

Traditional Ecology Knowledge of To-Cerekang Community and Their Ability to Adapt Changes

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Abstract. This paper is to promote traditional ecological knowledge of To-Cerekang community in Malili District, East Luwu Regency, South Sulawesi Province. It means to pay attention to this object since in the current scientific and technological development, the To-Cerekang community is still practicing their traditional knowledge in maintaining and caring their river and forest ecosystems. The mythical thoughts still have a strong influence on how they perceive nature. They are still consistent with efforts to protect nature in modern ways, such as through conservation and advocacy models. The traditional ecological knowledge possessed by the To-Cerekang community in protecting forest and river ecosystems can be manifested in several forms. First, they determine ten points as sacred areas around the forests, mountains, plains, and rivers. The roles of customary stakeholders (the so-called puaq and their assistants) who hand the customary rules are very important determinant in protecting this sacred area. Second, the existence of this sacred area is also supported by the inner myth that lives in the community about the presence of To-Manurung (God descended from heaven) on the hill of Pingsimoni, as well as myths of ancestral spirits, white crocodiles, and others who have power "forcing" members of the community to obey customary rules, and third, this community builds the principle of solidarity and a simple life that is meant to help each other and not be greedy. These traditional forms of ecological knowledge aim to make humans stand to live side by side with nature in a sustainable manner. Even though, their awareness is still strong in influencing their worldview and behavior, To-Cerekang community remain open to change. They adapt to the demands of the situation by updating institutions to advocate for policies. This shows that this community, like the Bugis-Makassar people in South Sulawesi, has a high adaptability, "always changing yet always the same".

Keywords traditional ecology knowledge, sacred area, To-Cerekang, myth, conservation, advocacy model

1 Introduction

In Malili Subdistrict, East Luwu Regency, there is a settlement called Cerekang, inhabited by a small community of Bugis speakers who are often called the To-Cerekang community. This small community lives in the heart of the Mori language-speaking community. Pelras called this small community Tossu or To Ussu (Ussu people) or To Cerekang. When conducting research in the 1980s, Pelras [1] mentioned the number of To-Cerekang networks as many as 40 families. However, 30 years later, the number of these communities continued to increase to

1,019 families [2], and they inhabit one of the hamlets or villages in Manurung Village [3] which extends along the main road between Wotu District and the capital city of Malili District.

In the past, the Cerekang area was under the control of the Luwu kingdom. This area is referred to in the lontaraq Bugis as a village that occupies the coast of Bone [4]. This indicates that Cerekang in the past was an important ancient settlement in the Gulf of Bone area. Indeed, a number of experts, including Bulbeck et al [5] state that Luwu emerged in the Cerekang area in the 12th to 13th centuries when Bugis immigrants occupied the stretch of the Cerekang coastal plain, and took over long-distance trade with iron and nickel ore products and other products from Lake Matano.

The To-Cerekang community is considered to have environmental wisdom because they have commitment, knowledge and traditions in protecting their forest from various logging and/or other exploration activities. Until now, the To-Cerekang community maintains 10 sacred forests that cannot be visited by the general public and the trees in the forest cannot be felled. This community also has traditional stakeholders whose function is to maintain the harmony of community life, protect the environment, and lead rituals or all forms of activities related to God, the creator of nature.

Their customary leader is called puaq. In carrying out its duties, puaq is assisted by ulu (representative puaq), pangulu (community implementer), salangka (pangulu assistant), and aje (external relations). One of the forests mentioned above is the sacred hill of Pengsimoni, believed by the To-Cerekang community to be the place where Batara Guru descended from the sky [1]. The event of Batara Guru's descent is told in the mythical La Galigo episode of Mula Tau. The commitment of the To-Cerekang community in protecting their forest ecosystem is inseparable from the existence of the Tomanurung myth.

To-Cerekang customary institution is very strategic in overseeing the implementation of forest ecosystem conservation policies. Customary stakeholders will be more freely to transform myths into current ecological wisdom and knowledge. The problem is that the understanding of myths as limited as belief (dogma) will hinder the transformation and ecological knowledge. For example, the prohibition of entering forests and other sacred places, it means blocking access for other parties interested in developing natural science, biology, archeology, and the use of biological diversity for medicine and cultivation.

This situation becomes a dilemma, when the protection of local wisdom management areas is not supported by customary institutional infrastructure. The absence of puaq from adat leadership might make risks the loss of the rites. Without the ritual, the To-Cerekang indigenous people will lose their symbolic culture, namely their belief in the values of wisdom in maintaining the balance of nature.

Based on these problems, the authors will describe and analyze two subjects as follows:

(1) What are the dimensions of wisdom in the To-Cerekang community related to knowledge about conservation and management of forest and river ecosystems?

(2) How does the To-Cerekang community strategy adapt its traditional wisdom and knowledge in an actual way?

The main reference used in this paper is the concept of traditional ecological knowledge proposed by Berkes [6]. According to Berkes, traditional ecological knowledge representing experiences that have been practiced by indigenous peoples for thousands of years, especially in agriculture, pharmacy and botany [6]. However, the study of local wisdom as ecological (science) knowledge is relatively new. Around 1980s, scientists began to study local wisdom as alternative knowledge in the fields of pharmacology, ethnobotany, biology, and agriculture. This traditional ecological knowledge includes the arrangement of customary management

areas, customary rules, rituals, traditional leadership, and the use of natural resources for daily needs [7], [8], [9].

Again, Berkes formulates his understanding of local wisdom in two general characteristics: First, local wisdom is a collection of cumulative knowledge and beliefs, which are passed down from generation to generation through cultural transmission [10], regarding relationships among living beings, including humans and their environment [8]. Second, Traditional Ecological Knowledge (TEK) is an attribute of a non-industrial, tribal society with historical continuity in resource use practices. Houde [9] creates a model description of local wisdom by documenting six aspects of the traditional ecological knowledge of indigenous peoples, namely; Factual Observation, Management System, Past and Current Uses, Ethics and Values, Identity and Cultures, and Cosmology.

2 Research Methods

The type of this research is descriptive qualitative. This paper is to promote traditional ecological knowledge of To-Cerekang community in Malili District, East Luwu Regency, South Sulawesi Province. Research data sources are To-Cerekang community in Malili District, East Luwu Regency, South Sulawesi Province. The data analysis is conducted in a qualitative descriptive and interpretative way. The obtained data is classified in such a way then interpreted and analyzed comprehensively. Data collection techniques using interview, observation, and document study techniques. Data analysis techniques in the research were using interactive analysis, namely the interaction of data reduction, data display and conclusion/verification.

3 Results and Discussion

Actual Conditions of the To-Cerekang Community

The daily life of the To-Cerekang community is like most residents of Manurung Village. Not impressed as an indigenous people. They dress, work, and interact like the local villagers. They are farmers, fishermen / ponds, and formal workers. Their household life is decorated with television, refrigerator, rice heater, chairs and dining table, and other furniture. They are accustomed to using android cellphones to communicate online and socialize with other citizens from various backgrounds. Some of Cerekang's educated youth became village government officials, administrators of social organizations, teachers, employees and civil servants.

Prior to 1930, the To Cerekang settlement was further downstream. Bulbeck [11], an Australian National University researcher who entered the "sacred forest" area of Pinsimaoni in 1995, noted that the Poloe site area has evidence of human habitation in the seventeenth to nineteenth centuries. The main find at Poloe was *balubu*, a 'large ceramic jar' for burials.

Management of Customary Areas

Local wisdom includes knowledge of indigenous peoples about land use management. Cerekang people divide the land into four main areas, namely, forests, settlements, cemeteries, and agricultural and plantation cultivation lands, aquaculture, and nipah and mangrove habitats. Outside the sacred areas, other areas are used adaptively, following development demands. The To-Cerekang community ecosystem consists of forests, gardens, fields, yards, ponds and rice fields. Customary forest areas are located on the left and right of rivers and settlements. Based

on the Regent's Decree Number 258/2019, the area of customary forest is 3,715.39 hectares, which is divided into; (a) The location for the implementation of the traditional ritual protected by To-Cerekeng (*pangngale adeq*) covering an area of 694.08 hectares; (b) Non-customary (*forestpangagale*) covering an area of 3,021.31 hectares. Three main areas are sacred.

First, the forest area (*pangngale*) which consists of; (a) customary forest or (*pangngale adeq*) and ordinary forest (*pangngale*). Customary forest is a conservation and preservation area that is sacred because it contains sites and is the place for the To-Cerekang ritual; (b) Ordinary forest is timber and non-timber forest that may be owned, utilized or converted into cultivation land. Second, the burial area *Kasosoe*. This area is divided into three different sections according to the descent and social status of the Cerekang indigenous people, namely: (1) the tomb *puaq*; (2) graves of *wija puaq* or family and descendants of *puaq*; (3) graves of ordinary people (common).

Especially for the graves of the *puaqs*, they only use wooden headstone as a marker. Third, the old residential area (*Berue*). The Cerekang people also call it the 'forbidden land' because it is believed to be the place where their ancestors resided. Archaeologists such as Bulbeck [5] [11] consider *Berue* and *Statue* as the toponym for research. Fourth, the cultivation area is directly related to the livelihoods of the To Cerekang community, so that it is located close to new settlements.

History of Local Wisdom

The historical entity of To-Cerekang is related to stories about the origins of humans on earth. As the origin of the word, Cerekang or *Cerekeng* comes from the Bugis word *cerreq*, which means "poured out". The definition of *cerreq* refers to the myth of the creation of the first man from the sky, namely *Latoge Langi* with the title *Batara Guru*. The process of creation is like pouring water from the sky onto the earth so that rivers, plants, fields, animals, mountains are created as an ecosystem that supports living things (interview with the Chairperson of the Cerekang Traditional Institute, 12 August 2020).

To-Cerekang believes that humans who are alive today are the children of *Batara Guru*. The wisdom inherited by *Batara Guru* is "farming without destroying nature, allowing the eating of animal flesh and fish without causing the animals to perish and without making the water cloudy". Human life is organized according to its function. Farmers have agricultural chiefs, fishermen have retainer. Human morality with its creator is guarded by *puaq* [12].

Ethics and Customary Institutions

The belief system and local wisdom values of the To-Cerekang community were institutionalized by the *puaq* and customary stakeholders. It is assumed that a human figure, *puaq* is the spirit, and the customary holder is the body, which consists of the *ulu* (head), *pangulu* (part of the head), *salangka* (shoulder) and *aje* (leg). *Puaq* becomes a spiritual leader. The customary stakeholders are assistant *puaqs* who carry out the customary rules according to their respective positions.

Ulu serves to represent (voice) the message of a spiritual leader, namely *puaq*. *Pangulu* functions to handle the interests of indigenous peoples in matters of land clearing and the implementation of customary rituals. Another term for the position *pangulu* is *langkai*, which is social affairs. *Salangka* functions to help *Pangulu*'s work in social affairs. *Aje* functions to handle general affairs.

Puaq as the spiritual and ritual leader of the To Cerekang indigenous people. His position, above, is separate from the Cerekang adat stakeholder structure. The *puaq* male represents the human relationship with the creator. *Puaq* women represent relationships with fellow humans.

The Cultural Identity

The To-Cerekang Community belongs to the Bugis ethnic group. The general characteristics that become the identity of the Bugis tribe are Bugis speaking and being Muslim. These two characteristics are important to explain because they relate to the history and origins of the Luwu and Cerekang people as customary law communities who speak Bugis and they are Muslim.

First, the main characteristic of the Bugis people is literate people since the 14th century, namely reading script *Lontaraq* [13]. Therefore, the Bugis people still inherit the La Galigo story orally and in writing. So it is the Cerekang people who claim to be the grandchildren of Batara Guru and Sawerigading. Second, the Luwu Kingdom was a multi-ethnic kingdom [1], and of course multilingual. Some of the ethnic groups that existed at that time included Bugis, Toraja, Torongkong, Bela, Bare-e, Mekongga and Bajo.

Third, based on historical records prior to the 15th century, the Luwu people were a pre-Islamic society. In 1605 was the beginning of the Muslim rulers in South Sulawesi, namely the king of Luwu, La Pattiwara Dg. Parebbung called Sultan Muhammad Wali Muzhir Al-din. The Luwu kingdom centered in Malangke reached its golden peak in the 16th century, and experienced an economic and ecological crisis in the 17th century. The King of Luwu then moved to Palopo and continued trade with the Toraja kingdom [14].

Cosmology

The use of even numbers in the traditional institutional system of the To-Cerekang community is a manifestation of the philosophy of *sulapaq eppa* (Bugis, quadrangle). Apart from being spelled out in terms of the positions and duties of customary holders, this figure also appears spatially and geographically.

First, the customary institution of the To-Cerekang community is led by two men and women. Puaq is assisted by four of his traditional instruments. The number of customary apparatus personnel is ten people, corresponding to the ten locations of the sacred forest of To-Cerekang. Second, spatially, To-Cerekang still prioritizes wooden houses on stilts. Third, the peer, river Cerekang is one of four rivers in Malili sub-district. Dusun Cerekang is one of four hamlets in Manurung village. This even number pattern is symbolic. In the Bugis language the even number touches *genne*, meaning "enough" (no less, no more).

The representation of the Bugis world view is found in the construction of the house on stilts. A house is said to be *genneq* (sukku, complete / perfect) by having a rectangular shape (*sulapaq*), which means having four perfections (*sulapaq eppa*). The meaning of *sulapa 'eppa' wala suji* in the construction of a Bugis stilt house is sacred space; (1) existence of human birth; (2) the existence of human service; (3) human death license [15].

Therefore, the house serves as a place for rituals of birth, marriage and death. For the To-Cerekang community, the *sarungan* tradition is part of the institutionalization of norms in everyday life. First, the sarong is a symbol of Muslims. Apart from functioning as everyday clothing, patterned sarongs are used to select. That is, people who are Cerekang themselves as Muslims are different from other Muslims, who have traditionally used a sarong and songkok. Second, the use of sarongs serves to institutionalize ethics that are owned by customary holders. By using a sarong when meeting customary leaders, it means that someone respects the status and traditional appearance.

Social Transformation

a. The Change of Perspective

In the discussion forum of the Cerekang village apparatus and youth group, the researcher asked a reflective question to the resource person: "If an outsider offered assistance in the form of goods (equipment) or expertise (capacity/knowledge), which would you choose?" Almost all participants prioritize (choose) items over expertise. Their reason is, in the digital era, knowledge and skills are easy to learn. Meanwhile, goods and equipment are not easily available, especially in rural areas. For example, the youth group that is part of the Wija To-Cerekang (WTC) received six sets of diving equipment from the local government without training and instructors.

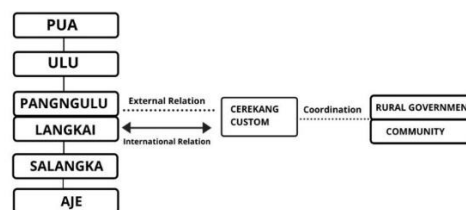
They studied self-taught, went straight to practice, and managed to get a diver certificate for six WTC youths. For the children of To-Cerekang, the family is their first learning space to get to know local wisdom, for example the prohibition of eating bananas, the type of *loka-manurung* (interview with Fiska, a teacher at Cerekang Elementary School, 13 August 2020), as grandmother calls the Cerekang river crocodile [16]. Apart from the family, children understand the To-Cerekang custom from their daily habits and stories and experience witnessing rituals. Children bring their experiences as rules and regulations to school.

b. The Strategies of Change Adaptation

Changing the perspective on working patterns and natural resource management does not automatically change the world view or To-Cerekang's beliefs about sacred forests. This statement was confirmed by Cerekang traditional elders that changes in the economic sector, especially the aquaculture sector, occurred outside the customary forest area (Interview with Irfan Jafar, Head of Manurung Village (7 August 2020), Head of Hamlet, 8 August 2020 and Chair of Cerekang Customary Institution, 12 August 2020). For Cerekang people, as long as the migrants use the land for economic activities outside the customary forest site zone, it is not a violation. Even though there were violations of the location of customary forest rites by migrants, Cerekang customary law only applies to Cerekang people (FGD notes, 8 August 2020 and Baseline report of the Wallacea Association, 2018).

Based on this experience, the indigenous To-Cerekang community developed a change adaptation strategy by strengthening customary institutions and advocating for government policies. Institutional strengthening can mediate internal conflicts that are triggered by changes in perspectives on work patterns, education and religion. The existence of local regulations strengthens the role of To-Cerekang in protecting customary forests and law enforcement.

The Development of a Customary Institutional System for Cerekang in Manurung Village



The description of the To-Cerekang customary institutional system above includes structural and functional relationships. Structurally, the traditional institution of To-Cerekang consists of puaq and ulu, pangngulu, aalangka, and aje customary instruments. Puaq's relationship with customary instruments is internal. There is a functional position in this structure, namely

Langkai, which acts as an intermediary for external party relations with puag under the coordination of customary stakeholders (*pangulu*).

Apart from the customary stakeholder structure, there is the To-Cerekang Traditional Institution, which was formed by community leaders in 2018. This institution is a complement to the traditional transport function of To-Cerekang in Manurung village.

4 Conclusion

The authors consider it important to refer back to Pelras [1] description of the Bugis. One of the societies that according to him is the most complex and very hierarchical of any society in Insulindia (Maritime Southeast Asia). Competition for position or wealth ranks high among their motivations. The coexistence of these conflicting traits makes the Bugis so "mobile", that they are known to be fond of migrating, and have a strong sense of individuality.

Not exactly the same as the description of the survival of the To-Cerekang community as Bugis as described by Pelras, but there is a mentality that stands out and continues to stick with them, namely the persistence of their attitude in maintaining customary rules (*pangaderreng*). Keeping customs means preserving the forest. Preserving the forest means saving the ancestral site of To Cerekang. Local wisdom like this is the main bulwark for indigenous peoples around the world as is done in Tana Toa Kajang, the Karampuang Indigenous People in South Sulawesi, the Baluran indigenous people in Bali, to the Aborigines in New Zealand, the Tsimane tribe in Bolivia, and other tribes.

Based on the results of the analysis of the change in the perspective of the To-Cerekang community, it can be concluded that they have the right strategy, namely; First, in the past five years of leadership stagnation, this community has overcome this by updating a more open and functional customary institutional model with the needs of government and non-government institutions. That way, the point of view changes, but the world view does not or at least has not changed.

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