



# The Role of Governance in Promoting the Transition to Blue–Green Economy: A Literature Review

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**Abstract.** The transition to a blue–green economy has become a critical global agenda. This review is intended to analyze the role of governance in accelerating the transition to the sustainable blue-green economy, with a specific focus on the linkages between marine policy, environmental sustainability, and social welfare. This review uses the method of systematic literature review based on PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) approach to select and synthesize 15 scientific publications and reports from relevant international institutions, including those from Nature Sustainability, Marine Policy, One Earth, Environment International, FAO, UN, and the World Bank. The study shows that effective governance in the blue-green economy is characterized by the principles of transparency, cross-sector collaboration, and local community participation. Ecosystem-based management and polycentric governance approaches have proven effective in bridging economic interests with marine ecosystem conservation. Furthermore, the role of global corporations and international institutions is a key factor in strengthening policy integration between the blue (marine) and green (terrestrial) dimensions. These findings provide implications for strengthening institutional capacity, harmonization of crosssector policies, and community-based innovation as key prerequisites for promoting a fair, inclusive, and competitive blue-green economy, especially in an archipelagic country like Indonesia.

**Keywords:** Governance, Blue Economy, Green Economy, Sustainable Development, Marine Resource Management, Cross-Sector Collaboration, Social Inclusivity.

## 1 Introduction

The concept of the blue–green economy is rooted in two development sustainability paradigms: the blue economy, which emphasizing the sustainable use of marine resources [1, 2], and the green economy, which emphasize balance between economic growth and environmental protection. These two approaches are increasingly relevant of the world is facing a serious problem with the climate changing and the oceans getting worse, which is hurting people who live near the sea. This is making it harder to get enough food and is affecting the health and safety of people in coastal areas, Bennett et al. [1] highlight that the success of the blue economy depends not only on the

efficiency of resource utilization but also on a governance system capable of balancing social, economic, and ecological interests within a framework of intergenerational equity.

With increasing awareness of the link between oceans and green development, there is an urgent need to integrate blue and green economy principles into national and international policies. According to Lee et al. [7], this approach aligns with the Sustainable Development Goals (SDGs) agenda, particularly SDG 13 (climate action) and SDG 14 (life below water). The World Bank [14] emphasizes that governance plays a crucial role as a link between global policies and local implementation in strengthening coastal economic resilience, reducing poverty, and maintaining the sustainability of natural resources. Thus, governance becomes a key pillar that bridges interests across sectors and scale

However, the implementation of the blue-green economy concept faces various structural and institutional challenges. Silver et al. [11] and Voyer et al. [15] show that different interpretations of the term “blue economy” create tensions between the interests of economic growth and environmental conservation. On the other hand, Österblom et al. [9] highlight the dominance of transnational corporations in the global ocean economic system, which often displaces the role of states and local communities. This condition brings up important questions about how we can create systems of governance that fairly balance the influence of big global groups with the needs of smaller local communities, especially when it comes to keeping the environment healthy.

In the Indonesian context, the urgency of implementing a blue-green economy is increasingly apparent given the country's position as an archipelago with vast marine resource potential but vulnerable to exploitation. Kurniawan & Nugroho [6] and Wibowo & Nurhidayati [16] stress the necessity of an ecosystem-based, adaptable, and participatory governance model to help accomplish the SDGs at the local and national levels. Therefore, this study aims to identify and synthesize empirical findings related to the role of governance in driving the transition to a blue-green economy, as well as provide a conceptual understanding of policy mechanisms that can strengthen the synergy between environmental sustainability and economic development.

## 2 Literature Review

The following table presents a summary of articles identified through the PRISMA stages in the study entitled "The Role of Governance in Driving the Transition to a Blue-Green Economy." This table presents the results of a compilation of 15 scientific publications and reports from international institutions that have gone through the process of identification, screening, eligibility, and inclusion according to systematic review standards. Each article is summarized by title, author, year of publication, methods used, and key findings relevant to the topic of governance and the transition to a blue-green economy.

This table aims to provide a comprehensive overview of the diversity of approaches, policy contexts, and theoretical contributions from each of the sources reviewed. Thus,

it serves not only as a summary of the literature but also as a basis for comparative analysis of how governance is defined and implemented across geographic and institutional contexts. This synthesis provides an important foundation for understanding how the principles of transparency, participation, and cross-sector collaboration can strengthen the integration between the blue economy (marine) and green economy (land) dimensions within the framework of global and national sustainable development. The summary of identified articles included in this systematic literature review is presented in Table 1.

**Table 1.** Summary of Identified Articles

No	Title	Writer	Year	Method	Key Findings
1	Towards a Sustainable and Equitable Blue Economy	Bennett, NJ et al.	2019	Conceptual & policy studies	Inclusive and social justice-based governance is the foundation of a sustainable blue economy.
2	Five Rules for Pragmatic Blue Growth	Burgess, M.G. et al.	2018	Empirical policy analysis	Developing five practical principles for blue economic growth: transparency, participation, accountability, efficiency, and adaptation.
3	The EU Blue Economy Report	European Commission	2021	Data analysis of the maritime economic sector in the EU	Europe's blue economy requires cross-sector policy coordination and sustainable investment.
4	Blue Growth Initiative: Partnering for Sustainable Fisheries and Aquaculture	FAO	2018	Global policy studies	Encouraging synergy between fisheries economic growth and marine conservation.
5	The Blue Acceleration: The Trajectory of Human Expansion into the Ocean	Jouffray, JB et al.	2020	Global trend analysis ( <i>spatio-temporal analysis</i> )	Demonstrates accelerating human expansion into the oceans and increasing governance risks.
6	Adopting Blue-Green Economy Concepts to Achieve SDGs in Indonesia	Kurniawan, R. & Nugroho, I.	2020	Theoretical study & SDG mapping	Demonstrates the alignment of the blue economy with SDGs 13 and 14 and the need for cross-sectoral governance.
7	The Blue Economy and the United	Lee, KH, Noh, J.,	2015	Ecosystembased policy studies	Proposing <i>ecosystembased management (EBM) principles</i> for

8	Nations' Sustainable Development Goals Key Principles of Marine Ecosystem-Based Management	& Khim, JS Long, R., Charles, A., & Stephens on, R. Österblom, H. et al.	2015	Ecosystembased policy studies	sustainable governance. Proposing <i>ecosystembased management (EBM) principles</i> for sustainable marine governance.
9	Transnational Corporations as Keystone Actors in Marine Ecosystems		2015	Analysis of global corporate networks	TNCs play a key role in global ocean management; governance must regulate their influence.
10	The Blue Economy: 10 Years, 100 Innovations, 100 Million Jobs	Pauli, G.	2010	Conceptual book of innovation	Introducing blue innovation as an opportunity for creating environmentally friendly jobs.
11	Blue Economy and Competing Discourses in International Oceans Governance	Silver, JJ et al.	2015	Global policy discourse analysis	Identifying conflicts between economic and conservation discourses in international ocean governance.
12	The Ocean Conference: Our Ocean, Our Future – Call for Action	United Nations	2017	Global policy declaration	Calling for collaborative governance between nations to protect global marine ecosystems.
13	Benefits of Rebuilding Global Marine Fisheries Outweigh Costs	Sumaila, UR et al.	2019	Economic analysis & global model simulation	Rehabilitation of global fisheries provides significant long-term economic benefits.
14	The Potential of the Blue Economy	World Bank	2017	Analytical reports & policy studies	Good governance can improve the welfare of coastal developing countries through a sustainable ocean economy.
15	Shades of Blue: Competing Interpretations of the Blue Economy	Voyer, M. et al.	2018	Multi-actor qualitative study	Shows that there are various interpretations of the blue economy that have an impact on the direction of marine policy.
16	Development of the Blue Governance Model in Sustainable	Wibowo, J. &	2022	Empirical & conceptual studies	Proposing a participatory-based <i>blue governance model</i> for coastal

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Coastal Area Management in Indonesia	Nurhi dayati, N.	area management in Indonesia.
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Of the 16 sources identified, approximately 40% addressed conceptual aspects of governance and policy, 30% addressed blue–green economy integration within the context of sustainable development, and 30% focused on empirical studies and implementation recommendations. The majority of articles emphasized the importance of inclusive governance, cross-sectoral policies, and strengthening institutional capacity to achieve an equitable and sustainable blue–green economy.

### 3 Methodology

This research uses a method called systematic literature review, or SLR, following the PRISMA guidelines. The process has four key steps: finding the articles, checking their relevance, assessing if they are suitable, and finally including the right ones. In the identification stage, a total of 43 articles and reports were obtained from various scientific databases such as ScienceDirect, SpringerLink, Scopus, as well as official reports of the FAO [4], UN [12], World Bank [14], and European Commission [3]. The screening process was carried out based on topic relevance, a focus on the blue green economy and marine resource governance, and a publication period of 2010–2023. Duplicate articles, non-academic opinions, and works that did not meet methodological criteria were excluded, leaving 15 publications eligible for analysis. In the feasibility stage, each source was evaluated in terms of research objectives, context, and methodology, then categorized into main themes such as governance, equity, ecosystem-based management, and blue green integration. The final stage of inclusion resulted in a qualitative narrative synthesis to identify conceptual patterns, research gaps, and relationships between relevant variables in blue green economic governance, with the final results visualized through a PRISMA flow diagram. The PRISMA flowchart illustrating the article selection process is presented in Fig. 1.

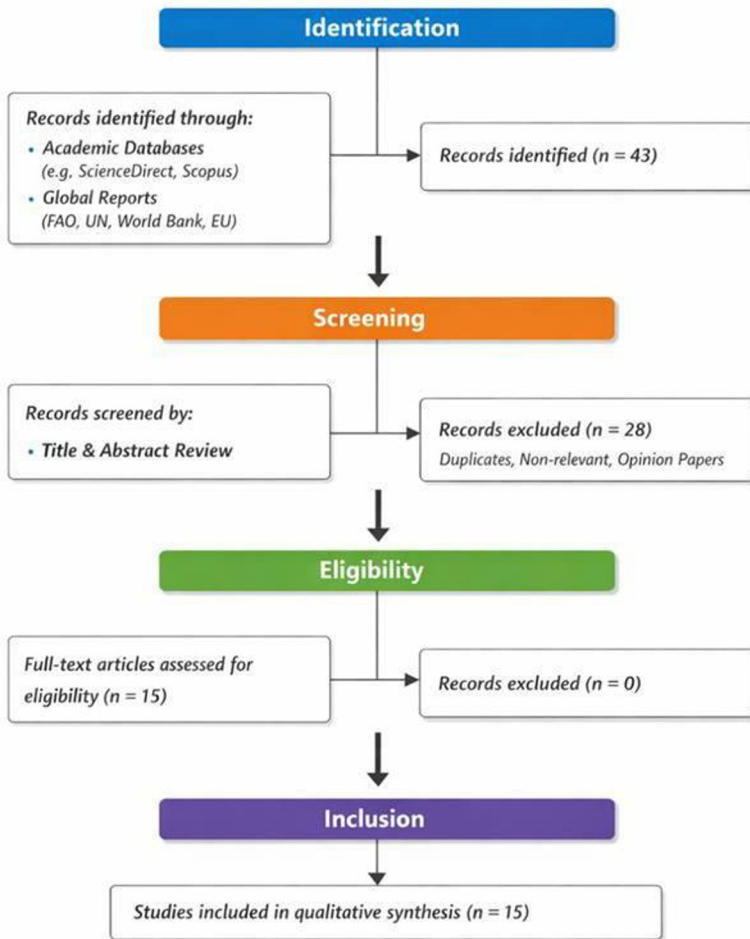


Fig. 1. PRISMA Flowchart

### 3.1 Search keywords used for the systematic review process.

Primary studies were selected with a deadline of December 2025 as the most recent study and without a start date restriction, aiming to cover important works broadly. The search strings used across databases and institutional sources are presented in Table 2.

Table 2. Search strings used for the systematic review process

Home Page	Keyword
Scopus	("blue economy" OR "blue growth" OR "marine governance") AND ("sustainable development" OR "green economy") AND ("policy" OR "governance")

ScienceDirect	("blue–green economy" OR "marine sustainability") AND ("governance" OR "policy framework")
SpringerLink	("blue economy governance" AND "sustainable oceans") OR ("SDG 14" AND "policy implementation")
Google Scholar	("blue–green economy" AND "governance" AND "sustainable development goals")
FAO & UN Databases	("blue growth initiative" AND "marine governance") OR ("UN Ocean Conference" AND "sustainability")
World Bank Open Knowledge Repository	("blue economy" AND "coastal development" AND "sustainability policy")
European Commission Publications	("EU blue economy report" AND "marine governance")

The table of keywords and search strings shows that the literature identification process was carried out systematically through seven major databases, with Scopus as the primary source of peer-reviewed articles and ScienceDirect and SpringerLink as reinforcement of empirical and conceptual context. Google Scholar played a complementary role with local policy sources and literature, while the FAO, UN, World Bank, and European Commission provided global policy reports on governance and the blue-green economy. The combination of keywords such as “blue economy ,” “green economy ,” and “governance” ensured broad yet relevant coverage, allowing search results to illustrate the close relationship between governance, marine sustainability, and blue-green economy integration at various policy levels.

### 3.2 Eligibility Criteria

In reporting this review, all studies were examined and included in the study only if they met all of the following criteria. The inclusion and exclusion criteria applied in the systematic review process are presented in Table 3.

**Table 3.** Inclusion and exclusion criteria

Aspect	Inclusion Criteria	Exclusion Criteria
<b>Document Type</b>	<i>Peer-reviewed</i> scientific articles, academic books, official reports of international institutions (FAO, UN, World Bank, EU).	Opinions, blogs, popular news, non-academic documents without peer review.
<b>Main Topics</b>	Focus on the blue economy, green economy, ocean governance, sustainability, or blue–green integration.	Does not address governance aspects or is not relevant to the blue/green economy.
<b>Geographical Context</b>	Global, regional, or national studies that have implications for marine and environmental policy.	Studies that are purely technical or local in nature without any link to governance or policy.
<b>Publication Period</b>	2010–2023 (the period of development of the blue economy and SDGs concepts).	Publications before 2010 or outside the relevant timeframe.

<b>Language</b>	English and Indonesian.	Languages other than English and Indonesian.
<b>Source Quality</b>	Published in reputable journals or published by official international institutions.	Lacks academic or institutional credibility.
<b>Relationship with Governance</b>	Contains analysis, models, or policy frameworks for blue/green economic governance.	Does not touch on governance mechanisms or public policy.

These inclusion and exclusion criteria ensured that the analyzed literature was thematically and methodologically relevant to governance in the blue–green economy context. A rigorous selection of source types, topics, and publication periods ensured that the synthesis drew on recent academic research and credible policy reports.

## 4 Results

### 4.1 Principles of Blue Economy Governance

Long et al. [8] introduced the Ecosystem-Based Management (EBM) approach as a key principle in sustainable marine governance. This approach focuses on the integration of ecological, social, and economic dimensions to ensure that the exploitation of marine resources remains within the limits of the ecosystem's carrying capacity. EBM emphasizes collaboration between actors—government, the private sector, and coastal communities—in marine spatial planning and ecosystem-based decision-making.

Burgess et al. [2] added a practical perspective through five main rules for realizing sustainable blue economic growth, namely transparency in resource management, public participation in policy formulation, accountability of managing institutions, ecological balance to prevent degradation, and economic efficiency to ensure financial sustainability. These two approaches emphasize that blue economic governance cannot operate without institutional mechanisms that are open and socially just.

### 4.2 The Role of Global Actors and Corporations

Österblom et al. [9] identified the dominance of keystone actors, namely large transnational corporations that control global value chains in marine sectors such as fisheries, offshore energy, and maritime transport. They highlighted that only around 13 global companies control more than two-thirds of the world's marine production. This condition indicates a concentration of economic power that can have a positive impact on efficiency, but also gives rise to the risk of monopoly and unequal distribution of benefits.

Silver et al. [11] and Voyer et al. [15] expand on this view by showing that the concept of the “blue economy” has various ideological interpretations. Some see it as an ocean-based economic growth strategy, while others believe the blue economy must

be rooted in social justice and ecosystem conservation. These differing interpretations create tensions in global governance between the agendas of economic development and environmental protection, highlighting the need for a policy framework that can balance the two .

#### **4.3 Multi-level Governance and Inclusivity**

Bennett et al. [1] and the United Nations [12] emphasize the importance of a multi-level governance approach in blue economy governance, where interactions between actors across scales (international, national, and local) are key to policy coordination. This model enables integration between global policies such as the UN Ocean Decade and implementation at the local level through community-based initiatives.

In the Indonesian context, Wibowo & Nurhidayati [16] developed a participatory-based blue governance concept that encourages collaboration between local governments, fishing communities, and the private sector in coastal area management. Kurniawan & Nugroho [6] added that adopting the blue-green economy concept can accelerate the achievement of SDG 13 (climate action) and SDG 14 (marine ecosystems). These two studies show that the success of blue economy implementation is largely determined by the involvement of local communities and the government's ability to build collaborative governance .

#### **4.4 Blue-Green Economic Synergy**

FAO [4] and the European Commission [3] highlight the need for cross-sectoral integration to link blue economy policies with green economy policies. This approach focuses on balancing ocean-based economic growth and terrestrial environmental conservation through complementary policies, such as coastal energy efficiency, waste management, and sustainable fisheries development.

Lee et al. [7] link this integration to the implementation of SDG 13 (climate action) and SDG 14 (marine ecosystems) as two mutually reinforcing pillars in addressing climate change. Meanwhile, Sumaila et al. [13] provide empirical evidence that global fisheries restoration can generate long-term economic benefits, improve food security, and reduce pressure on marine ecosystems. Thus, the blue-green economy synergy reflects a holistic approach that is not only oriented towards growth, but also towards social and ecological sustainability.

#### **4.5 Challenges and Future Directions**

Jouffray et al. [5] warn of the phenomenon of blue acceleration, namely the acceleration of economic activity in the oceans due to global investment in fields like marine biotechnology, renewable energy, and maritime infrastructure. This phenomenon poses major challenges for governance, especially in maintaining the balance between economic exploitation and ecosystem capacity.

Pauli [10] emphasized the importance of blue innovation—including green technologies, the marine bioeconomy, and resource circularity—as a strategy to create new jobs and support the green transition. The World Bank [14] emphasized that the future direction of the blue-green economy depends heavily on institutional capacity, sustainable financing, and collaboration between global actors. Developing countries, including Indonesia, need to strengthen adaptive governance and policy innovation to be able to manage marine potential productively without sacrificing ecosystem sustainability.

## 5 Discussion

The findings indicate that governance is a key foundation for a successful transition to a blue-green economy. The EBM approach [8] and Burgess et al.'s five governance principles [2] reinforce the argument that marine sustainability cannot be achieved without an inclusive and transparent policy framework. The role of global actors and transnational corporations [9, 11, 15] emphasizes the need for international regulations that balance economic and conservation interests.

Multi-level governance [1, 12, 16] demonstrates that synergy between central, local, and community governments is essential for overcoming policy fragmentation. In Indonesia, a participatory-based blue governance model has proven adaptive to the coastal socio-ecological context. The integration of blue and green economies [3, 4, 7, 13] broadens the scope of sustainable development, combining resource efficiency with ecosystem restoration.

However, major challenges still arise from the pressures of global ocean exploitation [5], imbalances in corporate power [9], and institutional limitations in developing countries [14]. So, the way forward for managing the blue-green economy needs better institutions, new policies that work across different areas, and teamwork between government, businesses, and local communities to make sure the economy grows without hurting the environment.

## 6 Conclusion

This study confirms that governance is a key determinant in accelerating the transition to a just and sustainable blue-green economy. Effective governance not only requires coordination across sectors and government scales, but must also be based on the principles of transparency, accountability, participation, and ecological balance. The Ecosystem-Based Management (EBM) approach as proposed by Long et al. [8] has proven to be an important conceptual foundation in ensuring that marine economic activities do not exceed the carrying capacity of the ecosystem.

The analysis shows that synergy between global actors, transnational corporations, and local communities is a critical factor in determining the direction of marine economic development. The roles of these actors need to be guided through a multi-level

governance framework that integrates international policies such as the UN Ocean Decade with local, community-based implementation. In Indonesia, the implementation of a participatory blue governance model has been proven to strengthen the adaptive capacity of coastal communities and accelerate the achievement of the Sustainable Development Goals (SDGs), particularly targets 13 (climate action) and 14 (marine ecosystems).

Furthermore, the integration of the blue economy and the green economy requires mutually supportive cross-sectoral policies, encompassing energy, fisheries, maritime transportation, and coastal ecosystem conservation. Strengthening this synergy can increase resource efficiency, reduce environmental impact, and open up new economic opportunities based on green innovation. However, major challenges such as blue acceleration, unequal control of resources by large corporations, and weak institutional capacity remain major obstacles to achieving a just and sustainable transformation.

Thus, a successful transition to a blue-green economy requires a collaborative, adaptive, and inclusive governance approach that balances ecological, social, and economic values. Developing countries, including Indonesia, need to strengthen regulations, institutional capacity, and marine technology innovation to ensure that marine resource utilization is not only oriented towards economic growth but also ensures sustainability for future generations.

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