

Christian Ethics Study on Coral Reef Ecosystem Management in Perjuangan Village, Bolaang Mongondow Selatan District

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ABSTRACT

Coral reef ecosystems are useful, among others, as a source of food, a habitat for marine biota, a source of livelihood, and a tourist attraction with high economic value. This study aims to: (i) explain and describe the condition of coral reefs and the factors that cause damage to coral reefs in Perjuangan Village, (ii) determine the role of the church in the management and maintenance of coral reef ecosystems in Perjuangan Village, and (iii) explain the Christian ethics in the management and maintenance of the coral reef ecosystem in Perjuangan Village. This research was conducted in Perjuangan Village, Pinolosian District, South Bolaang Mongondow Regency, using qualitative research methods. Data collection techniques used are observational participation, interviews, and documentation. Informants are determined through purposive sampling with a total of 30 people. The data collected were analyzed qualitatively according to the approach of Miles and Huberman. The results show (i) that the condition of coral reefs in the Perjuangan Village had been damaged with minor to moderate damage to the coral cover of 15-30%, (ii) the damage to coral reefs was caused by catching reef fish that used arrows with compressors, bombs, potassium poison, and tiger trawlers, (iii) the coral reef ecosystem in the Perjuangan Village is the work of God. Therefore the Church and the community have to prevent actions that damage the coral reef ecosystem, maintain coral reef ecosystems, improve coral reef ecosystems, and utilize coral reef ecosystems for human welfare wisely and responsibly.

Keywords: coral reefs, the role of the church, Christian ethics, Perjuangan Village

INTRODUCTION

The wealth of marine biodiversity is seen as the greatest wealth in the world, one of which has so much potential, namely coral reefs. To research conducted in 1998, the coverage area of Indonesia's coral reefs is 42,000 km² or 16.5% of the world's coral reef area, namely 255,300 km² with 70 genera and 450 species. Coral reefs consist of a symbiotic system of coexistence between corals, ecosystems, landscapes, and humans at various levels [1]. Coral reefs and all the life contained in them are one of the most valuable natural resources.

There are many great and various benefits contained in the coral reef ecosystem, both direct and indirect. Directly, among others, as a source of food, and habitat for marine biota with has high economic value. Reef fish, turtles, shrimp, octopus, seaweed, and shellfish are also sources of food for humans [2]. In addition, the aesthetic value is a part that can be used as a tourism potential and has a high reserve of germplasm sources. Another thing, it can play a role in providing beach sand, as well as holding back waves and beach erosion. Utilization of coral reefs, marine fish ornaments, aquariums, as medicine, and building materials [2].

The area of Pulau Lampu and Pulau Babi and their surroundings are located right in front of Perjuangan Village, East Pinolosian District, South Bolaang Mongondow Regency. This area also has the potential for coastal and marine natural resources as well as environmental services, especially coral reefs which are very promising economically and can encourage the growth and development of settlements and other economic and social activities around the area. It has been quite a long time since residents have utilized the potential

of marine biological resources in the coral reefs in the area, to fulfill their daily needs. With the resources from what was done, the use of coastal and seaside areas on several islands, as a result of population growth and development in the area, has created various pressures on the coral reef ecosystem in the area.

The results of a direct survey through diving looking at the condition of the coral reefs in 2021 on Pulau Lampu and Pulau Babi by Minanga Divers Bolsel in collaboration with the Tourism and Culture Office of South Bolaang Mongondow generally show that the coral reefs are in moderate to good condition with live coral cover 57 -80.5 %. However, there are bad/damaged coral reefs in several locations in the waters of the region. Damage to the coral reefs in the Lampu and Pulau Babi areas and their surroundings will certainly threaten their productivity, no matter how small the level of damage is. This has seriously impacts the local population, especially traditional fishermen who depend on coral reef resources for their income.

Based on this fact, it is very important to use and manage coral reefs in the Pulau Lampu and Pulau Babi areas and their surroundings to apply the principles of a utilization system that is ecologically sound or environmentally ethical. Efforts to protect and utilize natural resources in the Pulau Lampu and Pulau Babi areas and their surroundings can be carried out by setting aside locations that have the potential for diversity of marine biota species, natural phenomena and their uniqueness, and their ecosystems. From an ethical perspective, the protection and sustainable use of marine resources and their ecosystems will be maintained.

Undeniably, all the potential in the sea is God's gift to humans, including coral reefs. From modern reef studies, we know corals are beautiful biological trinkets and innovative powers in nature [3]. Therefore, the balance of living things/sea ecosystems needs to be maintained to provide sustainable benefits in human life. Real actions in maintaining this balance must be reflected in the active role of the fishing community in Perjuangan Village, East Pinolosian District, and South Bolaang Mongondow Regency when fishing on Pulau Lampu and Pulau Babi and their surroundings. On the one hand, fishing activities are carried out to support the livelihoods and the continuation of the lives of fishermen who live on the coast, they must make various efforts. However, on the other hand, fishing activities by fishermen (local and foreign) have indicated that they are carrying out fishing practices in the wrong way through the use of explosives or fish bombs, potassium poison, and prohibited fishing gear. This impacts on the damage and death of marine ecosystems, including coral reefs which in the end harms other creations, including humans.

Nature is God's work, so God is the sovereign owner of all of His creation, including humans. Nature has intrinsic value because nature was created well by God. Its basic value is the value of harmony in the relationship between creation and the Creator and among all creation so that all creation is in a balanced harmony according to the will of the Creator. It is clear that the Lord of Heaven and Earth, who maintains His faithfulness forever, is the final Judge of the fate of this universe [4].

The world and everything in it belong to God as emphasized by Psalm 24:1, "God owns the earth and everything in it, and the world and those who live in it" [5]. Also, wild animals are in the fields and the mountains as stated in Psalm 50:10-12. Robert P Borrong stated that all creations of humans, animals, plants, and the abiotic environment must all be God-centered (Theocentric) [6].

The Lord God placed humans on earth which is God's creation so that humans seek and care for it as revealed in Genesis 2:15. Thus, humans must integrate the Christian faith in every aspect of life and in efforts to prevent damage to marine ecosystems. Humans must be responsible for preventing damage to marine ecosystems. Bible testimony Genesis 1:28 says "God blessed them, and God said to them, "Be fruitful and multiply, fill the earth and subdue it; earth" [6]. This verse does not mean the transfer of ownership of the earth to humans but responsible management and use. Humans are fully responsible for empowering nature to remain intact and sustainable for the benefit of the next generation.

The majesty of God Almighty over His creation (in terms of the environment) is seen in Psalm 104. This

section expresses the awe of the psalmist who witnessed clearly that God not only creates but also develops and continues to care for His creation. Verses 1-4 begin with the psalmist's confession of faith "Lord, my God, You are great". God is completely incomprehensible [7]. While verses 5-9, describe the greatness of God as the creator of the earth. Different things are revealed in verses 13, 16, 17, and 18, for example, the psalmist describes how trees are fed by God, which means that all creatures wait for food from God. Interestingly, it is not only humans who are waiting for God's love and blessings, but all of creation (environmental elements)[7].

The cosmological dimension is closely related to the primacy of Christ, especially His work of salvation over all creation (Colossians 1:15-23). In verse 23 it says that the gospel has been preached throughout the world. The world was created through Christ, and God took the initiative to make peace with His creation. Now nature is under His control and thus the cosmos is at peace. This section also emphasizes the universal significance of the Christ event through the appearance of its cosmic dimension and the talk of salvation for the whole world, including all creation. Christ brought peace and harmony to all creation through His death and resurrection. The redemption of Christ is also understood as the redemption of the cosmos which includes all of nature and creation. Salvation also includes reconciling or restoring broken relationships between humans and other creatures [8].

In the view of Christian theology, the occurrence of ecosystem damage is a manifestation of human behavior that does not follow God's Word will, while an environmentally friendly attitude is a form of Christian obedience in carrying out God's Word. Because it is very important to the real role and presence of the church seen from Christian ethics in preventing the destruction of marine ecosystems.

Based on the background of the problems above, the question is how to build a Christian ecological ethical model in the responsible use of coral reef ecosystems in Perjuangan Village.

Referring to the results of the problem formulation, the purpose of this research was to: (i) explain and describe the condition of coral reefs and the factors that cause damage to coral reefs in Perjuangan Village, (ii) find out the role of the church in the management and maintenance of coral reef ecosystems in the Village Perjuangan, and (iii) formulating Christian ethics in the management and maintenance of the coral reef ecosystem of Perjuangan Village

The research results are expected to be of use to fishermen, government, and churches in the South Bolaang Mongondow Regency in preserving coral reef ecosystems to increase the economy and become a potential for eco-ethical tourism.

RESEARCH METHODOLOGY

This research was conducted in Perjuangan Village, Pinolosian District, South Bolaang Mongondow Regency, North Sulawesi Province. This place was chosen because it is a coastal area with two islands, namely Pulau Lampu and Pulau Babi. The majority of the population depends on fishing as a livelihood for their daily activities.

This research is qualitative research with a phenomenological method that wants to understand the phenomenon of what is experienced by research subjects, for example, behavior, perceptions, motivations, and actions, holistically and through descriptions in the form of words and language, especially [9].

Data collection techniques include participatory observation, interviews, and documentation [10]. Data sources or informants are determined through purposive sampling. The number of informants was 30 people consisting of 17 fishermen, 2 NGOs, three community leaders, and three religious leaders in Perjuangan Village. The collected data were analyzed using qualitative analysis according to the Miles and Huberman

approach, namely: data reduction, data presentation, and conclusion/verification [9].

RESULTS AND DISCUSSION

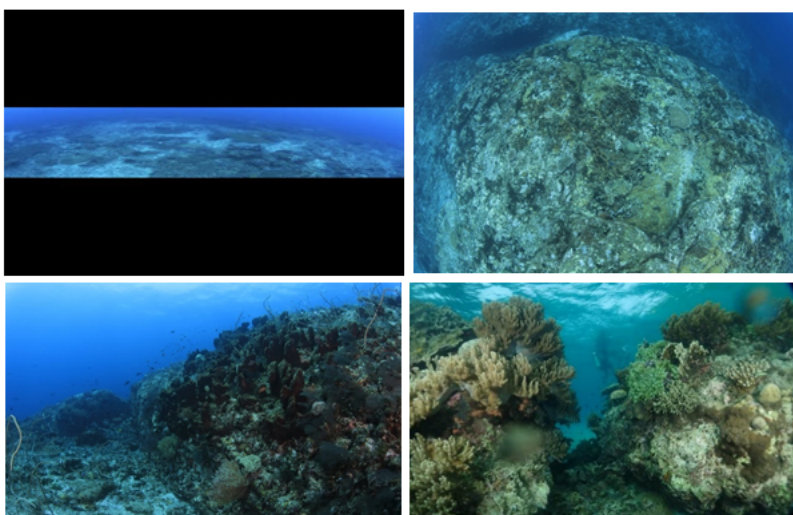
Condition of Coral Reefs

Based on the results of field research through direct dives to a depth of 5-15 meters, found coral reefs that are quite wide with beautiful views (Figure 1) even though there are also coral reefs that have been damaged in a state of near-death to death (Figure 2).

Figure 1: The condition of coral reefs in Perjuangan Village



Figure 2: Condition of damaged and dead coral reefs in Perjuangan Village



The condition of the coral reefs based on the results of interviews and observations, in general, the informants revealed that from the past until now the beauty of the coral reefs that they saw and observed seemed so beautiful [1]. However, with time, they also admit that there are already quite a several coral reefs whose conditions are quite apprehensive, especially those near the coast or in shallow waters which are

generally damaged, making it difficult to find any more types of reef fish.^[2]

Based on the results of interviews and direct observations at the study sites, it was found that the condition (reality) of the coral reefs on Lampu Island and Babi Island in Perjuangan Village were generally in good to moderate condition with coral cover in the range of 60-80%. This shows that the beauty of coral reefs still has the potential to support the lives of fishing communities and other marine ecosystems.

The description of the condition of the coral reef ecosystem above does not deny the potential for damage to coral reefs in Perjuangan Village. The research findings found that the coast in general has been under pressure and is quite apprehensive with conditions of minor to moderate damage within 15-30% of coral cover. Damage to coral reefs is not only caused by coral fishing activities using compressor arrows, fish bombs, potassium poisons, and trawling, but also by the activities of fishermen who carelessly release boat or ship anchors and take coral reefs for souvenirs and septic infiltration materials.

The Causes of Damage to Coral Reefs

Fishermen in Perjuangan Village, including the surrounding villages (Posilagon and Iligon Villages), generally use traditional equipment to catch fish, namely, fishing lines using bait, jubi arrows, and boats. Besides that, there are fishermen equipped with compressors.^[3] Even though other fishermen protest against fishermen who use this compressor.^[4] Fishermen who use this compressor usually have more modern arrows^[5] and vessels with large engines and wide soma rolls.^[6]

Figure 3. Arrows used in fishing



According to informants, the causes of damage to the coral reefs in Perjuangan Village were fish bombs, compressors, arrows, the use of potassium poison, and the use of trawlers.

1. Use of fish bombs

From the results of the interviews and the information that could be gathered, it turned out that the use of fishing bombs in fishing had been going on for quite a long time since 2001 until the researchers conducted the research and there were still those who carried out these bombing activities. The negative impact was inevitable with the death of various types of small and large fish threatening the fishing of local fishermen.^[7]

The same thing was also said by community leaders: since 2001 the coral reefs along the coast have been damaged. But at a depth of about 10 feet, there are still lots of good coral reefs. The fishermen said that there were 2 (two) types of bombs used by fishermen: throwing bombs and cable bombs. The sound of a bomb thrown from a coca-cola bottle is so loud that small fish can die. Meanwhile, the use of cable bombs makes less sound, because the bombs are in the depths of the sea, and this not only kills the small to large fish but also permanently and massively damages coral reefs.^[8] The fish bombing has damaged coral reefs, making it difficult for fishermen to find fish. Unfortunately, fishermen who use fish bombs come from outside the area.^[9]

2. Use of potassium

Based on observations, several large coral reefs were found dead at sea depths of 10-15 meters, this indicates the use of poison. This was confirmed by several interviews with fishermen who revealed that they often find corals dying by themselves. They believe that coral death like this is not caused by bombs or other fishing gear but by the use of potassium poison. According to the group leader and fishermen members, the problem is that it is difficult to determine which fishermen used Potassium poison.

3. Use of arrows supported by a compressor

The results of observations and interviews with informants revealed that fishermen generally use fishing gear with arrows. Some fishermen dive without tools to catch fish by archery (traditional) method, but some fishermen dive with compressor aids to catch fish by archery (modern). Some fishermen catch fish with compressors, but the number is very small. They come from within outside the village (Tumbak Village).^[10] The use of compressors in reef fishing causes damage to coral reefs. This is because the fish hit by the arrows hide in the coral reefs and to take the fish, they are forced to destroy the coral reefs.

4. Use of trawlers

Fishermen rarely use trawlers, especially fishermen in Perjuangan village, because only certain fishermen can own this fishing gear. The fishermen who use trawlers come from outside the South Bolaang Mongondow area^[11]. Trawlers are only used by one to two people and even then only up to 3 (three) years ago; now they are no longer there. If trawlers are used to catch fish, it is not only big fish that are caught but also all kinds of small fish. Damage to coral reefs occurs because the coral reefs associated with trawlers will break and di^[12].

The Role of the Church in Preserving Coral Reef Ecosystems

The church plays a role in maintaining, maintaining, repairing, and developing or utilizing coral reef ecosystems for the survival of the people of Perjuangan Village. Since becoming the leader of the Church^[13] in Perjuangan Village, the Church and congregation (community) have played a role in preserving coral reefs on Babi Island and its surroundings. Starting with coaching the congregation, namely increasing the congregation's awareness of the importance of coral reefs, action activities prohibit church members from using fishing gear that damages coral reefs.

In many ecclesiastical meetings, including sermons by church leaders, pastors, elders, and deacons, they often explain the importance of coral reef ecosystems for the congregation and society. Coral reef ecosystems are important as a place to live for fish so that reef fish always available as a source of livelihood for congregations or fishermen. Therefore, this coral reef ecosystem must be maintained not to be damaged.

Furthermore, in every meeting or meeting at the village and sub-district levels, Church leaders repeatedly proposed repressive measures against fishermen or communities that damaged the environment, namely using bombs or poison to catch fish^[14]. This means those who damage the environment must comply with the applicable law. The problem is that those who use bombs or poison often work with certain elements of society to avoid legal problems. One of the proposals for implementing sea patrols to prevent this problem could not be carried out due to budget constraints for the procurement of facilities and infrastructure as well as operational costs^[15].

The attitude of the Church is still prohibitive towards fishermen who carry out fishing bombings and expel or suppresses the naughty fishermen by admonishing them directly^[16]. Meanwhile, the other hand, namely

the government and NGOs, still allow the activities of fishermen who destroy coral reefs^[17], because they have not had any real activities carried out against these rogue fishermen^[18].

In its position as an organization, the church has a vital role in preserving the environment. The church is expected to pay serious attention to trying and trying to restore damaged coral reef ecosystems. Some of the practical actions that the church can take include supporting government and local government programs in the environmental field, particularly the preservation of coral reefs, such as transplanting coral reefs for restoration of coral reefs.

Protect and maintain coral reefs

The church is trying to explain the importance of the coral reef ecosystem for the people in Perjuangan Village. If the coral reef ecosystem is damaged, it will greatly affect the availability of reef fish and further reduce fishing communities' income. Therefore, the coral reef ecosystem must be maintained and maintained so that no damage to coral reefs occurs. For that socialization about what, why, and how coral reefs from the Church and related parties for the community is needed^[19]. One form of the church's concern for protecting the coral reef ecosystem in Perjuangan Village is encouraging church members to support government programs, such as a special post to guard and supervise those who catch fish with prohibited tools^[20].

Special posts are proposed to be made near or around Pulau Lampu and Pulau Babi because there are many coral reef ecosystems around these islands, so many types of reef fish are also found^[21]. This special post can be run jointly by the community and the Indonesian Navy^[22] with adequate facilities^[23].

In addition, the church can also cooperate with adherents of other religions^[24]. Together with other religions, the church can formulate things that can be understood together by adherents of other religions in activities to save the destruction of coral reefs and the excessive exploitation of marine natural resources. The church also needs to cooperate with environmental NGOs, one of the benefits is that the church will be assisted in developing the capacity of church members in terms of caring for coral reef ecosystems. The church can also "formulate approaches that are appropriate to the context of society or local wisdom and implementation concerning the preservation of coral reef ecosystems.

The thoughts of fishermen trying to catch as many fish as possible without regard to environmental damage will be erased or lost by providing a correct understanding of the importance of coral reefs for life today and for future generations. Because the Church, the Government, and other stakeholders must be more active in conducting outreach to provide understanding to fishermen about how to catch fish without destroying the coral reef ecosystem.

The Church's task is to try to instill good values and norms in fishermen and coastal communities so that these norms are internalized within a person. Thus, even though there is an opportunity to commit an offense/crime but there is no intention to do so, there will be no such thing as a crime.

Repair damaged coral reefs

Real participation in caring for the use of coral reef ecosystems that the church can be taking part in the commemoration of special days related to the environment by holding transplants or replanting coral reefs in collaboration with various related parties who understand coral reefs. Transplanting and replanting these coral reefs will make the coral reefs come back to life and in the end, there will be lots of fish back in that place^[25].

The grafting or replanting of coral reefs by fishermen is a manifestation of one of the three Church's tasks,

namely to serve. Fishermen as church members must be able to fulfill the church's calling: to serve God's fellow creatures by replanting coral reefs around their homes.

The damage to the coral reefs on Babi Island in Perjuangan Village was mainly caused by the actions of fishermen who caught fish using bombs, poison, and trawls. The fishermen only think about how to get a large number of catches without caring about the impact. Again, economic and educational factors are the main triggers, so fishermen still use illegal methods to catch fish. Besides that, competition among fellow fishermen is why they have to use the illegal fishing gear. Getting more fish is the reason for using bombs, poison, and big nets.

Utilizing and developing coral reef ecosystems

The limitations of fishing in utilizing and developing coral reef ecosystems in Perjuangan Village result from limited knowledge and skills from the community. Therefore the church in collaboration with other stakeholders should try to provide skills, knowledge, and assistance to the community on how to utilize and develop the coral reef ecosystem around where they live. Increasing fishermen's knowledge through training on how to catch fish in coral reef ecosystems, training on fish marketing, training on processing dead coral reefs, and providing assistance to fishermen so that fishermen do not only depend on fishing in shallow seas but also in deep sea through the provision of skills and assistance with fishing gear and boats or ships that are representative.

Besides that, it is necessary to promote to the outside world that the coral reef ecosystem in Perjuangan Village of Babi Island is a very beautiful sight so that it is worthy of being considered as a marine tourism destination in Bolaang Mongondow, South Sulawesi. Currently, the marine tourism of Babi Island, Perjuangan Village, has become a tourist destination in the area around the southern part of North Sulawesi.

Christian Ethical Views on Damage to Coral Reef Ecosystems

Coral reefs and everything that lives in them are the work of God, [11]. The Lord God is the sovereign owner of all of His creation, including humans[6]. Coral reefs have intrinsic value because God well creates coral reefs. Its basic value is the value of harmony in the relationship between creation and the Creator and between all creation so that all creation is in a balanced harmony according to the will of the Creator [4].

The Lord God placed humans on earth which is God's creation so that humans seek and care for it as revealed in Genesis 2:15. Thus, humans must integrate the Christian faith in every aspect of life and in efforts to prevent damage to coral reef ecosystems. Humans must be responsible for preventing damage to coral reef ecosystems.

Several efforts that can be made to prevent damage, maintain, repair, and utilize the coral reef ecosystem in Perjuangan Village include:

1) Dissemination of the importance of protecting and preserving coral reefs. Dissemination of what, why, and how of coral reefs and their benefits for the natural environment and social environment (fisherman's welfare). Seeing that the understanding of fishing communities is still minimal about the importance of coral reefs, socialization is very important to raise awareness for the community about the importance of managing and maintaining coral reef ecosystems for human welfare today and for future generations.

2) Coral reef ecosystems cannot be separated from people's lives, so they need to be maintained and preserved. The coral reef ecosystem is part of human life. The balance of the marine ecosystem is disrupted due to the use of fishing gear that destroys coral reefs.

If we take care of the environment, then the environment will also benefit us.

3) Preserving coral reefs through direct supervision. Rebuke or preventing people who do damage is a form of real love. According to Proverbs 27: “Better is a real rebuke than hidden love” [5]. Routine direct supervision through establishing special posts gives direct warnings or bans to fishermen who violate applicable regulations and laws.

4). Firm action for those who destroy coral reefs. Those who break the rules, namely those who catch fish by bombing or poisoning fish must be dealt with firmly. Those who are guilty must be prosecuted so that there is a deterrent effect. The punishment does not have to be imprisonment but repairing the damage by replanting the damaged coral reefs. With such a punishment, fishing communities are afraid of destroying coral reefs. This is done using a love and forgiveness approach. By giving forgiveness to those who violate, we believe that those who violate will realize that it is a sinful act so that those concerned will repent and will not repeat these sins in the future [12].

5) Actions to repair damaged coral reefs through transplanting or replanting coral reefs. Transplanting and replanting coral reefs will make coral reefs come back to life and in the end, there will be lots of fish back in that place. Although coral reef replanting takes tens to hundreds of years, this needs to be done with related parties as a legacy for our children and grandchildren [11]. This replanting must be done as an effort to restore the relationship between humans and coral reef ecosystems [8].

6) Coral reef ecosystem as a marine tourism destination in Perjuangan Village. Presenting the Pig Island area as a marine tourism destination will open up new jobs for the local community and at the same time will be able to provide added value from the coral reef ecosystem which in turn can increase people's income. This will facilitate supervision for fishermen who use poison and bombs in catching fish, which in turn can support monitoring posts that the community will form. This is a noble task for humans where humans are not only given the mandate to conquer the earth and everything in it but also “so that humans can master it in the sense that they can use and manage coral reef ecosystems wisely and responsibly” [13].

The Church is present in society as part of God's gift to the world and the Church (congregation members/fishermen) has the duty and obligation to prevent actions that damage the coral reef ecosystem as God's creation and to maintain, repair and utilize the coral reef ecosystem and everything in it for welfare.

CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

Conclusions

1. The condition of coral reefs in Perjuangan Village is generally still relatively good to moderate with a coral cover of up to 80%. In general, the condition of coral reefs on the coast has been under pressure and is quite alarming with minor to moderate damage in a coral cover of 15-30%. Damage to coral reefs is generally caused by catching reef fish using arrows with compressors, using fish bombs, potassium poisons, and trawling.
2. The church has played a role in managing and maintaining the coral reef ecosystem in Perjuangan Village, starting from an awareness program about the importance of coral reef ecosystems for the community through sermons at the church, and program proposals for the benefit of preserving coral reef ecosystems and utilizing the beauty of the ecosystem Coral reefs as marine tourism destinations.
3. The coral reef ecosystem in Perjuangan Village is the work of God that must be processed and maintained so that it can provide benefits for the welfare of society in general and fishermen in particular. The church and society have to prevent actions that damage coral reef ecosystems, maintain coral reef ecosystems, repair damaged coral reef ecosystems, and utilize coral reef

ecosystems for human welfare wisely and responsibly.

Implications

The problem of environmental ethics due to the bad attitude of humans towards nature gives awareness all of us to rethink the way humans relate to other creatures. It is realized that this arrangement must come from the humans themselves, this is to raise awareness and human responsibility to others and other creations. This arrangement must come from real human awareness to protect and protect nature from extinction, the concept of development and management of nature must be carried out by taking into account the balance between economic needs and ecological needs of the environment including coral reefs.

Wise and environmentally ethical use of coral reefs will bring about justice for the environment. Coral reefs are utilized as well as maintained sustainability. This must be started by a church that consistently implements its tri-duty for the integrity of creation and God is increasingly glorified in this attitude of faith.

Suggestions

The church must pay real attention through programs to maintaining a balanced use of coral reefs or paying attention to environmental ecology.

Collaboration is needed between the Church, fishermen, government, NGOs, and other stakeholders to protect, maintain, maintain, repair, utilize and develop coral reefs so that the preservation of coral reef ecosystems can be carried out on the one hand and the other hand fulfils the welfare of the community.

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FOOT NOTE

[1]MP 56 years old, Interview November-December 2021

- [2]YT 46 years old, Interview November-December 2021
- [3]BC 41 years old, Interview November-December 2021
- [4]DW Age 37, Interview November-December 2021
- [5]DC 27 years old, interview November-December 2021
- [6]FP Age 56, Interview November-December 2021
- [7]AG Age 42 years, Interview November-December 2021
- [8]S Age 51 years, Interview November-December 2021
- [9]HS 36 years old, Interview November-December 2021
- [10]SM 28 years old, Interview November-December 2021
- [11]RS 38 years old, Interview November-December 2021
- [12]UD 35 years old, Interview November-December 2021
- [13]NM Age 42 years, Observations November-December 2021
- [14]FD 26 years old, Interview November-December 2021
- [15]AP Age 28, Interview November-December 2021
- [16]UP Age 52 years, Interview November-December 2021
- [17]FP Age 46 years, Interview November-December 2021
- [18]RA Age 50, Interview November-December 2021
- [19]RO 29 years old, Interview November-December 2021
- [20]MD 49 years old, Interview November-December 2021
- [21]AP Age 36, Interview November-December 2021
- [22]AR Age 43 years, Interview November-December 2021
- [23]DP Age 31 years, Interview November-December 2021
- [24]MM Age 59, Interview November-December 2021
- [25]JT 32 years old, Interview November-December 2021