



Sustainable Development Based on SDGs: Assessment on Blue Economy Potential in Labuang, Majene

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Abstract

The degradation of marine ecosystems and the underutilization of coastal resources have become major challenges in achieving sustainable economic growth in many coastal regions of Indonesia. Labuang Village in Majene Regency, which possesses abundant marine and coastal resources, faces similar issues related to limited resource optimization and weak institutional support. This research seeks to evaluate the Blue Economy potential of Labuang Village within the context of Embedded Sustainability, and the Sustainable Development Goals. This qualitative research was conducted employing a case study approach with five purposive participants to represent the primary stakeholders: fishermen, seaweed ranchers, village administration, and community leaders. Data were inquired through in-depth interviews, field observations, and document reviews, and were subsequently analyzed using NVivo to code by thematic analysis. The results of the research indicate that Labuang Village has significant potential in capture fishery, seaweed farming, and marine tourism, which impacts the attainment of SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 14 (Life Under Water). However, the potential remains dormant, as there is a glaring absence of infrastructure, funding, and technology. A triadic alliance of the state, community, and business actors is thus mandated to fully harness the potential of the region's Blue Economy.

Keywords: Blue Economy, Sustainable Development, SDGs, Qualitative Method, Economy Potential.

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INTRODUCTION

Indonesia as an archipelagic country has immense maritime potential that, if managed sustainably, can become a main pillar of national economic development (Humairah, 2023). The Blue Economy, which focuses on the effective use of marine resources without upsetting the environmental balance, is one of the most recent strategies being advanced (NM Banu, 2020). The literature has different descriptions of the Blue Economy due to its nature and multidisciplinary scope (Elston et al., 2024).

The Blue Economy on the sustainable development of marine resources and coastal ecosystems is seen as increasingly more promising environmental management and economic development (Luna, 2024). This notion corresponds to the aspirations of Indonesia to realize the Sustainable Development Goals (SDGs) especially the targets in alleviation of poverty, inclusive economic growth (Irawati et al., 2024), as well as the marine ecosystem protection in the service of the people and the development of the nation.

The SDGs are aimed at achieving the balance and harmony in the development processes, with the 17 goals aimed at different development domains (Irhamisyah, 2020). The achievement of these targets is made possible through the blue economy concept which, unlike traditional economic systems which yield short-term profits at the expense of long-term environmental losses, is designed to support environmental sustainability (Marwa et al., 2024).

The Indonesian government prioritizes the empowerment of SDGs to help ensure national development reaches the farthest corners of the country (Tariq et al., 2024). The Blue Economy concept is becoming increasingly popular as a

way to protect the oceans and water resources worldwide. This concept may emerge when economic activities are balanced with the ability of marine ecosystems to sustainably support economic activities in the long term (Lee et al., 2020).



Figure 1. Sustainable Development Goals, 2025.
Source: (SDGs United Nations, 2025)

The Blue Economy paradigm can be implemented in the Labuang Region within the Banggae Timur subdistrict in Majene Regency which covers an area of 947.84 km², with 173,844 residents in the year 2020, and with 188,780 residents in the year 2024. Coastal areas and the marine resources within are of vital importance in securing food, creating employment and enhancing the economy at a country level, particularly in archipelagic countries, Indonesia.

The notion of the blue economy and its focus on the sustainable use of marine resources provides the foundation of the blue economy and sustainable development goals (SDGs), and deals with the issues of poverty alleviation, decent work, and protection of the marine environment. Effective blue economy implementation could improve the welfare of coastal populations and maintain the marine ecosystems' functions as ecosystems service buffers for future generations.

The examination of regional subdistricts of Majene Regency with respect to the spatial composition of aquaculture production is critical to evaluating the potential of the ocean economy. This is due to the fact that aquaculture is among the most important sub-sectors of the Blue Economy within the region and plays a significant role in the local economy and food security. Table 1 outlines the aquaculture production in various Majene Regency subdistricts over the period spanning 2022–2024, reflecting both inter-temporal and intra-regional diversification.

Table 1. Aquaculture Production by District in Majene Regency (Ton)

Subdistrict	Year		
	2022	2023	2024
1. Banggae Timur	349.9	342	357.19
2. Banggae	-	2.7	7.83
3. Pamboang	64.2	111.6	114.12
4. Sendana	5.8	11.4	13.42
5. Tammerodo	1.5	9.4	9.2
6. Tubo Sendana	9.9	11.8	13.68
7. Malunda	202.5	266.1	319.21
8. Ulumanda	6	45.8	74.01
MAJENE	639.8	800.8	908.66

Source: (BPS Majene Regency, 2025)

Based on the data in Table 1, Banggae Timur Subdistrict recorded the highest aquaculture production for each of the three years assessed, followed, in order, by Malunda and Pambiang. The coastal communities' involvement in aquaculture activities is evidenced by the total production increasing from 839.68 tons in 2022 to 908.66 tons in 2024. Though, there are still some subdistricts, like Banggae and Tammerodo, with low productivity.

This is likely due to a lack of modern aquaculture technology and inadequate supportive infrastructural development. These facts substantiate the emphasis on variable range policy development and the efficient deployment of low order resources to stem the degree of inequity in the Blue Economy throughout the area.

The analysis carries out an investigation on the Labuang coastal area, Majene Regency to: (a) map the marine economic potential of capture fisheries, aquaculture, seafood processing, marine tourism, and seaweed/marine biomass-based subsectors, (b) describe the linkage of these potentials with the relevant sdg indicators, and (c) examine the barriers, stakeholders, and local regulatory frameworks on the blue economy potential.

In the last five years, both domestic and foreign scientific literature and empirical studies have identified a number of significant consensuses and developments and these includes; (a) a conclusion that indonesia has embraced the blue economy principles on a national and sub national policy levels, however, a need for strengthening governance and financing on the policy implementation exists, (b) the blue economy has a significant impact on achieving the sdgs, with the emergence of new and transformative issues surrounding sustainable aquaculture technology, blue carbon, and green financing, and (c) fisheries, aquaculture and processing subsector and local literature case study has gaps that needs to be filled by empirical evidence and coastal community needs to be addressed by institutional strengthening vis-a-vis market access.

Labuang coastal area is located in banggae timur subdistrict, which has potential marine

resources. Most of the communities earn work as fisherman, seaweed farmers, and seafood processing businesses. However, the management of these potentials is still traditional, with limited access to technology, capital, and inadequate infrastructure.

This causes the economic output of coastal communities to remain low, while natural resource exploitation activities risk the degradation of the marine environment. In the concept of the blue economy, there is a cycle of economic activities that utilize marine and coastal resources sustainably (Rusydy et al., 2022)

The power of Prior studies have shown noteworthy contributions to the blue economy's conceptual and policy underpinnings. There are several works that offer conceptualizations and policy overviews that influence the design of blue economy strategies, detailing possible policy tools such as various forms of regulation and financial support as well as detailing sectoral strategies like fisheries, coastal tourism, marine transport, and marine preservation.

There are several works that offer conceptualizations and policy overviews that influence the design of blue economy strategies, detailing possible policy tools such as various forms of regulation and financial support as well as detailing sectoral strategies like fisheries, coastal tourism, marine transport, and marine preservation. For example, changes in innovation and sustainability in the marine industry have been emphasized (Elston et al., 2024).

Similarly, a mapping of the relationship between sustainable development and the blue economy has identified important thematic clusters and research gaps (Aprizal et al, 2025). It has also been underscored that SDG-aligned

frameworks are central to enabling a sustainable switch to the blue economy (Gerou et al., 2025), and the prospects and difficulties in the application of blue economy practices in developing countries have also been systematically reviewed (Sugiyanto et al., 2025). Overall, these studies contribute to the construction of systematic and evidence-based models for estimations, strengthening the basis for the analysis of prospective blue economy initiatives.

As for the weaknesses of previous publications, many are still macro or national in scope; in-depth local studies (village or community) are relatively limited or scattered, thus providing insufficient contextual empirical evidence needed for local intervention design. It is challenging to connect policy recommendations with quantifiable SDG indicators since quantitative evaluations of subsector-specific contributions, such as value-added processing and local employment, are frequently unavailable at the village level.

Significant gaps still exist in the discussion of local institutions, inclusive financing options for micro-fisherman's enterprises, and the incorporation of traditional knowledge into models of sustainable development. Present circumstances present both opportunities and difficulties; there is a strong theoretical and policy push to advance the blue economy as a means of accomplishing the SDGs.

Weak institutions, limited capital, low market accessibility, and unsustainable capture and cultivation practices, unsolved issues in many coastal communities, underscore global developments and the growing need for innovative, sustainable financing in the capital-marine sector, including the shift to regenerative aquaculture and tailor-made blended finance.

These developments underscore the imperative for socio-economic and resource opportunity assessments, as well as policy and financing readiness evaluation at the community level.

Collaboration among these actors during this cycle of activities is essential for the attainment of an equitable and sustainable Blue Economy. In the context of national development, the 2nd ASTA CITA Vision emphasizes national independence thru the Blue Economy (Adiprayoga & Samiaji, 2021).

Based on these assignment guidelines, we will determine the potential economic productivity of Labuang coastal territory and assess its value within the framework of the Sustainable Development Goals (SDGs). The scenario will provide the basis for eco-sensitive policies, programs, and action plans that will help to add value to the local economy while protecting the coastal communities and the ecosystem socio-economic well-being (Triatmanto B, 2021).

The local government of Majene Regency emphasizes the development of the marine and coastal resources due to the regional economic transformation strategic plan. This research examines Labuang coastal village. Labuang village is the largest contributor to the seaweed production and to the capture fishery of the coastal area of the regency.

Based on the 2024 local development data of BPS Majene, the village is included in the development regional framework on marine resources the Majene Regency Medium Term Development Plan (RPJMD) 2023-2026, which promotes sustainability of the marine resources and the socio-economic improvement of the fishing shelter communities.

Therefore, Labuang is representative for studying the application of Blue Economy

principles to a village case. Consequently, the focus of this study is to evaluate the potential Blue Economy of Labuang Coastal Village, Majene Regency, and develop the principles of Blue Economy for the empowerment of the community to support the SDGs community-based sustainable development for the promotion of economic self-reliance, job creation and the responsible use of marine resources for the benefit of future generations (Airawati et al., 2022). Additionally, assess the correlation of that potential with relevant SDG indicators at the village level, including recommendations for measurable indicators.

focused on the Blue Economy over the past few years for the Balanced Economic Development; this is especially the case for the economically disadvantaged coastal and insular areas (Pauly et al., 2020). The Blue Economy intersects with, and works towards the attainment of, SDGs 1 (No Poverty), 8 (Decent Work and Economic Growth), and 14 (Life Below Water), since it is aimed at achieving economic growth, and at the same time, addresses social equity and the environment.

Numerous studies have evaluated the Blue Economy implementation at the regional or national level. For example, Indonesia (Darmawan et al., 2020), the Philippines (Pomeroy et al., 2021), and Kenya (Obura et al., 2020) have highlighted the potential of the Blue Economy in improving livelihoods and maintaining supportive marine ecosystem services.

However, most of these surveys focused on the macroeconomic and policy dimensions, and to some extent least on integrating the Blue Economy principles to achieve downscaled, bottom-line outcomes and tangible frameworks of institutional arrangements.

Also previous empirical research has not commonly explored the combination of qualitative assessments of local governance, institutional capacity, and financing frameworks with quantitative assessments on the potential of a subsector of the economy (e.g., fisheries, aquaculture, marine tourism). As noted by (Voyer et al., 2019), there is a growing need to bridge this methodological divide to operationalize the Blue Economy in rural coastal contexts.

In Indonesia, Although regional development plans and government programs like the National Blue Economy Roadmap (2021–2045) encourage marine-based economic growth, there is currently little empirical data showing how these frameworks are applied and perceived at the local level.

Addressing this disconnect is the study's unique contribution and research gap. Using NVivo-supported thematic analysis, this study offers a village-scale analysis that integrates a qualitative evaluation of institutional, policy, and financial access with a quantitative assessment of subsector potential (economic value and employment contribution).

By doing this, it closes the gap between local Blue Economy implementation practices and macro-level policy frameworks. Additionally, by directly connecting the possible measurement results to SDG indicators at the local level, this study generates quantifiable and trackable suggestions for sustainable policy action at the village or subdistrict level. Additionally, it investigates the contextual viability of green finance and blended finance mechanisms for small coastal communities, a new field of study that is still lacking in Indonesia, particularly in areas like Labuang, Majene Regency.

The existence of these gaps in empirical evidence, combined with the increasing national policy emphasis on marine-based sustainable growth, provides both the logical foundation and the urgency for this research. Consequently, the purpose of this study is to evaluate the possible strategies aligned with the SDGs to tackle the existing local data deficiency and evaluate Blue Economy's potential in Labuang. It is expected that the outcome of this investigation assists the local developmental activities and the academic community in their equitable and sustainable, and restorative marine resource management.

RESEARCH METHODS

This research seeks to offer an integrated analysis of the possibilities and methods for establishing a green economy in the coastal region of Labuang, Majene Regency, in alignment with the support of sustainable development strategies based on the Sustainable Development Goals (SDGs). The contribution to be recorded does not only project marine resources potential, but also describes and provides the relevant local institutional, social, and economic context for the challenges, and offers strategic initiatives.

This research employs a case study design with a qualitative approach. This methodology is very well-suited to the need for understanding a phenomenon in detail. This assessment focusses on the potential, difficulties, and ways to achieve sustainable development, which are linked in the context of the SDGs, namely SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 14 (Life Below Water).

Researchers obtained written purposive samples from 5 informant categories at the Majene District Marine and Fisheries Service,

specifically from Program and Policy Development Officers for the Marine Sector. (2) Traditional fishermen represent small-scale fishing and traditional methods. (3) Fish and seaweed farmers represent the aquaculture sector. (4) Managers of Village-Owned Enterprises (BUMDes) to obtain information about the role of village institutions in managing the marine economy. (5) Indigenous community leaders to share their views on local wisdom and cultural principles in resource management.

The data used consists of primary data, obtained directly from the field through participatory observation, in-depth interviews, and documentation. Secondary data includes technical reports from the Regional Medium-Term Development Plan (RPJMD), village profiles, BPS statistical publications, technical reports from the Marine and Fisheries Office, and relevant previous studies.

The research applies participant observation to the direct observation of marine economic activities, the use of technology, and the state of the coastal ecosystems. Through in-depth interviews, the participant's chief information and topic focus are expanded. By also compiling informative photographs, audio or video recordings, and written documents, further research documentation is completed. NVivo 14 software was utilized for the data analysis. This simplifies the process of coding, categorising, and visualising qualitative data.

The analysis process consists of (a) transcribing data from field notes and interview results; (b) open coding to identify initial ideas from the raw data; (c) axial coding to group codes into categories and subthemes; and (d) selective coding to find the main themes that answer the research questions. (e) Interpreting the analysis results to draw conclusions and

make suggestions for building a green economy. Using NVivo 14 reduces the problem of tendency researcher or subjectivity. Qualitative research becomes more valid, and the risk of reactivity is reduced. This research uses the triangulation method to ensure data validity.

Method triangulation is the same as source triangulation: comparing and confirming results from observation, interviews, and documentation. This form of triangulation with different sources and key informants equipped with different perspectives considers and checks overlapping and complementary meanings so that the interpretations produced can be firmly grounded on data and scientifically valid.

Five main criteria were utilized in evaluating Labuang's Blue Economy's economic prospect: (1) The marine and coastal resources (i.e. tourism, aquaculture and capture fisheries) are available and are being sustainably utilized for economic ventures; (2) The marine and coastal economic activities generates positive impacts on employment and household income; (3) Local entities such as the fishermen's associations and the Village-Owned Enterprises/BUMDes Manager possess sufficient institutional capability. (5) Policy and Environmental Support: Local policies are in place that promote Blue Economy and Environmental Sustainability.

RESULTS AND DISCUSSION

This study's field research was carried out in the Labuang Coastal Village located in the Banggae Sub-District of Majene Regency West Sulawesi. The primary five informants included the Head of the Marine and Fisheries Office of Majene, a traditional fisherman, a seaweed cultivator, a Village-Owned Enterprise (BUMDes) manager, and a community leader.

The interview process was carried out separately according to the informants' availability and field accessibility.



Figure 2. NVivo 14 Result Output
Source: Data Processed, 2025

Data analysis employed NVivo 14 (Non-Numerical Unstructured Data Indexing, Searching, and Theorizing), a qualitative data management software that assists in coding, categorization, and visualization of narrative data (Bazeley et al., 2019). In line with earlier Blue Economy research using comparable tools, NVivo enhanced analytical transparency and made it easier to identify recurrent themes.

A source triangulation technique was used to compare data from the Marine Affairs Office, fishermen, cultivators, and local leaders in order to guarantee reliability. The findings' validity and consistency across data sources were validated by the triangulation process. Depending on where and when the informants could be reached, the interview process was carried out independently.

The Nvivo analysis tool (Non Numerical Unstructured Data Indexing Searching and Theorizing software) was used to analyze the data for this study. Nvivo is software that can assist researchers in categorizing data in qualitative research.

Futhermore, The purpose of the validity test is to gauge how well the research findings have been validated. Triangulation techniques can be used to carry out validation procedures in a qualitative approach. The source triangulation technique is the method of triangulation that is employed. Figure 3 are the findings from the source triangulation.

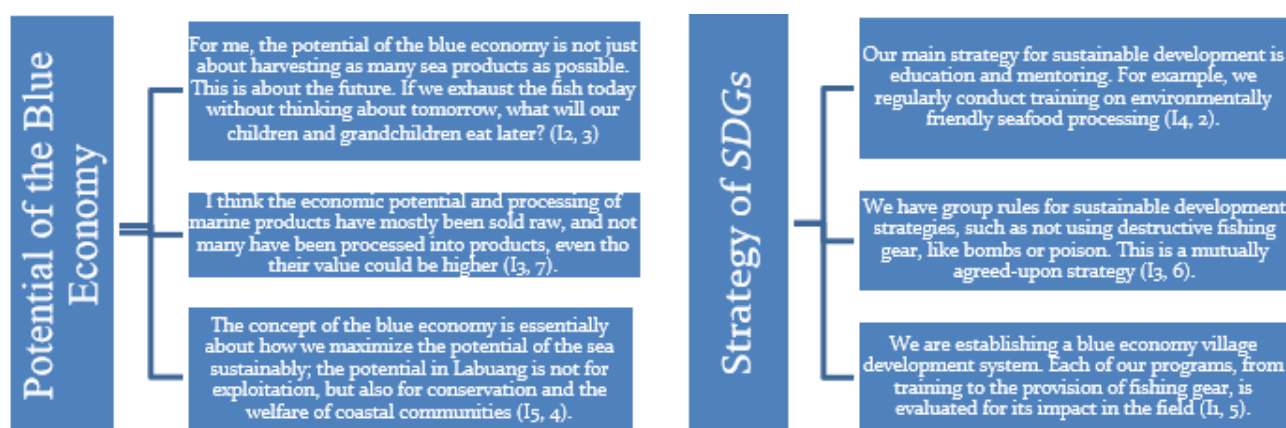


Figure 3. Source Triangulation Result.
Source: Data Processed, 2025

The data collected from Labuang suggests that about 68% of establishments partake in fishing and other utilization of the sea. In capture fisheries, small pelagic fish are caught at 12 to 15 tons in the month including the species of sardines (*Sardinella* spp.), scads (*Decapterus* spp.), and mackerel (*Rastrelliger kanagurta*). 35 to 40% of the households income in the region sustains from the 22 hectares of seaweed cultivated and the average 8 to 10 tons of dry weight seaweed is harvested in each seaweed harvest cycle.

An estimated 120–150 coastal workers are directly employed by the estimated IDR 2.1–2.4 billion in annual economic value produced by fisheries and aquaculture. These numbers highlight how important the blue economy sector is to achieving SDGs 1 (No Poverty) and 8 (Decent Work and Economic Growth) at the village level.

NVivo 14 put interview data into a few main categories: (a) Using resources in a way that lasts. Interview participants have generally accepted the need for sustainability practices involving selective fishing, the use of gill nets and other longlines and seasonal closures. Nonetheless, the application of such an amalgamation of approaches is still partial, and only addresses the concerns of an individual or a select few.

This finding aligns with Zhao et al. (2025), who highlighted that the transition to sustainability in small-scale fisheries frequently encounters socio-institutional obstacles rather than ecological constraints. (b) Link to the SDGs: Many people in the community don't know what the term "Blue Economy" or the SDGs mean, but many of their actions, like planting mangroves, reducing waste, and fishing

without harming the environment, support SDG 14 (Life Below Water).

Similar indirect adoption of SDG-aligned practices was observed in coastal communities in China and the Philippines (Liu et al., 2023), where local sustainability initiatives are guided by traditional ecological knowledge. (c) Institutional and Policy Dimension: BUMDes Labuang's function as a promoter of the seaweed trade and the marketing of fish products has begun to develop. Its managerial ability and district-level policy integration, however, are still below par.

This illustrates the institutional gap that is frequently found in the application of the Blue Economy (Wang et al., 2025), who emphasized the necessity of local government and village-level economic actors coordinating their policies. (d) Financing and Capacity Building: One of the biggest challenges is still the lack of access to funding, contemporary machinery, and training. Fishermen continue to rely on unofficial loans and conventional financing methods. More knowledgeable individuals regarding finances, in combination with the microcredits and/or digital payment systems, have the potential to bolster the productivity and enhance the Blue Economy's distributed growth pillar (World Bank, 2021).

West Sulawesi Province is home to the Labuang coastal area in the Banggae sub district of Majene Regency. In the province of West Sulawesi of Indonesia, the coastal Labuang area is situated in the coastal area of the sub district of Banggae, Majene Regency. As an archipelagic country, Indonesia possesses vast maritime opportunities which, if developed in a sustainable manner, will be a major contributor to the country's economic development.

The Blue Economy is one of these aims at optimizing the use of marine resources with the due regard to the ecological balance. According to the majority of informants, the Blue Economy is the use of marine resources to sustain community economies and quality of life while maintaining environmental sustainability.

Although fishermen and aquaculturists are not yet academically familiar with the term "Blue Economy", practices that are related to the blue economy for seaweed farming, seasonal fishing and the preservation of coral reefs is not new to them, and has been practiced for decades. This study is designed to evaluate the blue economy in the Labuang coastal area, Majene Regency in support of sustainable development based on the Sustainable Development Goals (SDGs).

Labuang coastal area has been documented as having a large potential for the Blue Economy. However, the potential remains unrealized due to poor access to finance, weak institutional convergence, and poor infrastructure. Compared to other studies (Torres et al., 2025), which analyze Blue Economy implementation at the national or provincial level, this study provides micro level insights that link empirical village scale data to the SDG framework.

This link demonstrates the transition from archetype policy conversations to localized evidence frameworks to highlight the livelihood benefits (and social inclusion) outside the ecological costs (and social exclusion) of conservation to the social benefits of sustainable fisheries and aquaculture.

An illustration of this is the local practice of prohibiting fishing during spawning seasons, which demonstrates the integration of traditional ecological knowledge and is consistent with the regenerative principles

discussed in Marine Policy (Hoareau et al., 2025).

In addition, the use of NVivo for qualitative analysis reinforces the credibility of the outcomes by enabling the methodical coding of community narratives. As demonstrated in similar qualitative Blue Economy assessments (Jensen et al., 2025) this method enhances transparency and reliability in identifying thematic linkages between local practices and sustainable development goal.

Five groups of respondents in the Marine and Fisheries Office and Traditional Fishermen, Fish and Seaweed Cultivators, Village-Owned Enterprises Managers, and Community Leaders were interviewed in-depth, and Labuang Coast was specifically mentioned as having the economic potential as a blue economy development zone. The results reflect the blue economy concept; which emphasizes the preservation of ecosystems, the welfare of local communities, and the sustainable exploitation of marine resources (World Bank, 2021).

The aspects of environmental sustainability and economic growth are starting to take shape in the Labuang context, but social inclusion still requires improvement, especially in terms of benefit distribution equity and institutional support.

The potential includes abundant marine resources such as seaweed, and coral and pelagic fish. The community engages in economically productive activities such as fishing, seaweed farming, traditional marine product processing, and the transportation and marketing of marine products to other parts of the country.

The marine industry is primarily dependent on the coastal ecosystems of mangrove forests and coral reefs, which are still present (although in some areas) and provide

ecosystem support to marine industry activities. But that potential hasn't been fully utilized. The absence of ecologically friendly fishing gear and production facilities, restricted access to capital and markets, and the continued lack of institutional capacity of organizations such as Village-Owned Enterprises to professionally promote the fisheries sector are some of the challenges that have been identified.

Although the majority of the community depends on the sea for their primary source of income, not all of them have yet to embrace the sustainable Blue Economy's. Taking actions that harm the environment, including the use of banned fishing gear and overfishing, are still being practiced.

Awareness of the Goals of the Sustainable Development Goals (SDG): the general public, especially aquaculture and fishery practitioners, have the least knowledge of the specific lexicon of the SDGs. Still, some respondents among the managers of Village-Owned Enterprises and the Marine Affairs Office associate the SDGs with community welfare, poverty alleviation, environmental protection, and development. In practice, the community has been engaging in a number of activities that support the principles of the SDGs, both consciously and unconsciously, despite the fact that technical knowledge of the 17 SDG goals is still lacking.

Some activities that support the principles of the SDGs include: Education and assistance in processing marine products, Environment friendly cultivation programs thru training facilitated by the Marine Affairs Office and NGOs, Not using destructive fishing gear such as bombs or poison, Traditional prohibitions on fishing at certain times as a form of local conservation. The blue economy's contribution in Labuang Village with regards to SDGs

includes, for SDG 1 (No Poverty), the integration in the expansion of the marine and fisheries industries, the alleviation of poverty in the village, and the expansion of the industries as a major income source.

For SDG 8 (Decent Work and Economic Growth) and as a result of the village's economic activities in the fisheries, the seaweed farming, and the processing and trade of marine products, there is an increased stimulation of the village economy and Created is a surge of jobs. Regarding SDG 14 (Life below Water), the community engages positively in the activities that support the preservation of the marine ecosystem; planting of mangroves, use of gear that is protective, and no fishing during crucial spawning breaks. The Labuang village blue economy is therefore in alignment with the global agenda on sustainable development.

The community's obstacles to the growth of the blue economy include the limitations of technology and tools for cultivation and capture, the lack of financial institution support and access to capital, the subpar performance of village institutions like Village-Owned Enterprises in managing marine potential, the effects of climate change and extreme weather on catch results, and the absence of ongoing education on the value of marine conservation. Strengthening the ability of fishermen and aquaculturists through training in appropriate technology and business management is one of the strategies developed based on the findings of this study.

Maximizing the professional management of marine potential by neighborhood organizations like Village-Owned Enterprises, collaboration among academics, indigenous communities, and the government to preserve the marine environment, diversification of

coastal economies through the production of value-added seaweed products, processing marine products, and marine-based ecotourism, and expanding market access by marketing fisheries and aquaculture products through the use of technology and digitization.

CONCLUSION

According to this study, the Labuang Coastal Area, Majene Regency, has considerable prospects regarding the advancement of the Blue Economy that corresponds with the principles of the Sustainable Development Goals (SDGs) agenda. The main potential lies in the environmentally friendly capture fisheries sector, seaweed cultivation, and opportunities for marine tourism development. The contribution of the maritime sector towards the income of fishing households is above 65%, providing a direct contribution towards SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), and SDG 14 (Marine Ecosystems).

According to data, coastal communities do not seem to officially acknowledge and are not familiar with the Terms 'blue economy' and 'sustainable development goals' (SDGs). However, it can be stated that coastal communities have been practicing a form of 'sustainable' management through traditional fishing bans (for certain seasons), the use of selective fishing gear, and the conservation of coral reefs, as it is friendly to fishing.

Local wisdom and the presence of institutions such as fishermen's groups and village-owned enterprises are important supporting factors, but they have not yet been optimally utilized as drivers of the village economy. Obstacles faced by the region include the lack of access to capital, poor supporting

infrastructure, varying market prices, technological barriers, and low institutional capacity, all contributing to slow growth of the Blue Economy in the region with the further exacerbation of adverse effects with climate change and extreme weather events leading to low productivity in fisheries and aquaculture.

Given this, the development of the Blue Economy in the region should be focused on: (a) Equipping fishermen and aquaculture practitioners with relevant technologies and business management skills. (b) Streamlining management of the marine resources at the community level by local institutions such as the Village-Owned Enterprises (VOEs) on the basis of their capacity. (c) Collaborative conservation of the marine resources and ecosystem by the public sector, local communities, and academia. (d) Coastal community diversification through marine ecotourism, fish processing, and commercial seaweed products. (e) Expanding digital marketing of marine products.

The originality of this study stems from the thematic mapping of the potential of the Blue Economy in the village and its association with the SDGs, and the employment of NVivo 14 programmes designed to reduce the effects of the researcher's bias and the conflict of interest in the study. As such, the study is not only descriptive but also provides a consultancy dimension towards the potential development of sustainable coastal development policies in the Majene Regency and other coastal areas of Indonesia.

REFERENCES

- Adiprayoga, S. N., & Samiaji, J. (2021). Opportunities and Strategies for the Blue Economy through the Empowerment of Sumatera Coastal Communities in Supporting the Realization of the National Food Security. IOP Conference Series: Earth and

- Environmental Science, 934(1).
<https://doi.org/10.1088/1755-1315/934/1/012039>
- Aprizal, A., Wiranatakusuma, D. B., & Razak, D. A. (2025). The nexus between blue economy and sustainable development: A systematic literature review and mapping study. *Journal of Economics Research and Social Sciences*, 9(1), 47–64.
<https://doi.org/10.18196/jeress.v9i1.25954>
- Ahmed, N., Rahman, M. M., & Jensen, O. (2025). Community-based approaches to implementing the blue economy: Evidence from coastal Southeast Asia. *Ocean & Coastal Management*, 107689.
<https://doi.org/10.1016/j.ocecoaman.2025.107689>
- Airawati, N. M., Fauzi, I., & Putranto, A. (2022). Potensi Penerapan Ekonomi Biru Dalam Mendukung Pariwisata Berkelanjutan di Wilayah Pesisir Daerah Istimewa Yogyakarta. *International Journal of Advances in Intelligent Informatics*, 8(1), 1–11.
<https://doi.org/10.26555/ijain.v8i1.800>
- Badan Pusat Statistik Kabupaten Majene. (2024). *Majene dalam Angka 2024*. Majene: BPS Kabupaten Majene. BPS Majene Regency, 2025.
- Darmawan, B., Nugroho, T., & Hidayati, N. (2020). Blue economy development strategy in coastal areas of Indonesia: Opportunities and challenges. *Journal of Marine and Coastal Development*, 5(2), 87–99.
- Elston, J., Pinto, H., & Nogueira, C. (2024). Tides of Change for a Sustainable Blue Economy: A Systematic Literature Review of Innovation in Maritime Activities. In *Sustainability (Switzerland)* (Vol. 16, Issue 24). Multidisciplinary Digital Publishing Institute (MDPI). <https://doi.org/10.3390/sui16241141>
- Gerou, A., & Pantouvakis, A. (2025). The transition to a sustainable blue economy explored through frameworks and SDG alignment. *Discover Sustainability*. Advance online publication.
<https://doi.org/10.1007/s43621-025-01953-9>
- Hoareau, K. (2025). Knowledge, power and the blue economy: Breaking down barriers. *Marine Policy*, 182, 106883.
<https://doi.org/10.1016/j.marpol.2025.106883>
- Humairah, F. (2023). Analisis Potensi Desa Pesisir Berbasis Blue Economy Dalam Mewujudkan Sustainable Development Goals (Studi Gampong Lampulo Kecamatan Kuta Alam Kota Banda Aceh).
- Irawati, Rahmayanti Rivai, D., & Fitriani, N. (2024). Revealing Regional Economic Potential Efforts to Increase the Development of Sharia-Based Leading MSMEs in Majene Regency. *Jurnal Ekonomi Syariah* Indonesia (JESI) ISSN, 14(2), 343–350.
<https://doi.org/10.21927/jesi.3124.3483>
- Irhamisyah, F. (2020). Sustainable Development Goals (SDGs) dan Dampaknya Bagi Ketahanan Nasional.
- Jensen, O., & Rahman, M. (2025). Institutional enablers for sustainable blue economy governance in small coastal communities. *Ocean & Coastal Management*, 107701.
<https://doi.org/10.1016/j.ocecoaman.2025.107689>
- Lee, K. H., Noh, J., & Khim, J. S. (2020). The Blue Economy and the United Nations' sustainable development goals: Challenges and opportunities. In *Environment International* (Vol. 137). Elsevier Ltd.
<https://doi.org/10.1016/j.envint.2020.105528>
- Lee, H., Kim, S., & Park, J. (2025). Assessing the social inclusiveness of blue economy initiatives: Evidence from local fisheries in East Asia. *Marine Policy*, 106718. <https://doi.org/10.1016/j.marpol.2025.106718>
- Luna, F. (2024). Harnessing Blue Economy Potential for Sustainable Development: Navigating Opportunities and Challenges.
- Marwa, T., Muizzuddin, Bashir, A., Andaiyani, S., & Cahyadi, A. (2024). Determinants of the Blue Economy Growth in the Era of Sustainability: A Case Study of Indonesia. *Economies*, 12(11).
<https://doi.org/10.3390/economies12110299>
- NM Banu. (2020). Konsep Blue Economy Terhadap Pembangunan Ekonomi di Indonesia. 22(1).
- Obura, D., Katerere, Y., Mayet, M., Turner, N., & Bille, R. (2020). Blue Economy pathways for sustainable coastal development in Africa. *Marine Policy*, 117, 103893.
- Pomeroy, R. S., Parks, J. E., & Watson, L. M. (2021). Measuring the performance of marine ecosystem-based management: The Philippines experience. *Ocean & Coastal Management*, 213, 105861.
- Rusydy Nurfauzi, N., & Mansur, U. (2022). Implementasi Konsep Blue Economy Dalam Pembangunan Masyarakat Pesisir Di Masa New Normal (Vol. 1, Issue 1).
- Sugiyanto, E. K., Widjanti, K., Wijayanti, R., & Lestari, A. P. (2025). Unlocking the potential of the sustainable blue economy: Opportunities and threats in a changing global landscape. *Proceedings of the 1st International Conference on Social Environment Diversity (ICOSEND 2024)*. Atlantis Press.
https://doi.org/10.2991/978-2-38476-366-5_24
- Tariq, A., Syahriza, R., & Syahbudi, M. (2024). Implementasi Konsep “Blue Economy” Dalam Meningkatkan

- Pendapatan Nelayan di Kota Medan Perspektif Ekonomi Syariah (Studi Kasus: Kecamatan Medan Labuhan).
- Torres, M., Vega, D., & Alvarez, P. (2025). Bridging policy and practice in blue economy development: Lessons from integrated coastal management projects. *Marine Policy*, 106883. <https://doi.org/10.1016/j.marpol.2025.106883>
- Triatmanto B. (2021). Menggagas Percepatan Pencapaian Sustainability Development Goal's (SDG'S) (dengan Pemberdayaan Sumberdaya Manusia). www.unmer.ac.id
- Xu, L., Zhang, T., & Liu, W. (2023). Integrating sustainable development goals into blue economy strategies: A multi-scale framework. *Environmental Science & Policy*, 144, 45–58. <https://doi.org/10.1016/j.envsci.2023.03.002>.
- World Bank. (2021). *Toward a Blue Economy: A pathway for sustainable ocean-based development*. Washington, DC: The World Bank Group.