



Partnership in the Utilization of Coral Reefs Area which Increases Women's Economy and Sustainable Conservation

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Abstract. In some areas, the coral reefs are utilized as tourist attractions. Therefore, coral reefs have the potential to develop as something that will be more beneficial for either the region and its people. On the other hand, this activity would cause damage to the coral reefs. Hence, a partnership that can be used as cooperation is needed here. Various local government policies are needed to preserve the coral reefs which apply to each region by adapting their local wisdom. In this regard, this research aims to determine the cooperation carried out by women, especially the fishermen's wives, in the sustainable utilization of coral reefs to develop the community's economy and maintain its sustainability. This research uses primary data and secondary data. The primary data collection was carried out through observations of coral reef ecosystems that have never become tourist areas, in-depth interviews with coral reef management respondents which were selected by "snowball sampling", related agencies, and competent key persons that were selected by "purposive sampling". The Secondary data was obtained through policy studies, local community habits which became a local wisdom in protecting the environment, the laws and regulations regarding coral reef conservation, documentation from related sources, and literature used to enrich the analysis. Just a few women's groups have collaborated to utilize the natural resources in their environment, including coral reefs. So, encouragement from the government is needed to collaborate with the community, through various policies. The development of cooperation does not just happen by itself, but it also requires the government's encouragement. Cooperation or partnerships in the utilization of coral reefs can be done by escalating the human resource capacity; increasing public understanding and awareness; strengthening the community's socio-economics around their area; and/or providing and maintaining the area management facilities and infrastructure. These choices depend on the needs of the community.

Keywords: Cooperation, Women, Coral Reefs, Policy.

1. Introduction

Coral reef area is a distinctive area found in tropical coastal areas.[1] Coral reefs are formed from massive sediments containing calcium carbonate (CaCo₃). These sediments

are produced by reef-building coral organisms (hermetic corals) derived from the phylum Cnidaria, whereas the order is Scleractia which lives symbiotically with zooxanthellae and a little addition of calcareous algae.[2] Coral reef lives by requiring clear waters, with warm temperatures, accompanied by wave motion, and smooth circulation, of course avoiding the process of sedimentation, to grow optimally.[3]

Coral reefs are also one of the most productive and bio-rich ecosystems on earth [4] and have many ecological functions such as habitat, feeding ground, nursery ground, spawning ground [5], and as an attractant for marine organisms. Coral reefs also play a role in increasing fishing efficiency and maintaining the balance of the food chain cycle. [6] However, coral reefs are vulnerable to domestic waste, industrial waste, and fishing which is not environmentally friendly and nature tourism activities, such as snorkeling and diving, tourism areas have a higher level of threat of environmental damage than non-tourism areas.[7]

The area of Indonesia's coral reefs is 18% of the total area of the world's coral reefs [8] [9] but coral reefs in Indonesia have experienced serious degradation caused by various human activities [10], it can even be said that almost 85% of Indonesia's coral reefs are threatened with damage. Of the 85%, about 50% are under high threat of damage.

In the utilization of coral reefs, many women, especially fishermen's wives in coastal areas, carry out activities in the economic sector related to the use of coral reefs. These activities are carried out individually or in groups with a collaboration which is called 'partnership', by utilizing existing natural resources. The utilization of resources in economic activities as carried out by the fishermen's wives should be accompanied by an awareness of the need to maintain and preserve. Therefore, it is not enough to maintain, but also to develop it. So that, they can meet their needs through their activities.

The utilization of coral reefs on the one hand can improve the economy of fishing communities, but on the other hand, could cause damage. Therefore, it is very interesting to conduct research on cooperation or partnership in the utilization of coral reefs by fishermen's wives, which aims to determine whether the activities carried out by the fishermen's wives in addition to cooperation or partnership to improve the economy also take action to preserve coral reefs.

2. Problems

This study is written to solve the following problems:

- a. Why partnerships are needed and how the partnerships can be used to utilize and conserve coral reefs?
- b. How is the strategy to utilize coral reefs to achieve economic improvement and conservation at the same time?

3. Method

In this research, the author performs socio legal research, which examines the law not only by inventorying various legal provisions but also analyzing them critically. This research also shows how legal provisions are implemented in society to see the facts. In addition, this research also intends to simultaneously capture the aspirations that arose in the community.

The research data used is qualitative data that relies on primary and secondary data, therefore this research uses all of these types of data as explained below:

- a. The Primary data were obtained through observations in coral reef ecosystems that have not yet or have become tourist areas, and in-depth interviews with respondents of coral reef managers selected by *snowball sampling* which included related government agencies and competent key persons selected by *purposive sampling*.
- b. Secondary data were obtained through policy studies, local community habits as local wisdom to preserve the environment, documentation from relevant sources, and literature used to enrich the analysis.

4. Discussion

4.1. Partnerships or Cooperation as The Basics in Coral Reef Management

Cooperation is a form of social interaction that is an action carried out by several parties. As mentioned by Abdulsyani, cooperation is a form of social process, where there are certain activities carried out to achieve common goals through mutual assistance and understanding toward each other's activities." [11] Cooperation is also called partnership as stated by Moh. Jafar Hafisah, that business strategy is carried out by two or more parties within a certain period to achieve mutual benefits with the principle of mutual need and mutual growth. [12]

The partnership or cooperation must be able to integrate different players/actors/persons in collaborative action or collaborative efforts to produce change. The main principles in building partnerships are equality and equity, in addition to Contractual Conclusion, which means that a partnership must be based on a formal commitment that is created based on the number of partners who want to be bound by a contract." [13]

There are several motives behind the existence of a partnership:

- a. Locally driven (bottom-up). Partnerships are initiated because of the neighborhood's need for better cooperation and coordination of activities.

- b. Policy-driven (top-down). Partnerships occur when a partnership is considered a solution to a problem.
- c. 3. Incentive-driven, where money or economic motives are the main reason for forming a partnership for an activity (as in the case of the European Commission Programme on Partnerships).

Partnerships are based on the legal principle of freedom of contract, which occupies a central position in an agreement. Partnerships also have a strong influence on the contractual relationship of the parties.

Some countries regulate partnerships in a separate piece of legislation that sets out the basic requirements regarding their recognition, consent, access to funding, and rights. Roles and functions within the partnership will vary according to the formal arrangements. One of the rules that must be fulfilled regardless of the legal agreement is to set out the basic duties and requirements in a formal document that defines and describes the conditions of the partnership, in the form of articles of association, bylaws, codes of conduct.

Partnerships in the United States are regulated in *The Uniform Partnership Act of the United States* which regulates partnerships that aim or have economic motives as can be known from the understanding that "partnership means the association of two or more people to run a business as co-owners for profit, while the agreement that forms the basis for the existence of a partnership can be expressed in written, oral, or implied form, among the partners regarding the partnership, including changes to the partnership agreement.

Partnerships are also regulated in Indonesia through various provisions such as, on the Law of Small Business No. 9/1995, Article 1, Paragraph 8, states that "Partnership is a business cooperation between a Small Business and a Medium or Large Business accompanied by guidance and development by the Medium or Large Business to observe the principles of mutual need, strengthening, and benefit." [14]

There are two forms of an economic partnership in Indonesia that are regulated in the Commercial Code, namely 'General Partnership' and 'Limited Partnership / *Commanditaire Vennootschap*'. Allies in General partnership are authorized to represent the partnership and are jointly and severally liable for losses and obtain profits as agreed. Whereas a Limited Partnership (CV) is a partnership in which there are two types of allies, namely (1) active allies, also known as complementary allies, who are responsible for a partnership with a firm, and (2) passive allies, also known as commander allies, whose responsibility is limited to the investment in the partnership.

Furthermore, Article 6 of the Maritime Affairs and Fisheries Minister Regulation No. 16 / 2019 concerning Business Partnerships that are open to requirements in the Maritime and Fisheries Sector and also according to the explanation by Huseini, it regulates the partnership patterns that can be used [15], which are:

- a. Core-Plasma: partnership between medium/large enterprises as the core, with small enterprises as plasma. Medium/large companies can provide production facilities, technical guidance, management, accommodate, process, and market the results of their production.
- b. Subcontracting: Partnership between a medium/large enterprise and a small enterprise, in which the small enterprise as a partner carries out production activities required by the medium/large enterprise.
- c. Franchising: Partnership between medium/large enterprises and small businesses, where large businesses could grant license rights, trademarks, and distribution channels to small businesses as partners.
- d. Distribution and Agency: This is a pattern of partnership where small businesses are given special rights to market goods and services from medium/large enterprises as their partners.
- e. Operational Cooperation: a partnership formed where medium/large enterprises have a role in fulfilling the operational needs of small enterprises as partners.

However, partnerships are often ineffective, resulting in the non-achievement of initial objectives. Partnership ineffectiveness may be caused by:

- a. Partners do not have the same intentions and interests. Thus, the agreement on the partnership is unachievable
- b. There is no clear division of responsibilities, risks, and accountability.
- c. Hidden motivations that are not disclosed to all partners
- d. Partnerships are set up just to "keep up appearances"
- e. Partnerships have no identification or evaluation to resolve internal problems and conflicts.
- f. Partnering without caution.

Partnership as a business cooperation can emerge and develop due to natural factors and government encouragement. Natural factors that drive business partnerships (between suppliers and buyers) do not occur suddenly. Partnerships arise because there is an initiative from either (supplier or buyer) that is driven by a need to improve the competitive performance of a company. These driving forces are :

- a. Increased competition in the world of trade.
- b. Higher customer expectations.
- c. Emphasis to decrease the costs.
- d. Rapid technological change

- e. Competition in broader markets.
- f. The rapid development of the need for new products
- g. Skills shortages.
- h. Introduction of new business processes.
- i. Focussing on core expertise.

In addition to the natural factors mentioned above, the essence of which is the need for business cooperation of economic actors to improve their position in the competition, and increase efficiency, as well as the flexibility to realize the purpose of the cooperation. Which are: to obtain profits, partnerships or cooperation can occur due to the encouragement of the Government.

In Indonesia, partnerships not only emerge and develop due to natural factors, the essence of which is the business cooperation of economic actors to improve their position in the competition, increase efficiency, and flexibility to gain profits but also emerge and develop due to government encouragement. Factors that encourage the Indonesian government to develop partnerships as an effort to empower small businesses are the need for a greater role of small businesses as people's economic activities in realizing a balanced and strong economic structure, and the condition of small businesses that still require a conducive business climate, guidance, and development. This cooperation or partnership can be the basis for cooperation in coral reef management.

4.2. Strategies For Coral Reefs Utilization

Indonesia has a fairly extensive coral reef ecosystem that reaches 51,000 km² with a predicted coral reef diversity of approximately 581 species. Coral reef ecosystems play the most important role in the world as a habitat for marine animals and are also beneficial for the local communities' lives. Unfortunately, around 85% of coral reefs in Indonesia are threatened with damage. Among 50% of them (50% of the 85% damaged) have a higher threat of damage.[15]

This happens because of the people's mindset about how to utilize the coastal and marine areas as "common property resources". The Indonesians often assume that the use of the sea can be done by everyone (open access), therefore the society is ultimately principled in maximizing their profits, whilst not trying to preserve coastal and marine areas.[16] The poor condition of coral reefs would greatly influence the reduction of fish populations and other marine biota, which also have direct implications on decreasing fishermen's income.[17]

Consequently, the preservation and maintenance of coral reefs should be carried out as best as possible. So that, the amount of coral reef damage in Indonesia would stop increasing and the marine biota population could be maintained too. Thus, this becomes an opportunity for fishermen's wives to participate in efforts to utilize and preserve the

coral reefs. Not only to increase their household income, the fishermen's wives can also be empowered to maintain the coral reef ecosystem. The fishermen's wives' empowerment is also in line with the fifth point of the United Nations Sustainable Development Goals (UN-SDG), namely gender equality.[18] This effort is expected to increase the number of women's participation. So that more women can contribute the efforts to utilize and preserve coral reefs in Indonesia.

Moreover, if the coral reef ecosystem is managed well, then the community (especially women, namely fishermen's wives) will also get various benefits that can be calculated/assessed, from an economic, social, legal, and ecological perspective.[6] In this regard, a strategy is needed for the sustainable utilization of coral reefs. So, on the one hand, it can be beneficial for society, but on the other hand, the coral reef ecosystem can also remain sustainable and even develop, as experts stated as follows.

According to Bengen, the efforts to encourage awareness, participation, and cooperation / partnership between the community and local government (either between regions or between agencies) in planning and implementing coral reef management, must be considered. In addition, these efforts should be based on a sustainable development strategy. Therefore, the strategies needed in managing coral reefs are:[16]

- a. Direct empowerment toward coastal communities, namely empowering coastal communities who directly depend on coral reef management, especially the fishermen's wives:
 - 1) Developing sustainable alternative livelihoods for coastal communities;
 - 2) Increasing awareness and developing community awareness of responsibility in managing coral reef resources and their ecosystems through guidance, education, and counseling about coral reef ecosystems to reduce the rate of degradation and management of coral reefs based on ecosystem characteristics, potential, utilization, and legal status.
- b. Coordination between stakeholders. This coordination in this case referred to integration between the government as the actor and/or manager of the coastal natural resource development with coastal communities, non-governmental organizations, and the private sector. With each of their respective interests, they work together to collaborate. The form of this collaboration could be conducted by increasing tourism workforce absorption, improving the quality of facilities and infrastructure, or supervision. These things need to be pursued through government policies, business societies, and community participation. As Sjamsoeddin stated further, there are some ways that can be implemented by the Indonesian government in order to continue the preservation of coral reefs as national wealth, including: [19]

- 1) Strive for legal regulations for the protection of coral reefs, so that there is no legal vacuum in the context of law enforcement for the preservation and protection of coral reefs.
- 2) Make efforts to increase awareness and community participation in preserving coral reefs.
- 3) Providing training, research, and education for coral reef conservation efforts.
- 4) Strive for the management of coral reef ecosystem conservation areas so that they can be utilized optimally and are effective for the community

The two strategies above, which are (1) Community empowerment and (2) Coordination between stakeholders are the two main elements of the partnership or cooperation strategy in utilizing coral reefs. These two aspects are very important and cannot be separated from each other.

For example, in coral reef crafts businesses that involve women (fishermen's wives) or ecotourism businesses and etc., the encouragement and role from the government are highly needed to empower and to be the party that regulates the continuity of this partnership whilst becoming the party that implementing the existing partnership patterns. In this case, the utilization and preservation of coral reefs can be pursued through "cross-sector partnerships" between the community and the government, as follows:

- a. The community, including women, can be empowered as tour guides who accompany and provide education regarding the beauty and benefits of coral reefs to tourists, through snorkeling/diving activities, coral reef transplantation, or exploration by boat. Because the community is the party who understands well about the conditions and terrain in the field, so they could accompany and educate tourists who are interested in exploring the richness and beauty of the sea. Apart from that, women can also be empowered to become craftsmen of accessories, ceramic crafts, or other craft products by utilizing the beauty of coral reefs.
- b. The Government's role in this case can contribute to the use and preservation of coral reefs by making laws and regulations aimed at maintaining the sustainability of coral reef ecosystems. So that legal certainty arises during carrying out efforts to utilize and preserve coral reefs. Furthermore, even the government, with its authority, can also make efforts to make the coral reef ecosystem areas that are used and conserved into conservation areas or by building facilities to support the use and preservation of coral reefs by the community, so that sustainable use of coral reefs can be achieved. The government, by collaborating with educational and/or research institutions, can also provide outreach and education to the community as business actors by instilling and educating the public regarding entrepreneurship and professionalism as business actors, as well as providing outreach regarding efforts to preserve, maintain, and cultivate coral reefs.

5. Conclusion

Various activities of women's groups with members of fishermen's wives have the potency to increase the income that will lead to the improvement of the village economy, as long as they are carried out with a clear and transparent division of tasks, have the same vision and mission, share losses and profits, and open themselves to cooperate with other parties in order to advance the business, such as capital sources, technical capabilities adapted to technological advances, and environmental preservation as the principle of cooperation in a partnership. Even though these activities are included in the utilization of coral reefs that have high economic value, they also have the potential to damage coral reefs due to various activities carried out by local communities. For example, fishing activities in coral reef ecosystem areas can cause damage to coral reefs due to their ignorance, such as throwing anchors in coral reef areas, and others.

Therefore, there is a need for an integrated partnership/cooperation between the community and government through relevant institutions in the preservation and utilization of coral reefs. The author hopes that the role of the government, through socialization and counseling that fosters awareness and leads to a sense of belonging and pride. The existence of coral reef ecosystems should be manifested in the form of policies that encourage the use and at the same time the conservation of coral reefs.

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