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The Nexus Between Blue Economy and Sustainable Development: A Systematic Literature Review and Mapping Study

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Abstract: This study investigates the relationship between the blue economy and sustainable development through a mapping study and systematic literature review (SLR) adhering to the PRISMA framework. An examination of 57 Scopus-indexed journal papers indicates a robust correlation between the blue economy and sustainability, highlighting significant developing topics such as innovation, the doughnut economy, environmental legislation, regenerative systems, digitization, and Sustainable Development Goals (SDGs). Prominent themes encompass the blue economy, sustainability, ocean economy, innovation, small-scale fisheries, blue equity, Sustainable Development Goals (SDGs), and fisheries. In contrast, underexamined yet promising subjects include economic growth, ocean sustainability, alternative livelihoods, deep-sea mining, aquaculture, tourism, and environmental law. The intersection of Blue Economy and Sustainable Development emphasizes Strategic Management and Marine and Coastal Tourism as the principal focus (21.05%), succeeded by Ocean Governance and Marine Spatial Planning, Sustainable Aquaculture, Marine Food Production and Blue Energy Innovation, and Climate Change, Risk and Conservation (17.54%). Fisher Support (12.28%) prioritizes fisher welfare, whilst Marine Cultural Heritage and Social Dimensions (10.53%) underscore social and cultural significance. This study delineates research trends, analyzes deficiencies, and provides policymakers, scholars, and practitioners insights to promote sustainable marine-based economic development. This study enhances the comprehension of the relationship between the Blue Economy and Sustainable Development by delineating research trends, pinpointing knowledge deficiencies, and emphasizing critical topic areas like strategic management, marine governance, sustainable aquaculture, and assistance for fishers. The results highlight the interdisciplinary aspect of this connection, especially in incorporating innovation, digitalization, and doughnut economy ideas into marine economic policies. The study's implications are relevant to academia, politicians, and practitioners, offering a basis for future research on emergent topics such as deep-sea mining, blue growth, and climate risk reduction. Enhancing marine spatial planning, fisher welfare, and socio-cultural aspects can promote inclusive and sustainable marine development, assuring ecological resilience and advancing economic fairness for coastal communities.

Keywords: Blue Economy; Sustainable Development; Ocean Governance; Coastal Tourism; Innovation; Marine Conservation; SDGs

JEL Classification: Q01; Q56; O44; Q57; R58

Introduction

In recent decades, the concept of the blue economy has become a central focus in the global discourse on sustainable development (Graziano et al., 2019). This concept refers to the long-term utilization of marine resources to promote economic growth, improve social well-being, and safeguard marine ecosystems. The blue economy is an alternative strategy that seeks to balance economic activity and ecosystem protection in light of growing environmental concerns raised using marine resources (Elegbede et al., 2023).

The blue economy concept was first introduced at the United Nations Conference on Sustainable Development in 2012 (Lee et al., 2020). Since then, this term has been increasingly used in national government reports and international meetings. However, its definition and implementation may vary across countries. These differences reflect each country's diverse interests and priorities in managing marine resources. Some countries adopt the blue economy as a key strategy to accelerate marine-based economic growth.
In contrast, others focus more on conservation and ecosystem resilience. The World Bank defines the blue economy as "the sustainable use of ocean resources for economic growth, improved livelihoods, and job creation while preserving the health of ocean ecosystems" (Choudhary et al., 2021). This definition stresses the ocean's role as an economic asset capable of producing long-term benefits if managed following sustainable principles. Sectors contributing to the blue economy include sustainable fisheries, marine eco-tourism, renewable ocean-based energy, and ecosystem-based coastal management (Shiiba et al., 2022).

The United Nations' 2030 Sustainable Development Agenda states that integrating the blue economy is essential to accomplishing the Sustainable Development Goals (SDGs). Implementing the blue economy is intimately tied to several SDGs, including SDG 13 (Climate Action), SDG 8 (Decent Work and Economic Growth), and SDG 14 (Life Below Water). Therefore, creating inclusive and fact-based policies requires an awareness of the relationship between the blue economy and sustainable development (Obura, 2020). However, increasing environmental pressures due to marine resource exploitation pose significant challenges in implementing the blue economy, particularly in balancing marine-based economic growth with ecological and social sustainability (Bax et al., 2021). One of the main obstacles is regulatory gaps, where existing policies often fail to accommodate the interests of various stakeholders equitably (Abbott & Snidal, 2021).

Additionally, disparities in access to environmentally friendly technology hinder efforts to adopt sustainable blue economy practices, especially in developing countries that still rely on conventional exploitation methods. Because industries like fisheries, marine tourism, and renewable energy have different goals for using marine resources, the conflict of interest between economic exploitation and environmental conservation makes matters more difficult (Andrews et al., 2021). Moreover, climate change exacerbates marine ecosystem conditions through global warming, rising sea levels, and coral reef degradation, directly impacting the sustainability of marine-based economic sectors (Niu et al., 2023. Therefore, a holistic approach is required, integrating climate change

adaptation policies, technological innovation, and inclusive governance to ensure that the blue economy operates sustainably and delivers long-term benefits for society and the environment (Keen et al., 2019).

Despite the growing acknowledgment of the Blue Economy as a vital method for promoting Sustainable Development through marine resources, extensive research connecting these two concepts is still scarce. This disparity underscores the necessity for additional investigation, especially in formulating evidence-based policies, efficient implementation techniques, and comprehensive assessments of long-term environmental and economic impacts. A thorough grasp of the Blue Economy is essential for developing policies incorporating social, economic, and environmental dimensions. Nonetheless, there remains a deficiency of literature evaluations that comprehensively analyze the relationship between the Blue Economy and Sustainable Development, along with optimal implementation options suitable for nations with varied economic and environmental settings (Engen et al., 2024; Knott et al., 2024; Glass et al., 2024; Niu et al., 2023).

Most current research tends to separate economic and ecological aspects, while evidence-based approaches integrating both remain scarce. Contemporary studies on the Blue Economy primarily focus on digitalization, marine spatial planning, coastal governance, ocean literacy, and coastal tourism, often emphasizing sectoral advancements without thoroughly assessing their broader sustainability implications (Bhati et al., 2025; DuPrey et al., 2025; Racetin et al., 2022; Vega et al., 2022; Paredes et al., 2021; Kabil et al., 2021). In contrast, Sustainable Development within the Blue Economy emphasizes a more holistic approach, prioritizing ecological resilience, socio-economic equity, and long-term resource management.

The gap between sectoral economic perspectives and sustainable approaches underscores the urgency of multidisciplinary research integrating technological innovation with sustainability goals. Further studies are needed to explore how marine resource management can support economic growth without compromising ecosystem balance and the well-being of coastal communities. Thus, a Blue Economy-based development model can be realized inclusively, strengthening ecological resilience while ensuring sustainable economic benefits for the future. By adopting an integrative approach that considers scientific insights and evidence-based policies, the blue economy can support sustainable development, enhance societal well-being, and ensure the preservation of marine ecosystems for future generations (Novaglio et al., 2022). As a result, this study employs a thorough literature review and mapping study technique to investigate the relationship between the blue economy and sustainable development. This methodology allows you to spot trends in publications, analytical methods, and significant topics that have dominated contemporary literature (Aprizal et al., 2024).

This study is anticipated to map the academic ecosystem surrounding the blue economy and sustainable development and identify future research possibilities through methodical analysis and research mapping. The study's conclusions offered practitioners, scholars, and policymakers strategic insights for creating successful plans and policies that

promote sustainable marine-based economic growth. Thus, this study aims to map and examine current developments in sustainable development and the blue economy. The study includes an introduction, methodology, results, discussion, and conclusion.

The evolving dynamics of the tourism industry, influenced by factors such as changing consumer preferences and global challenges like the COVID-19 pandemic, further underscore the need for precise market segmentation (Jopp et al., 2022; Li et al., 2021). With its unique combination of beaches, cultural experiences, and adventure tourism, Indonesia attracts millions of international visitors annually. However, their preferences are not uniform but shaped by many factors, including demographic characteristics, cultural backgrounds, and external conditions such as economic fluctuations and global health crises (Moliner-Tena et al., 2024; Zhang & Walsh, 2020). As a result, a one-size-fits-all approach to tourism marketing is insufficient in a destination as diverse as Indonesia. To optimize tourism offerings and create more personalized experiences, tourism stakeholders must adopt sophisticated analytical techniques such as cluster analysis, which can segment the tourist population into meaningful groups based on shared characteristics.

Cluster analysis has been widely recognized as an effective tool for identifying and understanding the distinct segments within a tourist population. By categorizing tourists based on shared traits—such as travel motivations, spending patterns, and length of stay—this technique allows destinations to develop tailored marketing and management strategies (Dalmaijer et al., 2022; Olson & Araz, 2023). Previous research has demonstrated the value of cluster analysis in tourism segmentation. For instance, Bieger and Laesser (2002) and Dolnicar (2002) have highlighted how grouping tourists based on their travel preferences can reveal critical insights into their behaviors and expectations. More recently, (Al-Saad et al., 2023) emphasized the need to segment tourists by their distinct motivations and behaviors to improve visitor satisfaction and develop more effective tourism products.

Understanding these distinct tourist segments is essential for Indonesia, which caters to a broad range of international travelers. Tourists visit Indonesia for various reasons—some seek luxury and wellness experiences, others seek cultural exploration, and others are still drawn to adventure and eco-tourism. Building on the existing body of knowledge, this research aims to conduct a comprehensive cluster analysis of international tourists visiting Indonesia. The study will categorize tourists based on their preferences, motivations, and behaviors, utilizing data from tourism statistics and passenger exit surveys. By employing quantitative methods, the research seeks to identify well-defined tourist segments that reflect the diverse characteristics of Indonesia's international visitors, ultimately providing actionable insights for marketers and policymakers to develop targeted strategies that enhance the country's appeal in the global tourism market.

Research Method

This study conducts a Systematic Literature Review (SLR) and Mapping Study of 57 papers from Scopus-indexed scientific journals, focusing on the role of technology in climate change resilience. SLR conducts a comprehensive literature review to address research concerns, identify gaps, and determine future research goals. To enhance transparency and rigor, this study employs the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology (Wiranatkusuma et al., 2024). This study's qualitative technique combines a systematic literature review and mapping analysis, resulting in a more significant research scope than a Systematic Literature Review (Aprizal et al., 2024). The study findings are classified based on result categories, which help anticipate future research directions (Zuhroh, 2022). A qualitative approach enables researchers to retrieve, interpret, and analyze texts flexibly, using the interpretative classification of relevant concepts, themes, and subjects (Zultaqawa et al., 2019). Thus, this study identifies, classifies, and organizes texts from 57 papers to explore the role of technology in climate resilience and uncover underexplored issues.

The first step is to identify research questions and topics by reading previous articles on the blue economy nexus and sustainable development. The second stage entails identifying relevant publications. Researchers searched for publications in the Scopus database (ScienceDirect) using the search type "Reference" and the keywords "blue economy and sustainable development" in the search column. After inputting the terms, the "Search" menu was selected, resulting in 120 articles on various topics, titles, years, and document kinds. The third stage screened the papers, reducing the number to 57 by selecting document types and English-language publications. In the fourth stage, the validity and applicability of the 57 articles chosen as the basis for analysis were assessed. The selection criteria included publication in Scopus-indexed scientific journals (ScienceDirect), subject relevance, title alignment with the role of technology in climate resilience, and publication era (2010-2024). Document quality was also considered to improve text coding, categorization, and data readability in analytical software (Figure 1).

This study utilizes Microsoft Excel 365 and VOSVIEWER for data analysis. VOSVIEWER, commonly used for reviewing article objectives, enables author mapping, network visualization, concept clustering, and topic network simulation (Van Eck et al., 2013). Based on 57 publications, the software compiled a list of authors, subjects, and issues in innovative and sustainable agriculture studies. However, VOSVIEWER's limitations in displaying topics based on author names and other classifications required researchers to extract information manually using Microsoft Excel 365. Excel was used to map and categorize concepts and issues derived from VOSVIEWER analysis, generate visual charts, graphs, and maps, and outline key indicators from the analyzed articles.
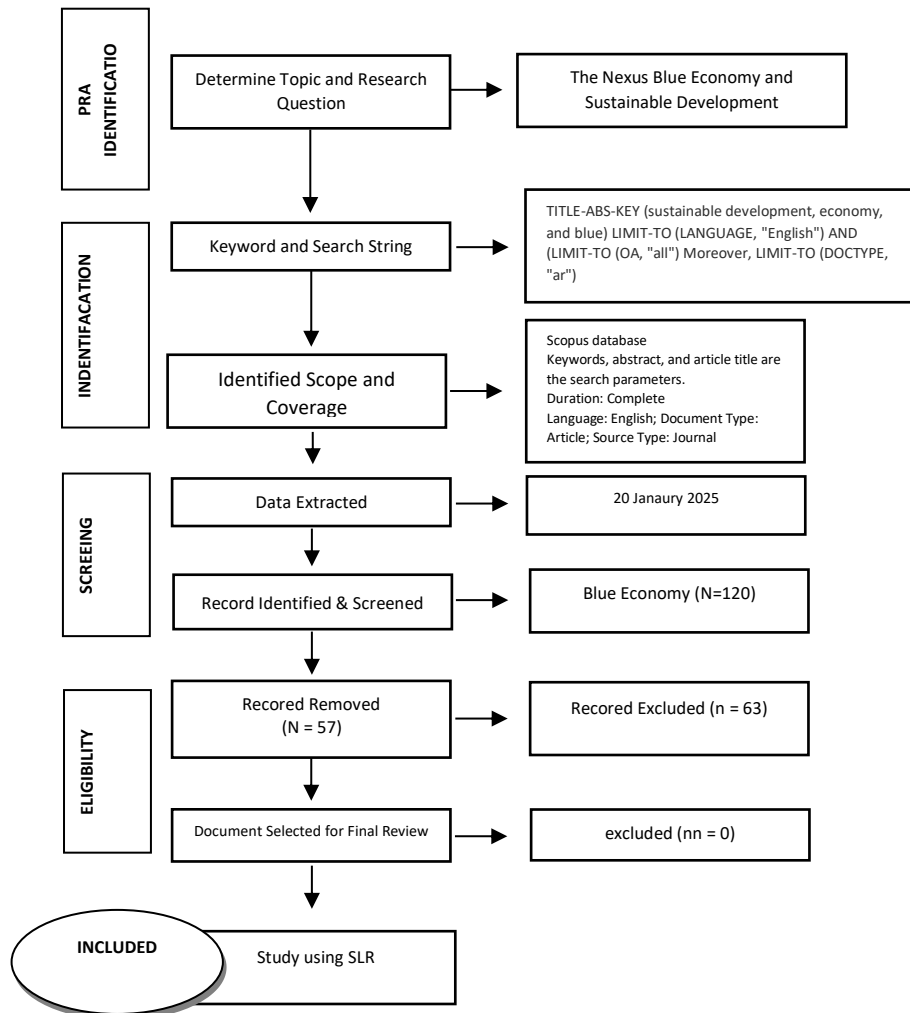
Figure 1 Article Selection Process (Primsa Steps)
Source: Wiranatakusuma et al., (2024).

Result and Discussion

Analysis of Vosviewer

Following a comprehensive literature review and mapping technique to locate publications, an analysis of 120 journals yielded 57 papers on the blue economy, which were then analyzed using VOSviewer software. A software program called VOSviewer is used to create maps from network data and to see and explore them (Van Eck et al., 2013). Keyword patterns dispersed among observed and pertinent studies are displayed in this context. Network, overlay, and density visualization are the three visualization categories that VOSviewer provides.

Keywords with strong relationships to other keywords are reviewed using network visualization. A network visualization based on the keyword patterns from the 57 earlier

investigations produced by the VOSviewer software is displayed in Figure 2. Clusters are created using network visualization, which groups words with the closest networks. Cluster 1 (gray) includes keywords such as blue economy, economic growth, deep sea mining, doughnut economy, and conditionality. Cluster 2 (blue) comprises sustainability, digitalization, sustainable development, arctic blue economy, blue bonds, and eco-label. Cluster 3 (yellow) features ocean economy and low trophic level aquaculture. Cluster 4 (red) comprises blue growth, tourism, and SDGs. Cluster 5 (brown) includes fisheries and regenerative systems. Cluster 6 (purple) comprises blue food, aquaculture, and maritime archaeology. Cluster 7 (green) provides innovation and algal morphogenesis. Cluster 8 (orange) consists of small-scale fisheries and civic participation. Lastly, Cluster 9 (light purple) features blue equity, ocean sustainability, and alternative livelihoods. These clusters illustrate the interconnectedness of various themes within the blue economy and provide insights into dominant and emerging research areas.
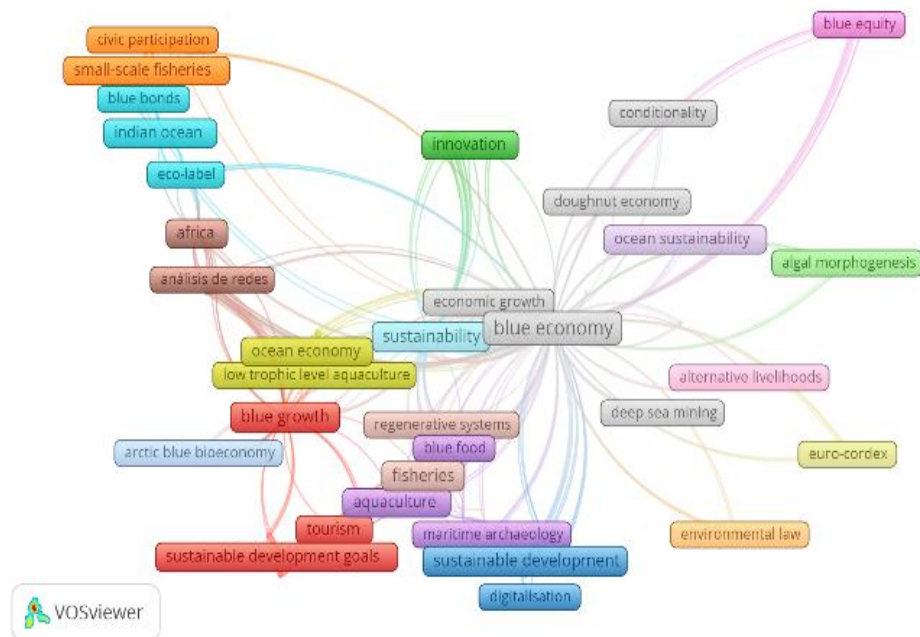
Figure 2 Network Visualization of Blue Economy and Sustainable Development
Source: Author Analysis (VOSviewer 2024)

The weight of each term in Figure 2's network visualization is shown by the size of the boxes and keywords. The more essential and well-known the research network, the bigger the box size. The co-occurrence of two terms is indicated by the lines joining them. Shorter distances indicate more significant links, but the distance between boxes also shows the strength of the association between terms. Keywords in the same cluster are indicated by boxes of the same color. Within the theme of * economy and sustainable development, the enormous boxes depict the blue economy, economic growth, and sustainability—all of which have a significant and close association.

The following visualization is an overlay. Figure 3 depicts an overlay depiction of 57 previous studies on the blue economy and sustainable development. The overlay graphic reviews trending issues related to the study topic. The most recent trends are indicated in yellow. The closer to the yellow tint, the more recent the research on that topic. The image below depicts several emerging obstacles to the blue economy and sustainable development, such as innovation, the doughnut economy, environmental law, regenerative systems, digitization, and SGDs.
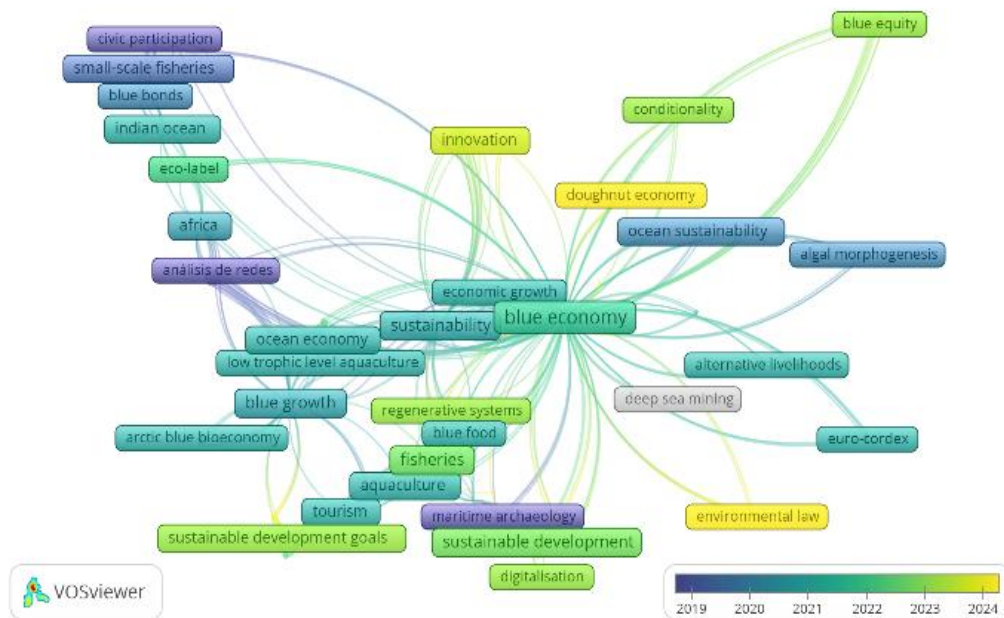
Figure 3 Overlay Visualization of Blue Economy and Sustainable Development
Source: Author's Analysis (VOSviewer 2024)

Furthermore, the density visualization is the last in the VOSviewer analysis. Finding the main problems associated with the subject under discussion is made easier with the help of this graphic. The more research done on a topic, the brighter the hue. Based on Figure 4, several dominant issues related to the *Blue Economy* and *Sustainable Development* include *blue economy, sustainability, ocean economy, innovation, small-scale fisheries, blue equity, SDGs, sustainable development,* and *fisheries*. Meanwhile, less dominant issues, indicated by less bright or pale green colors, include economic growth, ocean sustainability, doughnut economy, alternative livelihoods, deep sea mining, blue growth, aquaculture, tourism, digitalization, and environmental law.
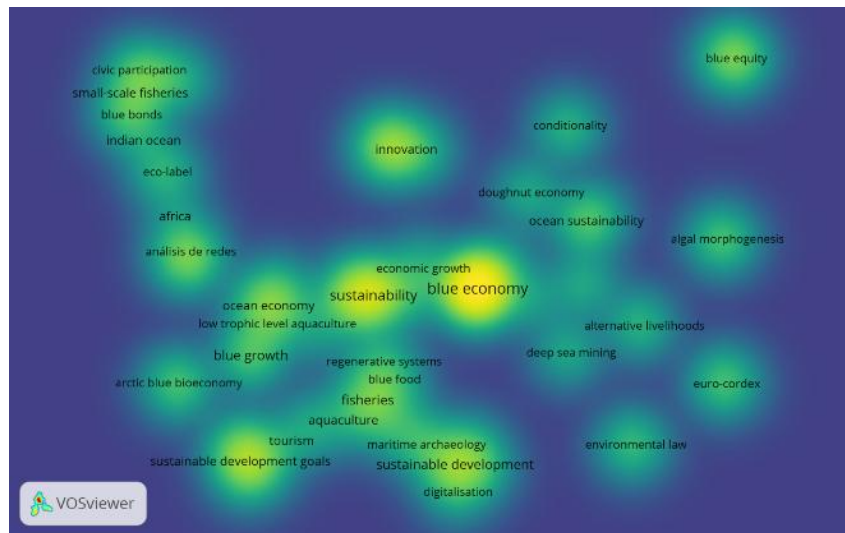
Figure 4 Density Visualization of Blue Economy and Sustainable Development
Source: Author's Analysis (VOSviewer 2024)

Classification of the Blue Economy and Sustainable Development Nexus Against Research Data Characteristics

This study analyzed and reviewed 57 research publications on the Blue Economy and Sustainable Development Nexus published in Scopus-indexed journals between 2010 and 2024. The following are some classifications derived from the article review results.

Classification Based on Publication Year
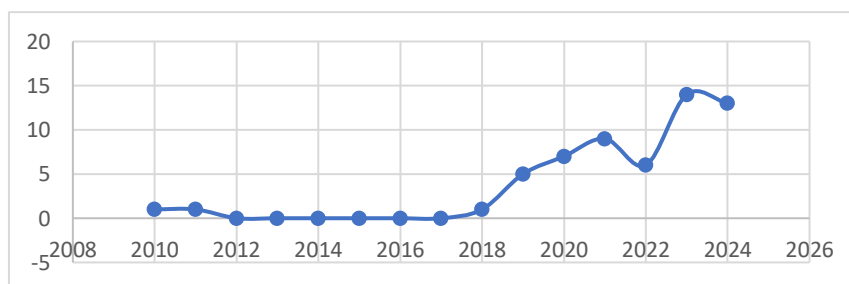
Figure 5 Classification of Publication Trends Based on Year of Publication

The publication trend of research on blue economy and sustainable development shows significant growth since 2018, with a sharp increase in publications starting in that year, reflecting growing academic attention to these concepts. The first peak occurred around 2021, likely driven by global sustainability awareness, particularly in maritime policies, climate change, and sustainable marine resource use. After a slight dip, publications surged again in 2023, indicating that the field has become a key topic in environmental and economic studies. The minor decline post-2024 may signal a shift towards more specific sub-themes. Overall, the trend highlights the increasing focus on the blue

economy and sustainable development in response to global environmental and economic challenges.

Classification Based on Country and Institutional Affiliation

Table 1 Classification of Publications by Country

Country	Number	Country	Number
Australia	4	Norway	4
Belgium	1	Poland	1
Canada	5	Portugal	1
China	4	Romania	1
Croatia	1	Saudi Arabia	1
Czech	1	South Africa	1
Egypt	1	Spain	2
Germany	4	Swedia	1
Greece	3	Turkey	1
Indonesia	5	UK	7
Italy	1	USA	6
Malta	1		
Total		57	

The distribution of countries in the previous studies on blue economy and sustainable development shows that research on this topic has been conducted worldwide, with 57 publications from various countries. The UK leads with 7 publications, followed by the USA with 6, and Canada and Indonesia with 5 each. Other countries like Australia, China, Germany, and Norway have 4 publications each, indicating strong involvement from nations with extensive coastlines and maritime sectors. Greece and Spain contribute 3 and 2 publications, respectively. At the same time, several European countries (Belgium, Croatia, Czech Republic, Italy, Malta, Poland, Portugal, Romania, Sweden, and Turkey) have 1. Egypt, Saudi Arabia, and South Africa from Africa, the Middle East, and Asia also contribute, reflecting the growing global interest in blue economy and sustainable development. This trend highlights the increasing international attention to ocean-based economic strategies and sustainability, extending beyond island or coastal nations to include developing countries.

Classification Based on Research Method Approach

Table 2 Classification Based on Research Method Approach

Research Approach	Total	Percentage
Quantitative	22	38,60%
Qualitative	33	57,89%
Mixed	2	3,51%
Total	57	100%

In research on blue economy and sustainable development, qualitative approaches dominate, with 33 out of 57 studies (57.89%) using qualitative methods, while 22 studies (38.60%) adopt quantitative approaches. Only 2 studies (3.51%) employ mixed methods, combining qualitative and quantitative analysis. The prevalence of qualitative approaches suggests a focus on conceptual, policy, and social dynamics in managing marine resources, often analyzing policies, stakeholder insights, and case studies. Quantitative research, comprising nearly 40% of the studies, highlights the importance of empirical data in assessing economic impacts and resource utilization efficiency. The limited use of mixed methods indicates an opportunity to combine both approaches for a more comprehensive understanding of blue economy issues.

Classification Based on the Distribution of Issues in the Nexus Blue Economy and Sustainable Development

Table 3 Classification Based on Topic

Issues	Total	Percentage
Strategic Management & Marine & Coastal Tourism	12	21,05%
Ocean Governance & Marine Spatial Planning	10	17,54%
Sustainable Aquaculture, Marine Food Production & Blue Energy Innovation	10	17,54%
Climate Change, Risk & Conservation	10	17,54%
Fisher Support	7	12,28%
Marine Cultural Heritage & Social Dimensions	6	10,53%
Commercial Performance	2	3,51%
TOTAL	**57**	**100%**

The Nexus of Blue Economy and Sustainable Development highlights key issues such as Strategic Management and marine and coastal Tourism (21.05%), emphasizing sustainable marine resource management and coastal tourism. Ocean Governance, Sustainable Aquaculture, Marine Food Production and Blue Energy Innovation, and Climate Change, Risk, and Conservation each account for 17.54%, showcasing balanced roles in sustainable development and climate resilience. Fisher Support (12.28%) stresses policies for fishermen's well-being. Marine Cultural Heritage and Social Dimensions (10.53%) focus on social and cultural aspects of marine ecosystem preservation. Commercial Performance (3.51%) indicates the secondary importance of economic performance, primarily focusing on sustainability, governance, and resource management. The Nexus balances economic, environmental, and social factors for coastal community well-being.

Strategic Management and Marine and Coastal Tourism

The research by Pace et al. (2023) shows that the issue of Strategic Management and Marine and Coastal Tourism in the blue economy emphasizes the strategic management of marine and coastal tourism sectors, as well as other sectors, to achieve sustainable economic growth, social inclusivity, and environmental conservation. This study utilized foresight techniques like horizon scanning to identify opportunities and challenges, including water insecurity risks and the lack of local community involvement. With an

adaptive and knowledge-based approach, this research aims to formulate strategies and policies that promote eco-tourism and marine tourism activities and ensure the well-being of coastal communities and the sustainability of aquatic ecosystems. This study aligns with the research conducted by McKinley et al. (2019), Dvorak & Razova (2018), Khokhar et al. (2024), Pavlinović et al. (2023), Fratila et al. (2021), Pleym et al. (2021).

Ocean Governance and Marine Spatial Planning

Research by Knott et al. (2024) emphasizes the importance of Ocean Governance and Marine Spatial Planning (MSP) in sustainable marine management, balancing ecological, economic, and social needs. Ocean governance involves policies and regulations for marine protection, including aquaculture, while MSP allocates space for resource use and conservation. Knott et al. (2024) highlight challenges in Canada's offshore aquaculture regulations, calling for global management reforms, while international agreements like BBNJ aim to protect marine biodiversity. Pournara & Sakellariadou (2022) show how MSP supports sustainable management in the Gulf of Elefsis, aiding blue economy development and coastal protection (Ortega, 2024; Loring et al., 2023; Marwa et al., 2024; Schutter & Hicks, 2019; Kaczynski, 2011)

Sustainable Aquaculture, Marine Food Production, and Blue Energy Innovation

Research by (Glass et al., 2022; Califano, 2020) highlights the concepts of Sustainable Aquaculture, Marine Food Production, and Blue Energy Innovation, focusing on the sustainable management of marine resources to support food and energy security. Sustainable aquaculture aims to increase seafood production without harming ecosystems. In contrast, marine food production emphasizes environmentally friendly methods to harness the ocean's potential for global food needs. Blue energy innovation includes the development of renewable ocean-based energy technologies, such as wave and tidal energy, which have the potential to reduce dependence on fossil fuels and support the transition to a green and blue economy (Hughes, 2021; Fauzi et al., 2024; Chuku et al., 2024; Manlosa et al., 2021; Fusco et al., 2022).

Climate Change, Risk and Conservation

Research by Niu et al. (2023) and Martínez-Vázquez et al. (2023) highlights the issue of Climate Change, Risk and Conservation, a concept linking climate change with increased risks to ecosystems and biodiversity, and the importance of conservation efforts to mitigate these impacts. Climate change exacerbates environmental damage and threats to species. At the same time, conservation strategies aim to preserve ecosystems and reduce risks such as habitat degradation and the increased frequency of natural disasters. This approach emphasizes the importance of climate change adaptation and mitigation in safeguarding nature for a more sustainable future (Hodgson et al., 2019; Bacciu et al., 2021; Cziesielski et al., 2021).

Fisher Support

Research by Christ et al. (2020) and Yılmaz (2020) highlights the issue of Fisher Support, a concept related to the role of social and institutional support in strengthening the resilience of individuals or communities against economic and social challenges. It includes efforts to improve access to resources, education, and policies that can support the well-being of communities, particularly in times of crisis or significant change. Fisher Support focuses on collaboration between various stakeholders, including governments, the private sector, and communities, to create a more resilient and inclusive environment (Zamroni et al., 2023; Kittinger et al., 2024; Wasik et al., 2024; Prellezo et al., 2023).

Marine Cultural Heritage and Social Dimensions

Research Bond (2019) highlights the issue of marine cultural heritage and social dimensions. This concept links maritime cultural heritage with its impact on the social life of coastal communities. It includes protecting and preserving underwater historical sites, traditional practices, and local knowledge of the sea that holds cultural value. Additionally, this concept emphasizes the role of maritime culture in shaping the social, economic, and sustainability identity of coastal communities, as well as the importance of involving local communities in the management and preservation of maritime cultural heritage for future generations. It aligns with studies by (Bohle et al., 2019; Henderson., 2019; Tianming et al., 2021)

Commercial Performance

The issue of Marine Cultural Heritage and Social Dimensions is a concept that links maritime cultural heritage with its impact on the social life of coastal communities. It includes protecting and preserving underwater historical sites, traditional practices, and local knowledge of the sea that holds cultural value. Additionally, this concept emphasizes the role of maritime culture in shaping the social, economic, and sustainability identity of coastal communities, as well as the importance of involving local communities in the management and preservation of maritime cultural heritage for future generations. It aligns with Guillou et al.'s (2020) and Lages et al. (2023) studies.

Conclusion

The nexus between the blue economy and sustainable development shows some interesting findings. The overlay visualization and density analysis of 57 selected studies reveal current trends in the blue economy and sustainable development issues, such as innovation, doughnut economy, environmental law, regenerative systems, digitalization, and SDGs. Dominant issues frequently researched include blue economy, sustainability, ocean economy, innovation, small-scale fisheries, blue equity, SDGs, sustainable development, and fisheries. Less dominant but potentially growing issues include economic growth, ocean sustainability, doughnut economy, alternative livelihoods, deep sea mining, blue growth, aquaculture, tourism, digitalization, and environmental law. The

distribution of issues in the nexus of blue economy and sustainable development shows that strategic management, marine, and coastal tourism is the primary focus (21.05%), followed by ocean governance, marine spatial planning, sustainable aquaculture, marine food production, blue energy innovation, and climate change, risk, and conservation (17.54%). In addition, fisher support highlights the well-being of fishermen (12.28%).
In comparison, marine cultural heritage and social dimensions emphasize the importance of social and cultural aspects (10.53%). Commercial Performance (3.51%) is still considered. Still, overall, the primary focus remains on sustainability, governance, and the well-being of coastal communities.

The findings of this study have significant implications for academia and policy development in the *blue economy* and *sustainable development*. Key research trends—innovation, *doughnut economy*, digitalization, and SDGs—reflect an interdisciplinary shift. In contrast, dominant themes like *blue economy, sustainability*, and *small-scale fisheries* highlight critical focus areas. Emerging topics, including *deep sea mining* and *blue growth*, present opportunities for further exploration. Thus, future research could address gaps in the *blue economy-sustainable development Nexus*, particularly in integrating *doughnut economy* principles, marine management digitalization, and emerging ocean industries' socio-economic impacts.

Additionally, studies on *marine spatial planning, fisher support*, and *climate risk mitigation* are essential for long-term sustainability issues. Greater attention to *marine cultural heritage* and *social dimensions* could enrich the human aspect of the *blue economy*. By bridging these gaps, future research could enhance sustainable development strategies while ensuring ecological resilience and economic inclusivity.

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