

ISBN : 978-602-98439-7-2

PROCEEDINGS

International Seminar



IPB



PERMAMA

Food Sovereignty and Natural Resources in Archipelago Region



PROCEEDINGS
International Seminar

"Food Sovereignty and Natural Resources
in Archipelago Region"



PERMAMA

ISBN 978-602984397-2



9 786029 843972

ICC-IPB Botani Square
23th -24nd Oct-2012

PUBLIC PARTICIPATION IN CONSERVING THE COASTAL ENVIRONMENT AN ALTERNATIVE IN SUPPORTING THE LOCAL ECONOMY

**Tampang Benyamin Limbong¹,
Tumbel Ferny Margo², Sasinggala Metilistina²**

¹Faculty of Engineering, University State of Manado, North Celebes.

²Faculty of Mathematics and Natural Sciences, University State of Manado,
North Celebes

blimbongtampang@gmail.com

Abstract

Limited carrying capacity of the natural resources available on land to meet the needs of the community has placed and made the coastal and marine environment as providers for alternative raw materials supported by science and technology. Indonesia's long coastline gives an overview of how large the potentials of the natural resources of coast and marine zones are, as well as how difficult to manage and to monitor the utilization. The economic development which manages the wealth of Indonesia such as marine must always consider the natural resources of coast and marine zones in order to provide benefits for the present life and to ensure future life as well. The renewable natural resources of coast and marine zones should be managed in such a way that their functions can always be maintained at all times, and their ability to renew themselves must be maintained. On the other hand, the non-renewable natural resources of the coast and marine zones must also be used economically and can be utilized as long as possible by the community. The environmental management particularly in coastal and marine zones seems very heavy if this activity is only conducted exclusively by the government as the only agent of development; therefore, its partnership with the entrepreneurs and community is required. The present conditions are a great dilemma due to the monetary crisis causing the pressure on the utilization of coastal and marine natural resources. The pressure becomes heavier because most of the coastal areas have been polluted by the human activities as well as by the communities surrounding the areas, fish populations are declining or overfishing, coral reefs are damaged by explosives and chemicals to catch fish, and the beaches are damaged for the pleasure of the people who utilize them.

Keywords: *Participation, Coastal environment*

INTRODUCTION

The importance of environmental preservation has been strengthened with the establishment of amendments of the 1945 Constitution, Article 33, paragraph 4: "The national economy is run based on the economic democracy with the principles of solidarity, efficiency, justice, sustainability, environment, self-reliance and maintains a balance of progress and economic unity". Amendment of Article 33 of the 1945 Constitution strongly links the national economic development and the environment. Therefore, the basic developmental principle currently adopted must be able to reconcile the economic development, social, culture and natural resources in accordance with the environmental insights properly and in harmony.

One point of the five points set out in the amendment includes: "The program of the improvement of the role of the community in the management of natural resources and environment is to increase the role and awareness of the community in the management of natural resources and environment". In the working paper of Key Thought of the Law Draft of the Coastal Management published by the Ministry of Fisheries and Marine Affairs on January 7, 2004, the scope of the regulation of coastal areas in this draft consists of three parts: (1) planning, (2) utilization (management), (3) controlling (supervision). Point d of Controlling section puts the emphasis more on the Object of Coastal Regulation, and this object generally focuses on five aspects: (a) how the related parties manage these vulnerable coastal areas for the benefits of sustainable social-economic development, (b) how they can balance the utilization of coastal resources with the preservation needs, (c) how they can deal with coastal areas that have been damaged, (d) what the roles of government, private sectors and the community in the management are so that good coastal zone management can be guaranteed, (e) how they can protect the community' rights and access to coastal resources which this community has managed, and empower the people to participate in conserving these areas.

Damage and shrinkage of forest areas also have occurred in mangrove forests. It is estimated that between 1982 and 1992, the width of the mangrove forest areas reduced approximately 30%. With the increasing development, it can be expected that the width of mangrove forest areas is shrinking. For example, in the Mahakam delta of East Borneo, mangrove forest has greatly depleted due to its utilization for shrimp farming. Also, the mangrove areas have been utilized for residential and industrial development including the "beach reclamation". With the shrinkage of mangrove forests for fish habitat, the mangrove and marine biodiversity has also declined. Natural productions of fishes, shrimps and crabs have also been affected. Furthermore, the coastal protection

functions have also decreased, resulting in increased coastal abrasion, (Soemarwoto, 2001).

The coastal communities have a certain pattern of social, economic and cultural life where the majority of the fishing communities of Indonesia belong to the low income population. Moreover, this kind of socio-cultural background will also contribute an impact on the level of public awareness in the efforts of coastline preservation.

The success of programs in the field of environmental preservation depends largely on the participation of the community itself. This is consistent with what is described by Soegiarto, (1993), that environmental preservation efforts in Indonesia are only possible if they are supported by all citizens. In other words, the wisdom of the environment should be the property of every Indonesian citizen or should become the habit for all Indonesian citizens.

DISCUSSIONS

Coastal and Marine Areas

Indonesia is an archipelago with more than 17 thousand islands where the length of its coast reaches more than 80 thousand kilometers and its width of waters reaches approximately 5.8 million km² consisting of 0.3 million km² of territorial waters, 2.8 million km² of the waters of the archipelago and 2.7 million km² of exclusive economic zone waters. Sea has many important ecological functions, one of which is climate control, both at global and local levels. Indonesia does not suffer from extreme climate due to the nature of its islands and vast sea. The occurrences of El Nino and La Nina are closely related to sea. Sea is also a large carbon sink; therefore, it becomes one of the determinants of global warming.

Although about 65% of our population or around 150 million people live around the coastal areas, in general, the Indonesian are not marine people. We only have a few dozen coastal ships and only a small number of ships sail the seas; however, small motor boats and sailboats become the major mode of transportation. Only a small number of tribes that have marine soul, such as the Bugis. In fact, at the periods of Sriwijaya and Majapahit Kingdoms, Indonesia was well known as a maritime nation where the people were sailing across the seas of Southeast Asia and Africa.

However, at present, more people make their living from agriculture and other economic activities on land rather than from the sea. In fact, the width of our land areas is much smaller than that of our sea that is about 2 million km², about one-third of the width of the sea. We do not have a lot of scientists in the field of marine; therefore, there have been no scientific reports on marine written by our scientists, so most of the scientific works have been made by the foreigners. Because of this, our knowledge of the sea is very limited, far less than our knowledge of

our land. For example, the land in Java has been mapped, but the mapping of coral reefs has not yet been completed.

Since there are only a few journalistic reports on the marine, the knowledge of the communities on marine is also limited. Also, there are only few children stories on the marine and marine adventures. Moreover, we know only a few marine heroes such as Hang Tuah. This is very different from the Netherlands, for example, which is a small country in the mainland of Europe as the people are very proud of their marine heroes. As a maritime nation, the Dutch had sailed around until they reached Indonesia and colonized our nation for 3.5 centuries, (Soewarto, 2001).

Furthermore, Soemarwoto, (2001) stated that we have viewed the sea as a separator not as a connector to many islands. It can be clearly seen from our plan to construct a bridge between Java and Sumatra, Java and Bali and the rest. In fact, sea is a "highway" which is available for free, and it can be utilized for transportation by ships which is cheaper than other mode of transportations, especially for carrying heavy goods in a large volume. Our attention to the sea is very limited and we are not aware of the potential resources available in the coastal zone and sea except for oil and gas; however, the existing resources have already damaged.

The Role of the Communities

Article 5 of the Environmental Management Law states that: (a) every person has the right to have a better environment and healthy living, (b) every person has the right to obtain information on environment related to the role in the environmental management, (c) every person has the right to play a role in the environmental management in accordance with the legislation. Paragraph (2) states that the right to obtain information on environment is a corollary of the right in playing the role in the environmental management based on the principle of openness. The right on the environmental information will increase the value and effectiveness of participation in environmental management as well as open an opportunity for people to actualize their right for better environment and healthy living, (BPHN, 1977).

Steiger, *et al*, (1980) stated that the so-called subjective right is the most widespread form of protection from a person. Such right gives the person who owns it a legitimate claim in asking for his or her interests of a good environment and healthy living to be respected, a claim that can be supported by legal procedures, law protection by the court and other devices. The claim has two different functions, namely: (1) the function of defense (Abhwerfunktion), the right of the individual to defend himself against an inference with his environment which is to his disadvantage, (2) the function of performance (Leistungsfunktion), the right of the individual to demand the performance of an act in order to preserve, to restore or to

improve his environment. In other words, it indicates that: (a) the defense function, the individual's right to defend herself or himself against disturbances to the environment which do not benefit him or her; (b) the function of appearance, the individual's right to demand an action to preserve, restore or improve his or her environment.

Furthermore, Article 6 of this Law, (BPHN, 1997), states that: (a) every person is obliged to maintain the preservation of the environment and to prevent and to tackle pollution and destruction of the environment, (b) every person engaged in the business and or activity must provide true and accurate information regarding to his or her environmental management. The article describes that: (1) the duty of every person referred to in this article shall not be separated from his or her position as a member of the society reflecting his or her human dignity as an individual and social being. This obligation implies that every person contributes to developing this culture of cleanliness of the environment and joins counseling and guidance activities in the environmental field; (2) the true and accurate information is intended to assess the compliance of responsibility of businesses or activities toward the provisions of the legislation. Article 7 suggests that (1) all citizens have equal and great opportunities to play a role in the environmental management, (2) the implementation of the provisions of paragraph (1) will be achieved by: (a) increasing the self-reliance, empowerment and partnership; (b) developing the skills and initiative in reporting; (c) fostering the responsiveness of the communities in conducting a special supervision; (d) providing ideas and recommendation; (e) conveying information and/or submitting a report. Article (2) letter (a) states that the self-reliance and empowerment of the communities become a prerequisite for improving their capacity as actors in the environmental management together with the government and other development actors. Letter (b) states that improving the ability and initiative of the communities will enhance the effectiveness of their role in the environmental management. Letter (c) states that improving the responsiveness of the communities will further decrease the likelihood of negative impacts. Letter (e) states that the increasing perception will increase the speed of information dissemination on an environmental problem so that it can be solved.

Gundling (1980) presented a number of views for public participation as follows: (a) to provide information to the government. Public participation will primarily add specific knowledge about an issue, whether derived from the specialized knowledge of the community itself or from the experts who are consulted by the public; (b) to increase public willingness in accepting a decision. A citizen who obtains the opportunity to participate in decision-making and is not expected to be a fait accompli tends to show a greater willingness to accept and adjust to the decision; (c) to assist in the law protection. When a final decision is made

with respect to the existence presented by the community during a decision-making process, in most cases, there will be no need to take the case to the court, and (d) to democratize the decision-making. In relation to public participation, there is a view stating that in a representative system of government, the right to carry out the process is in the hand of the people's representatives, acting for the benefits of the communities.

According to A. Van Driel and J. Van Vliet, in Makarao, (2006), in the Netherlands, *inspraak* institution is known as an agent in implementing the functions of democracy. *Inspraak* is a social institution, not a goal and not a substitution of the decisions made by the parliaments. *Inspraak* has three elements: (1) an organized structure, (2) discussions conducted by executives and planners institutions where there are freedom of speech (*spreekrecht*) for the community and duty to listen (*luisterplicht*) for the officials, (3) the results of *inspraak* to reasonable limits can affect the final decision of the government. *Inspraak* is conducted at the idea formulation phase, planning phase and the establishment of a project phase. In the preliminary of the Government Memorandum submitted to the Tweede Kamer on 19 September 1972, in relation to the openness of the policy formulation regarding the environmental management at the national, regional and municipality levels, the Dutch government stated that "the government considers that it is very important to make decisions that have an influence on the structure of the environment and the quality of the environment of the people are not made before those people whose environment is affected by the decisions participate and shares their thoughts". Additional information, either from the government to the people or vice versa, and a general discussion generally have a significant meaning to the implementation of democracy and for the improvement of the quality of government policy, including the field of environmental governance (Makaro, 2006).

In this study, the community participation in preserving the coastal environment was analyzed from several aspects, namely: (a) Participation, (b) Assistance in Prevention, (c) Provision of Ideas, (d) Supply of Information. Meanwhile, the objects of the coastal zone in the context of this study included: (1) coral, (2) gravel, (3) sand, (4) waste, (5) fish. The theoritical framework model can be described as follows:

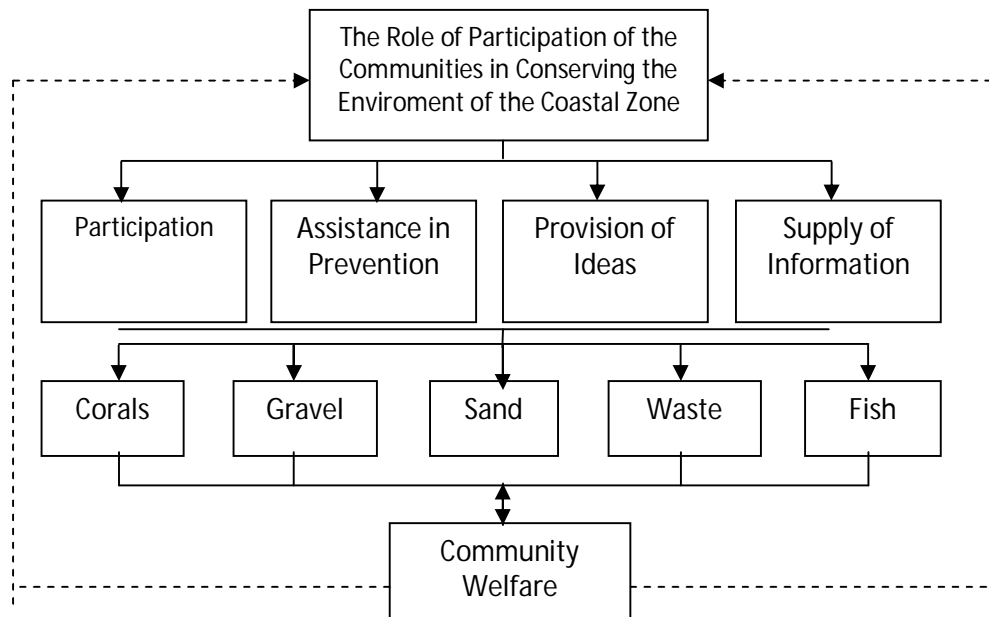


Figure 1 Theoretical framework

Environmental management particularly in the coastal and marine zones is very heavy when only conducted exclusively by the government as the only agent of development; therefore, it is necessary to create partnerships with the business community and the communities. The present conditions are a dilemma due to the monetary crisis, causing pressures on the utilization of natural resources of coastal zone. The pressure becomes harder because: firstly most coastal areas are polluted by the human activities and by the surrounding communities; secondly, fish population is degrading or overfishing; thirdly, coral reefs are damaged by peledan materials and chemicals in order to catch fish; and finally beaches are damaged for the pleasure of human beings. These conditions are increasing since the communities want to earn a steady income.

Another obstacle also related to the size of the range of coastal and marine zones is the load of the population which is unevenly distributed, and the poverty of the communities, especially the fishermen. The low level of education and lack of physical infrastructure to reach more remote coastal and marine zones complicate efforts to reach maximum management. This is supported by the result of the study by Looks (2000) who concluded that: "there is a very significant relationship between the level of knowledge and perceptions of the communities in the participation of conserving the coastal zone of Malayang Manado Municipality i.e. by 0.71. The linkage revealed that 50% of the variations occurring in the community participation in conserving the coastal environment were

determined by a combination of the level of knowledge and perceptions of the community itself. This is also supported by a number of views from the experts stating the educational background, level of knowledge and logic that every member of the community possessed enabled the community not only to understand the environment but also to meet their needs by balancing the available natural resources, (Department of Education and Culture, 1988). Likewise, Soegiarto (1993) stated that those who are still damaging the environment can be called "miseducated learners". Education should now be directed toward the formation of attitudes and awareness behavior on the preservation and enhancement of the environment for the survival of human beings and the natural environment.

Therefore, how can we utilize the potentials of tropical marine resources possessed only by a tropical country, including Indonesia with its richest biodiversity maximally and sustainably? For this reason, we require a direction for our thoughts and for our national policy regarding the utilization of marine biodiversity as the main base for product sustainability for the revenue of the state in the long term.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- a) Rapid population growth in coastal zone creates greater conflicts among the coastal users, especially in the utilization of land, water and other resources. The negative impact of the development of human settlement and industry is considered more critical in coastal zone as the zone becomes the final point of land and river-based pollutions.
- b) The economic development of Indonesia in managing the properties of Indonesia such as marine should always consider the natural resources of the coastal zone and sea not only giving the benefits to the present life but also ensuring the future life. The renewable natural resources of coastal zone and marine should be managed in such a way that their functions can always be maintained at all times and their ability to renew themselves must also be supported.
- c) The environmental management particularly in coastal zone and sea becomes very heavy when it is only performed exclusively by the government as the only agent of development; for this reason, partnership with the entrepreneurs and the coastal communities are required.

RECOMMENDATIONS

- a) It is suggested that the integrated Coastal Zone Planning management become an authority process began from the planning board to legal and institutional framework to ensure integrated coastal area planning and to monitor the benefits of the implementation of the programs.
- b) In an effort to increase community participation to preserve the coastal environment, it is expected that the government acts as an effective agent of extension of the environment, presenting the importance of environment and the consequences if not preserved to the coastal communities through lectures, newspapers and electronic media.

REFERENCES

- Badan Pembinaan Hukum Nasional. 1997. Pengelolaan Lingkungan Hidup. Undang-Undang No.23 Tahun 1997. Departemen Kehakiman RI. Jakarta.
- Dahuri, HR. 1996. Pengelolaan Sumber Daya Wilayah Pesisir dan Lautan Secara Terpadu. Pradnya Paramita. Jakarta.
- Danusaputro, SM. 1996. Pencegahan Pencemaran Laut. Seminar Segi-segi Hukum dari Pengelolaan Lingkungan Hidup. Badan Pembinaan Hukum Nasional Universitas Padjajaran. Bandung.
- Gundling, L. 1980. Public Participation in Environmental Decision Making. In Trends in Environmental Policy and Law. IUCN. Gland. Switzerland.
- Kementrian Lingkungan Hidup. 2004. Pedoman penyusunan peraturan Daerah di Bidang Pengelolaan Lingkungan Hidup. Jakarta.
- Kementrian Lingkungan Hidup. 2004. Himpunan Peraturan Tentang Pengendalian Pencemaran Air. Jakarta.
- Makarao, MT. 2006. Aspek-aspek Hukum Lingkungan. Indeks Kelompok Gramedia. Jakarta.
- Soegiarto, A. 1993. Pengantar Ekologi. Remaja Karya. Bandung.
- Soerjani, MA. Yuwono, D. Fardiaz. 2006. The Living Environment, Education, Environmental Management and Sustainable Development. Institut Pendidikan dan Pengembangan Lingkungan. Jakarta.
- Soemarwoto, O. 2001. Atur Diri Sendiri. Paradigma Baru Pengelolaan Lingkungan Hidup. Pembangunan Ramah Lingkungan: Berpihak pada Rakyat, Ekonomis, Berkelanjutan. Gadjah Mada University Press. Yogyakarta.
- Steiger, H. 1980. The Fundamental Right To Decent Environment. In Trends in Environmental Policy and Law. IUCN. Gland. Switzerland.

Proceedings International Seminar
"Food Sovereignty and Natural Resources in Archipelago Region"
