



LOCAL COMMUNITY EMPOWERMENT IN THE PROTECTION OF CORAL REEFS IN INDONESIA

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ABSTRACT

One of main causes of coral reef ecosystem damage is the result of local community exploitation. The failure to pay attention to dimensions of knowledge and local institutions will result in the increasing threat of sustainability of this ecosystem. Economic and political factors contributed to the conservation of coral reef ecosystems. In enforcing the law, there are three elements that must be considered, namely legal certainty (rechtszekerheit), usefulness (zweckmassigkeit), and justice (gerechtigkeith). These three elements are by Gustav Radbruch said as supporting legal ideals (idee des rechts). The ideals of this law will guide people in their life of punishment. Although these three basic values must exist equally, often these three basic values are not always in harmony relation, opposite, contradictory, tension (spannungsverhaltnis). In the event of such a conflict, what should be prioritized is justice. Local community development policy is typical of policies that can provide opportunities as possible for local communities to determine their own needs and to determine the proper method to meet the needs. The greatest benefit of the empowerment efforts should be enjoyed by the community and local communities, to evaluate and improve the performance of various activities in conserving coral reefs.

Key words: community empowerment, protection of ecosystems, coral reefs

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1. INTRODUCTION

Indonesia, known as the largest archipelagic country in the world, has a very potential marine natural resources. One of them is the coral reef resources that spread almost throughout the waters of Indonesia. Coral reefs of Indonesia is 42,000 km² or 16.5% of the global coral reef area, namely an area of 255 300 km² (Conner, 1986).

At this time more and more complaints arise related to the sustainability of coral reef ecosystems due to irresponsible mode of natural resource management. Center for Oceanographic Research of Indonesian Institute of Sciences (LIPI) released the latest data status of coral reefs Indonesia in 2017. The results of this most recent observations indicate

the condition of coral reefs in the waters of Indonesia is watchful. Approximately 35.15 percent of coral reefs are in poor condition, 35.06 percent are in sufficient condition, 23.40 percent are in good condition, and only about 6.39 percent of coral reefs are still in excellent condition. This observation was conducted in 108 locations and 1,064 monitoring stations throughout Indonesian waters. The measurements of these conditions are based on the percentage of live coral coverage, which is a very good category with 76-100 percent coverage, good (51-75 percent coverage), sufficient (26-50 percent), and bad categories with coverage below 25 percent.

Broadly speaking, the damage of coral reefs in Indonesia is caused by seven major factors, namely (1) coral mining for the purposes of building materials, road building and decoration materials; (2) the use of explosives (bombs), toxic materials, and other destructive techniques in fishing activities in the reef area; (3) marine tourism activities that have less attention to the sustainability of marine natural resources; (4) pollution, whether derived from economic activities on land and at sea; (5) sedimentation due to upland area management which have little attention to the principles of ecological and environmental protection; (6) conversion of coral reef areas into residential, business, industrial and other areas through reclamation activities, such as those occurring in Manado, Lampung and Pantai Carita; and (7) natural causes, including global warming which has resulted in "coral bleaching" and the population explosion of *Acanthaster planci*. Problems in the field of law that became important in the conservation of coral reefs is how the conception of the Law on the Protection of Coral Reefs in Indonesia.

2. CORAL REEF PROTECTION

The resources of coral reefs and all life contained in them is one of the high value natural wealth. The benefits contained in coral reef ecosystems are very large and diverse, both immediate benefits, such as the utilization of fish and other biota, marine tourism and others, as well as indirect benefits, such as the securing of coastal erosion, breakwaters, biodiversity and nurturing, places for foraging and spawning for other biota.

Coral reefs have a role as a source of food, habitat of marine biotas that have high economic value. Aesthetic value that can be used as a tourism area and has a high reserve of germplasm resources. It can also play a role in providing sand for beaches, and as a barrier to waves and coastal erosion. According to Sawyer, coral reef resources have been identified as high conservation value because it has a high biological diversity, beauty, and provides backup germplasm (Dahuri, 1992). Further, Ruinteenbeek said that the coral reef economic value is estimated to be half that of the wet tropical forests of US \$ 1,500 km per year (Dahuri, 1992).

The rapidly growing population of the world accompanied by the exploitation of natural resources on a large scale without considering its sustainability has considerable impact on the declining quality of the environment, including the resources of coral reefs. It can be seen from the general condition of the world's reefs are almost 36 percent in a critical state due to excessive exploitation, 22 percent threatened by pollution from the waste land and erosion as well as the 12 percent in danger of pollution (Nybakken, 1992).

Exploitation of natural resources in the coastal areas and small islands on a large scale without considering its sustainability also has impact on the declining quality of the environment in the region, including coral reefs. If there is no national effort to stop the rate of degradation of coral reefs, it is possible that the degradation of coral reefs will be more extensive and large. Hence, the formulation of national policies on coral reef management is

an absolute matter by the government in order to reduce or stop the rate of coral reef degradation which from time to time is increasingly widespread and large.

The increasing variety of utilization activities of coastal and marine resources, as a consequence of population growth in the region has led to a variety of pressures on coral reefs in the region. Destruction of coral reefs would threaten the productivity. It ultimately has serious social and economic consequences for local communities, especially traditional fishermen who depend on coral reef resources. Given that they are the ones who often live below the poverty line. Therefore, it becomes very important that coral reef utilization and management activities apply the principles of marine conservation area management system through integration, participation of multi stakeholders.

Protection and conservation of natural resources in Indonesia can be done by setting aside locations that have the potential diversity of marine species, natural richness and uniqueness of the ecosystem. Conservation areas basically are last gate for protection and sustainable use of marine resources and ecosystems. This way is expected to protect the sustainable life support system, preservation of germplasm resources and ecosystems and the use of natural resources in a sustainable sea.

Coral reef ecosystems in essence have multi-functional properties (Nybakken, 1992). In addition to the habitat of various types of biota, this ecosystem also functions as a biological resource, a source of beauty and physical protection of the island. As a habitat, coral reef ecosystems are a place to live, shelter, feed and breed biota, both living on coral reefs and from the surrounding waters. As a tropical sea floor ecosystems, coral reef communities are dominated by lime-producing marine life, especially stony corals and calcareous algae. They are able to grow rapidly at an average depth of 2-15 meters, and the light is the main factor affecting the vertical distribution (Soewignyo, 1989).

In general, threats to the existence of coral reef ecosystems come from human activities and the influence of natural factors. Various human activities that threaten the integrity of coral reef ecosystems including the use of fishing gear that is not environmentally friendly such as the use of compressors, apotas, bomb, anchor moored at the reef, as well as damage to corals from maritime tourism activities such as diving and snorkeling. While natural factors that cause damage to coral reefs include damage due to seasonal influences, especially westerly and easterly winds, predation performed by the crown-of-thorns starfish (*Acanthaster planci*) as well as the phenomenon of climate change. Increased sea surface temperatures, which is one result of the climate change phenomenon will cause effects on coral bleaching, and the symptoms of acidification will cause the loss components of the structure of the reef.

Conservation of marine biological resources is one of the implementation of the management of marine resources ecosystem from the degradation due to human activities. Marine conservation area has an important role in conservation program of marine natural resources of marine area. Although this area tends to be more recently settled than inland conservation areas, it requires certain skills to identify, establish and manage it. Utilization of natural resources in the marine conservation environment is usually regulated through zones that have been set up activities that may and should not be done, such as the prohibition of activities such as oil and gas mining, fishing and catching other marine biota with tools that damage the environment, and destruction of the environment to ensure better protection (Sukarno, 1995).

Various studies and observations of coral reef resource utilization indicate that the degradation of coral reefs generally caused by two main causes, namely due to anthropogenic causes and due to the natural causes. Human activity causes the degradation of coral reefs, among others: (1) mining and coral collection, (2) fishing using damaging tools and methods, (3) excessive fishing, (4) pollution of water, (5) the development activities in coastal areas, and (6) upstream development activities. While the degradation of coral reefs caused by nature, among others: global warming, natural disasters such as storm winds, earthquake, floods and tsunamis and other natural phenomena such as El-nino, La-nina and so forth.

All the problems, except those caused by nature, that cause the degradation of coral reefs are basically caused by several factors that become the root cause of the degradation problem. Based on the results of identification and analysis there are ten factors that become the root of the problem, namely: (1) inconsistency in the implementation of the policy taken; (2) inadequate management methods; (3) legal instruments and enforcement of inadequate legislation; (4) lack of awareness and knowledge of the importance and strategic value of coral reefs from various interest of political elite, businessmen, and the public; (5) poverty; (6) greed; (7) inadequate capacity and managerial capability; (8) market demand / consumer behavior; (9) cultural factors / customs / habits; and (10) the status of coral reefs that are open to the public.

Furthermore, it is suspected that there are several other, much more fundamental causes, namely (a) lack of awareness of local residents in preserving coral reef ecosystems; (b) government policies that have not shown optimal attention in maintaining the natural system and environmental quality of coastal areas; (c) weak law enforcement on the protection of natural resources in coastal areas, especially coral reef ecosystems; and (d) the powerlessness of the local population to face such severe economic challenges.

3. THE IMPORTANCE OF LOCAL COMMUNITY EMPOWERMENT IN CORAL REEF PRESERVATION

The importance of the role and function of coral reef ecosystems, unfortunately, has not been matched by a sense of responsibility in its management efforts. One of them is the introduction of technological devices within the framework of modernization on the one hand and the neglected role and contribution of local communities in the management process on the other. Along with that, there is also the marginalization of various variants of local knowledge owned by the local community as well as the social institutions. The process runs within the systematic framework of national policy that is not only too modernist and characterized by state domination but also characterized by a deficit of local community participation. As an example, the process of reclamation forcibly move the community to a residential location that simultaneously revoke relationship immanent them with the natural environment, with the reasons for the increasing regional income and the activities of attractions related to coral reefs, regardless of environmental aspects. In addition, the introduction of various modern knowledge such as the use of explosives, poisonous materials, and other destructive techniques in fishing in coral reefs ultimately limits the direct involvement of local communities. In such a climate, it is difficult, even impossible to expect that conservation of coral reef ecosystems will be sustainable.

Policy measures taken by the Indonesian government in an effort to keep preserve coral reefs as a national treasure, among others (Dahuri, Rais, & Ginting, 1996):

- Seeking legislation for the protection of coral reefs, so there is no legal vacuum in the context of law enforcement for the conservation and protection of coral reefs.
- Seeking efforts to increase awareness and community participation for coral reef conservation.
- Seeking the training, research, and education for coral reef conservation efforts.
- Seeking the the management of conservation area of coral reef ecosystem in order to be optimally utilized, and efficient for the society.

Environmentalists also provide ideas and suggestions to the policy makers to maintain the condition of coral reefs in order to function properly. One of them is the invitation to participate in the activities Friends of the Reef (FoR) in several locations in the Asia Pacific region. FoR's main mission is to generate strategies to increase resilience of coral reefs to be able to cope with the threat of global warming. Recently, the President of the Republic of Indonesia held a meeting in Sydney and has announced and invited countries in the world, especially in the Asia Pacific region to protect the world's coral triangle region known as the Coral Triangle. Indonesia along with five other countries namely the Philippines, Malaysia, Timor Leste, Papua New Guinea and the Solomon Islands announced a coral reef protection initiative called Coral Triangle Initiative (CTI). This initiative has received positive impression from developed countries such as the United States and Australia. Protection of marine biodiversity, especially coral reefs through CTI is closely related to food security efforts to reduce poverty. Maintaining the conservation of coral reefs is not only the responsibility of the fishermen but the whole world population. By instilling education to the wider community, especially those living along the coastline regarding this phenomenon through some media such as leaflets, booklets and other printed communication media should be disseminated to the public, including through electronic media, radio and television. Then the coastal law enforcement and participation in maintaining the integrity of coastal areas, one of which with overseeing and keeping the illegal mining activities in coastal areas should be stopped (State Ministry of Environment, 1997).

The lack of local people's role as it has been so far has actually happened since Dutch colonial rule. Since then there has been a politicization of natural resource management practices characterized by the marginalization of the interests of local communities as well as the hegemony of state interests. Barber (1999) noted that since a long time ago, various natural resources has been commodified functioning political legitimacy to sustain the regime. All the issues surrounding its management were successfully muffled by various state coercive devices until the fundamental changes in the mid-1990s. Horizontal and vertical conflicts are increasingly inevitable that compel the government to reorganize the ideology of development it uses, especially the ideology of natural resource management including in the management of coral reef ecosystems and all its potentials. Reforms become national creeds with a common node that natural resources management should also involve local people because this group is not only the original owner but also the most felt the negative impacts arising from the mismanagement of the various natural resources. In a more specific context, it can be done with community empowerment. The main objective is to increase their ability to independently manage natural resources. Such management bases can be identified, among other, in local knowledge and institutions.

The enactment of Law No. 1 of 2014 on the Amendment to Law No. 27 of 2007 on the Management of Coastal Areas and Small Islands and Law No. 32 of 2014 on the Marine has given a new color in the management of coastal areas and small islands in Indonesia.

Law Number 32 Year 2014 Concerning Marine Article 22 confirms that:

- (1) The government and the regional government in accordance with their respective authorities are responsible for managing and utilizing coastal resources and small islands.
- (2) Management and utilization as intended in paragraph (1) aims to:
 - Protect, conserve, rehabilitate, utilize, and enrich the resources of coastal and small islands and their ecological system in a sustainable manner;
 - Create a harmonious and synergious relation between the government and local government in the management of coastal resources and small islands;
 - Strengthen community and government agencies as well as encourage community initiatives in resource management of coastal and small islands in order to achieve justice, equity, and sustainability; and
 - Improve the social, economic, and cultural values of the community through community participation in the utilization of coastal resources and small islands.
- (3) Management and utilization of coastal resources and small islands covering biological resources, non-living resources, artificial resources, and environmental services are implemented in accordance with the provisions of legislation.

Based on the Article, it has been confirmed that the government and local government are also responsible for managing and utilizing coastal resources and small islands. In the implementation of the duties of its authorities, the government and the regional government may involve the participation of the community. Participation of communities, particularly indigenous communities in the management also confirmed Law No. 1 of 2014 on the Amendment to Law No. 27 of 2007 on the Management of Coastal Areas and Small Islands Article 21 which states:

- (1) the utilization of space and resources of coastal waters and small island waters in the territory of customary law community by customary law community become the authority of local customary law community.
- (2) The utilization of space and resources of coastal waters and the waters of small islands as referred to in paragraph (1) shall be conducted taking into account the national interest and in accordance with the provisions of the laws and regulations.

This Article provides recognition to indigenous peoples to utilize and manage the existing coastal areas of their customary law. Indigenous peoples who manage coastal areas for their livelihoods are granted freedom in terms of the maintenance of location permits as defined in Law No. 1 of 2014 Section 22:

- (1) the obligation to hold the permit as referred to in Article 16 paragraph (1) and Article 19 paragraph (1) shall be exempted for the Customary Law Community.
- (2) the customary law community as referred to in paragraph (1) is stipulated in accordance with the provisions of the laws and regulations.

The Ministry of Maritime Affairs as one of the institutions responsible for the management of coastal areas and small islands in Indonesia has followed the Act through regulation Minister of Maritime Affairs and Fisheries of the Republic of Indonesia No. 40/PERMEN-KP/2014 on the Participation and Community Empowerment in Management of Coastal Areas and Small Islands. The purpose of this Ministerial Regulation is to:

- improve effectiveness and sustainability in the utilization of coastal areas and small islands;
- improve the ability and independence of the community to participate in the Management of Coastal Areas and Small Islands;

- ensure and protect the interests of the community in utilizing coastal resources and small islands sustainably;
- strengthen local wisdom values to support national development process in Coastal and Small Island Management

Over the past few years, local knowledge and social institutions have increasingly gained place and attention in the discourse of contemporary development. It is a reflection of the inadequacy of various variants of development capital used so far on the one hand as well as the recognition of some inherent forces contained in those local aspects on the other. It also reflects criticism and rejection of the hegemony of modern knowledge that is often associated with Western influence or scientific knowledge. These efforts as the form to revamp the previous view that local aspects that are traditionally seen as a serious obstacle to the course of development (Agrawal, 1998). In the spirit of the new development, the local knowledge and the institutions represent the important contributors to the successful development of balanced and sustainable use of natural resources and, therefore, need to be re-established and utilized.

Reiterating the discourse of local knowledge can not be separated from the overly dominant symptoms of the influence of knowledge produced by higher education institutions in developed countries. This type of knowledge is often seen as a superior variety that goes beyond all other forms of traditional judgment. With such typical characters, modern knowledge adopted recklessly in development and applied generically is not just experienced stepping normative - or better known as the ecological fallacy - but mainly not sensitive to the marginalized people who mostly inhabit the poor and developing countries (Agrawal, 1998). Therefore, advocacy, conservation, protection, facilitation and similar efforts are needed, with a primary focus on re-establishing local values as the heart of development management. These efforts are the initial preconditions for dialogue and cooperation so that development can touch its deepest essence, which accommodates the aspirations and interests of the people. In other words, local issues must also be found in local solutions.

In addition to local knowledge, other aspects also need to be considered is the development of local institutions. It needs to be considered for at least two reasons. First, the institutional approach is an approach that is effective in introducing a change, including in the context of local community development. The penetration of institutional organizations through the establishment of community has several advantages such as: (1) the institution or organization is the strength. In a togetherness, an aspiration will be more easily achieved for the organization is a collective container that actually present a more authoritative *power*; (2) institutions or organizations can strengthen and ensure continuity and sustainability; (3) institutions or organizations are helpful to their members by collecting and distributing information and knowledge that makes them understand and aware of what they are striving for, and increase their capacity to realize their goals; (4) The institution or organization can respond to a variety of development and complexity around more quickly and effectively (Rubin & Rubin, 1986).

These advantages is reinforced by the experience of local development through the establishment of small organizations in some developed countries like the US and Europe through the concept of Community Development Corporation (CDC), which is a and comprehensive approach to long-term development that requires the presence of institutions capable of developing and sustaining consistent and flexible strategies run by professionals (Blakely, 1989). The approach adopts private development techniques for public objectives, directs the results to the most vulnerable communities and individuals, mobilizes local

initiatives to realize local, long-term priorities, connects planning with implementation, links complementary projects to strategies comprehensive, blends private and public policy processes, utilizes private and public resources, works in small scope with incentives toward efficiency, and is able to transfer the capacity to run programs.

The presence of community organizations established on a particular platform allows individuals to work more optimally. The presence of such entities is to facilitate the formation of collective action to tackle the problem together, that aims at trying to eliminate the negative impact of orthodox belief that a person's success or failure will basically be determined by the individual effort and sacrifice (rugged individualism), while promoting a sense of efficacy members.

The second reason is the importance of the development of local institutions is their contradictory realities in development practices in the country that is contrary to various theoretical prescriptions of institutional approach. Beyond the various advantages that are inherent in local institutions, the Indonesian government has since decades ago implemented homogenization of policy measures. Thus, institutional development efforts carried out so far more reflects the state government's efforts to enter into society instead of including the public in national decision-making (Mas'ood, 1997). Therefore, state-formed institutions more represent the interests and aspirations of the government and its clients than the real interests of society. These institutions become the device of state patronage within the framework of the enforcement of the state corporatist framework. In such a format, the interests and aspirations of the people, especially the marginalized, are very difficult to accept.

Accordingly, serious efforts and intentions are needed to re-establish the institutional approach to the right path. It is how the institutional approach is geared to engage the community through structural reforms by forming units of local organization easily accessible by the common people and capable of playing a positive role to stimulate the involvement and interest of local groups (Ife, 1996). In line with these expectations and the spirit of regional autonomy, local institutions that exist within a society need to be developed and utilized as one of the basic capital of development.

Despite promising new optimism, local knowledge as well as local institutions are also inseparable from the various shortcomings that require enrichment or adaptation. The most perceived is how to overcome the various dilemmas that accompany its development. The dilemma is between the community participation versus the effectiveness, the empowerment versus the routine, or whether to build capacity or simply meet the social needs of the community, are two dilemmatic issues that are not easy to find. Similarly, efforts are still faced with the structural transformation of attraction between the two interests, namely the control center to ensure the provision of public goods that should be guaranteed to be relatively evenly with local democracy as an expression of the local community preferences.

The most complicated issues arise from the typical character of knowledge and local institutions, ie their specific, unique and local characteristics. These congenital characters demand variation in the various initiatives being undertaken. Replication is also difficult for reasons of difference in context. Competing interest between the preservation in situ also occurs with the development of ex situ. Some of the above dilemma are not enough to relax the reason of the initial optimism of the development of the local aspects into a minimum guarantee for the success of development in general and the management of sustainable coral reef ecosystems in particular. Local communities that are often accused of being the main cause of damage to coral reefs are among the know best about coral reef issues by developing specific knowledge and social institutions. These two dimensions play a very important role

for the conservation of ecosystems, including coral reefs (Santoso, 1999). In the early stages, these aspects need to be empowered with exploration, reproduction and revitalization.

The concept of empowerment of local communities - those who rely on the generosity and availability of resources of coral reefs – is often equated with poverty alleviation efforts toward a more decent living standard to improve the community. In that context, the empowerment of local communities at the same time is an attempt to improve public access to the various things that allow them a decent living standard. Minimally, there are improvements of public access in four main points, namely access to resources, access to more efficient technologies, access to markets and access to funding sources. Although they are very important, the access to these things has not given a final answer to the coral reef ecosystem management efforts on an ongoing basis. If the powerlessness problem is merely understood as an economic phenomenon, the improvement efforts to the access of these things will be very helpful, although there is no guarantee that the exploitation of the natural desire to be stalled or more sensitive to the environment - and therefore promises sustainability. Therefore, the social dimension of the interventions that are reinforced by political intervention is needed.

Intervention of social dimension is a cultural strategy to direct human exploitation of the natural instinct to take advantage of local knowledge and existing institutions whose essence is wisdom. Meanwhile, political intervention is needed to add the charge authorities an initiative that can further have power by force. Both types of interventions are directed to establish a system of incentives as well as disincentive so that there is a clear appreciation of the positive initiatives and strict penalties for misconduct. Within such a framework, coral reef management initiatives on an ongoing basis will be more deeply rooted.

By paying attention to the social dimension of the role of culture, empowerment of local communities in the sustainable management of reefs is of the opinion that the local community is the subject. Without impeding the improvement of economic indicators, efforts to increase the power of local communities will bring long-term and more sustainable benefits. By relying on the knowledge and local institutions, community empowerment will be more effective if it is followed by the support of the political dimension of supporting policies. In this context, the policy of empowerment of local communities is a typical policy that can provide optimum opportunities for local communities to determine their own needs. The biggest benefit of the empowerment efforts should be enjoyed by the public and local communities who will conduct an evaluation to improve the performance of various activities. This is probably the deepest meaning of empowerment as disclosed by Rubin and Rubin (1986) with his concept DARE (Determine, Act, Receive and Evaluate). Such an approach is believed to be able to generate commitment, ownership and local responsibility, and will be more effective if preceded by several important steps such as (1) improving the understanding of local residents on the importance of coral reef ecosystems, (2) providing an incentive for the local population on the preservation of an ecosystem, and (3) providing disincentives for disruption of ecosystems.

In the aspect of fisheries and marine development, the empowerment of local wisdom has not appeared to run synergistic. Many of the programs and activities that involve the development of coastal communities and fishermen generally designed as top down direction. Local wisdom, traditions and customary rules have not become as something that can bridge the success of program development activities. The orientation of the planning and implementation is merely viewed as development projects, not as the efforts of empowerment capable of accommodating local resources along with capital culture which is owned by the

people of Indonesia. Meanwhile, on the other hand, the empowerment of local knowledge and community involvement in the whole process can raise the awareness, motivation, sincerity and seriousness so that they take full responsibility to the success of a program. Furthermore, a positive attitude with regard to the management of coastal resources will be able to survive and become a basic philosophy in building a harmonious social life with other beings, and harmony with the environment in an ecological community. Moreover, the allocation of fisheries and marine development fund for five years is relatively small when compared with the total regional development fund. Conversely, when compared with the economic development of adoption fund of the people, the fund in the fisheries sector is relatively large. However, this condition has not been able to affect the speed of the development of fisheries and marine growth.

4. CONCLUSIONS AND RECOMMENDATIONS

Coral reefs have a role as a food source, habitat for marine biota of high economic value. The aesthetic value that can be used as a tourism area and has reserves of high germplasm resources. It also can play a role in supplying sand for beaches, and as a barrier of the waves and beach erosion. Human activities that can cause the degradation of coral reefs, among others: (1) mining and coral collection, (2) fishing using damaging tools and methods, (3) excessive fishing, (4) pollution of water, (5) the development activities in coastal areas, and (6) the development activities in the upstream region.

On the conservation of coral reefs, concept of empowerment of local communities who depend on the generosity and availability of coral reef resources is often equated with poverty alleviation efforts toward a more decent standard of living to improve the community. In that context, the empowerment of local communities at the same time is an attempt to improve public access to the various things that allow them a decent living standard. Empowerment of local communities in the sustainable management of reefs is of the opinion that the local community is the subject of development. Without impeding the improvement of economic indicators, efforts to increase the power of local communities will bring more sustainable long-term benefits. By relying on the knowledge and local institutions, community empowerment will be more effective if it is followed by the support of the political dimension.

Local community development policy is a typical policy that can provide opportunities for local communities to determine their own needs. The biggest benefit of the empowerment efforts should be enjoyed by the public and local communities who will conduct an evaluation to improve the performance of various activities to preserve coral reefs.

Based on the discussion in this paper, then the recommendations that can be submitted with the application of a progressive law in preserving the coral reefs in Indonesia is the need for coordination among government agencies concerned with land use such as the Department of Fisheries and Marine Resources, Ministry of Agriculture, Forestry Department, Ministry of Tourism, Ministry of Law and Human Rights and Local Government so that it will be obtained an agreement to create a unified policy in order to realize the protection of coral reefs and utilization for the welfare of society.

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