so they do not go to the sea, preferring to do farming.

4. Discussion

In the interaction with his environment, man plays an active role, according to his cultural abilities, to satisfy his needs and determine the production process he chooses [7], [10], [20]. Culture passed from generation to generation is also the reason for choosing a strategy to satisfy human life needs when colonising a new territory [5], [21]. Based on historical data, it is known that the village community of Sungaipadang has passed down the knowledge of using environmental resources from generation to generation. The knowledge of shifting cultivation of crops is still maintained by the community. This tradition is evident in the pattern of bell pepper cultivation where not all the land they own is planted. They plant only as much as they need. The cultivated land is used for six to seven years, depending on the

yield period of the bell pepper plant. After that, farmers usually move to another location to plant new seed. This activity continues continuously until they eventually return to the first land. However, this method is not applied to other crops because the production period of the plant is longer than that of pepper, such as oil palm, which has a production period of up to 20 years.

In the Malay community of Belitung, the agricultural tradition of shifting cultivation is called *beume*. The *beume* tradition is an agricultural process that begins in the Malay community of Belitung with the clearing of land by cutting down trees and then burning them. This process is known as *nebas nunu*. After the land is cleared, the next step is to plant the seeds, which are called *nugal*. The next process is harvest time, known as *ngetam*, which is the bringing in of the harvest. At the end of this agricultural tradition, a traditional ceremony called *maras taun* is held. *Maras Taun* was originally a ceremony to give thanks for the rice harvest, held once a year after the harvest. As it evolved, this ceremony was changed to a village celebration as the types of crops grown by the community such as pepper and oil palm changed [22], [23]. In some places, this ceremony is also performed by groups of tin miners. Archaeological remains in the form of food remains also show that the village community of Sungaipadang also used aquatic resources in the past. Ecofacts found at the archaeological site included *Corbiculidae* and *Strombus turturella*, which likely provided a source of protein for the site's inhabitants. The use of these water resources is still practised by the inhabitants of Sungaipadang village. In the Malay community of Belitung, the tradition of shellfishing is known as *ngeremis*. Initially, the agricultural and marine products of the Belitung Malays were used only for daily needs. When there is a surplus, the product is sold to buy other household needs that cannot be produced by themselves.

In general, buying and selling activities are not carried out in special places like markets, but there are people who come to the house to buy the surplus. This activity is called *berae*, while the people who perform this activity are called *perae*. In carrying out buying and selling activities, a *perae* not only buys the products of the community, but also sells other household needs to the community. The products bought by the farmers are then resold in the market, but sometimes they are sold in other villages. Field observations show that the *berae* tradition has changed in the community. While the *perae* initially also served as a seller of goods needed by the local community, it has now evolved into a collector of community products that are resold to markets or wholesalers in Tanjungpandan. The products purchased by the community are generally pepper and fish.

5. Conclusion

The village community of Sungaipadang has always been known for its agricultural activities. Before the settlement of the present site, the settlement was located inside the watershed of Sungai Pandang. The earlier dwellings were located near farms or fields and were alternate dwellings following the cultivation season. When the Dutch East Indies government exploited the tin mines in the area, the settlements were moved to the coast to facilitate the mobilization of tin mining. Although the relocation changed the settlement pattern of Sungaipadang village, the community continues to practice agriculture as a livelihood. The research findings suggest that the Sungaipadang village community's decisions

to adapt to their environment are more likely determined by the community's cultural and historical context. In this case, Sungaipadang village residents use their agricultural culture as an adaptation strategy by taking advantage of the environmental resources that support these agricultural activities.

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