



## Government Responsibility for the Practice of Marine Sasi Management in Maluku for Sustainable Marine Resources Sustainability

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### **Abstract**

Source wealth Natural resources are a gift from God Almighty to the Indonesian nation for which we should be grateful, for which, in managing them, they must be utilized as much as possible for the prosperity of the people and their sustainability must be maintained. Thus, the management of natural resources must be carried out optimally and sustainably in the sense that it is carried out as well as possible, so that it does not exceed the carrying capacity of the region, does not cause environmental damage, and its utilization can be carried out in the long term. So far, fishery development in Indonesia has not met the principles of sustainability, because it still prioritizes economic development through the exploitation of fishery resources, which tends to increase from year to year. Recognition of traditional wisdom and rights of indigenous peoples in managing fishery resources can be realized in the form of community-based fishery resource management such as the Sasi Laut Practice in Maluku. Weaknesses or failures in the management of fishery resource potential so far, are more due to administrative, legal and institutional systems, which are structured based on the assumption that marine ecosystems and fishery resources are common property. Thus it can be utilized continuously, without control and control efforts. The consequence is that the sea and its fisheries resources are considered as open access, and everyone can freely exploit without limits, resulting in overfishing. Related to the matter referred to, the practice of sea sasi provides concrete evidence that communal property rights practiced by indigenous peoples in Maluku cannot guarantee the preservation of these natural resources, if the orientation of the community is only focused on economic benefits. In addition, there needs to be a structural policy and supervision from the government, so that there are no deviations in the management of fishery resources, especially the sustainable Sea Sasi Practice.

**Keywords:** *Sea Sasi Practice; Supervision*

### **Introduction**

Article 33 paragraph (3) of the 1945 Constitution of the Republic of Indonesia, confirms that "Earth and water and the natural resources contained therein are controlled by the State and used for the greatest prosperity of the people". The authority of the State in relation to land and water and the natural resources contained therein, is exercised to realize the maximum prosperity of the Indonesian people.

According to Karmono Mangunsukarjo in Yunus Wahid, space is a container for human life and the natural resources contained therein, including earth, water and air as a single unit. (Yunus Wahid AM 2014). Furthermore, according to Sugandhy in Yunus Wahid, as a natural resource, space is the physical form of the environment around us in both horizontal and vertical geographical and geometric dimensions which includes land, sea and air and their contents, which materially means a place of residence (habitat). So far, indications have been obtained that space can be seen from several aspects, namely containers, natural resources, habitats, and as a physical form of the environment, which always includes earth, water, and air as one unit.

Source wealth Natural resources are a gift from God Almighty to the Indonesian nation for which we should be grateful, for which, in managing them, they must be utilized as much as possible for the prosperity of the people and their sustainability must be maintained. Thus, the management of natural resources must be carried out optimally and sustainably in the sense that it is carried out as well as possible, so that it does not exceed the carrying capacity of the region, does not result in environmental damage, and its utilization can be carried out in the long term (Abdullah Marlang, 2007)

The Republic of Indonesia as a unitary state with archipelagic characteristics adheres to the principle of decentralization in administering government, by providing opportunities and flexibility to the regions to carry out regional autonomy. (Bratakumah, et al, 2001). Decentralization according to Nasution, (Nasution, 2000) is defined as "granting greater powers and responsibilities in planning and implementation to local governments, and also transferring political and administrative functions from the central government to the local level with the aim of increasing participation and efficiency".

Law No. 23 of 2014 concerning Regional Government has regulated the Provincial Authority which is characterized by islands to manage marine resources. This law regulates the authority of the provinces in the sea to manage marine resources, the scope of management activities and the size of the management area. According to this Law, the province is given the authority to manage natural resources in the sea which includes exploration, exploitation, conservation and management of marine wealth other than oil and natural gas; administrative arrangements; spatial arrangement; participate in maintaining security at sea; and participate in defending state sovereignty. These activities can be carried out at a maximum of 12 (twelve) nautical miles measured from the coastline towards the high seas and/or towards the archipelagic waters. If the sea area between two provincial areas is less than 24 (twenty four) miles, the authority to manage natural resources in the sea is divided equally or measured according to the principle of the median line of the area between the two provincial areas.

Law No. 6 of 2014 concerning Villages has further enlarged the opportunities for indigenous peoples to participate in all aspects of governance and resource management autonomously in the form of customary village government. When a village has become a traditional village, the authority of the traditional village includes the arrangement and implementation of government based on the original arrangement; arrangement and management of customary or customary territories; preservation of socio-cultural values of traditional villages, settlement of customary disputes based on customary law applicable in traditional villages in areas that are in line with human rights principles by prioritizing settlement by deliberation; and convening a peace trial in the Traditional Village court under the provisions of laws and regulations (Article 103).

The regulation of the Minister of Maritime Affairs and Fisheries related to the management of coastal resources based on local wisdom, in which the community is the executor of the management, is Kepmen KP No. 40 of 2014 concerning Community Participation and Empowerment in the Management of Coastal Zone and Small Islands. Through this Ministerial Decree, the community is given the opportunity to participate in all stages of managing coastal resources and small islands, namely at the stages of planning, implementing and monitoring (Article 4).

In addition to Ministerial Decree 40/2014, KP Ministerial Regulation No. 13/2014 concerning Marine Protected Area Networks was also issued. The conservation area referred to by this regulation is a protected water area, managed by a zoning system to realize sustainable management of fish resources and the environment. So, a network of water conservation areas is a synergistic management collaboration of two or more water conservation areas that have biophysical linkages (Article 1). However, in Article 5 it is explained that apart from being based on biophysical attachment, networks can be formed based on attachment to socio-cultural, economic and/or governance aspects. Socio-cultural aspects include community support, potential conflicts of interest, potential threats, local wisdom and customs.

Apart from West Papua and East Kalimantan, several other regions have also issued regulations regarding indigenous and tribal peoples, including the regional regulations on Huwear and the regional regulations on Ohoi in Southeast Maluku. However, along with the issuance of Law No. 23 of 2014 concerning regional autonomy which gave the provincial government the authority to manage coastal areas as far as 12 miles from the coastline, the provincial government was asked to immediately issue a Provincial Regional Regulation regarding marine zoning. Currently there are only 5 provinces that have Marine Zoning Regulations, namely North Maluku, Yogyakarta Special Region, East Java, Central Java and West Java.

But not only zoning based on regional needs, rules are also needed in determining the boundaries of customary territories in the sea. This is important because there are frequent conflicts over management area boundaries which result in sharpened relations between one indigenous community and another.

A common problem that occurs in the coastal and marine environment today is a decrease in the carrying capacity of the natural environment which is inversely proportional to the pressure due to an increase in the human population (Purba, 2002). This condition is exacerbated by the low level of public knowledge about marine biological resources, which affects people's love for the marine environment. On the other hand, the need for fishery resources is increasing both in quantity and quality, due to population growth and the shift in consumption patterns of the world community to marine fishery products that are high in protein and low in cholesterol, have spurred the extraordinary utilization of marine fishery resources. This causes a decline in the ability of renewable natural resources, as a support for life. Ironically, progress in fisheries development in coastal areas with advanced technology, such as the development of an intensive marine and fisheries industry, was not able to make the surrounding villages progress. Thus forming pockets of poverty in coastal areas. This condition causes the community to continue to exert intensive pressure on the coastal waters environment around their settlements. Weaknesses or failures in the management of fishery resource potential so far, are more due to administrative, legal and institutional systems, which are structured based on the assumption that marine ecosystems and fishery resources are *common property*. Thus it can be utilized continuously, without control and control efforts (Dahuri, 2003). The consequence is that the sea and its fisheries resources are considered as *open access*, and everyone is free to exploit without limits, resulting in *overfishing*. According to a fisheries planning expert at the World Food Agency (FAO), Francis T. Kristy, an open fisheries *policy access* will result in four adverse impacts, namely: (1) physical wastage of fishery resources, (2) economic inefficiency, (3) fishermen's poverty, and (4) conflict between resource users. Thus a concept of sustainable fisheries development is needed, so that it can meet the needs of the present generation for fishery resources, without eliminating the opportunity for future generations to utilize these fishery resources, for the sake of creating a sustainable healthy, strong and intelligent society.

## **Discussion**

Source wealth Natural resources are a gift from God Almighty to the Indonesian nation for which we should be grateful, for which, in managing them, they must be utilized as much as possible for the prosperity of the people and their sustainability must be maintained. Thus, the management of natural

resources must be carried out optimally and sustainably in the sense that it is carried out as well as possible, so that it does not exceed the carrying capacity of the region, does not cause environmental damage, and its utilization can be carried out in the long term.

The sea is quite wide, of course it holds quite a lot of various marine resources. Lots of fish potential, marine biota that can bring more benefits to the region, such as pearls, lola, sea cucumbers, and seaweed, are a source of revenue for the region if managed properly .

Sustainable Fisheries Development in Indonesia is a development concept that provides a kind of threshold for the rate of utilization of natural ecosystems and their natural resources. According to Elliot (1999) in Suseno (2007), at a minimum level sustainable development must not endanger the natural systems that support all life on earth. Sustainable development should not be carried out in a revolutionary way. The concept of sustainable development according to Charles (2001) in Suseno (2007), must have four aspects, namely; 1. Ecological sustainability, by maintaining the sustainability of fishery resource stocks through increasing the capacity and quality of natural ecosystems, so that they do not exceed their carrying capacity. 2. Socio-economic sustainability, by paying attention to the sustainability and welfare of fishery actors at the individual level. 3. Community sustainability, taking into account the welfare of the community or society as a whole. 4. Institutional sustainability, concerning the maintenance of sound financial and administrative aspects.

So far, fishery development in Indonesia has not met the principles of sustainability, because it still prioritizes economic development through the exploitation of fishery resources, which tends to increase from year to year. The factors that cause it are: (1) Fishermen's poverty, as a fundamental factor in the development of fisheries in Indonesia. According to Kusnadi (2002), Dahuri (2003) and Fauzi (2005), fishermen whose lives are marginalized with a low economic level, and increasing market demands for marine fishery products, have spurred them to use fishery resources uncontrollably, resulting in crisis. Natural resources are no longer able to provide maximum economic benefits, due to externalities caused by market *failures* ; (2) The mindset of the people is wrong that fisheries resources are continuously available, because they have the ability to renew themselves ( *renewable resources* ). Even though naturally fishery resources are not unlimited, and will be saturated if there is over-exploitation; (3) The pattern of fisheries development so far has only been based on natural resources ( *resource based development* ). According to Adisasmita (2006), the tendency for excessive, inefficient, concentrated use of natural resources to certain groups and short-term orientation, will lead to uncontrolled utilization. For this reason, in the perspective of regional autonomy, a fundamental overhaul of the *open access regime* for marine fishery resources is necessary. According to Kusumastanto (2003), it is necessary to regulate *property rights* by returning management rights to the community, because fishery resources are a sustainable source of livelihood for them. According to Beddington and Rettig (1984) in Nikijuluw (2005), it is necessary to enforce *property rights* , including *territorial use rights* , traditional and *indigenous rights* , which means that the government and stakeholders must strengthen the capacity and role of local communities in managing resources, through the preparation of policies that encourage their independence. In addition, the new paradigm of the government system from centralization to decentralization with the passage of the regional autonomy era, is an effort to manage marine resources which are (1) oriented towards market mechanisms ( *demand and market driven* ), (2) resource and community based development ), (3) in accordance with the interests and culture of the local community, and (4) fairly by taking into account the needs and capabilities of the community, or the interests of the community are the top priority (Adisasmita, 2006).

Traditional wisdom is all forms of knowledge, beliefs, understandings and habits that guide human behavior in an ecological community. According to Keraf (2006), traditional wisdom concerns knowledge, understanding and customs about humans, nature and the relations between the inhabitants of an ecological community that are lived, practiced, taught and passed on from one generation to another,

as well as forming patterns of everyday human behavior, both towards fellow human beings as well as towards nature and the unseen.

Bromley and Cernea (1989) in Ginting (1998) state that, ownership and control of natural resources is a right, authority and personal responsibility of the owner and his relationship with other parties, for the utilization guaranteed by the government and valued by other people with the same interests, according to conditions and resource characteristics. Rights and access to utilize resources are regulated by management principles, so that owners can defend these natural resources from other people. Community-owned resources (*communal property resources*) are natural resources owned by a group of people, who have been institutionalized and have relatively close socio-cultural ties, with ties of norms or laws governing the use of these natural resources, as well as mutually agreed sanctions, so as to prohibit other parties from exploiting it (Ginting, 1998). Recognition of traditional wisdom and rights of indigenous peoples in managing fishery resources can be realized in the form of community-based fishery resource management. Nikijuluw (2002) defines it as a process of granting authority, responsibility and opportunity to manage fishery resources themselves, by first determining their needs, desires, goals and aspirations. This management system also involves giving responsibility to the community, so that they can make decisions that determine and affect their welfare. For this reason, the government is de jure through Regional Government Law No. 32/2004 article 2 paragraph 9 ("The state recognizes and respects customary law community units and their traditional rights as long as they are still alive and in accordance with the development of society and the principles of the Unitary State of the Republic of Indonesia". Indonesia") and the Fisheries Law No.31/2004 Article 6 paragraph 2 ("Management of fisheries for the benefit of catching and cultivating fish must take into account customary law or local wisdom as well as the role of the community"), have recognized the practice of managing fishery resources and community rights adat, as a form of traditional wisdom that has been practiced for generations. Nikijuluw (2002) defines sea sasi as an institutional system that regulates village communities not to catch fishery resources within a certain period of time, so that they can reproduce until they reach consumption sizes, and can be used sustainably. Sasi also imposes social sanctions if there is a deviation from the sasi rules. The sanctions given aim to assist law enforcement effectively. When carrying out the sasi break, the entire village community jointly determines the type of fishing gear and the method used to catch the fishery resources being disasi. For example: catching mollusks by hand while diving, and fishing using nets, or not using destructive fishing tools such as bombs, drugs and others.

The practice of sea sasi is different from land sasi. In sasi Laut, communal *property rights* are related to the rights of indigenous peoples which vary according to their position and role (Soselisa, 2001). Thus, the practice of sea sasi is not privately owned but belongs to the village government. The village head (raja) is the right holder, as a representative of the village government of Wahyono et al. (2000). This is because the sea cannot be claimed as private property like land. The practice of sea sasi proves that indigenous peoples in Maluku can claim sea waters for a certain period of time as an exclusion right *by* prohibiting outsiders from entering the sasi area. Thus, outsiders must obtain a permit when catching fishery resources in the sasi area. This condition is different from the status of fishery resources which are *open access*, in which all people without space and time limits can exploit existing fishery resources. Sasi Laut is usually applied to fishery resources that have important economic value or which are local consumption targets. The target of sasi is marine biota scattered in coastal waters (shallow sea), so that it is easy to monitor and control. Sasi activities are targeted at slow-moving (*semi-mobile*) marine biota, such as lola (*Trochus niloticus*), sea cucumbers (*Holothuridae*), batu batu (*Turbo marmoratus*), and japing-japing (*Pinctada margaritifera*). Meanwhile, the sasi targets for biota that are actively moving are lompa fish and make fish (in Haruku Village, Central Maluku), and lalosi fish (in Latuhalat Village, Ambon Island). In addition, there is also a sasi system that targets all consumption marine biota found in the sasi area. This sasi system is known as 'sasi harbor', whose activities take place along the village's coastal waters. This sasi system is generally practiced by indigenous peoples in Maluku and lasts for several years, depending on the agreement of the village government as the sasi

organizer. Before sasi was enacted, auctions were usually held for the local village community, or involving interested parties outside the village with the approval of the village government (if deemed necessary). The auction results are usually used for village development purposes (renovation of houses of worship, roads and other public facilities and infrastructure). Furthermore, the winning bidder gets full rights to exploit the fishery resources specified in the specified area. Meanwhile, the general public is prohibited from carrying out fishing or other activities in the sasi area, with the hope that the resources in the sasi area are not disturbed. During the 'sasi harbor' period, (eg three years), the winning bidder has the right to exploit the resources in the sasi area. Thus during the three year periodization, the winning bidder can exploit these resources continuously without limit. However, it is not justified to use fishing gear or methods that damage the environment, and must comply with other technical and non-technical regulations that have been agreed upon.

Apart from that, in the village of Noloth (Central Maluku) there is lola harvesting (*Trochus niloticus*) which has been carried out for a long time, and has always been carried out by indigenous peoples for consumption needs, especially for sale. However, once a market is available with high demand and prices, changes in the transfer of authority always occur. The transfer of rights to the village community to exploit lola during buka sasi was caused by their dissatisfaction with the use of production proceeds managed by the village government. However, after being granted exploitation rights during breaking sasi, they were unable to catch all of the lola, because they could not dive and did not have adequate equipment. Thus, the transfer of rights to entrepreneurs is carried out again through auctions. After market access is controlled by the community, the transfer of rights is returned to the village government, because: 1. The amount of production reported by the winning bidder (entrepreneur) to the village government is lower, compared to what was handled independently. 2. Entrepreneurs do not care about the minimum size of shells that can be exploited, because they want to get as much as possible, or do not care about the sustainability of resources. 3. The people of Noloth Village are not involved as divers' workforce, because the winning bidders (employers) recruit divers from outside the village. The development of lola production through management efforts using the sasi system in several regions in Maluku, based on the results of a study by Arifin et al., (1998) in Dahuri (2003), did not meet expectations. The number of lola shells landed from sasi for 13 years (assuming lola is harvested every year), indicates that lola production tends to decrease. During the period 1968-1980, the sasi system was implemented every 3-4 years with an average production of around 1.0 tons/year. However, production decreased during the period 1981-1993 by 0.5 tons/year, after the sasi period was shortened to 1-2 years. This shows that the sasi system has not been able to maintain lola fisheries in a sustainable manner. This is due to: (1) the lack of basic information about the biological aspects of lola (such as: eating habits, reproductive cycle and sexual maturity level), (2) the strength of the market economic system which forces traditional leaders to carry out buka sasi as often as possible, (3) the average increase in population, by 2.1% per year, and (4) illegal exploitation of lola. In the sasi system for lompas fish (*Thrisina baelama*) and fish make (*Sardinella sp*) in Haruku Village, authority is given to each family. If fish are caught by the group, the catch will be shared equally by the group members. If there are families who cannot catch fish during sasi break due to illness, they still get the catch from their relatives or neighbors (Soselisa, 2001). If caught with a net, the fish caught will be divided into two parts, namely 40% for the owner of the net and 60% for distribution to the community. The catch is intended for the community, first distributed to orphans and widows. Then the rest is distributed to the wider community equally. Lalosi fish (*Caesio sp*) in Latuhalat Village, Ambon Island, may not be caught as long as there are other types of fish that can be caught. If other types of fish have decreased in number, then lalosi fish may be caught, only by the local village community. Thus outsiders, even though they have obtained permission to fish in the area, may not catch lalosi (Wahyono et al., 2000). Sasi activity of lompas fish (*Thrisina baelama*), make fish (*Sardinella sp*) and lalosi fish (*Caesio sp*) is not affected by market demand, because it is local consumption. Nonetheless, these activities have socio-cultural and ecological values for the indigenous people of Haruku and Latuhalat villages. Thus its existence is still protected by sasi rules as an instrument in the management of marine resources, so as to avoid over-exploitation. This condition can simultaneously maintain the sasi tradition that has been practiced for generations. While the

'sasi harbor' activity is influenced by market demand. This is because exploitation is highly dependent on the wishes of the winning bidder. This condition is quite vulnerable to over-exploitation, because the winning bidder wants to get the maximum economic benefit, as compensation for the costs incurred, to win the auction. According to Monk et al. (1998) that in the early 1950s, in Central Maluku there was an increase in the marketing of economically important molluscs such as lola ( *Trochus niloticus* ), goat heads ( *Turbo marmoratus* ), and pearl oysters ( *Pteroidae* ). Whereas previously according to the traditional system, breaking sasi was carried out every 3-5 years in one sasi period. In its development, the sasi rules have increasingly changed according to the demands of the times, namely: At the beginning of sasi before the colonial era, punishments were imposed for sasi violations, namely exile and humiliation (a form of psychiatric punishment). However, currently the punishment is generally in the form of a fine in the form of money/materials, so it does not guarantee a deterrent effect for the perpetrators of violations. conversely, it provides flexibility for the winning bidder (entrepreneur) to exploit fishery resources regardless of sustainability, in order to pursue economic benefits as compensation for the total costs incurred, in order to win the auction. shortened, on the other hand the opening period is extended, so that resource exploitation becomes maximum. This condition is feared will cause a decrease in the stock of fishery resources in nature. The changes in the sasi rules show that the sasi system is dynamic and flexible, according to changing circumstances and time. This means that indigenous peoples can change the sasi rules as long as they are fully accepted by all components of society, in order to meet their individual and collective needs. In the last few decades, more and more fishermen from outside the area have been fishing in border areas and even in sasi areas. Meanwhile, in general, the application of sasi and its sanctions only applies strictly to the local indigenous village community, and weakly to outsiders. This causes the legitimacy of sea sasi as *a communal property right* to weaken. As a result, the sasi system in an area that exceeds one nautical mile is slowly being reduced, and outsiders are casually intruding. Even the sea sasi system, which has always been practiced in almost all traditional villages in Maluku, has now diminished, due to degradation due to commercialization-oriented intensive fisheries modernization. The enactment of Local Government Law No. 32 of 2004, which gives freedom for small fishermen to catch fish outside their area boundaries, can be a source of legitimacy for outside fishermen to migrate seasonally, including entering the sasi area. Whereas according to Satria (2005) based on sociological facts, small fishermen everywhere have de facto property rights (including *exclusion rights* ), so even if they are allowed to go to sea throughout the region, they must still refer to this reality. Other cases, such as the results of sasi lola ( *Trochus niloticus* ) from the people of West Tenggara Maluku, were rejected in the national market because they were considered to include rare marine biota, based on the Decree of the Minister of Forestry of the Republic of Indonesia No.7 of 1999, regarding protected marine biota. The reason for the refusal was because the lola obtained was not the result of cultivation activity, but the result of sasi which was classified as fishing activity. Ironically, the legal products issued by the government regarding protected marine biota have not fully considered traditional wisdom and the rights of indigenous peoples that must be protected, as long as sasi laut activities can balance socio-economic and ecological interests, and support sustainable fisheries development. Normally, buka sasi activities are only aimed at capturing fishery resources that meet market standards, using traditional equipment and methods. However, external factors, such as the rapid development of technology, have influenced indigenous peoples to abandon traditional fishing technologies. Meanwhile, internal factors, such as the lack of public knowledge about the biological cycle of marine biota and the high economic needs of the community, are feared to have the potential to change the marine sasi system. Oakerson (1992) in Ginting (1998), states that one of the keys to preserving communal property is determining the rate of utilization of each individual to harvest or utilize fishery resources within sustainable limits. If the external factors that affect the agreed rate of utilization are ignored, then the resource will experience degradation.

## Conclusion

The practice of sea sasi proves that indigenous peoples in Maluku can claim sea waters for a certain period of time as an exclusion right *by* prohibiting outsiders from entering the sasi area.

The practice of sea sasi provides concrete evidence that *communal property rights* practiced by indigenous peoples in Maluku do not guarantee the sustainability of these resources, if the community's orientation is only focused on economic benefits. In addition, there needs to be a structural policy and supervision from the government, so that there are no deviations in the sustainable management of fishery resources. Thus if there is already a sasi system, the government must try to support the legitimacy of sasi, build coordination in supervising the implementation of sasi, and bridge the interests of the community so that the fishery resources that are *disasi* can be used optimally.

The practice of sea sasi in Maluku when it is linked to the five rights identified by Schlager and Ostrom has not been fully implemented because only the right of exclusion has just been practiced.

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