The existence and role of traditional cultural beliefs in conserving Sibaganding Tua sacred forest

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Abstract. The conversion of religion has made the existence of several cultural values changed and lost their practice in the community of Sihotang Village. The purpose of this research is to analyze the relationship between the existention of Sibaganding Tua sacred forest with the beliefs and customs of the people of Sihotang Village. This research using qualitative research method by In-depth interview with the community. The results show that the concept of sacred forest does not contradict to the teachings of Christianity so that the practice of customary rules, taboos and beliefs related to sacred forests is still ongoing. People also get benefit from this forest, which is the main source of their water needs. There is a relationship between beliefs and customs with the existention of the forest is found. Communities increasingly protecting the forest and obey the law when there are ecological benefits received. This will increase the protection of the sacred forest. Meanwhile, education and modernization of house building have eliminated the ritual practice of the tree using rules for Borotan and Bungkulan of Batak house from sacred forests. However, it has indirectly provided protection and reduced tree logging activities in Sibaganding Tua sacred forest.

1. Introduction
Many forest conservations practices by traditional indigenous peoples in various parts of the world contribute to protecting and conserving forest. One of the traditional community practices as a good example in forest conservation and protection appears in the form of sacred forest. Sacred forest is an area whose vegetation is dominated by trees and protected by local communities through religious and cultural development practices to reduce the occurrence of damage [1].

Sacred forest is a traditional community-based conservation that has cultural or spiritual significance for the people living around it [2]. Culture and ecology have been closely related since ancient times [3]. Area that has spiritual and sacred values are closely related to the successful management of traditional natural resources [4]. Sacred forest has become a very important spot in preserving biodiversity and conserving unique plant and animal species [5].

Now there has been a lot of damage and loss of the existention of sacred forests that are managed jointly by the community due to various factors that weaken the protection of sacred forest. The cases in Benin and Togo show that population growth, forest clearing, fires, expansion of housing estates, erosion of traditional beliefs, and the weakness of current religious leaders have caused the destruction of sacred forest [6]. Christianization has led to the degradation of the Oromo belief which protects the sacred forest of Caato [7]. On the other hand, the current development that are increasingly modern are gradually affecting people's beliefs and traditional wisdom as a mechanism in the management and
strategy of conserving natural resources in sacred forest [8]. Sihotang Village, Harian District in Samosir Regency has Sibaganding Tua sacred forest which still exist until now. Meanwhile the community has embraced Christianity which affects cultural values related to sacred forest. This research intends to reveal how the sacred forest can still exist by analyzing the factors that affect the existention of traditional cultural values that protect Sibaganding Tua sacred forest in Sihotang Village.

2. Methods

The research was conducted in Sihotang Village, Harian District, Samosir Regency, North Sumatra. Geographically, Sibaganding Tua sacred forest is located at 2°29'29" NL and 98°42'06" EL. The method used in this research is qualitative. The technique of collecting data in the field doing by field observation and interview. Field observation doing by observing forest condition and community activities related to sacred forest. In-depth interview was conducted with the community, especially indigenous elder and the people who have activities around the sacred forest. Data were analyzed descriptively using interactive analysis models. Data validation was analyzed by triangulation technique [9].

3. Results and discussion

3.1. History and belief in Sibaganding Tua sacred forest

The result of interview with key informant and community of Sibaganding Village, information was obtained that the people of Sihotang Village are descendants of their ancestor named Sihotang. Sihotang taught his descendants that there was an ancestor who guarded their village who lived in the Sibaganding Tua forest and was called Oppu Sibaganding Tua. The Sibaganding Tua forest is located in the Nabolak area where this area is jointly owned by the entire Sihotang clan. Oppu Sibaganding Tua is a giant snake that lives in the forest. The people of Sihotang village have great respect for Oppu Sibaganding Tua.

They believe that Oppu Sibaganding Tua is the guardian of their village or they call it “pagar” of Sihotang Village. This belief has produced rules and taboos that has passed down from their ancestors until now. According to the community, if they violate the customary rules and taboos that have been taught, it will be able to bring disasters such as flood, plant damage, crop failure, disease, and even death.

3.2. The role of Sibaganding Tua sacred forest in community culture and beliefs

3.2.1. Culture and beliefs related to social life. There are several customary rules governing community interaction and behavior in Sihotang village. Customary rules that are believed by the community are in line with conservation values because they will increase the sacredness of the forest [10]. Customary rules create fear for the community to break them because they will make Oppu Sibaganding Tua angry and bring disaster for the violations that have been committed. The community is prohibited from stealing other people's property, especially in Nabolak such as agricultural products or agricultural tools. People who steal will get punishment from Oppu Sibaganding Tua. This caused fear to the people who farming in Nabolak because they saw and felt the consequences of breaking this rule.

Oppu Sibaganding Tua also regulates the community to behave properly when they live or farming in Nabolak. Farming in Nabolak must have a sincere heart, not be arrogant, and polite. Against people who violate this will make Oppu Sibaganding Tua angry and bring disaster for that person. Community has seen people die and go insane for breaking this rule. Do not defecate or urinate carelessly. People have to make a hole in the ground as a place to defecate or urinate while in Nabolak. When finished they must to covered it again with soil. This was done in honor of Oppu Sibaganding Tua.

Disputes between community in Sihotang never lead to death. People believe in and feel the power of Oppu Sibaganding Tua as a figure who plays a role in their life to respect each other. The impact they have felt and witnessed for themselves has become a strong basis to continue to believe in the presence and influence of Oppu Sibaganding Tua in their daily lives.
3.2.2 Culture and beliefs as a tribute to Oppu Sibaganding Tua. The people of Sihotang village have customary rules practices in everyday life as a form of respect for Oppu Sibaganding Tua. House in Sihotang village must face Sibaganding Tua sacred forest or their back to it and face Lake Toba. Community house should not deviate from the direction of Oppu Sibaganding Tua. If people break the rules in building a house, they believe they will be exposed to misery and troubles in their lives. A house that is not built according to established customary rules will not bring blessings to the home owner.

![Figure 1. Home layout in Sihotang village](image1)

The people of Sihotang village also have rules when harvesting rice. The community must place small and large timbalan (piles) of rice chunks collected with the rule that the base of the rice pile must be placed facing Sibaganding Tua sacred forest and its grains face the Lake Toba.

![Figure 2. Rice pile position](image2)

3.3. Management and protection of Sibaganding Tua sacred forest

The people of Sihotang village have customary rule on the use of trees from Sibaganding Tua sacred forest. Tree can only be felled during certain events such as for borotan at custom party and bungkulan for traditional Batak house. Taking tree only from the edge of the forest. It is prohibited to take the tree that is right at the location of Oppu Sibaganding Tua.

* Borotan is a pole used to tie the buffalo in the middle of the yard during traditional ceremonies. * Borotan must be taken from the sacred forest so that the traditional ceremony is blessed and protected by Oppu Sibaganding Tua. The traditional Batak house has a curved upper frame called a bungkulan. The Bungkulan of traditional Batak house in Sihotang village must be taken from sacred forest. The goal is that the house is blessed and protected by Oppu Sibaganding Tua. After the bungkulan is installed, the remaining pieces of bungkulan wood are returned to the Nabolak area, the location of Sibaganding Tua sacred forest. Nowadays, traditional Batak houses are rarely found, including in Sihotang village.
Figure 3. Batak traditional houses in Sihotang village

3.4. The factors that support the existention of Sibaganding Tua sacred forest

The conversion of religion is the most basic factor driving the social and cultural changes of the people in Sihotang village. Meanwhile, protection of sacred forests is closely related to culture. The arrival of Christianity to Sihotang village was the initial process of change. It is not clear when Christianity first entered Sihotang village. People believe that Christianity has been included since the Dutch colonial era in Indonesia. The entry of religion does not damage the sacred forest, because it is effected by various factors.

3.4.1. Sacred forest concept. The people of Sihotang village who all have embraced Christianity say that their belief in Oppu Sibaganding Tua is not a form of idolatry but a belief to respect and honor their ancestors. No conflict occurs with the teachings of Christianity when the community still believe and practice the customary rules and taboos related to the sacred forest. The concept of the sacred forest of Sibaganding Tua, which does not contradict the teachings of Christianity, has saved the cultural values that protect Sibaganding Tua sacred forest. The church has prioritized opposing the practice of shamanism rather than discrediting the spiritual beliefs of the people [11].

Customary rules and taboos such as house position, position in traditional party events, rules for harvesting rice, and rules regarding social life (stealing taboo, good behavior, and respect for others) remain and are trusted by the people of Sihotang village. This is in line with research conducted by [12] where the ethnic Waphisana and Makushi in Rupununi, South Guyana who have embraced Christianity still maintain taboo of eating tapir and gray deer because they do not conflict with Christian teachings.

As long as the ancient cultural values are appropriate, neutral or not against the teachings of the new religion, the cultural values will still exist.

According to [13] also states that there has been a adaptability of the Bon tradition to Buddhism at sacred sites in Yunan. The existing traditions and beliefs were incorporated into the Buddhist belief system. The special rituals and giving offerings that made by the community if they want to enter Sibaganding Tua sacred forest have been abandoned and have never been taught to the next generation. The effect that arises from leaving this tradition is that no people dare to enter Sibaganding Tua sacred forest anymore. The concept of Sibaganding Tua sacred forest is slightly weakened because there are cultural values that have changed or been abandoned in order to adapt to Christian teaching.

3.4.2. Forest status and land ownership. Sibaganding Tua sacred forest is included into a protected forest area. The community said that they knew it more as sacred forest and treated it differently compared to the protected forest around it. The people of Sihotang village prefer to respect and protect Sibaganding Tua sacred forest rather than the surrounding protected forest. According to [14] that local communities in Togo more protect and have more respect for sacred forest and riverside than protected forest area which are being degraded. The community said that in the past they preferred to cutting down
tree in protected forest rather than Sibaganding Tua sacred forest, even though the distance and routes of protected forest were farther and more difficult than sacred forest.

The local community said that the Nabolak area, which also contained Sibaganding Tua sacred forest, was the communal land of the Sihotang people. The government once wanted to exclude 136 hectares of Nabolak area from the protected forest area through Tanah Objek Reformasi Agraria (TORA) program but the community refused because it can lead to conflict among the families of the Sihotang clan. Nabolak was the common property of the entire Sihotang clan. The status of land ownership increasingly shows the relationship, attachment and sense of collective ownership between the community and Sibaganding Tua sacred forest. We see that the homogeneity of the clans in Sihotang village increases the bond between individuals to reach agreement and compliance in the management of the Nabolak area. People who are still descendant of Sihotang have a very high chance of obeying the customary rules, taboos and beliefs in Oppu Sibaganding Tua that passed down from their ancestors, namely Sihotang. Attachment and ownership will motivate people to conserve the land that is theirs [15]. The community’s commitment Sibaganding Tua sacred forest which has been going on for a very long time has shown extraordinary resilience.

3.4.3. Forest benefits and legal awareness. When asked about the benefits of forests, the local community realized the ecological benefits they received even though customary rules and taboos were the most important. The community said that if the forest was damaged, the river flow which was the main source of their water needs would be damaged too. This view of the community provides two dimensions of meaning about sacred forest, namely as a tribute to Oppu Sibaganding Tua and environmental values. Research conducted by [16] also found that local Tibetan people in Gansu province are aware of the conservation benefits they receive from sacred forests in addition to religious benefits such as animal habitat, trees, and the environment in general, and bringing rain to their place. The people of Boabeng-Fiema and Tafi-Atome still adhere to the washing clothes taboo in rivers because they realize that river flow is useful as a source of water they use at home [17].

Figure 4. The irrigation that comes from protected forest

They also associates ecological benefits received with legal compliance. According to the informant, the water flow will be maintained if they obey the law. People never cut trees in protected forest anymore. They prefer to buy or cut wood around the village to build house and for other purposes. This situation makes local and government resource management institution complement each other for natural resource conservation [17].

3.4.4. Education and modernization. According to [18] that during the Dutch colonial era in Samosir, education and modernization such as schools, hospitals, irrigation, roads, buildings and others were carried out by evangelists. Informant said that when they were children evangelists often came to teach them Christian education and teachings. This is in line with the research conducted by [19] where education is the first and foremost thing done by missionaries to attract African people to embrace
Christianity. Christian education and teachings delivered by the missionaries did have a negative effect on several cultural values but did not have an impact on the destruction of Sibaganding Tua sacred forest. Modernization actually has a positive effect on the existentation of sacred forest, even though there are cultural values that must be sacrificed.

Wood needs for borotan in traditional party today can be taken from around the village, does not have to be taken from Sibaganding Tua forest. Changes in customary rules on borotan have reduced tree felling activities in sacred forest for customary needs. Modernization of house building has indirectly provided protection and reduced tree cutting activities in sacred forest. The community never built traditional Batak house again. The felling of trees for the bungkulan of the traditional Batak house never happened again. Similar result were also presented by [11] where people who adhere to traditional religion in Tallensi Nabdam continue to respect and protect sacred forests despite being exposed by western education, religion and migration.

Figure 5. The house model of the Sihotang village community

3.5. Effect of population growth, demand for timber and land on the existence of the Sibaganding Tua sacred forest

Population growth has indeed increased the need for land for community building and agriculture, but not until destroying sacred forest. Informant said that in the past the community only lived and farmed on Lake Toba side. The population growth forced the community to start opening agricultural land to hilly areas, namely Nabolak area where there is Sibaganding Tua sacred forest. Then they farm there and side by side with the sacred forest. Based on customary rules, they can only manage and use land in the Nabolak without individual ownership rights. Indigenous elder also always advise people to maintain their attitude and not take actions that violate the rules for their safety. People who farm around sacred forest admit that they have cut down small trees on the edge of the forest to just make hut. The local community admits that it is impossible to carry wood from the village to Nabolak because the distance is so far and can only be reached on foot. Research by [20] also found similar conditions where sometimes people cut down certain trees (Betula platyphylla) in sacred forest because they were too lazy to walk to non-sacred forest which were too far away. According to the informant and indigenous elder, the area of Sibaganding Tua sacred forest has never decreased from the past until now.

Indigenous elder said that the community was not fully able to obey the customary rules and taboos so that there were still disasters that befell the people who farm there. The research conducted by [21] also stated that degradation of local cultural values has increased tree felling activities in sacred forest on the Gamo highland. What happen in Sihotang village is the same as what happened in Gamo highland where the community and indigenous elder still adopt cultural values that protect sacred forests but tree cutting activities in sacred forest are found that be carried out by the community as a result of degradation of local cultural values. The cultural values that still exist can no longer effectively ensure
that all of them can protect the sacred forest ecosystem [21]. It cannot be denied that complex socio-cultural changes have threatened the existence of Sibaganding Tua sacred forest.

![Sibaganding Tua forest](image)

**Figure 6.** Agricultural land around Sibaganding Tua sacred forest.

### 4. Conclusions

Sibaganding Tua sacred forest still exist supported by sacred forest concept which contains the practice of customary rules, taboos and beliefs of local community who have belief that their activities do not conflict with Christian teachings. Protection of sacred forests is strengthened when the community get ecological benefit as a source of water flowing from the forest. Awareness of ecological benefit increases compliance with the law. Forest status which is better known as sacred forest and collective land ownership increase the ties between the forest and community where community feels they have a responsibility to respect and obey the rules and taboos as a form of protection of sacred forest. Homogeneity of the clan also increases compliance. Changes and loss of cultural values such as the practice of collecting *borotan* and *bungkulan* do not lead to weakening protection but increase protection of sacred forest.

### References

[1] Yadav S, Yadav J P, Arya V and Manju P 2010 Sacred groves in conservation of plant biodiversity in Mahendergarh district of Haryana *IJKT* 9(4) pp 693-700
[2] Ormsby A A and Bhagwat S A 2010 Sacred forests of India: a strong tradition of community-based natural resource management *Environ. Conser.* 37(3) pp 320-6
[3] Bhattacharya S 2014 Forest and biodiversity conservation in ancient Indian culture: A review based on old texts and archaeological evidences *ILSHS* 30 pp 35-46
[4] Negi C S 2015 Developing sacred forests into biodiversity heritage sites-experiences from the state of Uttarakhand, Central Himalaya, India *IJTK* 1 pp 96-102
[5] Kassim H, Hiroyasu O and Mitsuo M 2004 Sustainable management of sacred forests and their potential for eco-tourism in Zanzibar *Bulletin of FFPRI* 3 33-48
[6] Kokou K and Sokpon N 2006 Les forêts sacrées du couloir du Dahomey *Bois For. Trop.* 2 pp 15-23
[7] Sinha A K, Sharma K and Mergo L 2011 Caato sacred forest: Understanding the cultural and environmental worth of natural space in Oromo religion, Ethiopia *Indian J of Phys. Anthropol. Hum. Genet.* 30 pp 47-64
[8] King I O 2008 Strategies for conservation of sacred forests of Kolli hills, Tamil Nadu, India: a study on botany, ecology and community interactions *IUFRO Worlds* 21 pp 133-6
[9] Milles MB and Huberman MA 1984 *Qualitative Data Analysis* (London: Sage Publication Ltd)
[10] Barre RY, Grant M and Draper D 2009 The role of taboos in conservation of sacred groves in Ghana’s Tallensi-Nabdam district *Soc. Cult. Geogr.* 10 pp 25–39
[11] Luzar JB and Fragoso JMV 2013 Shamanism, christianity and culture change in Amazonia Human Ecology 41 299-311
[12] Luzar JB, Silvius KM and Fragoso JMV 2012 Church affiliation and meat taboos in indigenous communities of Guyanese Amazonia Hum. Ecol. 40 pp 833-45
[13] Kolas A 2007 Tourism and Tibetan Culture in Transition: A Place Called Sangrilla. (London: Routledge)
[14] Kokou K, Adjossou and Kokutse AD 2008 Considering sacred and riverside forest in criteria and indicators of forest management in low wood producing countries: the case of Togo Ecol. Indic. 8 pp 158-69
[15] Hardin G 1968 The tragedy of the commons. AAAS 162 pp 1243-8
[16] Lou Y, Jinlong L and Dahong Z 2009 Role of traditional beliefs of Baima Tibetans in biodiversity conservation in China For. Ecol. Manag. 257 pp 1995-2001
[17] Osei-Tutu P 2017 Taboos as informal institutions of local resources management in Ghana: why they are complied with or not For. Policy and Econ 85 pp 114-23
[18] Parhusip JS 2015 Perkembangan gereja HKBP di Pulau Samosir, Sumatra Utara (1893-1913) (Development of HKBP church in Samosir Island, North Sumatera (1893-1913)) Undergraduate Thesis (Medan: Universitas Negeri Medan)
[19] Nunn N 2010 Religious conversion in colonial Africa Am. Econ. Rev. 100 pp 147-52
[20] Allendorf TD, Brandt JS and Yang JM 2014 Local perceptions of Tibetan village sacred forests in northwest Yunnan Biol. Conserv. 169 pp 303-10
[21] Daye DD and Healey JR 2015 Impacts of land-use change on sacred forests at the landscape scale GECCO 75 pp 1-10

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