

THE BLUE ECONOMY CONTRIBUTES TO SUSTAINABLE DEVELOPMENT

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ABSTRACT

Wealth of natural resources needs to be utilized optimally because it can support economic growth, welfare, livelihoods to sustainable development. Efforts to utilize this can be implemented including the blue economy. This study aims to determine the implementation of the blue economy to contribute to sustainable development. This study used a qualitative research method with a descriptive approach, while the data collection technique was carried out by means of a literature study through exploration of journals, books, and other information relevant to the study studies obtained through the official websites of Google Scholar and Scopus with Quartile 1 to 2 qualifications. Research results shows that the Blue Economy reduces the number of unemployed. In addition, the Blue Economy has the power to get better marine ecosystem governance, lower emissions, fairer health standards and become a player in fighting climate change where all of these things can support the creation of sustainable development.

Keywords: *Blue Economy, Contribution, Sustainable Development*

INTRODUCTION

Natural resources have various benefits for human survival, there are various types of natural resources which are generally classified into two parts, namely living and non-living natural resources. Biological natural resources, for example, are plants, animals and microorganisms. While non-biological natural resources include metals, sunlight, soil, rocks, petroleum, water and so on (Brilha et al., 2018).

One of the renewable resources that attracts the attention of researchers is water. Water is one of the sources of people's life whose dynamic existence flows to lower places without recognizing administrative boundaries. Its

existence follows the hydrological cycle which is closely related to weather conditions in an area so that its availability is not evenly distributed at all times and regions (Kusangaya et al., 2021). Water resources consist of water, water sources and water power contained therein (Caponera & Nanni, 2019).

The use of water resources is intended to utilize water resources and their infrastructure, such as the use of rivers for water transportation, as well as the use of water for households, agriculture and industry. The use of this water resource is carried out in accordance with the stewardship and plan for providing water resources that have been determined in the water resources

management plan (Ashfaq et al., 2019).

The development of water resources is intended to increase the potential utilization of water resources to meet the demand for raw water for households, agriculture, tourism, mining, energy, transportation, and other needs (Sjöstrand et al., 2019). There are various types of water sources that are commonly used by the community, such as rainwater, groundwater, surface water and seawater. Sea water in this modern era has been used by many countries as an alternative energy source and as a material that can be used to make something useful.

The components contained in seawater include 96.5% pure water and 3.5% other substances. Other substances contained in seawater, such as salt, dissolved gases, organic matter and dissolved substances. The solute consists of solid inorganic substances containing many ions such as chlorine, sodium, sulfur (as sulfate), magnesium, calcium and potassium, which can be used as coagulants in water and wastewater treatment (Jabeen et al., 2021).

Water with all its uses for life, starting from the molecular level to the global ecosystem, is too low if it only gets instrumental value. Water is life and a source of life, where every life has an intrinsic value so that water cannot be valued or managed as mere 'goods'. Water is more than just a social, economic, religious, cultural and environmental value.

Water resources have a very important role in human life and water resources are limited in number, but with an increase in

population and increased development activities will have an impact on increasing the amount of water demand (Boretti & Rosa, 2019).

The economic value system arises from scarcity which is oriented towards fulfilling human needs alone, so that in treating natural resources it tends to be exploitative and sometimes even destructive. Therefore, an effort is needed to maintain a balance between the availability of water sources and water utilization through development and preservation, improvement and protection. Wealth of water resources needs to be utilized optimally which is pursued by contributing to the blue economy. The blue economy is the use of marine resources in an environmentally sound manner to support economic growth, prosperity and livelihoods as well as the preservation of marine ecosystems (Bax et al., 2022).

This concept aims to provide sustainable benefits, in addition to increasing the welfare of national companies. The blue economy also describes the government's concrete steps towards the pillars of sustainable development. For this reason, it is necessary to involve innovation in conducting the business of developing marine resources as an effort to recover the economy and accelerate inclusive economic growth. Based on the explanation of the background of these problems, researchers are interested in conducting research with the title "The Blue Economy Contributes to Sustainable Development".

LITERATURE REVIEW

The Blue Economy

According to (Pauli, 2010)) in his book entitled blue economy in 2010, the Blue Economy is a model of response to environmental damage caused by exploitative industrialization throughout the 20th century. Preserving the preservation of these extraordinary natural assets and preventing their further decline will require courageous action and political commitment at all levels. Several key priority actions have shown progress and recorded various achievements and are progressive at the national and regional levels in achieving the goals of the CTI-CTF Regional Plan of Action (RPOA) and National Plan of Action (NPOA) lately. Among them:

1. First, regarding the management of seascapes. Indonesia undertook a series of scientific characterizations to identify and describe seascapes with potential transboundary issues.
2. Second, regarding ecosystem-based fisheries management, Indonesia and other countries have taken steps to agree on a resolution on the trade in live fresh fish food trade which encourages the creation of trade patterns that are more fair and profitable for business actors and preserve resources in the region coral triangle
3. Third, develop and strengthen the management of marine protected areas. Indonesia already has 15.5 million ha of Marine Protected Areas (KKP) from a commitment target of 20 million ha in 2020.

Sustainable Development

The definition of sustainable development since it was introduced

by the World Commission on Environment and Development (WCED) as stated in Our Common Future or the Brundtland report, is still in the realm of debate among environmental experts. This gives rise to many interpretations of the definition of sustainable development (Sneddon et al., 2006).

Sustainable development, according to the Commission, is defined as development that meets the needs of current generations without jeopardizing future generations' ability to meet their own needs. Essentially, sustainable development is a change process in which resource exploitation, investment direction and management, and management of technological development and institutional changes are in sync and strengthen the present and future potential for meeting human needs and aspirations.

Three dimensions of sustainable development are mutually dependent and intertwined:

- Economic dimension (economic resources, development, and growth);
- Environmental aspect (natural resources, conservation and sustainable use of nature, as well as pollution prevention and control);
- Social dimension (social resources, solidarity, and poverty alleviation) (The National., 2010).

Policies and policymakers are mentioned as a fourth additional dimension. (Mihajlov, 2010).

The International Union for Conservation of Nature and Natural Resources (IUCN) (1980) in its world conservation strategy defines that to

become a sustainable development, the implementation of development must consider environmental, social and economic factors based on living resources and consider long-term and long-term gains or losses. short of an alternative course of action (De Groot, 1987).

The concept of sustainability is a simple but complex concept, so that the notion of sustainability is very multidimensional and has multiple interpretations. Sustainable development is formulated as development that meets the needs of the present without compromising the right to meet the needs of future generations. Sustainable development implies guaranteeing the quality of human life and not going beyond the ability of ecosystems to support it (Lélé, 1991).

The most widely accepted definition of sustainable development today is one that indicates an integration of the social, economic, and environmental dimensions in corporate and public decision-making, in which they have full participation and contribution. Sustainable development entails environmental responsibility as a prerequisite for responsible social and economic development and, in the long run, environmental security and peace. (Mihajlov, 2010).

METHOD

This research is a qualitative research with a descriptive approach. Qualitative research focuses on understanding the research question as a humanistic or idealistic approach. Whereas the quantitative approach is a more reliable method because it is based on numbers and methods that

can be made objectively and disseminated by other researchers. Qualitative methods are used to understand people's beliefs, experiences, attitudes, behaviors, and interactions. It generates non-numeric data. The integration of qualitative research into intervention studies is a research strategy that has received increasing attention from various disciplines. Although philosophically incompatible with experimental research, qualitative research is now recognized for its ability to add new dimensions to intervention studies that cannot be obtained through the measurement of variables alone (Pathak et al., 2013).

According to (Daly et al., 2007) the descriptive method is carried out by describing facts which are then followed by analysis, not just deciphering, but by providing sufficient understanding and explanation. Data collection techniques were carried out by exploring journals, books and other information relevant to the study. The data sources used as material are the results of research data and journals, books, and other information relevant to the study obtained through the official Scopus website with Quartile 1 to 2 qualifications.

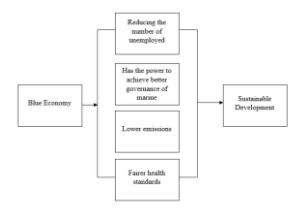


Figure 1 Framework Thinking

RESULTS AND DISCUSSION

The ocean is the most significant component of the earth, covering 70 percent of the planet's surface and contains 97 percent of all water on earth. However, 60 percent of major marine ecosystems have been degraded or are being used unsustainably. The marine environment is in crisis, facing a systemic threat. As global populations and economies grow, the world needs more from the ocean – food, energy, materials and space. But this growth in demand has often been accompanied by trajectories of degradation and inequity in access and benefits from ocean use.

Ocean-based industries provide income, stimulate growth and generate new opportunities. They have also, however, contributed to the degradation of marine ecosystems, conflicts with small-scale users and the loss of biodiversity that often affects lower-income, coastal and island states the most.

One pressing challenge is to sustain healthy ocean ecosystems as economic activity continues to expand and climate impacts accelerate while maintaining access for traditional and small-scale uses. Yet the ocean is also inextricably linked to much broader global sustainable development goals – including increased resilience to climate change and improved social equity.

The Ocean 100 Dialogues is driving collective stewardship across ocean-linked industries to generate global impact and address the connectivity between ocean health and broader net zero and sustainable development objectives. Through these science-based dialogues, companies and scientists are co-

creating commitments and actions that address unresolved ocean-wide challenges while raising the bar for new industry norms and standards to meet the SDGs.

Sustainability efforts across the Ocean 100 companies and the sectors they represent often operate in silos. The Ocean 100 Dialogues offer an opportunity for companies to support existing efforts by governments and civil society to lead on corporate ocean stewardship in the blue economy (Corfee-Morlot et al., 2009).

The Ocean 100 Dialogues is addressing ocean sustainability challenges through topical sprints organized into three overarching marathons on marine biodiversity loss, equity of ocean access and benefits, and climate change. Members of the Ocean 100 Dialogues are working to build a portfolio of blue carbon offsets and insets which would generate significant public benefits beyond carbon sequestration; for example, providing enhanced protection from flooding for coastal communities or helping to support biodiversity and fisheries in particular.

Additionally, the partners are scoping potential cross-industry commitments and action areas to achieve a net-positive marine biodiversity impact such as mapping operational overlaps with ocean biodiversity. Increased transparency in this way could also support a synchronized data platform for robust area-based management measures (voluntary and regulatory) to conserve biodiversity (Gjerde et al., 2018).

“Blue economy” has become a buzzword in recent years. According to the World Bank (2017), the blue economy involves the sustainable use of ocean resources for economic growth, improved livelihoods and jobs, Government Policy, Industrial Clusters, and the Blue Economy in the People’s Republic of China: A Case Study on the Shandong Peninsula Blue Economic Zone 95 and ocean ecosystem health. Since its activities are centered on the ocean, some literature has used the terms “ocean economy” or “marine economy,” which are synonyms for “blue economy.” Particularly in the PRC, for example, government documents and media reports have used “marine economy” more frequently. This chapter will use these terms interchangeably as it aims to include diverse perspectives and cite different sources (Morgan et al., 2022).

The UN specifies Blue Economy as a range of economic activities related to oceans, seas, and coastal areas, and whether these activities are sustainable and socially equitable. An important key point of Blue Economy is sustainable fishing, ocean health, wildlife, and stopping pollution. The UN iterates that the Blue Economy should “promote economic growth, social inclusion, and the preservation or improvement of livelihoods while at the same time ensuring environmental sustainability of the oceans and coastal areas”.

Since 2012, blue economy has entered the phase of practice and exploration. Some countries and regions have proposed strategic framework and action plans for developing the economy.

In 2012, the European Union proposed the “Blue Growth” strategy, specifying that Blue Growth will be the core of marine policies and stating clearly key development areas and specific measures for the future. Blue Growth Strategy has launched initiatives in many policy areas related to Europe’s oceans, seas and coasts, facilitating the cooperation between maritime business and public authorities across borders and sectors, and stakeholders to ensure the sustainability of the marine environment. In 2014, the Blue Economy Innovation Plan was launched, specifying that the plan will be executed from three aspects:

- a. Develop sectors that have a high potential for sustainable job and growth.
- b. Essential components to provide knowledge, legal certainty and security in the blue economy.
- c. Sea basin strategies to ensure tailor-made measures and to foster cooperation between countries.

In 2017, the EU issued the Report on the Blue Growth Strategy Toward More Sustainable Growth and Jobs in the Blue Economy. Blue economy is an integration of sustainable development and green growth. It highlights an overall-planning and coordinated development between marine ecosystem and ocean and coastal zone economic system.

Blue growth supports the sustainable growth of the maritime and marine sectors as the oceans and seas are engines of the global economy and have great potential for growth and innovation. The blue economy embraces economic opportunities. But it also protects and develops more intangible ‘blue’

resources such as traditional way of life, carbon sequestration and coastal resilience in order to help vulnerable states mitigate the devastating effects of poverty and climate change (Martinez-Vazquez et al., 2021).

Proper management and utilization of water resources may assist the stimulation of economic growth and meet the challenges of food insecurity by improving the supply of seafood (Alharthi & Hanif, 2020). A blue economy prioritizes all three pillars of sustainability: environmental, economic, and social. Sustainable development, it is important to understand the difference between a blue economy and an ocean economy. The term implies that the initiative is environmentally sustainable, inclusive and climate resilient.

In addition to providing goods and services measurable in monetary terms, coral reefs, mangroves, seagrass meadows and wetlands deliver critical ecosystem services such as coastal protection and carbon sequestration. Blue Economy has the power to obtain better governance of marine ecosystem, lower emissions, a more just health standard and be a player in fighting climate change. In the recent years, emerging sectors within energy have grown exponentially, and oceans are popular sites for renewable energy. Alternative energy, hydropower and tidal energy are fitting for marine environments. Especially offshore wind (including floating wind turbines) is fast growing and has around for many years, the first offshore wind park erected in 1991 in Denmark, and the quantity of offshore wind farms was 162 in 2020, according to WFO.

Others benefits of Blue Economy are offshore aquaculture wave and tidal energy, seabed mining and blue biotechnology, which uses, among others, shellfish, bacteria, and algae for development in health care and energy industries, such as shipping and tourism, have potential of growing and become greener with new technologies.

Transitioning to a sustainable blue economy is about resilience. Maritime and coastal tourism account for 60% of the employment in the blue economy. Over half of the EU's tourist accommodation establishments are located in coastal areas and 30% of overnight stays are at beach resorts.

A sustainable blue economy can create many attractive jobs. Between 2017 and 2018, employment in marine renewable energy has increase by 15% and it could triple by 2030. So, the Blue Economy contributes to sustainable development.

Aside from this ocean-sized economy, we want to know what the new Blue Economy could and should include. Our coastlines and oceans have enormous potential to meet the needs of sustainable development. And, if they can be kept and/or restored to a healthy and productive state, the ocean will play an even bigger role in humanity's future. The coasts and oceans are, in many ways, the final on-ramp onto our path to sustainable development. (Spalding, 2016)

Blue economy needs compliance with Sustainable Development Goal 14, with the attribute focused on conserve and sustainably use the oceans, seas and marine resources. The core is to realize social economic development and dynamic balance of resources and

environment. In their second preparatory meeting summary, The United Nations Commission on Sustainable Development acting as Preparatory Committee highlighted approaches to adopt “blue economy,” and believes it is consistent with the core contents of RIO+20 Summit (Wenhai et al., 2019).

“We assume, “blue economy” is a sustainable marine economic development model. It is a new development mindset and its essence is to develop marine economy while protecting marine ecosystem well and finally achieving sustainable utilization of resources.” Wang Hong said, Director of State Oceanic Administration under the Ministry of Natural Resources of the People’s Republic of China, in China Marine Workshop of the United Nations Conference on Sustainable Development in 2012.

CONCLUSION

In conclusion, the Blue Economy contributes to sustainable development because for while years we can see that the Blue Economy create many attractive jobs. So, reduces the number of unemployed. Beside that, the Blue economy has the power to obtain better governance of marine ecosystem, lower emissions, a more just health standard and be a player in fighting climate change.

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