



## ***Sasi (Gam): Local wisdom of Koiwai People in managing and utilizing the coastal and marine resources***

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### ABSTRACT

This article aims to describe and analyze in depth the practice of *sasi (gam)* in the culture of the Koiwai people in Kaimana Regency. They perceive *sasi (gam)* as an embodiment of local wisdom in the context of managing and utilizing coastal & marine resources, by highlighting the mechanism for enforcing *sasi*, sanctions and penalties, as well as analyzing the function and value of *sasi* for the Koiwai community and what changes have occurred. The method used is descriptive qualitative using an ethnographic approach. The location of the research is in Namatota Island, Kaimana Regency, West Papua Province. I used observation and interviews as data collection techniques. Also, data analysis includes the stages of data reduction, data presentation and data interpretation. The results of the research show that *sasi (gam)* in the Koiwai people is carried out at sea and on land which aims to maintain the level of resource availability which has implications for the balance of the ecosystem. In addition to conservation purposes, *sasi (gam)* also has functions and values in social and economic aspects and maintains the order of the Koiwai community. However, on the other hand, there has been a shift caused by internal and external factors that threaten the sustainability of the practice of the *sasi*.

## **1. Introduction**

Facing the availability of natural resources, both abiotic and biotic, humans use reason, feelings, and life experiences to understand the environment in using it functionally and efficiently. For this reason, humans are always trying to find a way out to be able to overcome this. The ability to think and find a way out is progressing day by day along with the struggle against the environment. The results of these thoughts become knowledge that develops and then is enriched by its supporters to become a solid, adaptive and very effective knowledge system. Furthermore, it becomes a basis for

decision-making in dealing with ordinary and extraordinary problems and challenges in people's lives (Adimiharja, 2004:6).

Marine products in the form of fisheries are a livelihood for fishers (or fishermen) and have a positive impact on people who work in related fields such as fish auction places, fish markets, fish processing industries and so on. Marine potential is not only in the form of fisheries but also tourism, trade, transportation and other marine industries (Naping, 2017). The sea and all its potentials are capital for nation building, as a source of economic income for fishermen and the surrounding community. Marine products are a resource that can be depleted if they are not taken care of and taken carelessly (Idris, et al, 2021). Unfortunately, most people do not have the awareness to maintain the potential of marine products. Even if they are aware and understand the risk of damage that occurs, various demands and the pressure of life often force them to do things that result in damage to the marine environment (Lampe et al., 2019).

Destruction of marine habitats such as coral reefs in the long term will threaten human life. If small fish die and coral reefs are damaged, it will be difficult for fishermen and the surrounding community to get marine products that are suitable for consumption. The use of explosives will also cause the death of other biota that are not the target of capture (Lampe et al, 2005). In some cases, injuries and even deaths occurred as a result of the explosion. The seafood taken also differs in freshness. Fish taken with eco-friendly technology will look fresh compared to fish taken with explosives. In addition to using explosives, fishermen often use other hazardous materials such as poison or drugs. The poison that is widely used is potassium cyanide. Without realizing it, this method actually makes big fish and small fish drunk and then die. Residual toxins also cause damage to marine life such as the death of coral and sea flowers (Sinele, 2018).

The use of the trawling system is also one of the causes of damage and extinction of marine products. The size of this net is very large with very tight net holes, so that small fish and large fish will be easily transported in one catch. Even fish that have not experienced spawning can be lifted. This condition of course threatens the sustainability of marine ecosystems, because fish regeneration is very difficult to do. The net will also lift coral reefs and cause damage to coral reef structures. Thus, the fish do not have a habitat to multiply their species (Linting & Widodo, 2017; Harnum, et al, 2022).

Damage to coastal and marine ecosystems including the loss of mangrove forests is a serious threat to the surrounding community. For coastal communities, the existence of mangrove forests has economic value and benefits the environment. Mangroves are a habitat for threatened species, such as tigers, estuarine crocodiles and various birds. Mangroves also function as spawning, maintenance and growth of commercial fish as well as being a breakwater. Mangroves provide firewood, charcoal, building materials, tannins, dyes, fruits, honey, medicines, green manure and a number of other necessities for local communities (Adimiharja, 2004:45). One of the causes of the loss of mangrove forests, among others, expansion of land and fishpond business.

Among the many cases of marine destruction by unscrupulous people, various real rescue actions have also been carried out by the local community. They have long made efforts to improve by capitalizing on traditions passed down from generation to generation. An understanding of the management of the natural environment that is obtained from years of thought and learning from a community is often known as local knowledge (local wisdom). Traditional knowledge or local wisdom is passed down from generation to generation, developed and preserved through traditional means. By using the "try and error" method, traditional communities utilize the biological resources that are around them and develop their knowledge to support and maintain their survival (Daulay, 2011:1).

Koentjaraningrat (1990: 8-9) divides local wisdom into seven parts, namely knowledge about the natural environment, knowledge about flora, knowledge about natural fauna, knowledge about substances and raw materials, knowledge about the human body, knowledge about the behavior of fellow humans, knowledge of space, time and numbers. The local wisdom possessed by each ethnic group is different depending on the environment in which they live. The local wisdom possessed by coastal communities is different from people living in cities, valleys or in the mountains. These differences are based on the ecosystem environment and the socio-cultural conditions in which they live. But often the development of human civilization and the various demands of life, some of these values and knowledge have disappeared, although it does not deny the fact that some have persisted (Hijjang, et al, 2018; Kadir, et al, 2021; Flassy, et al, 2022; Silo, et al, 2022).

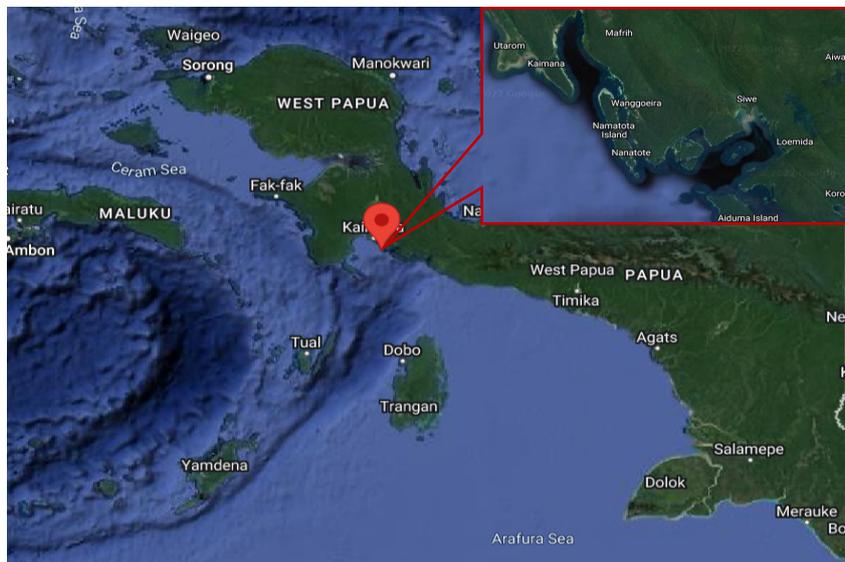
The Koiwai people in Namatota Village, Kaimana District, also knows the term *sasi* which in the Koiwai language is called *gam*, namely local wisdom in managing coastal and marine resources. As coastal communities, they are well aware of their dependence on marine products and the marine industry. *Gam* is essentially the embodiment of the local wisdom of the Kaimana area. This local wisdom can be more effective in protecting and preserving natural resources, than the prohibition regulations issued by the government. Through local wisdom, the community is invited to co-own and protect nature from damage and extinction. In order to preserve the nature of Kaimana Regency which is famous for its beauty, the indigenous people there have long implemented a tradition of traditional nature conservation. This tradition which has been handed down from generation to generation by their ancestors aims to maintain the balance of marine life from exploitation carried out indiscriminately Not only for fish species but also for marine biota in them such as coral reefs, sea cucumbers, lobsters and top shell (*Trochus niloticus*).

Namatota Village as an indigenous community, has values and rules that actually regulate people's lives. There is a customary apparatus tasked with supervising the implementation of norms, values, rules, one of which is *sasi*, including sanctions when violations occur. However, the awareness of protecting the marine environment is dwindling, due to the increasing demands of life. Some people no longer obey the existing rules by violating the *sasi* and disobeying customary rules.

Various problems arise both from within and from outside. One of them is the theft of marine products by several fishermen from outside the village. The theft of fish and other marine products is carried out in a destructive way using bombs and poison. This results in reduced quantity and quality of marine products caught by local communities. For this reason, the community, traditional apparatus, government and institutions engaged in conservation, namely The Nature Conservation and Conservation International Indonesia (CII), then return to environmentally friendly local wisdom. Therefore, this article aims to explore the mechanism for implementing sasi gam as a form of local wisdom of the Koiwai community in the management, protection, and utilization of coastal and marine resources in Kaimana.

## 2. Method

I use a research paradigm that is qualitative analysis with an ethnographic approach. The collection of data and information was carried out on several informants to collect primary information. In addition, a literature study is also carried out to use concepts and theories that will be used to underlie the framework of thinking and operationalizing field data in discussing the results. Qualitative data obtained from the results of the author's research from the field, in the form of observations, interviews, literature studies and documentation studies conducted on the people of Namatota Island in Kaimana Regency, West Papua Province.



Picture 1. The location of the research  
(Sumber: [Google.com/map](https://www.google.com/maps) with several adjustment)

The research focus on the Koiwai people in Namatota Island, Kaimana District. The transportation route that can be reached from Jayapura to the research location is by air by airplane and by sea by community boat or by speedboat rental. If by plane from Jayapura, we will stop at Nabire and then continue to fly again to Kaimana. After arriving at the capital city of Kaimana Regency, the journey continues by sea as the only option to get to the location. Transportation can use privately owned long boats that can be rented.

### 3. Result and discussion

- **The Koiwai People**

The Koiwai is one of the eight major tribes in the Kaimana district. In accordance with its history, the Koiwai is spread in several villages starting from Namatota village, Kaimana district (Mawara, 2021; Pamungkas, 2015; Henrdaqwati, 2020). In addition to Namatota village, the Koiwai people also live in Kayu Merah village, Teluk Etna district, Adi Island, Buruwai district and a small number of Koiwai people live in Nusaulang village, Buruwai district.

The Koiwai people also live in Bicari village, Kaimana district, where they come from Namatota village. The relocation of some people from Namatota village to Bicari, apart from the population growth factor in Namatota village and the insufficient capacity of the village, also because Bicari village was originally a gardening place so that in order to make it easier to get food, some of the Koiwai people moved to Bicari. The following table shows the distribution of the Koiwai people in Kaimana by village and clan:

Table 1. Distribution of the Koiwai People in Kaimana by Village & Clan

No	Village / District	Clan
1	Namatota / Kaimana	<ul style="list-style-type: none"> <li>▪ Umbayer</li> <li>▪ Sanggei</li> <li>▪ Faurier</li> <li>▪ Mandefa</li> <li>▪ Kamakaula</li> </ul>
2	Pulau Adi/ Buruwai	<ul style="list-style-type: none"> <li>▪ Aiturau</li> <li>▪ Laturau</li> <li>▪ Samai</li> <li>▪ Sininggitau</li> <li>▪ Lawai</li> </ul>
3	Kayu Merah/ Teluk Etna	<ul style="list-style-type: none"> <li>▪ Amirbai</li> <li>▪ Boimasa</li> <li>▪ Nasarau</li> </ul>
4	Nusa Ulang/ Buruwai	Similar to pulau Adi
5	Bicari/ Kaimana	Similar to Namatota

In accordance with the explanation above, the Koiwai people come from the village of Namatota, then the following is the mythology about the origin of the village of Namatota and King Namatota:

At first, the island of Namatota emerged from the blue sea in the form of a rock mountain. One of the mountains is named "Gussalaw". The mountain was first inhabited by the ancestors of the Sanggai clan and the Sarai clan. These two ancestors made a fire on the rock and the smoke rose high into the blue sky so that from a distance, the ancestors of the Umbayer Clan who inhabited Mount Bai on Kumawa Cape near the city of Fak-Fak. The ancestors of the Umbayer Clan did not think much of it and decided to go find where the billowing smoke was coming from. He (the ancestor of Umbayer) went to the place where the smoke was billowing. He arrived at Mount Gussalaw. While there, he was surprised to be called by someone from the

top of the mountain and asked Umbayer's ancestors "What do you want to take here? Then he replied "I want to find a place to live and because I saw smoke billowing here so I came to occupy this place". The meeting was followed by bargaining between the two figures. Then the two figures agreed to live together but it had to be determined who would be the *pemi* or king.

The two of them then agreed to battle their magical powers by taking the burning coals and diving into the water between Mount Gussalaw and the hill to the north of Mount Gussalaw (location of the present settlement of Namatota village). After the two figures battled and returned from the sea, it turned out that the embers of the fire held by the ancestors of the Umbayer clan were still burning, so that he won. He became the leader or king. After that, the King of the Umbayer clan plucked the leaves of the fern tree (a type of fern vegetable) and then spread them in the strait/sea water that was between the two rock mountains and at that time the sea between the two rocks dried up and became land which until now has become the location of village Namatota. Literally, Namatota consists of two words, namely *nama* which means "sea", and *tota* which means "to live", so Namatota means "Sea that is a place to live".

At first, only the three clans inhabited the island, but from the king's leadership system and the marriage system they adhered to, the number of clans and inhabitants of the island grew. The king's leadership system at that time many slaves were captured and also many women were brought from several villages to work for the king. While the marriage system is that they adhere to the matriakhart system so that many clans who marry enter and live in that location

- **How Community Perceive Sasi**

*Sasi* is a treatment process for areas that have the value of the availability of natural resources that can be utilized to meet the needs of the human community, so that during the *sasi* process a prohibition is imposed on fishing activities in areas that have been given the *sasi* symbol (Jakomina, & Maturbongs, 2021; Putri, 2021; Wekke, et al, 2018). In Indonesia, the practice of *sasi* is often found in the culture of the Melanesian-style community, which is spread over the coastal areas and islands of the eastern part of the archipelago, from the Maluku Islands to Papua. excessive power (see Lonthor, et al, 2016; Taryono, et al, 2018; Tebaiy, 2015; Soselisa, 2019; Persada, et al, 2018). *Sasi* is important to do, not just for the provision of resources to meet human life, but for the implementation of a balance of ecosystems that can maintain the order and chain of life cycles. Thus, *sasi* is a local wisdom that is maintained by the community for survival in the next generation, because by protecting nature, maintaining the balance of the ecosystem, life will continue (Renjaan, et al, 2013; Gaspersz, et al, 2019; Boli, et al, 2014).

The Koiwai community in Namatota Village views that *sasi (gam)* is perceived as a "wife" whose honor must be maintained. Thus, a wife has the duty and responsibility to maintain the harmony of her household, her status must be elevated in the structure of customary institutions. To work on *sasi*, often the owners of the *Sasi* area

will look for all members of the community, both women and men who are entrusted by the *sasi* owner (*gam*) to make and close the *sasi* in their area.

However, not everyone can make the *sasi*, so the customary implementers and the owner of the *sasi* area will select, among the members of the community. This is done because there are members of the community who have special advantages or good at making *sasi* (closing the *sasi* / making the symbol of *sasi*), when opened, it will bring a lot of results. Then the person will be notified by the *sasi* owner to stick the *sasi* sign, the *sasi* sign which is usually plugged in by the *sasi* maker is made of coconut leaves woven on the stem.

This *sasi* sign is usually plugged in around capes, islands, trees, rocks and others. Because around these places by the *sasi* maker is seen as a strategic place to stick the *sasi* sign, also the aim is that all people who pass through the *sasi* area will clearly see the *sasi* sign so that they do not take the natural resources around these places. (Sjafrie & Setyastuti, 2020; Warawarin, et al, 2017). If any of the Koiwai indigenous people try to violate the *sasi* sign, by destroying the *sasi* or stealing the living natural resources in the *sasi*, then the husband, officials, customs, and all the Koiwai indigenous people in Namatota Village consider that the offender has shamed the family and the maker of the *sasi*, as if he had "stripped" themselves.

Furthermore, the *sasi* maker will hand over his wife to the thief's family or the *sasi* violator, provided that after the thief pays the fine or pays off the violation to the *sasi* maker by custom, then the *sasi* maker takes his wife back from the thief's family. As for the amount of fines or compensation that must be paid by the thief, as in the Dutch colonial era, in the form of antique plates, Papuan gold, and money, and the amount is determined by custom with the approval of the *sasi* maker. Nowadays, because the above items are difficult to obtain, the form of payment or compensation that must be paid by the thief is in the form of: one dozen plates, one dozen spoons, one dozen glasses, five grams of gold, and some money ( $\pm$ Rp. 1,000,000), which must be paid by the thief and their family. The punishment given is in the form of sanctions obtained by violators who continue to carry out fishing activities in areas that have been determined in the *sasi* process.

- **Determination of *Sasi* Territory Boundaries**

The division of the boundaries of the *sasi* area is determined based on the boundaries of the village area. The shape and boundaries of the village area are as follows: Niwara Island in the north, Arafura Seain the south, Eranang Island in the west, and Tanjung Nabima in the east. From the boundaries of the *sasi* area, according to information obtained from informants, the division of *sasi* area boundaries is marked based on islands, capes, and mountains around the village area.

For the type of sea *sasi*, the determination of the territorial boundaries is starting from the coastal area around Namatota Village to the low tide (*meti*) which is  $\pm$  10 meters deep or known as the place where top shell sea cucumbers (*mutataranggang*), fish and green turban as well as various other types of marine biological resources live. From

the types of marine biological resources mentioned above, except for fish of all types, they are not included in the type of biota in *sasi*, because people see fish can be found at any time and are always consumed in daily life.

Meanwhile, marine living natural resources, which are always made *sasi (gam)*, are considered by the community as living natural resources that have very high economic potential. The harbor area (sea area in front of the village) which is used as a place for boats and motorbikes to dock, is divided into two parts, namely the eastern and western areas and Namatota Village. Then, to the middle of the sea, there is a cluster of coral reefs (*saar*), with a depth of  $\pm 25$  meters, which is known to the public as a place to live for various types of marine biological natural resources such as small and large fish species, stone shrimp, *lola* (top shell), sea cucumbers (*mutataranggang*), green turban, and others.

There are also coconut *sasi* and garden *sasi* with the determination of the boundaries made around the plantation areas. The boundaries of this plantation area are used based on the boundaries of property rights to the garden area, which are legalized by custom: by the village head and customary administrators.

- **Sasi Typology**

The first typology is Sea *Sasi*. This *sasi* is made to protect marine products from extinction, as well as to be consumed by the community as a source of income. The types of marine living natural resources in *Sasi* are: top shell, sea cucumbers, green turban, and pearl snails. This sea *sasi* is made usually during the wave season (which usually occurs in the east season), which is every 6 months, but if the *sasi* period is closed, after opening the results are less, then in the next wave season (east season) this sea *sasi* made up to one year and opened in the shade season (west season) of the next year.

In making this sea *sasi*, people who usually make this *sasi* are considered “cold-handed”, meaning that the community has chosen the person who usually makes *sasi* and once opened, it produces a lot of marine living natural resources. When the *sasi* is closed, other types of work that the community does are farming in the fields around the village, and fishers (netting and fishing) around the village, even looking for sharks to take their fins on the high seas.

The type of sea *sasi* that is owned by the community, of course, not everyone has the *sasi (gam)* area, so of course there are members of the community who have the *sasi* area. The indigenous people of the Koiwai community in Namatota Village who own the *sasi* area are the traditional leaders from the Ombayer clan. When this sea *sasi* is about to be closed or opened, the owner of the *sasi* area and Ombayer clan will announce at the customary meeting that the *sasi* is being closed. After that, when the *sasi* is about to be opened by the owner of the *sasi* area, they will announce to the community that their *sasi* has been opened. In the opening ceremony of *sasi*, there is a traditional ceremony in which the *sasi* maker together with several traditional officials will make a *sinara* (betel holder), which contains betel, areca nut, slaked lime

and tobacco, which is placed in a plate. , then read the incantations, after finishing reading it, then the sasi maker sinks the Sinara into the sea water, around the sasi area. If at the closing ceremony of the sasi, the sasi maker himself recites the incantation, then sticks the sasi sign. After all of them have finished diving, it is time for the profit-sharing event to be announced by the owner of the sasi at a traditional meeting.

The second type is land *sasi*. In this *sasi*, there is a private garden owner, because the plants in the land *sasi*, such as coconuts made from *sasi (gam)*, are privately owned by the community who owns the garden areas. For this land *sasi*, the *sasi* is made by the owner of the plantation personally and the ownership rights are recognized in the structure of customary institutions. This coconut plant is processed and maintained by the community as a whole, even though the ownership rights are known to be private, because the community looks after each other if any member of the community sticks the *sasi* sign, it means that it is forbidden to take coconut plants or other garden products.

When the harvest time comes, the community in groups in their nuclear families (which consists of 4-6 people), process coconuts into copra. In the making of copra, there is a system of division of labor, in which the men work as coconut tree climbers to lower the coconuts and split them while the women put the split coconut on top of the copra and guarding it until it becomes copra within a period of 14 days. After becoming copra, together they will weigh the results and sell it to a shop in Kaimana.

- **Symbols in Art**

In the process of implementing *sasi (gam)*, it cannot be separated from the symbols that will be used. Sometimes people create symbols that are seen as the name of their clan or clan name. However, we should realize that these symbols were created as an outlet for the psychological aspects contained in the souls and minds of these people. The symbol itself can be interpreted as a sign associated with an object that is shown (the reference) based on habit (because it is arbitrary) and not naturally. Cultural symbols or ritual symbols are objects or other signs that contain important cultural meanings.

Therefore, the *sasi* symbol used by the indigenous Koiwai people, for the type of sea *sasi* and land *sasi*, is the same. It is made of coconut leaves which are woven alternately, on the stem of the stick and tied to a pole/wood. The community chooses coconut leaves to be used as a symbol of *sasi*, because the leaves are not only yellow-white in color and if they are plugged into the tip of the headland for sea *sasi* and under a coconut tree for land *sasi*, the color difference will be clearly visible from a distance of about 50 meters, as well as a color comparison with other trees with green leaves.

The purpose of woven coconut leaves is to indicate that the community has made or established *sasi*. For the type of coconut *sasi*, it is only marked with woven coconut leaves alternately and placed under a coconut tree, which means that it is clearly

visible when other people pass through the garden area, because if it is placed on a coconut tree, there are other indications that people might not see the *sasi* symbol clearly, so that they can climb up and take the coconuts. As for the type of sea *sasi* that is plugged into the tip of the promontory, it means that people who pass in front of the promontory can see clearly that there is a prohibition sign to search around the promontory.

- **Pattern of Natural Resources Management and Conservation**

The patterns of management and conservation of living natural resources are set out in a traditional conservation system, which is known to the Koiwai people as *sasi* (*gam*), which is a restriction on the taking and prohibition of taking certain types of living natural resources within a short period of time. In carrying out supervision of the *sasi* (*gam*), the king will appoint his deputy as the head of the hamlet assigned to oversee the *sasi*. As the head of the hamlet who had been assigned by the king, they have the responsibility to oversee the *sasi*, starting from the *sasi* being closed, until the *sasi* was opened. In this *sasi* management pattern, there are two types of customs used, namely the *sasi* closing and the *sasi* opening.

The *sasi* closing is a form of protection of marine and land living natural resources, which are usually marked with the *sasi* closing symbol. There are certain times when a person is not allowed to take certain biological natural resources, which is called the *sasi* closing. The *sasi* closing is from the time concerned until a certain time, all types of marine and land products in *sasi* must not be damaged, taken or harvested. On the contrary, in the *sasi* opening, all land or marine products that are prohibited from being taken on the *sasi* closing are allowed to be taken. In the *sasi* closing, according to traditional leaders, the *sasi* maker will read the intention to close the *sasi* before they erect the *sasi* sign. The intentions and closing of the *sasi* are as follows: "*Lausar gam uwajina, bia laga, mutataranggang, green turban, timur, mondar, utara, bamuruu saar lou*". It means, "I come to erect *sasi* this year. Top shell, sea cucumber, green turban, who come from the east, west, north, south, gather in my *skar* (*saar* or *sasi* area). After the intention and cover of the *sasi* is read, then the maker of the *sasi* establishes the *sasi* symbol.

The *sasi* opening is held when the harvest comes, which is the west season (shady season), the *sasi* maker will announce to the indigenous people in a traditional meeting, that soon they will open the *sasi*. Then, on the day that has been determined for the opening ceremony of the *sasi*, the maker of the *sasi* will fulfill several customary requirements to revoke the *sasi* mark. According to traditional leaders, there are conditions that must be met by the *sasi* maker at the time of breaking the *sasi* ceremony, as follows: the *sasi* maker will instruct the people who will dive from the sea *sasi* to collect at least one hand of rice, four piles of betel nut, slaked lime and tobacco). The rice that has been collected by the *sasi* maker on a boat, will take it to the sea and scatter it, which aims to feed the sea gods. As for the four piles (betel nut, slaked lime and tobacco), will be given to the King's friends, namely Umus, Amis, Nous, and Bais, who are seen as the people who own the territory and the first. Also, there is an intention that must be read before the community dives into the sea. As

for the intention to open *sasi* which is read to the god of the sea, the god of the wind, the god of fortune, is as follows: "*Sinera usafat gam umais batu*", meaning, "I came to put betel, areca nut, slaked lime, and tobacco, because tomorrow I want to open *sasi* and people want to dive."

Then right on the day, the people who wanted to dive and the *sasi* maker came to open the *sasi*. The *sasi* maker reads out the intention to open the *sasi* on the boat and they open the *sasi* sign. So simultaneously, the people who will dive to catch the marine products, jump from the boat and throw themselves to dive. However, on that day, the community certainly did not dive in all the areas that were in *sasi*, but they determined the boundaries of the cape as a benchmark for them to dive, but it should also be noted that in diving the results of the community dive around the island or the area where *sasi* is placed, namely around the boundary and coral reef clusters. The purpose of determining the diving limit is to control, lest there are *sasi* areas that cannot be taken.

- **Forms of Violations Against Sasi (Gam)**

Although the *sasi (gam)* has been enforced, in the reality, the community faces violations although the *sasi* is still closed. Violations committed by members of this community are as a result of the accommodation of the family's source of economic income.

"The violation occurred because of the opportunity, meaning that there was a weakness in the non-intensive monitoring mechanism, which also provided clues about the existence of certain opportunities for violating the law. These weaknesses can only be overcome if there is strict supervision that knows no compromise, meaning that there are officers who can control themselves and already have primary needs that have been met."

From the concept above, it is clear that the violation is not possible if the members of the community live well, meaning that their basic (primary) needs are met. The forms of violations that often occur in the indigenous Koiwai community in Namatota Village, are such as the theft of products, both marine and land products. While the second form of violation is an intentional violation by community leaders, in terms of determining prices and living natural resources that are currently under *sasi* against the community who will work on *sasi (gam)*. Even though some members of the community already know the price and marine living natural resources that are sold in the market. This results in reduced values of trust in these community leaders from members of the community. The third form of violation is the theft of marine products, in the form of top shell, sea cucumbers, *green turban* and pearl snails by divers from the islands of Dobo, Bugis and Buton who use motor boats and use a wind tube (compressor) to dive and look for marine products.

- **Sanctions in Customary Institutions**

From the forms of violations committed by community members such as the theft of products and biological natural resources that are being investigated, if it is known

by traditional leaders in the structure of customary institutions, actions will be taken according to the type of violation. "Sanctions are punishments, coercive measures for a violation, liability for legal actions and so on". The types of sanctions taken by traditional leaders to community members are in the form of paying fines to the custom and to the *sasi* maker. There were also physical sanctions during the Dutch colonial era, such as corporal punishment (in the form of beatings) but now they are no longer enforced. The current physical sanctions are such as repairing public facilities (mosque, village hall, and cleaning the environment of the king's house) by the *sasi* violator.

As for the amount of the fine for the violator, according to traditional leaders during the Dutch era, it was paid with 1 large plate, a minimum of 5 cents, 5 *tail* of Papuan gold, and had to apologize to the King or traditional officials. However, nowadays, because these objects are difficult to obtain (rare), the Koiwai tribal institution in Kamoung Namatota has determined the amount of the fine is as follows: 1 large plate is replaced with 1 dozen of plates, glasses, spoons (each) which are sold in shops, the cents are replaced with Indonesian Rupiah (at least Rp. 1.000.000,-) and the Papuan gold is replaced with 23/24 carat gold (at least 5 grams).

As for the types of violations that are intentionally committed by community leaders, they do not get sanctions in the form of fines, but they will get ridicule from all members of the community. Then for divers from Dobo Island (Central Maluku), Bugis, and Buton, so far, no one has been caught, since they did not stay long around the islands in Namatota Village.

- **The Function of "Gam" in the Life of the Koiwai Tribe in Namatota Village**

*Sasi* application is always accompanied by various consequences from the pattern of applying the *sasi* system to the preservation of these biological natural resources. The various consequences that often occur in the pattern of applying the *sasi* system cannot be separated from the existence of various human behaviors, both beneficial and unfavorable behavior towards fellow humans and other living creatures. There are a number of behaviors that benefit fellow humans, such as the existence of cooperation between community members in terms of building facilities for managing natural and human resources. What the writer means by natural resource management such as the development of home industries and the formation of cooperatives by a group of community members, is aimed at training and fostering the community to be independent.

The developing quality human resources are through formal education through schools, as well as non-formal education channels such as religious circle, Sunday schools, sewing courses, welding, typing, driving and so on. From the behaviors mentioned above, there are also a number of behaviors that are not beneficial, towards fellow humans or with the surrounding natural environment. As for behavior that is not fellow human beings, such as sexual harassment, theft, murder, all of which are included in violations and crimes that can be categorized as criminal

offenses. There are several functions of applying the *sasi* system to the Koiwai people in Namatota Village.

There are social functions of implementing *sasi*. According to them, there is a principle of reciprocity in terms of the barter system between marine products, garden products and biota in *sasi*. Usually, after the fishers in Namatota Village get a lot of fish, they distribute it to the community who work as farmers. Then, the farmers will give their garden produce (taro, cassava, *petatas*, bananas, and other types of vegetables) to the fishers. However, there is also a time when the fishers gives the fish and the farmer does not reply directly by giving the results of their garden. For this, the farmer will give the fishers the results of the garden after the harvest. There are a number of expressions of reciprocity that are universally applicable to the indigenous Koiwai People. The expression reads as follows:

"Whoever gives, then they too will be given, although not now, but someday",  
"Whoever helps others then one day he will be helped".

From the expression above, people realize that when they give something to someone else, they will be given a reward immediately according to the type of goods give. If not one day or on another occasion, they will be received it. So the principle of reciprocity which is owned by the indigenous people in Namatota Village, contains psychological principles that have positive values.

There are also economic functions of *sasi* for the Koiwai community in Namatota Village. It begins with the high value of cooperation in searching for marine and terrestrial biological natural resources. The high value of this cooperation to look for marine products, is clearly seen in fulfilling and increasing the family's economic income. The community always forms working groups to look for marine and land products. Marine products, which are their main livelihood, are always carried out by the working group during the wave season and the shady season.

In the wave season, people catch marine products by throwing nets around the village to find fish that are consumed in daily life, such as red fish, mackerel, tuna, as well as shark, and if there is an excess by the group, the work sells it to the market in the city of Kaimana. There is also seafood produced by the working group of the village community in the shady season, which is when the sea *sasi* is opened. The working group is coordinated by one of the oldest working group members, who is entrusted with guiding them.

In cooperation they dive marine products in the form of *lola* (top shell), sea cucumbers (mutataranggang), green turban and pearl snails. The catch of the marine products is not distributed based on the working group, but it is based on the individual, i.e. who gets a lot, the result is a lot. According to information obtained from traditional leaders that:

"People realize who works more, he who gets more results".

The cooperation in making copra when coconut *sasi* is opened is clearly visible in the land *sasi*. Through working groups formed by the community in the structure of the Village Community Resilience Institution (*Lembaga Ketahanan Masyarakat Kampung* or LKMD), which is highly organized they work and the results are distributed equally.

*Sasi* also has conservation functions. Social activities that are felt as a result of positive values need to be preserved because these *sasi* values are the implementation of the most essential level of human cultural development, such as protecting biota and coral reef habitats. Since the *sasi* closing is enforced for a certain period of time, for example for 6 months and others for one year, it will provide opportunities for marine biota who are being *sasi* or not. Sea cucumbers (*Haluturia sp*) is an example for the marine biota found in the indigenous Koiwai tribe within a period of six months.

The indigenous people of the Koiwai community chose sea cucumbers for *sasi* for six months because the community classify sea cucumbers into several types, such the black teatfish (*Holothuria nobilis*), white teatfish (*Holothuria fuscogilva* or *teripang susu*), and sandfish (*teripang pasir*) and within 6 months, they were able to open *sasi* and harvest the results. Meanwhile, the biota that lasted for one year, such as pearl oysters (*Pinctada*), green turbans (*Tirbo mamoratus*) and topshell (*Trochus niloticus*), were considered by the public that the reproduction of these biota was very slow. It should be noted that fish are not include in the *sasi* by the Koiwai people because the community views fish as a marine biota that is consumed every day, and if there is an excess, the community can sell it in the city of Kaimana.

Then, *sasi* can increase the reproduction of coconuts and garden produce in land *sasi*. Likewise with the effect and application of the *sasi* system on land types of *sasi*, such as coconuts and garden products (taro, *betatas*, cassava, banana, *rica*, slaked lime and others). Coconut should be within three months for *sasi* garden produce, and all the plant can develop well and the village environment becomes comfortable.

- **The Value of *Gam* in the Life of the Koiwai People in Namatota**

There are social values in the *sasi* or *gam* such as mutual respect among the people of Namatota Village and the entire Koiwai community. There is also a tradition of cultural values that is still maintained today. The high role of *sasi* values in regulating the pattern of social life, and good manners, makes the community very respectful of every guest or person who has just arrived in their area. It is also seen in daily life, that the community is very sensitive to their living environment, meaning that if a neighbor or people around the village die or get an accident at sea, simultaneously, all the villagers will help their neighbors who have the disaster. The assistance provided were in the form of basic material or goods, and some were in the form of non-material, namely energy assistance in terms of splitting firewood, setting up tents, cooking, and some in the form of spiritual assistance (in the form of a person leading the prayer or safety ceremony).

Economic value is another good value. One of the positive consequences and the implementation of the *sasi* system is the policy taken by the village head, to allow

members of the community to take marine products that are being *sasi*. Intentions that are often carried out by the community are such as marriage, haircuts, circumcision (*sunnat*) and welcoming village guests. People choose marine products to be taken because according to them, from all types of biological natural resources, it is marine products that have very high economic potential, and they get money faster from selling them. However, in taking marine products that are currently in the *sasi* is restricted. People who have an intention, may contact the *sasi* maker, then together, they will go to the *sasi* area to dive. The *sasi* maker reads the intention of the opening of the *sasi* custom and they remove the *sasi* symbol. After the *sasi* symbol is opened, the people who have the intention start diving for marine products.

With the existence of *sasi* in customary institutions, there are also conservation values that function as a means of social control in conserving marine and land living natural resources. In order to prevent over-exploitation, all Koiwai people are aware of the importance of these *sasi* norms. Thus, even though there are external influences and positive law, the community is still obedient to *sasi* customary norms. In order for keeping the natural resources to remain sustainable and avoid the danger of extinction, the norms of *sasi* are further emphasized, in the sense that if someone deliberately commits a violation (stealing the proceeds) that is being in *sasi*, they will be punished according to custom.

Another value is the cultural values. These *sasi* norms contain a number of rules that are used as guidelines for supervising or controlling various people activities, which aim to pacify their lives. Meanwhile, traditional institutions are media for the community to channel their various aspirations based on the principle of deliberation to reach consensus, and traditional leaders as someone who has the potential to lead the community, who has very broad and authoritative knowledge and insight. Also, the whole community which is characterized as the object of the perpetrators and users of *sasi*, must obey the *sasi*.

- **The Shifting Values of *Sasi***

As generally happens, there will always be shifts and changes in values. In general, the factors that influence the occurrence of a shift are divided into two, namely external factors and internal factors.

The external factor that greatly affects the shift in the value of *sasi* is the occurrence of large-scale theft of marine products. The perpetrators of the theft came from outside the village and outside the area. It is called theft because the activity did not go through the applicable procedures. Generally, the action is carried out at night when the sea and the street are quiet. This action is clearly illegal, both from the perspective of government and customary law, but the local community cannot do much.

This illegal activity uses large ships that have large storage capacities, as well as sophisticated equipment to retrieve marine products. One of them is a very large net or trawl. The net will be buried very deep in the sea and can damage everything that is on the seabed. This situation forces local fishers to abandon traditional equipment

and switch to modern equipment, so as not to lose competition in getting abundant marine products in a fast and efficient way.

Then, comes issues regarding modern equipment. Village communities in general can not compete with migrants who use modern equipment to catch fish. If the villagers can only dive without tools, the migrants dive using advance equipment, so they can dive deeper and longer. They use compressor and oxygen cylinder. With a compressor, the diver's durability will last longer. Thus the results obtained are extraordinary, even though such a method is very damaging to the marine ecosystem. Not to mention the use of explosives that make them will get results in large quantities in a short time.

In terms of time efficiency, both methods are proven to save time, and seafood can be delivered quickly to customers. Nevertheless, it will greatly damage the habitat and marine ecosystem. This, then rising envy of the villagers and eventually, they also start using modern equipment to get bigger profits.

The fuel is also expensive. The vast sea area results in the use of boats with the help of engines. The machine certainly requires fuel to function, the high cost of fuel causes fishers to look for shortcuts to get abundant fish products quickly, such as bombing fish or using lanets to poison fish and others.

Internal factors come from within the community itself. From the research, it shows that the community's awareness of traditional leaders is reduced. The lack of concern for the Koiwai indigenous people in Namatota Village is not because the community does not obey customary rules, but because the community has a feeling of distrust towards the leadership of the village head and his apparatus. This feeling of distrust arises as a result of deviant personality by the village head and the apparatus themselves.

From the result of the interview, it is found that what is meant by the deviant behavior is that if there is a village development fund from the Kaimana district, people perceive the village head and their officers use the fund for their own interests, in which in this case, they do not pay attention to the development in their village, even though the community already knows the amount of the village development fund. In addition, the village head is often not in the village since he spends more time with his family in Kaimana City. This is what has received complaints from the village community, that Namatota Village is slow to develop, when compared to other villages in Kaimana Regency.

#### **4. Conclusion**

*Sasi* is a traditional conservation model which is a form of local knowledge regarding the maintenance, management, and utilization of the coastal as well as marine environment in which its distribution evenly to the entire community. *Sasi*, which in the Koiwai language is called *gam* has been owned by the Koiwai people in Namatota Village as traditional local knowledge that has been passed down by their ancestors long

ago. The Koiwai people recognizes two types of *sasi* or *gam*, namely sea *sasi* and land *sasi*. The *sea sasi* carried out by the Koiwai people in Namatota Village serves to maintain the balance of marine and aquatic ecosystems. If the *sasi (gam)* can be re-done with strict customary rules, it can be ascertained that it will ensure the sustainability of biodiversity and the fulfillment of the needs of the surrounding community, both in terms of nutrition and in terms of economic improvement.

This study suggests that the *sea* and *land Gam (Sasi)* for the Koiwai people have several functions such as social, economic and conservation. Meanwhile, the *gam* value for the Koiwai people are social, economic, conservation, and cultural values. The shift in *gam* value in the life of the Koiwai people are internal factors, such as the loss of public trust in the government apparatus in the village and in their traditional institutions, especially in protecting the *sasi* area. External factors, namely the theft of marine products by outsiders, local community competition with outsiders in the aspect of using modern equipment to catch marine products and the high price of fuel oil.

Therefore, special attention is needed from all relevant stakeholders to carry out integrated management in maintaining and caring for marine ecosystems as a common home and support for survival and fulfillment of needs. Moreover, this *sasi (gam)* has become a tradition that has been preserved and passed down historically throughout the cultural journey of the Koiwai people. Involving the younger generation in identifying and maintaining and preserving the implementation of *sasi* is very important to maintain the existence of the culture and identity of the Koiwai people.

#### **Conflicts of Interest:**

The authors declare no conflict of interest.

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#### **References**

- Adimihardja, Kusnaka. (2004). *Sistem Pengetahuan dan Teknologi Lokal Dalam Pembangunan Berkelanjutan Di Indonesia*, Humaniora.
- Boli, P., Yulianda, F., Damar, A., Soedharma, D., & Kinseng, R. (2014). Benefits of *sasi* for conservation of marine resources in Raja Ampat, Papua. *Jurnal Manajemen Hutan Tropika*, 20(2), 131-139.
- Daulay, Z. (2011). *Pengetahuan Tradisional: Konsep, Dasar Hukum, dan Praktiknya*. Raja Grafindo Persada.
- Flassy, M., Frank, S. A. K., Idris, U., Muttaqin, M. Z., & Darmawaan, H. (2022). *Hutan Perempuan: Kearifan Lokal Orang Tobati-Enggros dalam Merawat Ekosistem Hutan Mangrove*. wawasan Ilmu.
- Gaspersz, E. J., & Saiya, H. G. (2019, February). Pemetaan Kearifan Lokal Budaya Sasi Di Negeri Haruku Dan Negeri Kailolo, Pulau Haruku, Kabupaten Maluku Tengah. In *Seminar Nasional Geomatika* (Vol. 3, pp. 107-116).
- Harnum, P. D., Afif, Z., Syahransyah, S., & Rambe, M. I. I. (2022). penerapan penegakan hukum terhadap nelayan pukat harimau (studi di kabupaten batu bara). *Jurnal Ex-Officio Law Review*, 1(1), 40-50.

- Hendrawati, N. E., Mutaqqin, N., & Susanti, E. (2020, February). Etnomatematika: Literasi Numerasi Berdasarkan Bahasa pada Suku Kowai Kabupaten Kaimana. In *Prosiding SI MaNIs (Seminar Nasional Integrasi Matematika dan Nilai-Nilai Islami)* (Vol. 3, No. 1, pp. 239-243).
- Hijjang, P., Ismail, A., Marhadi, A., Frank, S. A. K., Sokoy, F., & Idris, U. (2018). Puyakhabhu: Local wisdom values in environmental management at Sentani indigenous community in Jayapura Regency, Papua. *International Journal of Arts & Sciences*, 11(1), 59-65.
- Idris, U., Frank, S. A. K., & Muttaqin, M. Z. (2021). Traditional fishing technology of fishermen community in Papua. *ETNOSIA: Jurnal Etnografi Indonesia*, 125-135.
- Jakomina, A., & Maturbongs, E. E. (2021). Peran Sasi Dalam Pelestarian Fauna Sebuah Perspektif Kearifan Lokal. *Musamus Journal of Public Administration*, 4(1), 1-12.
- Kadir, A., Poli, A. I., Hijjang, P., Ali, A., & Sokoy, F. (2021). Local wisdom regarding coastal resource management among a fishermen community in Youtefa Bay, Papua. *ETNOSIA: Jurnal Etnografi Indonesia*, 36-46.
- Koentjaraningrat, (1990). *Pengantar Ilmu Antropologi*. Jakarta: PT. Rineka Cipta.
- Lampe, M., Munsir, H., & Adam, A. F. (2019, October). Contextual progressive: study of fisheries practices and consequences to the environment. In *IOP Conference Series: Earth and Environmental Science* (Vol. 343, No. 1, p. 012099). IOP Publishing.
- Lampe, M., Sairin, S., & Ahimsa-Putra, H. S. (2005). *Perilaku Eksploitasi Sumberdaya Perikanan Taka dan Konsekuensi Lingkungan dalam Konteks Internal dan Eksternal: Studi Kasus pada Nelayan Pulau Sembilan*. Gadjah Mada University.
- Linting, M. L., & Widodo, A. A. (2017). Status perikanan jaring trammel dan kontribusinya terhadap perikanan tangkap di Perairan Pantai Selatan Kebumen. *Jurnal Penelitian Perikanan Indonesia*, 8(1), 69-73.
- Lonthor A., Asba A. R., Hamdat S. (2016). Concept "Larvul Ngabal" Settings in Marine Resources Management in Southeast Maluku Kei Islands. *International Journal of Scientific and Research Publications*. 6(1): 524-530.
- Mawara, A. (2021). Pulau Miwara Pusat Niaga Masa Lampau: Tinjauan Sejarah Perdagangan Tradisional di Teluk Triton. *Kebudayaan*, 16(2).
- Naping, H. (2017). *Laut, Manusia, dan Kebudayaan*. Yogyakarta: Kaubaka Dipantara.
- Pamungkas, C. (2015). Sejarah Lisan Integrasi Papua Ke Indonesia: Pengalaman Orang Kaimana Pada Masa Trikora Dan Pepera. *Paramita: Historical Studies Journal*, 25(1).
- Persada, N. P. R., Mangunjaya, F. M., & Tobing, I. S. (2018). Sasi sebagai budaya konservasi sumber daya alam di kepulauan Maluku. *Jurnal Ilmu dan Budaya*, 41(59).
- Putri, N. I., Chandrika, N. L., Pangestu, G. L., & Suryanda, A. (2021). Peranan Kearifan Lokal Sistem Sasi Dalam Pengelolaan Sumber Daya Laut Indonesia. *Jurnal Ekologi, Masyarakat & Sains*, 2(1).
- Renjaan, M. J., Purnaweni, H., & Anggoro, D. D. (2013). Studi kearifan lokal sasi kelapa pada masyarakat adat di desa Ngilngof kabupaten Maluku Tenggara. *Jurnal Ilmu Lingkungan*, 11(1), 23-29.
- Ronsumbre, A. (2020). *Ensiklopedia Suku Bangsa Di Provinsi Papua Barat*. Kepel Press, Yogyakarta.
- Silo, A., & Ismail, A. (2022). Revitalizing governance based on local wisdom in Papua. *ETNOSIA: Jurnal Etnografi Indonesia*, 7(1), 42 - 50. <https://doi.org/10.31947/etnosia.v7i1.20124>
- Sinilele, A. (2018). Penegakan Hukum Penangkapan Ikan Secara Ilegal. *Al Daulah: Jurnal Hukum Pidana Dan Ketatanegaraan*, 7(2), 265-278.
- Sjafrie, N. D. M., & Setyastuty, A. (2020). Pemanfaatan Teripang di Kabupaten Kaimana Provinsi Papua Barat. *OLDI (Oseanologi dan Limnologi di Indonesia)*, 5(2), 121-134.

- Soselisa, H. L. (2019, October). Sasi Lompa: A critical review of the contribution of local practices to sustainable marine resource management in Central Maluku, Indonesia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 339, No. 1, p. 012013). IOP Publishing.
- Taryono, Paulangan Y.P., Al-Amin M. A., Wahyudin Y. (2018). "Tiaitiki: Pengetahuan Lokal dan Lembaga Lokal untuk Mendukung Konservasi Laut di Teluk Depapre Provinsi Papua, Indonesia" dalam Adrianto L., Irianto O., Wardiatno Y., Fahrudin A., Taryono, Krisanti M., Hariyadi S., Mashar A. (ed). (2018). *Bentang Laut Lesser Sunda dan Bismarck Solomon*. Bogor: IPB Press, p 37-59.
- Tebay S., Yulianda F., Fachrudin A., Muchsin I. (2015). Manjo Customary Law in Fisheries Management System of Youtefa Bay, Papua. *Australasian Journal of Social Science*. 1(1), 34-41.
- Warawarin, C. Y., Cangara, H., & Muhadar, M. (2017). Makna Komunikasi Simbolik Hukum Adat Sasi Dalam Pelestarian Alam Laut Di Kabupaten Maluku Tenggara. *KAREBA: Jurnal Ilmu Komunikasi*, 1-19.
- Wekke, I. S., Aghsari, D., Evizariza, E., Junaidi, J., & Harun, N. (2018, May). Religion and culture encounters in misool raja ampat: Marine ritual practice of sasi laut. In *IOP Conference Series: Earth and Environmental Science* (Vol. 156, No. 1, p. 012039). IOP Publishing.