
The complexity of integrating indigenous knowledge for ecotourism planning: a case of Mude Ayek's customary forests, Indonesia

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Abstract: This study presents how indigenous peoples participate in ecotourism planning, how their knowledge is tested and challenged to deal with knowledge for developing ecotourism, and what are the challenges in engaging indigenous peoples and their knowledge in ecotourism. It employed an indigenous qualitative research strategy by conducting semi-structured interviews with representatives of indigenous peoples, government, and non-governmental organisations (NGO) participating in ecotourism planning in Mude Ayek's Prohibition Customary Forest. The results of the study show that despite being involved, the dispersed knowledge of indigenous peoples has been integrated and utilised in forest management as a product of ecotourism. However, in forest ecotourism management, indigenous peoples find obstacles either from themselves or from the confusion of other stakeholders in integrating it. The practical implication of this research is that it is necessary to build a complete picture of local knowledge, which is no longer implicit but must be written.

Keywords: ecotourism; forest ecotourism; customary forest; indigenous people; Indonesia; indigenous knowledge.

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1 Introduction

Ecotourism is widely regarded as a tourism management approach capable of improving the welfare of local communities while preserving the environment (Moore, 2004; Hitchner et al., 2009; Perera and Vlosky, 2017). One of the definitions of ecotourism commonly used is responsible travel to natural areas while at the same time preserving the environment, sustaining the welfare of local communities, and involving interpretation and education (Lim and McAleer, 2005). Such a definition has been criticised by some academics for compartmentalising humans and nature which is used to promote the interests of the Global North (Hall, 2007). Therefore, there is a call for non-western voices in the ecotourism literature. This criticism challenges the discourse on what kind of ecotourism is needed by indigenous peoples because ecotourism often emerges, is introduced, supported, or is dominated by external actors or institutions. This occurs because the belief system of indigenous peoples has strategic implications for policies and programs related to conservation (Connell and Rugendyke, 2008). Also, there are opinions from academics and practitioners who view the beliefs of indigenous

peoples to promote ecological integration and promote sustainable development (Zeppel, 2005; Connell and Rugendyke, 2008; Farrelly, 2011).

The utilisation of indigenous peoples' knowledge is a form of involvement of indigenous peoples in managing their future (Johnston, 2000; Var et al., 2010; Idris et al., 2017). The use of local wisdom in sustainable development is believed to be an important approach in developing resilience and maintaining relationships between individuals, communities, and the environment (Zeppel, 2005; Pai, 2016). Academics suggest that the process of integrating indigenous knowledge in various socio-economic development settings can empower indigenous peoples through shared learning and adaptation, and as a result, increase resilience and sustained outcomes from the efforts made (Nepal, 2004; Luchman et al., 2009; Banaszekiewicz, 2016).

Indigenous knowledge is often overlooked as a source of policy-relevant information because it is often underestimated from the perspective of western knowledge (Nepal, 2004; Smith et al., 2017). Learning and utilising local knowledge helps ensure the value and importance of this knowledge also facilitates the process of integrating various resource management practices, including nature-based tourism and finding solutions to increase community resilience (Fennell, 2008; Higgins-Desbiolles, 2009; Yi-fong, 2012; Pu et al., 2021). This is important to do at the beginning of the ecotourism initiation process or in the ecotourism planning stage (Moore, 2004; Su et al., 2014; Masud et al., 2017). Some literature suggests this because during the implementation stage, they found that the failure of ecotourism was often caused by negligence to include indigenous knowledge in ecotourism planning (Nelson, 1994; Boyd and Butler, 1996; Fennell, 2020).

For generations, indigenous peoples in the area of forestry have inherited indigenous knowledge and practices related to environmental management (Nepal, 2004; Hovardas and Stamou, 2006). Therefore, sustainable forest ecotourism is very dependent on the community, especially indigenous people, who support conservation efforts while being involved in forest management. This practice is one way to adapt, implement and preserve local knowledge while preserving natural resources. It is also an attraction for forest ecotourism. The knowledge and practices of indigenous peoples have become essential elements for the sustainability and benefit of communities in the long term (Nepal, 2004; Hovardas and Stamou, 2006). The significance is this kind of knowledge can be very important when they are involved in forest ecotourism and maintain a sustainable relationship with the natural environment.

Although there is a collection of literature on forest ecotourism (Hovardas and Stamou, 2006; Ok, 2006; Chakrabarty, 2011; Maganhotto et al., 2011; Perera and Vlosky, 2017; Singh, 2017; Ambarita et al., 2018; Utami and Dharmadiatmika, 2020; Naylor et al., 2021), the contribution to indigenous peoples' knowledge in the context of developing forest ecotourism is still limited. Although these aspects have been widely recognised, they are still neglected in practice (Zeppel, 2005; Fennell, 2008; Connell and Rugendyke, 2008; Farrelly, 2011; Barba-Sánchez and Molina-Ramírez, 2014). Therefore, this paper intends to explore the dynamics of integrating indigenous knowledge into forest ecotourism planning in Mude Ayek's customary forests, Indonesia. Because ecotourism is part of a broader concept of sustainable tourism, the conflicts and opportunities between ecotourism and indigenous peoples and how they can be integrated are interesting things to research, discuss and contest.

Mude Ayek's customary forests, Indonesia is managed by the indigenous Basemah people. The indigenous Basemah people have repeatedly emphasised that land rights are inalienable and are an absolute requirement for ecotourism. Ecotourism is arguably the most significant factor driving indigenous peoples away from their traditional territories at present. In some regions of Indonesia, land claims have resulted in compensation packages, but these settlements are frequently based on a 'no net loss' policy. This discretionary approach is unacceptable to indigenous peoples because there is no substitute for their homeland in terms of cultural continuity. Second, in every discussion of the indigenous Basemah and tourism, including this paper, the issue of intellectual property rights becomes the focal point. Even if they are not acknowledged or spelled out, manifestations are everywhere. The theft of cultural expressions and symbols is the most egregious violation of the intellectual property rights of indigenous peoples by the ecotourism industry. The commercialisation of the sacred aspects of indigenous cultures is one of their primary concerns. As a result, considerable effort has been devoted to the restoration of sacred sites. Lastly, their knowledge of sacred sites is fundamental to the survival of indigenous cultures, customary knowledge systems, and the concept of sustainable customs.

2 Literature review

2.1 Ecotourism planning and indigenous knowledge

Ecotourism planning requires the participation of indigenous peoples which results in them having the ability to reject or continue ecotourism (Yip et al., 2012; Su et al., 2014; Pornprasit and Rurkkhum, 2017). As a consequence, indigenous peoples are determinants and in control of the decision-making process. This is part of community-based tourism (CBT) (Hitchner et al., 2009; Farrelly, 2011). CBT focuses on involving communities, namely indigenous peoples, in the planning process to assist the identification and development of tourist sites (Hitchner et al., 2009; Pornprasit and Rurkkhum, 2017). Once they have made a decision, it is they who are responsible for operating, managing and controlling ecotourism development within their community. Ecotourism planning centres on indigenous peoples require the identification of shared values and aspirations for ecotourism development and therefore development is expected following the circumstances of indigenous peoples.

The resistance of indigenous peoples in the implementation of ecotourism because they are not properly involved in the planning process does not mean that they are an anti-tourism group (Zhang and Lei, 2012; Min, 2016). They are a group with a comprehensive vision of the future they want (Wang et al., 2017). This vision describes the overall direction of tourism development. Ecotourism planning is often exclusive because a clear position of tourism policy and planning is the government's prerogative. However, there is a problem of reaching a compromise among all tourism sector stakeholders in a particular planning jurisdiction. Inclusive ecotourism planning can be conducted simultaneously and in often contradictory ways by authorities at the local, regional, national and international levels, each of which can often diligently seek to expand its sphere of influence (Moore, 2004; Masud et al., 2017).

In tourism planning, indigenous peoples' knowledge of the environment also plays an important role in shaping the culture as a whole which can increase tourism opportunities

as well as countering the argument of tourism as a negative force contributing to the loss of indigenous knowledge and cultural identity as the rapid changes associated with tourism affect local life (Ok, 2006; Ok et al., 2011; Kenawy and Shaw, 2014; Min, 2016). Indigenous knowledge is utilised by indigenous peoples to maintain significant heritage values such as language and experience as well as strengthening their dignity and pride in their heritage and identity (Fuller et al., 2007; Idris et al., 2017; KC et al., 2021). Therefore, indigenous peoples' knowledge of the environment is closely related to the long-term sustainability and resilience of indigenous peoples by providing a way for indigenous peoples to contribute to tourism development, both new and existing.

The neglect of indigenous peoples in managing ecotourism is realised in the stages of implementing ecotourism (Grenier et al., 1993; Su et al., 2014). This occurs because ecotourism planning is often exclusive, implemented in a top-down fashion between the government and the ecotourism manager (Ramos and Prideaux, 2014). This awareness also arises because of the failure in ecotourism, for example, seen from the resistance and opposition of indigenous peoples. These things bring us to the awareness of the importance of ecotourism planning which involves indigenous peoples. Therefore, the next section describes planning for customary ecotourism and how it is designed to be inclusive planning.

3 Research methods

This research employed indigenous qualitative research. Some of the conditions which must be met to work with this kind of method include ethical, performative, healing, transformative, decolonised, and participatory (Coram, 2011; Ruwahu and Cathro, 2014; Nakagawa, 2017). Another consideration is that researchers should be committed to dialogue, community, self-determination and cultural autonomy (Peltier, 2018). Indigenous qualitative research was applied to regain the trust of indigenous peoples to adapt their knowledge to the academic context when spirituality and metaphysics are two things they often use to acquire knowledge which is often not in line with the academic world (Nakagawa, 2017). This research was committed to producing useful results for indigenous peoples by adopting a methodology that was respectful and accountable; we also sought to build long-term relationships between researchers and indigenous peoples.

3.1 Participants

The four groups of participants in this research were local government, non-governmental organisations (NGO) and indigenous peoples. In recruiting participants, researchers initially utilised convenience sampling and continued with snowball sampling (Northrop and Arsneault, 2008). Convenience sampling was intended to find potential participants who can be accessed easily. Snowball sampling was conducted by making initial contact with one person and then using that person's connection to establish contact with other people who matched the criteria. What researchers emphasised in sampling was that they could refuse if they were busy or felt uncomfortable. To gain deeper insight, researchers preferred to listen to stories that flew while occasionally asking questions which

had been missed or commonly known as semi-structured interviews. Each participant, the justification of the organisations/institutions involved and the number of participants in more detail is presented in Table 1.

Table 1 Research participants

<i>Participants</i>	<i>Organisation/institution</i>	<i>Participants</i>
Indigenous peoples	Tebat Benawa Indigenous Peoples	1 indigenous leader (Male 67 years old), 5 Jungku Puyang (Male 61 years old; Male 68 years old; Male 63 years old; Male 59 years old; Male 60 and 9 elders (Male 62 years old; Male 64 years old; Male 67 years old; Male 55 years old; Male 57; Male 52 years old; Male 60 years old; Male 64 years old; Male 61 years old)
Local government	Local Technical Implementation Unit of Pagar Alam Forestry South Sumatra Province,	1 person (Male, 47 years old)
	Natural Resources Conservation Agency South Sumatra Province's Forestry Service	1 person (Male, 46 years old)
	Pagar Alam's Tourism Office	1 person (Female, 51 years old)
NGO	South Sumatra's WRI (World Resources Institute)	1 person (Male, 38 years old)
	Pilar Nusantara (PINUS)	1 person (Male, 30 years old)
	Hutan Kita Institute,	1 person (Male, 42 years old)
	WALHI (The Indonesian Forum for Environment).	1 person (Male, 26 years old)

Source: Processed by the authors, 2020

3.2 Data collection

Primary data collection was conducted utilising in-depth interviews with a semi-structured approach. This method was used extensively in similar studies exploring indigenous peoples (Coombes and Ryder, 2019; Osmond and Phillips, 2019). Interviews were conducted openly and based on dialogue as well as listened more to the stories of indigenous peoples. The utilising of semi-structured in-depth interviews allowed researchers to explore the point of view of indigenous peoples and the integration of their knowledge into ecotourism planning. Each interview lasted 1–3 h. Every interview was recorded and there were several interviews which were not recorded because they rejected them. Therefore, researchers used field notes to store important opinions during the interview process.

Interviews with indigenous peoples were conducted using the local language in which one member of the research group happened to understand it. While other research members use Indonesian. Recorded interviews (or in field notes) were then transcribed

and tidied up. We specifically hired a translator to convert the interview transcripts to Indonesian and then to English because we believe the translation process is not neutral.

This study also collected secondary data especially from NGOs and local governments. From NGOs, researchers collected various data on their research on customary forest management in this location and from the government researchers collected some regulations and planning documents. Researchers also managed to obtain forest maps and various policy documents from the local government. Secondary data helped us to obtain a complete picture of ecotourism planning and Mude Ayek Prohibited Customary Forest.

3.3 Data analysis

After the interview transcripts were available in English, they were analysed. The style of analysis employed was of course still guided by indigenous qualitative research, where the presentation must have a strong narrative component in presenting research findings (Cole, 2017; Datta, 2018). Therefore, this study chose narrative analysis with a thematic approach to analyse data.

The analysis in this study allowed us to interpret how the participants utilised indigenous peoples' knowledge to provide various kinds of guidance in ecotourism planning. Moreover, researchers also utilised a thematic approach to group the findings of this study into specific themes. Therefore, the presentation of the themes in this study relied heavily on the stories of the participants to gain their understanding of indigenous peoples' knowledge.

To prevent bias, this study focuses on themes derived from a variety of data sources or participant perspectives. This procedure is intended to add facts and strengthen the research's credibility (Shaw and Satalkar, 2018). Checking a variety of data from various sources will reduce errors and transform the data into meaningful information. The purpose of this procedure is to eliminate bias, as suspected by positivists. Bias is a significant issue in qualitative research. This is due to the fact that the researcher is 'required' to participate alongside the participants. Thus, participation is viewed as raising questions.

3.4 Research ethics

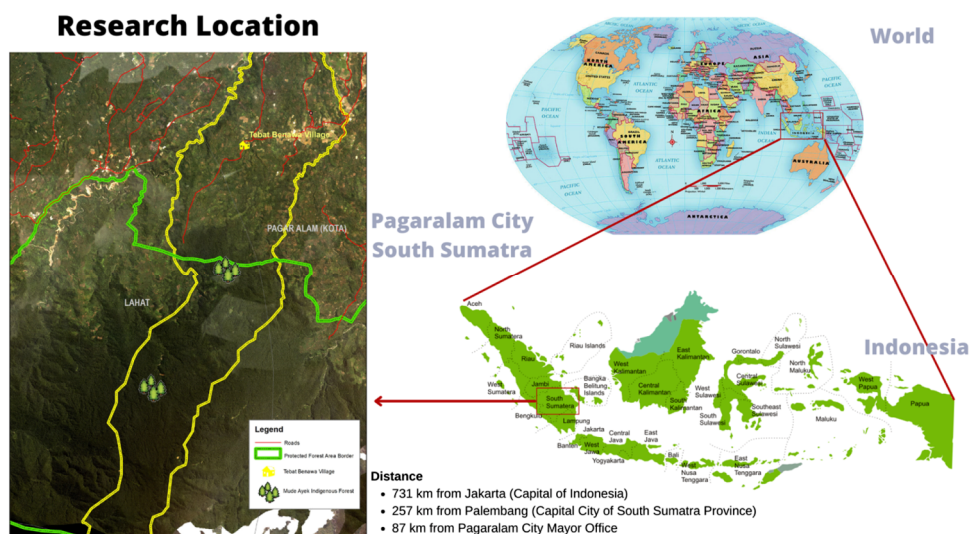
Before the research was conducted, the researcher sent a research permit to the informants to get their consent whether researchers were allowed to collect data and which of them was responsible for answering the researchers' questions. Researchers also conveyed the purpose of this research, who contributed to the research funding, what researchers wanted to ask about and what secondary data researchers wanted to access. Before recording the interview, researchers asked consent and a few of the participants refused. One aspect of indigenous qualitative research which was often encountered in discussions of ethical considerations was respect, which must be present during the research process (Cole, 2017). Research protocols for indigenous peoples were developed not only to protect indigenous peoples from ethical violation, but also to 'decolonise research relationships' (Hodge and Lester, 2006). Therefore, it was important to establish research protocols based on local indigenous community protocols.

4 Results and discussion

4.1 *Mude Ayek Tebat Benawa prohibition customary forest*

The Tebat customary forest is administratively located in Dusun Tebat Benawa, Desa Penjalang, Kecamatan Dempo Selatan, Kota Pagar Alam, South Sumatera Province, Indonesia (Figure 1). Some of the people of Dusun Benawa worked as farmers and still adhered to the traditions passed down to them. The population in this hamlet was relatively small with 230 households or as many as 916 people. Socially, the kinship was still strong because they came from the same descent, *Puyang Kedum Samad*, the founder of this hamlet and set a system of values and traditions which were part of the Besemah Tribe.

Figure 1 Location of Mude Ayek Tebat Benawa prohibition customary forest (see online version for colours)



In present governance in Indonesia, the hamlet is equivalent to a community unit (RW) and as a consequence, the hamlet is led by a RW chairman. This was different when the clan government system was still practiced in 1920–1983. At that time, Tebat Benawa followed two government systems which were the clan government system and the village government system. Tebat Benawa was one of the hamlets in the Sumbai Besar clan of the Lubuk Buntak tribe which was led by *Pesirah* and was accompanied by a legislative body called the clan council, while the hamlet was led by *Kerio* or *Riye*. Although the clan government system had been dissolved through the Decree (SK) of the Governor of South Sumatra No. 142/KPTS/III/1983 regarding the abolition of the Marga system in South Sumatra, the cultural existence of the community was still maintained.

After the end of the *Pesirah* leadership period, the community struggled to maintain their cultural existence in governance as well as the environment, or in this case, customary forests. This occurred because they were forced to submit to the state in a tenure system which was regulated in various laws and regulations. Therefore, they

developed informal leadership at the village level which hinged on the *Jurai Tie* and *Jungku*.

Some people work as coffee, rice, and vegetables farmer. Coffee and rice are the two main commodities, while vegetables are only grown by a small proportion of the population. Besides, they also cultivate tilapia and goldfish. The source of irrigation for their rice fields and ponds originates in the Mude Ayek Prohibition Forest. Therefore, the sustainability of the Mude Ayek Prohibition Forest management is valuable to them because it concerns life and the future. Moreover, they have cultural links to the Mude Ayek Prohibition Forest, which is a hereditary heritage that must be preserved. The dependence of farmers on water is very high; therefore, farmers in this hamlet also realise that there is a relationship between the availability of water for their agriculture and the existence of the Mude Ayek Prohibition Forest. Public awareness is what keeps the prohibited forest intact.

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Local knowledge in the management of the Mude Ayek Prohibition Forest is available in oral, written or unwritten practices. The following are some of the oral local knowledge on customary forest management that is revealed in the *petatah-petitih*. *Petatah-petitih* is one of the oral literatures of the Malay community which contains advice, satire, good views or life guidelines, and instructions for conducting social relations in society as shown in Table 2.

Table 2 Petatah Petitih

<i>Petatah-petitih</i>	<i>Meaning</i>
Jangan ngeghoh ulu mandian	Do not cause turbid in the upstream where people bathe
Jangan meghetak jambat	Do not cut the bridge
Jangan mengebe jalan	Do not put up barriers on the road
Dik tau ngiluki jangan merusakkan jadilah	If you can't fix it, don't break it

Source: Indigenous people's documents

There are consequences of violating the prohibited customary forest management rules. Among these consequences include:

- whoever conducts illegal logging in the customary forest area for commercial purposes or sells the logged timber, will be subject to customary legal sanctions in the form of an adult buffalo, as well as wood and timber cutting tools are confiscated and become the right of the Tebat Benawa customary law community
- Anyone who cuts wood or destroys customary forest for the purpose of opening a kawé farm will be subject to customary legal sanctions, namely 1 buffalo and an administrative fine of Rp300,000,000 (three hundred million rupiah)

- Anyone who takes customary forest products by cutting trees and destroying the customary forest will be subject to customary law sanctions in the form of similar to one adult goat
- if the provisions of sanctions are not implemented, the perpetrators of violations will be delegated to the laws of the Republic of Indonesia (authorised parties or authorised officials) by the Tebat Benawa indigenous peoples institution and government (RT/RW) after a consensus is held.

4.2 The Tebat Benawa community customary apparatus

Tebat Benawa Indigenous Law Community has a special relationship with Tebat Benawa Customary Forest. Tebat Benawa Indigenous Community has a special organisational structure for customary forest management. Tebat Bewana Indigenous Community Organization is led by a jurai tue (traditional leader) in charge of five jungku which are Jungku Puyang Kedum Samad, Jungku Puyang Sanggahan, Jungku Puyang Siak, and Jungku Puyang Nek Malim. The customary leader is the oldest person and has an understanding of local customs, while the jungku is a descendant of the putang or the predecessor of the founder of the Tebat Benawa hamlet. Puyang is the first decision stage to determine the prohibited forest in the Tebat Benawa area.

5 Perceptions of stakeholders regarding the application of indigenous knowledge to ecotourism development

This section examines whether indigenous peoples, the government, and tourism stakeholders recognise and incorporate indigenous peoples' knowledge into ecotourism planning. The inclusion of local knowledge in various regulatory documents issued by local governments, NGOs, and other stakeholders is also indicative of this. Indigenous peoples are the most important stakeholders in forest ecotourism planning because they are the true owners of forest resources where forest ecotourism occurs. This section illustrates how tourism stakeholders recognise indigenous knowledge. This begins with indigenous peoples' perspectives on the incorporation and application of indigenous peoples' knowledge in the development of forest ecotourism and continues with local governments and non-governmental organisations.

5.1 Indigenous people

Indigenous peoples should have the right to decide how customary forests should be managed or whether ecotourism should be permitted in customary forests (Yi-fong, 2012). Using indigenous knowledge, other stakeholders such as NGOs and the government can either weaken or strengthen indigenous people (Kenawy and Shaw, 2014; Su et al., 2014; Pornprasit and Rurkkhum, 2017). Utilising indigenous knowledge in ecotourism planning has the potential to strengthen customary knowledge, whereas using and interpreting customary knowledge without the owner's permission weakens it. When questioned about the use of their knowledge in ecotourism planning, indigenous peoples all responded positively. This is exemplified in the following interview: "In general, there is a positive response from indigenous peoples; in the forums, they

appear to be relatively unconcerned about environmental sustainability” [Representatives of local government].

As our informant stated, “ecotourism seems to promise economic, social, and environmental balance, which is what we strive for” [Indigenous Peoples Representatives]. All participants recognised the significance of incorporating local knowledge and practices into forest ecotourism planning. Indigenous peoples’ forest-conservation knowledge and practices must be incorporated into tourism planning; failing to do so will result in a multitude of problems in the future. According to our interview, “the government is attempting to reach out to the community by promoting ecotourism, and our job is to handle technical issues that people don’t always ask about in the forum” [NGO representatives].

NGOs were previously aware of this and incorporated indigenous peoples’ knowledge of forest conservation activities that affect forest ecotourism by preserving the forest environment and influencing forest tourism. Our informant stated, “NGOs have initiated this comprehensive step by approaching the community and engaging in various activities there” [Local Government Representatives]. Indigenous peoples’ knowledge has been incorporated into tourism planning, but it has not yet been optimally implemented, as our informant stated, “local knowledge is very complex; some of it is written, and some of it is in the community’s minds” [Interview with representatives from NGOs].

This is in part due to the complexity of indigenous peoples’ knowledge, some of which is already well documented and some of which is still in the people’s heads (Zeppel, 2005; Connell and Rugendyke, 2008). Tourism is frequently viewed as a negative economic intervention because it can harm the environment, including the fact that it generates waste and irresponsible tourists also harm the environment (Coria and Calfucura, 2012). Tourism is a novel concept for indigenous peoples; therefore, the distinction between mass tourism and niche tourism, such as ecotourism, must be clarified to dispel their negative perceptions.

Incorporating the knowledge of indigenous peoples into forest ecotourism planning is crucial, as failure to do so will result in future obstacles. This is due to the fact that ecotourism is a new concept that people are unfamiliar with, and if indigenous knowledge is not incorporated, it will be easily rejected. Therefore, it is essential to incorporate both written and partially unwritten indigenous knowledge. Local identities must be emphasised to prevent people from abandoning the values they uphold (Higgins-Desbiolles, 2009).

5.2 Local government

Local governments with a direct interest in customary forest management have been identified. The Pagar Alam Forestry Regional Technical Implementation Unit (UPTD), the Natural Resources Conservation Agency (BKSDA, South Sumatra Province, South Sumatra Provincial Forestry Service, and the Pagar Alam City Tourism Office are among these local government agencies. In order to maintain the quality of the forest environment, the government supports ecotourism by providing monitoring results and recommendations to tourism stakeholders, as stated in the following interview: “if a forest tourism area is experiencing environmental damage and needs to be restored, the local government provides recommendations to close certain forest areas and stop all activities, including ecotourism” [Interviews with government officials].

The clearing of land for coffee plantations by migrant communities or even the logging of forests by indigenous peoples is one of the challenges. The local government believes that the community must be involved in the management of customary forests, as the relationship between customary forests and indigenous peoples is spiritual and has been passed down from generation to generation. The role of indigenous peoples in protecting the forest from illegal logging can be shared with the government, according to our informant. Ecotourism will naturally be successful and sustainable if it is well protected. Additionally, it increases the community's sense of ownership over customary forests, according to an NGO representative.

Generally, government documents do not include indigenous forest management practices. Government recognition is still limited to community participation or making it a partner, rather than incorporating local knowledge into the fundamentals of forest management; as a result, its legal force is weak. The current recognition of customary forests comes from the Central Government via the Ministry of Environment and Forestry (KLHK) and Decree SK.7827/MENLHK/PSKL/PKTHA/KUM.1/10/2018 of the Minister of Environment and Forestry. The recognition provided by these regulations is limited to administrative boundaries, and local knowledge is not used as a foundation for customary forest management.

The participation of indigenous peoples may have received government recognition and support through various policies; however, the existence of laws and regulations or policies by higher levels of government can undoubtedly disrupt environmental sustainability, as is the case when the central and local governments want to facilitate irrigation. Our source stated, "Indigenous people's knowledge about their use and integration in ecotourism planning is an effort to preserve traditional cultural values" Moreover, as the true owners, stewards, and enthusiasts of customary forests, they must not only be considered in ecotourism planning, but their continued existence must also be ensured (Fuller et al., 2007).

Tourism in Pagar Alam City is not a new phenomenon; numerous tourist attractions, particularly natural tourism, range from mountains, waterfalls, and lakes to tea plantations. These tours are part of mass tourism, which contributes significantly to the local economy but destroys the environment. The development of tourism is accompanied by the construction of various types of infrastructure, particularly roads and bridges, to improve the accessibility of tourist destinations (Nugroho, 2020). In addition to preparing human resources, hospitality and tourism vocational schools also train personnel. Unfortunately, ecotourism has not become a top priority for tourism development in Pagar Alam, and as a result, ecotourism and particularly local knowledge and indigenous peoples have not been placed at the centre of its development. The existence of indigenous peoples' knowledge and indigenous peoples as a centre for ecotourism development has been formally acknowledged. Nonetheless, it must all be strengthened by regulations that explicitly acknowledge their existence.

5.3 Non-governmental organisation

Non-governmental organisations play a crucial role in promoting the interests of indigenous peoples in ecotourism planning. In the Mude Ayek Prohibition Forest, there are a number of NGOs that have played crucial roles. These non-governmental organisations include WRI South Sumatra, Pilar Nusantara (PINUS), Hutan Kita Institute, and WALHI. The success of ecotourism in the Mude Ayek Prohibition Forest

will depend on the cooperation of numerous parties. A representative of an NGO stated, “Ecotourism in indigenous forests was initially met with resistance from the community”. This is due to the perception that mass tourism is harmful to the environment and the fear that it will harm their traditional forest.

In light of this, dialogue is conducted with traditional leaders and their elders. The objective is to explain how forest ecotourism differs greatly from mass tourism. The efforts of the NGO are one form of recognition of the structure of indigenous peoples, which will make the process much simpler if permission is sought from traditional leaders and elders. This is illustrated by the following interview excerpt: “We are attempting to construct a dialogue that places indigenous peoples at the centre of every conversation” [Interview with NGO representatives].

In the meantime, collaboration between stakeholders is also crucial, as NGOs are aware that they have different capacities, and it is hoped that the lack of resources or weaknesses of each organisation can be compensated for by other organisations. NGOs’ efforts demonstrate a recognition of the significance of support from traditional leaders and also customary deliberations as an effort to negotiate and reach consensus (Nugroho, 2020). This is accomplished by increasing community awareness through the dissemination of diverse information gleaned from their local knowledge and by collecting local knowledge puzzles to create a much more complete picture of local knowledge. Since customary forests and efforts to preserve them based on local knowledge have been practiced since the time of their ancestors, it is necessary to accommodate such activities. This process requires a great deal of patience because it is lengthy.

This finding demonstrates the significance of integrating indigenous knowledge and collaborating with indigenous communities’ traditional leaders and elders to promote ecotourism. In conclusion, NGOs have acknowledged the use of indigenous knowledge as an efficient means of promoting ecotourism. This finding is consistent with a number of previous studies that employ indigenous peoples’ knowledge and ensure their participation in development and are deemed effective because it is something they have known for a long time and is one of their most valuable assets (Fennell, 2008; Higgins-Desbiolles, 2009; Barba-Sánchez and Molina-Ramírez, 2014; Valle-García, 2014).

6 Challenges of integrating local expertise into ecotourism planning

This section discusses the Ban Mude Ayek Indigenous Forest’s ecotourism planning. Regarding forest ecotourism planning, we analysed the perspectives of actors both within and beyond the community. In order to link forest ecotourism planning and management, it is intended to consider planning and management by indigenous peoples in the context of plans from higher levels of provincial and central government. Following this is a community-level evaluation of forest ecotourism planning. The purpose of this study is to evaluate forest ecotourism planning, specifically to determine if environmental planning consists of environmental protection and resource conservation and tourism planning consists of regional, social, and economic development factors.

Forest ecotourism is a tourism pattern that illustrates the relationship between tourism and the environment or forest natural resources, as well as the culture of the local people (Liu Jiaming, 1998; Nutsugbodo and Adjei Mensah, 2020). It is believed that he represents an alternative form of tourism that contributes to the sustainability of tourist

destinations. The research results indicate that indigenous peoples' conception of ecotourism is identical to that of mass tourism. Our informant stated, "The community is still unfamiliar with ecotourism, and they continue to believe that tourism will harm their environment" [Representative of the Regional Government], and another informant stated, "Tourism will destroy the forest that we continue to protect for future generations from our ancestors" [Indigenous Peoples' Representatives]. The government and NGOs continue to assert that there are different concepts regarding forest management as a tourist destination, but are difficult to believe.

The community's initial reluctance resulted from their fear of environmental and cultural damage brought on by the influx of tourists due to this limited understanding. The community now understands the distinction between the two thanks to NGOs. According to our source, "we have been accompanying indigenous peoples for over a year. In this lengthy process, we finally reached a consensus that resembles the concept of sustainable development in that there must be a balance between economic, social, and environmental factors" [NGO representative]. In addition, government and non-governmental organisation (NGO) assurances of environmental sustainability, coupled with balanced economic interventions, increase people's confidence that ecotourism is appropriate for them.

Additionally, this effort is balanced by ensuring that indigenous peoples' knowledge is at the centre of all ecotourism policies in the Mude Ayek Prohibition Forest. In other words, indigenous peoples can control and profit from tourism while managing the forest environment, preserving what has been passed down to them and fulfilling their obligation to pass it on to future generations. Community understanding of ecotourism is tourism to preserve the environment, tourism to welcome outsiders to the village, protection of forests and culture, and conservation of natural resources.

In general, the opportunities for communities to manage and plan forest ecotourism seem distant. This is due to the lack of forest ecotourism management knowledge and skills within the community. Our source stated, "another challenge is human resources; we don't target high skill levels, but enough for the community to be hospitable and willing to interact with tourists" [Representative of the Regional Government].

This study also discovered that there is a disconnect between the government and indigenous peoples, such that the local government does not comprehend what the community desires, and vice versa, the community does not comprehend what the government desires. This is revealed in the following interview: "the mistrust of indigenous peoples is rooted in the past and is difficult to eradicate" [Representative of an NGO]. The government appears to have difficulty communicating with indigenous peoples. Communication with them cannot be concluded in a day, a week, or even a year. Obviously, this is inconsistent with the government's work schedule.

NGOs subsequently advocated for this issue by attempting to link the two. The result of this gap is the exclusion of the community from government-led ecotourism planning. Exclusion refers to the placement of indigenous peoples as objects of ecotourism development, as opposed to subjects or key players. This is compounded by the fact that the majority of potential forest ecotourism managers are farmers, who believe they lack the requisite knowledge to assume this position. This has practical implications for the significance of tourism management training for indigenous peoples.

Another issue is that deliberative forums among indigenous peoples are frequently used merely for socialisation, as opposed to soliciting ideas and input from the community, particularly when attempting to incorporate new ideas (ecotourism is one of

them). One of our informants stated “In socialization, we mostly just listen; we are only given a small space to speak, express opinions, and encourage the use of our ideas in tourism management” [Indigenous community representatives]. Indigenous peoples believe that they lack the knowledge and skills necessary for ecotourism management and are unable to significantly alter their economy. These two assumptions hinder the success of ecotourism planning, despite the fact that traditional leaders and the government encourage and attract the community to ecotourism activities.

Thus, it is unlikely that the plan will achieve its sustainability objectives because the organisation and collaboration between stakeholders have not been properly managed. Traditional leaders agreed that forest ecotourism, with its guarantee of balancing the economic interests of tourism that has an impact on indigenous peoples with environmental preservation, is consistent with indigenous peoples’ values. After receiving briefings from traditional leaders and NGOs, indigenous people’s representatives concluded that they did not refuse because what they were about to do did not appear to be harmful. They also expressed confusion regarding their role in the actual implementation of forest ecotourism. The following interview reveals this: “What should we do? When ecotourism exists, the government insists that we must be ourselves” [Representative of indigenous people].

This study found that one of the primary obstacles is the empowerment of indigenous peoples, on how they should participate and take part in activities that are so complex and seem exclusive, as our informant stated: “the economic problem seems to need to be resolved first, or at least indigenous peoples must be convinced that ecotourism will not interfere with their economic, social, and environmental life” [Representatives of NGOs] and other sources stated, “Empowerment helps indigenous peoples build strong communities and may assist communities in comprehending their roles” [NGO representatives].

However, empowerment in the tourism industry is neither simple nor quick. Indigenous peoples have not optimally utilised deliberation as a public space for indigenous peoples. This could be for one of two reasons: either the role of traditional leaders is too prominent, or the practice of deliberation must be altered because it can no longer be conducted in the traditional manner. According to our source, “it is difficult to include indigenous peoples in discussions because they tend to remain silent” [Representation of government].

Understanding the role and rights of indigenous peoples in forest ecotourism deliberation is the next step in ecotourism planning. This is made even more complicated by the fact that the phenomenon of respect for people with higher social status exists among the general population. It should be to provide opportunities for people regardless of their social status, as is indigenous culture. Although the bottom-up mechanism has been attempted, the colour of the deliberation appears to require a top-down conclusion, so there is no community empowerment. In order for traditional leaders, not indigenous people, to be at the centre of decision-making. Such practices cannot be faulted and may even be advantageous, given that the ecotourism plan does not impede the community’s ability to carry out its activities, including its relationship with customary forests (Đukić and Volić, 2017). It is unfortunate and frightening that there are individuals who disagree but do not express their views.

Tourism and the environment are inextricably intertwined. Consequently, the product of ecotourism is the natural environment (Nepal, 2004; Hall, 2006; Petrovska et al., 2009). In this context, environmental enhancement for tourism and environmental

sustainability are of the utmost importance. Indigenous peoples have a clear concept of environmental preservation based on their indigenous knowledge. Indigenous peoples have acknowledged that they have inherited customary forests and are obligated to transmit them to future generations. In addition, they have long coexisted with forests, which have provided them with an environment that is conducive to life. Customary forest management has demonstrated that communities are capable of independently managing and enhancing their environment for environmental sustainability (Chakrabarty, 2011; Sarnyoto et al., 2017; Ambarita et al., 2018). Consequently, nearly all members of indigenous peoples have a greater appreciation for the environment.

We discovered that the community's *petitah* contained an agreement to establish rules for the use of forest benefits. Our source stated, "We have clear rules (*petitah*) in place to safeguard the forbidden forest" [Representative of indigenous people]. These rules are inherited from ancestors and adapted to the times. The purpose of this regulation is to protect customary forests from unwarranted use. Everyone in society knows and respects him. Our source was of the opinion that "the instructions must be contextualized at different times so that we know how to apply them in the context of customary forest management" [Government representative].

The next obstacle is how these rules are understood and respected by non-indigenous individuals. Various customary forest-related signs and markers have also been installed and are visible to visitors. What is lacking is the information provided when forest management regulations are violated. The following finding in this section is that environmental improvements for sustainability are implemented through the use of indigenous peoples' knowledge and good social relations within their communities in order to preserve forests. Some indigenous peoples' forest management knowledge has been documented, while others have not. This was revealed in the subsequent interview: "There are many things that are not written that confuse us [local government representatives]".

This is the next challenge, which is to create a complete picture of forest management based on their knowledge, and an important task for non-governmental organisations is to provide updates regarding this challenge (Bobtwash, 2001; Ramos and Prideaux, 2014; Offenhenden and Soronellas-Masdeu, 2021). Utilising the participation of indigenous peoples, sustainable forest management and conservation have been accomplished. Indigenous peoples' knowledge is a manifestation of their affection for customary forests because forests provide them with a means of subsistence, such as a source of irrigation to meet their water needs and irrigate their plantations. They believe that not preserving the forest, in accordance with what their ancestors taught them, will disrupt their way of life.

7 Conclusions

This study explores ecotourism planning in Mude Ayek's customary forests. The study results found that the knowledge of indigenous peoples and indigenous peoples to be integrated and participate in ecotourism planning encountered several obstacles. The integration of indigenous people's knowledge in customary forest management has been conducted for a long time, from the time of their ancestors and has succeeded in protecting customary forests. Customary forest for the community is a legacy and must be passed on to the next generation so that the promise of ecotourism which balances

sustainable forest management and improving the quality of life of indigenous peoples receives a positive response. Indigenous peoples and customary forests build relationships which go beyond transactional relationships because customary forests are a source of livelihood for the people. There is a spiritual and cultural relationship between the two.

The process of integrating indigenous knowledge is not an easy effort because this local knowledge has not been fully discovered. They are spread either in writing or are still in the minds of indigenous peoples and are used as a basis for moving their lives, forest conservation is just one of them. Another challenge is the nature of the exclusivity of ecotourism planning which cannot be avoided, but at least indigenous peoples with low levels of participation do not oppose ecotourism. However, they are confused about how they should place themselves; how they should participate when the forest ecotourism has been successfully developed. Another challenge is that they feel that they do not have sufficient skills to participate in such complex matters.

This study contributes to the understanding of the utilise of indigenous peoples' local knowledge in ecotourism planning which the difficult integration process is not solely due to the exclusivity of ecotourism planning which is still found in this study. Indigenous knowledge is complex and therefore, we recommend collecting puzzles for local knowledge so that it becomes a complete picture. Research is not free from various limitations which become recommendations for further research, for example related to the taking of a single case study which makes this study weak in terms of generalisation and internal validity which is a methodological weakness. In the future, similar research may be conducted with multiple case studies to obtain a more complete picture of the dynamics of integrating indigenous knowledge in ecotourism planning.

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