Indonesia's Blue Economy Initiative: Oceans As The New Frontier Of Economic Development

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Abstract

This article aims to explain Indonesia's blue economy initiative with Oceans as the new frontiers of economic development. Indonesia's very diverse maritime potential can be developed base on the 5 pillars of the Global Maritime Fulcrum initiated by President Joko Widodo, one of the pillars of which states that maintaining and managing Indonesia's marine resources. The sustainable development of the marine industry should be in accordance with the principles of development which are beneficial to the development of the Indonesian economy. Blue economy policies and programs are the suitable and effective approach for marine development to encourage optimal and sustainable utilization and exploitation of fishery resources. The research method used in this research is a qualitative method that is supported by data collection through literature studies and data reduction is also carried out in data analysis. The results of this research indicate that the magnitude of maritime economic development from the potential of the marine industry that Indonesia has, especially in the fishery and seaweed industry, can be a source of Indonesia's economic development.

Abstrak

Artikel ini bertujuan untuk menjelaskan inisiatif ekonomi biru Indonesia dengan Lautan sebagai garis depan baru pembangunan ekonomi. Potensi maritim Indonesia yang sangat beragam dapat dikembangkan berdasarkan 5 pilar Poros Maritim Dunia yang digagas oleh Presiden Joko Widodo yang salah satunya menyatakan bahwa memelihara dan mengelola sumber daya kelautan Indonesia. Pembangunan industri kelautan yang berkelanjutan harus sesuai dengan prinsip-prinsip pembangunan yang bermanfaat bagi pembangunan perekonomian Indonesia. Kebijakan dan program ekonomi biru merupakan pendekatan yang tepat dan efektif bagi pembangunan kelautan untuk mendorong pemanfaatan dan eksploitasi sumber daya perikanan secara optimal dan berkelanjutan. Metode penelitian yang digunakan dalam penelitian ini adalah metode kualitatif yang didukung dengan pengumpulan data melalui studi literatur dan juga dilakukan reduksi data dalam analisis data. Hasil penelitian ini menunjukkan bahwa besarnya perkembangan ekonomi maritim dari potensi industri kelautan yang dimiliki Indonesia khususnya industri perikanan dan rumput laut dapat menjadi sumber pembangunan ekonomi Indonesia.

Introduction

The Blue Economy has great potential to facilitate inclusive economic growth, create job opportunities for a growing population, and achieve the fundamental goals of sustainable development. The oceans as a major protein provider in the global market and also a significant

ecosystem provider are still vulnerable to over-exploitation which can harm ecosystems and damage prospects for achieving sustainable development goals. Moreover, marine resources in various parts of the world are still not fully explored (Upadhyay & Mishra, 2020:30).

President Joko Widodo in 2017 has made a statement regarding one of the pillars of the vision for the world's maritime axis, which states that marine resources are Indonesia's future. The idea of building a maritime country is based on the fact that Indonesia is the largest archipelago country in the world. The area of Indonesia is almost 2 million km2 or 735,355 mi2, has 17,508 islands with 6,000 of these islands already inhabited by Indonesians (Dinarto, 2017:2). In the data released by the Coordinating Ministry for Maritime Affairs and Investment, Indonesia's maritime economic potential reaches IDR 1.33 trillion per year with the most promising industries coming from the fisheries and tourism sectors. (Hutomo, 2020).

In Laksmana's view (2011) Indonesia's position at the crossroads of the Indian and Pacific Oceans and the continents of Asia and Australia gives it strategic centrality. The combination of this strategic location, the view of the Indonesian archipelago, together with strong feelings of nationalism and anti-colonialism suggest that an extra-regional balance of power possibly inevitable. Indonesia also hosts four of the world's seven major maritime chokepoints as it lies between the Pacific and Indian Oceans and between the continents of Asia and Australia. On this basis, the major powers have historically been interested in and taken considerable interest in Indonesia's development because it could affect the regional balance of power. Abundant natural resources for example petroleum, tin, natural gas, nickel, timber, coal, and copper further enhance the strategic value of the country. Indonesia's strategic position has had a significant impact on global economic and trade activities.

In recent years there have been many studies examining the concept of the blue economy and the use of the concept of the blue economy in Indonesia's economic development, as has been done by (Smith-Godfrey, 2016), (Silver, Gray, Campbell, Fairbanks, & Gruby, 2015), (Upadhyay & Mishra, 2020), (Dinarto, 2017), (Sari & Muslimah, 2020), (Prayuda & Sary, 2019). In the previous research, it did not aim to use the blue economy concept for Indonesia's economic development, only limited to fishermen and also Indonesian coastal communities. Meanwhile, this research puts forward economic development by using the concept of the blue economy as a form of sustainable development.

This article aims to introduce the concept of the blue economy to provide an approach to improving the economy by sea without damaging the ecosystem and conserving marine resources sustainably. This article attempts to answer the question, what potential does the Indonesian sea have in Indonesia's economic development? The current situation in Indonesia is relevant to the concept of the blue economy, considering that the Indonesian government has not yet exploited the potential of the sea as potential future natural capital to spur new momentum in economic growth and simultaneously form inclusive sustainable development policies.

Theoretical Framework

The concept of "the blue economy" originally emerged from the United Nations Conference on Sustainable Development held in Rio de Janeiro in 2012. This concept attempts

to separate socio-economic development from environmental degradation which is traditionally seen as a global status quo. (Findlay, 2020:15).

The Blue Economy is in harmony with the increase in economic and trade activities which have an impact on the need to integrate conservation and sustainability in the management of the maritime domain that includes marine ecology or the environment. Goddard point of view in The Economist Intelligence Unit report (2015), the blue economy is a sustainable marine economy through marine development activities that must pay attention to the balance between the capacity and resilience of a healthy and maintained marine ecosystem. However, Smith-Godfrey (2016) defines the blue economy as a quantitative calculated term in which the use of marine resources have to standardized with obligations for community development without disturbing the health of the marine system. From a practitioner's point of view, the blue economy combines the two established conventional marine-based industries like fishing, marine transportation, and tourism as well as new and promising activities, such as aquaculture, seabed extractive activities, marine biotechnology, offshore renewable energy, and bio-prospect

In Upadhyay's view (2020) the blue economy is the sustainable industrialization of the oceans for the benefit of all. Sustainable in this matter has a link between the concept of the green economy and the blue economy which is intended to create a balance between activities (economic, trade, legislative and regulatory), support systems (ecological environment), and communities that depend on it (livelihoods and food). This balance can be calculated and has the ability to be translated into a measure of effectiveness for achieving balance.

Meanwhile, industrialization means manufacturing on a large scale, advanced technical efforts, and other productive economic activities in a region, society, or country. The effectiveness of industrialization can be calculated when industrialization can describe the conversion to the methods, objectives, and ideologies of economic activities with the aim of development in an area.

Methods

In this study, a qualitative method is used which is a technique or strategy for data collection and analysis that relies on the collection and analysis of non-numerical data. Lamont (2015) have a perspective about qualitative methods are used to understand how we make sense of the world around us and thus require us to focus on the meanings and processes that shape international politics. Data collection that supports this research is obtained by using literature studies in scientific journals, data publications, internet-based searches related to the concept of the blue economy, and data on Indonesia's blue economy initiative: Oceans as the new frontier of economic development. The data triangulation method was used to assess the validity of the data collected.

Result and Discussion

1.   Indonesian Ocean Policy

In President Joko Widodo's era as president, Indonesian maritime affairs were raised as Indonesia's national priority. Strengthening Indonesia's maritime identity is poured into the plan

to make Indonesia a "Global Maritime Fulcrum (GMF)" in 2014. On February 20, 2017, Jokowi signed Presidential Regulation Number 16 of 2017 concerning Indonesian Ocean Policy (IOP) which will become the main reference for all programs and activities related to Indonesia's maritime realm. The purpose of this IOP is to realize the GMF Vision, namely "Indonesia as a maritime nation that is sovereign, advanced, independent, and strong capable of making a positive contribution to peace and security in the region and for the world" (Cabinet Secretariat of The Republic of Indonesia, 2017).

The IOP road map highlights seven policy pillars: Maritime Affairs and Human Resource Development; Maritime Security, Law Enforcement and Safety at Sea; Marine Governance and Institutions; Maritime Economic Development; Marine Space Management and Marine Protection; Maritime Culture; and Maritime Diplomacy. Each of these policy pillars is broken down into policies/strategies, totaling 76 policies/strategies (Cabinet Secretariat of The Republic of Indonesia, 2017).

The first Plan of Action for the 2016-2019 period highlighted five priority clusters: Maritime Boundary, Ocean Space, and Maritime Diplomacy; Maritime Industry and Sea Connectivity; Services and Industry Management of Marine Natural Resources and the Marine Environment; Maritime Defense and Security; and Maritime Culture (Cabinet Secretariat of The Republic of Indonesia, 2017). In this case, the vision as GMF synergized with various initiatives that are in line with national interests and in order to make a positive contribution to national economic development.

2.   Indonesia's Blue Economy Potential

The concept of the blue economy is intended to be applied by every coastal country with an interest in marine-based industries. The potential of fish resources in Indonesian waters is quite large, reaching USD 1,338 billion per year to make a significant contribution to achieving national development goals. (Ministry of Marine Affairs and Fisheries Republic of Indonesia, 2020).

In Indonesia, the marine area that has potential fish resources in Indonesian waters is USD 230 billion per year which is divided into 11 Fisheries Management Areas of the Republic of Indonesia (Wilayah Pengelolaan Perikanan Negara Republik Indonesia (WPPNRI)) as regulated in the Regulation of the Minister of Marine Affairs and Fisheries Number 18 of 2014. The 11 WPPNRI are WPPNRI 571 covering the waters of the Malacca Strait and the Andaman Sea; WPPNRI 572 covering the waters of the Indian Ocean west of Sumatra and the Sunda Strait; WPPNRI 573 covers the waters of the Indian Ocean south of Java to the south of Nusa Tenggara, the Savu Sea and the West Timor Sea; WPPNRI 711 covers the waters of the Karimata Strait, Natuna Sea, and the South China Sea; WPPNRI 712 covering the waters of the Java Sea; WPPNRI 713 covers the waters of the Makassar Strait, Bone Bay, Flores Sea, and the Bali Sea; WPPNRI 714 covers the waters of Tolo Bay and the Banda Sea; WPPNRI 715 covers the waters of Tomini Bay, Maluku Sea, Halmahera Sea, Seram Sea, and Berau Bay; WPPNRI 716 covers the waters of the Sulawesi Sea and the north of Halmahera Island; WPPNRI 717 covers the waters of Cendrawasih Bay and the Pacific Ocean; WPPNRI 718 covers the waters of the Aru Sea, Arafuru Sea, and the East Timor Sea (Ministry of Marine Affairs and Fisheries Republic of Indonesia, 2014).

The WPPNRI is a fisheries management area with the aim of catching fish, fish breeding, conservation, research and fisheries development which includes deep waters, archipelagic waters, territorial sea, additional zone, and Indonesia's exclusive zone. Estimates of potential, allowable catch, and utilization rate of fish resources in several WPPNRI as in Figure 1.

WPPNRI		Small Pelagic Fish	Big Pelagic Fish*	Demersal Fish	Reef Fish	Penaeid Shrimp	Lobster	Crab	Small Crab	Squid	Total
WPPNRI 571 Malaka Strait and Andaman Sea	Potency (tons)	99,865	64,444	145,495	20,030	59,455	673	12,829	12,614	9,038	425,444
	Allowed catch (tons)	79,892	51,556	116,396	16,024	47,564	539	10,263	10,891	7,230	
	Utilization Level	0.83	0.52	0.33	0.34	1.59	1.30	1.00	0.93	0.62	
WPPNRI 572 Indian Ocean west of Sumatra and the Sunda Strait	Potency (tons)	527,029	276,755	362,005	40,570	8,023	1,483	9,543	989	14,579	1,240,975
	Allowed catch (tons)	421,623	221,404	289,604	32,456	6,418	1,186	7,634	791	11,663	
	Utilization Level	0.50	0.95	0.57	0.33	1.53	0.93	0.18	0.49	0.39	
WPPNRI 712 Java Sea	Potency (tons)	364,663	72,812	657,525	29,951	57,965	989	7,664	23,508	126,554	1,341,632
	Allowed catch (tons)	291,730	58,250	526,020	23,961	46,372	791	6,131	18,806	101,244	
	Utilization Level	0.38	0.63	0.83	1.22	1.11	1.36	0.70	0.65	2.02	
WPPNRI 718 Aru Sea, Arafuru Sea, and Eastern Timor Sea	Potency (tons)	836,973	818,870	876,722	29,485	62,842	1,187	1,498	775	9,212	2,637,565
	Allowed catch (tons)	669,579	655,096	701,378	23,588	50,274	950	1,198	620	7,370	
	Utilization Level	0.51	0.99	0.67	1.07	0.86	0.97	0.85	0.77	1.28	

*Big Pelagic Fish non tuna
Utilization Level : E < 0.5 = Moderate; 0.5 ≤ E < 1 = Fully-exploited; E ≥ 1 = Over-exploited

Figure 1 Estimates of potential, allowable catch, and utilization rate of fish resources in several WPPNRI

Source: Sari & Muslimah (2020)

Another industry that has the potential for the blue economy in Indonesia's economic development is seaweed. Indonesia itself is the largest dry seaweed producer in the world with a production of 328 thousand tons with Eucheuma Cottoni seaweed as the superior type and becoming 80% of the seaweed supplier to the world in 2019 which makes seaweed one of the strategic commodities that can mobilize economic potential coastal areas of Indonesia. Of course, Indonesia's maritime potential in the seaweed sector can still be improved (Ambari, 2020).

Indonesia has 550 types of seaweed variants with high economic value. Including, one of which is a type of high-value seaweed, Eucheuma cottoni, whose total potential value in Indonesia is estimated to reach USD 10 billion per year. In general, in 2019 the export value of Indonesian seaweed reached USD324.84 million or grew 11.31 percent compared to 2018 which reached USD291.83 million. During the 2014-2019 period, national seaweed exports were also recorded to have grown at an average annual rate of 6.53 percent. Meanwhile, for the national production of cultivated seaweed, in 2018 it was recorded that it succeeded in reaching 10.18 million tons. For production in 2020 or this year, KKP targets production to reach 10.99 million tons and is 12.33 million tons in 2024 (Ministry of Marine Affairs and Fisheries Republic of Indonesia, 2020).

Based on Presidential Regulation No. 33 of 2019, Indonesian Seaweed is expected to become a leader for the global market in 2021, especially the carrageenan and jelly industry. The

target is expected to run well, along with the development of seaweed as a mainstay commodity in many regions. At the end of April the export of Spinosum seaweed in the form of dry raw materials was successfully carried out by the Indonesian Government in Serang, Banten by sending seaweed weighing 53.5 tons or Rp. 700 million. Spinosum seaweed itself is a type of red algae that has quite a large beneficial value, so it is the potential to be encouraged to become one of the leading export commodities besides Eucheuma cottoni. Both types can now be developed en masse in Indonesia (Ministry of Marine Affairs and Fisheries Republic of Indonesia, 2020).

the Efforts to increase seaweed production, the Indonesian Government is collaborating with the Australian Government through a development cooperation program in the field of market system development with technical support from the Kalimajari Foundation, a local organization that focuses on community empowerment. (Ambari, 2020).

Conclusion

Based on the results of data analysis, it can be concluded that the Indonesian government is committed to developing Indonesia's marine potential, especially in the fishery and seaweed industry as the implementation of the concept of the blue economy has the potential to facilitate the country's economic growth, create new job opportunities, and contribute to the framework conceptually broader sustainable development agenda. Maintaining a balance between environmental sustainability and economic growth is a challenge in terms of the policy. The core is how this policy can conserve and increase marine resources for the future.

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