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Community forestry for environmental sustainability and ecotourism: the context and problems in Indonesia

R Sulistiowati¹, S Wahyuni², M K Yunanto³, M Elsera², W E Yudiatmaja^{2*}, T Samnuzulsari²

¹Universitas Lampung, Bandar Lampung, Indonesia

²Universitas Maritim Raja Ali Haji, Kepulauan Riau, Indonesia

³Sekolah Tinggi Ilmu Administrasi “AAN”, Yogyakarta, Indonesia

*wayuguci@umrah.ac.id

Abstract. Social forestry is one of the programs delivered by the Indonesian government to distribute forest ownership to society. The program consisted of village forest, customary forest, community forest, a people forest plantation, and partnership for forestry. This study merely focused on the community forest in Indonesia. The purpose of this research is to analyze the context and problems during the implementation process of permit delivery for community forests in Gunungkidul, Yogyakarta, Indonesia. A qualitative method was used in this research to understand the case of community forests in the study site. Data were collected using an interview, non-participant observation, and secondary document. We find that many groups of farmers have not received the permit for forestry management because of regulatory constraints. The problems are induced by many policies in the forestry sector regulating various forms of forest management permits contradicting the principle of the decentralized forest management policy. We recommend to the government to simplify the process of forest permit management, especially for the community forest.

1. Introduction

Environmental issues are interesting topics frequently discussed along with the development process. It occurs because most of the development process affects the natural and social environment [1]. The influence on the social environment can be acknowledged by an increase in the socio-economic conditions of the community, while the influence of development on the natural environment can be indicated by the utilization of the results of resources, both energy, water, air, land, or forests that contribute to the implementation of the development process. One of the developments intensively carried out by all countries in the world, including in Indonesia, is development in the forestry sector [2].

Forest development is not only relied on to trees but also the people. Trees are important as long as their existence is beneficial to the public interest because the community participates in utilizing their production. This is mainly because forests are one of the resources that support the life of human life to prevent damage to natural ecosystems. Indonesia still had the original forest condition until the late 1960s with an area of 143 million hectares of the forest [3]. The forest still exists because the community views the forest as a home, being part of their culture and life. There is an important message that destroying the forest means destroying life [4].



However, forest exploitation activities, especially state forests, began to flare up, precisely during the New Order administration. At that time forest management was controlled by the central government through private parties provided the authority in the form of forest concession rights for forest areas outside Java and appointed Perum Perhutani to manage forest areas in the form of forest concession rights in Java Island [5].

In practice, the forest concession rights regularly abuse their authority to enrich themselves or for other illegal practices endangering forestry conditions in Indonesia. Not to mention the addition of centralized nature of government in the use of forest products, which makes people around the forest unable to enjoy one of the natural wealth of forest products. In addition, timber concessions carried out by the government through forest concession rights tend to be timber extraction, or it can be said to use timber forest products excessively through illegal logging, smuggling, logging, and theft of timber triggering deforestation.

Yogyakarta province has the characteristics of forest management which is slightly different from other regions because the status of Yogyakarta's land is the place belonging to the Sultanate and Pakualaman ground [6]. An area that has a forest area of 14,895.5000 ha out of a total area of 1,485.36 km² is not necessarily free from the occurrence of forest area damage. It was recorded that more than 50% of the damage occurred in state forests in 1997 [7].

From the management of the existing forest land area, it is state forests that are often damaged. Along with the increasing forest destruction, the government is increasingly aggressive by starting to issue and promote a series of programs related to community-based rehabilitation of state forest areas. The issuance of a series of programs is none other than a form of policy in the era of decentralization, namely Law No. 22 of 1999 concerning regional autonomy in the forestry sector. From many programs created, it is the community forest program that has its unique characteristics because community forestry has been born since 1995.

In fact, there are obstacles in the implementation of community forestry, especially related to the issue of the permit to utilize the forest for the society which has an impact on the not yet issued community forestry permit. Departing from the emergence of various problems and exposure to facts in the form of data analysis from the results of the initial review that has been carried out, the researchers are interested in discussing the problems of implementing a community forest permit. Considering that the permit is the actualization of the implementation of community forestry policies supporting the implementation of forestry decentralization by prioritizing community participation in the implementation process, as well as increasing the efficiency of the central government. It can be achieved through sharing of authority to the regions to manage policies related to the implementation of forestry decentralization.

This research will focus on the problematization of the implementation of community forest permits in Gunungkidul Regency, Yogyakarta because by focusing this research on this, it provides a deeper understanding of the main problems surrounding the community forest permit managed by several farmer groups in Gunungkidul. The problems of this research can be formulated as follow: How is the process of implementing community forest permit and what is the problems in community forest management for environmental sustainability and ecotourism? This study aims to understand the process and mechanism of the implementation of community forestry and the ultimate problems in community forest governance in Gunungkidul.

2. Methodology

To answer the research problem comprehensively, we applied the qualitative research method. As explained by Miles and Huberman qualitative research methods are defined as an investigative process in which researchers slowly interpret a social phenomenon by identifying the object of research [8]. They also explained that the application of qualitative methods in research aims to understand certain situations, events, groups, or social interactions. By using this research method, it is hoped that we can precisely investigate the problems in the process of implementing community forest permits through

various data collection systems, to obtain comprehensive study results from the results of data interpretation and analysis.

Data in this research were collected by using several methods. First, we made observations to see the natural conditions of a community experience in utilizing forest for community interests in Gunungkidul. The observation was conducted to obtain an overview and find out the extent of the process of community forestry permit. Second, we interviewed numerous informants using unstructured interview techniques. It was used so that informants feel free to answer the questions asked and can further develop their opinions according to their capacity without any limitation on answers reflected in a structured interview.

Several parties and figures interviewed were the Watershed Management Development Center, the Forestry and Plantation Service of Yogyakarta Province, several farmer groups of community forest, non-government organizations (NGOs), and academics concerning forestry issues [9]. Third, we performed documentation techniques by collecting official documents from parties related to regulations and the implementation process of community forestry carried out by the government, community, or other related institutions.

After completing the data, the next step was to analyze the results of these results to obtain valid and credible findings. Data analysis took place along with the process of data collection. In other words, this process indirectly took place during the initial review process previously carried out by researchers through the results of observations, interviews, and documentation. The data analysis was conducted in several steps, namely processing and preparing data for analysis, reading all the data obtained from various data sources, and interpreting the data [10].

3. Result and Discussion

3.1 Current situation of forest area and community forestry in Gunungkidul

The development of community forestry has long been initiated in Gunungkidul. At a peak in 2005, the government of Gunungkidul and related parties formed a working group for sustainable community forest to realize sustainable community forest management encouraging sustainable community forest certification. The purpose of this cooperation was to increase community and regional income. The development of community forests continues until this day.

It is noted that Gunungkidul has the largest forest area, reaching 87% or 14,895,5000 ha of 18,715,0640 Ha of the total forest area spread in Yogyakarta. Forests in Gunungkidul are divided into several functions, namely production forest covering an area of 12,810,1000 Ha, protected forest covering an area of 1,016,7000 Ha, and conservation forest covering an area of 1,068,7000 Ha as shown in the following table.

Table 1. Number of Forest Based on Its Function in Gunung Kidul

| Function | Amount (Ha) |
|--------------------|-------------|
| Production Forest | 12,810 |
| Protected Forest | 1,016 |
| Conervation Forest | 1,068 |

Source: Processed from [11]

One of the forest functions in Gunungkidul is production forest. Production forest located in Gunungkidul is under the management system of the Forestry and Plantation Service of Yogyakarta Provincial Government, with teak and eucalyptus as the main commodities. Production forest can be classified into AB (*Afkiren Boschs*) forest and non-AB forest. AB forest is a forest area that is very small and separated. In the previous period, AB forest was slightly neglected due to inefficient operational costs for its management.

Even though AB forest has status as state land, its management is delegated to the community through the village government with the institutional concept of people's plantation forest. In people's

plantation forests, the community can work to manage their forest-on-forest land with assistance from the Forestry and Plantation Service.

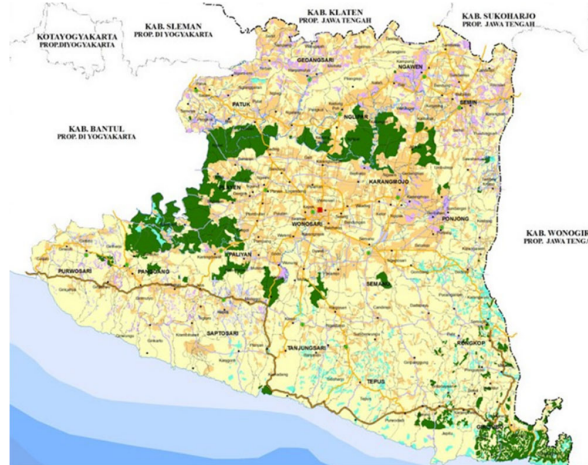


Figure 1. Forest Area in Gunungkidul

Meanwhile, a non-AB forest is a forest area that has a large area and is not separated. The non-AB forest area is grouped into many plots with a forest chairman in charge of several forest plots. The forest chairman leads several forest foremen. There are three forest foremen with different tasks, including forest security foreman, forest harvest foreman, and forest planting foreman. The forest chairman is directly responsible to the head of the forest area. In Gunung Kidul Regency, there are four forest areas, namely Paliyan covering an area of 3,872,500 Ha, Playen covering 3,711,000 Ha, Panggang covering 2,143,600 Ha, Karangmojo covering 3,324,900 Ha. Several non-AB forest lands in Gunungkidul are managed using the community forest model [12].

Community forestry is a state forest whose main use is intended to empower local communities. To facilitate the management of community forestry, the government has divided four forest areas spread over four sub-districts in Gunungkidul. From around 13,052.0 Ha of state forest area, only a small portion of an area of 1,089.40 Ha of land has been declared and granted a permit for forest management with a community forestry model [13].

3.2 The problems of community forestry for sustainability and ecotourism in Gunungkidul

In general, the process of community forestry has anxiety at several farmer groups because the profit-sharing system that had been determined was not commensurate with the results of their hard work so far. The profit-sharing system following the governor regulation arranges that the proportion of profit-sharing from the use of forest and non-timber forest products is 60:40 percent model, after deducting 10 percent of forest tax. The proportion of 60 percent is for farmer groups working on community forestry land, and 40 percent is for the Yogyakarta Provincial Government.

Although the community gains 60 percent of the results from the use of forest utilization, the results seem to be far from the expectations of the people of several farmer groups [14]. The lack of understanding of the majority of the community regarding the pattern of community forestry in forest development is the primary of the community's problems. The community has an understanding that the forest has existed since they were there, so they understand that the forest is theirs.

The community forestry pattern after the regional autonomy law is considered as one of the government's efforts to invite the community to jointly develop and maintain forest sustainability. The government considers this policy to be just a pattern used by the government to be able to maintain forest sustainability, without handing over a full forest land ownership system to the community [15]. In the name of decentralized forest management, the government has succeeded in producing various forest development programs, one of which is community forestry.

The community is provided a contract for a certain period to be able to work in the forest area under applicable regulations. Indirectly, the community is only mobilized by the government to maintain forest sustainability without adequate rewards. This can be seen from the non-issue of the permit of community forest utilization at several farmer groups of community forestry in Gunungkidul. The community forestry permit is the final legality required by the community to take forest products in the form of wood, environmental sustainability, and ecotourism.

On the other hand, the district government is only authorized to provide counseling regarding the technical implementation of community forestry, program socialization, distribution of teak seeds, and general monitoring [16]. Limited funds and human resources are the main considerations in this regard. Local governments consider that the central government only gives them an obligation without accompanying them with adequate resources to carry out these obligations. This condition further complicates the implementation of community forestry in Gunungkidul

4. Conclusion

The problems of implementation of community forest permit yielding in the never-ending issuance community forestry. In other words, the process can be simplified as a half-hearted decentralization that the government has rolled out to the community. It occurs because there are various irregularities in the community forestry program marked by three things. First, there are many sectoral policy points in the forestry sector regulating various forms of forest management permits contradicted with the essence of the decentralized forest management policy.

It reflects in the community forestry program considered as an effort to decentralize forest management. Second, the regulations governing the implementation of community forestry are periodically changed, resulting in confusion between the local government and the community in its implementation. Third, the lack of harmony in the relationship existing within the organizational structure of the ministry of forestry between the river management agency and forest business management agency.

References

- [1] Yudiatmaja W E et al., 2021 Reducing solid waste through waste banks: an empirical study in Kepulauan Riau, Indonesia IOP Conf. Ser. Earth Environ. Sci. 755, 1 p. 012076.
- [2] Nogueira C, 2019 Contradictions in the concept of sustainable development: An analysis in social, economic, and political contexts Environ. Dev. 30 p. 129–135.
- [3] Dai L et al., 2013 The progress and challenges in sustainable forestry development in China Int. J. Sustain. Dev. World Ecol. 20, 5 p. 394–403.
- [4] Akbar D Mariani M Yudiatmaja W E and Edison E, Jul. 2021 Governance of mangrove restoration and conservation to climate change resilience in Bintan Island IOP Conf. Ser. Earth Environ. Sci. 824, 1 p. 012048.
- [5] van Noordwijk M Agus F Dewi S and Purnomo H, Sep. 2014 Reducing emissions from land use in Indonesia: Motivation, policy instruments and expected funding streams Mitig. Adapt. Strateg. Glob. Chang. 19, 6 p. 677–692.
- [6] Carey P, Feb. 1986 Waiting for the “just king”: The agrarian world of south-central Java from Giyanti (1755) to the Java war (1825–30) Mod. Asian Stud. 20, 1 p. 59–137.
- [7] Sandholz S, 2017 Urban centres in Asia and Latin America: Heritage and identities in changing urban landscapes Springer.
- [8] Miles M B Huberman A M and Saldana J, 2014 Qualitative data analysis: A methods sourcebook 3rd Ed. Los Angeles: Sage.
- [9] Samnuzulsari T et al., 2021 The strategic role of civil society organisations in handling climate change: A case of Riau in Indonesia IOP Conf. Ser. Earth Environ. Sci. 824, 1 p. 012104.
- [10] Creswell J W, 2007 Qualitative inquiry and research design: Choosing among five approaches 2nd Ed. Thousand Oaks, CA: Sage.
- [11] Environment and Forestry Office, 2019 Buku statistik kehutanan [Forestry statistics book]

- Yogyakarta: Provincial Government of Yogyakarta.
- [12] Sadono R Pujiono E and Lestari L, Jul. 2020 Land cover changes and carbon storage before and after community forestry program in Bleberan village, Gunungkidul, Indonesia, 1999–2018 *Forest Sci. Technol.* 16, 3 p. 134–144.
 - [13] Ota M, 2011 Implementation of the Community Forest (Hutan Kemasyarakatan) scheme and its effects on rural households in Gunungkidul district, Java, Indonesia: an exploration of the local agrarian context *Tropics* 19, 3 p. 123–133.
 - [14] Maryudi A et al., Oct. 2015 Complex regulatory frameworks governing private smallholder tree plantations in Gunungkidul District, Indonesia *For. Policy Econ.* 59 p. 1–6.
 - [15] Yudithia Y Edison E Kristanti D Samnuzulsari T Suyito S and Yudiatmaja W E, 2020 Evaluating the Impact of Technological Adoption Policy for Rural Coastal Communities *E3S Web Conf.* 202 p. 1–7.
 - [16] Yudiatmaja W E et al., 2021 Social policy on the rural coastal communities: Why the implementation fails? *E3S Web Conf.* 232 p. 1–7.