Optimization of Marine and Fisheries Resources in Central Java: A Challenge to Contribute in Realizing Indonesia as a Maritime Axis

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Abstract: Indonesia has a vision of being the World Maritime Axis. Government agendas related to this vision include the development of maritime culture, management of maritime resources, infrastructure development and maritime connectivity, diplomacy and defense of maritime security. Marine resources have enormous potential for national economic development in order to realize the ideals of Indonesia as the world's maritime axis. As a developing country, Indonesia will immediately establish and strengthen cooperation with developed countries for the development of technology for exploration and exploitation of marine resources. This study aims to study how to optimize marine and fisheries resources as an effort to increase economic development in Central Java as an effort to realize the Indonesian state as a global maritime axis, with a qualitative research approach and descriptive methods the following research results are obtained. Central must be able to establish and strengthen cooperation with developed countries for the development of technology for exploration and exploitation of marine resources. In addition, to realize the ideals of Indonesia as the center of world maritime, the Central Java government must prioritize improving the safety and security of the sea area. In addition, there are several challenges faced in the context of optimizing marine and fisheries resources in the future, including the level of exploitation of fisheries resources, decreasing production from capture fisheries, the level of fish consumption which is still low, violations of IUU Fishing and high yield losses and problems uneven distribution.

Keywords: Central Java; fisheries; management of marine resources; maritime policy; optimization; world maritime axis

1 Introduction

Now is a new era for the world economy. Policy making and active global trade in the background of globalization. World organizations both through the WTO and others become encouraging spices. This spirit is based on views and experiences during the trading process. Zero resistance is a concept that is now adopted and developed because it is believed to increase the volume of trade between countries. As the level of productivity changes, the trade flow situation also changes. Currently world trade is held by China (Dewan Kelautan Indonesia, 2012). America and Europe that once controlled even changed and are currently at the point of sluggish trade. This makes existing trade flows change and increases trading volume by up to 45% (forty five percent) of the total sea trade and that uses Indonesia's seas. The era of the Asean Economic Community (MEA) is currently one of the causes of increased trade volume and productivity economy. The two things mentioned above should be able to make Indonesia interpret this as an opportunity and effort to strengthen identity as a world maritime axis country. The logical consequence of the choice being the World Maritime Axis can be achieved through efforts to restore Indonesia's identity as a maritime nation, safeguarding interests and maritime security, empowering all maritime potential for the nation's prosperity, equitable distribution of Indonesia's economy through sea tolls, and carrying out maritime diplomacy in Indonesian foreign policy for the next five years. So that it can be understood, that to get to the World Maritime Axis Country will cover the practices and processes of maritime development in various aspects, such as politics, socio-culture, defense and security, infrastructure, especially economic aspects and regulations (Dimyati, 2014). The strategic position of the Unitary State of the Republic of Indonesia between the crossing of the Indian Ocean and the Pacific Ocean automatically provides many potential marine resources that can be managed and utilized for the future of the nation and the backbone of national development, but the optimal utilization of the Sea Resources (SDL) potential should be directed at utilization of fish resources by paying attention to existing carrying capacity and sustainability in order to improve people's welfare (Djauhar, 2014). The abundant amount of fish in Indonesian waters should not only be caught and stolen by foreign

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vessels, but instead given to local fishermen to improve the welfare of the population in the coastal and surrounding areas (Habibi, 2012).

Actually with a broad exclusive economic zone, there are many factors that can be explored potential, including aquaculture sector, fisheries processing sector, exploration and exploitation of open ocean energy resources, and of course the capture fisheries sector (Rizgiyah, Suroso, & Sriyanto, 2015), much has been explored so that it opens up huge opportunities for foreign vessels to illegally dredge Indonesia's marine wealth. The capture of foreign-flagged vessels which have recently been reported by the media is evidence that Indonesia's marine wealth is very large and cannot be used to improve people's welfare. A lot of potential can be explored in Indonesia's marine resources. For example, if you explore the potential of fish in the Indonesian sea, the export value of fish should be high. But this does not occur because of internal factors, namely the lack of power consumption of fish in Indonesian society itself. This has caused the Indonesian domestic market to fish to be still low (Bruno, Hellendorff; Thierry, 2014). By increasing fish consumption in Indonesian society, it is expected that an increase in the domestic market can also increase export value. In addition, the government is required to creatively campaign for fish-loving programs, as initiated by the Ministry of Maritime Affairs. With the public increasingly aware of the benefits of marine fish, the level of fish consumption in the domestic market will also increase. The role of the maritime and fisheries sector in national development is primarily to encourage the growth of agro-industry through the provision of raw materials, increase foreign exchange through increased export of marine and fishery products, increase opportunities and opportunities for employment, increase the income and welfare of farmers or fishermen and support national development through tax from existing transactions (Bruno, Hellendorff; Thierry, 2014). The fisheries sector is one of the important sectors in supporting the national food security program. Indonesia has enormous marine and fisheries potential. The length of the coastline owned by Indonesia is the fourth largest in the world, which is 95,181 km (Mukhtar, 2009) while the area of Indonesia's sea reaches 5.8 million km2 with an archipelagic waters reaching 2.3 million km2. The potential of aquaculture owned by Indonesia consists of 3 types, namely the potential of freshwater aquaculture (2.23 million ha), marine aquaculture (12.5 million ha) and brackish water aquaculture (2.9 million ha). While the potential of capture fisheries owned by Indonesia includes 11 Fisheries Management Areas (WPP) and the potential of public and mainland waters reaching 54 million hectares with potential utilization of 0.9 million tons / year

Based on the background of the problem above, this study aims to examine the problem of optimizing marine and fisheries resources as an effort to increase economic development in Central Java as an effort to realize the Indonesian state as the world's maritime axis.

2 Research Methods

The research approach used in this study is to use a qualitative approach that is used in order to understand the phenomenon that is the object of research and then presented descriptively. In general, qualitative consists of three stages. The first step is to begin with steps to collect, examine, and reduce all available and obtained data from various sources for analysis. The second stage is the presentation of data where the data has been reduced and analysed so that it can be the basis for the next steps to be taken whether to continue the analysis or make conclusions. The third stage is conclusions. The type of qualitative research used in this paper is a case study that focuses on explaining a case or phenomenon. In addition, this paper also uses explanatory type data analysis techniques in which this paper intends to make a systematic, factual, and accurate explanation of a particular problem or phenomenon by collecting data that is in accordance with the actual situation and presenting and analysing the data to obtain information necessary so that conclusions can be drawn in the form of a clear and comprehensive picture of why a phenomenon occurs and make a recommendation if needed (Suryabrata, 2003).

3 Result and Discussion

Indonesia is one of the largest exporters of fishery products in the world. Most of Indonesia's fisheries production is contributed by the fishing sector and is supported by the cultivation sector. By looking at the condition of marine and fisheries resources in Indonesia where conditions are fully exploited and over exploited in several regions, fisheries production from the fishing sector begins to decline. In 2003, Indonesian capture fisheries were able to contribute production to 79 percent of national production. However, capture fisheries production decreased to 56 percent in 2008 (Thiono, 2010). Even so, there are several problems and challenges to being able to rise and prosper in the marine sector because there are many problems. It can be started from the identification and utilization of SDL, management of bureaucracy, revision of legislative regulations, efforts to increase investment, etc. Identification must be done to facilitate the government and policy makers to produce solutions that are solution and relevant (Dimyati, 2014)..

The government needs to make a more significant and massive effort to make the marine sector the backbone of Indonesia's economic development. These efforts are for example First, management of SDL and sustainable and community-based fisheries. This management is in the form of an integrated process starting from information gathering, analysis, planning, consultation, conclusions, source allocation and its implementation regarding all potentials both renewable and non-renewable marine and fisheries resources (Djauhar, 2014). This management must lead to how the current SDL is able to meet the current needs and needs of future generations, where sustainability aspects must include ecological, economic and social aspects (Kusnadi, 2002).

Second, to encourage an increase in the value of marine and fisheries investment from domestic investment. This is intended so that the potential of SDL and fisheries owned by this nation can be enjoyed by its

own citizens. In addition, the government needs to conduct a more detailed study of fisheries businesses that can be developed in Indonesia in the years to come (Bruno, Hellendorff; Thierry, 2014). This is important because the millennial era requires innovation and creation. The acceleration of economic growth can be achieved through these innovations and creations. Conversely, a program will stop when there is no invasion and creation (Bruno, Hellendorff; Thierry, 2014; Dimyati, 2014).

Third, improve the competitiveness of marine and fishery products in the international market. Governments, industries, academics and the public should be able to cooperate synergistically to increase the value of competitiveness of these products. The partnership pattern between the four elements is very meaningful in driving the quality of marine and fishery products (Dimyati, 2014). In addition, there is also a need for programs to improve Human Resources (HR) in the form of training, counselling and skills that are more integrated to the people who work and will work in the fisheries and marine sector (Djauhar, 2014).

Fourth, the state as soon as possible arranges regulations to be able to optimize the potential of fisheries and maritime affairs. The regulation can be a problem solving for fisheries problems and Indonesian kelutan (Djauhar, 2014). For example, the issue of regional autonomy and decentralization and disputes regarding outermost areas and borders with regulations If good regulation and socialization to the community is expected to spur growth economy in the marine and fisheries sector (Bruno, Hellendorff; Thierry, 2014).

Based on all the potential and challenges that Indonesia has as a consequence of the reorientation of development policies towards the development of the maritime economy, the development paradigm of the marine and fisheries sector must also be shifted into a priority for economic development (Bruno, Hellendorff; Thierry, 2014; Diauhar, 2014).

These efforts must be oriented to the maritime region that is integrated with the development of land areas. Maritime development will ultimately help increase efficiency and effectiveness in economic activities that develop on land. Thus, there will be a domino effect that will gradually improve the welfare of the community, especially the people in coastal areas (Bruno, Hellendorff; Thierry, 2014; Djauhar, 2014).

The development of a paradigm is very minimal with the support of adequate quantitative feasibility studies, so as to be able to convince policy makers to really side with the development regime that is oriented to the potential of marine and fisheries. During this time, the one that developed dominantly in the discourse was opinions and arguments built on crude or even abstract data. For example, the potential loss of illegal fishing,

The projection of maritime economic development must be completely equipped with convincing mathematical calculations about the prospects for its contribution to the economy and people's welfare, so as to steal the attention of policy makers. Thus, by seriously paying attention to the potential of the maritime economy, a solution will be reached for efforts to accelerate poverty alleviation and achieve people's welfare.

Land-oriented development is actually not necessarily a priority, because the thinking paradigm is embedded in the minds of previous policy makers. However, it is precisely due to factors that are far more dominant, namely the fact that there is a greater, more rapid and far more attractive land economy activity than in the sea and facts about the comfort needs of people who of course live on land (Bruno, Hellendorff; Thierry, 2014; Dimyati, 2014; Djauhar, 2014). The solution that is closest to increasing sea and coastal activities is to develop port cities and attractive tourism objects, as Hong Kong has shown by providing the widest opportunity to private investors and property industry players to take a big role in developing the city, ports and tourism objects. Of course

This effort should not be ridden by political and racial interests, so the policy of developing port cities and tourism objects really aims to improve people's welfare. In addition to utilizing fish catches, residents also cultivate fish. This is mostly done on the north coast of Java. The types of fish that are cultivated include shrimp and milkfish. With the size of the SDL Indonesia, it is correct for the government's steps to focus on Indonesia's marine / maritime development. Development is not only about infrastructure but also on protection such as protection against illegal fishing practices where the Arafuru Sea region of Papua is the most vulnerable area to the practice of illegal fishing in Indonesia.

4 Conclusion

Marine resources have great potential for national economic development in order to realize the world maritime axis, however, the regulation and utilization must be carried out carefully so that ecosystem damage does not occur as occurs in land resources. In order to maximize the use of marine products, Indonesia must improve itself in the field of technology, one of which is by building cooperation with technologically advanced countries.

5 Suggestions

In order to realize the ideal of becoming the world's maritime axis, Indonesia must improve the safety and security factors of the coastal and marine areas. This is done so that economic potential and other potential can be maximized considering Indonesia's position is very strategic in the maritime field.

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References

Bruno, Hellendorff; Thierry, K. (2014). Indonesia: a bigger role in the South China Sea.

Dewan Kelautan Indonesia. (2012). Kebijakan ekonomi kelautan dengan model ekonomi biru. Jakarta.

Dimyati, M. (2014). Pemikiran kecil tentang kontribusi strategis iptek untuk mewujudkan poros maritim dunia. In Dialog Nasional Kontribusi Strategis Iptek untuk Mewujudkan Poros Maritim Dunia.

Djauhar. (2014). Kontribusi iptek transportasi laut dalam mewujudkan poros maritim dunia. In *Dialog Nasional Kontribusi Strategis IPTEK untuk Mewujudkan Poros Maritim Dunia*.

Habibi, A. (2012). Perikanan berkelanjutan butuh dukungan data akurat. Retrieved from https://www.wwf.or.id/?25822/perikanan-berkelanjutan-butuh-dukungan-data-akurat

Kusnadi. (2002). Konflik sosial nelayan, kemiskinan dan perebutan sumberdaya perikanan. Yogyakarta: LKIS.

Mukhtar. (2009). Garis pantai Indonesia terpanjang keempat di dunia. Retrieved from http://mukhtarapi.blogspot.com/2009/03/garis-pantai-indonesia-terpanjang.html.

Rizqiyah, S., Suroso, S., & Sriyanto, S. (2015). Kesesuaian lahan untuk budidaya perikanan tambak di Kecamatan Kaliwungu Kabupaten Kendal. *Geo-Image*, 4(1).

Suryabrata, S. (2003). Metode penelitian. PT. Raja Grafindo Persada. Jakarta: PT. Raja Grafindo Persada.

Thiono, H. (2010). Menjaring untung dari ekspor perikanan.