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## Social-ecological Values and Practices of Indigenous Whale Fishing Community in Lamalera, East Nusa Tenggara

<sup>1</sup>Alexander Aur, <sup>2</sup>Y. Budi Widianarko, and <sup>3</sup>\*)Trihoni Nalesti Dewi

<sup>1</sup>Environmental Science, Doctoral Program, Soegijapranata Catholic University, Semarang; Philosophy Department, Faculty of Tourism and Hospitality, Pelita Harapan University, Karawaci, Indonesia.

<sup>2</sup>Food Technology Department, Faculty of Agricultural Technology, Soegijapranata Catholic University, Semarang, Indonesia.

<sup>3</sup>Law Department, Faculty of Law and Communication, Soegijapranata Catholic University, Semarang, Indonesia.

<sup>1</sup>21o20003@student.unika.ac.id; alexander.aur@uph.edu,  
<sup>2</sup>widianarko@unika.ac.id, and <sup>3</sup>trihoni@unika.ac.id

\*) corresponding author

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<sup>1</sup>Alexander Aur, <sup>2</sup>Y. Budi Widianarko, and <sup>3\*</sup>Trihoni Nalesti Dewi

<sup>1</sup>21o20003@student.unika.ac.id; alexander.aur@uph.edu,  
<sup>2</sup>widianarko@unika.ac.id, and <sup>3</sup>trihoni@unika.ac.id

<sup>1</sup>Environmental Science, Doctoral Program, Soegijapranata Catholic University, Semarang; Philosophy Department, Faculty of Tourism and Hospitality, Pelita Harapan University, Karawaci, Indonesia.

<sup>2</sup>Food Technology Department, Faculty of Agricultural Technology, Soegijapranata Catholic University, Semarang, Indonesia.

<sup>3</sup>Law Department, Faculty of Law and Communication, Soegijapranata Catholic University, Semarang, Indonesia.

\*) corresponding author

**Abstract:** Lamalera is a traditional fishing village. The Lamalera indigenous people are traditional fishermen, who catch whales in the traditional sea area of the Sawu Sea. In 2014, the Sawu Sea was designated as a conservation area and National Marine Park by the central government through the Ministry of Maritime Affairs and Fisheries and the regional government of East Nusa Tenggara. Since then, the Lamalera indigenous people have been worried that the tradition of whaling will be banned and access to marine spaces will be restricted due to strict enforcement of conservation laws in the future. Thus, this research reports the aims of (1) exploring the Lamalera community's local wisdom through the form of socio-ecological capabilities and practices of the traditional fishing community and (2) positioning the local wisdom as a cultural foundation for marine environmental governance. This research uses qualitative methods with cultural phenomenological, environmental justice, and environmental governance analysis. The results found were that the Lamalera community had social-ecological capabilities, namely *lefo*, *tena-laja*, and *ola nuânglefa nué*. Based on these findings, this research also encourages partnerships between the central government, regional governments, and the Lamalera indigenous community in

supporting sustainable conservation and equitable management of the Sawu Marine National Park.

**Key words:** Lamalera indigenous people, fishermen, Sawu Marine National Park, cultural phenomenological analysis, environmental justice, and governance analysis.

**Abstrak:** Lamalera adalah desa nelayan tradisional. Masyarakat adat Lamalera merupakan nelayan tradisional yang menangkap ikan paus di wilayah laut tradisional Laut Sawu. Pada tahun 2014, Laut Sawu ditetapkan sebagai kawasan konservasi dan Taman Laut Nasional oleh pemerintah pusat melalui Kementerian Kelautan dan Perikanan dan pemerintah daerah Nusa Tenggara Timur. Sejak saat itu, masyarakat adat Lamalera khawatir tradisi penangkapan ikan paus akan dilarang dan akses terhadap ruang laut akan dibatasi karena penegakan hukum konservasi yang ketat di masa depan. Dengan demikian, tujuan laporan penelitian ini adalah (1) menggali kearifan lokal masyarakat Lamalera yang berbentuk kemampuan-kemampuan sosial-ekologis sosial-ekologis dan praktik masyarakat nelayan tradisional dan (2) memosisikannya sebagai landasan budaya tata kelola lingkungan laut. Penelitian ini menggunakan metode kualitatif dengan analisis fenomenologi budaya, keadilan lingkungan, dan tata kelola lingkungan. Hasil yang ditemukan adalah masyarakat Lamalera mempunyai kapabilitas sosial-ekologis, yakni lefo, tena-laja, dan ola nuâng-lefa nué. Berdasarkan temuan itu, penelitian ini juga mendorong kemitraan antara pemerintah pusat, pemerintah daerah, gereja Katolik lokal, dan masyarakat adat Lamalera dalam mendukung keberlanjutan konservasi dan tata kelola Taman Nasional Laut Sawu yang berkeadilan.

**Kata kunci:** masyarakat adat Lamalera, nelayan, Taman Nasional Laut Sawu, analisis fenomenologi budaya, keadilan lingkungan, dan analisis tata kelola.

## INTRODUCTION

The Sawu Sea has been designated by the central government of the Republic of Indonesia and the regional government of East Nusa Tenggara Province as a National Marine Conservation Area. The water area reaches 3.5 million hectares. The area is divided into two regions. The water area of the Sumba Strait and its surroundings is 567,165.64 hectares and the water area of

the Sabu-Rote-Timor-Batek Islands and its surroundings is 2,953,964.37 hectares (BKKPN Kupang, 2020).

The general goal of Sawu marine conservation is to harmonize the utilization and preservation of natural resources in a sustainable manner. The specific goal is the protection of the Sawu marine ecosystem and marine mammals that live in the conservation zone. Thus, the goal of Sawu marine conservation is to ensure an increase in the welfare of coastal communities and the sustainability of marine and coastal ecosystems. This policy is based on Marine Law No. 32/2014, Presidential Decree number. 83/2018 regarding the handling of marine debris; Ministry of Maritime Affairs and Fisheries Regulation no. 17 concerning conservation and mining on small islands; Decree of the Minister of Maritime and Fisheries Affairs No. 5/2014 around the Sawu Marine National Park; and the Nusa Tenggara Timur Provincial's Regulation No. 4/2014 regarding conservation and mining zoning in small islands. This environmental policy has created anxiety for and resistance from the traditional fishing community of Lamalera because it has an impact on the prohibition of this community from carrying out the *ola nuâng-lefa nué* tradition, namely the tradition of going to sea traditionally to catch whales and other fish.

Community resistance, especially coastal indigenous peoples and traditional fishermen, to environmental policies shows that people are highly dependent on the sea as an area of livelihood (Hamid et al., 2021). In addition, resistance is also rooted in the local wisdom of the people who place the sea as part of their culture and life. Therefore, ensuring environmental justice in every environmental policy is important and necessary. In pursuing this, coastal indigenous peoples and traditional fishermen are involved as active parties. The involvement of these parties takes place both in the formulation and determination of policies as well as the implementation of policies through the joint management of conservation areas.

Considering that the government's policy regarding the Sawu Marine National Park has caused anxiety for the Lamalera traditional fishermen, therefore, there are three questions to be answered in the research about Lamalera whaling area. First, what the socio-ecological capabilities of the Lamalera traditional fishing community can be integrated into environmental policies to create environmental justice. Second, how can environmental justice pave the way for Sawu Marine National Park's environmental policy for conservation, and third, what kinds of equitable management are practiced in Sawu Sea.

## LITERATURE REVIEW

### A. Indigenous Peoples

Lamalera fishermen are indigenous people. There are various definitions of indigenous peoples. In the context of this research, the theoretical understanding of this is based on the theory of cultural phenomenology which describe the traditions of indigenous peoples and customary law community theory which analyze customary law rules. In other words, the cultural phenomenology theory more or less suppresses the existence of indigenous communities (Neonbasu, 2020; McGregor, 2020; Tsosie, 2018; Satria, et al., 2017, Noerhadi, 2013; van Peursen, 1976) and customary law community theory which prioritizes the rights of indigenous peoples (Arman, 2020; Soekanto, 2020; Whyte, 2018; Napoleon, 2013; Sonny Keraf, 2002). These two theoretical approaches are closely related to the existence of indigenous communities and environmental problems. These two approaches are the cultural foundation for realizing environmental justice and being actively involved in environmental governance in certain areas. Thus, these two approaches are adequate to answer the problems presented in the introduction.

Referring to the definition and description of indigenous communities by the *Aliansi Masyarakat Adat Nusantara (AMAN)*, Arif Satria, et. al (2017) the existence of indigenous communities is known through four constitutive elements, namely groups of people, living areas, knowledge systems, and systems of rules for living together. The following paragraphs discuss each in more detail.

First, a certain group of people are classified as indigenous peoples because they have the same cultural identity in terms of language, spirituality, value system, attitudes, and behavior (Neonbasu, 2020). This shared identity is a way of being (van Peursen, 1976) as well as an existential marker (Noerhadi, 2013) that differentiates one group of indigenous peoples from another group of indigenous peoples. These various similarities make an indigenous community known as a unique and special cultural community by outsiders.

Second, indigenous peoples also have a geographical area as a place to live. Geographical areas include land and/or sea areas, which contain natural resources. This area is referred to as customary territory or *ulayat* territory. This area is not owned privately, but rather communally (Sirait, et al., 2009). In this customary territory, members of indigenous communities develop themselves and form their culture.

In the cosmology of indigenous peoples' lives, geographical areas are not merely empirical and objective, but rather mythical (Noerhadi, 2013). Land, water, sea, plants, animals, rocks, rain, floods, sea waves, and so on are treated and interpreted in a dualistic-cosmic manner (Boy, 2013). Everything within the geographical area is processed and utilized to support the sustainability of indigenous people's lives. On the other hand, geographical areas are treated as manifestations of something supernatural. Every indigenous society has certain terms that are used to name something supernatural.

Indigenous people recognize and become aware of something supernatural through various events, both natural and social events. In indigenous communities, social events or individual attitudes and behavior of indigenous community members are often linked to human attitudes and behavior towards nature. Various natural events are interpreted as manifestations of supernatural powers. Meanwhile, natural events that befall humans and/or indigenous communities who experience problems because their attitudes and behavior do not respect nature are interpreted as blessings or punishments from something supernatural (Neonbasu, 2020). Therefore, indigenous communities have traditional ceremonies that always connected with nature (McGregor, 2020; Tsosie, 2020). Various traditional ceremonies carried out by indigenous peoples are expressions of the mythical meaning and appreciation of nature.

Third, indigenous peoples also have a knowledge system. This knowledge system is traditional wisdom, which is internalized and practiced in daily life, and passed down from generation to generation from previous generations to the next. The pattern of inheritance is through daily practice in various activities. Indigenous people's knowledge includes knowledge about nature, value systems and social relations (Neonbasu, 2020).

Knowledge about the environment or nature contains four important dimensions, which are lived and practiced mythically and culturally by indigenous peoples (McGregor, 2018). First, the community dimension. In this dimension, humans and nature constitute a community of life. Therefore, everyone in traditional communities is obliged to protect and care for each other both towards fellow humans and nature. Second, the dimension of connectedness with each other. Because humans and nature are one community of life, both humans and nature are interdependent. Human connection with nature is causal. Human attitudes and behavior have an impact on nature. Likewise, various natural events have an impact on humans. Third, the future dimension. The attitudes and behavior of indigenous peoples towards nature

must also consider the living conditions of the descendants of indigenous peoples in the future. Fourth, the dimension of humility. The complexity of the relationship between humans and nature and the complexity of the relationships between living creatures and all elements in an ecosystem require humans to adopt the precautionary principle. This principle is a benchmark for attitudes and behavior towards nature. Implementing this principle in everyday life is an expression of the dimension of humility.

Fourth, indigenous communities have a system of rules that must be obeyed together so that life together can take place in an orderly and sustainable manner. There are two important things in this fourth element. First is the rule system. Second is sustainability. Apart from supporting each other, these two things also support the three elements of indigenous society that have been discussed.

Richard Daly (cited in Napoleon, 2013) said that traditional rules are found in oral narratives, dances, traditional ceremonies, and art found in a traditional society. The customary rules that apply in indigenous communities' function to regulate human attitudes and behavior towards indigenous communities as a social system, towards each person in that system, and towards the natural environment or customary territory. Traditional community rules are established and passed down through oral narrative methods and practices (Napoleon, 2013). Through the oral narrative method, traditional rules are told by authorities or parents to children and young people. Oral narratives about origins, how to socialize, marriage, certain places and so on are told in certain places and at certain events. Through practical methods, for example in certain ceremonies or in resolving certain problems, traditional rules are reminded to all members of indigenous communities and transmitted to generations of children and young people.

## **B. Environmental Justice, Socio-Ecological Capability, and Environmental Governance**

Environmental justice is not about an abstract concept that must be realized in concrete situations. There are many concrete environmental problems experienced by humans so thinking about environmental justice becomes important. Environmental damage, public policies in the environmental sector, environmental governance, and environmental commercialization that do not consider environmental balance and the existence of indigenous communities, encourage reflection and efforts to realize environmental justice. In this context, distributive justice, procedural justice,

and recognition of the social-ecological capabilities of indigenous peoples (Svarstad & Benjaminsen, 2020) are very relevant.

Considering economic values in environmental governance must not ignore ethical values. Economic considerations go hand in hand with normative considerations. These two things support each other in environmental governance. These considerations are closely related to the social-ecological capabilities of indigenous communities. This means that public policies regarding environmental governance must contain normative and economic considerations (Christensen, 2015).

In the context of achieving the economic goals of managing the Sawu National Park area, the subsistence economic model of the Lamalera indigenous community is not subordinated to the modern economic model which prioritizes financial gain alone. Subsistence economy is a local cultural capability (Gross & Wilson, 2020). A subsistence economy is characterized by social ethics, which prioritizes common interests. With its social ethical character, this local cultural capability acts as a counterbalance to the modern economic model which prioritizes individual interests. In this way, the governance of this area reflects environmental justice in the Sawu National Park.

Indigenous peoples have customary territories. The government has legal legitimacy to designate an ecological area as conserved and become a national park. In this area there are indigenous peoples and have customary territories. Therefore, government determination is a challenge to formulate environmental justice based on the local wisdom of indigenous communities (McGregor et al., 2020a); (Peeters et al., 2015a). This formulation is important and urgent because indigenous peoples have social-ecological capabilities in the form of socio-cultural values and life practices that they have carried out for generations. Such a formulation of environmental justice serves as a reference for environmental governance and ensuring environmental sustainability.

## METHOD

This study uses a qualitative method with a cultural phenomenological approach (Sudaryono, 2019). The research data consists of two types of data. First, empirical data in the form of marine life practices and oral narratives regarding local wisdom regarding seafaring traditions. This first data collection used in-depth interviews with several key informants and in-depth field observations in Lamalera village, Lembata Regency, Nusa Tenggara Timur



Province in November 2022. Second, literature on the tradition of whaling by the traditional Lamalera fishing community becomes another way for the data collection method.

Both types of data were processed using the cultural phenomenological hermeneutic method (Hardiman, 2015; Poespowardojo & Seran, 2015). Hermeneutics aims to make explicit the socio-ecological capabilities of the traditional fishing community of the Lamalera indigenous people. Furthermore, this capability is interpreted in depth using the perspective of environmental justice theory and equitable environmental management. Thus, efforts to achieve marine environmental justice and equitable environmental management in conservation areas and the Sawu Sea Marine National Park are realized.

Environmental justice and just environmental management are sociological and political principles, which are useful for the government to determine public policies in the environmental sector. Thus, the implementation of public policies in the environmental sector is beneficial for increasing the welfare of coastal communities, especially traditional fishermen, and ensuring environmental sustainability, both the social environment and the marine ecological environment.

## RESULTS AND DISCUSSIONS

There are three questions to be answered in the research about Lamalera whaling area: 1) What socio-ecological capabilities of the Lamalera traditional fishing community have been integrated into the policy to create environmental justice, 2) How can environmental justice pave the way for Sawu Marine National Park's environmental policy for conservation, and 3) What kinds of equitable management are practiced in Sawu Sea. Before showing the answers for the three research questions, below is a short profile of Lamalera village.

### A. Short Profile of Lamalera

At first, Lamalera was a fishing village (Rutherford & Barnes, 1997); (Blikololong, 2010). When the Government of Indonesia issued Law No. 5/1979, Lamalera was divided into two villages namely Lamalera A and Lamalera B until now (Figure 1). These two villages are part of Wulandoni District, Lembata Regency, Nusa Tenggara Timur Province. The sub-district

capital is Wulandoni. The district capital is Lewoleba. At present the governance of the two villages is based on Law No. 6 of 2014 concerning Villages.

Based on its geographical location, Lamalera is located on Lembata Island. Flanked by two headlands, namely Vovolatu Cape and Nubivitun Cape at coordinates 51 L 0545725, 9051853 UTM, with a height of 26 meters above sea level. Lamalera has large and small rock areas. It is also a dry, and hot area. This geographical condition, unfortunately, cannot be used as land for farming, both short-lived crops such as pulses and long-lived crops such as coconuts and other trees.

Data from the Central Bureau of Statistics for Lembata Regency for 2022 recorded the area of the two villages, namely Lamalera A covering an area of 5.33 km<sup>3</sup>/sq m, and Lamalera B covering an area of 6.53 km<sup>3</sup>/sq m. The distance from Lamalera A to the district capital is 8 kilometers. Lamalera B to the district capital is 7 kilometers. The distance from Lamalera A to the district capital is 96 kilometers and the distance from Lamalera B to the district capital is 95 kilometers.

**Table 1:**  
The population based on the sex of the two villages in the Central Bureau of Statistics data of Lembata Regency in 2022 is as follows

Village	Amount Population		Total
	Man	Women	
Lamalera A	390	537	927
Lamalera B	450	451	901

Source: Central Bureau of Statistics for Lembata Regency in 2022

The Central Bureau of Statistics for Lembata Regency in 2022 also presented data regarding the nutritional status of residents, electricity needs, and types of transportation. The three types of data correlate with family economic income and expenses for health, information, and transportation needs. In 2020 there are 6 residents of Lamalera A village and 5 residents of Lamalera B village who suffer from malnutrition.

Villagers' lighting needs come from Perusahaan Listrik Negara/PLN (State Electricity Company). In Lamalera A village, 255 families, and in Lamalera B village, 237 families use electricity from the PLN. In Lamalera A village, 7 families do not use electricity. The types of transportation facilities used to get

to the sub-district and district government centers are land and sea transportation. Both types of transportation have fixed routes.

The Central Bureau of Statistics for Lembata Regency in 2022 also shows data regarding cell phone signal strength. Cell phone signal strength is weak in both villages. However, the data shows that currently, residents need cell phone credit. Telephone credit is a new requirement in line with the development of cellular and digital technology-based communication facilities.

In Lamalera B village there is one government bank agent, namely an agent for Bank Rakyat Indonesia, and one Nusa Tenggara Timur branch office bank. The facilities of this financial institution are used by residents of the two villages to receive and send money. The existence of this facility also shows that residents of the two villages carry out financial transactions. This transaction shows that residents have economic income from outside and residents also send money abroad, especially for the education costs of children outside Lembata. Lamalera was a village, which the traditional fishing community of Lamalera called *lefo*. Below is a photo of Lamalera as *lefo* and as a part of Indonesia's modern state.



**Figure 1:**  
**Lamalera B Village in Lembata District, East Nusa Tenggara.**  
Source: Alexander Aur's personal collection, November 2022

## **B. Lamalera's Socio-ecological Capabilities**

Based on the point of view and modern governance, Lamalera A and Lamalera B are villages managed by modern governance. But in terms of marine governance for the economic life and welfare of the community, the Lamalera

people manage the sea and whales and other fish traditionally. Marine management is based on Lamalera's three social-ecological capabilities, namely, *lefo*, *tena-laja*, and *ola nuâng-lefa nué*. The three capabilities described below can be integrated into policies to create environmental justice.

As a traditional fishing community, the Lamalera people live and practice cultural values consistently in managing the sea and sharing their catch. Lived traditional values and practices passed down from generation to generation. How to inherit traditional values through traditional ceremonies and daily life practices (Oleona & Bataona, 2001). Thus, the Lamalera indigenous people perceive and treat the social and marine environment with a traditional cultural paradigm.

Traditional ecological environmental management by indigenous peoples emerged as one of the environmental justice movements along with various popular political movements in various countries, especially in developing countries. Faber & McCarthy (cited in Schlosberg, 2007) argue that various popular political movements, such as the civil rights movement, the occupational safety and health movement, the indigenous land rights movement, the public health and safety movement, the solidarity movement – for human rights and self-determination in various developing countries – and socio-economic justice movements, all of which frame and echo the environmental justice movement.

The background to the growth and development of the environmental justice movement is the poor environmental conditions for society, especially in developed countries such as the United States. The conditions referred to include environmental pollution due to industrial waste disposal, government public policies that are ecologically unfair to the poor, and the use of pesticides (Colburn, 2006; Opp, 2012).

Departing from this background and concrete movements for environmental justice, efforts have also been developed to formulate a clear definition of environmental justice and expand its scope. The definition of environmental justice is focused on distributive justice and procedural justice. Various community groups as environmental stakeholders have equality and are directly involved both distributively and procedurally in public decisions in the environmental sector and actively participate in realizing various environmental decisions through concrete efforts (Schlosberg, 2007). Thus, environmental justice is realized for all stakeholders.

Meanwhile, expanding the scope of environmental justice includes political, economic, and cultural recognition of the existence and rights of indigenous peoples over the environment (Corradi et al., 2018; Anaya, 2009; Westra, 2012; Fontana, 2016). This expansion of the scope shows that indigenous peoples are one of the subjects in the formulation of public policies and environmental governance (Warkat Warta SUAR, 2009). The position and active participation of indigenous peoples are important because public policies and environmental governance at global, regional, national, and local scales often ignore the existence of indigenous peoples (McGregor et al., 2020b).

The marine environmental policy stipulated by the Government of Indonesia, namely conserving, and managing the Sawu Sea Waters National Park, must not ignore the existence and participation of the traditional Lamalera fishing community. The reason is that the public policy also regulates the protection of cetaceans and traditional fisheries. These two things are directly related to the traditions and traditional culture of the Lamalera indigenous people. Traditions and traditional culture are socio-ecological capabilities that enable indigenous peoples to obtain things of value (Sunaryo, 2017, 2021). Thus, the Sawu Marine conservation policy and the management of the Sawu Marine National Park meet the standards of environmental justice and equitable environmental management.

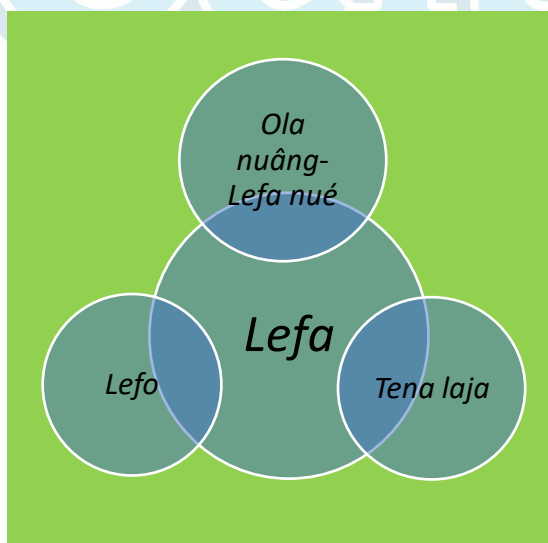
Responding critically to the conservation policies of the Sawu marine area and the management of the Sawu Marine National Park with an environmental capability approach, is referring to Amartya Sen's thoughts on justice (Sunaryo, 2017, 2021) and Martha Nussbaum's thoughts on capabilities (Holland, 2008). Justice, according to Amartya Sen, is the ability or capability inherent in every community group to achieve things of value. Meanwhile, capability, according to Martha Nussbaum, is a condition or condition of a society that has the power and opportunity to achieve anything of value. So, justice is related to the capabilities and opportunities of the community to achieve things that are of value both socially and ecologically.

In the context of the existence of indigenous peoples and their relationship with the environment, indigenous peoples have the ability or capability to achieve something of value both socially and ecologically. The social-ecological capability approach (Schlosberg, 2013) for the context of Sawu marine conservation, traditional fisheries management, and protection of cetaceans in the Sawu Sea Marine National Park area is environmentally just. This approach is directly related to the existence of the Lamalera traditional fishing community, which has existed in the area for centuries until today.

Socio-ecological capabilities of indigenous peoples are in three philosophical components namely ontology, epistemology, and axiology. The ontological level relates to the essence of the existence of the social and ecological environment of indigenous peoples. The epistemological level relates to the knowledge of indigenous peoples about their environment. The axiological level concerns the values that guide the actions and behavior of indigenous peoples. These three levels are interrelated with each other and are basic capabilities for the social and ecological space of indigenous peoples (Peeters et al., 2015a). These philosophical components show that indigenous peoples have a complete and integrated cosmology of life.

The socio-ecological capability of the traditional fishing community of Lamalera rests on the trinity of Lamalera village life, are referred to *lefo*, *tena-laja*, and *ola nuâng-lefa nué*. The three capabilities are based on *lefa* or the sea as the center of life orientation. *Lefo* is a village. *Tena laja* is a sailboat. *Ola nuâng-lefa nué* is sea activity. This capability base and orientation center ensure the continuity of the appreciation and practice of environmental justice by these traditional communities (see Figure 2).

The following is a visualization of the social-ecological capability basis of the Lamalera traditional fishing community:



**Figure 2:**  
**Lamalera traditional fishing community**

Figure 2 informs that the socio-ecological capability of the traditional fishermen community of Lamalera, which consists of the Circle *ola nuâng-Lefa nué* is describing sea activities to catch whales and other fish. Meanwhile, the *tena laja* circle depicts the sailboats and crew who carry out the village's mandate to carry out fishing activities. Then the circle *lefo* describes the village that gave the mandate to the sailing boats and crew to go out to sea and wait for the sailing boats to bring in the catch, and the *lefa* circle depicts the sea as the center of life orientation.

In the cosmology of the life of the traditional fishing community, *lefa* or the sea has several metaphorical meanings (Taum, 2014). First, *ina kfae belé* means a mother who is full of mercy. Second, *sedo basa hari lolo* means a loving mother, who always conceives, gives birth to, raises and takes care of her children by providing everything they need. Then, in the context of catching whales and other fish, the sea is *ina lefa* which means the mother of the ocean, and *ina soro* mind which means the mother who gives her heart to her children.

Even though the metaphor of the sea has a maternal meaning, it does not mean there are no risks. To obtain natural contents in the sea, Lamalera traditional fishermen must take risks and risk their lives. The sea is beneficent but also frightening and uncontrollable. The sea contains a variety of natural resources that are attractive but at the same time frightening because they contain danger (Kleden, 2022). So, the metaphor of the sea as a mother who gives life and carries risks shows that the sea is an ecological capability for the Lamalera people. In this case, ecological capability is correlated with social capability.

The social capabilities of the Lamalera traditional fishing community consist of three elements, namely *lefo* or village, *ola nuâng* or fishing activities, and *tena laja/peledang* or boats for fishing activities. Every social capability contains social-ecological values. Values are the ideas that grow and develop through historical processes that are determined morally or culturally regarding various things that are important in a community (Herry-Priyono, 2022). Important things include human existence, human relations, and human relations with nature.

These elements of the social capabilities of the Lamalera indigenous people are social facts that are constitutive and valuable. These three elements constitute and shape the existence of the Lamalera indigenous community. Therefore, it is valuable for the traditional fishing community. Below is a description of these three elements.

The first element is *lefo* or village. This capability consists of two forming sub-elements, namely sailors and landlords. The sailor tribe consists of several immigrant tribes. Each tribe has a social role in the village. Three tribes play a role in regulating sea activities, namely Blikololong, Bataona, and Lefotukan. These three tribes are called *lika telo* or the three pillars of the social system of the Lamalera indigenous people. These three tribes play a democratic role in carrying out the daily life of the Lamalera traditional community.

Meanwhile, the tribes who own customary land are Langofujo and Tufaona. In the oral narratives of the two tribes, the Langofujo and Tufaona tribes are the owners of the customary land that stretches from Mount Labalekang to the sea that stretches in front of the Lamalera village. Based on in-depth interviews with researchers with sources from the Langofujo tribe in November 2022 in Lamalera, Lembata, and East Nusa Tenggara, landlord tribes have local beliefs about whales and the sea. Whales are tribal pets. These pets are in the form of spirits. At night these pets come down from the mountain at night and play in the sea.

One time, one of the marine animals in the form of a whale came home late to the village. The animal came home when the sun was almost shining. A resident of a traditional village who was extracting sap from a palm tree in the morning, the whale in the form of a spirit was reprimanded. Because of that warning, the whale turned into a rock. The whale-shaped stone is still in the traditional village of the Langofujo tribe until now.

When the seafaring tribes fished in the sea that stretched in front of the village, these tribes felt tired. Furthermore, these tribes asked the tribes who owned their customary land to provide them with a place to rest. The tribes who own the customary land allow the seafaring tribes to settle in rocky locations on the stretch of coastline. Langofujo tribal sources said that the tribes who own the customary land allow the seafaring tribes to settle on the site like a father giving his arm as a place to lay a child's head at night.

Sources from the Langofujo tribe said that the request of the seafaring tribes and the granting by the landowning tribes were bound by an oral agreement. There are two contents of the agreement. First, at the opening of each whaling season, the "*lika telo*" of the seafaring tribes begs the tribes who own customary land to hold a ceremony to open the whaling season. The ceremony took place from the whale stone in the traditional village to the beach. Second, the whale head that has been caught must be given to the tribes that own the customary land. This agreement is still valid until today.



The second element is *ola nuâng-lefa nué* or life activities related to the sea and whale catching activities. According to a maritime expert from one of the Lamalera seafaring tribes, namely Bona Beding, the *ola nuâng* capability is the whole of life and work related to the sea. Meanwhile, the capability of *lefa nué* is the activity of catching whales. These two capabilities are interrelated.

The resource person was interviewed by researchers in August 2022 in Cibubur. He said that the traditional fishing community of Lamalera has several expressions related to this series of capabilities, namely "to the sea", "at sea", and "to go to sea". "To the sea" means that the Lamalera people orient their lives towards the sea. "At sea" means that every fisherman while at sea has a mandate from the village to bring back whales and sea fish to fulfill the villagers' need for food (figure 3). Meanwhile, "going to sea" means catching whales and other fish as an activity of life. Therefore, the social capability "*ola nua-lefa nua*" is a life activity with a social-ecological dimension. In other words, *ola nuâng-lefa nué* is a series of social-ecological capabilities contained in the life universe of the traditional Lamalera fishing community. This series of capabilities is an ethical value that is actualized in social life in Lamalera village.



**Figure 3:**  
**Distribution of whale meat on Lamalera Beach in November 2022.**

Source: Alexander Aur's personal collection

The third element is the *lena-laja/peledang* or sailboat (see Figure 4). The boat is made from local natural materials that are environmentally friendly. The boat as a marker of the social capability of the Lamalera community is revealed in the customary rites in the process of making a boat starting from the initial stage until a complete boat is formed. Every part of a screen contains traditional values and meanings (Oleona & Bataona, 2001). Therefore, sailboats are not

merely a material means for *ola nuâng-lefa nué* activities or activities for catching whales and other fish.

The Lamalera indigenous people live the boat as life. *Tena laja* is a unified whole and cannot be separated. In the cosmology of the life of the Lamalera people, apart from being a tradition, sailing boats are a cultural concept or a way of encoding and living the values of society through their shape, size, and attributes (Beraf, 2008). Every part and position of the parts that make up a sailboat has a significant meaning. Therefore, the sailboat is positioned as an organism that is managed to represent Lamalera's various understandings, desires, and life philosophies.

With such representation and as part of social capabilities, sailboats are constructed, treated, and organized like human bodies. The meaning of each part or organ of a sailing boat resembles human organs with unique and distinctive functions and roles. Three major parts of the sailboat are meaningful as organs. Each subject who occupies a position in the sections in question carries out their respective roles (Beraf, 2008).

First, *mnula-blobos*. Located at the front of the sailboat and acts as the head, which is an organ that significantly indicates the actual presence of a sailboat at sea or staying in its ward. On the *mnula* attached *blobos* as a sign of honor and authority of a sailing boat. When the sailboat is used for going to sea, the *blobos* is released from the *mnula* as a sign of willingness and openness to enter the sea which is the battlefield and life orientation of the Lamalera indigenous people.

Second, *hammâ lolo*. It is found at the front of the sailboat and functions as a bridge. This part is the most important organ for a *lamaafa* or sailboat leader and spearman or stabber. It is in this organ that a *lamaafa* executes the desires, decisions, and hopes of all villagers. Therefore, this section is the cornerstone of the village's vision, and the *lamaafa* is tasked with ensuring that vision through the act of stabbing a whale. The catch is brought back to the village and distributed to all villagers according to their respective social roles and conditions. As seen in Figure 4, the parking position of the ship is with the platform facing the sea, which becomes a symbol of being ready to go to sea to catch whales.

Third, *uring-lamauri*. *Uring* means behind. *Lamauri* means helmsman. The *uring* is found at the back or stern of the sailboat. The two things are inseparable. Like the legs in humans, the *uring* functions as an organ that has the role of steering a sailboat. *Lamauri* plays the role of directing from behind the sailboat

so that it remains focused on the shared vision led by the *lamafa* on the bridge of the sailboat.



**Figure 4:**  
**Sailboats parked in the nation on the shores of Lamalera Beach.**

Source: Alexander Aur's personal collection, November 2022

The description of the organic treatment of sailboats, aside from representing a philosophy of life, also perpetuates the unity and existence of the Lamalera people as one living body (Beraf, 2008). Therefore, sailboats are valued because they are a marker of maritime culture and a representation of the life of the traditional Lamalera fishing community.

### **C. Sawu Marine Conservation Policy and Environmental Justice**

The idea of environmental justice, which has been explained above, played a role in paving the way for the establishment of a legal policy for the conservation of the Sawu sea. This idea is integrated with legal regulations, by incorporating the dictum of recognition of the existence of indigenous peoples into the following legal regulations. The Indonesian government, both central and regional governments, have designated the Sawu marine area as a marine conservation area. The policy is based on Marine Law no. 32/2014; Presidential Decree no. 83/2018 regarding the handling of marine debris; Ministry of Maritime Affairs and Fisheries Regulation no. 17 concerning conservation and mining on small islands; Decree of the Minister of Maritime and Fisheries Affairs no. 5/2014 around the Sawu Marine National Park; Nusa Tenggara Timur Provincial's Regulation no. 4/2014 regarding conservation and mining zoning in small islands.

Based on these legal regulations, the Ministry of Maritime and Fisheries Affairs of the Republic of Indonesia also established a management and zoning

plan for the Sawu Sea National Park based on zoning division. The plan is regulated in the Regulation of the Minister of Maritime and Fisheries Affairs no. 30, 2010. There are five management zones, namely the Core Zone, the Sustainable Fisheries Zone, the Aquatic Nature Tourism Utilization Zone, and the Other Zones.

The Core Zone is part of a marine conservation area that is still natural, both biota and physically. This zone has not been managed or exploited by humans. Therefore, the purpose of this zone is the protection of native and unique biodiversity. The criteria for this zone are nursery areas and fish lanes; habitat for endemic and rare aquatic biota; diversity of biota and ecosystems; natural ecosystem inhabited by pristine biota; water conditions are not yet accessible to humans; sufficient area to guarantee the survival of various types of fish that support sustainable fishery management; and serves as a source of germplasm for marine protected areas.

Sustainable Fisheries Zones are areas whose location, conditions, and potential support the preservation of the core zone and its utilization. This zone is divided into two sub-zones, namely the General Sustainable Fisheries Zone and the Traditional Sustainable Fisheries Zone. The criteria for the Sustainable Fisheries Zone are conservation values and can be managed for sustainable fish farming and fishing using environmentally friendly fishing gear; having ecosystem characteristics that could be managed as a sustainable fisheries area; having biodiversity in aquatic ecosystems; and having sufficient area for sustainable fishing activities.

Marine Natural Tourism Utilization Zone is a water area that has the potential to become a tourism development area. The criteria for this zone are biota and aquatic ecosystems that have natural tourist attractions; have sufficient area for the development of marine tourism; has water objects that support research and education to support conservation, and water conditions that are still good for tourism activities that do not damage the environment.

The Other Zone consists of the local wisdom zone and the cetacean protection zone. The Local Wisdom Zone is a water area that has important traditional cultural values and accommodates the local wisdom of the local community. The cetacean protection zone is an area designated for habitat protection and migration of cetaceans (whales and dolphins). This zone supports artisanal fishing activities, namely small-scale fisheries, or traditional fisheries) for the local community. In fishing activities in this zone, the use of fishing gear is also regulated to maximize cetacean protection.

The zone that is directly related to the existence of the Lamalera traditional fishing community is the Other Zone. The Lamalera people, who have the socio-ecological capabilities as described above, risk their existence and capabilities when law enforcement officers enforce the law governing this zone. The Sawu marine conservation policy must be responded critically because the various legal regulations used to determine conservation areas and the management of each zone, do not explicitly include the traditional Lamalera fishing community (Sahri et al., 2020).

The inclusion of the Lamalera indigenous people in the conservation policies and management of local wisdom zones and cetacean protection zones is a concrete form of realizing environmental justice, particularly distributive justice, procedural justice, and recognition of the socio-ecological capabilities of these communities (Svarstad & Benjaminsen, 2020). Distributive justice in the environmental field refers to the distribution of burdens and benefits from intervention actions on the environment. The policy of conserving the Sawu Sea and making it a marine national park is an intervention in the Sawu marine environment. This means that the traditional fishing community of Lamalera, which has devoted its life to the Sawu sea for centuries, must obtain distributive justice.

Meanwhile, procedural justice in the environmental sector concerns the participation of indigenous communities in making decisions regarding environmental governance, especially the management of conservation areas. The Lamalera indigenous people have the sovereignty to participate in the preparation of public policies regarding the status and governance of the Sawu sea as a marine conservation area.

Justice as a matter of recognition relates to indigenous communities as stakeholders in the environment. As one of the stakeholders, the Lamalera indigenous people have local wisdom regarding the environment and have social-ecological capabilities. Local wisdom and capabilities should be recognized and respected, especially by environmental public policymakers (Peeters et al., 2015). In the context of Sawu marine conservation, the government must recognize the local wisdom of the Lamalera traditional fishing community regarding the sea and their capabilities in managing the sea which has been implemented until now.

Incorporating and implementing environmental justice will provide guarantees for the sustainability of the Lamalera indigenous people as social-ecological stakeholders. In addition, it also guarantees the sustainability of

environmental justice (Loos et al., 2023). Thus, public policy in the field of marine environment, especially the Sawu sea, is a policy that is oriented towards the welfare of the community and the sustainability of marine ecology.

#### D. Equitable Management of the Sawu Sea

Equitable management of the Sawu Sea is realized in several concrete forms. First, protecting Lamalera's social-ecological capabilities, namely *lefo*, *tenalaja*, and *ola nuânglefa nué*. Second, involve the Lamalera community in developing guidelines for Savu marine governance and its implementation together with the government and the local Catholic church. This involvement is based on its social-ecological capabilities. These two forms are the actualization of the idea of just marine environmental management and the application of environmental justice theory. Environmental governance is an important and urgent matter, especially in the context of the management of the Sawu Sea National Park.

Integrating the social-ecological capabilities of the Lamalera community into an equitable management of the marine environment is the best way. This capability shows that the sea does not only have a biological dimension but also a socio-cultural dimension (McKinley et al., 2019). The reason for integrating these capabilities is that the Sawu Marine National Park management policy towards other zones, namely the cetacean protection zone and traditional fisheries zone. The two zones are directly related to the socio-ecological capabilities of the Lamalera indigenous community.

Environmental conflicts often occur between indigenous communities and environmental law enforcement officials. Of course, preventing conflicts in the future in the Sawu sea area is something that all parties who have an interest in the area must strive for. An integrative approach to the management of the marine environment in a just manner can prevent marine environmental conflicts from occurring between the Lamalera people and the government which has established a policy for the conservation of the Sawu sea and the management of the Sawu Marine National Park.

Marine spatial planning is an integrative approach to realize equitable management of the marine environment. Marine spatial planning (Frazão Santos et al., 2021) is a public process of analyzing and allocating the space and time distribution of human activities in the sea area to achieve ecological, economic, and social goals. This process is political. This process is also a socio-cultural process for indigenous peoples (Grimmel et al., 2019); (Diggon et al., 2021). That is, in this process, the community negotiates and strives for their

social-ecological capabilities to be accommodated in marine space management policies. Thus, involving the Lamalera traditional fishing community in marine spatial planning is an important part of the effort to achieve equitable management of the marine environment.

The involvement of the Lamalera indigenous people in marine space planning is very relevant to the overall goals of conservation, namely ecological goals and socio-cultural goals in a sustainable manner (Rodríguez-Rodríguez & Martínez-Vega, 2012), especially the conservation of the Sawu sea. Moreover, the Sawu Sea is an economic force that can become the basis for the welfare of the Indonesian people (Rochwulaningsih et al., 2019), especially traditional fishermen. This involvement is also one of the efforts to overcome various obstacles in marine space planning (Frazão Santos et al., 2021) prepared by the government, which often does not accommodate the socio-ecological capabilities of indigenous peoples. Thus, social-ecological capability-based environmental justice for the indigenous people of the Lamalera traditional fishermen is realized in the Sawu marine conservation area, which is also managed by the government and the Lamalera community that becomes one of the stakeholders in the Sawu Sea.

## CONCLUSION

The Sawu Sea has been designated by the government as a conservation area and National Marine Park. This determination is standardized in several legal regulations as stated above. In this determination, the existence of indigenous communities who live on the coast and small islands in the Savu Sea area has also been taken into consideration. One of the indigenous communities in this area is the Lamalera traditional fishing community in Lembata Regency, East Nusa Tenggara Province. This determination causes anxiety for these indigenous communities because it could have the impact of prohibiting their fishing traditions, especially the tradition of whaling.

This research is a critical response to the government's decision and the concerns of the Lamalera community. This research found several important points. First, the Lamalera people are an indigenous community that has three social-ecological capabilities, namely *lefo*, *tena-laja*, and *ola nuâng-lefa nué*. These three capabilities are centered on the sea as the orientation of the life of the Lamalera people. Second, pursuing environmental justice in the context of the existence of the Lamalera traditional fishing community is an urgent matter. Environmental policy is categorized as a just policy that can be realized in the

form of including the social-ecological capabilities of indigenous communities in the Savu marine environmental policy. Third, fair environmental governance, especially the Savu National Marine Park, requires the involvement of indigenous communities and the local Catholic church together with the government. In this way, the Lamalera people continue to carry out their traditions of going to sea and together with the local Catholic church and the government maintain and maintain the sustainability of the Savu marine ecosystem.

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