

Traditional Wisdom of Batak Toba Community in Preserving Lake Toba Ecosystem in Harian Sub District, Samosir District, North Sumatera Province

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Abstract: This study examines the local wisdom of the BatakToba community in preserving the environment traditionally. This research is located in District Harian, Samosir Regency. The method used in this research is a qualitative approach, especially ethnography, and using observation techniques, interviews with snowball techniques. The results showed that people in Harian district had not used lake water for their daily needs because it was considered contaminated. But the people of Hariansubdistrict still use the lake for irrigation, bathing, washing and floating net cage cultivation. They almost forgot about the traditional wisdom that ever existed. Only some of the traditional wisdom is still done by the community such as taboo and restrictions on lakes, taboo and restrictions in the forest. The waning of traditional wisdom is mainly due to religious presence and widespread use of ecosystems for income generating. It is necessary to revitalize the traditional wisdom that is increasingly lost, and maintain the traditional wisdom that still exists.

1 INTRODUCTION

There has been much research on local wisdom in Indonesia. Some of them are research related to coastal areas. As conducted by Juniarta et al (2013) which explains how to build a model of local wisdom-based management of GiliKetapang Village (Gili Ketapang Island) SumberasihSub District, Probolinggo District, East Java. Similarly, research conducted Zulkarnain et al (2013) on local wisdom in the utilization and conservation of coastal ecosystems, and Zamzami (2016) about the dynamics of social institutions against the local wisdom of fishermen in preserving marine tourism in Nagari Tiku Selatan, Tanjung Mutiara Subdistrict, Agam Regency, And by Utina (2012) on ecological intelligence in Bajo community wisdom in Torosiaje Village, Gorontalo Province, and also research conducted by Sulaiman (2011) about traditional wisdom in fishery resource management in Aceh during the special autonomy era.

Research on local wisdom is also conducted in relation to water management, such as those carried out by Siswadi et al (2011), swamp management (Kamun, 2010) and research on the prohibition river

in Lima Puluh Kota District conducted by Yuliaty and Fatriyandi (2014). In addition, local wisdom studies are also conducted in relation to forests, such as those conducted by Senoaji (2014) on the use of forests and the environment by Baduy people in Banten Selatan and Permana et al (2011) on forest utilization and disaster mitigation by Baduy people in South Banten, and Research on Bamboo forest in Bali by Yeni et al (2016), and how Orang Rimba in Jambi views the forest. There are also some studies of local wisdom related to the environment and natural resources in general as conducted by Indrawardana (2011) which examines the local wisdom of Sunda Kanekes people who are very familiar with the environment, or made by Saleh (2013) about the Kaili community in Central Sulawesi who has a local wisdom that is still exist in the connection between human and nature.

The research of ecological wisdom related to lake ecosystem has been done by Rahadiani (2014) who analyzing community participation around Lake Beratan in conserving water resources while research relating to Lake Toba is still limited to the conservation model of Lake Toba water resources (Sihotang, 2012) reviewed by the soil and

environmental conservation disciplines. However, research on local wisdom related to the preservation of the ecosystem of Lake Toba still not much done.

Currently Lake Toba ecosystem conditions are damaged and polluted, such as the decreasing of Lake Toba water level, deforestation around Lake Toba, pollution of water by domestic waste and hotel and restaurant industries and by fish cultivation in floating net cages by both private and public companies. Water pollution is also caused by the use of pesticides in the agricultural area of the community that eventually flows into the lake, the use of water transportation in the lake, and by the use of lake water for water tourism activities such as banana boat, boat / boat ride.

Lake Toba is the largest lake in Southeast Asia, is the ninth deepest lake in the world and is the largest volcanic lake of caldera in the world. The lake is located 905 meters above sea level with a length of 275 km, width of 150 km and an area of 1130 km². The problem in Lake Toba has been very long, but until now there is no solution to solve the problem of Lake Toba ecosystem damage, especially the link between the conservation of Lake Toba ecosystem with the traditional wisdom of society. Therefore, this study aims to explore the traditional wisdom of the community around Lake Toba in maintaining the ecosystem of Lake Toba, especially in the Sub District of Harian.

2 RESEARCH METHODS

This research uses ethnography method, that is analytic research method, to understand a life view from the point of view of cultural actors. Through this method, it is hoped that the writer can obtain the data from the informants in depth, as explained by Spradley (2007), that the characteristic of the ethnographic research method is the holistic-integrative and qualitative analysis to get the society's view.

3 RESULTS

Harian is one Sub District in Samosir District. Located between 20' 30"- 20' 45" North Latitude and between 980' 30"- 980' 49" East Longitude with an area of 560.45 km², approximately 38.81% of the total area of Samosir District, And Harian Is the largest land area in Samosir regency.

3.1 Traditional Wisdom in Preserving Forests

Forests have an important role in maintaining the ecosystem of Lake Toba. Forests function in the lake hydrological cycle. The Harian Society believes the forest is dominated by supernatural beings. Therefore, before the desired tree is felled in the forest there are several things to do that is communicating with the spirit (*Huhuasi*). Then they plugged the ax (*tekke*) into the bark of the tree as a sign they had chosen the tree. If the next day the ax (*tekke*) is still in the tree then they can have the tree. Subsequently logged wood was welcomed in the village and wrapped in traditional cloth (*ulos*) and mats. The purpose of this activity so that the wood does not harm users. The ethics of felling should be kept strictly guarded. The workers supervised by the village counselors first notice which direction the tree collapses. The goal is to minimize small trees to be killed. Must carefully determine the direction of reducing the risk of trees felled not broken, small woods are not many killed. This wisdom is almost the same as that of the Baduy people (Senoaji, 2004) and Indrawardana (2012) who guard their forests based on a ban determined by their ancestors. The ethics of the Harian Society in preserving the forest need to be preserved as is done by the Balinese people in maintaining bamboo forests with the concept of *palemahan* that is knowledge and legal system that has regulated the action or action of human relations with the environment. The Balinese society is still practicing values and norms of behavior of *pelemahan* in life everyday continuously. This condition indicates the continuity of the behavior of *palemahan* since the past, so it can be said *palemahan* still exist in Balinese society. Local wisdom in managing bamboo forests is formed through a long process of knowledge of values and norms that evolved within society

3.2 Do Not Trash in Lake Toba

The Batak Toba community is forbidden to pronounce harsh words (language that is not polite) and also should not throw garbage in the lake because the lake guard can be angry. If it violates the ban then the waves become malignant and will sink the ship and can cause casualties and crop failure (plants attacked by pests). But the end of this wisdom has begun to disappear from the community around Lake Toba. Indeed in this study was not examined the extent to which community involvement in the conservation of Lake ecosystems

as performed by Rahadiani *et al.* (2014). But people around Lake Toba have started to abandon this rule.

3.3 Hahomion Horja Bius Ritual

Hahomion horja bius rituals performed to give offerings to ancestral spirits. The spirit of the ancestors in the lake is the Grandfather (*Opung*) guard lake. The ceremony at the lake is the embodiment of the harmonization of man with nature. Nature is believed to be inhabited by humans, animals and plants as well as a place of supernatural beings. These creatures can bring good and evil to humans. It is on this awareness that man makes a ceremony to ask for salvation, respect and thanks to supernatural beings which for the people around Lake Toba called "*Lake Watchers*". This tradition is routinely performed by people in the village around Lake Toba. This is almost the same as the local wisdom of the Kaili community, which is one of the tribes that inhabit the region of Sulawesi Tengah also has a set of local knowledge which is a pattern of Kaili culture that they embody in everyday life such as on forest conservation, waters of Lake Lindu, abstinence or *pemali* in speech, and other traditional ceremonies (Saleh, 2013).

But that was before, when the ancestral religion called Parmalim still held by the Batak community around Lake Toba. Along with the entry of Protestant Christianity, the widespread tradition in Parmalim's beliefs is becoming obsolete. The purpose of *Hahomion horja bius*'s ritual to invoke the spirit and the power of supernatural forces to monitor the lives of the people and to ask God (*Mulajadi Na Bolon*) to always maintain, bring prosperity, and peace of life. *Horjabius* traditional ceremony is done to just remember the rituals performed ancestors Batak Toba earlier and besides that they want to preserve their own culture that is also useful to attract tourists Batak region. They believe that if they give this offer to grandfather (*opung*) the lake guard, the grandfather (*opung*) will give them blessing. With this trust they will keep the lake clean because they are afraid of the guardian (*opung*) of the lake.

3.4 Lake Toba as the Source of the People's Economy

3.4.1 Fishermen in Harian Sub District

Several species of fish that are in Lake Toba such as Mujair fish (*Oreochromis mossambicus*), Goldfish

(*Cyprinus carpio*), Batak fish (*neolissochillus Thienamanni sumatranus*), pora-pora fish (*Mystacoleuseus padangensis*), Tilapia (*Oreochromis niloticus*) and now lobster (*Nephropidae*). People around Lake Toba use it to be caught and sold or consumed by themselves.

Fishermen in Lake Toba usually put the net at night and let until morning, in the morning then nets lifted. In addition to fishing with the net, the community also cultivate fish with floating net cages.

In Harian sub district, there are only 2 units of floating net cages, because the cost is expensive. Fish feed that is used using natural materials and environmentally friendly is corn that is boiled. This makes water pollution less than other areas that use pellets from the factory to feed the fish. How to make the feed is corn boiled and the corn is separated with the stem, then given to the fish They use corn because they already know the impact that pellets use, and corn is very easy to get them because in the Harian Sub district many corn farmers. The type of corn used for fish feed is corn which is small and only exist in Samosir.

Other economic activities related to Lake Toba ecosystem is water hyacinth processing. Lake Toba is filled with water hyacinth, a natural resource that to do the craft business. Water hyacinth grown in Lake Toba is utilized by the community and converted into handicraft products worth selling ie souvenirs such as handbags, hats, bottles, pens, flower vases, doormats, tablecloths and other handicraft products. Further economic activities undertaken by the community is making Lake Toba Tourism Area in Harian Sub District such as Holbung Hill and Tele Tower. Dolok Holbung is in the village of Janji Martahan. Road to the peak has been made local residents in the form of paths and harmless. The view from this hill can see Lake Toba, the hills around Lake Toba, and also the village residents. The hill is still managed by the local community. Every day youth clean up the garbage in the Holbung Hill that left by the visitors. Dolok Holbung is a new tourist destination in the Harian. The hill is still newly known citizens and the first person who introduced the hill not the local community but the young nature lovers. This hill is called the hill of love because if seen from the hill of Lake Toba will look like to form the heart. But now after the agreement between the locals with the village head, the hill is called "Dolok Holbung".

Next is Tele's Tower. Tele Tower is built on the side of the road Tele-Samosir. Tele Tower is a tower whose height consists of three levels and each

level has a different visibility. From the top of the tower will see the panorama of Lake Toba and its surroundings from a distance and some of Samosir Island land is clearly visible from this tower. On the left side there is the legendary Pusuk Buhit Mountain and from the right side, will see the towering mountain range and the people's house at the foot of the mountain and from the height of the tower looks blue Lake Toba. Not only enjoy the scenery here, visitors can also capture the moment by taking pictures because it has been provided where the words "Menara Pandang Tele" with a writing like writing "Google" to attract tourists to take pictures.

3.4.2 Lake Toba as a Non-economic Resources

One function of Lake Toba that does not support the economy is as a clean water supply. Water Lake Toba can be used to meet daily needs such as drinking water source, bathing, washing. Despite the long drought, but the water supply in the lake seemed endless. In addition, Lake Toba water is also used as a irrigation. The Harian community uses lake water as a means of irrigation to meet the water needs of their farms and plantations, especially during the dry season. This will help farms and plantations continue to produce harvests despite drought, which will help to keep the welfare of the surrounding community. This is in accordance with research conducted by Siswadi *et al.* (2011) which states that water is the most essential natural thing for life. According to Siswadi in his research in Purwogondo village there is knowledge, values, ethics and morals, and norms in the form of suggestions, prohibitions, and sanctions, and the phrases used as guidelines of attitude and behavior of the community in maintaining, and preserving the water sources in Tuk Serco, Purwogondo village, Boja subdistrict, Kendal district, Central Java.

3.4.3 Clean Friday (Gotong Royong)

Gotong royong is doing work together with the same purpose and goals. *Gotong royong* is meant here is maintaining the cleanliness of the surrounding environment. Working together will make it easier for workers and to be completed faster and the desired goals are achieved. The neighborhoods in the Harian sub district are very clean, no trash on the streets, neat house buildings, and there are clear directions. When compared with other sub district, Harian is the cleanest in Samosir regency. Harian community once a week doing *gotong royong* to

clean every village. *Gotong royong* is the policy of the Sub-district Chief, called Friday clean, because only every Friday only. This clean Friday is done by rotating villages. Friday clean starts at 08.00 am. Before starting the activity on Friday clean there is gymnastics morning at the office of Sub district chief and in schools at 06.00 - 08.00 am. After doing gymnastics then do the cleaning activities in the village and around the lake until 10:00 am, but if at 10:00 is still not finished the work continues until completed. This Friday clean activity is directly monitored by the sub-district chief so that it is well coordinated. The existence of *gotong royong* behavior to maintain the cleanliness of the village in Harian shows that the local wisdom is the values that regulate life together between living creatures in a level of mutual need, interdependent, mutually related and mutually develop so that there is a unity and harmonious life togetherness. Man must be able to adapt to the environment in which he lives and develops (Mateus Mali in Sunarko and Eddy Kristiyanto, 2008: 139).

4 CONCLUSION

1. Traditional wisdom in maintaining the ecosystem of Lake Toba such as, keeping the forest, banned waste, and *hahomion horja bius ritual*.
2. Local wisdom and traditional wisdom have an important role in maintaining the ecosystem of Lake Toba.
3. Community knowledge is still being done and some are not done anymore. Local wisdom and traditional wisdom that is still done such as, prohibited disposing of garbage, use of environmentally friendly fish feed, and Friday clean (*gotong royong*). While that is not done anymore like guarding the forest and *hahomion horja bius ritual*, due to the entry of new beliefs that conflict with that knowledge.

5 SUGGESTION

Local wisdom should be maintained and developed, by providing understanding to the young generation that the importance of knowledge about protecting the nature and ecosystem of Lake Toba.

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