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Original Article



Panglima Laot: Safeguarding Indonesia's West Coastal Marine Resources through Local Wisdom in Aceh, Indonesia

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Abstract

Sea is an ecosystem that contains biota and abiotic that are interdependent on one another. Marine resources have many possible uses, so protecting them from environmental damage is extremely important. In addition to needing protection, most coastal residents rely on marine resources for survival, so it is essential to make various efforts to prevent their degradation. In this context, the role of government and society is needed to protect and preserve it. Several regions in Indonesia still prioritize local wisdom in protecting marine ecosystems, especially coastal areas. This research examines the Panglima Laot as the guardian of coastal natural resources in Aceh; this province is located at the western tip of Indonesia. A traditional institution known as Panglima Laot exists among Acehnese people, particularly among those who live along the shore because they play a key part in reducing environmental deterioration and enhancing the conditions for fishermen. The coastal community of Acehnese is participating in the preservation of marine habitats by maintaining Panglima Laot. The locals think that conserving ancestors' cultural legacy involves caring for nature and acting responsibly. The strategy employed in this qualitative study for data collecting is ethnography and literature review. According to the reality on the ground, Panglima Laot continues to have legitimacy from the locals, which means Aceh's maritime ecosystem is still maintained. The next generation must be educated to preserve cultural tradition.



1. Introduction

The sea has a significant role in human life as a source of food, livelihood, trade routes, a place of recreation, a means of separation, and unifying the nation (Gorziglia, 1996). Indonesia is a maritime nation with remote Indonesian territorial waters larger than the mainland because of its 17,499 islands (Kusuma et al., 2021). Indonesia is considered an archipelago. The sea has become a national resource for Indonesian civilization with many benefits (Thorburn, 2000). The Indonesian sea is tempting for anyone who wants to take advantage of what is in it. However, the utilization of marine resources needs to be limited because of their limited capacity. This limitation is carried out to ensure that the potential and the existing natural resources of the sea are not damaged and drained away. The biodiversity of

Indonesia's marine resources has diverse potential, including fishing, aquaculture, mangrove forests, coral reefs, energy sources and mining, seagrass beds, and marine tourism (Dahuri, 1998).

Marine ecosystems contain a variety of species of living organisms that are interconnected in a chain and rely on one another to keep nature in balance (Thorne-Miller, 1999). Men are free to use marine resources as much as possible. However, utilizing marine resources often needs to pay attention to ecosystem sustainability or the emergence of massive damage to marine ecosystems. Catching fish using trawlers or with fish bombs can damage coral reefs and marine habitats. So many living creatures in the sea do not live long. In addition, marine ecosystems are also damaged by water pollution from industrial waste residue and waste disposal through

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rivers and oceans. Issues such as enhancing marine resources, technological advances, redundancies in fishing, governance, and law enforcement need to make enough contributions to preventing ocean quality degradation (Rochwulaningsih, 2019). The sea needs to be looked after for the next generations. So, they can also enjoy the wealth of the sea. In addition, it is also necessary to enforce development policies that are sustainable and environmentally friendly.

The sea is a field of fortune for coastal communities (Rosyida & Sasaoka, 2018). Marine habitat preservation significantly impacts the sustainability of their way of life (Turner et al., 1999). Several initiatives have been made to preserve, protect, and prevent damage to marine resources. The government and local communities must be involved in maintaining and preserving marine biodiversity. Information gathering, planning analyses, decision-making, and resource allocation are all part of managing marine resources. To promote sustainable resource productivity, legislation governing fisheries must be implemented and enforced in addition to field restrictions.

Marine biodiversity and potential travel locations (listed in Article 1 of Law No. 45 of 2009). It is also stated in Article 3 of Law No. 31 of 2004 that the purpose of fisheries management is to improve the standard of living of small fishermen and small fish cultivators, achieve optimal utilization of fish resources, cultivate land fish, and the environment of fish resources and ensure the preservation of fish resources and spatial planning. The fishery management system upholds several Indonesian provinces' marine customary law systems. Article 6 of Law No. 31 of 2004 explains that community participation and local customs must be considered when managing fishing for commercial and aquaculture purposes.

2. Materials and Methods

A descriptive qualitative study design was used in this investigation. This entails a rich gathering of data from numerous sources and is done to systematically gather more in-depth and detailed data and learn more about viewpoints, perspectives, and attitudes in scientific contexts. The approach research conducted is ethnography, a way to study anthropology through an internet network, using available information in a manner public where everyone is free to access it through social media and studies library (library research), collecting data or creation-related science with object study or nature of data collection literature with based on ingredient relevant libraries.

3. Results and Discussions

3.1. Marine Biodiversity

Indonesia has much potential for marine resources as a country with an archipelago. Additionally, the coastal

area has advantages, particularly for the lives of the coastal community. Therefore, marine resources are the district's life support system for obtaining food, fuel, wood, buildings, and other necessities (McLeod et al., 2009).

Biondo & Burki (2020) state that the coral reef ecosystem is one of the many essential ecosystems. More than 14% of the world's coral reefs are in Indonesia. Coral reefs have functions, among others, as a breakwater and beach protection from abrasion and as a gathering and breeding place for fish and other marine biota which are a source of protein and medicinal ingredients. Ulfah et al., (2020) explain that coral reefs also function as underwater recreation areas because coral reef ecosystems have high economic value. Developing countries must preserve seas and forests as the world's lungs. The potential of coral reefs in Indonesia as the world's lungs aims to overcome climate change, which affects carbon emissions in large quantities (Ismail & Kartika, 2019).

Indonesia's fishery potential is sufficient to meet domestic and world fish needs. Indonesia has much potential for fish, but foreign fishermen steal a lot of fish. Indonesian fishermen's fishing gear still needs to be improved so that fish potential in Indonesia has not been entirely appropriately managed. Another potential is seaweed. Usually, seaweed is used as a mixture of food drinks. However, along with technological development, seaweed can now be developed and used in various industries, including textiles, cosmetics, and pharmaceuticals (García-Poza, 2020). Indonesia has the largest mangrove forest in the world, with approximately 4.25 million ha before 1969. Indonesia's area of mangrove ecosystems reaches 75% of the total mangroves in Southeast Asia or 27% of the world's mangrove area. The distinctive feature of the Indonesian mangrove ecosystem is that it has the highest species diversity in the world (Kusuma et al., 2021). According to Kusuma et al. (2021), mangroves are natural resources that can be recovered (renewable or flow resources) and have multiple benefits, namely economics and ecology. Economic benefits include wood products (firewood, charcoal, timber construction) and non-timber products (forest and tourism participation results). Malhi et al. (2020) explain that its ecological benefits include functioning as a protection for both the terrestrial and marine ecosystems; as protection from abrasion or erosion, waves or strong winds, tsunamis, seawater intrusion control; Habitat for various types of fauna, as a place to find food, lay eggs and breed multiple types of fish and shrimp, maintain water quality, absorb CO2 relatively and produce high 02.

Seagrass beds in Indonesia, if found, consist of seven genera of the 20 species of seagrass found in Southeast Asian waters, 12 of which can be found in Indonesia. The paddock distribution in Indonesia is extensive, covering almost all the archipelago's waters. Like coral reefs, they are attractive because their area is often a gathering place for various marine flora and fauna. Turtle green and mermaid dugongs cannot live far from the paddock. Indonesia's coastal and marine areas have become a beacon of hope for the future. This is good for fulfilling human needs and marine flora and fauna. It should be realized that sustainable management of marine resources must be carried out. It will experience significant damage and losses if it is not managed correctly.

3.2. Local Wisdom in Maintaining Marine Conservation

Wisdom is a need embedded in upholding society's respect for nature. Each region has its local wisdom. Every organization has a different culture. So, this is one of the cultural diversities. According to Melville J Herskovits and Bronislaw Malinowski, everything in public is determined by the cultural presence of that community (Thamrin & Kadarudin, (2023). This opinion was reinforced by Soerjono Soekanto, who argued that the public means people who live together to produce culture.

According to Kongprasertamorn (2007), local wisdom is a knowledge system created from a community's experience and the accumulation of local community knowledge. According to conventional wisdom, nature, and humans can coexist peacefully. Locals are aware of all the wisdom involved in using natural resources. Obedience to customary law (ulayat) is a hereditary inheritance that must be put to good use by considering the impact on future generations.

That way, no society is not cultured, and vice versa; there is no culture without a club as a cultural portrait frame. Respect for nature is essential in a society that still upholds local wisdom. Local wisdom is a socio-cultural order in the form of knowledge, norms, regulations, and community skills to meet daily needs (life) passed down from generation to generation. Local wisdom is developed as social capital for the community to create order and balance between the socio-cultural life of the community and the preservation of the surrounding natural resources (Hidayati, 2017).

In people's lives, there are several principles and patterns of behavior that need attention. According to Sony Craft, several ethical principles that need to be considered include respect for nature, moral responsibility towards nature, cosmic solidarity, love, compassion, and concern for nature. Humans have a responsibility and a moral obligation to nature by behaving in an environmentally sound manner and living simply. So that it is in harmony with nature and puts forward the principle of justice. Panglima Laot is local wisdom in Aceh. This is a local wisdom of coastal communities that were born long ago.

In Aceh, after peace negotiations between Indonesia and the Free Aceh Movement in Helsinki on August 15, 2005, the Constitution of the Republic of Indonesia 11/2006 concerning the Governance of Aceh was born. From now on, referred to as the Law on Governing Aceh (UUPA), acknowledging the local wisdom of Panglima laot (article 98 and article 165 of the UUPA), the utilization of natural resources cannot dominate each other. In this case, between economic, social, ecological, and cultural economics of interest. The Aceh People's Representative Council (DPRA) has passed ganuns relating to development and customs, specifically ganun Number 9 of 2008 and ganun Number 10 of 2008, which include provisions regarding local wisdom to put local wisdom into practice. This is traceable to the Aceh Qanun Number 7 for Fisheries and Maritime Affairs 2010.

Engagement of the Public in the rescue environment, as discussed at the Earth Summit in Rio de Janeiro in 1992, produced Rio Declaration Principle 22, which states:

"... society adat and its community, and community local other have role important in maintenance and development environment because of knowledge and norms "

Gadgil, Berkes, and Folke (2021) define local wisdom as a body of environmental knowledge and ideas passed down through the generations. A pattern of daily conduct toward other people, the natural world, and the divine is thought to be formed by local wisdom in Indonesia, according to the Craft design (Parameswara & Wulandari, 2020). The activity of environmental management of resources is described by Craft as occupying a sacred space. People who rely on local knowledge have this perspective on the environment. They enjoy so-called customary sea rights on that side. Local knowledge, like Panglima Laot, can be used to inform development program policies in the modern period.

Regarding coastal customary ecology, it binds three main prohibitions, namely: (a) a prohibition on cutting/damaging trees on the sea coast such as cypress, pandanus, mangrove, and other trees that grow on the coast; (b) prohibit bombing, poisoning, anesthesia, electrocution, removal of coral reefs, and other materials that can damage the environment and other plants or animals in their habitat; (c) the prohibition of catching other marine animals and plants protected by law.

This prohibition is also related to two aspects of marine environmental issues: (i) regulations regarding the use of fishing gear and preventing the use of fishing gear that damages the environment and limiting the distance between certain fishing areas and certain fishing areas for fish habitat; (ii) prohibit excessive use. Based on the description above, the customary territorial sea must be separated from the draft administrative boundaries. The

division and arrangement based on room customs are evident and firm.

From an environmental perspective, Panglima Laot has a role in customary law, known as the sea with taboos. The customary law of the sea is abstinence from the sea on certain days. Several days have been set for the sea in Aceh's customary law of the sea. First, no fisherman catches fish in one day, from sunset on Thursday to evening on Friday. According to Mujiburrahman et al. (2021), Panglima Laot has an essential role in fishing communities. Panglima Laot plays four roles, including (i) its role in Implementing the Adat Laot; (ii) its Role in the Implementation of Laot Customary Law; (iii) The Role of the Commander of the Sea in Implementing the "Meuphang Law, (iv) role in customary dispute resolution. Furthermore, abstain from going to sea for three days after the three days of Khanduri laot, starting from rising until the sun sets on the third day.

3.3. The role of Panglima Laot in coastal communities

Panglima Laot is a maritime cultural heritage from the Kingdom of Aceh and still exists as a pearl of local wisdom in coastal areas in Aceh to this day. According to Abdullah (2018), Panglima laot has existed since the Samudra Pasai Kingdom in the 14th century and was held in high esteem by Sultan Iskandar Muda (1607-1636). The moment that Panglima Laot's position was an extension of the sultan's hand in carrying out the two central answers which were not enough, namely collecting excise from merchant ships anchored in ports and gathering people for the benefit of sea wars is proof and a reflection that the Kingdom of Aceh is maritime. Panglima Laot is an institution that was founded in the Kingdom of Aceh and played an essential role in the marine sector. When the Dutch entered Aceh, one famous Aceh fighter in circles colonial was Teuku Umar. Teuku Umar himself is a Commander laot, with the title Amirul al-Bahri. Teuku Umar is the husband of a female fighter from Aceh, Cut Nyak Dhien.

During the independence era, Panglima Laot earned a reputation as local wisdom in Aceh's coastal regions. The traditional institution of Panglima Laot's local wisdom is a cultural treasure. At least four Panglima Laot task trees exist. (1). oversee and uphold the maritime customs law; (2). control fishing techniques; (3). resolve the different problems that come up about ocean fishing; (4)—coordinate customary marine rituals, responding to maritime mishaps, cooperation, and social problems.

Panglima laot, local wisdom on the coast of Aceh, is very strategic in regulating all the behavior of fishermen as a community that depends on the sea for its life. Each Panglima Laot has a work area in each estuary, where the estuary is a fishing ground for fishermen. Panglima Laot is commonly referred to as Panglima Laot Lhok. At the same time, Panglima Laot for the District works according to the district area, up to the Provincial

Panglima Laot, which is also a provincial work area. This shows that Panglima Laot has become a customary institution regulating fishermen on Aceh's coast. Because of this, Panglima Laot is a familiar leading institution that applies in the field of fisheries and dispute resolution in the territory of the Government of Aceh. The existence of Panglima Laot as an institution in Aceh today, apart from being a social leader for customary maritime law, is also a solution to fishermen's disputes. Panglima Laot resolves the settlement of fishing disputes through the Adat Laot Court. According to Abdullah et al. (2018), there are several signposts in the Pangdam Laot institution, namely;

- a) Panglima laot is a marine customary leadership institution (Adat Law) chosen by the handler (sea master) as the representative of fishermen in his area. Panglima Laot must come from the management environment and understand adat laot because Panglima Laot, apart from being the adat laot leader, is also the adat leader to execute and punish perpetrators in fishing communities.
- b) Panglima Laot is a body that regulates and implements marine customs. There is no institutional politics, and it must be distinguished from other coastal professional organizations such as the Indonesian Fishermen Association (HNSI) and other agencies that carry out activities in coastal communities.
- c) It is insufficient to respond to Panglima Laot in order to maintain customary maritime law, reconcile fishing communities (peujroh law), organize fishermen to carry out social customs in the event of an accident or disaster, preside over traditional ceremonies, and protect and care for the environment within the relevant jurisdiction. to conduct fishing operations. Consequently, this institution does not exist in regions devoid of coastal areas.
- d) Fishermen, people, and groups engaged in coastal fishing activities are the targets of customary maritime law. Regardless of their professional background, people or groups of land residents are included in maritime customary items.
- e) While customary territorial seas have formed in several crucial administrative locations,
- It is not enough to answer Panglima Laot to reconcile fishing communities (peujroh law), protect and maintain customary law of the sea, mobilize fishermen to carry out social customs in the event of an accident or disaster, preside over traditional ceremonies, and preserve and care for environmental sustainability within the jurisdiction. To carry out fishing activities. Thus, this institution does not exist in areas where there are no coastal areas
- g) the objects of customary maritime law are fishermen, individuals, and groups carrying out

- fishing activities in coastal areas. Maritime customary things include individuals or groups of land dwellers regardless of their professional background.
- h) Customary territorial seas are not formed in certain essential administrative areas but have been formed
- i) The Panglima Laut Historical Institute is only known in Lhok, which is under the Mukim area level, namely the shape, so it is permanent because geographical conditions determine.

4. Conclusions

Panglima Laot is an institution under the Minister of Transportation. During the Kingdom of Aceh, this institution was an extension of the king's arm in collecting taxes at sea. In addition to excise, this institution also plays a role in mobilizing people for the sake of war. This role has transitioned; Panglima Laot has transformed into a traditional fishing management institution in the corridor of customary law. Later, Panglima Laot became the treasury of the Aceh coast, which is the cultural heritage of the Aceh maritime kingdom. In 2006, the state recognized Panglima laot as an adat institution through law. In this case, Panglima Laot is a person authorized to resolve disputes with an understanding based on his duties, functions, and authority. Panglima Laot is an indigenous people's institution protecting coastal marine resources by maintaining the existence of local wisdom. Coastal communities from traditional institutions appointed to protect and regulate marine resource ecosystems. This is also an effort to manage fishery resources and marine tourism.

With this institution, there is genuine community involvement in protecting marine biodiversity. Awareness of the importance of marine biological wealth forms the basis that the community still trusts traditional institutions to regulate all activities on and around the coast. This form of community involvement is a genuine concern for marine resources. Community-based management has five basic principles: empowerment, equal access and opportunities, environmentally friendly and sustainable, recognition of traditional knowledge and wisdom, and gender equality.

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