

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia



**Erna Mena Niman**

Indonesian Catholic University Santu Paulus Ruteng

**ABSTRACT:** In past (ancient) traditional farming communities many rituals were associated with traditional farming activities. Today, in Indonesia most of these practices have been lost due to modernization and mobilization of life. This paper explores the ecological and socio-cultural dimensions of the traditional farming-related cultural ritual barong lodok among the many agricultural rituals in Indonesia. The ritual has relevance to agricultural practices and nature conservation as well as harmonious social practices in community life. This study shows that the traditional Manggarai people of Indonesia have a unique way of managing the natural environment through traditional agriculture, and is different from other Indonesian agricultural cultural rituals. This paper seeks to find out how the barong lodok ritual is practiced among many other agricultural rituals in Indonesia. The barong lodok ritual is performed every year as a way of managing agriculture as well as nature conservation. The purpose of this paper is to explain the traditional agricultural cultural customs involved in traditional farming systems and how they manage their farms while also conserving nature. A qualitative research approach was used in this study. Data collection techniques included in-depth interviews and participatory observation. Ten participants as samples who have knowledge about barong lodok ritual practice. This research is important because it can provide insightful information about the barong lodok ritual in Manggarai Indonesia. This study found that the barong lodok ritual which is a traditional agricultural culture is part of one of the ways of nature conservation through traditional agriculture.

**KEYWORDS:** Barong Lodok Ritual, Eco Cultural, Geography

### INTRODUCTION

Indonesia is an archipelago that is multicultural in terms of ethnicity, religion and culture. Manggarai is one of the tribes in Indonesia, located on the western tip of the Indonesian island of Flores. Geographically, Manggarai is located in the province of East Nusa Tenggara. The north borders the Flores Sea, the south borders the Sawu Sea, while the east borders Ngada Regency and the west borders West Nusa Tenggara Province. Manggarai has a tropical climate with two seasons, namely the rainy season and the summer season, and has sufficient humidity levels, causing the region to be green all year round.

In the midst of globalization that has an impact on social and economic transformation such as the expansion of settlements and agriculture, as well as the expansion of urban spatial planning in Manggarai, most indigenous peoples in Manggarai still try to maintain traditions rich in rituals, folk performances, traditional beliefs and transmit the practice of traditional cultural rituals that are celebrated annually as intangible cultural heritage. UNESCO defines intangible cultural heritage as "popular and traditional cultural expressions with outstanding value from a historical, artistic, ethnological, sociological, anthropological, linguistic or literary point of view" (Nas, 2002). The issue of intangible heritage in the form of cultural rituals in the Manggarai region has a different style from other cultural preservation in Indonesia. In Manggarai, the preservation of traditional culture and "cultural landscape" is an affirmation of regional identity and has the most valuable value, which is reflected in the various rituals performed.

Ritual comes from Latin and means "habit". Leew (1987) provides a definition of ritual as an action performed "either implicitly or explicitly related to "custom" which can be understood as "tradition" and "worship". This definition shows that the term ritual can refer to ceremonial actions and has been established by the traditions of a particular community and applies for a specific purpose. In reality, ritual practice as a way of behavior that is specific and can be observed through rituals. Based on this explanation, ritual is understood as a way to define or describe human symbolic behavior for a specific purpose. Ritual practices can be a powerful way to regulate social responses to environmental pressures (Rubis, 2017). Many ritual practices associated with traditional farming in the past have been linked to their social life. It is unavoidable because it has become part of almost all needs that provide benefits in their lives.

Several previous studies have shown that the use of agricultural rituals is one of the ways traditional communities try to sustain their lives. In Indonesia, Harfila and Sumarlin (2019) explained that the Maccera ritual aims to have sustenance in the harvest and drive away evil spirits that disturb the plants. Manafe (2011) explains the importance of ritual communication in farming culture, that the Atoni Pah Meto farming community has a belief that with farming rituals they will get blessings and experience

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

economic improvement obtained from the Almighty. Community communication with the power that congratulates is a form of interaction that is full of prayers to God or to something that they believe has an influence on their existence personally and on the environment around where they live. Dian Mahendra (2021) found that traditional agricultural activities for the Sasak tribe are not just a livelihood, but also something sacred that relates to the harmonious relationship between humans and all God's creatures. Through lexicons, the Sasak tribe teaches how humans manage good togetherness among fellow creatures of God in achieving a goal, and maintain human relationships with God through the mantras used.

In addition, the same is true abroad. In Cameroon, (Kah, 2016) rituals have the purpose of ensuring food self-sufficiency and poverty reduction among subsistence farmers (Mushita and Thompson, 2013) and have the possibility of improving food security. The rituals are performed to ask for rain and a good harvest, as well as to thank supernatural forces and spirits for the bountiful harvest (Ahidjo, 2012). Abeka et al (2012) that agricultural practices adopted in the face of climate change, such as crop rotation, delaying the growing season, planting old, crops and fertilizing the soil to increase yields, are informed by indigenous knowledge of the environment and traditional rituals. Agricultural rituals and ceremonies in Cameroon are based on indigenous religious beliefs (Kah, 2016) where supernatural forces and spirits are invoked to intervene by providing a good harvest. Prayers and ceremonies are also performed to request ancestral intervention for rain and to show gratitude for a good harvest in Zimbabwe (Manjeru, 2009). Such rituals engender respect for supernatural forces and spirits, strengthen social cohesion and have helped indigenous communities to identify and adapt to climate change hazards (Hiwasaki et al, 2015). Manggarai Indonesia also has unique traditional agricultural rituals. Iswandono, et al (2016) and Kelling (2016) emphasized that various local cultural rituals of the traditional Manggarai community are a medium of communication and a vehicle for the formation of solidarity between people and communities with the natural environment.

In general, these previous studies confirm that most regions in the world have ritual practices that have wisdom, and are upheld as a value that guides life in regulating the behavior of its people. The results of these studies show a close relationship between local ritual practices and environmental conservation. These ritual practices have contributed to saving and preserving the natural environment. Regarding the existence of local cultural rituals, almost all previous researchers found that local cultural wisdom is in an almost extinct condition because it is eroded by the times and technological advances.

Of the various research results, no one has examined traditional agricultural rituals in Manggarai Indonesia. Therefore, this paper aims to explain how the ancestral beliefs of the Manggarai traditional community about the barong lodok ritual in traditional agriculture and its relationship with the ecological dimension.

Research on the barong lodok ritual is very important to be researched because it has a very close relationship with the preservation of the natural environment and ecology. This connection can be used as a source of information and insight into the management of the natural environment. In addition, the barong lodok ritual is a traditional agricultural culture that is different from other agricultural rituals in Indonesia when performed by certain people, at different places and times, and for different purposes.

## METHODOLOGY

The research method used was descriptive qualitative. The data collection techniques used were participatory observation and interviews, and discussions. Observations were made in several traditional kampongs that have the same rituals. This was done as the main approach used to obtain information about barong lodok. The common thread in this methodology is their recognition of the important interrelationship between various elements in the barong lodok ritual.

Information was obtained by conducting in-depth interviews and group discussions with traditional farmers and confirmed with three traditional leaders, namely tua golo, tua teno and tua gendang. The three elders are customary holders as well as experts in traditional farming practices and the barong lodok ritual that is carried out every year. Data was also obtained from Manggarai cultural experts who are academics and work as educators at private universities in Manggarai as well as experts in local culture.

Data collected through focus group discussions and in-depth interviews were used to analyze the ecological and socio-cultural aspects of the traditional barong lodok ritual. The techniques used were in-depth interviews and focus groups.

## RESULTS AND DISCUSSION

### Lodok

Etymologically, Lodok is the center point of a communal or communally owned garden (lingko). Lingko is obtained from the division of customary elders as landowners in one customary area. The acquisition of the garden land is obtained free of charge without buying and selling. This land is used as inherited land for anyone who gets it and can be passed on to children and grandchildren and is not allowed to be traded.

The communal garden division system (lingko) in Manggarai uses the lodok system. Lodok serves as the main center point of the land division size. The result of this division is circular and has a center point and is shaped like a spider web ((Antar: 2010). Each communal garden (lingko) is divided by traditional elders who serve as tua teno. Tua teno is a village official who holds customary rights over all land in the customary territory.

The spider web-like shape of the lingko can be seen in Figure 1 below:

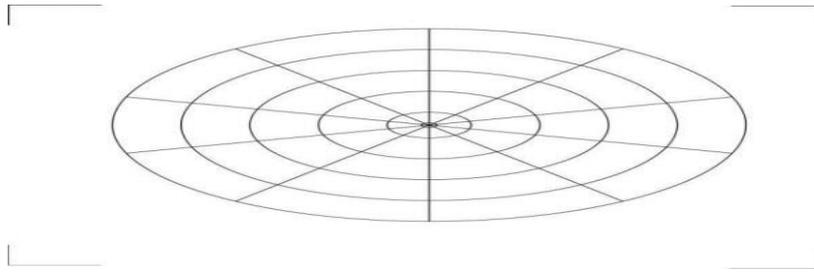


Figure 1. *Spider web (lodok)*

From the picture, there are three main points: 1) a central point called lodok, 2) a circular net, and 3) a conical shape. Physically, the center point (lodok) serves as the starting point for the land division process by planting a teno tree (*Melochia umbellata*) as a marker. Some informants stated that planting the teno tree (*Melochia umbellata*) at the center of the lodok is actually a form of marriage between the supreme being (God) who is associated as a male individual with the earth as a woman. This marriage is interpreted as an effort to breed and procreate or produce many offspring. Offspring in this context are abundant crops, especially those grown in a lingko where the teno is planted. The planting of a teno will produce new seedlings in the form of garden products, trees, and seeds in the area. The teno tree is interpreted as a symbol of fertility, and will produce fertile plants and lots of fruit.

Socio-culturally, lodok functions as a place for cultural rituals, namely barong lodok. Secondly, the circular shape of the net on the lodok has a physical function as a means of bounding cultivated land, while socio-culturally, the net is interpreted as a relationship that is interrelated and bound in unity and harmony, justice and cooperation. The three conical shapes mean that all human life and creatures on earth always lead to the Creator, God.

In the past, the process of dividing communal gardens (lingko) always used five circles. The results of interviews in the field obtained the reasons for using the five circles which have religious, social and ecological meanings. 1) The religious meaning of the shape of the circle, which points to one point, means that every human life is directed to one point, namely God. This shows an awareness that all human life and other contents of the earth belong to God, 2) the social and ecological meaning of the net shape is a symbol of human nature and behavior that is fair and civilized towards fellow humans and fair in utilizing nature, 3) the existence of unity, harmony and harmony in human relations with others and humans with the natural environment, 4) the existence of customary leaders who regulate in consultation to reach consensus, 5) social justice and equality for all villagers who have the right to get the land distribution.

From these five meanings, lodok is a division of land area that has local wisdom values that emphasize the carrying capacity of nature combined with human needs. This can be seen in the philosophy of *gendang one lingko pe'ang*, which means the traditional house inside and the communal garden outside. Both reflect the manifestation of customary power and are an expression of the territorial power of a region. The existence of lodok is a tradition that spans centuries and can be maintained to this day.

Culturally, the Manggarai community adheres to a patriarchal system where men have an important role in obtaining communal land. As the main active user, men play a central role in livelihoods supported by communal land ownership as an inheritance. This position is a form of mastery and claiming their use rights over land from generation to generation which is dominated by men (Frankline A. Ndi, 2018).

### **Barong Lodok Traditional Farming Ritual**

The Manggarai region is ideal for agriculture, supported by climatic conditions with plenty of rain and sunshine. Dryland farming with intercropping systems became the main occupation of traditional communities in Manggarai in ancient times until today. Intercropping is a key element and mainstay of the traditional farming system. The intercropping system aims to multiply food yields, and solve the problem of natural resource degradation or improve the environment (Suwandi et al. 2003). The advantage of intercropping is that in addition to obtaining a harvest frequency of more than once a year, it also serves to maintain soil fertility (Vandermeer 1998).

The advantages of intercropping in several ways have been indicated by different studies. (1) Intercropping is basically one of the farming systems that is small in scope and has a diversity of crops on one dryland. (2) Intercropping in traditional farming systems is very complex and diverse with the aim of meeting multiple objectives simultaneously (Atspha, 2020). Another advantage of the intercropping system is that it can obtain a harvest more than once a year. In addition, it can also help maintain soil fertility in the return of a lot of organic matter, and soil cover by plant canopy becomes more intensive and can prevent soil erosion.

Mixed cropping systems contribute to meeting the needs of traditional farming communities while restoring a diverse range of plant species. Restoration of crop species diversity is an important management strategy to rehabilitate landscapes that have lost much of their vegetation cover (Ormerod 2003). Actions that do not promote the sustainable recovery of ecological processes will threaten the sustainability of crop species diversity (Martínez-Garza and Howe 2003). Therefore, the importance of restoring degraded land must begin with a clear evaluation of the impact of management on plant biodiversity (Ormerod 2003; Ruiz-Jaen and

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

Aide 2005). Traditional ecological knowledge has played an important role in the management and development of ecosystem services (Boafo, et al. 2015).

Traditional agriculture in Manggarai Indonesia is entirely dependent on the weather. This condition makes them have a cautious attitude about the uncertainty of climate conditions. Such uncertainty makes the ancient Manggarai traditional community must start practicing many rituals and prayers offered to the spirits or gods and goddesses who protect the crops, in the hope of getting a good harvest. Harms Matthew S. 2015 asserts that local community groups consisting of sub-tribes with ancestral rights to certain lands are connected through ancestral ties. This is supported by the opinion of Wallbak and Taylor (1994) that primitive man can respond to his environment, which is almost unknown to him by trying to reconcile what he fears. The ancient spirits and gods were vengeful deities who demanded blood sacrifices, and the rules of religious behavior were connoted in a negative form, as something taboo. When man discovered that the harvest from agriculture was falling, he attributed it to the spirits or gods he worshipped.

Barong lodok is seen in the Manggarai region of Indonesia. The barong lodok ritual is one of the agricultural rituals in Manggarai. Lexically, barong means to inform and lodok is a central point in a communal garden area or customary land (lingko). So, lexically, barong lodok means informing the garden, in this case the guardian spirit of the garden. Traditional Manggarai people believe that communal gardens have a guardian spirit that controls the entire plantation area, starting from the central point (lodok) to the outer boundary (cicing). The spirit of lodok is one of the deities that is respected by the Manggarai traditional community. This ritual is performed by traditional people who work as traditional farmers. The traditional Manggarai community in the past considered the barong lodok ritual as a tribute to the god of plants so that he would not be angry, because the community believed that his anger could cause damage to the plants in the garden. So the barong lodok ritual can function as an effort to protect their crops. There is a belief in the community that the spirits that inhabit the lingko (communal garden) will protect nature, especially the lingko area. In this ceremony it is likened to the spirit receiving an invitation as a fellow creation of God or the highest form in the form of the object mentioned above being offered. This is in line with the opinion of Varheijen (1991), Sutarni (2015) and Iswandono (2015) who said that the symbols are offerings or offerings given in the barong lodok rite as an effort of respect (invitation) and residents' hopes for spirits to maintain the balance of physical nature (lodok or garden).

Barong lodok is interpreted by the community as an act of giving thanks to the gods or spirits guarding the garden by inviting them to the peak penti ceremony. The barong lodok ritual is the first stage before other rituals. This is done because of several considerations, namely 1) the geographical condition of the lodok is quite far from the traditional village, 2) philosophically the thanksgiving ceremony for the harvest, so the first thing to do is start from where the harvest is located. In the barong lodok ritual, all those who own land in the communal area called lingko must be present to honor and respect the spirits or gods guarding the garden. The Manggarai traditional farming community has a habit of performing and completing the barong lodok ritual within one day before the peak ceremony at the traditional house. The programs are scheduled in such a way starting from the morning around 08.00 until 13.00 in the afternoon. Family members and elders who participate in the barong lodok ritual are required to attend and they must eat the offering chicken together at the barong lodok place. The obligation to eat together is motivated by the belief that they hold a banquet together with the guardian spirit of the garden or the lodok spirit, as a form of unity, harmony and harmony of human life with nature. Barong lodok is performed at the center point of the communal garden called Lodok. Lodok is used as a place to worship the garden spirit or lodok spirit in the barong lodok ritual.

The implementation of the barong lodok rite is interpreted as a form of respect (invitation) as well as an expression of hope for the spirits waiting for the garden/lodok to be present at the peak of the penti event. In its implementation, several symbols both verbal and non-verbal are used. The symbols in question are betel nut, eggs and cepang chickens (black and golden yellow feathers) and traditional poems that are sung. Traditional leaders and farming communities perform cultural rituals for the fertility of crop seeds to be planted, and to protect crops from pests and wild animal attacks, so that the harvest is good and plentiful. Thus, indigenous knowledge and traditional agricultural ritual practices need to be recognized as an integral part of the climate change adaptation process and enhance the status or role of traditional leaders as catalysts for food security in agriculture in Manggarai Indonesia.

The barong lodok ritual is an annual call for a successful harvest and environmental preservation. This traditional ritual is very authentic and important to improve the harmony of human relations with others and humans with nature. Currently in some groups of Manggarai traditional farming communities it is scheduled and carefully planned by all customary leaders in their groups to perform this ceremony. Warren (1996) explains the indigenous knowledge system obtained through the accumulation of informal experience, by understanding their environment in a particular culture. Culture emphasizes beliefs and values that are deeply rooted in history and tradition. It is the customs of society including language, religion and culture that become the totality of values acquired through socialization and learning.

In the barong lodok ritual, people will deliver verses expressing gratitude for the harvest that has been obtained during the past year, and expressing hopes for a return of the harvest in the coming year. In addition, people will sing songs of praise to the lodok god together. Traditional people believe that if the lodok god is happy with all this, then it is believed that he will give blessings to the crops.

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

### Barong Lodok in Geography Perspective

The *barong lodok* ritual has a meaning of life that has been recognized by the traditional Manggarai farming community. They expect three main things from the spirits or gods of the garden or lodok gods, namely responsibility, protection and a good harvest. These three things give birth to an attitude of surrender in submission, peace and harmony of relations with nature and at the same time it is hoped that nature provides rainwater support and the soil provides fertility to plants, so that traditional farmers can get a good and abundant harvest. Furthermore, it is observed that barong lodok is a ritual that must be performed by all people, especially those who work as farmers, even though in that year they experienced crop failure, they still performed the barong lodok ritual as a form of thanksgiving and hope. This is supported by the concept of geography that studies natural and human phenomena that have interrelationships that produce distinctive spatial variations. Daldjoeni (1997) explains that human decisions in choosing where to live are a form of adaptation to the natural environment and all the cultural elements that exist in it, so that it will form its distinctive characteristics that distinguish it from other regions. In this case, geography seeks to combine aspects of the physical world with human aspects in studying the existence of human life and the surrounding environment that are interrelated.

The barong lodok ritual has an ecological reason, by letting the land rest or be free for some time after the harvest. This can help rejuvenate the soil because August to September is still summer and a chance for people to clean up their gardens, because a little later in October they will replant and the peak of the all-day rainy season will begin in November, December and January of the following year. Geography and culture are intertwined. Culture in the perspective of geography studies the earth and its life that has an influence on the view of life and human efforts in fulfilling life needs. Bonnemaïson (2005) explains that landscape is the imprint of culture and humans create the landscape when they utilize the ecological setting, then it becomes the imprint of a particular culture. The designed cultural landscape has spiritual and religious values attached to the landscape, especially in areas still inhabited by indigenous peoples (Taylor & Lennon, 2011).

The barong lodok ritual shows the ecological awareness that has existed since the ancestors. In traditional agriculture, plants, animals, climate and humans form a unity. This awareness is shown by the importance of respecting and appreciating the natural environment in the barong lodok ritual. Humans are prohibited from destroying nature, but must maintain it as a sustainable heritage (Setiawan, 2018) All this happens because Manggarai develops unique culture, traditions and hereditary rituals (Iswandono, 2015). The involvement of indigenous peoples in the monitoring and protection of nature can protect and restore the function of nature. This is in line with the opinion of Tengo, et al (2014) and Stenekes, et al (2020) that the involvement of traditional ecological knowledge of indigenous peoples can provide estimates of conditions and understand changes and problems in the natural environment that can cause cause-and-effect relationships.

Lodok with a shape like a spider web that is intertwined and conical at one point. This is reflected in the philosophy of the traditional Maggarai people that the earth is like a spider web that is round and has a circle and cones. This philosophy contains social, ecological and religious meanings. These socio-cultural elements are part of the environment created by humans to form a system of values, ideas and beliefs in behavior as social beings in an effort to achieve order that is recognized and adhered to by community members. Human activities are influenced by environmental factors that distinguish them from other regions. This is related to the variation of regional resources that have different characteristics both in quality and quantity (Yunus, 2010). It is considered that geographical and social spaces are symbolically transformed into meaningful places through the process of human interaction with the environment across time (Thompson & Cantril, 2013). In geography, the interaction is a human-oriented study, characterized by humans who have taste, karsa, work and creation and based on awareness and intellectual intelligence (intellectual awareness and intellectual intelligence) and awareness and spiritual intelligence (spiritual awareness and spiritual intelligence), Yunus (2010).

Based on the data obtained in the field, it was found that the social meaning of lodok is that humans have attachment and dependence on each other as in one family, if one family member is sick it will affect other family members. In addition, the ecological function of lodok is that humans and the natural environment have a close relationship and are interdependent, if nature is damaged it will affect human life such as lack of water to fulfill daily needs and irrigation. This is in accordance with the opinion of Thompson & Cantrill (2013) that geographical and social spaces are symbolically transformed into meaningful places through the process of human interaction across time.

Public awareness of the benefits of nature can contribute to the well-being of human life as well as being a common ground for understanding environmental functions and values (Lyver, P.o. B. et al (2017). Thus, humans need to maintain their behavior in managing nature, such as caring for and preserving nature, not destroying nature. The relationship between geography and culture is characterized by the way humans interact with nature, others and their works and thoughts. The study of cultural geography is human spatiality, namely occupation, social activities and cultural behavior. Cultural geography places humans at the center of human geographic knowledge, with their beliefs, motivations and life experiences (Bonnemaïson, 2005). Geography and culture are meant to be human sciences with a specialized approach to people's lives.

Furthermore, the meaning of the religiosity of lodok is that all human life and other creatures on earth will be directed and dependent on God. This perspective is inseparable from the view that God is the owner of everything on earth, so humans must submit to Him. Traditional beliefs are very concrete and practical. It is done not only to interpret life but also to obtain things that

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

are considered necessary and recognized (Iyer, 1993). Barong lodok rituals can be understood as part of traditional rituals that are used when people begin to settle and move as a way of life. Thus in many other traditional community ritual practices, the barong lodok ritual has also been formed over centuries and is still used today by the traditional farming communities of Manggarai Indonesia.

Cultural beliefs in the barong lodok ritual show an attitude as a community that is realized by an inseparable relationship and becomes a unity in the pattern of human interaction with nature. This relationship is a manifestation of the philosophy of *lingko peang gendang one*, which means the garden outside and the people who inhabit the traditional village symbolized by the traditional house inside. This reflects a social context that is closely related to the use of the barong lodok ritual, which is believed by traditional communities to be a sacred place, as a medium for human communication with nature, and as a source of food supply to support life. Based on this, in the view of the Manggarai traditional community, lodok as a place for the barong lodok ritual needs to be preserved, respected and appreciated. This is supported by the opinions of Spotwood and Tap (2013) and Noyes (2009) who assert that culture influences human behavior, so tradition is considered a temporal ideology and communal property. Noyes explains that as a temporal ideology, tradition preserves social and political values, while as communal property it recognizes the institutionalization, and packaging of 'tradition' for deterritorializing ideas or practices.

The act of preserving, appreciating and respecting lodok is part of non-anthropocentrism. The barong lodok ritual means that humans are only one element of nature. Therefore, Manggarai traditional farming communities must have an awareness of their dependence on nature. Humans are only a part of nature and do not have a more special position than other parts (Keraf, 2010). The role of traditional ecological knowledge can support ecosystem management (Boafa, at all, 2015).

## CONCLUSION

The practice of barong lodok rituals has influenced the environmental management system through traditional agriculture. The existence of traditional agricultural rituals can be a powerful way to organize social responses to environmental pressures. This ritual becomes an intercropping system that has an effect on the sustainability of the diversity of plant varieties that have an impact on conservation and sustainable management. The research findings found that cropping patterns shifted from traditional staple crops (dryland rice, beans, maize, tubers) to crops dominated by paddy fields, perennial crops such as (coffee, cloves, candlenuts, cacao) and only a few traditional staple crops. In addition, the agricultural cropping system is mixed cropping, i.e. there are different types of crops on the same land. The author argues that this transition has implications for food security, social life and climate change adaptation. However, despite the transition in the types and patterns of cropping systems, traditional agricultural communities still maintain traditional agricultural cultural rituals, namely barong lodok.

The cultural belief in the barong lodok ritual also reflects the existence of a unified relationship in human interaction with nature as a community. This relationship is inseparable in the formation of traditional villages as a manifestation of the philosophy of *lingko peang gendang one*, meaning the garden outside and the traditional house inside. This reflects the existence of a social context that is closely related to the use of the barong lodok ritual, which the traditional community believes to be a sacred place, as a medium for human communication with nature, and as a source of food providers to support life. Based on this, in the view of the Manggarai traditional community, lodok as a place for the barong lodok ritual needs to be maintained, respected and appreciated.

## REFERENCES

- 1) Abeka, S., Anwer, S., Huamaní, R.B., Bhatt, V., Bii, S., Muasya, B.P. et al., 2012, 'Women farmers adapting to climate change: Four examples from three continents of women's use of local knowledge in climate change adaptation', *Dialogue*, 9( 8), 8–51.
- 2) Antar, Y., Kosasih, V., Ayodyantoro, P. K (2010). *Message from Wae Rebo. Rebirth of Archipelago Architecture, A Lesson from the Past for the Future*. Jakarta: Gramedia.
- 3) Atsbha Tesfay, Wayu Solomon, Gebretsadkan Nguse, Giday Tsgehiwet and Gebremariam Tesfay .2020. Enclosure land management for restoration of herbaceous species in degraded communal grazing lands in Southern Tigray . *Ecosystem Health and Sustainability*, ( 6) 1, 1-11.
- 4) Boafo. Y.A, Saito. Osamu, Kato. S, Kamiyama. C. The role of traditional ecological knowledge in ecosystem services management: the case of four rural communities in Northern Ghana. 2015. *International Journal of Biodiversity Science, Ecosystem Services & Management*, (12) 1, 1-15
- 5) Bonnemaison. J. 2005. *Culture and Space: Conceiving a new cultural geography*. Edited by Chantal Blanc-Pamard, Maud Lasseur and Christel Thibault. Translated by Josée Pénot-Demetry ISBN 186064 908 4 pbk ISBN 1 8064 907 6 hbk. I.B Tauris. London. New York
- 6) Daldjoeni .1997. Introduction to Geography: for Students and School Teachers. Bandung: Alumi
- 7) Frankline A. Ndi, 2018. Land grabbing, gender and access to land: implications for local food production and rural livelihoods in Nguti sub-division, South West Cameroon. *Canadian Journal of African Studies / Revue canadienne des études africaines*, (53)1, 31-54

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

- 8) Harfila, M. Sumarlin, S. 2019 Maccera Darame Ritual in Traditional Farming System as Local Wisdom of Bugis People in Tombekuku Village, Basala Sub-district, South Konawe Regency. *Kabanti: Journal of Anthropological Relatives..* (3) 2, 97-108
- 9) Harms, Matthew S. (2015). *Assertions of cultural autonomy: indigenous Maori knowledge in New Zealand's community-based Maungatautari Eco-island project. Global Bioethics*, 26(2), 145–158.
- 10) Hiwasaki, L.; Luna, E.; Syamsidik dan Marça, J.A. 2015. Local and indigenous knowledge on climate-related hazards of coastal and small island communities in Southeast Asia. *Climatic Change* (128)35–56
- 11) Iswandono, E., Zuhud, Ervival. A.M., Hikmat Ag., Kosmaryandi, Nandi, W, dan Lukas. R. 2016. Traditional land practice and forest conservation: Case study of the Manggarai tribe In Ruteng Mountains, Indonesia. *International Journal of Indonesian Society and Culture*. 8 (2), 257-266
- 12) Kelling, G. (2016). The Cultural Wisdom of Traditional Community In Wae Rebo Village, Manggarai, East Nusa Tenggara. *Journal of Historical Research and Traditional Values*, 23(1), 51-62.
- 13) Keraf, A.S. 2010. *Environmental Ethics*. Jakarta: Buku Kompas
- 14) Leeuw, TMJ 1987. *Communal Knowledge and Religious Reality*. Amsterdam: Radopi.
- 15) Iyer, Krishna L.A. 1936. The Primitive Culture of Travancore. *Proceedings of the Indian Academy of Sciences*, (IV) 6, 435-450
- 16) Lyver, P. O'. B.; Timoti, P.; Jones, C. J.; Richardson, S. J.; Tahiri, B. L.; Greenhalgh, S. (2017). *An indigenous community-based monitoring system for assessing forest health in New Zealand. Biodiversity and Conservation*, (26)3183–3212,
- 17) Mahendra, Dian. 2021. Traditional Agricultural Lexicon of Sasak Tribe in Lombok Island: An Ethnolinguistic Study. *Journal of Historical and Cultural Research* (7)2, 173-202.
- 18) Manafe, Yerima Djefri. 2011. Ritual Communication in Atoni Pah Meto Farming Culture in Timor-East Nusa Tenggara. *Journal of Communication*, (1)3, 287-298
- 19) Ndlovu, C, Manjeru, L. 2014. The influence of Rituals and Taboos on Sustainable wetlands Management: The Case of Matabo District in Matabeleland South Province.
- 20) Martínez- Garza, C., and H. F. Howe. 2003. "Restoring tropical diversity: beating the time tax on species loss." *Journal of Applied Ecology* 40 (3): 423–429.
- 21) Mushita, A. Thompson, C. 2013. At Issue: More Ominous Than Climate Change?
- 22) Global Policy Threats to African Food Production. *African Studies Quarterly*, (13) 4, 1-25
- 23) Nas, Peter J.M. (2002) Masterpieces of oral and intangible culture: Reflections on the UNESCO World Heritage List. *Current Anthropology* 43(1), 139–43.
- 24) Noyes, (2009). 'Tradition: Three Traditions', *Journal of Folklore Research*, (36) 3, 233–68.
- 25) Ormerod, S. J. 2003. "Restoration in applied ecology: editor's introduction." *Journal of Applied Ecology* 40 (1): 44–50.
- 26) Rubis, June Mary (2017). Ritual revitalisation as adaptation to environmental stress: skull-blessing in Bidayuh communities of Borneo, *Third World Thematics: A TWQ Journal*, (2)3, 356-375,
- 27) Ruiz-Jaen, M. C., and T. M. Aide. 2005. "Restoration success: how is it being measured?." *Restoration Ecology* 13 (3): 569–577.
- 28) Setiawan, A. Y. (2018). Cultural Interaction Values of the Community Around Bumi Alit Batukarut Bandung Regency. *Geoarea Journal of Geography*, (1) 1, 8–14.
- 29) Stenekes, Sydney,; Parlee, Brenda,; Seixas, Cristiana. 2020. Culturally Driven Monitoring: The Importance of Traditional Ecological Knowledge Indicators in Understanding Aquatic Ecosystem Change in the Northwest Territories' Dehch Region. *Sustainability*, (12), 2-19
- 30) Suwandi R, Rosliani N, Sumarni, Setiawati W. 2003. Crop Interactions in Tomato and Chili Intercropping Systems in the Highlands. *Journal of Horticulture*. 13(4): 244–250.
- 31) Taylor, K dan Lennon, J. 2011. Cultural Landscapes: A Bridge between Culture and Nature. *International Journal of Heritage Studies* 17 (6), 537-554
- 32) Tengö M, Brondizio ES, Elmqvist T, Malmer P, Spierenburg M (2014) Connecting diverse knowledge systems for enhanced ecosystem governance: the multiple evidence base approach. *Ambio* (43) 579- 591
- 33) Thompson, J. L. & Cantrill, J. G. 2013. The Symbolic Transformation of Space. *Environmental Communication*. 7 (1)
- 34) Verheijen J.A. J. 1991. Manggarai and the Supreme Being. *LIPI.RULL*
- 35) Vandermeer J. 1998. Maximizing Crop Yield in Alley Crops. *Agroforestry Systems*.
- 36) Wallbank Walter T, Taylor Alastair M 1949. Civilization – Past and Present. Vol. I *Chicago: Scott, Foresman and Company*
- 37) Warren, D.M., L.J. Slikkerveer and D. Brokensha (eds). (1995). *The Cultural Dimensions of Development: Indigenous Knowledge Systems*. London: Intermediate Technology Publications

## Eco-Cultural Analysis on Barong Lodok, Manggarai Indonesia

- 38) Yaw Agyeman, Osamu Saito , Sadahisa Kato , Chiho Kamiyama, Kazuhiko Takeuchi and Miri Nakahara .2015. The role of traditional ecological knowledge in ecosystem services management: the case of four rural communities in Northern Ghana. *International Journal Of Biodiversity Science, Ecosystem Services & Management*, (12) 1, 1-15
- 39) Yunus, H. S. 2010. *Contemporary Regional Research Methodology*. Jogjakarta: Pustaka Pelajar



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.