



Rules and Local Traditions: Forest Conservation by the Indigenous People in North Luwu Regency

Nardy Noerman Najib^{1*}, Maria², Luthfi Hanindityasari¹, Dinda Sari²

¹Badan Riset dan Inovasi Nasional, Indonesia

²Universitas Andi Djemma, Indonesia

ARTICLE INFO

Article history:

Received February 26, 2024

Revised May 15, 2024

Accepted June 03, 2024

Available online August 31, 2024

Keywords:

Indigenous *To Limola*; Local Wisdom;
Forest Preservation



This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.
Copyright © 2024 by Author. Published by Universitas
Pendidikan Ganesha.

ABSTRACT

Sassa Village is one of the villages closest to the forest area, and it has a relationship between the community and the forest. Around the Sassa protected forest are local communities, namely the To Limola indigenous people, in Sassa hamlet and Makumpa hamlet. The indigenous people of To Limola still uphold the beliefs of customs that are still strong. The main objective of this study is to identify the form of local wisdom of the To Limola indigenous people in the use of timber and non-timber forest products (NTFPs). The method used is Snowball Sampling, whose informant data includes the To Limola Indigenous people who live around the Sassa Protected Forest area, especially in Sassa Hamlet and Makumpa Hamlet. The respondents consisted of 20 people. The community's local wisdom consists of norms, customary laws, and punishments for managing forest resources, and the To Limola customary institution's structure comprises the gathered data. The native inhabitants of To Limola are fully aware of the need to preserve and

safeguard forest regions, particularly those that are indigenous and protected. Using wood forest products for fuel and medicinal purposes is one way. In addition, the community manages and uses non-timber forest products (NTFPs), which include fruit, honey, bamboo, rattan, palm, and turmeric. The indigenous To Limola people also follow customs about social institutions while using forest resources. Examples of these customs include prohibiting burning wasps in forested areas, cutting down bamboo shoots, and gathering bamboo shoots in forested areas designated as protected forests. Limola traditional leaders are very strict about local cultural values because there are many traditional norms regarding conservation obligations in maintaining the forest. These rules are mandatory and must never be violated within the custom scope. For the Limola indigenous people, forests have a vital role in life. If the forest continues to be protected, it will not damage people's lives, but the forest will serve its contents well for human needs.

1. INTRODUCTION

According to Law 41 of 1999's Article 1 Paragraph 8, a protected forest is a forest area whose principal purpose is to support life by regulating water management, preventing flooding, controlling erosion, preventing saltwater intrusion, and maintaining soil fertility. Riyanto and Pahlana (2012) argue that protected forests are forest areas that, due to their natural nature, are needed, among others, to protect life support systems, namely hydrological processes, soil fertilization processes, biodiversity processes, environmental health processes, and other benefits. Protected forest areas can be within production forests, community forests, customary forests, and areas bordering people's settlements. Limited land owned by communities around protected forests will result in the condition of the surrounding forests.

People around the forest will depend on the forest around their settlement to meet their increasing life needs. Forests benefit the environment by manipulating microclimates and affecting the quality of life (Vujic & Tomicevic-Dubljevic, 2018). Preserving forested regions and their constituents can aid in averting landslides and optimizing the availability of water supplies (Sumarmi, 2015). However, without proper management, this is a threat to the existence and sustainability of the forest. Of course, the community around the forest has its way of maintaining and managing the forest around them with local wisdom inherited by their ancestors, which now is still maintained (Senoaji, 2011).

*Corresponding author

E-mail addresses: nardy.noerman.najib@brin.go.id

Ariyanto, Rachman, and Toknok (2014) The definition of local wisdom was disclosed as a type of information, conviction, comprehension, insight, and traditions of morality that direct people's actions in ecological communities. Local wisdom can be interpreted as a system, knowledge, or value rooted in a community and is used as part of unwritten regulations to be obeyed by its citizens (Salam, 2017). The local wisdom of the people around the forest provides its points for people who live and settle around protected forests. Local wisdom is built from social values that are upheld in the community's social structure and function as a guideline, controller, and signpost for behavior (Undri, 2016). Religious peace in the form of social customs founded on cultural wisdom is an example of local wisdom. Traditional wisdom appears in local communities as a system of laws, expertise, abilities, morals, and ethics. The inheritance of knowledge is passed down orally from generation to generation so that their traditional knowledge has shaped their attitude toward caring for the environment (Riggs, 2005).

Forest development that is associated with local wisdom in the future is strongly influenced by various government policies, which certainly must involve the community in forest management. Collaboration between community interests and local governments requires focusing on social, economic, and scientific aspects (Bonney et al., 2014). In general, the pattern of forest product utilization, especially in rural areas, has two social parts that affect the existence of forest areas. First, most rural communities take forest products from the forest area itself. This becomes the central point of close interaction between the community and the forest area. Other natural resources that are often used by the community around the forest, especially in Sassa village, are in the form of non-timber forest products. Using non-timber forest products (NTFPs) is one of the right community opportunities to reduce community dependence on timber forest products. It is well acknowledged that NTFPs are essential to rural lives in developing nations (Pandey et al., 2016).

Sassa Village is one of the villages closest to the forest area. The people of Sassa Village generally work in the fields or the garden around forest areas. The hope is that changes in the ecosystem around the forest area will not eliminate the habitat of useful/ethnobotanical plants often used by the community. The village and the forest have a relationship where the use of timber and non-timber forest products (NTFPs) can add value to the village's income in order to improve the village's economy and meet its basic needs. Specifically, the To Limola indigenous people reside in the hamlets of Sassa and Makupa around the Sassa protected forest. Limola's native population continues to adhere to their deeply held traditional beliefs. Based on the results of initial observations in Sassa Village, there are beliefs, traditions, and cultures of their ancestors which they still believe and believe, and interestingly, Sassa Village has 11 hamlets, each of which also has its customs. In the village of Sassa, some young people rarely know how to use plants, which could mean that traditional knowledge about valuable plants will gradually become extinct. The indigenous people of Sassa village use plants extensively in various activities, both for their subsistence needs and for traditional activities. Of course, it is hoped that the knowledge of the indigenous people of Sassa village regarding useful plants can become a legacy passed down from generation to generation, so this knowledge must be documented. Thus, the purpose of this study is to determine how the To Limola indigenous people apply their local wisdom while using both timber and non-timber forest products in order to maintain the sustainability of Sassa Village's protected forest.

2. METHOD

This research uses a descriptive qualitative method approach to determine the ethnobiology of local communities in Sassa Village. To achieve the objectives of this research, the data collected described how people utilize plants available around where they live. Qualitative research methods aim to better understand the subject from an individual's perspective. This research uses a descriptive qualitative method approach to determine the ethnobiology of local communities in Sassa Village. To achieve the objectives of this research, the data collected described how people utilize plants available around where they live. Qualitative research methods aim to better understand the subject from an individual's perspective. This research uses a descriptive qualitative method approach to determine the ethnobiology of local communities in Sassa Village. To achieve the objectives of this research, the data collected describes how people utilize the plants available around where they live. The subjects in this research are actors in the traditional community of Sassa Village. Sample determination was carried out using the Snowball sampling method. This method starts from a small sample of respondents and becomes a larger sample, or the following sample is a tracing of the previous sample. Snowball Sampling method. This method starts with a small sample of respondents and then becomes a larger sample, or the following sample is a tracing of the previous sample. In this research, starting with the Limola Traditional Chief or Village Head, who then recommends the names of other

traditional stakeholders who can provide additional information for the research, this procedure continues until the desired sample size is met. Next, from these respondents, the researcher will determine the next respondent based on the information obtained from the previous respondent.

The data collection techniques used in this research are: (1). Primary data sources are from direct observation and data collection in the field, namely observation, questionnaires, limited and in-depth interviews, and FGD (Focus Group Discussion). (2). Secondary data sources are obtained from literature studies through documents, reports, statistical data and other sources supporting this research. This research was carried out in the administrative area of Sassa Village, Baebunta District, North Luwu Regency, starting November 2021. The Sassa village protected forest was chosen because it is a natural conservation area with a native ecosystem managed for scientific research and supports sustainable forest management. Direct observations were carried out to determine the conditions of the location and research samples. The information collected includes traditional institutional structures and community customary knowledge, which consists of standards, laws and sanctions in managing timber and non-timber forest resources.

In this research, quantitative data analysis was carried out using the frequency table method, adapted to the needs and availability of data. A cluster creation technique was used to process the data based on indigenous communities' local wisdom in utilizing forest products. Qualitative data was analyzed through three stages: data reduction, data presentation, and verification. The data reduction begins with selecting and simplifying data from in-depth interviews such as field notes, observations and document studies. Data presentation is done by compiling the information and data obtained into words easily understood in a report. The final stage is verification, where conclusions from the processed data are used to support quantitative data.

3. RESULT AND DISCUSSION

Sassa Village is one of 11 villages in the Baebunta sub-district, North Luwu Regency, formed in 1994. Sassa village is located in the Baebunta sub-district, north Luwu regency, with a population of 3599 people. The respondents interviewed were 20 people because they were included in customary institutions and had many activities in utilizing forest resources, which were generally male and were traditional leaders of To Limola. The To Limola indigenous people live in the highlands in North Luwu, precisely in the Baebunta sub-district, Sassa Village. The To Limola indigenous people have customary institutions that regulate all customary affairs within the To Limola indigenous community, which consists of positions and men holding all.

Utilizing biological natural resources in daily life is a form of local wisdom of the Sassa village community. People in the Sassa village use plants extensively for various needs and traditional activities. The people of Sassa Village are very dependent on the forest. People usually work in the fields or gardens around the forest. The knowledge of the Sassa indigenous people about valuable plants is a family inheritance. Many people who live around protected forests work on farms and plantations. The types of plants used by the community around the protected forest in Sassa village are grouped into ten use groups: building plants, food plants, medicinal plants, ornamental plants, plants for traditional ceremonies, crafts, pesticides, dyes, aromatic plants, and food plants cattle. Mutia et al. (2019) stated that the lives of communities around forests significantly affect forest sustainability, as well as indigenous (traditional) Peoples whose traditional knowledge depends on utilizing biological resources and forest conditions. Forest management is a picture of local culture in treating forests that are seen in the ways and actions used as community guidelines, and these guidelines become a reference for interpreting the environment they face (Cholillah, 2017). Customary forest management allows local communities and indigenous peoples to utilize forest resources for economic, ecological, and socio-cultural interests (Magdalena, 2013). The hope is that changes in the ecosystem around the forest area will not eliminate the habitat of useful/ethnobotanical plants often used by the community. Using the interior of the bark for wound treatment is one way that wood forest products are used as medicine. Usually, people pound the bark until it releases water or a kind of foam, then apply it to the wound. To Limola indigenous people often call this type of wood by the local name, Javanese wood (*Lannea coromandelica*).

In addition to using bark as medicine, the indigenous people of To Limola also use wood as firewood and carpentry wood. The wood taken or used is far from customary and protected forest areas because the To Limola indigenous people are strictly prohibited from logging in protected forest areas, let alone customary forests. If there are people who commit violations, sanctions will be given for the violations that have been committed. Customary stakeholders will first warn if the community is

logging in an area that cannot be harvested for timber. If the community commits the same violation a second time, the customary stakeholder will take action by imposing fines for the violation committed.

Forests play a vital role in the lives of the indigenous people of To Limola. Danielsen et al. (2014) stated that communities that have long interacted with forest resources are used to adapting to forest product management models. Non-timber forest products around forest areas, To Limola indigenous people also often use them such as rattan, bamboo, palm, turmeric, fruit, and honey, which, among several types of plants, have a relatively high economic value if they get more treatment by the community such as processed products. To Limola indigenous people utilize and manage non-timber forest products (NTFPs) straightforwardly or traditionally, such as rattan taken from the forest as a binder, palm processed into brown sugar, honey, and turmeric used as traditional medicine by the community. Forests can meet the needs of life without destroying the forest. According to Hujjatusnaini (2016), several regions, such as Lamandau and Bangka, implement conservation by linking the local wisdom of local communities in preserving and managing this forest.

Moral ethics are the basis of humans in maintaining, protecting, and respecting the environment, including forests (Drengson et al., 2011). To Limola indigenous people are required to maintain, protect, and preserve forest areas because To Limola indigenous people believe that if the forest continues to be maintained, the forest will not damage their lives. However, it will present good content for human needs. The To Limola indigenous people understand the value of preserving wood, both customary forests and forests that the government has designated as protected forests. Asmin et al. (2017) research stated that since the Minangkabau Tribe in Koto Malintang Nagari depends on wood, it abides by legally obligatory regulations.

The life of the To Limola indigenous people is so unique that even today, they still maintain their local wisdom. The application of local wisdom can effectively mitigate the risk associated with environmental dynamics, which in turn can support the sustainability of human life (Najib et al., 2022). Environmental wisdom is local knowledge and understanding of beliefs and customs, including values and norms related to humans, nature, and relations among all ecological communities (Wiasti, 2015). As follows is a table of forms of local wisdom related to the region and natural resources in forest preservation by the indigenous people of To Limola (Table 1).

Table 1. Forms of local wisdom of To Limola Customs in managing natural resources

Customary Rules	Forms of Local Wisdom Norms and Values	Penalty
Customary rules relating to territories and natural resources	Must not carry out any activities in the traditional location (Puang Balubu) unless there is a ritual led directly by the traditional stakeholder	If communities violate, customary stakeholders sanction fines, namely marginalization/exclusion
	Trees cannot be cut in protected forest areas, let alone in customary forests	If there are communities caught logging, customary stakeholders will give a warning. However, if found doing the same thing a second time, they will be given customary sanctions and reported to the authorities.
	The To Limola Indigenous People believe it is not permissible to cut bamboo shoots, let alone take them in protected forest areas or customary forests.	The community believes that a disaster will befall the violator if this is violated.
	You cannot play with the tip of the rattan and make it a toy whip in the area.	People believe that if anyone does this, they will get sick because they get a reprimand from forest dwellers. This is because the forest dwellers think they are whipped.
	No dumping of Lombok in the river.	The community believes that if this is violated, the river's inhabitants will be angry, and the person concerned will faint and even trance.

Each region has its customs and traditions left by their ancestors and then passed on to posterity. The To Limola indigenous people are acutely aware of the value of preserving and safeguarding forest regions, exceptionally customary and protected forests. According to Najib and Maria (2022), the knowledge of indigenous peoples from generation to generation influences bright views and efforts in protecting the environment and forests. To Limola traditional stakeholders are substantial about this because there are many customary rules in the conservation obligation to maintain the forest properly. The function of customary law and customary institutions positively impacts the state of sustainable forests (Subiakto & Bakrie, 2015). Within the scope of custom, these rules are mandatory and absolutely must not be violated but must be obeyed. In addition to the form of local wisdom in processing natural resources. The indigenous To Limola people also follow customs about social institutions (Table 2).

Table 2. Customary rules of the To Limola people relating to social institutions

Customary Rules	Forms of Local Wisdom Norms and Values	Penalty
Customary rules relating to social institutions	No burning wasps inside forest areas To Limola indigenous people cannot eat food from ferns, bamboo shoots, or white buffalo animals. Do not burn or light fires on old graves in forest areas	If there are communities that violate, customary stakeholders will impose fines. This is because it can have an impact on damaging the community's rice plants. If there are indigenous people who violate, they must accept risks such as skin diseases and other diseases Anyone who violates it will receive a reprimand from the forest dwellers and be in a trance.

The community's conviction that the forest is a holy place only accessible by traditional leaders influences keeping it in its natural state (Syarif et al., 2016). The To Limola indigenous people have many taboos or the term "pamali" related to forest conservation, such as the core area of customary forests that cannot be carelessly entered without the permission of customary stakeholders. The application of these taboos, for example, the To Limola indigenous people should not take bamboo shoots in customary forest areas because the community believes that the source of life will be damaged if bamboo plants are damaged. In another research by Muhammad and Saharuddin (2018) stated that the community around Nagari Forest believes that there is a myth about "inyiak balang" the guardian of the Nagari forest, "inyiak balang" is an artificial tiger that protects the forest from human greed who wants to take Nagari forest products.

4. CONCLUSION AND RECOMMENDATION

Forest preservation by the To Limola indigenous people through timber forest products is used for hardwood, wound medicine, and carpentry wood. They use non-timber forest products (NTFPs) such as fruits, bamboo, rattan, and palm. The indigenous To Limola people use it in their daily lives by means of their local wisdom, and they continue to uphold the native traditional values. To Limola customary stakeholders are substantial about this because there are many customary norms in the conservation obligation to maintain the forest properly. These rules are mandatory and must not be violated within the scope of custom. For the Limola indigenous people, forests have a vital role in life; from the forest, they can fulfill their daily needs without destroying the forest because the Limola indigenous people believe that if the forest continues to be protected, the forest will not destroy people's lives. The Limola indigenous people use plants to maintain their cultural identity and local wisdom. Utilizing plants is also a significant natural resource conservation effort for indigenous communities in the protected forest of Sassa Village. However, the forest will present its contents well for the needs of humans around it. It is hoped that in the future, the regional government can work with the people of Sassa Village to care for, pay attention to, and protect the protected forest area with the people of Sassa Village. There needs to be partnership assistance from the government as well as increasing capacity for communities living around protected forest areas, especially for communities who want to protect and preserve protected forests.

5. REFERENCES

- Ariyanto, Rachman, I., & Toknok, B. (2014). Kearifan Masyarakat Lokal dalam Pengelolaan Hutan di Desa Rano Kecamatan Balaesang Tanjung Kabupaten Donggala. *Warta Rimba*, 2(2), 84–91.
- Asmin, F., Darusman, D., Ichwandi, I., & Suharjito, D. (2017). Elaborating the attributes of local ecological knowledge: A case study of parak and rimbo practices in Koto Malintang Village. *Advanced Science Letters*, 23(4), 2812–2817. <https://doi.org/10.1166/asl.2017.7682>
- Bonney, R., Shirk, J. L., Phillips, T. B., Wiggins, A., Ballard, H. L., Miller-Rushing, A. J., & Parrish, J. K. (2014). Next steps for citizen science: Strategic investments and coordination are needed for citizen science to reach its full potential. *Science*, 343(6178), 1436–1437.
- Cholillah, J. (2017). Pengelolaan Hutan Berbasis Budaya Lokal Di Dusun Pejam Kabupaten Bangka: Tim Jarlit Kebudayaan Bappeda Prov. Kep. Bangka Belitung. *Society*, 5(1), 45–58. <https://doi.org/10.33019/society.v5i1.19>
- Danielsen F, Jensen P, Burgess N, Altamirano R, Alviola P, Andrianandrasana H, Brashares J, Burton A, Coronado I, Corpuz N, Enghoff M, Fjelds  J, Funder M, Holt S, H bertz H, Jensen A, Lewis R, Massao J, Mendoza M, Ngaga Y, Pipper C, Poulsen M, Rueda R, Sam M, Skielboe T, S rensen M, Young R. (2014). A Multicountry Assessment of Tropical Resource Monitoring by Local Communities. In *BioScience* (Vol. 64, Issue 3, pp. 236–251). Oxford University Press. <https://doi.org/10.1093/biosci/biu001>
- Drengson, A., Devall, B., & Schroll, M. A. (2011). The deep ecology movement: Origins, development, and future prospects (toward a transpersonal ecosophy). In *International Journal of Transpersonal Studies* (Vol. 30, Issues 1–2, pp. 101–117).
- Hujjatusnaini, N. (2016). Konservasi Hutan Di Lamandau dengan Konsep Bioremediasi dan Adat Dayak Kaharingan. *Jurnal BIOEDUKASI*, 4(2), 498–510.
- Magdalena, M. (2013). Peran Hukum Adat Dalam Pengelolaan Dan Perlindungan Hutan Di Desa Sesaot, Nusa Tenggara Barat Dan Desa Setulang, Kalimantan Timur. *Jurnal Penelitian Sosial Dan Ekonomi Kehutanan*, 10(2), 110–121. <https://doi.org/10.20886/jsek.2013.10.2.110-121>
- Muhammad, A., & Saharuddin, S. (2018). Keragaan Praktik Kearifan Lokal dan Keberlanjutan Hutan Nagari. *Jurnal Sains Komunikasi Dan Pengembangan Masyarakat [JSKPM]*, 2(5), 667–680. <https://doi.org/10.29244/jskpm.2.5.667-680>
- Mutia, T., Sumarmi, Budijanto, Bachri, S., Komang Astina, I., & Aliman, M. (2019). Local wisdom in Indonesia's customary forest management: Case studies in Sasak, Bali Aga and Minangkabau. *Ecology, Environment and Conservation*, 25(3), 1077–1083.
- Najib, N. N., & Maria. (2022). Potensi keanekaragaman etnobotani di hutan lindung Desa Sassa Potential of ethnobotany diversity in Sassa Village protected forest. *Pros Sem Nas Masy Biodiv Indonesia*, 8(2), 111–118. <https://doi.org/10.13057/psnmbi/m080202>
- Najib, N. N., Maria, Karim, H. A., & Lilis. (2022). Kajian Etnobotani di Desa Sassa Kabupaten Luwu Utara, Sulawesi Selatan. *Prosiding Seminar Nasional Lingkungan Lahan Basah*, 7(1), 83–90.
- Pandey, A. K., Tripathi, Y. C., & Kumar, A. (2016). Non Timber Forest Products (NTFPs) for Sustained Livelihood: Challenges and Strategies. *Research Journal of Forestry*, 10(1), 1–7. <https://doi.org/10.3923/rjf.2016.1.7>
- Riggs, E. M. (2005). Field-based education and indigenous knowledge: Essential components of geoscience education for Native American communities. *Science Education*, 89(2), 296–313. <https://doi.org/10.1002/sce.20032>
- Riyanto, H. D., & Pahlana, U. W. (2012). Kajian Evaluasi Lahan Hutan Jati Sistem Bonita Di Kesatuan Pemangkuan Hutan (KPH) Cepu. *Jurnal Penelitian Hutan Tanaman*, 9(1), 43–50. <https://doi.org/10.20886/jpht.2012.9.1.43-50>
- Salam, R. (2017). Kearifan Lokal Masyarakat Adat Dalam Pengelolaan Hutan Di Pulau Wangi-Wangi. *Walusuji: Jurnal Sejarah Dan Budaya*, 8(1), 113–128. <https://doi.org/10.36869/wjsb.v8i1.109>
- Senoaji, G. (2011). Perilaku masyarakat baduy dalam mengelola hutan, lahan dan lingkungan di banten selatan. In *HUMANIORA* (Vol. 23, Issue 1, pp. 1–15).
- Subiakto, W. D., & Bakrie, I. (2015). Peranan Hukum Adat Dalam Menjaga Dan Melestarikan Hutan Di Desa Metulang Kecamatan Kayan Selatan Kabupaten Malinau Propinsi Kalimantan Utara. *Jurnal AGRIFOR*, 2, 293–314.
- Sumarmi, S. (2015). Local Wisdom of Osing People in Conserving Water Resources. *KOMUNITAS: International Journal of Indonesian Society and Culture*, 7(1), 43–51. <https://doi.org/10.15294/komunitas.v7i1.3429>

- Syarif, E., Fatchan, A., Sumarmi, ., & Astina, K. (2016). Tradition of “Pasang Ri-Kajang” in the Forests Managing in System Mores of “Ammatoa” at District Bulukumba South Sulawesi, Indonesia. *Mediterranean Journal of Social Sciences*. <https://doi.org/10.5901/mjss.2016.v7n6p325>
- Undri. (2016). Kearifan Lokal Masyarakat Dalam Pengelolaan Hutan Di Desa Tabala Jaya Kecamatan Banyuasin Ii Kabupaten Banyuasin Propinsi Sumatera Selatan. *Jurnal Penelitian Sejarah Dan Budaya*, 2(1), 308–323.
- Vujcic, M., & Tomicevic-Dubljevic, J. (2018). Urban forest benefits to the younger population: The case study of the city of Belgrade, Serbia. *Forest Policy and Economics*, 96, 54–62. <https://doi.org/10.1016/j.forpol.2018.08.006>
- Wiasti, N. (2015). Kearifan Lingkungan Masyarakat Desa Jatiluwih : Relevansinya Dengan Pelestarian Warisan Budaya Dunia. *Bumi Lestari*, 15(1), 79–86.