

Coral Reef Restoration Project and Impact on the Life of the Community of Bontosua Island South Sulawesi Island

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Abstract

The purpose of this study is to analyze its impact on individual, household and community income, analyze its impact on political life or leadership and punggawa-sawi relations, and analyze institutional impact as a means of supporting coral reef restoration programs. The research method used is descriptive qualitative research with data collection through in-depth interviews with deliberately selected informants, namely village heads, non-government officials and members of the fishing community. In addition, he also observed several coral reef restoration project activities and local community activities. The results show that the coral reef restoration program that has been running for approximately four years as a transition has not yet had an impact on improving the economy of residents, individuals or groups or communities, both in terms of income, especially capital. Coral reef restoration is still in the maintenance/monitoring program stage, so fishing around the reef restoration area is still prohibited. The perceived impact may be limited to salary/incentives. When talking about politics or leadership and punggawa-sawi relations, some people feel that the hopes that were previously raised have become empty for some people. what people feel now is gone, just like what they felt before. The program tends to be used as a source of political capital. The group in question has the nuances of selective slashing, who is close to the Village Head, he is the one who is involved. As for the fishermen's institutions, especially the retainer-sawi relationship, it is said that they do not know exactly what it is. The impact on the survival of organizations involved in coral reef restoration is the Community Monitoring Post (Poswasmas), which is a participatory organization, but in practice tends to be limited to the interests of fishermen.

Keywords

Restoration; social impact; fishing community



I. Introduction

Why are coral reefs important? Apart from preventing coastal erosion, coral reefs are also a source of food and livelihood for hundreds of millions of coastal communities in more than 100 countries, as well as places with abundant marine resources to be exploited, as well as places to attract tourists because of their beauty. diversity and sustainability of white sand beaches. At least half a billion people worldwide depend partially or completely on coral reef resources for their livelihoods. Their livelihoods include fishing, gathering, farming, trading marine life for aquariums, and various jobs and business opportunities related to tourism (Edwards and Gomez 2007).

Like Vietnam, marine fishing plays an important role in the socio-economic development of Vietnam's coastal areas. However, over the past two decades, pressure from many coastal fishing vessels and other coastal industries has disrupted commercial resources. Artificial coral reefs (ACR) are widely used to reduce human impacts on coastal

ecosystems and improve resource reproduction, and the result is that ACR is suitable for coastal natural resource restoration. (Nguyen, Tran, and Nguyen 2022)

However, management approaches in many low-income countries with coral reefs are often based on more conventional and traditional management tools. Therefore, communities organizing an increasing number of reef restoration activities need to consider very carefully how best to manage these activities as these activities increase to avoid unintended, and unforeseen consequences when implementing the management and operations tools widely used in the area. western world (Gibbs and Newlands 2022).

The various problems of coral reef restoration mentioned above seem to be different problems from the existence of coral reef restoration projects in Indonesia, especially on Bontosua Island, Pangkep Regency, to know the political impact may not be in other areas. It is known that the coral reef restoration project was introduced around 2017 by PT. Mars Symbioscience Indonesia (MSI), a division of the US-based international food company Mars. One of the areas targeted as a pilot for PT. MSI for coral reef restoration is Bontosua Island, Mattiro Bone Village, Liukang Tupabbiring District, Pangkep Regency, South Sulawesi Province. The goal is to maintain the sustainability of fish life on the seabed. so that it can provide long-term economic benefits for the people of Bontosua, most of whom are fishermen.

It is known that coral reef conservation is very beneficial for fish exploitation, so it has economic value for fishermen. Several studies, including (Mujiyanto and Hartati 2016) in West Nusa Tenggara, showed that after installing artificial reefs for approximately three months, the types of fish identified at the time of observation were 121 species, the number of species varied from time to time and between 1846 species locations. Abundant fish resources ranging from 436 fish/m² (Panggabean 2016).

Pangkajene and Islands Regency (Pangkep) is a regency which more than half of its territory consists of the islands of the Spermonde Archipelago. On Bontosua Island, which is one of 115 small islands in the waters of the Pangkajene Islands in South Sulawesi, previously fish were easy to find. No need to bother to get it. However, these days, anglers have to sail far to the other shore to catch fish. The loss of these fish is partly due to the destruction of coral reef ecosystems, mainly caused by human activities such as shooting, anesthesia and the use of unfriendly fishing gear such as trawling nets. traction net. Even the damage to coral reefs in several countries in the world is suspected, where about 24% of them are caused by human activities. The appropriate action is to repair or replace damaged and disturbed coral reefs to a level that does not reduce the value of the ecosystem; The extent of coral reef damage should be determined by the speed at which the reef repairs (Precht, 2006).

For that, PT. MSI has developed a simple and inexpensive method for large-scale restoration of damaged coral reefs. Technically, this is done through an installation method known as "LabaLaba" which is an iron structure that is carefully arranged by dropping coral seedlings to the bottom of the sea. In order for the restoration project to be implemented, a community monitoring group was formed and was responsible for monitoring. with the aim of not damaging the marine ecosystem. In addition to coral reef restoration, PT. MSI also conducts community empowerment programs, particularly in terms of strengthening the economy and community economic institutions. Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The model introduced by PT MSI is to integrate coral reef restoration with community empowerment programs through strengthening the economy and community economic institutions that are in line with the concept of sustainable development. According to Roseland, this model is considered a new development environment model to replace the old development model. It promotes forms of social change that respond to the material and immaterial needs of people, promotes social justice, increases organizational effectiveness, and builds human and technical capacities towards sustainability (Baker 2015). According to Baker, the goal of sustainability requires the protection of natural resources that form the basis of future development. For many proponents of the sustainable development model, an intrinsic appraisal of nature and non-human life forms must also be an integral part of development. The environmental development model not only aims to protect nature but also creates an ecological community that lives in harmony with nature. It is a matter of harmonization of economic activity, social progress and environmental protection. In this model, the promotion of human well-being does not necessarily depend on the destruction of nature.

He went on to say that the “sustainable development” model is an important example of a new environmental approach. It seeks to reconcile the ecological, social and economic aspects of development, today and tomorrow, and to adopt a global perspective in this task. It aims to promote forms of development that are embodied in the ecological carrying capacity of the planet, socially and economically. It focuses not on individual progress but on the protection of the common future of mankind. In other words, sustainable development will emerge as the aspiration that most people aspire to: indeed, it is difficult to disagree with the idea. (Baker 2015)

Thus, according to Baker, sustainable development is part of a new, albeit temporary, effort to integrate environmental, economic and (recent) considerations into the new development paradigm. There are many versions of this new approach. They are united in the belief that there is a final physiological limit to development. It is difficult not only to reduce the intensity of production resources (sustainable production), but also to adopt new consumption patterns that reduce consumption and change what is consumed and by whom (consumption). This creates the necessary conditions for environmentally sound development, especially in the third world.

The results of the first observation show that the socio-economic conditions of the people on Bontosua Island still face various problems which then affect their level of welfare. In addition, in general, residents of the island of Bontosua do not have the independence to meet their daily needs, that is, almost all of their needs are highly dependent on other areas, namely the city of Makassar. So you can imagine how the people on the island of Bontosua can continue their lives. This is where it is important to consider what potential has been developed and become the basis for strengthening their lives in the future after approximately four years of PT. MSI. Based on this, this study aims to examine the impact of the coral reef restoration project on Bontosua Island on individual income, household, political life or leadership, retainer-sawi relationship, and institutions.

II. Review of Literature

2.1 Definition and function of coral reefs

Coral reefs are complex in the ocean that are formed entirely from biological activities. Coral reefs are large deposits of calcium carbonate made mainly by corals with minor additions from calcareous algae and other organisms that make calcium carbonate. Meanwhile, (Barnes and Hughes 1999) defines coral reefs as tropical shallow water

ecosystems whose biomes include a diversity of marine biomes with the main component of coral fauna. Meanwhile, (Precht 2006) confirmed that coral reefs are one of the most productive ecosystems, providing habitat for many species and performing important ecological functions. Coral reefs and their specific functions can be degraded when these terracotta-scale processes are altered or suppressed. Restoration of damaged reefs requires examining the critical processes that exist within and beyond the spatial and temporal boundaries of a given reef area. In addition, multiple spatial and temporal scales need to be considered at all stages of reef restoration, including identification of degradation agents, selection of restoration procedures, impact analysis, visitor landscape restoration, and hypothesis-based long-term monitoring.

2.2 Sustainable Development

The main approach used in this research is the “Sustainable Development” approach. The concept of sustainability explores the relationship between economic development, environmental quality and social justice. The concept has developed since 1972, when the international community first explored the relationship between quality of life and environmental quality at the United Nations Conference on the Human Environment in Stockholm. However, it was not until 1987 that the term "sustainable development" was defined as "development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs". This definition stipulates the need for integrated decision-making that is able to balance the economic and social needs of the community with the ability to regenerate the natural environment. Sustainable development is a dynamic change in which resources, investment management, technology development orientation and institutional amendments are suitable for future and current needs. (Rogers, Jalal, and Boyd 2012) (Baker 2015).

III. Research Method

This research is qualitative with the type of case study, an approach that aims to perpetuate the entire phenomenon under study. The data collected as part of this study were studied as a unified whole.

The research location is on Bontosua Island, Mattiro Bone Village, Liukang Tupabbiring District, Pangkep Regency, South Sulawesi Province. as a coral reef restoration project site for PT. MSI. The data collected in the form of non-numeric data in the form of statements, stories, descriptions of the results of information collection.

Sources of data in this study in the form of primary data and secondary data. Primary data were collected directly in the field in the form of observations or interviews with informants. So far, informants have been selected intentionally (intentional sampling) with a classification that includes village head officials, community leaders and NGOs.

IV. Result and Discussion

Geographically, the island of Bontosua is located a few kilometers from the city of Makassar, closer than the distance through the city of Pangkep Regency. The distance from Makassar City by motorboat is 2-3 hours. The proximity of the distance itself affects the coastal area of industrial development that occurs in the city of Makassar. The area around the Makassar Strait, including Bontosua Island, is experiencing pollution problems, including the fishermen's way of life which has begun to disrupt production. In the past, anglers generally fished around the waters of Bontosua Island or the Makassar Strait, then

difficulties in catching fish began to appear.

Bontosua Island is one of a group of small islands in the Pangkajene Regency, Islands, South Sulawesi Province. In general, the inhabitants of this island make a living as fishermen, both big fishermen and small fishermen. Meanwhile, geographically it has limitations to be used as a variety of livelihood sector development, the agricultural sector and household livestock are almost non-existent. This is due to the narrow and barren land and very limited water sources. The position of the island of Bontosua, which is located in the Makassar Strait, has strong wind conditions accompanied by high waves. As a result, it becomes an obstacle for small or low-tech anglers in finding fish. Unlike fishermen who have large boats or Gae, they can sail to various areas outside Bontosua Island or outside the Makassar Strait.

The limited availability of some resources and access to life force some of the residents of Bontosua to have a high level of mobility. Several Bontosua fishermen go to sea from Malili Regency, Southeast Sulawesi Province, Nusa Tenggara, Kalimantan and Papua Province. Their itinerary varies from six months to a year, depending on weather conditions. During the rainy season, they usually leave Bontosua. They don't always catch fish, so they bring their produce back to Bontosua or Makassar to sell. Fishermen mainly sell it in the area where it is caught. In fact, some fishermen have settled where they made their arrests, such as in East Luwu and Kendari regencies, in Southeast Sulawesi Province.

The fishermen, who were going to build a place to live, immediately brought their families. Not infrequently the ship's workers (sawi) also live with the ship's owner. Among Gae fishermen or big fishermen, most choose to settle in Southeast Sulawesi. It should be noted that in addition to better understanding fish market prices, visiting relatives in Bontosua from time to time is also relatively closer and easier.

In contrast to small-scale fishermen, they have a very limited fishing area. Collectively, their journey is only about 2 miles from Bontosua Island, which is located around the Makassar Strait, to the Takalar Regency area. There are two parts of the time they work, they leave at 4 pm and come home at 3 am or leave at 9 am and come home at 5 pm.

The skills of the Bontosua community as fishermen encourage them to be able to train their ability to move to various islands in the territory of Indonesia. These skills are unique skills that can be passed down from generation to generation, especially to their sons. To this day, this situation continues among the inhabitants of Bontosua. Only when fishermen catch they do high mobility. Likewise, the children are still small while waiting for their teenage children to go fishing with their parents. His son is currently in elementary school, graduated/not yet graduated, ready to help his parents.

The struggle in the fisheries sector realizes that it cannot last forever. Age factor is a natural process that they have to deal with, in addition to unpredictable health factors. Some of them are sellers/traders of land fish by selling fish by bicycle or motorbike. They are no longer able to go to sea, but they still feel strong enough to go to sea, in addition to the domestic needs that still need to be met. Some people go around the area to buy small fish from fishermen and then resell them to people in the area. Leave your house in Bontosua for a while and explore the southern coast of South Sulawesi province such as Jenepono Regency, about 90 kilometers away.

Unlike other fishermen who can no longer go to sea due to age, Bontosua Island, which is located across the mainland from Makassar city, has created a desire to do business in Makassar city almost every day. This condition is an opportunity for fishermen who have previously given up on fishing activities. The old boat used for fishing (Kapal Gae) has been modified to carry passengers. His regular trips are from Bontosua to

Makassar city (Port of the Orang Potéré Shipping). This ship serves passengers from Bontosua Pier starting at 07.00 WIB. Then return around 13.00 WITA from the famous shipping port of Potero Makassar. In addition, there is also a sea crossing operation using a fairly small motor boat (jolloro boat).

This natural movement of fishing and passenger boats has become a routine in the lives of most residents of the Bontosua Islands, especially adult men. Want to do another moving job? The motivation of residents to travel on Bontosua Island is quite high. The problem is distance control range and cost. Some residents, especially relatives, may encourage their children to continue their education and skills courses. Various ways have been found, starting with sending their children to continue their education in schools such as Junior High School (SMP) in the sub-district city (Pulau Balang Caddi). There are also parents who encourage their children to enter the Pangkep Regency City Open School. Some even send their children to college and study in Makassar.

The value of the main occupation of fishermen in the Makassar Strait has begun to change. Anglers who used to be quite easy to find/produce fish on the surface have now become a process and have to find fish far below. Then the fishermen try to get the maximum catch by using fish bombs. This effort did not last long when the government banned the use of fish bombs because they damaged other marine life, including coral reefs. This phenomenon encourages some fishermen to look for fish outside the Makassar Strait or outside Bontosua Island. For large catches (Parengge) anglers look for fish in the waters of Maluku, Kalimantan, Nusa Tenggara and Papua. Meanwhile, small-scale fishermen continue to use the waters of the Makassar Strait to find fish with relatively low catches.

Apart from catching fish as their main livelihood, a small part of the community also farms shellfish and other fish. This effort was initiated when there was a government program in the field of training on the use of marine resources. In addition, there are delivery activities. This activity is mainly to meet the needs of residents on Bontosua Island who are starting to increase their mobility to Makassar city.

4.1 Impact on individual, household and community income

The inhabitants of the island of Bontosua have a fisherman's life system in finding fish. They have been practicing for many years and have become an integral part of everyday life. Among them are big fishermen or Parengge and small fishermen. However, with years of fishing experience, their lives have changed. Last year, they were able to take advantage of fishing around Bontosua, anglers who usually don't need to leave the area to catch fish, as well as various types of fish found around their area. According to the informant, around the island of Bontosua is inhabited by fish such as banyara, katombo, kites, raporapo and even titan fish, baronang. Likewise with the types of coral reef fish sunu grouper, katamba, kaneke and laccukang. This is why groups of fishermen are still fishing around Bontosua Island. In addition to fish, around this island, according to informants, is a place dedicated to squid. Most of the small-scale fishermen carry out squid fishing activities, especially during the dry season or between June and August.

Over time, several types of fish began to run out, so anglers began to find it difficult to find fish around Bontosua Island. Fishing activities are increasingly moving away from the waters of Bontosua. In addition, the squid population is not as large as the previous season. On beautiful days of squid season, fishermen catch from 20 to 30 kg. Now it's dropped drastically if the average angler only drops 5-10kg per night, there are even some anglers who only gain 1kg. It can't be compared with the running cost or the cost of fuel needed around 5 liters per day with prices starting at IDR 8,000. IDR 10,000/liter. Also

according to the informant, the decline in fish species and squid populations is the result of the actions of several fishermen who use bombardment and anesthetic fish, even cantrang and trawl nets, which are very harmful to the environment. And most of it is made by fishermen outside the community of the island of Bontosua, especially the island of Podang Podang which is not far from the island of Bontosua. This relates to conditions found on Biawak Island in East Java, where fishing practices have the greatest impact on coral reef habitat. (Bachtiar, Setiawan, and Sunarto, n.d.) (Taofiqurohman 2013)

Based on these facts, there is a coral reef restoration program implemented by PT Mars on Bontosua Island. Some information obtained from informants that the purpose of socialization based on restoration has been transferred to the community is to preserve the sea again through repair of coral reefs so that it can become a concentration of various types of fish and thus the income of small-scale fishermen on the island of Bontosua can increase. But in reality, the reality that is felt until now is almost non-existent. The condition of coral reef restoration is still in the maintenance/monitoring program. Among fishermen, there is still a ban on fishing around coral reef restoration areas. The perceived impact may be limited to getting a salary/incentive. It is impossible to determine how long communities, particularly fishermen, can benefit from coral reef restoration.

As a result, the living conditions of the people of Bontosua since the introduction of the coral reef restoration program have become insignificant. People who generally work as fishermen still have to deal with the traditional habit of catching small fish and squid. Some carry out small commercial activities with goods that can only be accessed in Makassar city. Thus, it can still be said that a large part of the population of Bontosua Island is still facing economic difficulties. Maybe because of economic difficulties or low incomes coupled with low levels of education, which makes the community less interested in coral reef restoration programs, let alone the lack of community participation in coral reef conservation. that public awareness of the role in conserving coral reef ecosystems is still low because they want good, large and fast results, so that the income is also large (Harjiyatni 2001) (Sahubawa and Hussein, n.d.).

One of the obstacles that Bontosua residents still face is water and electricity. According to the informant, one of the struggles of daily life is preparing drinking water. In fact, many people have to buy drinking water in Makassar at a price of around Rp. 2,500 per 10 liter jerry cans. which should be able to buy rice. On average they need four cans of jerry cans in two or five days just for drinking and cooking. Regarding the need for bathing and washing, it was forced to use well water sources with a salt taste. According to the informant, he is still grateful for being able to take advantage of the passenger ship that sails the island of Bontosua-Makassar every day. After that, said that, about 9 to 10 years ago, the government provided drinking water treatment machines. However, the existence is considered unable to meet the needs of residents. How can one, in a day, this machine can only treat about ten liters per family, so not enough for the daily needs of residents. The problem of drinking water can be temporarily solved during the rainy season by using rainwater reservoirs. So far, electricity is still using the generator engine which can only be turned on from 6 pm to 11 pm.

Therefore, under current conditions, when the benefits of coral reef restoration have not been appreciated by the community, one of the potentials that can be utilized is the participation of housewives with various potentials to help increase family income. Among them are the opening of food stalls and cakes.

4.2 Impact on political life or leadership and retainer-sawi relations

The existence of PT MSI's coral reef restoration program for several years, for the people of Bontosua, is still a topic of discussion in the community. There are a number of responses that tend to be different, some are optimistic and some are pessimistic. The difference in attitudes in the community cannot be separated from the role of the village head in responding to PT MSI's participation in the introduction of the coral reef restoration program. The socialization stage carried out by the village government regarding the benefits of the restoration program was very optimistic and was well received by the community. The hope that PT MSI introduced to the village head became an impetus for the community to support the restoration program.

However, in its development, the hope that was introduced earlier became hollow for some people. One of the informants said that what people feel now is not what it used to be. The program tends to be used as a source of political capital. The group that participates in the spider tying activity with selective colors, close to the village head, is the one who participates in the spider tying activity. Although there is a slight variation in which each RT or Dusun is invited by residents to participate in spider bonding activities. Even so, most residents of Bontosua feel selective about dealing with only certain residents.

Next is the relationship between the existence of a coral reef restoration program and the retainer-mustard relationship. According to informants, they don't know exactly what it is. The *punggawa-sawi* relationship known to date is the type of relationship that occurs with big fishermen or *parengge*. On Bontosua Island, there are actually several big fishermen or *parengge* with a number of mustards working. They usually take a few months or even years and then they return to Bontosua. This fisherman from Bontosua *parengge* often catches as far as Tolitoli, Central Sulawesi, even east to Ternate, Ambon, Nabire, Sorong and even Jayapura, east to Ternate, Ambon, Nabire, Sorong, even Jayapura," he said.

However, according to the informant, the situation of the fishermen in Parengge is increasingly problematic in terms of labor or mustard greens. Until now, most of the mustard greens came from the Galesong area, Takalar Regency, now most of them prefer to work as carpenters in urban areas because of their real income. And among the *parengge* owners who previously owned two to three boats, some have already been sold.

Among the surviving *punggawa-sawi*, kinship relations often occur. Their direct involvement in reef restoration programs is almost non-existent. Only when they swap are they invited to become community leaders. Regarding the influence of the position/relationship between the courtier and the mustard, it can be said that there is none. In addition, the current coral reef restoration program does not benefit fishermen because it is still under surveillance. and no fishermen can access the area. It is possible that if in the future coral reefs can be utilized, it is possible that some of the mustard greens will turn into independent fishermen.

4.3 Impact on institutions as a means of supporting coral reef restoration programs

The people of Bontosua are basically capture fishermen, both fish and squid fishermen. There were several fishermen, most of them small fishermen. As people who make a living from their main profession as fishermen, they live a life based on the traditions they understand. Therefore, Bontosua Island is known as one of the islands that is far behind from the surrounding islands. The problem of the retreat of the people of Bontosua Island, of course, requires not only socio-economic solutions, but also institutional aspects to regulate their life so that they can grow more directed and together.

The reference to the concept of the institution itself is one of the norms and is used as a reference to achieve sustainable development. Or is a system of norms to achieve certain goals that are considered important by society. The standard system includes ideas, rules, behavior policies and sanctions (reward system). A standard system is the result of a step-by-step process towards an organized system. In other words, the reliability of the system has been tested and is expected to be a means to achieve certain goals. The question is whether such a facility exists on Bontosua Island, or can it survive and survive to bring benefits to the community.

For facilities on Bontosua Island, it is now possible to trace the existence of facilities related to coral reef restoration called the Community Monitoring Post (Poswasmas). Poswasmas itself plays an important role in the security of water bodies. Community participation based water monitoring model. They are recruited from local communities who volunteer to help the government monitor water bodies. They are not paid regularly, but only in the form of bonuses that they receive every year. The amount is not large because it must be distributed evenly among all group members. Poswasmas has great authority and responsibility and is always committed to following existing supervisory procedures. Don't chase criminals. All you have to do is record the violation and report it to your local service or Polair (water police).

To the informant's knowledge, if an incident occurs, the officer will record in detail who the perpetrator is and what the evidence is and report it to a more competent officer. Based on the manager's report, the perpetrators will be tracked down and arrested by the police. Cases of violations usually occur in the form of bombs and drugging fish. Fish bombs can be recognized by the sound of explosions, but the anesthesia of fish can usually be seen through diving. This activity is easy to find during the day, so many do it clandestinely at night. Their activities are usually only known when there are reports from local fishermen who happen to be at sea. However, the existence of Poswasma by some residents of Bontosua has always been denied by residents. According to the reporter, there had been a misunderstanding between residents and Poswasmas officers. Residents claimed that their activities were only diving around repairing coral reefs and shooting fish, but Poswasmas officers were immediately arrested for allegedly catching fish in prohibited areas and could be handed over to the police.

Recently, the presence of Poswasma has created a feeling of antipathy towards the people of Bontosua, especially those who can only find fish in the waters of Bontosua. According to him, apart from having officials who prioritize their interests or take advantage of the existence of coral reef restoration for the benefit of several people. Then I asked some locals where to live if they weren't fishing near their home, the main source of life.

However, few institutional alternatives can be proposed which the informants hope can overcome the problems faced by the people of Bontosua. This is because the people of Bontosua are busy taking care of their daily needs which tend to decrease. It is often reported in the media that the people of Bontosua have begun to focus on coral reef restoration, but this is still far from what was expected. It may be true that there will be benefits in the future, but now there is an urgent need to think about the interests of society.

V. Conclusion

In conclusion, this research can be stated as follows:

- (1) It can be said that the coral reef restoration program has not yet had an impact on improving the economy of residents, individuals or groups or communities, both in terms of income, including capital.
- (2) Coral reef restoration at a certain stage is still limited to initial business/activities through salary/incentives.
- (3) Political discourse or leadership and retainer-sawi relations have become empty for some people. what they felt now was gone, just like what they felt before.
- (4) The program tends to be used as a source of political capital, nuanced selectively, and involvement based on proximity to the Village Head.
- (5) The institutions involved in coral reef restoration are the Community Monitoring Post (Poswasmas), which is a participatory organization, in its implementation tends to be limited to the interests of fishermen.
- (6) Theoretically, the coral reef restoration program which has been going on for approximately four years has not yet undergone a transformation that has an impact on improving the economy of residents, both individually and in groups or communities. Therefore, the process of institutional differentiation is also delayed. Economic functions are still developing within the family, while economic institutions outside the family are still struggling.

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