

Maritime Piracy and the Sustainable Development of Nigeria's Blue Economy

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Abstract

Maritime security is critical to economic stability, international trade, and national sovereignty, yet the sector faces persistent challenges, particularly in regions like the Gulf of Guinea (GoG). Threats such as piracy, illegal fishing, smuggling, oil theft, and terrorism undermine regional stability and economic development. Nigeria, as a major player in the GoG, has prioritised maritime security through national diplomacy to address these challenges. Therefore, the study examined the detrimental impact of maritime piracy on Nigeria's blue economy. The study employed a mixed-method design, integrating qualitative and quantitative approaches to provide a comprehensive analysis. Key Informant Interviews were conducted to gather qualitative insights, while structured questionnaires were used to collect quantitative data from stakeholders. The study identified significant challenges of maritime security in Nigeria, such as poor performance in fishing, fisheries and maritime tourism. The study revealed a strong correlation between piracy and the decline of Nigeria's blue economy, highlighting the need for robust security measures to curb piracy and unlock the full potential of Nigeria's coastal resources for sustainable economic development. The study concludes that national diplomacy is indispensable for tackling the complexities of maritime security in the Gulf of Guinea (GoG). The study recommended that Nigerian government should strengthen its maritime security diplomacy, enhance regional collaboration, and secure its maritime interests effectively by expanding bilateral and multilateral partnerships, enhancing resource allocation for maritime operations, fostering trust through transparent engagements, and strengthening institutional frameworks.

Keywords: Maritime, Piracy, Economy, Blue Economy, Gulf of Guinea

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Introduction

The global security environment compromising the peace, stability, and prosperity of nations is increasingly impacted by the disruptive actions and criminal endeavours of non-state actors. These criminal activities have become more organized, with sophisticated networks extending across the world. In the maritime sector, these crimes include smuggling, drug and human trafficking, hydrocarbon resource theft, illegal, unreported, and unregulated (IUU) fishing, and piracy. Such activities significantly threaten the blue economy, development, and overall well-being of coastal states, whose economic success is closely linked to their maritime resources. However, piracy often obstructs the optimal use of these resources, posing a substantial crime and threat to the blue economy in the maritime regions of coastal states (OECD, 2023).

Piracy thrived from 1650 to 1720, a period known as the Golden Age of Piracy (Amirell et al., 2021). Even centuries later, piracy continues to pose a significant threat to global commerce, evolving in complexity and lethality. Between 2012 and 2017, there were 2,307 reported piracy incidents worldwide, costing the global shipping industry approximately US\$12 billion annually (International Maritime Bureau [IMB], 2018). These acts of piracy have led coastal states to implement various security measures to mitigate the political and socioeconomic impacts on the blue economy. In the United States, piracy has been a persistent threat in the maritime domain for over 200 years, prompting a long-standing response from the US Navy (USN) (McKnight, 2013). The US anti-piracy policy addresses both domestic and international threats, aiming to protect US citizens and assets from pirates, whether within US territories or abroad (Jin & Techera, 2021; Dryad Global, 2023). The USN has implemented several anti-piracy strategies (APS) and conducted various anti-piracy operations (APO), including Operation Ocean Shield 2009-2016 in Horn of Africa, Operation Allied Protector 2009 in the Gulf of Aden, and Operation Enduring Freedom, 2001-2014 in Arabian Sea (McKnight, 2013; All Hands, 2023). These strategies and operations enable the USN to effectively combat piracy and enhance maritime security, thereby supporting the nation's economic interests.

The reduction of piracy activities and the removal of the Malacca Strait's high-risk classification led to lower insurance premiums (The Maritime Executive, 2015; The Jakarta Post, 2016). Indonesia's blue economy peaked in 2021, with the fishery sector, valued at approximately US\$27 billion, operating at over 80% capacity. This sector supports over 7 million jobs and supplies more than 50% of the country's animal-based protein needs (Boediono, 2021). The Indonesian navy's efforts to combat piracy significantly improved maritime security in the Malacca Strait, enhancing the blue economy.

Ghana, with an Atlantic coastline of 560 km along the Gulf of Guinea, recorded nine pirate attacks in 2020–2021, targeting ships carrying bulk petroleum and exotic goods (Dryad Global, 2021; Safety4sea, 2021). Protecting its waters is crucial, as about 10% of the labour force is employed in fisheries and 70% of trade passes through ports in Tema and Takoradi (Dryad Global, 2023). Ghana's maritime resources are vital for food security, reducing income

inequalities, attracting foreign direct investment, and boosting domestic productivity. Approximately 7.5 million Ghanaians live in coastal regions, with over 100,000 fishermen and 11,000 canoes engaged in fisheries (Safety4sea, 2021; vanDyck & Vry, 2022). To counter piracy, the Ghanaian Navy maintains a strong presence at sea. Additionally, the Government of Ghana introduced the National Integrated Maritime Strategy (NIMS) to ensure maritime safety and promote a thriving blue economy by 2040 (Dryad Global, 2023).

In 2016, pirate attacks within Nigeria's Exclusive Economic Zone (EEZ) increased to 36 from 14 in 2015, resulting in a monthly loss of \$1.5 billion due to various maritime crimes (Nigerian Maritime Administration and Safety Agency, 2016). From 2013 to 2022, Nigeria experienced around 256 piracy incidents, contributing to a decline in crude oil production from 2.2 million barrels per day in 2015 to 1.8 million barrels per day in 2016 (International Maritime Bureau, 2016). This decrease reduced crude oil revenue and negatively impacted Nigeria's economy. In response, the Nigerian Navy launched Operation TSARE TEKU in April, 2016 to combat piracy, initially achieving significant reductions (Nigerian Navy, 2016). However, piracy remains a persistent threat, and has continued to harm the maritime economy.

In 2016, piracy off Nigeria's Niger Delta region surged, disrupting socio-economic activities and damaging Nigeria's blue economy. This disruption reduced government's revenue needed for infrastructure development and deterred ships from entering Nigerian waters, leading to commercial declines, loss of livelihood, loss of lives, kidnappings, and tarnished international reputation. Despite efforts by the Nigerian Maritime Administration and Safety Agency (NIMASA) and the Nigerian Navy, including Operation TSARE TEKU, piracy resurged in 2020, with 22 attacks and around 130 seafarers kidnapped or killed (International Maritime Bureau, 2020). Consequently, maritime insurance costs for vessels bound for Nigeria rose to an estimated \$2.74 billion (Nigerian Chamber of Shipping, 2021). In response, the Federal Government launched the Deep Blue Project in 2021 to combat piracy. It is in this vein that this study examines the nature and effects of piracy on Nigeria's maritime economy.

Review of Literature

Conceptualisation of Piracy

According to ReCAAP (2023), piracy involves any unlawful act of violence, detention, or depredation committed for private purposes by the crew or passengers of a private ship or aircraft, directed against another ship or aircraft, or against persons or property on board, occurring on the high-seas. This definition restricts piracy to high seas incidents. However, violent acts resembling piracy also occur within territorial waters, which this study aims to address within Nigeria's territorial waters. Thus, ReCAAP's definition is too narrow for the purposes of this research.

Osinowo (2015) defines piracy as any sea-based criminal act of violence, destruction, or attempt to control a ship or person aboard by force. It is criminalised under relevant national and international laws designed to prevent unlawful acts threatening the safety of ships and

their passengers and crews. This definition focuses on violent high-sea crimes against merchant, cargo, and passenger ships, which pose significant concerns for the shipping industry and affect national, regional, and global economies and geopolitically interconnected nations. However, it does not encompass sea-borne economic activities such as fishing and tourism, making it unsuitable for this research.

Jacobsen and Nordby (2015) describe piracy as the act of boarding or attempting to board any ship with the intent to commit theft or any other crime, using or intending to use force. It involves robbery and maritime criminality driven by economic gain and can include secondary motivations like sabotage and terrorism. Piracy encompasses crimes such as stealing oil cargoes, hijacking ships, kidnapping, rape, arson, and murder, and can lead to deaths, destruction, and disruptions in maritime activities such as trade, transportation, fishing, tourism, and resource exploitation. This comprehensive definition is central to this research and has therefore been adopted.

Understanding Blue economy

The blue economy in Nigeria represents a significant opportunity for sustainable economic growth by utilising the country's vast marine and coastal resources. This concept, rooted in global efforts to balance economic development with environmental sustainability, focuses on the sustainable use of ocean resources to drive job creation, improve livelihoods, and ensure the health of marine ecosystems. As a coastal nation, Nigeria has an extensive coastline and a large Exclusive Economic Zone (EEZ), positioning it to benefit immensely from its blue economy. However, while sectors such as shipping, fisheries, offshore oil and gas, and coastal tourism hold immense potential, challenges like piracy, environmental degradation, and weak governance have hindered progress.

Globally, the blue economy has been embraced as a strategy for fostering economic development without compromising the integrity of marine environments. According to the World Bank (2017), the blue economy involves the sustainable management of ocean resources to maximize long-term economic benefits. This idea is particularly crucial for coastal and island nations that rely on marine sectors for trade, energy, and food security. In Nigeria's context, the blue economy includes key sectors such as fisheries, shipping, offshore energy, and coastal tourism, all of which play crucial roles in economic diversification and sustainable development.

One of the major components of Nigeria's blue economy is its maritime sector, which is central to the country's international trade. Over 90% of Nigeria's trade is conducted through sea routes, making the maritime industry vital to the economy (Nigerian Ports Authority (NPA), 2020). The efficient management and expansion of Nigeria's ports and shipping infrastructure could further boost trade, enhance logistics, and generate significant revenue. Additionally, the country's oil and gas sector, particularly offshore drilling, forms a critical part of the blue economy, contributing about 70% of government revenue and a large share of its foreign

exchange earnings (NIMASA, 2019). However, this focus on oil extraction has also resulted in environmental challenges such as pollution and oil spills, particularly in the Niger Delta, which have negatively impacted marine ecosystems and local communities.

The Blue Economy refers to the economic benefits and wealth derived from commercial activities conducted in or obtained from the sea. Carvalho (2018) defines the Blue Economy as economic activities directly influenced by the sea, including those not using the sea as a raw material but developed in proximity to it. Bertazzo (2018) describes the Blue Economy as the exploitation, preservation, and regeneration of the marine environment. This involves the sustainable use of ocean and coastal resources for economic growth, improved livelihoods, and job creation while maintaining the health of marine ecosystems. The Blue Economy encompasses all economic activities related to oceans, seas, and coasts that promote better marine conditions. This perspective includes economic benefits, environmental sustainability, carbon storage, and coastal protection.

The United Nations Department of Economic and Social Affairs (2019) defines the Blue Economy as encompassing a wide array of economic sectors and associated policies that guide the sustainable exploration, exploitation, preservation, and regeneration of oceanic resources. This concept involves the judicious use of maritime domains for diverse economic endeavours, leading to enhanced livelihoods and job creation. It includes sustainable fisheries, trade, transportation, tourism, the shipping industry, oil and mineral resource exploration, and the maintenance of ecosystem health and pollution prevention. Additionally, it involves the sustainable management of ocean resources in accordance with pertinent national laws of coastal states and binding international guidelines. This comprehensive view incorporates the economic benefits, environmental sustainability, and ecological use of ocean and coastal resources, covering relevant economic sectors, activities, and policies that collectively ensure the sustainable utilisation of ocean resources. This perspective is highly pertinent and has been adopted for this study.

The Characterization of Piracy and the Blue Economy within Nigeria's Maritime Sphere

In his study, "Violence at Sea: The Ramifications of Maritime Piracy in Nigeria and Somali's Waters for Human Security in Africa," Onuoha (2016) highlights the importance of the Gulf of Guinea (GoG) to Nigeria's waters, which spans 2,350,000 km² and is crucial for African energy trade. The GoG comprises 20 coastal states, islands, and landlocked states and covers two regions, West Africa and Central Africa. The basin is of geo-political and geo-economic importance to Nigeria for transporting goods to and from central and southern Africa. Pirate attacks in the GoG, including Nigerian waters, account for a significant proportion of the total number of pirate attacks recorded annually in Africa and the world over. In 2008, about 300 ships were attacked, with the hijacking of the MV Sirius Star resulting in a major maritime economic upset. In 2011, the GoG accounted for over half of the 439 global pirate attacks,

making it one of the world's most dangerous maritime regions (International Maritime Bureau, 2011).

Nigeria's coastline is a rich source of marine life, providing food and livelihoods for many Nigerians and foreign fishermen. The maritime sector handles about 90% of Nigeria's trade, especially crude oil, which constitutes over 90% of the country's foreign exchange earnings. As the sixth-largest oil exporter among OPEC countries, Nigeria plays a significant role in the global energy supply. However, piracy and other criminal activities off Nigeria's coasts threaten maritime security and disrupt the regional and global flow of goods and services. Maritime piracy poses serious national security risks for Nigeria, particularly in the GoG. Sustainable exploitation of the ocean is vital and central to this research, as it helps protect the region's maritime resources and contributes to the global energy supply.

Causes of Piracy in Nigeria's Maritime Domain

In their article "Maritime Piracy Business Networks and Institutions in Africa," Hastings and Philips (2015) used a qualitative research approach to examine the widely accepted theory that the Failed State phenomenon is to blame for Africa's high rate of piracy. The authors propose that the structure of regional institutions and norms has a greater influence on pirate behaviour. They said that the Niger Delta Area of Nigerian piracy has been typified by ransom kidnapping, cargo theft, and brutality infused with a narrative of marginalisation and the desire to claim a larger portion of the nation's wealth from natural gas and oil (International Crisis Group, 2019).

In his work titled "The Anatomy of Gulf of Guinea Piracy," Ali (2015) employed a descriptive and analytical research methodology. The author emphasised that the Gulf of Guinea (GoG) is among the most perilous maritime regions globally, given the high success rate of pirate attacks and associated violence on shipping vessels. Ali highlighted the rising incidence of piracy in the GoG over the years, underscoring the need to thoroughly understand this threat to devise effective anti-piracy strategies. He argued that the success of national, regional, and global responses depends on a comprehensive understanding of the operational environment, awareness of the actors involved, and a clear grasp of the evolution of the piracy situation.

Ali's study drew a connection between the motivations for piracy in the Niger Delta, noting that various underlying factors have contributed to the escalation from minor crimes to full-scale piracy. He pointed out that pirates operating off the Nigerian coast in the GoG have adopted a modified version of the mother-ship tactic used by Somali pirates, where hijacked fishing vessels serve as fuel depots and launch platforms for extended operations. Ali recommended that effective Anti-Piracy Operations (APOs) must consider the pirates' operational methods, their profiles, and emerging trends. He cited Operation PROSPERITY, an APO aimed at reducing piracy attacks off the coast of the Republic of Benin, as a successful model that could be replicated by various navies. The study also noted how swiftly GoG pirates adapt their strategies, often shifting their operations from one gulf to another. Although

Ali's research provided valuable insights into the unique aspects of piracy in the GoG, it did not address the prevalence of the kidnap-for-ransom piracy model off Nigeria's coast, which reflects a significant driver of piracy that undermines the blue economy in Nigeria's maritime domain (Ali, 2018).

Theoretical Foundation

Routine Activity Theory, developed by Cohen and Felson (1979), posits that the likelihood of a crime occurring is influenced by the convergence of motivated offenders, suitable targets, and the absence of capable guardians. In the maritime context, piracy can be understood through RAT by analysing how the routine movements of ships (suitable targets) through high-risk areas like Nigeria's waters intersect with the presence of motivated pirates and the lack of sufficient maritime security (guardianship). In Nigeria's maritime domain, the high frequency of commercial vessel traffic, coupled with inadequate naval patrols and surveillance, creates an environment conducive to piracy. Understanding this dynamic can help policymakers devise strategies to enhance maritime security, such as increasing naval presence and improving surveillance technology.

Economic Rationality Theory, which is the underpinning theory, proposed by Gary S. Becker in 1968, posits that individuals engage in criminal activities, including piracy, based on a rational calculation of potential risks and rewards. According to this theory, pirates in the Gulf of Guinea, for instance, assess the high financial gains from ransoms, stolen cargoes, and other illegal activities against the relatively low risk of apprehension and punishment due to limited maritime law enforcement and surveillance capabilities. Pirates consider factors such as the profitability of their criminal endeavours, the effectiveness and presence of law enforcement, and the potential penalties if caught. This rational decision-making process drives their engagement in piracy as they seek to maximise their expected utility (Adesanya, 2023).

Addressing piracy from the perspective of Economic Rationality Theory involves altering the cost-benefit analysis that potential pirates perform. This can be achieved through several strategic measures: Strengthening the legal framework to ensure harsher penalties for piracy acts. This includes longer prison sentences, higher fines, and more stringent punitive measures that significantly increase the cost of engaging in piracy. By making the consequences of piracy more severe, the perceived benefits diminish relative to the risks, deterring potential offenders; increasing the likelihood of capture by bolstering maritime patrols and surveillance. This involves deploying more naval assets, improving coordination between national and regional maritime agencies, and utilising advanced technologies such as drones, satellite monitoring, and real-time tracking systems. Enhanced law enforcement presence increases the probability of pirate apprehension, thereby altering the risk-reward calculation.

Methodology

The research was conducted using quantitative research design and field survey approach was adopted which includes quantitative method using questionnaire. The population of the study comprised the Nigerian Navy (NN), Nigeria Ports Authority (NPA), Nigerian Maritime Administration and Safety Agency (NIMASA), main stakeholders in Lagos and Bayelsa States estimated to be 3,000 across the three agencies.

The primary source of data for the study includes respondents across NIMASA, Nigeria Ports Authority (NPA), NN and some selected stakeholders in Lagos and Bayelsa States. These two states were chosen because maritime activities are domiciled in Lagos and Bayelsa States. A total of 200 copies of the questionnaire were administered to respondents to gather sufficient data to make up for the peculiarities and complexities of piracy in both states. The instruments adopted for the collection of data were the questionnaire and interview guide.

Table 3.1: Questionnaire Distribution Table

Agency/Stakeholder/Community	Number of Questionnaire Copies
NN	60
NIMASA	60
NPA	60
LAGOS AND BAYELSA STATES	20
Total Respondents	200

Stratified sampling technique was adopted for the study, which involves dividing the population into distinct subgroups (strata) based on specific characteristics that are relevant to the study. From each stratum, a random sample is then drawn to differentiate between the various maritime securities agencies such as the Navy, Coast Guard, and maritime police. Stratification was based on the regions or ports where these agencies operate (e.g., Lagos, Bayelsa). Strata for different levels within the agencies, such as administrative personnel, operational units, and intelligence units. The data was analysed using statistical package for social sciences, version 27. Respondents were informed about the purpose of the study and were not coerced at any point in time to participate in the study. Anonymity was strictly adhered to.

Findings and Discussion

Demographic Analysis of Respondents and Response Rate

Table 1: Questionnaire Distribution Rate of Return

Respondents	Quantity	Number Returned	Number Unreturned	Returned %	Unreturned %	Total %
NN	60	44	16	73	27	100
NIMASA	60	56	4	93	7	100
NPA	60	43	17	72	28	100
Lagos State	10	7	3	70	30	100
Bayelsa State	10	8	2	80	20	100
Total Respondents	200	158	42	79.0	21.0	100

Source: Authors' Field Survey, 2024

Table 1 is on questionnaire distribution rate of return, showing the numbers and percentages of distribution and return with an overall return rate of 79.00% of respondents. The retrieved questionnaire provided the bases for the formation of opinions and drawing of inferences.

Table 2: Respondents Demographic data

S/N	Bio-Data	Responses	Frequency	Percentage
1	Sex	Male	142	89.87
2	Age	18-30 years	18	11.39
3.	Religion	Christianity	108	68.35
4.	Marital Status	Single	14	8.86
5.	Educational Qualification	Primary education	6	3.80

Authors' Field Survey, 2024

The demographic data of the respondents provides a comprehensive overview of their characteristics. On gender distribution: the respondents are predominantly male, with 142 men comprising 89.87% of the total participants. Female respondents are significantly fewer, numbering only 16, which represents 10.13% of the sample. On age distribution: the age distribution shows a diverse range of ages among the respondents. The largest group, 70 individuals or 44.20%, falls within the 31-45 years age bracket. This is followed by 50 respondents (31.65%) aged between 46-60 years. The younger age group of 18-30 years accounts for 18 respondents, making up 11.39%, while those aged 61 years and above total 20 respondents, representing 12.66%.

On religious affiliation: in terms of religious affiliation, the majority of respondents, 108 individuals or 68.35%, identify as Christians. Muslims make up the next largest group with 43 respondents, constituting 27.22%. Traditional religious adherents are a small minority with 7 respondents (4.43%). There are no respondents identifying with other religions. On marital status: marital status data reveals that a significant majority of the respondents, 131 individuals (82.92%), are married. Single respondents account for 14 individuals, representing 8.86% of the sample. Those who are separated number 10, making up 6.33%, while divorced respondents are the fewest with 3 individuals, accounting for 1.89%. On educational qualification among the respondents, it shows that there is high level of academic achievement. The majority, 118 respondents or 74.69%, have attained tertiary education. This is followed by 23 respondents (14.55%) who hold a Master's or PhD. Those with secondary education number 11, representing 6.96%, and the fewest, 6 respondents (3.80%), have only primary education. Overall, the data illustrates a predominantly male and married respondent pool, with a significant proportion in the 31-45 age range. The majority are Christians and have attained tertiary-level education.

What is the nature of piracy and blue economy in the Nigeria's maritime domain?

Table 2: Respondents' Views on the Actions or Features that Characterise Piracy

Response	Frequency	Percentage
Acts of robbery at sea	31	19.62
Criminal violence against ships at sea	93	58.86
Boat-borne attacks at sea	3	1.90
Stealing of sea-borne cargo or valuables	9	5.70
Kidnapping of seafarers	15	9.49
Killing of seafarers	7	4.43
Total	158	100

Source: Authors' Field Survey, 2024.

Table 4.2 presents respondents' views on the identified actions or features that characterise piracy. It shows that 31 respondents (19.62%) indicated acts of robbery at sea, then, 93 (58.86%) or majority of the respondents indicated criminal violence against ships at sea, while 3 (1.90%) indicated boat-borne attacks at sea. Also, 9 (5.70%) indicated stealing of sea-borne cargo or valuables, while 15 (9.49%) indicated kidnapping of seafarers and 7 (4.43%) were of the opinions that killing of seafarers is a feature of piracy. The opinions of the respondents were further buttressed by Capt Taiwo Akinkunmi in an interview when he noted that piracy as a crime in itself and by nature, has varied manifestations which are both causes and effects of other crimes. He averred that, while piracy is attributable to so many socio-

economic drivers, its manifestations are in many unquantifiable forms, including traumatic fear in victims and populace that live or undertake blue economic activities in littoral areas.

It can be deduced that the actions or features that characterise piracy include acts of robbery at sea, criminal violence against ships at sea and boat-borne attacks at sea. Others are stealing of sea-borne cargo or valuables, kidnapping of seafarers and killing of seafarers.

Table 3: Respondents’ Views on Actions or Features that Define Blue Economy (SA= Strongly Agree, A= Agree, D= Disagree, SD= Strongly Disagree, Freq= Frequency)

Response	SA Freq	%	A Freq	%	D Freq	%	SD Freq	%	Total Freq	%
Ocean based economy	0	0	158	100	0	0	0	0	158	100
Sustainable exploitation of the ocean	0	0	156	98.73	2	1.27	0	0	158	100
Commercial activities in the maritime domain	7	4.43	151	95.57	0	0	0	0	158	100
Exploitation of ocean resources for economic growth, whilst preserving the health of ocean ecosystem	5	3.16	153	96.84	0	0	0	0	158	100
Sea-borne socio-economic activities	2	1.27	156	98.73	0	0	0	0	158	100

Source: Authors’ Field Survey, 2024.

Table 4.3 presents respondents’ views on actions or features that define blue economy. These include ocean based economy, sustainable exploitation of the ocean, commercial activities in the maritime domain, exploitation of ocean resources for economic growth, whilst preserving the health of ocean ecosystem and sea-borne socio-economic activities. It reveals that 158 respondents (100%) agreed on ocean based economy to mean blue economy, while 156 (98.73%) agreed on sustainable exploitation. Also, from the cluster table above, majority of the respondents comprising 95.57%, 96.84%, 97.47% also agreed respectively on the various actions or features that define blue economy. The views of Adedeji (2023) further buttressed these findings as he clarified blue economy thus:

The “blue economy”, or the “ocean economy”, is a term used to describe the economic activities associated with the oceans and seas. The World Bank defines it as the “sustainable use of ocean resources to benefit economies, livelihoods and ocean ecosystem health”. It covers but not limited to: maritime shipping,

fishing and aquaculture, coastal tourism, renewable energy, water desalination, undersea cabling, seabed extractive industries and deep sea mining, marine genetic resources, and biotechnology.

From the views of the respondents above, it can be therefore inferred that actions or features that define blue economy include ocean based economy, sustainable exploitation of the ocean, commercial activities in the maritime domain, exploitation of ocean resources for economic growth, whilst preserving the health of ocean ecosystem and sea-borne socio-economic activities. These also include maritime shipping, fishing and aquaculture, coastal tourism, renewable energy, water desalination, undersea cabling, seabed extractive industries and deep sea mining, marine genetic resources, and biotechnology.

What are the effects of piracy on blue economy in Nigeria's maritime domain?

Table 4.4: Respondents' views on utilisation of the ocean for enhanced blue economy in Nigeria

Response	Excellent		Good		Average		Poor		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Fishing and fishery industry	0	0	0	0	3	1.9	155	98.1	158	100
Shipping industry	0	0	31	19.62	119	75.32	8	5.06	158	100
Cabotage	0	0	0	0	156	98.73	2	1.27	158	100
Maritime transportation	0	0	0	0	155	98.1	3	1.9	158	100
Maritime tourism	0	0	4	2.53	2	1.27	152	96.2	158	100
Oil and mineral resources exploitation	0	0	0	0	158	100	0	0	158	100

Source: Authors' Field Survey, 2024.

Table 4.4 presents respondents' views on the utilisation of the ocean for enhanced blue economy in Nigeria. It shows that majority of respondents comprising 155 (98.10%) and 152 (96.20%) respectively indicated poor on fishing and fishery industry and maritime tourism respectively. Also, another 158 (100%), 156 (98.73%), 155 (98.10%) and 119 (75.32%) of the respondents rated the utilisation of oil and mineral resources exploitation sabotage, maritime transportation and shipping industry as average. Thus, it can be inferred that the utilisation of the ocean in the areas of fishing and fishery industry, shipping industry, sabotage, maritime

transportation and maritime tourism as well as oil and mineral resources exploitation has not been optimal to enable them sufficiently enhance blue economy in Nigeria's maritime domain.

Discussion of Findings

To assess the nature of piracy and blue economy in the Nigeria's maritime domain, the first objective was achieved by establishing that some actions or features that characterise piracy include acts of robbery at sea, criminal violence against ships at sea and boat-borne attacks at sea. Others are stealing of sea-borne cargo or valuables, kidnapping of seafarers and killing of seafarers. Also, some actions or features that define blue economy include ocean based economy, sustainable exploitation of the ocean, commercial activities in the maritime domain, exploitation of ocean resources for economic growth, whilst preserving the health of ocean ecosystem and sea-borne socio-economic activities. These also include maritime shipping, fishing and aquaculture, coastal tourism, renewable energy, water desalination, deep sea mining, marine genetic resources, and biotechnology.

The findings aligned with those in the study by Onuoha (2016) titled, "Violence at Sea: The Ramifications of Maritime Piracy in Nigeria and Somali's Waters for Human Security in Africa. These also agreed with Moneke (2014) who discussed maritime piracy in Nigeria, but in relations to national security implications as well as similar elaboration in line with Udensi et al (2014). In this regard, Udensi et al noted in their own study that Nigeria's coastline is a rich source of marine life which provides the country's aquatic food needs as well as a source of living for many Nigerians and foreign fishermen. However, a threat such as piracy undermines maritime security, national security and economic prosperity from the sea sources in Nigeria.

To determine the effects of piracy on blue economy in Nigeria's maritime domain, it was also revealed that the utilisation of the ocean in the areas of fishing and fishery industry, shipping industry, cabotage, maritime transportation and maritime tourism as well as oil and mineral resources exploitation has not been optimal to enable them sufficiently enhance blue economy in Nigeria's maritime domain. Also, the disruption of maritime socio-economic activities, huge revenue losses, oil spillage and sea pollution as well as maritime ecosystem degradation are some of the impacts of piracy on blue economy in Nigeria's maritime domain. Ultimately it was found that piracy gravely undermines blue economy in Nigeria's maritime domain. These findings were further accentuated in previous studies by Abubakar (2017) in his study titled, "Gulf of Guinea Resources, Economy and Development: Yesterday, Today and tomorrow." The study reveals that pollution and piracy in the GoG region are two major problems on the rise in the region, which gravely disrupt livelihoods, degrade environments and destroy the economy of the GoG of which Nigeria is a vital part.

Conclusion

The rising trends in piracy attacks particularly off the coasts of the Niger Delta region of Nigeria continue to disrupt socio-economic activities with attendant negative impacts on blue

economy in the country. The menace of piracy has denied the FGN of the maximisation of needed revenue for necessary socio-economic development including good housing developments, hospitals, schools, social amenities and other infrastructures, while causing several costs and losses to the nation. For example, most ships and frigates are not willing to come to Nigeria waters due to piratical activities in the maritime domain causing reduced rate of commercial activities within the Nigerian waters. There have also been loss of livelihood, loss of lives, kidnapping in addition to loss of huge revenues as problems caused by piracy that bedevilled the Nigerian waters which undermine blue economy in the country. Therefore, this study found that there is the need for improvements in certain areas that can boost the capability of security and intelligence agencies in combating piracy for enhanced blue economy in Nigeria's maritime domain. These include improvements in information gathering, intelligence sharing and analysis, as well as technological base with requisite application and utilisation, and society value systems. The Federal Government of Nigeria (FGN) should strengthen both internal and external security measures to curtail the piracy in Nigeria and enhance blue economy in all littoral states of the federation. The FGN should adopt a Whole of Society Approach (WOSA) to maritime security in Nigeria especially in the coastal states towards boosting blue economy in Nigeria's maritime domain. This can be implemented whereby the border agencies such as Nigeria Immigration Service (NIS) and the Nigeria Customs Service (NCS) intensify efforts in deploying advanced technology in border management to curb arms smuggling which aids piracy in Nigeria with effect from fourth quarter, 2024.

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