Review on the Analysis and Application of Blue Economy in Indonesia

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ABSTRACT

Indonesia is a country that has very abundant maritime resources that can improve the country's economy. However, this will be a boomerang for Indonesia if it is not accompanied by sustainable resource management. These resources will be exhausted and lost if they are continuously utilized without good management. Blue economy is a concept model of optimizing resources in the waters by utilizing environmentally sound which aims to increase economic growth through various creative and innovative activities. The purpose of this paper is to review the application of the blue economy in Indonesia both in terms of advantages and disadvantages. In supporting blue economy activities, the Indonesian government has implemented four strategies, including improving marine and coastal management systems, because it regulates mangrove restoration, marine spatial planning, and fishing limits. The shift to the blue economy is also expected to be a model for the development of a sustainable marine-based industry and will certainly reduce economic dependence on the extractive sector.

Keywords: Blue economy; Sustainable marine-based industry; Coastal management

INTRODUCTION

Today aquatic resources are very influential for human survival, social development and economic growth. This can be seen from the increase in production and income of fishery products around the world. The fishery sector is considered promising because there are many sub-sectors that support it, such as aquaculture, capture fisheries, to the processing of fishery products.

In producing fishery products, this sector is supported by two sources, namely freshwater fisheries, saltwater fisheries, and those from both. So that the fisheries sector has a strategic role in the national development process, especially in Indonesia itself. Considering that Indonesia has a large water area and the potential for extensive fishery resources. The studies stated that development in the fisheries sector cannot be ignored by the government. The development of the fisheries sector cannot be separated from the potential and problem solving that exists in an area, so that fisheries development can run optimally.

In addition, this abundant resource is a limited resource whose number cannot be known and whose stock is constantly changing over time. Coupled with a resource system that is open

space, thus making aquatic resources increasingly threatened with sustainability. This great potential certainly needs to be taken into account in its use so that this resource can support the collapse of the economy to become a reserve of food sources in the future. In dealing with this, the concept of blue economy was born. The concept of "Oceans Economy" or "Blue Economy" appeared recently and originated from the United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012. At the heart of this concept is the separation of socio-economic development from environmental degradation, which has traditionally been viewed as the global status quo.

Blue economy is the process by which a raw material contained in the universe is managed and follows the way nature works. Blue economy is a concept model of optimizing resources in the waters by utilizing environmentally sound which aims to increase economic growth through various creative and innovative activities. Seeing the benefits of the blue economy in supporting the sustainable aquatic resources of a country/region, the State of Indonesia also implements the blue economy system. However, it is necessary to conduct further reviews and studies on the application of the blue economy in Indonesia such as its advantages and disadvantages. So that later it can be known

what strategy or implementation is right in maximizing the application of the blue economy in Indonesia. The research method used in this literature study is taken from books and journals that are accessed both online and offline.

LITERATURE REVIEW

History of the blue economy

Blue economy is the process by which a raw material contained in the universe is managed and follows the way nature works [1]. Blue economy is a model of the concept of optimizing existing resources in the waters by means of environmentally sound utilization which aims to increase economic growth through a variety of creative and innovative activities. The blue economy concept always emphasizes and prioritizes efficiency since the ratification of the United Nations Convention on the Law of the Sea through Law Number 17 of 1985 concerning ratification of the United Nations Convention. Economic development policy in the marine sector as a blue economy model development for the realization of Indonesia as an independent, strong, developed and nationally interested country. Over time, the blue economy concept continues to develop by focusing on developing countries that have sea areas, which are called Small Island Development States (SIDS) and have always been associated with the development of coastal areas.

The concept of the blue economy was first introduced by Gunter Pauli, a Belgian economist, in his book The blue economy, 10 Years, 100 Innovations, and 100 Million Jobs. In the book, which was first published in 2010, Pauli suggested that industrial processes change to overcome problems that exist in the environment [2]. This is applied by shifting scarce and high-cost energy resources to simpler and cleaner technologies. Meanwhile, the World Bank defines the blue economy as one of the environmentally sound uses of marine resources with the aim of encouraging economic growth, welfare, and preservation of marine ecosystems as well as livelihoods. The studies also posits that the Blue economy as an economic model and at the same time as a new social. This blue economy is different from the red economy that is currently ongoing, namely dredging the contents of the earth and a green economy that focuses on alternative energy. As reported by The Blue Economy page, "Companies must invest more and companies must pay higher for the green economy. Despite the commendable goals and efforts of the green economy, it has failed to explain the fact to sustainability [2].

The significance of the blue economy

Problems related to environmental issues are currently the main thing for the world. This is also a concern for experts who are experts in the field of the environment to immediately overcome the problem. Therefore, a new concept called the blue economy emerged. The concept of blue economy is actually not much different from the green economy which is directly related to the environment, and also prioritizes aspects of a sustainable economy. The importance of the blue economy concept in the economy in the marine sector has several benefits, namely minimizing excessive use of natural resources so that they are

more efficient, producing less waste into the environment, processing waste into raw materials. The blue economy concept has differences compared to the green economy; the blue economy concept prevents waste from scratch while in the green economy it only reduces existing pollution.

This concept emphasizes more on an environmentally sound economy considering that environmental conditions in various countries are declining. There are so many pollutions carried out by humans, especially in the industrial sector. It is undeniable that at this time the industrial sector is the axis of the economy for the future. Several countries in the world have begun to prioritize the industrial sector for economic progress in their countries, considering the many benefits that can be obtained. The transition from the green economy to the blue economy concept is expected to be able to prevent damage and pollution in the environment caused by industrialization activities.

Other benefits of blue economy development are the preservation of marine biodiversity and marine ecosystem's including coastal, as well as sustainable livelihoods, especially for communities living in coastal areas. In addition, the blue economy is also a space to create new innovations and creativity, both in existing and emerging sectors today, so it is not impossible that the blue economy concept can be a driving force for increasing inclusive welfare. The shift to the blue economy is also expected to be a model for sustainable marine-based industrial development and will certainly reduce economic dependence on the extractive sector. The preparation of blue economy development applies an integrated and comprehensive approach, considering that this blue economy involves various sectors and cross-actors. Therefore, this development requires synergy between actors and sectors to be able to handle several challenges in achieving a balance between conservation and utilization of marine and coastal resources to achieve sustainable prosperity.

Implementation of blue economy in Indonesia

The blue economy concept is very suitable to be applied in Indonesian waters because Indonesia is in the form of an archipelago with abundant aquatic natural resources [3]. In realizing the blue economy, several stages of development are needed that focus on 5 main pillars, including (1) Redevelopment or rebuilding of maritime culture born by the ancestors of the Indonesian nation. (2) Safeguarding biological and non-biological resources in waters or seas. (3) Creating sovereignty and welfare of marine staple food. (4) Priorities for empowerment and marine infrastructure must be implemented and (5) Provide connectivity to the country's maritime affairs [4]. One form of government policy in coastal areas that can be combined with coastal conditions is to develop industries based on the potential of fisheries and community waters in coastal areas. The community empowerment approach is based on micro-community economic development. Upgrading infrastructure that is on target in order to encourage the growth of maritime industry activities and trigger and generate new investors in national economic growth. Then, utilizing Micro, Small and Medium Enterprises (MSMEs) of coastal communities

that cultivate catches such as fish, shrimp, and others from the sea are not directly sold to reservoirs but are given a touch of innovation so that the fishery products have competitiveness and have a fairly good price quality so as to provide an improvement in the community's economy while still empowering communities in coastal areas [4].

According to Prayuda et al., the blue economy concept in empowering communities in coastal areas is carried out by revitalizing sustainable development using the concept of digitalization of aquaculture in supporting food independence and security in the maritime sector [4]. With this, Indonesian fishery products have competitiveness and are innovative to support Indonesia's sustainable national development.

Research by Latupapua et al., has implemented blue economy activities for regional communities, especially entrepreneurs [5]. The activities carried out are socialization about good manufacturing products to MSME entrepreneurs so that they can't dispose of the remaining production waste arbitrarily so as not to threaten marine ecosystems and damage the coast. This activity is also useful because entrepreneurs can produce high-quality and hygienic products by paying attention to the factors of the work environment and production processes. The sustainability of these activities can play a role in increasing the number of tourist visits and the income of the local community.

Stakeholder's opinions and outlook

Stakeholders are basically people who have interests or bodies that participate in a certain field ranging from pre, process, and post or the result of an activity. These stakeholders include the government and related communities such as entrepreneurs, workers etc. When referring to the blue economy, stakeholders related to this matter include many aspects. Almost all societies around the world play a role in the sustainability of the blue economy. The World Bank defines the meaning of blue economy as any form of sustainable use of marine resources that play a role in economic growth and the preservation of the health of marine ecosystems [6,7]. Based on this, directly related stakeholders are fishing communities that depend on marine resources, and companies in the field of fisheries, and governments, researchers. These stakeholders are very important in the sustainability of the blue economy.

In supporting blue economy activities, the Indonesian government has implemented four strategies, including improving marine and coastal management systems, because it regulates mangrove restoration, marine spatial planning, and fishing limits. Provide waste management infrastructure and clean water supply, and then improve the data collection system because data is very important as a basis for determining policies, potential development plans, and marine conservation strategies. Data must provide rigid and accurate information. Then, take advantage of the momentum of short-term economic recovery after COVID-19. This is the right moment to start the implementation of the blue economy [8].

The seriousness of the Indonesian government in blue economy activities is shown by the Ministry of Fisheries and Marine Sciences. The Directorate General of Aquaculture (DJB) has prepared a marine and fisheries framework based on Fisheries Management Areas (WPP). From the issuance of an Online Single Submission (OSS) business license for three working days to clear regulations, the Ministry of Marine Affairs and Fisheries is optimistic that Indonesia's blue economy investment holds the key to sustainable prosperity.

DISCUSSION

Along the way, blue economy activities need to receive support from all aspects that affect it such as the community, partnerships and stakeholders. However, these stakeholders are usually not in line with the community's desire to interpret something so that it can cause potential conflicts due to different preferences or interests of stakeholders. Basically, Indonesia has challenges in solving the economic problems of people living in coastal areas [9].

First, the government is considered lacking in seeking to optimize potential, especially in coastal areas, in addition, government socialization related to AEC has not been optimally realized, so many people still do not know about MEA and its challenges and potentials. Second, the community is considered to tend to be passive, even though to realize productivity in the marine business to encourage Indonesia as the world's maritime axis, coastal communities are the main central factor [10]. However, seeing the conditions, the community is reluctant to participate in solving problems that arise in the region. Another challenge that arises in blue economy activities is the high percentage of poverty of coastal communities, the rampant acts of damage and exploitation of coastal resources [11-14]. Then, the fading of local cultural norms and values, the low integrity and independence of social organizations in coastal areas. Finally, there is still a lack of facilities such as infrastructure and health units in underdeveloped residential environments [4].

CONCLUSION

The concept of blue economy is the answer to the challenges of the world economy which is the fact that the current system tends to be exploitative and damaging to the environment. The existing damage to nature is caused by the exploitation of resources that exceed capacity and waste from economic activity. The blue economy is the right solution needed to help repair a broken and environmentally insightful economic order. In addition, it contains new ideas and innovative thinking and offers new choices on how to change the economy in order to create new jobs while maintaining a stable standard of living for the future.

In order to seriously rebuild or redevelop a sustainable fisheries and marine economy, improving economic development by applying the blue economy model is a must. Indonesia as the largest country in the world that has abundant marine and coastal resource potential is a fulcrum of hope that must be developed wisely, especially in the fisheries sector. In supporting blue economy activities, the Indonesian Government has implemented four strategies, including improving marine and coastal management systems, because it regulates mangrove restoration, marine spatial planning, and fishing limits. The

shift to the blue economy is also expected to be a model for the development of a sustainable marine-based industry and will certainly reduce economic dependence on the extractive sector.

Therefore, the application of the blue economy concept assisted by the government and stakeholders side by side will have a positive impact on economic development and the sustainability of fishery resources. Development planning by applying the blue economy model indirectly embraces all levels of society involved to maintain environmental sustainability while providing benefits for them.

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