Forest conservation by the indigenous Baduy community in the form of customary law

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Abstract

Purpose – The Baduy tribe has its own uniqueness and values regarding the forest; it manages the forest using customary law to keep it sustainable. This research aims to describe the position of customary law used by the Baduy tribe to conserve forest areas.

Design/methodology/approach – This research is a qualitative research conducted in September 2019 and 2020 at Baduy. The data were collected through a literature study and in-depth interviews with informants related to the Baduy tribe. The collected data included documentation and interview transcripts that were translated into English. Data analysis was conducted in a descriptive manner, equipped with related evidence.

Findings – The Baduy community holds firm to its customs and culture called pikukuh. The Baduy community applies the concept of sustainable forest management in that local communities are directly involved in forest management activities to improve welfare and implement sustainable forests.

Practical implications – The implication of this research is that it is beneficial for forest conservation based on customary law, using the conservation approach of the Baduy tribe as a local community in protecting the sustainability of forest resources and their sustainability for the next generation. This study contributes as a guide for the government to formulate policies that will include local communities into conservation programs and government policies. It may apply to a study of coordination with related institutions such as the Ministry of Environment and Forestry in implementing forest conservation.

Originality/value – This study uses primary data from the Baduy tribe, which has unique local traditional values regarding the territory and the important role of the forest. The originality of the findings from the excavation of each activity was based on the procedures and beliefs regulated in customary law regarding forest management. Preservation of traditional knowledge in customary law has contributed to the urgency of sustainable forest conservation and biodiversity conservation, which is part of the traditional knowledge of the Baduy tribe.

Keywords Baduy, Customary law, Forest management, Conservation, Sustainable development

Paper type Research paper

1. Introduction

Preservation of traditional knowledge about biodiversity and the involvement of indigenous people in forest conservation is very important in overcoming the problems of climate change and forest sustainability (Negi et al., 2018). This effort is not only to achieve sustainable forest management but also to synergize indigenous peoples’ involvement in development. The tribal community plays an important role in forest conservation based on the customary law approach. Such community shall be involved in the decision-making processes as the means to prevent any conflict (Budiani, 2020).

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Indonesia has a variety of tribes, each of which has distinctive beliefs, traditions, culture and customs. According to Monteiro (2016), Indonesia has 1,340 ethnic groups with 724 languages, each of which has a unique style and culture. The value of local wisdom in society is reflected in community behavior. Each region has local wisdom that has existed for several generations (Lisdiyono, 2017). Baduy is a traditional community in Kaneskes Village, Lebak Regency, Banten Province and has local wisdom in environmental management and biodiversity (Budiaman et al., 2018).

Social order is a form of knowledge, beliefs, insights and habits that humans apply in the form of behavior in everyday life. Communities that can maintain social order and tradition can be maintained for generations (Lisiyono, 2017). The Baduy community is known for local doctrines and wisdom that can walk side by side with nature. The Baduy hold the understanding of biocentrism that is human is part of nature itself; therefore, it must be maintained and preserved based on the intrinsic value of all living things that share the world, which is different from anthropocentrism, namely human as the main center (Keitsch, 2018; Fincham, 2018; Budiaman et al., 2018). Baduy believes that humans need to care for nature and there should be no exploitation of nature. One example of its implementation is managing the environment by growing crops wisely, such as avoiding natural imbalances by not making significant changes to nature. Nature must not be altered or damaged because it will cause problems, one of which is a disease (Budiaman et al., 2018).

The Baduy region is classified into three groups: the Inner Baduy, Outer Baduy and Dangka Region (Iskandar, 2018). Inner Baduy wears white-colored clothes as a symbol of cultural purity, while Outer Baduy wears dark blue, black or modern clothing (Hidayati, 2017). In 2017, the Baduy community reached 11,699 people, with the people in Outer Baduy are 10,488 people and Inner Baduy are 1,211 people (Statistics of 2017 Kanekes village). According to Hidayati (2017), the inner Baduy are guardians of customs and traditions, while the Outer Baduy serves as a buffer to ensure that there are no disturbances in the core. The Baduy has a special belief called Sunda Wiwitan (Iskandar, 2018). This doctrine establishes shifting cultivation by planting and harvesting in following the ancient calendar (Iskandar, 2016). However, Baduy has rules in terms of farming, such as maintaining native ecosystems and local culture, one of which is by practicing swidden cultivation. Wet rice farming is not considered to be in accordance with the doctrines of Baduy because of agricultural modification and intensification. Management of soil with hoes, chemical fertilizers, synthetic pesticides and modern seeds is not allowed (Iskandar, 2018).

The results of “swidden cultivation” are stored in rice barns for a long time. Rice is harvested for daily household needs and is not allowed to be sold. However, the Baduy can buy rice from the general public through the sale of allowed fruits. According to Iskandar (2018), land after rice harvest must be left for three years or more to restore soil fertility. The doctrine to preserve the environment is not something new, the hereditary doctrine that started from its predecessor. Socialization is one way for the community to implement regulations in force in the village. Land and water have important values for the Baduy people and try to maintain and do not disrupt the ecosystem. They protect the sacred forest where they believe their ancestors lived, which is expected to strengthen their relationship with their ancestors (Boedihartono, 2017).

The forest is essentially a collection of various plants, animals, soil, climate and other things that interact with each other to form a series of dynamic ecological relationships and form a system that functions properly. Humans are only one factor in ecological relationships. Based on the human view, the forest is a place where humans interact with nature, because nature produces useful products, but there is also a spiritual power in the forest that needs to be respected. However, this perception is not the same for everyone because the views of rural people can be different from those of urban and government (Wessing, 1999).
Similar to the Samoans, the Baduy community themselves, based on their beliefs that have been taught from generation to generation, assume that natural resources and land have spiritual influence, where one of the loci of the forest power is the spirits mentioned reside in it (Wessing, 1999). Baduy believes that it is in accordance with biocentrism, which considers that they are part of nature itself, so they must protect and preserve nature (Budiaman et al., 2018). They glorify their homeland and have the responsibility to maintain that there is no disturbance of the ecosystem in nature. They try to strengthen their relationships with their ancestors who live in the forest (Boedhihartono, 2017).

Natural resource management (NRM) is one of the problems that has become a hot issue in various parts of the world. NRM itself includes the main natural resources that support human needs, such as land, water, air, minerals and forests (Muralikrishna and Manickam, 2017). NRM must be preserved for the balance of ecosystems that exist in the world and have a sustainable nature. Is there a correlation between sustainable NRM and forest management systems in the Baduy community? In line with this goal, the Baduy community also has a long-standing understanding and knowledge of sustainable NRM, as can be seen from how they treat nature as a part of their lives. They realize that they are helpless without the support of nature, so based on that, they raise the awareness of everyone in the Baduy community to avoid the destruction that can result in natural disasters (Ichwandi and Shinohara, 2007). The ethics are also based on the doctrines that have been passed down for generations that life is pure, and humans have moral obligations related to nature (Budiaman et al., 2018). The things that have been described make a strong correlation between NRM and the natural management of the Baduy community, so that the ethics contained in the Baduy community can be adapted to the application of sustainable NRM.

This research is indeed important to be carried out based on concerns about the various threats from many parties who threaten the existence of forests that are spread all over, especially Indonesia. There is a movement toward customary forest control because of concerns over the rampant land grabbing carried out by companies, especially in plantation companies that seize customary forest rights both forest and land from the surrounding communities. In addition to threats from companies, customary forests are also threatened by the view that there is a failure of forest protection by the Ministry of Environment and Forestry because of weak implementation of legislation and neglect by elites and the government’s patronage system (Boedhihartono, 2017). These problems require a local approach; it would be inappropriate when using the approach of the government elite only; thus, a new approach is needed that will be felt to be quite effective in maintaining forest sustainability. The new approach of using custom governance by the indigenous people as an alternative perspective and knowledge based on the practice of using resources used for daily needs is also developed locally (Berkes et al., 2000). This alternative solution can be applied by governments and communities to achieve sustainable forest and biodiversity conservation. Based on the urgency of the matter above, this study aims to describe the position of custom and indigenous law (CIL) in regulated forest governance that supports the development of sustainable forest and biodiversity conservation.

2. Methodology
Researchers conducted research starting from the location of the outer Baduy to the inner Baduy. This research is a qualitative research conducted in two stages, September 2019 and 2020. This research strategy uses ethnography, with researchers living with indigenous people for several days. This was done to obtain primary data regarding basic information and insight into customary law and forest governance at the research site. Data were collected through participatory observation and informal interaction (by recording the situation and
conditions) and in-depth interviews with face-to-face interactions. Several sources or key informants are needed to obtain data and information, including community leaders and traditional leaders.

Other informants interviewed were Baduy people who were met and willing to be interviewed. The interview was conducted when they were not doing their routines (the interview process still maintained the research ethic and comfortable aspects of the Baduy community). Excavation of interview questions to determine knowledge, beliefs and ways to preserve forests. The data were analyzed using the coding process and descriptive analysis techniques. To triangulate, apart from multimethods, sources from experts and various documents regarding Baduy culture were also extracted.

3. Theoretical framework

3.1 Customary law

Customary law is a part of the local wisdom owned by indigenous peoples. Indonesia is a pluralistic country with diverse diversity, one of which is the tribe. Diversity can be seen in the existence of indigenous groups, as indicated in the population census data by the Central Statistics Agency in 2010, summarizing the existence of 1,331 ethnic groups in Indonesia. The sociocultural composition also influences the government system in Indonesia, including several types of laws that apply in Indonesia, including Criminal Law, Civil Law, State Administrative Law, State Administrative Law, Civil Procedure Law, Criminal Procedure Law, Inter-Legal Law, Islamic Law and the last is Customary Law. The variations in the law in Indonesia have been adjusted to the dominant sociocultural structure that controls the area and applies in daily life (Wiranata, 2005).

Sociocultural conditions affect the prevailing government system. Figure 1 describes the ethnic or tribal composition of Indonesia. According to Hugo (2015), the ethnic composition in Indonesia is dominated by Javanese by 41%, which also proves that the Javanese population is the majority of the population in Indonesia. Then, 15% is the Sundanese tribe; in fact, the Sundanese are also on the island of Java, clearly that they live side by side with the Javanese. Nevertheless, the diversity of tribes in Indonesia is also presented in several tribes such as the Batak, Minangkabau, Bugis, Balinese and Acehnese, as shown in Figure 1. As well as the percentage of 14% of other tribes such as the Baduy who live in the inland of Banten.

Figure 1. Indonesia’s ethnic composition

![Indonesia’s ethnic composition](image-url)
Admittedly, each tribe has its own subculture, so the diversity of ethnic groups in Indonesia indicates that the language used is also diverse.

However, to live in harmony, the state guarantees public life with all its characteristics, in Article 18 B paragraph (2) of the 1945 Constitution of the State of the Republic of Indonesia, in which the state recognizes and respects the customary law community units along with their traditional rights. Although customary law is a convention, it is recognized by the community (Rahail and Alputila, 2018). Based on this, if there is a law that does not recognize the existence of traditional rights of indigenous people, and then it aggravates the constitution (Ifrani et al., 2019). However, according to Hoadley (2006), the existence of customary law is increasingly abandoned, as when the traditional rights of the community are confronted by the interests of the company with the power granted by state law. Indigenous people have local wisdom as a way of life that is passed down from generation to generation and is believed to be a value of truth over its sacred value (Putri et al., 2019).

Customary law contains rules for behavior and environmental management. With regard to conservation, like other traditional conservation approaches, taboos, prohibitions, beliefs and restrictions are used to protect, conserve and maintain sacred groves and sanctuaries (Benjamin, 2008; Cuskelly, 2011). Customary law communities have important values, one of which is material value, namely natural resources such as forests, lakes and rivers that provide life for the community (Hammar, 2018). Indigenous people have their own culture, traditions and customs. The constitutional protection of indigenous people is important in cultural preservation and survival; therefore, the characteristics of indigenous people are in accordance with applicable laws (Kalalo, 2018). According to Sunkar and Santos (2018), CIL has a positive impact on community participation in biodiversity conservation efforts. It should be emphasized that indigenous people have rights that are also recognized by the state, one of which is customary claims to forests (Rachman and Siscawati, 2016); therefore, the use of customary or local forests must be consulted with the Ministry of Environment and Forestry. Therefore, forest zones are divided into production forest zones, protected forest zones and conservation forest zones (Myers et al., 2017).

3.2 Conservation in customary law
The customary laws that guide the use and management of forests are an innovative approach to species conservation. The conservation-related customary law, as in Rim-Rukeh et al. (2013) and Negi et al. (2018), protected biodiversity using taboos and totems in relation to the prohibition on the teachings of beliefs, principles and rules that apply traditionally. Therefore, customary laws (with taboos and totems) are used to prevent people from cutting down trees, forests and sacred groves; protection of aquatic and animal lives; and setting up nonfarming, fishing days and protecting animals lead to biodiversity conservation. In Nababan (1995), there are conservation principles in traditional NRM in traditional communities, including: (1) Respect that encourages harmonious relations between humans and the natural surroundings. In this case, traditional communities are more inclined to view themselves as part of nature itself. (2) The second is having a sense of exclusive ownership of the community over a certain area or type of natural resource as a common property resource. The existence of a sense of belonging binds all citizens to maintain and manage shared resources from outsiders. (3) The knowledge system of the local community that provides the community with the ability to solve the problems they face in utilizing limited natural resources. (4) The adaptable use of technology simple, effective and energy-efficient is in accordance with local natural conditions. (5) An allocation system and enforcement of customary rules that can be shared resources from excessive use, both by the community itself and by outsiders (immigrants).

The environment not only belongs to humans but also places various creatures that exist in an ecosystem. The increase in human activity in recent decades has intensified
substantially changing ecosystems (Halpern et al., 2008). These activities include the development of the tourism sector, plantations, agriculture and industry. Some of these activities have damaged the geomorphology of the surrounding area, as well as increased landscape fragmentation, disrupting the biological community and environmental degradation (Chi et al., 2020). Some causes of environmental damage can be due to two factors (Maturbongs et al., 2017), including natural factors and factors caused by human error. It also emphasizes that the environmental damage that occurs can arise from internal or external factors in the form of intentional or unintentional. The consequences of damage also vary; the duration of recovery depends on the handling and the ability of the environment to recover. To clarify, the following in Table 1 is environmental damage, which is divided into two causal factors, including natural factors and human error factors, with the attached definition and examples of cases or human activities.

Conservation is needed to minimize damage to the environment or nature, as it is known that two factors can cause damage to nature based on Table 1. However, there are conditions under which conservation can be carried out. First, when biodiversity is at a low level, it is not possible to exploit it; so, its existence must be conserved (Hasbiah, 2015). Conservation can be achieved by implementing policies in the form of maintenance and conservation programs based on the customs and culture of the local community (Techera, 2011; Hasbiah, 2015).

One form of conservation resulting from human behavior that destroys nature is Sasi. Indonesian stakeholders with Moluccan produced and promoted Sasi as a customary law for the conservation of biological diversity (Zerner, 1994). In contrast, the conservation area in forestry is used as a reforestation program. In state forest areas, it collaborates with indigenous peoples to classify forest areas. Conservation is divided into use, traditional use and protected zones that are free from human interference (Nanang and Inoue, 2000). For example, as an ethnic minority, the Baduy people live side by side with nature (forests and mountains). The community has its own customary law for managing its natural resources.

3.3 Existence of culture and customs of the Baduy
Culture is inherent in human life. Culture itself is a process created from a legacy of symbolic behavior that makes human beings become “humans.” The concept of culture is reduced to a pattern of behavior that resides in certain groups to become customs or ways of human life itself (Keesing, 2014). Three theories explain the origin of the Baduy community. (1) They are descendants of people who managed to escape from the Hindu kingdom of Pajajaran before the Islamic forces of the Sultanate of Banten destroyed it in 1579. (2) They were descended from Hindus who initially resided in Banten but escaped from Islamic forces in the Sultanate of Banten to the current Kanekes Village. (3) Based on ancient Sundanese texts, Baduy are said to have descended from a hermit group that lived in Banten, which was part of the sacred forest in pretimes Islam (Ichwandi and Shinohara, 2007).

<table>
<thead>
<tr>
<th>Definition</th>
<th>Example</th>
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<tbody>
<tr>
<td>Natural factor</td>
<td>It is an event that results from natural processes. Natural processes that occur cannot be predicted in the term but can be known through natural phenomena. Natural disasters can be classified into three categories (Sarafoglou and Kafatos, 2013)</td>
</tr>
<tr>
<td>Human error factor</td>
<td>Activities carried out by humans, whether intentional or unintentional, that causing damage to the environment. The use of fossil fuels (includes oil and coal) effects in copious quantities of carbon dioxide into the air- threatening the extinction of various of species that adds to the impact that woodland depletion</td>
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Baduy people hold fast to the doctrine of their ancestors. They have a belief that the beginning of the world formed around the holy pillar consisting of the “upper world” where the gods and ancestors lived and the “underworld” which is the land or area on Earth that has a level of holiness/sacred. Cosmological beliefs influence religion and part of their culture (Ichwandi and Shinohara, 2007). Understanding this will trigger Baduy people to care about the environment. The Baduy are led by respected community leaders; from time to time and from generation to generation, they hold fast in maintaining the harmony and balance of the universe. They believe that preserving and protecting nature is an obligation that can no longer be negotiable. If their obligations are not fulfilled, they will receive social sanctions against the perpetrators in the form of changing the stigma of the perpetrators to become sinners for violating regulations as well as the mandate of ancestral mandates from Sunda Wiwitan values based on their local wisdom (Nurlia and Akbar, 2016).

Baduy people have strict codes of ethics in maintaining the preservation of natural resources. Taboo is one of the tools used in the application of doctrines in management related to nature such as agriculture, extracting natural resources and so forth. To protect their norms, beliefs, culture and their behavior from outside influences, some taboos are also subject to adaptation to the cultural context. Although their customary laws are complex and open to many interpretations, there is an ecological justification for customs. All relevant codes of ethics and taboos that contribute to CIL have environmental implications and can mediate ecological strategies. To regulate their habits, Baduy has a unique traditional government system that still functions strongly today. To enforce customary law and control violations of taboos, self-control mechanisms (sin), social control and punishment are imposed. The result is that natural forest areas are preserved in the Baduy landscape and to the extent possible to determine the natural biodiversity of these forests. Agriculture, natural resource extraction and other activities related to nature (Boedhihartono, 2017).

4. Results and discussion

Baduy people live in Kanekes Village, Leuwidamar District, Lebak Regency, Banten Province. This location is geographically located at 6027'-6030' North Latitude (LU) and 10803–10604’ East Longitude (BT) (Permana et al., 2011). The original population assessed is still local and does not involve outside networks such as social, economic and political services (Ichwandi and Shinohara, 2007). The Baduy community is still thick with customs and culture or can be called pikukuh. There are several pikukuh passed down from generation to generation of the Baduy tribe, one of them is pikukuh, which reads, “lojor teu meunang is cut, pondok teu meunang is connected.” In Indonesian, pikukuh means that the length must not be cut, and the short must not be joined. According to how the respondent explained it, “There is no longer do not cut, short do not connect” Pikukuh is not only written on a stone at the entrance to the Baduy tribe but also becomes the basis for the Baduy community to live. Respondents stated that the pikukuh means that all the things that already exist in nature should not be changed; in other words, humans must accept what already exists without adding or subtracting from what has been provided. According to Rohmatullayaly et al. (2017), Baduy’s traditional society has a duty to mutually geographical and cultural isolation. This is done to protect and maintain the living land of the Baduy community.

4.1 The meaning of forests for Baduy communities

Indonesia has extensive forest resources and is managed by the state, and is used for the prosperity of the people. Land is important for the economic sector in Indonesia, such as agriculture, plantation and forestry activities, making it a major concern for the government
of Indonesia (Malahayati, 2019). This causes deforestation and land conversion because of its high dependence on the land sector. The Baduy community is a traditional community with a source of local wisdom that can be set as an example. Such local knowledge is crucial in promoting sustainable development goals in global level (Koike, 2019). They have their own way of doing daily activities, one of which is in terms of managing forests. Forests are important because they are the main source of livelihood. The Baduy community practiced a shifting cultivation system based on the results of the study. Respondents said that the Baduy people guard the forest because it is a legacy left by parents passed on to their children. This is in accordance with the proverbs that are embedded in each Baduy, namely “Mount Teu Meunang is melted down, Lebak Teu Meunang is destroyed”. Respondents explained that the meaning of the proverb was “Mountains should not be melted down, Lebak do not be destroyed”. This is why the Baduy people up to now live far from modernity, especially those directly related to the environment, such as the way they grow crops and live every day.

Land is a productive asset that is a source of livelihood and income for most of Indonesia’s population, one of which is agricultural activities (Nurdin and Tegnan, 2019). The land in Kanekes Village is fertile soil, different from agriculture in general that intensifies agriculture by providing several inputs for better production results; respondents said that “natural fertility, not using fertilizer.” In addition to not using fertilizer, the use of pesticides is not done, even though there are pests. Respondents said that community efforts in eradicating pests were “Most of the noni leaves, noni leaves given vinegar water, pounded first, then the noni leaves were watered-siramin.” Noni or Noni (Morinda citrifolia) is used as a raw material in various green industries, one of which is green insecticide. The results show that in agricultural activities, the Baduy people try to protect and preserve their land by prohibiting the presence of modern technology and toxic substances such as fertilizers or synthetic pesticides.

4.2 Procedures for managing forests in the Baduy
The types of agricultural commodities commonly grown by the Baduy community are rice, kencur, ginger and banana. The Baduy tribe has rules in farming, and respondents said there were rules from the customary leaders in arranging the planting time. “The date, the day, adjusts equally well.” The determination of planting time is not only limited to the decision of the customary leader or called punn, but it is also carried out by a meeting with the implementation of daily customary rules called jaro in order to obtain a decision on planting time. In addition, certain commodities are not allowed to be planted, and the respondent said, “Anything is free, but cloves are not allowed here, cloves, coffee, cassava, peanuts are not allowed.” Agricultural products are usually sold, but there are restrictions on selling certain commodities. Respondents said, “If rice is not allowed, it is not sold, at least bananas, durians, bananas, kencur can be sold.” Rice, according to the Baduy community, is the incarnation of Nyi Sri or Dewi Padi so that each process of cultivation is respected. This concept is in line with Sundanese ancient manuscripts, namely Wawacan Sulanjana, in which it is believed that the rice plant originated from a Goddess who was glorified by several figures such as Batara Guru, Prabu Siliwangi and Semar (Kalsum, 2010).

Unlike the community in general, Baduy has rules for people who will go to the fields. The main pillar of their main livelihood is called swidden agriculture, which means the sequence in conducting agricultural activities as the main livelihood is done based on the traditional calendar (Ichwandi and Shinohara, 2007). Baduy’s respondent said, “On the 15th and the 30th, you cannot, you cannot work.” In contrast to Outer Baduy, respondents said “If in Outer Baduy there are Sundays, Tuesdays, Fridays.” Based on Plate 1, the Baduy has been farming since childhood. The children do not go to school but follow their parents to grow crops. Respondents said “a child here one-year-old has been pulled by his mother and told him to go
to the garden, even though crying had stopped.” The other respondents also said that “For young children who go to the fields do not work as well, so just join it, let me see it. If you are too free to get along here, it’s not the same as your parents, you will not understand.” Based on the results of the study, the reason for children not attending school but planting according to respondents is “The comparison if we go to school, right? Why? To pursue a diploma for education in the future so, the term is that if you already have a diploma, it is easy to work, if it is not possible to be an official here, unless you leave the village.” In addition to farming, Baduy also harvests honey and produces it for sale.

According to Ifrani et al. (2019), the management of local forests on customary lands must be returned to indigenous people who have constitutional rights to manage according to their functions. Interestingly, the marketing process carried out by the Baduy people who harvest honey is done by going out of Baduy to the city on foot. The marketing method used is an extended form of prohibition in the customs owned by the Baduy, namely transportation. There is a difference between Inner and Outer Baduy in distribution to the city, especially in terms of transportation. The Inner Baduy people are not permitted to use any mode of transportation other than walking. Outer Baduy people in the process of distributing it to the city are allowed to walk or use public transportation.

4.3 Sustainable forest management in the Baduy
According to Putri et al. (2019), local wisdom can be a solution for solving environmental problems. This is in line with Kalalo (2018) that the customary law community is still strong,
with its value of being environmentally responsible. Based on the results of the study, one way for people in Baduy to protect the environment is by not using chemicals. Respondents said, “Polluting water, the water is used all along the road, along the river.” In addition to managing rubbish, the local people burn their rubbish, saying, “There is a supply of rubbish, if each one has been burned, each house is burned but far from his house, about 50 meters from the village.” The Baduy community’s attention toward the environment is also reinforced by the statement of other respondents that “Trash must not be thrown into water, even though rotten material waste must not be thrown into water.” The researcher believes that Baduy community forest management is a sustainable way for future generations. According to Ifrani et al. (2019), indigenous people need to be given more authority in managing forests in the future.

The concept of sustainable forest management involves local communities in forest management activities to improve welfare and implement sustainable forests (Hiratsuka et al., 2019). Sustainable forest management needs to be supported by social capital, which plays an important role in the group’s ability to achieve shared goals (Dako et al., 2019).

The Baduy tribe has social capital that has a role in forest management which is considered sustainable. The researcher also considers that the Baduy people build distinctive social interactions, tend to be closed from outsiders and social change as a preventive effort to protect the forest from outsiders’ disturbance. Whether it is realized by the Baduy tribe itself, researchers consider that in terms of the mindset to use existing raw materials, they are experts. Even if it is assessed in terms of art and creativity, the Baduy community has a high value of creativity. This is proven by the existence of garbage bins that they make with raw bamboo materials. The garbage bin that they make does not only have esthetics in its pattern or shape but its placement in the home area and the Baduy community forest. The placement of the garbage bins is not managed after the Baduy region has begun to open up to the outside community in the sense that the Baduy community accepts if an outside community comes to their area or can be called a tourist area. However, the management of garbage bins has been carried out from generation to generation according to the respondents. In other words, the cultural values taught from generation to generation in the Baduy tribe in terms of forest management and good for the environment are still being done. What is done by the Baduy community is in line with the understanding conveyed by Giddens that the relationship between aspects is one way of forming a process that can create a culture or pattern of behavior called habitus by Bourdieu (Chong, 2015).

The forest management carried out by the Baduy tribe has several farming rules, namely, the Baduy community must not manage the forest contained in protected forests. Respondents from the Outer Baduy community said, “If this is a protected forest like this, there is something that should not be planted eh should not be cut down.” People who violate these rules will be sanctioned by the customary head. This is in line with the statement of Dako et al. (2019) that customary heads provide social sanctions based on violations committed and the community accepts them obediently. Social sanctions play a role in controlling and determining people’s behavioral patterns (Dako et al., 2019). This is different from the statement of Inner Baduy respondents that they can use wood that comes from protected forests but must get permission from pu’un (chiefs).

4.4 Utilization of forest products as a Baduy community residence

The forest products that are used by the Baduy community in addition to food, which is a primary need, can also be used to build houses in the village. Wood is cut down and used to build houses to avoid heat, rain and wildlife. However, in the use of wood, the Baduy have their own procedures for building houses. Based on the results of the study, it was found that
Before building a house, permission must be asked to pu’un and make slametan events. For example, “if you make a house here you cannot use the term saws.” Baduy people use machetes and gailungs (ax). In addition, the respondent said, “Just fix it, so you cannot use nails.” The house building in Kanakes Village is earthquake-resistant because it is made of bamboo, the respondent said, “Even though there was an earthquake here, this house is resistant. Even though the house is simple here, it has never been damaged.” In addition, the respondent said, “Here, if we work together to build a house, it can be done in two days, and 20 houses can be finished in two days. The 20 houses are mutually cooperative, but the materials are ready, we just install them.” According to researchers, cooperation and kinship systems are still very closely intertwined in the Baduy indigenous community.

Based on this discussion, this study shows that CIL contains important values, knowledge and rules of practice that contribute to sustainable and effective NRM. For ethnic minority groups (indigenous peoples), knowledge and customs are based on their dependence on the forest, which allows them to survive and live with nature in harmony. This result is in line with Kim-Rukeh et al. (2013) and Negi et al. (2018) who emphasized the contribution of traditional knowledge in conservation. For forest conservation, there is a customary law that functions as a conservation approach in relation to forest sustainability. Related to biodiversity conservation, based on the results of research show that in agricultural activities, the Baduy people try to protect and maintain their land by prohibiting the presence of modern technology and toxic substances such as fertilizers or synthetic pesticides. The Baduy as a traditional community is also responsible for the environment, one of which is by managing waste, namely by burning rubbish, but it must be far from home or approximately 50 meters from the village. This shows that the existence of teachings regarding prohibitions and taboos has become the belief of the Baduy community in protecting the forest. However, indigenous peoples are very vulnerable, marginalized and not yet involved in forest conservation. Therefore, if customary law as part of the traditional knowledge of local communities is not preserved and the tribal community is still not involved in conservation, this condition can hinder the sustainability of forest and biodiversity management.

5. Conclusion

This study concludes that there are values of belief, local cultural values and rules in customary law that form the basis for forest conservation in the Baduy tribe. The Baduy community is still thick with customs and culture or can be called pikukuh. This means that not all things that already exist in nature must be changed; in other words, humans must accept what already exists without adding or subtracting from what has been provided. For the Baduy people, the forest has an important meaning because it is considered a legacy passed on to their children; so, the Baduy people take care of the forest well. Forest management by the Baduy community with preventive and repressive customary law is one of the sustainable ways for future generations.

The recommendation of this study is the urgency of exploring customary law with an ethno-conservation approach for policymakers and legislators by studying customary law, spiritual values and their positive function for forest conservation and sustainable development related to biodiversity conservation. The implications of this research can be used for a forest conservation approach based on customary law. This conservation approach uses the rules and prohibitions that are obeyed by the Baduy community in forest utilization aimed at protecting natural resources and forest sustainability. This study contributes as a guide for the government to formulate policies that will incorporate local communities into conservation programs and government policies. This is important because it has social and economic impacts to support sustainable development.
References


### Further reading


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