

# Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development



NWEKE, Chiedozie Cyprain<sup>1</sup>, Prof. Dr. Dhakir Abbas Ali<sup>2</sup>

<sup>1</sup>Lincoln University College, Malaysia

<sup>2</sup>Deputy Dean for Postgraduate Studies.

**ABSTRACT:** The Nigerian blue economy is considered new, owing to the fact that it has not been fully explored and developed. However, it shows huge prospects and potential that is capable of impacting the Nigerian economy in so many ways. Its sectors consist of fisheries and aquaculture, maritime transport and shipping, offshore energy, tourism and coastal recreation, marine biotechnology, maritime security, seabed mining, maritime and coast infrastructure, and also marine environmental service. Its prospects is demonstrated in economic diversification, employment opportunities, food security, renewable energy potential, enhanced maritime trade, and environmental sustainability. the opportunities it provides are numerous including expansion of maritime trade, fisheries and aquaculture development, offshore renewable energy, coastal tourism and recreation, job creation, maritime security services, and international collaboration. However, it brings challenges such as illegal maritime activities, inadequate infrastructure, environmental degradation, lack of policy and regulatory frameworks, overfishing and unsustainable practices, limited investment, inadequate skilled workforce, and security concerns. In its quest to attain sustainability, frameworks such as the 2030 Agenda for Sustainable Development (UN SDGs), The Paris Agreement on Climate Change, The Green New Deal (Global and Regional), The Rio Declaration on Environment and Development (1992), Sustainable Fisheries and Blue Economy Policies, and The Convention on Biological Diversity (CBD) are further taken into consideration, which help in providing policy frameworks for different implementation. The methodology approach used is a systematic literature review.

**KEYWORDS:** Fishery, Aquaculture, Maritime, Shipping, Tourism, Seabed Mining, Offshore Energy

## 1. INTRODUCTION

The blue economy of Nigeria is one that is still in its early stages of exploration owing to the fact that only a handful of sectors have been fully explored and utilized. However, the potential of the blue economy of Nigeria, if fully explored would significantly boost the economic situation in Nigeria, create jobs across sectors of the blue economy, increase the standard of living of the communities that are directly embedded in the blue economic, and furthermore develop some sectors of the Nigerian economic which have become strong holds and pillar for different industry to thrive (Elisha, 2019)

In addition to this, the harnessing of these various potential tends to open up new markets for some industries in Nigeria, diversify business processes and procedures, and attract new clients that the new opportunities are meant to cater for. In order to be able to identify and harness the potential of the blue economy, it is necessary to investigate the opportunities, explore the challenges and furthermore examine the policy framework for sustainable development with respect to the blue economy of Nigeria (Adepoju et al, 2023).

In doing this, the vast potential can be identified, the opportunities can be exposed, the challenges can be perceived and the combination of this can further pave way for the development of policy frameworks that are sustainable as the Nigerian blue economy projects into the future.

# Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development

## 2. LITERATURE REVIEW

### 2.1 Nigerian Blue Economy

#### 2.1.1 Overview

Nigeria's blue economy focuses on the sustainable development and utilization of ocean resources to drive economic growth, enhance livelihoods, and maintain a healthy marine ecosystem. With a coastline stretching approximately 853 kilometers and an Exclusive Economic Zone extending 200 miles, the country possesses significant potential in marine-based sectors, including fisheries, aquaculture, tourism, shipping, and offshore energy production (Muhammed et al, 2024)

The blue economy plays a crucial role in Nigeria's efforts to diversify its economy and decrease dependence on oil revenues. Fisheries and aquaculture provide livelihoods for millions, while maritime trade, facilitated by key ports in Lagos, Port Harcourt, and Calabar, makes a substantial contribution to the nation's GDP. Moreover, Nigeria's rich offshore oil and gas reserves further highlight the economic significance of its ocean resources (Elegbede et al, 2023)

Nonetheless, progress is hampered by challenges such as overfishing, illegal maritime activities, pollution, and inadequate policy enforcement. These issues are further intensified by climate change, which disrupts fish stocks and accelerates coastal erosion. In response, the Nigerian government has introduced initiatives like the Deep Blue Project to strengthen maritime security and the Blue Economy Initiative to promote sustainable resource management (Popoola and Olajuyigbe, 2023)

Unlocking the full potential of Nigeria's blue economy requires global partnerships, strengthened regulatory frameworks, and increased investment in marine science and technology. By promoting sustainable practices and effectively utilizing its maritime resources, Nigeria can foster inclusive economic growth, bolster food security, and safeguard its marine environment for future generations.

#### 2.1.2 Sectors of the Nigerian Blue Economy

The Nigerian blue economy is made up of several key sectors that are responsible for harnessing the country's vast coastal and marine resource. These sectors include fisheries and aquaculture, maritime transport and shipping, offshore energy, tourism and coastal recreation, marine biotechnology, marine security, seabed mining, marine and coastal infrastructure, as well as environmental services (Muhammed et al, 2024).

Fisheries and aquaculture consist of Coastal and inland fishing industries, aquaculture farms, and seafood processing contribute to food security, employment, and exports, the maritime transport and shipping sector consist of cargo handling, shipbuilding, ship repair, and port operations at major ports like Lagos, Calabar, and Port Harcourt. This sector is critical for international trade and regional connectivity (Yusuff and Ibidapo-Obe, 2024)

Offshore energy entails Oil and gas extraction from offshore reserves is a significant contributor to Nigeria's GDP. The potential for renewable energy, such as offshore wind and wave energy, is also emerging, tourism and coastal recreation further consists of Nigeria's coastal areas, such as those in Lagos, Cross River, and Bayelsa, which offer opportunities for tourism, water sports, and eco-tourism centered around mangroves and marine biodiversity (Olaniyi et al, 2024)

Maritime security entails activities and efforts to combat piracy, illegal fishing, and smuggling in Nigerian waters, ensuring a secure environment for economic activities, marine biotechnology consists of Research and development in utilizing marine organisms for pharmaceuticals, cosmetics, and other industrial applications, and seabed mining entails the exploration of seabed resources, including minerals such as sand, gravel, and potentially rare earth elements (Gbadegesin and Akintola, 2021)

Marine and coastal infrastructure entails construction and maintenance of ports, coastal defenses, and marine logistics facilities to support trade and reduce erosion risks, while marine environmental services consist of activities that are focused on conserving biodiversity, restoring ecosystems, and addressing marine pollution for sustainable development (Akomolafe et al, 2022).

#### 2.1.2 Prospects and Potential of the Nigerian Blue Economy

The Nigerian blue economy has huge potential and prospects that can further help the economy of Nigeria, if tapped into. These includes

##### 2.1.2.1 Economic Diversification

The blue economy offers Nigeria a valuable opportunity to diversify its income streams and lessen its reliance on oil. By tapping into sectors like fisheries, aquaculture, tourism, maritime transport, and renewable energy, it drives economic growth, supports sustainable development, and opens up new opportunities for employment and investment (Olusola, 2023)

##### 2.1.2.2 Employment Opportunities

Expanding maritime sectors such as aquaculture, shipping, and offshore energy has the potential to generate millions of employment opportunities, particularly in coastal communities. This growth can enhance livelihoods, alleviate poverty, and stimulate local economies by creating employment opportunities in areas like fishing, logistics, maritime security, and renewable energy, strengthening economic resilience (Ateme, 2021)

## **Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development**

### **2.1.2.3 Food Security**

Nigeria's abundant marine biodiversity presents a great opportunity to improve fisheries and aquaculture production, meeting local food demands and creating export prospects. By focusing on sustainable fishing practices, advancing aquaculture technologies, and expanding market access, Nigeria can increase seafood production, strengthen food security, and establish itself as a key player in global seafood trade (Jacob and Umoh, 2022)

### **2.1.2.4 Renewable Energy Potential**

Nigeria's vast coastline provides valuable opportunities for the development of offshore wind and wave energy projects. These renewable energy sources are essential for Nigeria's shift toward cleaner energy, helping reduce dependence on fossil fuels, enhancing environmental sustainability, supporting global climate change efforts, and strengthening local energy capacity (Hamisu, 2021).

### **2.1.2.5 Enhanced Maritime Trade**

Targeted investments in port infrastructure and logistics can greatly enhance Nigeria's status as a major trade hub in West Africa. By upgrading ports, optimizing cargo handling, and expanding logistics capabilities, Nigeria can increase trade volumes, attract international investors, raise shipping revenues, and solidify its competitive position in both regional and global markets (Raheem, 2022)

### **2.1.2.6 Environmental Sustainability**

Prioritizing marine conservation and pollution control is crucial for boosting biodiversity and reinforcing the resilience of coastal ecosystems. By safeguarding marine habitats, minimizing plastic pollution, and encouraging sustainable practices, Nigeria can protect its vibrant marine life, enhance ecosystem health, and ensure the enduring sustainability of its coastal and oceanic resources (Rasowo et al, 2020).

## **2.2 Opportunities of the Nigerian Blue Economy**

The Nigerian blue economy presents a variety of opportunities to drive economic growth, improve livelihoods, and promote environmental sustainability. These opportunities are closely linked to Nigeria's vast maritime resources and its strategic geographic position.

### **2.2.1 Expansion of Maritime Trade**

Nigeria's key ports, such as Lagos, Port Harcourt, and Calabar, are vital hubs for regional and international trade. Investing in modernizing port infrastructure, improving cargo handling efficiency, and upgrading logistics networks will enable Nigeria to expand cargo capacity, increase trade revenues, and enhance its competitiveness in global markets (Anikwe et al, 2024)

### **2.2.2 Fisheries and Aquaculture Development**

The nation's waters are rich in fish and seafood, presenting considerable opportunities for growth in the aquaculture and fishing industries. Expanding these sectors and adopting sustainable fishing practices can improve food security, stimulate local economies, and generate millions of jobs. Furthermore, it can lessen the country's dependence on seafood imports, promoting self-sufficiency and boosting economic stability (Akomolafe et al, 2022)

### **2.2.3 Offshore Renewable Energy**

Coastal areas hold substantial potential for offshore wind and wave energy projects, aligning with the global shift toward renewable energy. These initiatives can help achieve sustainable energy objectives while complementing Nigeria's oil and gas industry, providing a balanced energy mix and supporting environmental sustainability efforts (Elegbede et al, 2023)

### **2.2.4 Coastal Tourism and Recreation**

Nigeria's abundant coastal resources, such as stunning beaches, mangroves, and vibrant marine biodiversity, provide vast potential for eco-tourism, cultural tourism, and water sports. These attractions can appeal to both local and international visitors, fostering sustainable tourism, supporting local economies, protecting ecosystems, and highlighting Nigeria's distinctive natural and cultural heritage on a global stage (Wordu and Wodi, 2024)

### **2.2.5 Job Creation**

Growing maritime sectors like shipbuilding, logistics, and fisheries presents significant potential for job creation, particularly in coastal areas. These industries can generate millions of employment opportunities, from technical positions to managerial roles. By promoting development in these sectors, Nigeria can enhance economic conditions and alleviate unemployment in coastal communities (Sanni, 2022).

### **2.2.6 Maritime Security Services**

Nigeria has the potential to establish a robust maritime security framework, offering specialized knowledge to combat piracy, smuggling, and illegal fishing. By improving surveillance, strengthening law enforcement, and fostering regional collaboration,

## **Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development**

Nigeria can secure safer shipping routes, safeguard marine resources, and boost international trade, further solidifying its position as a key maritime hub in West Africa (Umenweke and Bielu, 2024)

### **2.2.7 International Collaboration**

Partnering with global organizations and neighboring countries can unlock critical funding, technical expertise, and broader market access, all vital for advancing Nigeria's blue economy. These collaborations can supply the resources needed to promote sustainable development in maritime industries, encourage innovation, and stimulate economic growth, ensuring the long-term success of the blue economy (Ibrahim, 2018).

## **2.3 Challenges Facing the Nigerian Blue Economy**

The Nigerian blue economy is plagued with challenges that has hindered its growth and development over time, even though it is still considered new and its early stages, these includes

### **2.3.1 Illegal Maritime Activities**

Piracy, illegal fishing, and smuggling remain critical issues in Nigerian waters, posing substantial risks to maritime security. These unlawful activities disrupt trade, discourage international investment, and endanger the livelihoods of coastal communities. Furthermore, they exacerbate the depletion of marine resources, hindering progress toward sustainable development within the blue economy framework (Nurein, 2022)

### **2.3.2 Inadequate Infrastructure**

Aging port facilities, inefficient logistics, and insufficient maritime infrastructure pose significant challenges to the performance of Nigeria's shipping, trade, and maritime sectors. These shortcomings lead to delays in cargo handling, elevated operational costs, and decreased productivity. Consequently, Nigeria faces difficulties competing in global markets, losing potential investments and opportunities to strengthen its position as a regional trade leader in West Africa (Anikwe et al, 2024)

### **2.3.3 Environmental Degradation**

Pollution from oil spills, plastic debris, and industrial discharges severely harms marine ecosystems, endangering biodiversity and the livelihoods of coastal communities reliant on these resources. Climate change exacerbates these issues, driving coastal erosion, rising sea levels, and habitat destruction. These environmental challenges jeopardize the sustainability of Nigeria's blue economy, requiring immediate measures to safeguard marine habitats and build resilient coastal ecosystems (Audu, 2024)

### **2.3.4 Lack of Policy and Regulatory Frameworks**

Inadequate enforcement of maritime laws and the lack of comprehensive policies for sustainable resource management significantly hinder the growth of Nigeria's blue economy. These gaps enable illegal activities such as overfishing, smuggling, and piracy to thrive, depleting marine resources and deterring investment. Without robust regulations and strategic policy frameworks, efforts to safeguard marine ecosystems and advance sustainable development remain insufficient, limiting the blue economy's potential (Otuya-Asohro, 2024)

### **2.3.5 Overfishing and Unsustainable Practices**

Overfishing and the use of harmful fishing practices severely impact marine ecosystems, causing fish stocks to dwindle and damaging critical habitats. These activities threaten food security and destabilize the livelihoods of coastal communities that rely on fishing for their income and sustenance, resulting in far-reaching socio-economic consequences (Hassan et al, 2024)

### **2.3.6 Limited Investment**

There is a notable shortage of investment in vital maritime sectors like aquaculture, renewable energy, and shipbuilding, which are key to unlocking the full potential of Nigeria's blue economy. Without sufficient funding and resources, these industries struggle to grow, limiting opportunities for job creation, sustainable development, and innovative solutions to address challenges within the maritime sector (Osuji and Agbakwuru, 2024)

### **2.3.7 Inadequate Skilled Workforce**

The lack of skilled labor in crucial maritime sectors, such as shipbuilding, offshore energy, and sustainable fishing, greatly hinders the successful development of these industries. In the absence of a trained workforce, the growth and productivity of these sectors are restricted, reducing their ability to generate employment, foster innovation, and contribute to the broader growth of Nigeria's blue economy (Bayode, 2024).

### **2.3.8 Security Concerns**

The ongoing issue of piracy and insecurity in the Gulf of Guinea negatively impacts shipping routes, causing delays, higher costs, and safety risks for international vessels. This instability disrupts global trade and deters foreign investment in Nigeria's maritime sector, hindering its growth prospects and diminishing its competitive edge in the international market (Michael, 2023)

# Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development

## 2.4 Policy Frame Considerations for Sustainable Development

These are frameworks in forms of policies that are integrated for sustainable growth to the blue economy of Nigeria. They also act as guidelines for national and international efforts toward achieving long-term, inclusive, and environmentally responsible growth. In addition, they further provide structures for integrating economic, social, and environmental goals.

### 2.4.1 The 2030 Agenda for Sustainable Development (UN SDGs)

The United Nations' 2030 Agenda, featuring the 17 Sustainable Development Goals (SDGs), serves as a comprehensive global framework for achieving sustainable development by 2030. It encompasses key areas such as poverty eradication, healthcare, education, clean energy, and environmental sustainability (Weiland et al, 2021)

### 2.4.2 The Paris Agreement on Climate Change

Adopted in 2015, this international agreement seeks to keep global warming well below 2°C above pre-industrial levels while striving to limit the temperature rise to 1.5°C. It focuses on climate mitigation, adaptation, and financial support for developing nations (Erickson and Brase, 2019)

### 2.4.3 The Green New Deal (Global and Regional)

This policy framework integrates economic stimulus with environmental solutions, emphasizing the creation of green jobs, a transition to renewable energy, and the promotion of equitable economic growth through sustainable practices (Bloomfield and Steward, 2020)

### 2.4.4 The Rio Declaration on Environment and Development (1992)

This pivotal declaration establishes principles for sustainable development, emphasizing environmental protection, equity, and responsible resource use. Adopted at the Earth Summit in Rio de Janeiro, it remains a significant influence on global environmental policy (Declaration, 1992).

### 2.4.5 Sustainable Fisheries and Blue Economy Policies

These policies prioritize the management and protection of ocean and freshwater resources, advocate for sustainable fishing practices, and support the growth of the blue economy. They tackle key issues such as overfishing, marine pollution, and the preservation of marine biodiversity (Kobayashi, 2023)

### 2.4.6 The Convention on Biological Diversity (CBD)

Adopted in 1992, this international treaty aims to conserve biodiversity, promote the sustainable use of biological resources, and ensure equitable sharing of benefits derived from genetic resources. It has played a pivotal role in influencing conservation policies on a global scale (Essl et al, 2020)

## 3. METHODOLOGY

The methodology approach that was used in this research is a qualitative approach, however, it is been implemented as a systematic literature review in which a search process has been used to find relevant research associated with the research domain, and further examined based on topic relevant to research topic. In total, 67 research article was produced from the search result but 22 of them were relevant and eventually were used. The articles provided an in-depth investigation and understand of the subject area, emphasizing on the blue economy of Nigeria.

## 4. FINDINGS AND RESULTS

Nigeria's blue economy offers significant potential to stimulate economic growth, improve livelihoods, and advance environmental sustainability. Boasting a coastline of over 853 kilometers and an Exclusive Economic Zone extending 200 nautical miles, the country is well-equipped with abundant marine resources, including fisheries, aquaculture, renewable energy prospects, and largely unexplored coastal tourism opportunities.

The rich marine biodiversity and strategic positioning establish it as a key regional hub for maritime trade and a strong contender in the global blue economy. Growth in sectors such as fisheries, shipping, aquaculture, and offshore renewable energy can significantly boost GDP, enhance food security, and create jobs. Additionally, investing in eco-tourism and water sports presents opportunities to diversify revenue streams while fostering sustainability.

Major opportunities lie in developing offshore wind and wave energy projects, aligning with global shifts toward renewable energy. Upgrading port infrastructure and logistics can elevate Nigeria's status as a leading trade hub in West Africa. Expanding aquaculture and adopting sustainable fishing practices can increase domestic seafood production and exports. Additionally, shipbuilding and maritime logistics offer significant potential for job creation, especially in coastal areas. Collaborations with international organizations can secure funding, technical expertise, and market access, fostering innovation and investment across maritime industries.



## Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development

Despite its vast potential, the blue economy faces numerous challenges. Inadequate enforcement of maritime laws, outdated port infrastructure, and insufficient investment in key sectors impede progress. Illegal activities like piracy, smuggling, and overfishing pose serious threats to maritime security and marine resources. Pollution, including oil spills, plastic waste, and industrial discharges, harms ecosystems and hampers sustainability efforts. Additionally, climate change intensifies these issues by causing coastal erosion and rising sea levels, further jeopardizing livelihoods.

The success of Nigeria's blue economy hinges on strong policy frameworks and their effective implementation. By aligning with global initiatives such as the UN's Sustainable Development Goals (SDGs) and the Paris Agreement, Nigeria must focus on laws that tackle maritime security, resource management, and pollution control. Additionally, investing in education and skill development is essential to overcoming labor shortages in sectors like shipbuilding and renewable energy. Regional cooperation and international partnerships are key to strengthening enforcement and promoting sustainable development practices.

### 5. DISCUSSION

The findings highlight that Nigeria's blue economy has significant potential to stimulate economic growth, improve livelihoods, and promote environmental sustainability. With its vast coastline, diverse marine biodiversity, and strategic location, Nigeria is uniquely positioned to leverage industries such as fisheries, aquaculture, renewable energy, and coastal tourism. These sectors are essential for boosting GDP, enhancing food security, and creating job opportunities, especially in coastal communities. However, realizing these opportunities requires addressing key challenges (Ateme, 2021)

A key issue identified is the insufficient enforcement of maritime laws, which enables illegal activities such as piracy, smuggling, and overfishing to continue, thereby threatening marine resources and the security of shipping routes. This undermines the growth of the blue economy, deters foreign investment, and jeopardizes the livelihoods of communities reliant on marine resources. To address these challenges, it is essential to develop a robust maritime security framework and strengthen law enforcement. Effective regulation would safeguard vital marine ecosystems, promote sustainable resource management, and enhance Nigeria's position as a leading trade hub in the region (Ateme, 2021)

Another major challenge identified is the outdated port infrastructure, inefficient logistics, and insufficient investment in key maritime sectors. Upgrading ports and improving logistics would streamline trade operations and enhance Nigeria's competitiveness in global markets. Furthermore, investing in sectors such as shipbuilding, renewable energy, and aquaculture would generate millions of jobs, foster technological innovation, and increase exports. This is particularly important as global demand for renewable energy sources, including offshore wind and wave energy projects, grows, and Nigeria holds significant untapped potential in these areas (Anikwe et al, 2024)

The findings also highlight the detrimental impacts of pollution, such as oil spills and plastic waste, alongside climate change-related issues like coastal erosion and rising sea levels. These environmental challenges not only jeopardize marine biodiversity but also hinder sustainability efforts within the blue economy. Tackling pollution through stricter regulations and encouraging sustainable practices in fishing and tourism is crucial for ensuring long-term resilience.

### 6. CONCLUSION

In conclusion, the findings highlight the crucial need for strategic investments, effective policy frameworks, and regional collaboration to fully unlock Nigeria's blue economy potential, ensuring it drives both economic growth and environmental sustainability. The Nigerian blue economy offers a transformative opportunity to diversify the economy, reduce reliance on oil, and foster inclusive growth. By tackling current challenges with targeted investments, policy reforms, and sustainable practices, Nigeria can harness its maritime resources and become a global leader in the blue economy sector.

The future of this research lies in exploring advanced policy frameworks, technological innovations, and investment strategies to address identified challenges. Future studies could focus on strengthening maritime security, enhancing resource management, expanding renewable energy projects, and examining the role of regional and international partnerships in boosting Nigeria's blue economy for long-term sustainable growth

### REFERECNES

- 1) Adepoju, O. O., Abdullahi, M. S., & Maji, A. (2023). Concept of Blue Economy-a Qualitative Review for Sustainable Economic Development in Nigeria. *European Journal of Theoretical and Applied Sciences*, 1(4), 668-681.
- 2) Akomolafe, D. T., Yerokun, O. M., & Akande, S. (2022). Challenges and Prospects of the Deployment of Blue Economy in the Coastal Areas of Ondo State. *Journal of Production, Operations Management and Economics (JPOME) ISSN*, 2799-1008.

## Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development

- 3) Anikwe, S. O., Unachukwu, L. C., & Onah, F. N. (2024). HUMAN CAPACITY DEVELOPMENT AND SUSTAINABLE GROWTH IN THE BLUE ECONOMY: OPPORTUNITIES, CHALLENGES, AND STRATEGIES FOR NIGERIA. *African Banking and Finance Review Journal*, 15(15).
- 4) Ateme, M. E. (2021). Developing marine and coastal resources in Nigeria: Prospects and challenges. *Maritime Technology and Research*, 3(4), 335-347.
- 5) Audu, S. (2024). MARITIME SECURITY AND BLUE ECONOMY INITIATIVES IN NIGERIA, 2015-2023. *IDENTITY, SOCIAL INCLUSION AND SUSTAINABLE DEVELOPMENT IN NIGERIA*, 694.
- 6) Bayode Jr, K. (2024). Appraisal of Marine Governance and Sustainability Approaches in Nigeria.
- 7) Bloomfield, J., & Steward, F. (2020). The politics of the green new deal. *The Political Quarterly*, 91(4), 770-779.
- 8) Declaration, R. (1992). *Rio declaration on environment and development*.
- 9) Elegbede, I. O., Akintola, S. L., Jimoh, A. A. A., Jolaosho, T. L., Smith-Godfrey, S., Oliveira, A., ... & Oloko, A. (2023). Blue economy (sustainability). In *Encyclopedia of sustainable Management* (pp. 1-9). Cham: Springer International Publishing.
- 10) Elegbede, I. O., Akintola, S. L., Jimoh, A. A. A., Jolaosho, T. L., Smith-Godfrey, S., Oliveira, A., ... & Oloko, A. (2023). Blue economy (sustainability). In *Encyclopedia of sustainable Management* (pp. 1-9). Cham: Springer International Publishing.
- 11) Elisha, O. D. (2019). The Nigeria blue economy: Prospects for economic growth and challenges. *Int J Sci Res Educ*, 12(5), 680-699.
- 12) Erickson, L. E., & Brase, G. (2019). Paris agreement on climate change. In *Reducing Greenhouse Gas Emissions and Improving Air Quality* (pp. 11-22). CRC Press.
- 13) Essl, F., Latombe, G., Lenzner, B., Pagad, S., Seebens, H., Smith, K., ... & Genovesi, P. (2020). The Convention on Biological Diversity (CBD)'s post-2020 target on invasive alien species—what should it include and how should it be monitored? *NeoBiota*, 62, 99-121.
- 14) Gbadegesin, O. A., & Akintola, S. (2021). Charting the course for a blue economy in Nigeria: A Legal Agenda. *J. Env'tl. L. & Pol'y*, 1, 6.
- 15) Hamisu, A. H. (2019). A study of Nigeria's blue economy Potential with particular reference to the oil and gas sector.
- 16) Hassan, D. V., Pajo, A., & Hassan, P. V. (2024). POTENTIAL OF MARINE AND AQUATIC RESOURCES IN NIGERIA'S BLUE ECONOMY. *IDENTITY, SOCIAL INCLUSION AND SUSTAINABLE DEVELOPMENT IN NIGERIA*, 371.
- 17) Ibrahim, H. D. (2018). Harnessing the potentials of blue economy for sustainable development of Nigeria.
- 18) Jacob, A. O., & Umoh, O. J. (2022). The Nigerian blue economy: economic expansion issues and challenges. *Socio Economy and Policy Studies*, 2(1), 29-33.
- 19) Kobayashi, M. (2023, July). Promoting sustainable fisheries and aquaculture—Enabling policies, innovation and challenges for achieving sustainable blue economies in Ambon, Maluku Province, Indonesia. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1207, No. 1, p. 012006). IOP Publishing.
- 20) Michael, E. I. (2023). ESTIMATING THE IMPACT OF BLUE ECONOMY ON THE GROWTH OF SUB-SAHARAN AFRICA: EVIDENCE FROM NIGERIA. *African Banking and Finance Review Journal*, 6(6), 46-58.
- 21) Muhammed, A., Aminu, B. M., Musa, I. O., Abdulsalam, M., Isma'il, R., Gimba, Y. M., ... & Moses, E. O. (2024). Blue Economy in Nigeria and the African Continent. In *Marine Bioprospecting for Sustainable Blue-bioeconomy* (pp. 355-370). Cham: Springer Nature Switzerland.
- 22) Nurein, S. A. (2022). Opportunities and Challenges of Enterprise Development in the Blue Economy: A Developing Economy Perspective. *Implications for Entrepreneurship and Enterprise Development in the Blue Economy*, 18-30.
- 23) Olaniyi, A. R., Ajala, A. M., & Afolalu, A. B. (2024) Effect of Blue Economic Practices and Its Potential Implications on Nigeria's Socio-Economic Development: A Comprehensive Analysis.
- 24) Olusola, T. F. (2023). Blue Economy: The Prospects of the Dream Legal Stand for the Nigerian Blue Economy. *Available at SSRN 4502605*.
- 25) Osuji, J. N., & Agbakwuru, J. (2024). Ocean and Coastal Resources Components and their Contributions to Sustainable Development of Nigeria. *Journal of Applied Sciences and Environmental Management*, 28(1), 135-146.
- 26) Otuya-Asohro, E. (2024). Role of the mass media in the sustainability of blue economy in Nigeria. *Future Sustainability*, 2(4), 1-7.
- 27) Popoola, O. O., & Olajuyigbe, A. E. (2023). Operationalizing the blue economy in the Gulf of Guinea, Africa. *Frontiers in Political Science*, 5, 1070508.
- 28) Raheem, S. (2022). The Blue Economy's Entrepreneurial Potential and Its Poverty Mitigative Powers in Nigeria. *Implications for Entrepreneurship and Enterprise Development in the Blue Economy*, 185-217.

## Harnessing the Potential of Nigeria's Blue Economy Opportunities, Challenges, and Policy Frameworks for Sustainable Development

- 29) Rasowo, J. O., Orina, P., Nyonje, B., Awuor, S., & Olendi, R. (2020). Harnessing Kenya's Blue Economy: prospects and challenges. *Journal of the Indian Ocean Region*, 16(3), 292-316.
- 30) Sanni, M. A. (2022). Blue Economy and Foreign Direct Investment to Maritime Nations: Lessons for Nigeria. In *Implications for Entrepreneurship and Enterprise Development in the Blue Economy* (pp. 148-164). IGI Global.
- 31) UMENWEKE, M., & BIELU, K. (2024). THE INTRODUCTION OF THE BLUE ECONOMY AND ITS IMPLICATIONS ON THE NIGERIAN TAX REGIME. *INTERNATIONAL JOURNAL OF COMPARATIVE LAW AND LEGAL PHILOSOPHY (IJOCLLEP)*, 6(1).
- 32) Weiland, S., Hickmann, T., Lederer, M., Marquardt, J., & Schwindenhammer, S. (2021). The 2030 agenda for sustainable development: transformative change through the sustainable development goals?. *Politics and Governance*, 9(1), 90-95.
- 33) Wordu, J. A., & Wodi, J. C. (2024). Exploring the Role of Higher Education in Fostering Sustainable Blue Economy: Challenges and Prospects. *Rivers State University Journal of Education*, 27(1), 179-188.
- 34) Yusuff, K. O., & Ibadapo-Obe, E. O. (2024). Blue Economy in Nigeria: Focus Areas, Potentials and Challenges. *International Journal of Women in Technical Education and Employment*, 5(1), 161-169.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.