



Optimizing the Utilization of Potential Fisheries Resources in Coastal Communities

Ahmad Midrar

University of Muhammadiyah Makassar, Indonesia

Corresponding Author: Ahmad Midrar



Article Info

Article history:

Received 07 January 2020
Received in revised form 14 January 2020
Accepted 24 January 2020

Keywords:

Fisheries
Aquaculture
Coastal Communities

Abstract

Lack of fish catch is one of the problems faced by coastal communities. From the fish farming activities in the sea, the community can obtain enormous economic benefits and support the economic growth of the family through the sale of fish from aquaculture. The government has given the opportunity and responsibility to the community in managing its resources, where the community itself has a need, goals, and aspirations and the community also makes decisions for their welfare. Socialization is needed regarding the importance of keeping coral reefs because the benefits are very good for coastal communities. The challenge faced is because coastal communities are increasing the ability and knowledge of the community about the importance of protecting ecosystems and capturing fisheries that are safe for the environment.

Introduction

The existence of a large human population near the sea is very closely related to the various types of utilization of fisheries resources found in the sea itself. An area that has various potential fisheries resources in the village. The potential wealth of these fishery resources that our country has is very large so as to provide benefits to coastal communities in general (Salm et al., 2000).

Utilization of fishery resources on the sea coast, on the surface of the water, under the sea and under the sea has been going on since time immemorial, even when humanity has not known advanced civilization as it is today. The sea is used by humans to meet various types of needs. At present, the level of utilization of fisheries resources on the coast is still far from optimal and sustainable levels, so it requires continuous efforts in the context of more optimal management and utilization. Integrated Coastal Management Planning, a coastal area is defined as a transitional area between interacting terrestrial and marine ecosystems, which is towards the sea 12 miles from the coastline for the province and one-third of the sea area for the district/city and towards the land boundaries of the district or city administration (Sugandi, 2011).

However, the phenomenon is that there are still problems in almost every coastal area in Indonesia found poverty and underdevelopment that still plagued both in terms of welfare and income levels if this is compared with people who live in urban areas. Management of fisheries resources is still considered not going well. Although there are regulations that govern this, the management is still considered to be overlapping. In fact, proper management is the key to utilizing existing fishery resources in the archipelago sea.

Systemic Perspective in Viewing the Fisheries Sector

Fisheries is a business world that requires to be understood with a systemic approach, which sees the system of production, distribution/marketing, and consumption as a single system because of the strong links between one another (Charles, 2008).

In the world of fisheries where the commodity is perishable, the success of catching fish will not necessarily bring benefits to fishermen. Fishermen will get profits and quick results if the fish from their catches enter the market, if there is no market, the fish from the fishermen's catch will rot and must be discarded (Awuondo, 1988; National Research Council, 1999).

Fish which are potential to be cultivated in the sea are of many types depending on the ability of the cost of the cultivators to procure aquaculture facilities and infrastructure (Finley, 2011). In the development of coastal areas, one of the economic developments that are being pioneered by the government is the development of fish farming. Fish is very potential to be carried out in sea waters because the sea is a very good place to live for fish.

Tuna commodity has also begun to be cultivated by the community. Aquaculture in the sea benefits from resources by taking the resources in the form of fish. From the fish farming activities in the sea, the community can obtain enormous economic benefits and support the economic growth of the family through the sale of fish from aquaculture.

The government has given the opportunity and responsibility to the community in managing its resources, where the community itself has a need, goals, and aspirations and the community also makes decisions for their welfare. Then we need a program design that emphasizes the empowerment of the community itself so that later it is able to utilize the potential of fisheries resources in the vicinity.

The Character of Fisheries in the Indonesian Sea

Indonesian marine fisheries with a large number of fishermen, small boat sizes, of course, their cruising capacity is also limited. Therefore it can be ascertained that the location of the capture of the majority of fishing efforts in Indonesia occurs in coastal or coastal waters. This character also reflects the fishermen's low capital capacity.

In various coastal communities, it is shown that, due to the limited capital, fishermen often also depend on other parties to fund their procurement of equipment and production activities.

Optimization Strategy of Fisheries Resource Utilization.

Some strategies to optimize the utilization of fisheries resources in villages are: (1) Encouraging the development of offshore fisheries. This strategy has a double function. This strategy directs fishermen to catch fish in the middle of the sea to reduce the burden on coastal waters. (2) Adjusting the characteristics of fisheries, as explained above. Adjustment to the characteristics of a fisheries business is done by developing knowledge transformation models. (3) A systemic approach requires that the policy for optimizing the use of SDI not only be focused on fishing efforts available.

Fish Catching

Fishing is the most common activity found on the coast and the sea. Fishermen use various tools to catch fish. Various types of fish are caught by fishermen for consumption and sale purposes (Allison & Ellis, 2001). Fishing gear is operated by fishermen in various types and sizes. Spears are the oldest fishing gear and have been used since the days of hunting. Fishing is a technology that is already quite advanced, while nets is a more advanced technology. In the modern era, fishing technology is growing rapidly, marked by the emergence of various fishing gear modifications, such as nets developed into trawlers, fishing rods are developed into longlines and longlines. Along with the development of fishing gear, the fishing fleet is

also increasing in its capacity. The 21st-century fishing has come to an alarming condition, where overfishing has occurred everywhere. Overfishing is caused by excessive fishing efforts both in the number of tools, the number of fishing fleets and the types of fishing gear that are operated can result in quality deterioration and can even damage fisheries' productivity (Pertiwi, 2011).

In the process of catching fish using explosives, it is very damaging to coral reefs so that it negatively impacts the balance of the marine ecosystem. One bomb can kill about 50 square meters of coral area. By using bombs many fish die because of the bomb blast and will reduce the population of fish that are on the coast.

Observation of the Coastal Community Situation

Lack of fish catch is one of the problems faced by coastal communities. From the various series of activities carried out, researchers found several reasons including the percentage of coral reefs living in reduced lives, the lack of coral reefs living can also reduce marine biota such as fish that make coral reefs as their home. Many coral reefs have soft surfaces so that there are also many that porous to the point of destruction caused by the actions of local people who are not responsible and do not understand the importance of protecting coral reefs because of its long-term benefits. This is reinforced by the findings of coral reefs with a former bomb. Furthermore, what makes the existing habitat around coral reefs reduced is that it is made coral reefs as the foundation of a coastal community's home.

Improvement efforts of researchers and various stakeholders who have conducted discussions with coastal communities are to find coral reefs who still live around the west and east coast and then coral reefs who live are placed in areas suitable for coral reefs growth. The appropriate place is a place where small fish are located. Placement of coral reefs which is still complex is also placed in areas not reached by "naughty" people who continue to bomb. Aside from the issue of coral reefs placement, another effort is to provide socialization about the importance of keeping coral reefs, because the benefits are very good for coastal communities. One of the challenges we face is that coastal communities are still classified as having a low level of education, which causes awareness of the use of environmentally friendly marine and fisheries resources that are still low. The education of coastal communities is still relatively low, causing various problems.

Conclusion

National fisheries resources are prepared to become one of the main economic contributors to Indonesia in the future. Great potential, the reason for fisheries resources is hoped to sustain the national economy but in order to develop, fisheries resources must be managed properly and correctly. Including, by involving coastal communities and small-scale fishermen who become the dominant profession in the coastal region. In addition, it is also necessary to arrange the management of fisheries management areas which are considered to be able to improve Indonesia's competitiveness in the international world and can improve management even better.

References

- Allison, E. H., & Ellis, F. (2001). The livelihoods approach and management of small-scale fisheries. *Marine policy*, 25(5), 377-388.
- Awuondo, C. O. (1988). *Co-operatives and Perishable Commodities: The Case for Fisheries Development*. 1988, 119-125.
- Charles, A. T. (2008). *Sustainable fishery systems*. John Wiley & Sons.
- Finley, C. (2011). *All the fish in the sea: maximum sustainable yield and the failure of fisheries management*. University of Chicago Press.

- National Research Council. (1999). *Sharing the fish: toward a national policy on individual fishing quotas*. National Academies Press.
- Pertiwi, W. (2011). *Komposisi Jenis dan Ukuran Ikan yang Tertangkap dengan Sero dan Pukat Pantai di Perairan Kota Palopo, Provinsi Sulawesi Selatan*. Universitas Hasanudin (ID): Universitas Hasanuddin Makassar.
- Salm, R. V., Salm, R. V., Clark, J. R., & Siirila, E. (2000). *Marine and coastal protected areas: a guide for planners and managers*. IUCN.
- Sugandi, D. (2011). Pengelolaan Sumberdaya Pantai. *Jurnal Geografi Gea*, 11(1).