



# Analysis of institutional *marine eha* and *mane'e* as community-based (coastal) resources management

Khoirunnisak & A. Satria

*Department of Science Communication and Community Development,  
Faculty of Human Ecology, Bogor Agricultural University, Indonesia*

## Abstract

Marine and coastal areas are very important sectors for community, so they should be used in an integrated manner to maintain their sustainability. Coastal resources management can be initiated not only by the government but also by the local community. One example of coastal resource management initiated by the local community is *eha* and *mane'e* located in Kakorotan, North Sulawesi, Indonesia. *Eha* comprise a set of rules governing the harvest of crops of both marine and land. *Mane'e* is the fish harvest ceremony using *sammi* rope one year after the marine *Eha* ceremony. Both local wisdoms (*eha* and *mane'e*) are held to keep the preservation of natural resources and assemble people to live together. This study aims to analyze the institutional elements of both marine *eha* and *mane'e* in the management of community-based coastal resources. This study analyzed the elements of natural resource management proposed by Ruddle (*The role of local management and knowledge systems in small-scale fisheries*, 1999) as territorials, rules, rights, authority, sanctions, as well as monitoring and evaluation. Based on this research, the performance of *marine eha* and *mane'e* in coastal resource management is effective and runs well.

*Keywords: community, coastal resource management, fish harvest, sustainable, local wisdom, institutional.*

## 1 Introduction

Management of community-based coastal resources has widely been discussed as it provides a solution for the coastal resource management which tends to be top down today. Berkes [2] says that coastal resource management can be used

as an alternative solution because it has proved to offer a number of benefits with regards to the guarantee of livelihood, equality of access to coastal resources, the conflict resolution mechanism and orientation towards sources sustainability.

Meanwhile, local communities in some places have already had mechanisms in coastal resource management themselves. Coastal resource management involving the community is necessary to make these resources able to be utilized in a sustainable manner. Local wisdom is all forms of knowledge, beliefs, understanding or customs and habits as well as ethics that guide human behavior in an ecological community life (Keraf [3]). Local wisdom can either emerge from immemorial time or newly be created to deal with certain problems which have occurred (Putra [4]). Aulia and Dharmawan [5] pointed out that local wisdom serves not only as a characteristic of a community but also for the preservation of the ecological environment of a community. Some examples of local wisdom found in Indonesia are *panglima laot*, *sasi*, *eha*, and *mane'e*.

*Eha* and *mane'e* are employed in Kakorotan Village, Talaud District, North Sulawesi, Indonesia. *Eha* is a mechanism for the natural resources management by the local community to regulate the harvest of marine crops in certain areas. *Mane'e* is the fish harvest ceremony using a forest rope (*pundagi*) bounded by young coconut leaf (*janur*).

This paper aims to analyze the performance of *eha* and *mane'e* institutions, as well as the extent to which the community response to the implementation of both systems.

## 2 History of *eha* and *mane'e*

*Eha* is derived from the word “*e*” which means attention and “*ha*” meaning “do not” or “prohibited”. *Eha* is a prohibition for the community to harvest crops both from sea and land at a certain period of time. This tradition has been held since immemorial time as an attempt to keep the preservation of natural resources there. *Eha* also aims to accustom people to live, eat, experience sorrow and joy together. *Eha* was practiced by Kakorotan villagers after the tsunami in 1628. At that time the whole food sources were depleted as exposed to the pounding waves. As a result, people began to starve. Then some surviving ancestors decided to sail to Tahuna, looking for food crops that can be grown in Kakorotan. In Tahuna ancestors found some seeds of plants such as coconuts, cassava and breadfruits (*sukun*) to be planted in their land. After the disaster, they began to adapt with the nature in a friendly environment and gratitude ceremony to God (Bustami and Arsyad [6]).

They realized that crop harvest management was absolutely needed in order to enable community to live well. It is for this reason that they create *eha*. *Eha* is divided into two; namely, *land eha* and *marine eha*. *Land eha* is set for harvesting crops on land, while *marine eha* is set for the harvest of crops in the sea.

After the completion of the *marine eha* for one year, a *mane'e* ceremony was then held on the second day in the sky month (*arwane*) at the end of the full moon or when early dead moon coincides with a high tide and low tide sea water

in May. *Mane'e* derives from the word, meaning “to see” or *sasahara* which means agreement in which the whole society, both males, females, young or old, all agreed to carry out the fishing harvest ceremony together. It was believed that *mane'e* commenced in 1628 after the earthquake and tsunami. Life was completely hard at that time due to the absence of all plant kinds, including tubers, which were swept away by tsunami waves. Suddenly, there came two unidentified men, whose figures were not like the local community. Once these two people saw each other, they split to the opposite directions and places while holding leaves. The leaves held moved to the same direction: from sea to land. People kept on watching what these two people were doing. After the water receded, there were many fish floundering on *nyare* (corals which are not submerged in water during the low tide). Then the two men immediately took the fish in considerable amounts. The opportunity was not wasted by the village elders to meet them, and requested that the tool could be given to them in order to support the needs for the villagers. The request was granted, the tool was immediately handed over to the two village elders.

The residents agreed to use the tool and it worked. After handed in the tool both unidentified men then went sailing towards the sunset and never came back. Such a fishing ceremony was then called *mane'e*, because in practice all of the community must reach an agreement. There are a lot of venues of *mane'e* ceremony, in Kakorotan Village, in Kakorotan Island, it was found in Langgoto, Alee, Apan and Dansunan; in Malo Island it was in Malele and Sawan areas; whereas in Intata Island it was in Ranne, Abuwu, and Ondembui. Until now *mane'e* is held every year and has become a large-scale festival of national cultures. *Mane'e* cultural festival began in 1997 when EE Mangindaan became the governor of North Sulawesi. At that time he used it as a trigger in order to make *mane'e* a national festival as well as to prohibit (*eha*) fishing areas (*Ranne*). The intention was to make the number of fish not greatly reduced. After *marine eha* is opened, in the evening after the *mane'e* festival has been completed, the sea is back in *eha* period until a year later when *mane'e* is conducted. Such a prohibition period is applied to all the natives and migrants.

## 2.1 The stages of *mane'e*

*Mane'e* ceremony in Kakorotan Village shows that the community believes that the relation between God, nature and human are integrated. As other ceremonies or a sacred ritual, *mane'e* ceremony has several stages in its implementation. In fact, there are nine stages in *mane'e* ceremony; they are:

First, *maraca pundagi* (cutting the forest rope). *Maraca pundagi* is the initial stage in the *mane'e* ceremony in the form of searching, cutting and taking the forest rope. Cutting forest rope is conducted one week prior to the *mane'e* ceremony. In this stage, approximately 40 people of Kakorotan community go to Mangupung Island to cut the forest rope (*pundangi*). The ropes taken are about 3000 meters long.

Second, *mangolom para* (prayer to God), held at the night before the *mane'e* ceremony is carried out. This event is usually attended by the elders and the media. The prayer to God is held by Protestant Christian beliefs. The prayer is a





Figure 1: Kakorotan Community went to Mangupung Island to cut forest rope (*pundagi*).

plea to God to be kept away from disasters, given health, good weather, and blessings for the business in the future. Prayer delivered by *Ratumbanua* is praise to the creator of the universe by using *talaud* language.

Third, *matuda tampa paneea* (going to the venue of the event). In the morning, all of the Kakorotan Village communities wait for the guests and the officials at the port. After the awaited officials come, *Ratumbanua*, *Inanguanua* and other elders and officials or the guests who have come depart together using a small boat from Kakorotan to Intata.

Fourth, *mamabi u'sammi* (making fishing gear from young coconut leaf (*janur*) looped on the forest rope). One day before the *mane'e* ceremony, an activity called *sammi*, is held – this is the making of fishing gear used to keep the fish to keep during the ceremony later. The *sammi* rope is made of *pundagi* and *janur*. People only take the *janur* which has more than one shoots and leave one shoot so that the coconut trees will not die. Once all the stuffs are ready, the forest rope is stretched and the *janur* is split and looped around to the right.

Fifth, *mamoto u'sammi* (casting tool). After all the people arrive in Intata Island, the symbolic handover of *sammi* rope from *Ratumbanua* to the officials is performed, then the officials hand it over to *sammi* officers. After that, *sammi* rope is transported into the boat and stretched to the edge of the Ranne, where *sammi* and the guards began to be deployed. Beside the ship, there are also *katinting* and small *londe-londe* which also spread the *sammi* to the areas that cannot be passed by the ship. At every 10 meters, *sammi* rope is guarded by the officers who ensure that the *sammi* does not sink when it will be pulled out later.

Sixth, *mamole u'sammi* (pulling the gear to the shore). After all the *sammi* stocked and all officers deployed, *Ratumbanua* orders to pull out the *sammi* rope. The *sammi* rope is then pulled out on both sides by 300 officers, from land to sea, coordinated by *tumani* and *mangangiape*. People and tourists are not allowed to approach to avoid noisiness. Only journalists and local people are allowed to get closer to the *sammi* pullout area. At the time the *sammi* rope is pulled out, all people and tourists are expected to be quiet in order not to disturb the fish. When *sammi* is pulled out, the fish cannot get out from the *sammi*.

*“When I guarded, Opak saw a big fish hiding in the rocks. Wow, later if the sammi passed through the stone, Opak could spear that fish. But strangely when the sammi pass through the fish, the fish came out from the rocks and got inside the sammi” (KST, fisherman).*

People believe that this is not due to magic, but because there is a substance in the *sammi* rope that makes the fish cannot get out. This, however, has not been proven scientifically because there has been no research on the *sammi* rope.



Figure 2: The *sammi* rope is pulled out to land.

Seventh, *magnu ina* (fishing). This ceremony is conducted after the *sammi* is pulled out and the fish are gathered in groups forming a small pool. Strangely, demersal fish which is normally swimming alone, when enter into the circle, they make a cluster with their type. *Ratumbanua* and *Inanguanua* began by catching the fish and followed by officials or the guests who come to the area, after that the fishing is conducted by all of the guests and visitors simultaneously. This activity is performed by using fishing gear such as nets or even with bare hands.

Eighth, *matahia ina* (crop sharing). The fish catch is then carried onto two *londe* boats and taken to the custom house on the beach before being classified according to the type. The fish is then distributed successively to *Ratumbanua*, *Inanguanua*, *Sasarahe*, *Wuwaho*, *Tumani* and two *Mangangiape*, orphans, widowers/widows, the poor, the whole community and to all Kakorotan Village visitors. But since *mane'e* is a national cultural festival, this stage is not performed anymore because of the fewer number of fish in one side and the number of visitors which is greatly increasing on the other.

Ninth, *manarimma alama* (gratitude). This ceremony is the final stage in the *mane'e* ceremony series, in which prayer is recited as an expression of gratitude to God for the success of *mane'e*. Kakorotan villagers are totally convinced that the success of *mane'e* ceremony cannot be separated from the intervention of God that facilitates their affairs. However, as the eighth stage, *matahia ina* (crop sharing), *manarimma alama* stage (gratitude) also no longer exists.

### 3 Institution elements of *marine eha* and *mane'e*

When there are abundant natural resources, rationally individuals would want to use them intensively although these natural resources have limited amounts. Hardyn [7] stated that if every individual wants to take advantage of the limited resources intensively, tragedy will happen, a tragedy that takes place when the condition of property ownership is not clearly defined, so that everyone wants to use it in the short term and ignore the future. It is for this reason that we need an institution that can manage the utilization of these resources clearly.

Manig [8] says that an institution is a reflection of the values and norms system in the society, but the values and norms are not the institution itself. Norms and values established in the Kakorotan Village community then grow and develop into an institution of community-based coastal resource management. Thus, *Marine eha* and *mane'e* are the institutions built by the whole community. In that institution, Ruddle [1] tried to identify it through six elements of natural resources management; they are territorials, rules, rights, authority, sanctions, as well as monitoring and evaluation. Ostrom [9] also designed principles of common-pool resource which include clearly defined boundaries, congruence between appropriation and provision rules and local conditions, collective-choice arrangements, monitoring, graduated sanctions, conflict resolution mechanism, minimal recognition of rights to organize, and nested enterprises.

#### 3.1 Territorials

*Marine eha* region is *Ranne* area used to hold *mane'e* national festival. During the one year period of time, before the *mane'e* festival is carried out, people are prohibited to fish the entire aquatic species in the *Ranne* region. *Ranne* region covers the frontline of Kakorotan dock, then to the west until *nyare* region (low tide reef), to the north around Intata Island up to *natural bridge* or *bridge of angel*. There are five flags, white and yellow used as the marks of *Ranne* region. The local communities have already known these territorials. Boundary markers such as the flags are intended as a warning to people from outside the village. A map of *Ranne* region is shown in figure 3.

Areas included in the *Ranne* region are composed of sea sand, sea grass beds, dead and alive coral reefs. There are a few spots of corals in *Ranne* region used by fish to swim around. However, there are a lot of dead corals in the *Ranne* region caused by the sun scorching reef when the sea was at the low tide.

#### 3.2 Rules

The rules of *marine eha* based on the customary provisions tend to be unwritten. This regulation was handed down orally to their descendants. The rules of *land eha* and *marine eha* are shown in table 1.

In order for these rules to be clearer and understood by the people outside the village, it is then specified in a formal regulation in the form of "perdes" (village regulations); namely, Village Regulation (Perdes) No. 03 Year 2012 regarding the management of coastal areas and small islands-based *mane'e* custom in



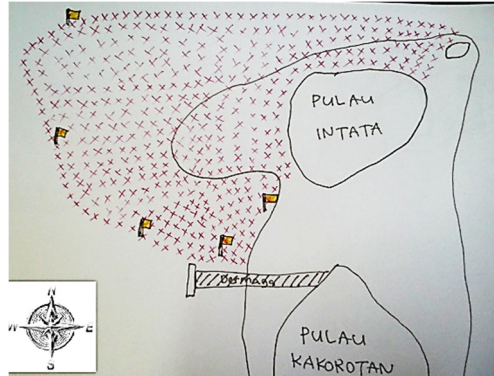


Figure 3: Map of Intata Island.

Kakorotan Village (Kakorotan Village Regulation [10]). In addition to the rules of the village, previously there have been formal rules of the district in the form of Talaud Regency Decree No. 26 of 2009 on community-based marine protected area in the Talaud Islands marine protected area covers Sara besar Island and Sara kecil Island; marine protected areas in Intata Island are in Kakorotan Island; Karatung Island and Miangas Island (Talaud Regency Decree [11]).

In the marine protected area; namely, Ranne in Intata Island, people are prohibited to catch marine life, both fish and coral reefs. Meanwhile, the activities passing through the area, such as diving or planting reef are allowed.

*"If eha at sea is patent, the location nationalized. Then we want that coral reefs' eha.*

*So when it is marine ehat, may we take the coral reefs?*

*Nope, cannot.*

*If we pass them, may we take them, sir?*

*Pass through them is allowed, can be cultivated*

*Oo they can be cultivated there. But if we damage the corals, may we take the clams?*

*Cannot.*

*If diving?*

*Diving can only see the fish. It is a chance for people to live."*

(TBL, Ratumbanua)

When the sea is in the *eha* period, people are prohibited from taking marine life in the Ranne region with any fishing gears. However, Kakorotan villagers are allowed to catch fish with fishing gears such as nylon, antony net (*soma bandera*), gloves, *soma darape* (types of nets), gill net basis (*soma paka-paka*), arrow (*jubi*), long line (noru fishing gear), trolling (fishing stalling) and *lot taturuga* (turtle) in the sea beside Ranne region. The fishing gear which is not allowed to use is a bomb or an anaesthetic that can kill the whole fish and damage the coral reefs. At *mane'e* ceremony, fishing gear which may be used to catch fish in the Ranne region are only gloves and small nets.

Table 1: *Eha* rules and sanctions as the community based resource management model.

Types of eha	Rules	Sanctions	Descriptions
<i>land eha</i>	Should not climb or take the crops of coconuts to be made into copra. this <i>eha</i> is usually followed by a prohibition to go to malo and Intata Islands	Wear a necklace around the village with the edge tied to coconut shouting, “ <i>jangan ikut patorang bapencuri kelapa pada waktu eha</i> ” (do not follow us stealing coconuts during the <i>eha</i> ).	Harvest will be done together after deliberation of the elders. Usually the mechanism of the <i>eha</i> past three months, two weeks of copra harvest, in Malo Island, two weeks of copra harvest in Kakorotan Island and a week of copra harvest in Intata and Mangupung Islands.
	Should not take tubers belonging to people without permission of the owners	Deprived for 2–3 hours at a crossroads Ratumbanua tree house/island-bounds within three months.	These rules are applied at any time.
<i>marine eha</i>	Must not take any marine crops in the Ranne area (Intata), which is a national <i>mane’e</i> region. Marine crops are in the forms of various types of fish, clams, reefs.	Pay a fine of Rp.500.000.-	Harvest will be conducted with the ceremony called <i>mane’e</i> . <i>Mane’e</i> is carried out once a year, usually held in the second of the sky month (arwane) in May.



### 3.3 Rights

In the *eha* period within one year, all the Kakorotan villagers have the rights to report those who violate *eha* in Ranne region. Another rights that the community have is at the time when *mane'e* fishing ceremony is held. As explained previously *mane'e* Kakorotan Village is divided into two types, namely the national *mane'e* and the regional *mane'e*. In the national *mane'e* ceremony, people are in charge to pull out the *sammi* until the fish congregate formed a small pool. Furthermore, after the fish congregate, the pond which is full of fish is given to the guests who come to harvest. As for regional *mane'e*, communities are allowed to herd the fish together and then harvest them up. The regional *mane'e* ceremony is held one or two times after national *mane'e*.

*“According to the order of ancient times ancestors, regional mane’e festival is conducted one week or one month after national mane’e festival depending on local lunar calendar”* (TBL, Ratumbanua).

### 3.4 The decision holders

*Eha* and *mane'e* are the local wisdoms that belong to Kakorotan villagers handed down from one generation to another up to this moment. It is undeniable that the role of custom institutions in people's life is still very strong. Custom regulates all aspects of community ranging from land tenure system to the rules of everyday life, including in terms of *eha* and *mane'e* ceremonies. The custom organizations that already exist in Kakorotan Village since XIII century are shown in figure 4.

### 3.5 Sanctions

The entire Kakorotan community has an obligation to keep the Ranne region during *eha* period. Beside the community, the officers appointed directly by custom to keep the region come from four (4) tribes; they are: Simon Nusa, Hibor Tamodia, Son Wangkanusa and Ria Mateos. Anyone who intentionally catch, take, or damage marine life in the Ranne region will get penalties amounting to Rp. 500.000. The sanctions were agreed in the customary deliberation few years ago.

*“(There are two (2) kinds of punishment for the offenders (eha offenders). If violated (catching fish) at the national site, penalties to Rp.500.000. If you violate in taking other people's property without permission, the penalty is shouting on the street. By draping coconut's shell on the neck, shouting “do not follow us stealing coconuts during the Eha)””* (TBL, Ratumbanua).

In the last 4 (four) years there has been no one who violates *marine eha* in the Ranne region. The last violation occurred four years ago was done by on duty navy officers in Karatung who violated because they did not know the *eha* rules yet.



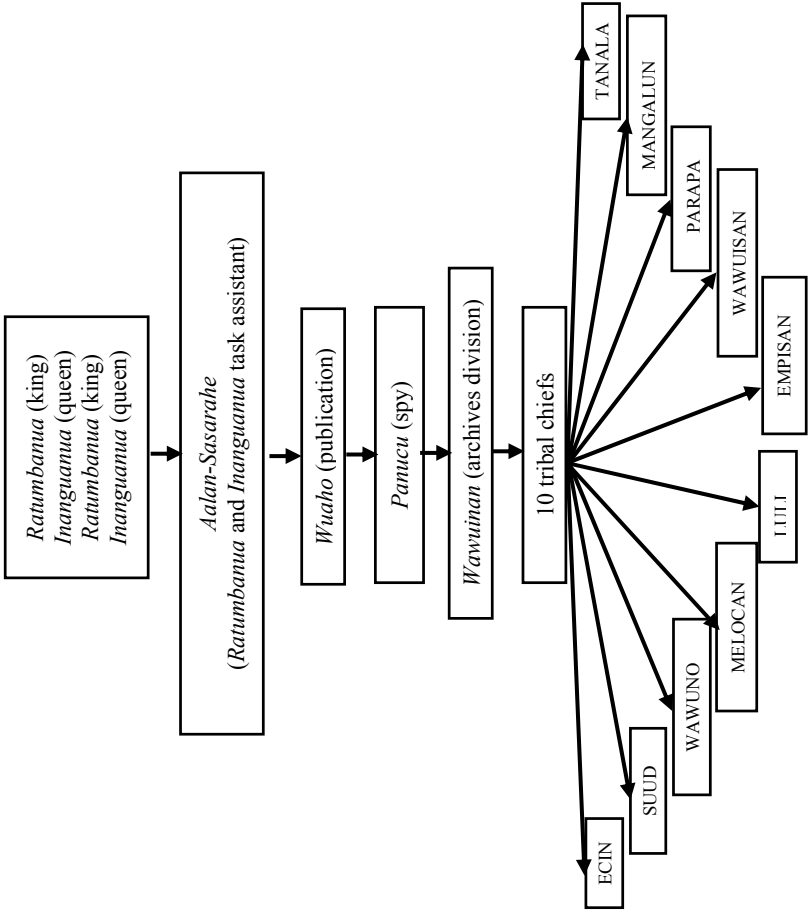


Figure 4: Custom institutions of Kakorotan Village.

### 3.6 Monitoring

There is a particular officer assigned to guard the Ranne region to ensure that there is no person who intentionally or unintentionally catch fish and other marine crops in that area. Because in the Ranne region there are coral reefs which become the habitat for fish, so many people want to catch fish in that region. Officers to keep Ranne region are selected by the custom and derived from four tribes; namely, Ecin tribe, Suud tribe, Wawuno tribe, and Melocan tribe. The officers are Simon Nusa, Hibor Tamodia, Son Wangkanusa and Mateos Ria. Custom officers selected and inherited based on the tribe descendants.

*“The man in charge (marine eha) Grandpa Simon, with his friends Hibor Tamodia, Son Wangkanusa, there are four (4) people with Ria Mateos. The officers were selected based on the heirs since the beginning. Derived from the first tribe to the fourth. (they all are) the holders of the reins.”*  
(TBL, Ratumbanua)

## 4 Conclusion

In order to make the management of community-based coastal resources well known there is a need to give readers an explanation about the institutional of *marine eha* and *mane'e*. Rudlle (1999) divided the explanation into 6 elements of *marine eha* and *mane'e* institutions. The first is the territorial area. *Marine eha* region is Ranne region which covers the frontline of Kakorotan dock; to the west until *nyare* region (low tide reef), to the north around Intata Island up to *natural bridge* or *bridge of angel*. To mark the area, there are five (5) flags scattered throughout the Ranne region. The second is the rules. The rules in *marine eha* is based on the custom of unwritten laws, handed down from one generation to the next.. Beside such rules, there are supported rules; i.e., the Kakorotan Village Regulation No. 03 Year 2012 on the management of coastal areas and small islands *mane'e* custom based in Kokorotan Village as well as the Regent of Talaud Decree No. 26 of 2009. The third is the rights. Community for one full year during *marine eha* have the rights to report those who violate *marine eha*. The fourth is the decision holder. The highest decision makers in the implementation of *marine eha* and *mane'e* are Ratumbanua and Inanguanua and decisions set out together in the customary meetings. Then, the fifth is the sanctions. Anyone who violates the *marine eha* has to pay a fine of Rp.500.000. The sanctions have been agreed in the customary meeting. Finally, the sixth is the monitoring and evaluation. To preserve Ranne region, there are four (4) people appointed by the order of the first to fourth tribes. They are Simon Nusa, Hibor Tamodia, Son Wangkanusa and Mateos Ria.



## References

- [1] Ruddle, K. The role of local management and knowledge systems in small-scale fisheries, *The Journal of Policy Studies*, 7, 1999.
- [2] Berkes, F. Common property resources. Ecology and community-based sustainable development. *Berhaven*, pp. 11–13, 1989.
- [3] Keraf, S. *Etika Lingkungan*. Kompas: Jakarta, Indonesia, pp. 369, 2006.
- [4] Putra, H.S.A. Etnosains, etnotek, dan etnoart: paradigma fenomenologis untuk revitalisasi kearifan lokal. Indonesia. *Topics in Kemajuan Teknologi Riset*, ed. Jumita & D. Parikesit, LPPM UGM: Yogyakarta, pp. 157–175, 2006.
- [5] Aulia, T. & Dharmawan, A.H. Kearifan lokal dalam pengelolaan sumber daya air di Kampung Kuta. *Sodality*, 2(2), pp. 345–355, 2010.
- [6] Bustami, A.L. & Arsyad, A. Adat *mane'e* dalam pengelolaan SDKP (Chapter 3). *Topics in Revitalisasi Pranata Sosial Adat (Mane'e dan Seke)*, ed. T. Murniati, Ministry of Maritime Affairs and Fisheries: Jakarta, pp. 43–82, 2010.
- [7] Hardyn, G. The tragedy of the commons. *American association for the advancement of science*, 162(3839), pp. 1243–1248, 1968.
- [8] Manig, W. Rural social and economic structures and institutional development. In: Manig, W (ed): Stability and changes in rural institutions in North Pakistan. *Socioeconomic Studies in Rural Devolepment*, 85, Aachen, Germany, 1991.
- [9] Ostrom E. *Governing the Commonds: The Evolution of Institutions for Collective Action*. Cambridge University Press: Cambridge, London, UK, pp. 88–102, 1990.
- [10] Kakorotan Village Regulation No. 03 Year 2012 on the Management of Coastal Areas and Small Islands-based *Mane'e* custom Kakorotan Village.
- [11] Talaud Regency Decree No. 26 of 2009 on Community-Based Marine Protected Area in Talaud Islands Marine Protected Area covers Sara Besar Island and Sara Kecil Island; Marine Protected Areas on Intata Island in Kakorotan; Karatung Island and Miangas Island.

