Geo-ecological interaction: Community based forest management in Karanganyar, Indonesia

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ABSTRACT: This study aimed to describe the social life of forest village communities and their participation in LMDH attachments. This research used a geo-ecological approach with a case study qualitative method to describe the relationship between the local community with LMDH, located in Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency. This study uses primary and secondary data. Preliminary data was collected through in-depth interviews, while secondary data was obtained from village monographs. The results show that the management and utilization of forest resources are still thick with local wisdom, such as traditions and rituals. Social and economic characteristics are closely related to geographical conditions. Irrigated agriculture is the dominant activity in the agricultural sector. The use of agricultural land is very suitable for the suitability of the ground there. The embeddedness between LMDH and the people of Tambak Hamlet, Berjo Village, is at the level of the programs established by LMDH following the characteristics of natural processing and daily community activities.

Keywords: ecology, forest, management

1 INTRODUCTION

National and regional development cannot be separated from village development activities, in its implementation there is nothing that is not feeling the development or can be called “No-one left behind” (CNBC Indonesia 2020; Deswimar 2014; Rahayu 2017; Némethová 2020; Payne 2018; Saberifar & Mishrab 2020; Afifuddin 2010; Akbar et al. 2019; Mardhiah 2017; Bappenas 2020; Hermayana 2019; Khairuddin 2000; Siswijono 2008; ICCTF 2020). Community-driven development is the development of the concept of people-centered development. The existence of this concept is a reaction to the existing development concepts in economic growth. This concept is a form of social planning to carry out planned social changes, namely, change the community’s attitudes and social behavior so that they can become empowered and able to carry out development in their environment (Sitorus 2017; Haryanto 2012; Zaenudin et al. 2014; Birgantoro & Nurrochmat 2007; Arifandy & Sihalohe 2015; Theresia et al. 2014; Siagian 2005; Adisasmita 2006; Marbun 1983). Adimihardja and Hikmat (2003) state that a product must come from the community itself,

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including a village's development (Sumbi & Firdausi 2016). One type of development carried out by the government in rural areas is establishing the Forest Village Community Institution, or in Indonesia, it is called 'Lembaga Masyarakat Desa Hutan/ LMDH'. LMDH was formed to increase a sense of concern for the forest by not cutting forests carelessly. The establishment of the LMDH in Berjo Village is sharing roles, sharing space and time, and sharing results. By involving village communities in forest management, planning, implementation, monitoring, and evaluation will give them deep meaning. The mission or activity carried out by LMDH in Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency is to optimize forest use by managing forests as fruit plantations, the potential for educational tourism, and citronella oil refining. However, the obstacles faced are the people of Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency, most of whom do not know and understand the function of LMDH itself. Therefore, this research's title is "Geo-ecological Interaction: Community Based Forest Management in Karanganyar, Indonesia." Based on the background of the problem above, the formulation of the situation in this study is how the community's life and the closeness between LMDH and the community in Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency?

2 METHODS

This research used a geo-ecological approach with a case study qualitative method to describe the relationship between the local community with LMDH, located in Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency. This study uses primary and secondary data. Preliminary data was collected through in-depth interviews, while secondary data was obtained from village monographs (Salim 2006; Miles & Huberman 1992; Moleong 2007).

3 RESULTS AND DISCUSSION

Berjo Village is one of the villages located in Ngargoyoso District, Karanganyar Regency. The town with an area of 1,623,865 hectares is located on the lower slopes of Mount Lawu. When viewed based on the topography, this village is at an altitude of ± 800 masl and has a tropical climate with an average temperature of $\pm 22^{\circ}\text{C}$ – 32°C . Girimulyo Village borders the northern part of Berjo Village; in the east, it is bordered by Mount Lawu forest, the west is bordered by Puntukrejo Village, and to the south, it is bordered by Ta-wangmangu District. The total population in Berjo Village is 5,551 people or 16% of the total population in the Ngargoyoso District. The community of productive age in this village is 3,741 people. The majority of the population in Berjo Village have a livelihood as farmers and farm laborers. As many as 85% of the total population in this village work as farmers and farm laborers. The second-largest livelihood after farmers is construction or industrial workers, which is 6%, and traders occupy the third position with a total of 4% of the population. The large number of residents who work as farmers and farm laborers is closely related to the geographical conditions of Tambak Hamlet, Berjo Village, Ngargoyoso District, Karanganyar Regency as one of the villages with high soil fertility potential. It can be seen in Figure 2 that 84 Ha or 5% of the land in this village is rice fields, 92 Ha or 6% of the total area of Berjo Village is a built-up area (settlement), 191 Ha or 12% of the total land area is used as Plantation land, 1,236 Ha or 76% of the whole earth is forest, and 20.87 Ha is another land use. The potential for high soil fertility is utilized by carrying out economic activities in the agricultural sector. Data from BPS (2019) states that around 57% of the land area in Ngargoyoso District is used for rice fields. Berjo is one of the villages that use its land to dominate simple irrigated rice field farming activities. As for the community's economic activities, which in this case, are farmers, apply a subsistence economy as their survival strategy. The purpose of a subsistence economy is an agricultural financial system by consuming its agricultural products as a fulfillment of daily needs. Berjo Village, Ngargoyoso District, Karanganyar Regency is a village where most of its territory is a forest under Mount Lawu. The existence of natural resources in the form of woods with an area of 1,236 hectares or

76% of the total area of Berjo Village is managed by the surrounding community so that they can be utilized optimally. In terms of forest management, there are three main parties, namely Tamah Hutan Raya, the Indonesian State Forest Company (Perhutani), and the Forest Village Community Institution (LDMH) (Setiawan 2019).

The field findings show that the people of Berjo Village have an economic pattern as vegetable farmers. In contrast, the primary source of income is then supported by several side economic activities and a form of investment in the form of livestock. The vegetable farming community pattern that has existed for a long time is not necessarily the only sector that is highlighted by the people of Tambak Hamlet; there are several parts of life that link the community to their economic system. Several sectors of people's life are indirectly related to their economic system. Thoughts on the economy have many variations of concepts; the concept of embeddedness, coined by Marc Granovetter, sees the financial system as closely related to various external things, such as values and norms, networks where these social relations build the economic system in it. Granovetter's study sees that the economic system will not be separated from the various social relations around it (Granovetter 1985; Swedberg 2003; Blikololong 2012; Chalid 2011; Haryanto 2011). Like in Tambak Hamlet, their economic activities as garden farmers are not only about planting in the fields and producing crops at a particular time, but several things affect the progress of their economic cycle, their welfare, the wealth they have, how to manage their wealth. And others. Some of the dimensions used to study the financial organization of Tambak Hamlet include the leading economy, path dependency, investment, ownership, valuation, and trust. Each of these things has a relationship with the people's lives, using Granovetter's frame of mind to explain that these things have a relationship or attachment to people's lives, so the economic organization there will continue to run and survive. The extension of financial organizations to society will cause a slice or intersection, which causes the two things to have part of one another.

4 CONCLUSION

The embeddedness between the community and the LMDH is at the program level established by the LMDH because these programs have natural processing characteristics, especially village forests, by the community's daily activities, so it does not require long adjustments to realize LMDH programs. Analysis of the life of the people of Tambak Hamlet, among others: (a) The community economy; (b) Community investment; (c) Community ownership; (d) Valuation in society; (e) People's beliefs; and (f) Leadership in the community

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