

Verifying the Existence of Indigenous Peoples using A Socio-Spatial Approach: A Case Study of the Boti Tribe, Indonesia

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Abstract

Minister of Home Affairs Regulation Number 52/2014 states that the criteria or evidence that must be met for recognition of indigenous peoples are: indigenous history, customary territories, customary law, customary objects, and customary institutions. Using a case study of the Boti Tribe, the oldest ethnic group on Timor Island, this study aims to collect evidence of the existence of indigenous peoples and their customary territories. This research will focus on verifying evidence of the existence of indigenous peoples using a socio-spatial approach. Our findings show that the Boti indigenous community still exists, with several main evidences of its existence, namely, they have a traditional history in which they were formed from several clans led by the Benu clan; there is a customary area with several use zones of land; there are customary laws that regulate daily life and local wisdom in managing natural resources; and there are traditional practices. Additional evidence was discovered that they manage customary forests sustainably, as evidenced by the consistent forest cover over the last 30 years. These findings can be used to develop academic papers and plans for regional regulations concerning the Boti Tribe's recognition.

Keywords: indigenous people recognition, socio-spatial approach, indigenous customary territories, customary law, customary institutions

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Introduction

The term "indigenous peoples" refers to a group of people who share certain traits, coexist peacefully in groups under their customs, have ties to their ancestral lands or to the same location of residence, have a close relationship with the environment, have social, economic, and cultural institutions, and take advantage of certain areas from generation to generation (MHA, 2014). According to the Customary Area Registration Agency (*Badan Registrasi Wilayah Adat/BRWA*), there were 1,034 maps of customary areas that span 29 provinces and 136 regencies with a total area of over 12.4 million ha in mid-2021 (BRWA, 2021). Of this area, only around 2.46 million ha, or around 19.8% of the total customary area, has been recognized and determined by the regional government. Most of the customary areas are customary forests, which cover an area of around 8.35 million ha, or around 67% of the total registered customary areas. The Ministry of Environment and Forestry (KLHK) has issued 75 decrees recognizing indigenous forests. These decrees cover an area of approximately 56,903 ha, or around 0.68% of the current potential for customary forests (BRWA,

2021). The low level of indigenous peoples recognition triggers agrarian/land conflict problems due to uncertainty over ownership and overlapping land use between indigenous peoples and the government or companies (Ridhwan et al., 2020; Barnasaputri, 2021). The National Human Rights Commission (*Komnas HAM*) noted that an average of 1,000 files were submitted related to agrarian conflicts in the 2012-2014 period (Barnasaputri, 2021).

The Constitutional Court's Decision Number 35/PUU-X/2012 (Constitutional Court Decision 35) is a positive development in government policy concerning the acknowledgement of the rights of indigenous peoples (Nugroho et al., 2020). Customary forests within customary territories should no longer be regarded as state forests, according to Constitutional Court Decision 35, as long as the customary communities are still in existence and are acknowledged by regional regulation. This note requests the establishment of regional regulation pertaining to the recognition of indigenous communities as well as maps showing the locations and limits of their customary (forest) territories (Cahyaningrum, 2015). This decision provides an

opportunity for indigenous peoples to secure their customary territories from threats from state and private interests (Nugroho et al., 2020). However, to make claims on their customary territories, indigenous peoples are asked to prove their existence with sufficient evidence. The Minister of Home Affairs Regulation Number 52/2014 states that the evidences that must be collected for indigenous peoples recognition is: a) indigenous history, b) customary territories, c) customary law, d) customary objects, and e) customary institutions.

One of the indigenous communities whose existence has not been legally recognized is the indigenous people of the oldest tribe on Timor Island, the Boti Tribe, Nusa Tenggara Timur (NTT) Province, Eastern Indonesia (Suminar, 2018; Nope, 2019; Nubatonis, 2019; Benu, 2023). Until now, the indigenous community of the Boti Tribe has not been registered in the 34 indigenous communities in NTT Province that are registered with BRWA (BRWA, 2021). The Boti Tribe is known as a tribe whose culture and local wisdom/customary law govern managing natural resources in their territory. This is evidenced by previous research, which was predominated by research on sociocultural elements, especially those related to local wisdom. Numerous studies have been conducted on a variety of topics, including the traditional Boti dance (Andung & Nope, 2017), the role of *usif-raja* in managing the natural environment of the Boti indigenous people (Nope, 2019), the cultural landscape (Nubatonis, 2019), culture and customary rules in the management of natural resources (Prasetyo & Ndolu, 2017), nine-day time functions in Boti cosmology (Konay et al., 2021), Boti culture-based education in schools around the Boti Tribe area (Sandiningtyas & Wiyono, 2018). While ecological and economic-based studies are still scarce, some of them are studies on plant species and their utilization (Benu et al., 2013) and studies on the potential for sustainable cultural tourism in the Boti Tribe (Suddin, 2017).

When it comes to evidence of recognition of indigenous peoples required by the Minister of Home Affairs Regulation

Number 52/2014, previous research on the Boti Tribe was mostly only able to support evidence related to indigenous history, customary law, customary objects, and customary institutions, while for customary territorial requirements, this has not been supported by the results of previous studies. A socio-spatial approach in the form of mapping local ecological knowledge (McLain et al., 2013) can be applied to further strengthen previous findings regarding historical evidence, customary law, and institutions. While regarding evidence in the form of customary boundaries, several studies in other locations that can be used as a reference are studies related to verification of indigenous peoples' claims using spatial analysis approaches and satellite imagery in East Kalimantan (Nugroho et al., 2020) and studies related to the initiation of one map at the site level in several indigenous territories in South Sumatra (Ridhwan et al., 2020). In addition to spatial-based studies to verify the evidence of customary territories, another spatial-based study on the extent to which forest management by indigenous communities is sustainable is also needed as additional evidence of the existence of indigenous communities. Nugroho et al. (2020) found that the implementation of customary rules could maintain forest cover over the last 20 years. In other words, multi-time satellite image analysis can be used as a tool to assess sustainability from an ecological perspective. Using a socio-spatial approach, this study aims to verify the evidence of the existence the Boti Tribe indigenous peoples within the framework of the recognition requirements for indigenous peoples in the Minister of Home Affairs Regulation Number 52/2014.

Methods

Study area Administratively, the Boti Tribe is based in Boti Village, Ki'e Sub-Regency, Timor Tengah Selatan (TTS) Regency, NTT Province, Eastern Indonesia. The tribe is situated in the interior of Timor Island (Figure 1). One of the three main tribes on Timor Island, along with the *Amanatum* and *Mollo*, is the *Amunaban*, of which the Boti Tribe is a sub-tribe. The Boti Tribe is split into two groups: a) the Outer Boti

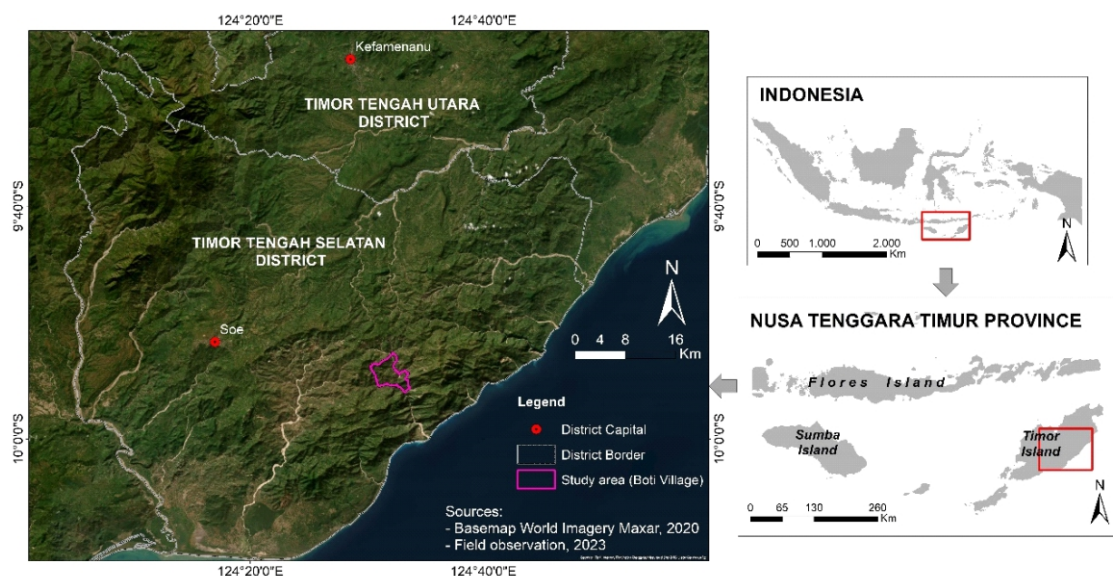


Figure 1 Study area.

(*Boti Luar*), who have been accepting of the state and religion and have been open to developments; and b) the Inner Boti (*Boti Dalam*), who still uphold tradition and culture and follow the beliefs of the tribe known as *Halaika*. The regency capital (TTS), the city of Soe, is approximately 64 km away from Boti Village, which occupies an area of about 1,800 ha and is situated at an elevation of about 1,500 m above sea level. It can be reached by car in about three hours (BPS, 2020). Hills and steep terrain, along with landslides and scarce water supplies, define natural conditions of Boti areas. In 2019, there were approximately 2,175 people living in 567 households in Boti Village, with 76 of those households, or about 318 people, being residents of the Inner Boti (BPS, 2020). Boti tribe are subsistence farmers whose main crops are maize. They also collect tamarind and candlenut for additional income. Boti Village is considered underdeveloped by the Ministry of Villages, Development of Disadvantaged Regions, and Transmigration due to the low level of welfare and education.

Research framework This research will focus on scientifically based evidence of the prerequisites for the indigenous Boti peoples recognition according to the Minister of Home Affairs Regulation Number 52/2014 as an effort to resolve land conflict problems caused by uncertainty over ownership and overlapping land use. The approach taken is to combine a socio-based approach to verifying history, law, and customary institutions with a spatial-based approach to verifying customary territories and assessing ecological sustainability. The research framework that explains the causes, problems, approaches and expected outcomes is presented in Figure 2.

Verifying the main evidence of the Boti indigenous community existence appearing as indigenous history, customary law, customary objects and customary institutions using a social approach Data collection was carried out with a socio-economic and cultural survey using a combined technique of household survey, interviews, and focus group discussion (FGD) (Chilisa, 2012; Ridhwan et al., 2020). A household survey was conducted on all 76 households in *Boti Dalam* to explore socio-economic and cultural information on the life of the Boti community. Meanwhile, interviews were conducted with key figures, such as Kings and traditional elders, to explore indigenous history, customary law, traditional objects, and traditional institutions. FGD was used to verify data obtained from socio-economic and cultural surveys and interviews. The socio-economic and cultural survey was carried out using a participatory approach and mapping local ecological knowledge (McLain et al., 2013). Data was then analyzed, combined—qualitative and quantitative. The expected output is data on indigenous history, customary law, customary objects, and customary institutions that have been verified by the relevant parties through the FGD process.

Verifying the main evidence of the Boti indigenous community's existence appearing as customary territories using a spatial approach The data collected is both spatial and customary territory data. The spatial data required are the RBI-administration map from *Badan Informasi Geospasial* (BIG) and forest area map data from KLHK. Meanwhile, biophysical surveys were carried out in a participatory manner by creating transect routes, and the main data collected were data on customary area boundaries, land use zones by indigenous communities, and potential

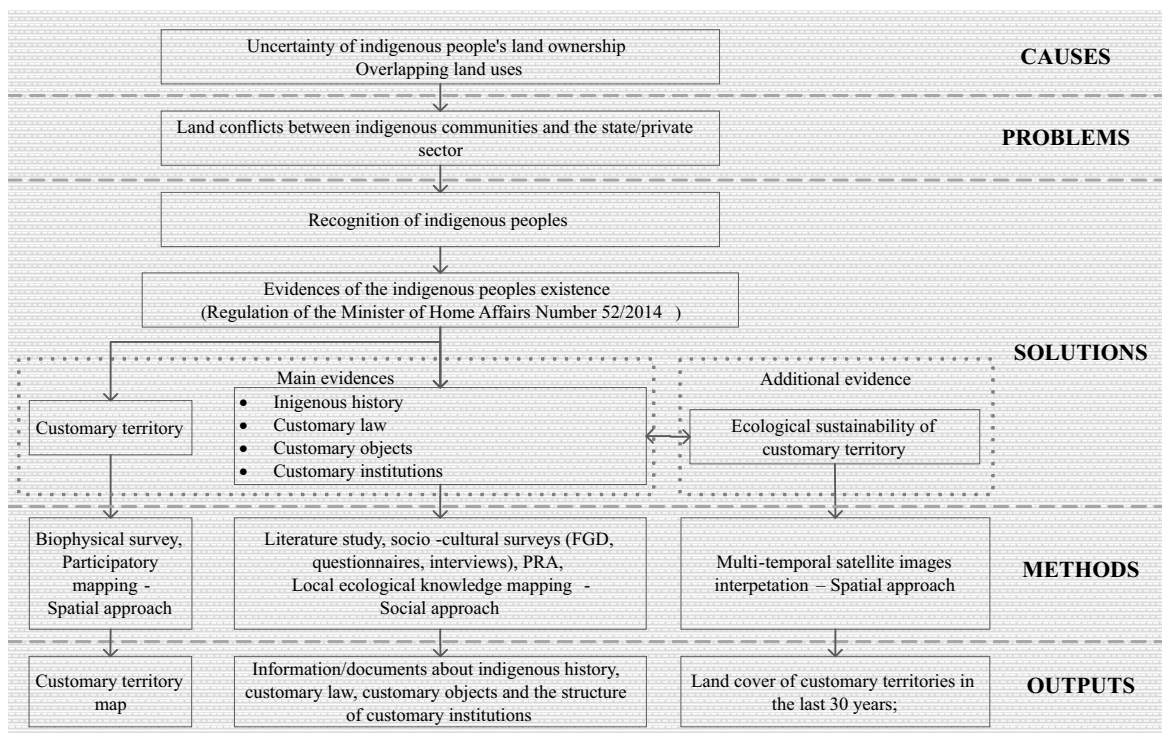


Figure 2 Research logical framework.

flora (Ridhwan et al., 2020). The participatory mapping process will be carried out based on guidelines for mapping indigenous communities' territories (BIG, 2017). For more detailed results, validation was also carried out using drones. The mapping results were then analyzed spatially with forest area maps (Nugroho et al., 2020). The results of the spatial analysis were then discussed again in an FGD attended by related parties. The expected output of the FGD is a map of traditional territories and the natural resource potential within them as a result of a multi-party agreement.

Verifying the additional evidence of the Boti indigenous community's existence appearing as ecological sustainability using spatial approach Multi-temporal satellite images with medium resolution (Landsat) obtained from image providers (USGS, KLHK) over the last 30 years were analyzed using a remote sensing approach (Nugroho et al., 2020). The stages carried out are image correction, satellite image classification, accuracy assessment of the land cover map, and land cover change analysis. We classified the land cover into four classes, namely forest, shrubs, dryland agriculture, water body (rivers), representing the dominant land cover types in the study area. For interpreting land cover classes, we used the vegetation index approach, also known as the normalized difference vegetation index (NDVI), which is the most popular method for classifying areas as either vegetated or not and for detecting changes in the vegetation (Rouse et al., 1974; Pujiono et al., 2013). We calculated the NDVI, performed unsupervised classification, and produced a land cover map in 1989, 1999, 2009, and 2022. If there is no deforestation in the customary forest area or if the land cover experiences a "positive" change (from non-forest to forest), it indicates that the management of the customary forest area is sustainable (in the ecological aspect).

Results and Discussion

Main evidences of the Boti indigenous community's existence *Indigenous history* The formation of Boti started with several people who had the idea of creating a group. They moved from a place called *Fatu Elaf*. This group of people consists of twelve clans from the same ancestor, namely *Asbilak*, *Benu*, *Kao*, *Lunesi*, *Naat*, *Nabu*, *Natonis*, *Neolaka*, *Tanesib*, *Tefamnasi*, *Tefu*, and *Tekfan*. It is estimated that this group was formed before 1955, and the elders of the twelve clans became their leaders, namely the Benu clan. The word Boti itself is taken from the name of the ancestor of the twelve clans. To honor their ancestors, the place they live is called Boti. The group moved to a place called Boti because, in ancient times, there were frequent wars between tribes, so they looked for a safe and strategic place. According to them, the mountain is a strategic place because, from a height, they can easily see when an enemy is coming, and they can easily plan a strategy to fight the enemy. Apart from the mountain being a safe place to live, the foot of the mountain is also the only safe place because places flanked by mountains are difficult for enemies to reach. Based on this, the ancient Boti people moved from *Fatu Elaf* to the place now called Boti.

Customary territories The Boti traditional area covers the entire administrative area of Boti Village, which, in carrying

out daily life, always adheres to customs and culture that are in harmony with nature. An overlay of the customary area map based on participatory mapping and the latest forest area map based on Minister of Environment and Forestry Decree Number 6615/2021 concerning the development of state forest areas in NTT Province, shows that around 575 ha of customary territory (approximately one third of the customary territory area) is state forest area with production forest functions (Figure 3left figure, area with yellow dots). This overlapped area has been included in the social forestry indicative area map (*Peta Indikatif Area Perhutanan Sosial*) revision VI in 2021 (Figure 3left figure, area with blue diagonal line), which shows that this area has the potential to be used as a social forestry area (possibly with the customary forest scheme). Manual maps of traditional areas in the form of sketches have existed since the time of the first king of the Boti Tribe and are still well preserved today. When compared with village administration maps, these maps are not much different. This is because, in the past, the king and his citizens marked the outer boundaries in the form of rocks, living trees, and rivers in the surrounding area. In customary territories themselves, there is a concept of land use zoning, which consists of several zones, i.e., settlement, king's residence/palace (*sonaf*), agriculture, plantations, restricted/customary forest, and grazing zone (Figure 3 right figure).

An inventory of plants in several land use zones, i.e., in the king's gardens and the Boti palace (*sonaf*), found 85 species from 37 families. The family that dominates plant diversity in Boti is the Fabaceae family, with 13 species. The large number of species in the Fabaceae family is because they have the ability to adapt to the environment in the Boti area and are able to compete with other individuals. In the garden land use zone, the species composition at the tree level has a total of nine species, with the dominant species: teak (*Tectona grandis*), sea cypress (*Casuarina equisetifolia*), coconut (*Cocos nucifera*), mahogany (*Swietenia mahagoni*), candlenut (*Aleurites moluccanus*), ficus (*Ficus benjamina*), and redwood (*Pterocarpus indicus*). Meanwhile, in the palace (*sonaf*) yard Boti zone, at tree level, 21 species were identified as the dominant types: *kapok* (*Ceiba pentandra*), cabbage palm/*gewang* (*Corypha utan*), *C. nucifera*, mango (*Mangifera indica*), tamarind (*Tamarindus indica*), and *S. mahagoni*.

Customary law: Traditional belief The Boti Tribe has different beliefs from other tribes on Timor Island. Most people on Timor Island with a large tribe, namely the Dawan Tribe, have diverse beliefs and predominantly adhere to Christian beliefs. The Boti Tribe adheres to animism, or a local religion called *Halaika*. The Boti Tribe believes that *Uis Neno* (God of the Sky), *Uis Pah* (God of the Earth), and *Smanaf* (ancestral spirits) arrange their lives. The Boti people believe that if you want something good, you must first pray to *Uis Neno* and then to *Uis Pah*. The Boti people also believe in the spirits of their ancestors (*Smanaf*). The spirits can help and act as intermediaries between living humans and *Uis Pah*, who will then be passed on to *Uis Neno*. The Boti people really respect the customs that have been passed down from their ancestors as a way of life that is practiced in everyday life, one of which is respecting and not destroying nature (the

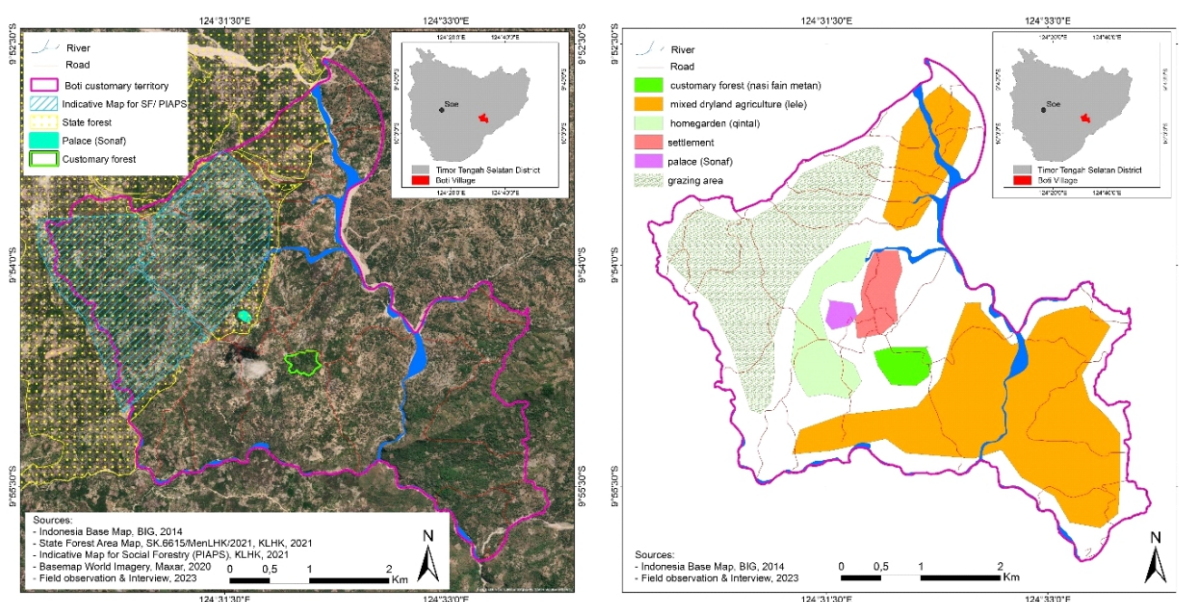


Figure 3 Map of customary territories and land use zoning by the Boti indigenous community.

earth) and all who live on it. If in life and lifestyle it goes against customs, it is considered *Sanat* (sin) because it destroys human relationships with *Uis Neno*, *Uis Pah*, and ancestors. The *Onen* ritual is a tradition carried out to anticipate and prevent various disasters as a result of sins committed, as well as to restore and maintain harmonious relations between humans and *Uis Neno*, *Uis Pah*, and *Smanaf*.

Life philosophy The Boti people always adhere to the life philosophy of "work like servants and eat like kings" (*meup on le ate, tab on le usif*). This culture emphasizes that the Boti people must work hard like servants when working for their king. By working hard, you will get abundant results, as expected. So that the results obtained can be used to eat to your heart's content, like a king who eats. With this culture of hard work, King Boti and the Boti Tribe members do not accept any form of free assistance provided by the government, non-government organization (NGO), or other parties. The king thought that free assistance would diminish his enthusiasm for work and laziness, and that his life would always depend on the help of others. The king and his subjects adhered to the cultural principles of hard work, so they avoided asking for mercy and free help from others.

Apart from the culture of hard work, there are different views towards criminals and theft. The Boti Tribe believes that evil should not be repaid with evil. For example, if a thief is caught stealing, the thief is not punished or taken to the police station, but the Boti Tribe will collect the same items that the thief took. Then, give them freely to the thief. The philosophy is not to treat people who are already in a state of distress into even more distress. But give a "Spirit of Trust" and new enthusiasm so that criminals can fulfill their own needs and not repeat wrong actions again.

Calendar system The Boti Tribe has a daily calendar that is different from other communities, with nine days in a week. Other communities outside the Boti Tribe adhere to the

internationally accepted rules of a seven-day week with a rest day on Sunday. Things are different in the Boti Tribe, where there is a nine-day cycle where each day has its own significance. The nine days are *neon ai* (day of fire), *neon oe* (day of water), *neon iron* (day of iron), *neon Uis Pah ma Uis Neno* (day of the gods of the sky and the earth), *neon suli* (day of strife), *neon masikat* (fighting day), *neon naek* (big day), *neon li'ana* (children's day), and *neon tokos* (rest day).

Customary law in natural resources management In daily life, the Boti Tribe is very obedient and obedient to prohibitions (*banu, kae*) in the form of prohibitions against enjoying the fruits of the earth, forest products, livestock, and animals before the harvest thanksgiving event (*Poit Pah*) is held. The *Poit Pah* traditional ceremony is carried out in an orderly and responsible manner, led by the king. The Boti people gathered at the king's *sonaf* (palace) to receive direction and explanation from the king. At this moment, the king explains everything related to traditional ritual ceremonies that must be brought, such as agricultural products (corn, rice, bananas, sweet potatoes, sugar cane, and others) and livestock for sacrifice (cows, buffalo, goats, pigs, and others). After the luggage was ready (livestock and agricultural products), the king and the men walked towards the customary/prohibited forest (*nasi fain metan*). During traditional ceremonies in customary forests, all activities, including cooking, are carried out by men because women are prohibited from entering prohibited forests. If there are Boti residents who violate the *banu, kae*, or cut down trees in the prohibited forest, they will get customary sanctions and fines, such as livestock, foodstuffs, and *sopi* (the traditional drink of Timor).

Customary assets of the Boti Tribe The Boti Tribe has traditional objects, including traditional houses, weaving Boti motifs, and handicrafts. The building is round with a cone-shaped roof, and the floor is made of an earthen frame called *Ume kbubu*. The traditional *Ume kbubu* house,

commonly used by most residents, is a small house with a thatched roof that hangs down to the ground. This house is supported by four main pillars with circular palm frond walls (*bebak*) following the roof. In the house, there is only one main room, which functions as a bedroom and kitchen. At the top (roof), right above the fireplace, there is an attic for storing the staple food (corn). The *Ume Kbbubu* traditional house building does not use nails at all but is tied tightly using rigging made from tree bark. *Ume Kbbubu's* house has no windows, and there is only one door for residents to enter and leave. Apart from *Ume Kbbubu's* house, there is *Lopo* as a pavilion. The shape of this *lopo* building is open or has no walls. *Lopo* functions as a meeting hall for receiving guests and also functions as a barn for storing agricultural products, namely corn.

The Boti woven motif is one of 132 types of woven motifs in South Central Timor Regency or part of the 800 woven motifs in NTT Province. Woven fabrics have many functions, including as everyday clothing, as clothing in traditional ceremonies, as a wedding dowry (*belis*), and as a form of appreciation for guests who come to visit. The manufacturing process starts with preparing the cotton thread. Cotton is separated from the seeds using a tool called a *bninis*. Next, the cotton is smoothed using a *sifa* tool and processed into thread using an *ingke* tool. The finished thread is then processed for coloring using natural plants, including: turmeric, *noni*, *tarum*, etc. Next, the thread is dried in the sun until dry and spun using simple tools. The thread that is ready to be used is placed between the *atis* and *nekan*. The next stage is the weaving process, which takes approximately one month to one year, depending on the woven motif. Several types of Boti weaving motifs include: *atoni* (for everyday use), *manu*, *teke* (for kings or nobles), *bikase* (for warriors), *koti* (commoners), and *kai ma khana* (official meetings).

Other traditional objects are crafts in the form of pottery, statues, woven from *gewang*, and tableware or kitchen utensils made from coconut shells or animal skins. People who visit Boti Village can buy souvenirs made by Boti residents, which are located in a traditional house with a special souvenir showroom. The price of these souvenirs varies from thousands to millions of *rupiah* (IDR).

Customary institutions of the Boti Tribe In carrying out his government, *Usif* (king) was assisted by royal officials consisting of *Amaf*, *Meo Mone*, *Meo Feto*, *Lopo*, and *Sonaf*. *Amaf* helps *Usif* in the government affairs of the Boti kingdom. *Meo Mone* is *Usif's* assistant who is tasked with maintaining the security and defense of the Boti kingdom, which is likened to an army. *Meo Feto* is *Usif's* assistant who has duties and responsibilities like *Meo Mone* who is likened to a police officer. *Lopo* as a regional assistant or administratively like a pillar of neighbors head (*Ketua Rukum Tetangga*). They will act as implementers of royal regulations at the regional level. *Sonaf* is a royal servant who is tasked with providing and managing food supplies, looking after livestock and gardens.

Additional evidences of the Boti indigenous community's existence *Ecological sustainability as indicated by land cover dynamics* The results of multi-time Landsat image

interpretation from 1989, 1999, 2009, and 2022 (33 years) show that the main land cover in Boti Village (total area around 1,800 ha) is forest, shrubs, and agricultural land (Figure 4, Figure 5). There is a dynamic change in land cover, especially the conversion of shrubs into agricultural land (Figure 5). This is likely due to the increasing population, which requires the expansion of agricultural land. A rotational farming system with local wisdom, where in the second year, the planting location will be moved to another area or shrub, which aims to restore soil fertility to the initial location (after planting), also influences the dynamics of changing shrubs to agricultural land or vice versa. The latest land cover conditions (in 2022) show that the proportion of each land cover to the total village area, respectively, is: agriculture (40%), forest (36%), bushes (23%), and the remaining (1%) is a combination of rivers (water bodies) and settlements (Figure 4, Figure 5). Meanwhile, specifically for the Boti tribe's customary forest, the land cover remains relatively unchanged. This indicates that the Boti Tribe has truly preserved forests in their prohibited or customary forests.

The results of the study show that the Boti indigenous community still exists, and its existence can be proven (main and additional evidence) by several requirements for the recognition of indigenous communities in Regulation of the Minister of Home Affairs Number 52/2014. They have customary territories, customary rules, customary objects, and customary institutions, as well as customary law or local wisdom in nature or forest management. Several things that need to be paid attention to here are: First, one-third of their forest area is state forest area, which has the potential to cause conflict between the Boti traditional community and the forest area manager, the TTS Regional Government. This is in accordance with the findings of previous studies, where most of the traditional territories overlap with forest areas (Wibowo, 2019). In practice, for customary territories located in state forest areas, the process of recognizing customary territories will take relatively longer when compared to customary areas located in non-forest areas because it takes time to change the function of the forest first. The second thing that needs to be paid attention to is that they have and practice local wisdom in forest management, which ensures ecological sustainability (customary forest preservation). Ecological sustainability is proven by the condition of the customary forest, which is maintained from year to year.

Discussion

In the case of Boti, the process of recognizing indigenous peoples is relatively slow. Around 1980, the Regent of TTS at that time, *Piet Tallo*, acknowledged that the Boti indigenous community existed, but unfortunately, until now (23 years later), we have not found any legal regulations, regional regulations, or recognition of the Boti community. In other words, the regional government of the TTS regional regency seems slow and does not prioritize the recognition of indigenous peoples programs in their regional development agenda. Apart from the seriousness of the regional government, another important thing in accelerating the customary recognition process is the community movement,

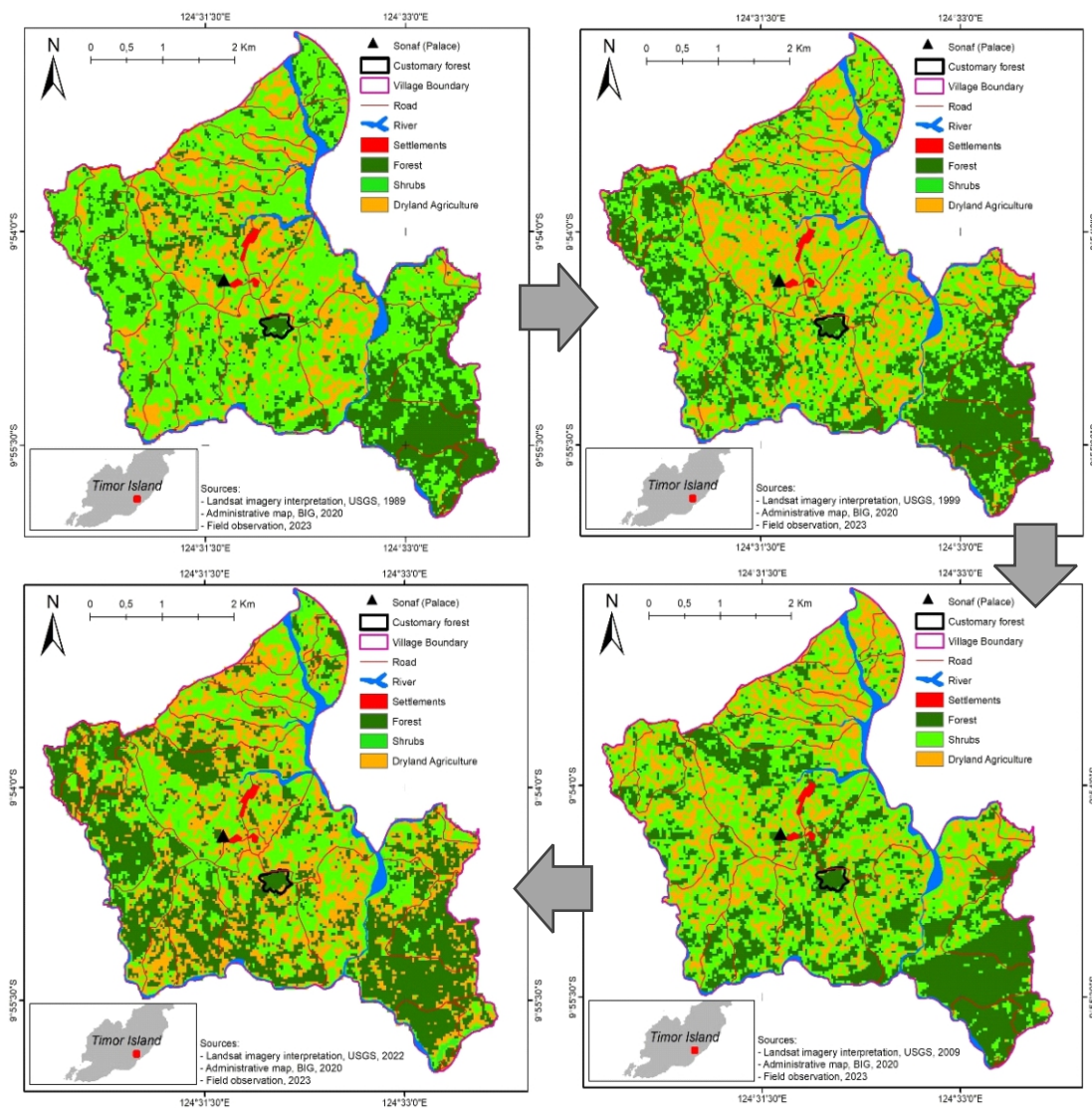


Figure 4 Land cover of the Boti customary territory over 33 years (1989, 1999, 2009, and 2022—clockwise direction) used as an indicator to assess ecological sustainability.

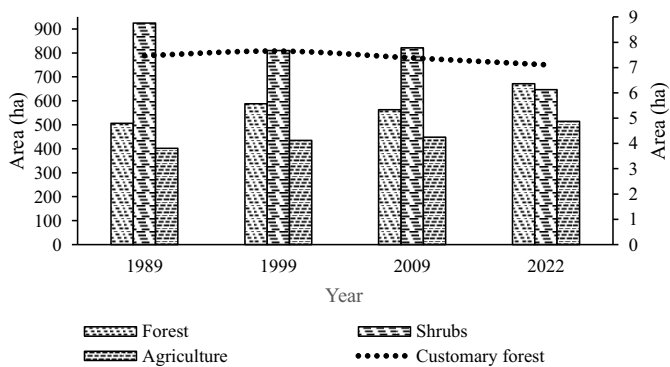


Figure 5 Stacked histogram and dotted line graph describing the extent of land cover classes in the Boti customary territory and customary forest in 1989, 1999, 2009, and 2022.

or the activeness of traditional communities. Like the characteristics of other traditional communities in Indonesia, the Boti community is also a community that is relatively passive in fighting for their traditional rights. This is mainly because almost all proof and recognition requirements are in written formulary form, which is impossible for them to fulfill because in their daily lives they generally carry out traditions verbally. The accompanying role, which is generally carried out by NGOs, is needed to assist indigenous communities in fighting for the recognition of their customary rights.

Several lessons learned and success stories of community struggles to gain formal recognition were found both locally and nationally. Within the scope of the NTT Province, one of the success stories of collaboration between NGOs, traditional communities and local governments in the indigenous community recognition process is the Nua Wologai indigenous community in Ende Regency, Flores Island. In 2015, the Indigenous People's Alliance of Nusantara (*Aliansi Masyarakat Adat Nusantara/AMAN*)

Nusabunga played a vital role in assisting the community in carrying out participatory mapping of customary territories and educating the community about the process of registration customary territories, as a form of assistance to indigenous communities in registering with the Customary Area Registration Agency (Budiman et al., 2021). The struggle for recognition of the Nua Wologai indigenous community received a positive response from the Regent of Ende, and communication between stakeholders went relatively smoothly. The final result was the publication of a regional regulation on the recognition and protection of indigenous peoples in Ende Regency in 2017.

Lessons learned from the success of the struggle for registration of indigenous peoples were similar to those found in several places in Indonesia. Good cooperation between indigenous communities, NGOs, and local governments is the key to successful recognition in several places, including: the Kasepuhan indigenous community in Lebak Regency, Banten; the Kajang indigenous community in Bulukumba Regency, South Sulawesi; the Tau Taa Wana Posangke indigenous community in Morowali Regency; and the Kulawi indigenous community in Sigi Regency, Central Sulawesi; and the Ketemenggungan Tapak Semadak indigenous community in Sekadau Regency, West Kalimantan (Wibowo, 2019). Meanwhile, in Papua, recognition of the rights of indigenous peoples is contained in Law Number 21 of 2001 concerning special autonomy for Papua Province. In order to accelerate the registration of indigenous peoples, the Regent of Jayapura launched the Indigenous Community Task Force (*Gugus Tugas Masyarakat Adat/GTMA*), a multi-stakeholder institution which is a forum for cooperation in preparing and implementing the *GTMA* work program for the recognition, protection, and empowerment of indigenous peoples (*GTMA*, 2021).

Apart from success stories, it was also found that the struggles of indigenous communities had not been successful, which was indicated by the low number of customary territories recognized and defined through regional regulations. As mentioned in the introduction, around 80% of the total customary territories in Indonesia have not been recognized and defined. Some examples of indigenous communities that are hampered in obtaining recognition are the Laman Kinipan indigenous community, Lamandau Regency, Central Kalimantan, whose traditional territory (*ulayat*) overlaps with the *hak guna usaha* (HGU) area of palm oil companies; the Moronene Hukaea indigenous community, Buton Regency, Southeast Sulawesi, whose traditional territory overlaps with national parks-KLHK (Yaqub et al., 2021; Harahap et al., 2023). In the cases mentioned above, there are several things that cause the slow recognition of indigenous communities, including the indigenous communities in Boti. Some of them are that the formation of legal regulations requires expensive costs and takes a long time; minimal commitment and responsibility of regional heads; low institutional capacity of staff; and low support and participation of indigenous communities (Cahyono, 2022). Apart from that, the views of forestry bureaucrats who still consider customary forests to be state forests and the political-economic motivation of local governments which prioritize land allocation for large-scale

investment rather than recognition of customary territories are obstacles to registering indigenous communities (Safitri, 2015). The slow recognition of indigenous peoples is also considered to be in line with the slow progress in discussing the main legal guidelines-in the form of the Indigenous Peoples Law Draft (*Rancangan Undang-Undang/RUU Masyarakat Adat*) which began in 2012 (Bedner & Arizona, 2019; Arizona, 2023).

This study is only focused on the requirements for the recognition of indigenous peoples within the framework of Minister of Home Affairs Regulation Number 52/2014. Our main target is to obtain documents based on scientific studies that can be used for drafting academic texts for plans for regional regulations regarding the recognition of Indigenous Peoples. Boti. The issuance of regional regulations is the initial stage that must be fulfilled for the recognition of customary forests or customary territories. The flow of the verification and validation process for customary forests as regulated in Minister of Environment and Forestry Regulation Number 21/2019 concerning customary forests or private forests starts with regional regulations recognizing customary communities, a request for determination of customary forest areas to the Minister of Environment and Forestry, the formation of a verification team and validations, the process of verification and validation of the biophysical and institutional conditions of indigenous communities, the preparation of verification and validation minutes, the final discussion meeting, and the decision letter determining customary forest areas. Studies related to the detailed biophysical conditions of the area and assessing the capacity of traditional institutions are important to carry out in order to support the accelerated recognition of indigenous peoples and their traditional territories.

This study is considered to provide theoretical implications or contributions to previous theory or literature related to indigenous communities. A spatial approach capable of presenting an overview of traditional territories as well as an overview of ecological sustainability with land cover indicators is thought to contribute to filling a gap in Boti indigenous community studies, which are currently dominated by socio-cultural studies (Andung & Nope, 2017; Prasetyo & Ndolu, 2017; Sandiningtyas & Wiyono, 2018; Konay et al., 2021). Aside from that, the study's findings revealed that the Boti community possesses the characteristics of traditional communities found in previous studies, such as living in groups in harmony under customary law, having ties to ancestral origins and/or a living place, having a strong connection with the land and environment, and having a value system that determines economic, political, social, cultural, and legal institutions, as well as the use of language. The *halaika* belief system, namely belief in sky gods, earth gods, and ancestral spirits, which is the main guide in the Boti community's daily life, is consistent with (Hadlos et al., 2022) findings that indigenous communities' belief systems shape knowledge and perceptions about resource management, natural resources, livelihood strategies, livelihood-based adaptation, and collective action in everyday life. Even though it is able to contribute to existing theory or literature, this study only examines data and information for the recognition of Indigenous Peoples. It is crucial to conduct further research into the possibilities in

Boti for indigenous community empowerment initiatives while taking into account current policies (Indonesia FOLU Net Sink 2030). Referring on the draft law on indigenous peoples, empowerment activities are follow-up stage of activities after the recognition and protection of indigenous communities. Some examples of these initiatives include the assessment of environmental services from customary forests (water resources, carbon), potential mapping and development strategies for potential non-timber forest products-NTFPs (candlenuts, tamarind), and strategies for developing tourism based on cultural practices. Furthermore, although this study is able to display sustainability in the ecological dimension, in the future there will be a need for sustainability assessment studies that also accommodate other aspects. One approach that can be used is the multi-dimensional sustainability analysis approach (multi-dimensional scaling/MDS), which was first introduced by (Pitcher & Preikshot, 2001) under the name rapid appraisal for fisheries (RapFish). MDS can also be used to assess sustainability in the forestry sector, as in RapForest (Sukwika et al., 2016) community forestry, as in RapCF (Nandini et al., 2017), and agroforestry, as in RapAF (Pujiono et al., 2021).

In addition to theoretical implications, this study also provides practical implications, showing how the findings of this study are important for indigenous peoples or policies for the recognition and protection of indigenous peoples. Regarding practical implications, several study findings, namely the main evidence for the existence of the Boti community in the form of traditional history, traditional territories, customary law, traditional objects, and traditional institutions, as well as additional evidence in the form of ecological sustainability, can be used as references for related parties to create academic texts of regional regulation regarding the recognition and protection of indigenous peoples.

If it is related to the scenario for the condition of indigenous peoples in the future created by AMAN, which categorizes the situation of indigenous peoples based on the good or bad of government policies and the weakness or strength of the movements and will of indigenous peoples (AMAN, 2014), the current state of recognition of indigenous peoples in Boti is that the government lacks support and the movement of indigenous peoples is weak. Referring to (Messakh et al., 2023), NTT Province has a customary law area of 321,075 with 54 customary maps, but the Regional Regulation on Recognition of Customary Law Areas only exists in East Manggarai Regency and Ende Regency in Flores Island. BRWA's latest data states that there are approximately 37 indigenous communities in NTT Province, but the Boti indigenous community is not yet included in the list (BRWA, 2024). The low level of advocacy discussing the recognition of indigenous peoples in the Regional House of Representatives (*Dewan Perwakilan Rakyat Daerah*/DPRD) is due to the weak political networks of indigenous communities with political parties and DPRD members, so proposed regional regulations are only supported by a few political parties (Bedner & Arizona, 2019). The inadequate roles of other stakeholders exacerbates this situation. For instance, the TTS Regional Government appears to be less concerned and takes longer to verify evidence of the existence of indigenous communities. Relevant regional

offices also only address technical matters, ignoring the legal aspects of the Boti indigenous community, e.g., Regional Spatial Planning Office (*Bappeda*) TTS with a spatial plan that does not yet accommodate customary interests, and the forest management unit (*Kesatuan Pengelolaan Hutan/KPH*) TTS which seems slow in proposing Boti as social forestry areas—with customary forests scheme. A number of NGOs already run programs, but these are primarily focused on economic and health-related issues, and no one has assisted with the process of officially recognizing the Boti indigenous community. Hence, it makes sense that, until now, there has been no legal recognition or regulation for the existence of the Boti Indigenous People. Optimizing the roles of stakeholders and multi-party collaboration in the form of the political will of regional heads and regents, support from DPRD, and intensive assistance by NGOs for Indigenous Peoples, appropriate programs from regional offices as well as collaboration with other related parties, is believed to be able to encourage the acceleration of the issuance of regional regulations regarding the recognition and protection of indigenous peoples.

Conclusion

In this study, the social-spatial approach can be used as an alternative approach to explain evidence of the existence of the Boti indigenous community. This approach is relatively easy to carry out and produces social and spatial information to describe the evidence or requirements needed for the recognition of the Boti indigenous community. Our findings conclude that the Boti indigenous community has a traditional history where the Boti indigenous community was formed from several clans led by the Benu clan, a traditional territory with land use zones, one of which is prohibited forest, customary laws or regulations in daily life and in the management of natural resources, which is guided by the *halaika* belief system. Traditional objects include traditional houses and typical Boti weaving, as well as traditional institutions tasked with assisting the King in running his government. Even though this study is able to present evidence of the existence of the Boti indigenous community, it has not delved deeper into local potentials and has not accommodated current related policies. For future studies, it is important to dig deeper into local potential, such as rich traditions and culture, as well as the potential for developing potential NTFPs, candlenuts, tamarind, and areca nuts that can be utilized for empowerment activities of the Boti indigenous community. Aside from that, studies on assessing environmental services, particularly customary forest carbon uptake, are necessary in order to accommodate the most recent carbon issues and policies. Overall, this study demonstrates the benefits of local knowledge mapping, participatory mapping, and satellite image interpretation as tools for understanding evidence of the existence of indigenous communities. This data and information can be used as a basis for preparing academic papers and regional regulation plans regarding the recognition and protection of the Boti indigenous community. By recognizing the rights of the Boti indigenous people, we can further ensure that the legacy of their traditions, customs, and culture in particular and Timorese culture in general remains alive and is passed on to future generations.

Recommendation

Accelerating the issuance of regional regulations on recognition of the Boti indigenous community requires multi-party collaboration and coordination, starting from the central government, regional government, NGOs, research institutions, the Boti indigenous community, and other related parties.

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