

The Impact of Insecurity on Inland Waterways Transportation in Nigeria

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ABSTRACT

Aim of the Study: This study examines the diverse effects of maritime insecurity to the transportation of inland waterways in Nigeria in terms of their effects to economic growth, social cohesion and the well-being of communities that are affected. The research will also seek to recommend effective solutions to reduce these difficulties.

Methodology: The paper adopted quantitative research method for data collection and analysis of the available data and academic literature on maritime risks in the Gulf of Guinea area of Nigeria. It highlights security concerns like piracy, armed assaults, kidnappings and unlawful bunkering. The quantitative information is then compiled in order to assess the impacts of these threats on inland waterways and livelihoods of the people who depend on the transport routes.

Findings: The issue of maritime insecurity such as piracy, armed robbery, kidnappings and the illegal extraction of fuel contributes greatly in the disruption of transportation on inland waterways in Nigeria. The threat posed by them creates a climate of fear, which in turn decreases the activity of vessels, increases the insurance prices and disrupted supply chains. This economically results in lowering of trade and commerce, socially it results into the loss of income, access to no or limited availability of necessary goods and heightened anxiety among network partners and local communities. These destabilizations interfere with the effectiveness of transport systems via waterways and intensify socio-economic weaknesses.

Conclusion: The solution to the maritime security issue in the inland waterways in Nigeria is to use a combination of measures including the reinforcement of security in the inland waterways, improved collaboration among stakeholders, and the focus of investments in infrastructure and technology. Ensuring the safety in these transport networks will promote economic development, ease trade, enhance social stability and sustain development among the regions that rely on it.

Keywords: Maritime Insecurity, Inland Waterways Transport, Nigeria, Gulf of Guinea, Economic Impact, Security Challenges.

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1. INTRODUCTION

The inland waterways of Nigeria have been considered as important sector in terms of transport which have enhanced the trade and economic development of the country, particularly those parts that are linked to the vast body of water. The prolonged nature of insecurity along such waterways has however thrown a challenge of showdown to their efficiency and safety hence becoming a serious challenge to the transport industry and the socio-economic environment at large.

The inland waterways in Nigeria have been historically very crucial in the transport system in the country, which provides cheap and effective way of trading and transporting goods, services and people. Nevertheless, the insecurity that has been persistent along these waterways has been a major challenge to the functionality and development of this key means of transport.

The problems of insecurity in the African continent are older than its constitution as a “Political Unity”, formed by sovereign states. Since an early age, it was faced by several obstacles to its territorial integrity, due to a set of factors, many times, external to African interests, such as other peoples and great nations conquers and occupations in the 19th century and, in recent decades, the greed of various actors of International Politics for African spaces (Ginga 2020).

Thus, the increase in the geopolitical importance of African regions, namely the Western and Eastern regions, had been gaining greater political and economic interest from the main world powers, mainly because of their position on the axis of the main routes of world trade and their potential in natural resources, which reinforces the continent’s geo-strategic value (Benny 2016). In fact, although the relevance of the oceans in the context of international dynamics is unquestionable, the threats that arise there often seem to be less precise, so for several decades, the continental security approach had a predominantly territorial focus, since the main objective of African States was the assurance of issues considered “priority” (land borders), to the detriment of other issues considered “auxiliaries”, such as maritime security. As a result, insecurity in these spaces continues to weaken locally Agarwal and Ergun, 2008).

In March 2019 the UN Security Council held its first open debate on transnational organized crime at sea. It was the first official general debate the Security Council held on maritime insecurity, yet, it was a reflection of the degree to which questions of maritime insecurity in different parts of the world had increasingly occupied the Council’s agenda since the late 2000s. According to Wilson (2018), who has conducted a systematic analysis of all UN Security Council resolutions, in the past decade the Council has issued an unprecedented number of resolutions, amounting to no less than one published every two and a half months. The issues discussed in the Council include piracy in the Gulf of Aden and the Gulf of Guinea, the smuggling of narcotics and weapons and the violation of sanctions, illegal fishing and other maritime crimes, as well as inter-state disputes at sea. Such maritime insecurities are now widely seen as a threat to peace and security, and as a challenge to reach the UN Sustainable Development Goals, in particular goal fourteen addressing life below water.

- (1) The inland waterways have traditionally played an important role in transportation, trade, as well as commerce in Nigeria. Nevertheless, the problem of insecurity has continued to affect the effectiveness, safety and feasibility of inland waterways transport systems in a great way. This literature review will investigate and examine scholarly articles that explain the complex impacts of insecurity on inland waterways transport in Nigeria.
- (2) Security Challenges in the Inland Waterways of Nigeria: Emmanuel, et al. (2018) reports that Nigeria inland waterways are also subject to a number of challenges and opportunities. However, challenges such as piracy, vandalism and kidnapping, and armed robbery, congestion at jetties, insufficient jetty facilities and political influences are barriers to optimal inland waterways development in Nigeria. Such risks have contributed to the negative change in the use of such waterways in transport and trade. According to the reports of the Nigerian Maritime

Administration and Safety Agency (NIMASA), there is an increase in attacks on barges and vessels navigation across the inland waterways (NIMASA, 2019; Ajayi, 2019).

- (3) **Economic Implications:** Inland waterways transport has economic implications that are due to the effect of insecurity. As Okoroji and Ukpere (2011) point out, the resulting effect of the escalated level of insecurity is the disruption of trade and commerce, with the costs involved in the transportation of goods becoming higher. This conditions scare off investors and curtails the possible economic development with an efficient inland waterway transport.
- (4) **Infrastructure and Development:** Nigeria inland waterways insecurity is another issue that has an impact on infrastructure development. Ogunsanya, (2017) assert that the state is afraid of attacks, which is why the government does not invest in and sustain the required infrastructure to handle water transportation safely and efficiently. This underdevelopment hampers the development and modernization of inland waterways transport system.
- (5) **Societal Effects and Livelihood:** Insecurity has significant effect in livelihood of the communities that rely on the inland waterways transportation. Adewale and Yusuf, (2021) focuses on the impact of the frequency of attacks on the fishery trade, the inability to reach markets, and the development of fear in the population of the area, which negatively impact the social and economic welfare of local citizens.
- (6) **Environmental Concerns:** Insecurity in the inland waterways in Nigeria is also a contributor to environmental degradation. It is mentioned by Boak and Turner, (2005) that insecurity-related activities, including vandalism and illegal oil bunkering, cause pollution and ecological degradation that affect the aquatic ecosystem and biodiversity.
- (7) The militancy in Niger Delta region and the unrest in the north eastern part of Nigeria have also been identified to be among the key security issues affecting the Nigerian waterways through piracy, armed robbery, vandalism, and conflicts. A study by Nwogwugwu, et al. (2012) has indicated that the number of cases of piracy and armed robbery is incredibly high, which has resulted in inconveniences to maritime operations, cargo losses, and endangered human lives.
- (8) According to Adelekan (2019), the economic cost of insecurity on waterways transport, He said, is high insurance premiums, high transport prices, and reduced foreign investments in the maritime industry of Nigeria. The report prepared by the World Bank (2017) emphasizes the fact that insecurity in Nigeria waterways undermines the Nigerian attempts to use its expansive riverine systems to develop its economy and, therefore, take the full advantage of its resource as a transport route.
- (9) The social cost of insecurity on waterways transport is overwhelming. Nze and Nze. (2023). identified that the psychological trauma on the part of the victim of maritime insecurity necessitates the need to address mental issues as highlighted by Emmanuel (2025). In addition, Azonwu, et al. (2024) established the impact of waterway transport disruptions on the communities in the accessibility of the vital goods and services, which worsen social and economical weaknesses.
- (10) Such mitigation measures have been suggested in different works by researchers. As an example, Nwaogbe et al. (2021) were more focused on the significance of enhanced maritime security protocols, and Imorataria, et al. (2023) were more concerned with joint efforts of the government agencies, international partners, and local communities. Surveillance technologies and infrastructure investments have been suggested as well (Igbokwe., 2010).
- (11) According to the report of United Nations conference on trade and development in 2020, it is revealed that Nigeria as a nation has a vast inland waterways network with an approximate total of 10,000 kilometre which consist of rivers, lakes and creeks, that ranks country as one of the

largest in Africa (UNCTAD, 2020). The potential of these waterways in enhancing economic growth is enormous, as an alternative mode of transportation is offered to the nation and also alleviates congestion that is caused by roads.

- (12) Although this has been the potential, there has been a number of insecurity of all sorts in inland water transport sector in Nigeria. Chronic problems of piracy, armed robbery, vandalism, and conflicts are an issue in the Niger Delta area which negatively affect the safety, reliability, and effectiveness of the water transport. According to Owoputi and Owoputi, (2019), the tragic outcomes of these insecurities, which capture reduction of cargo flow and reluctance to invest because of insecurity of goods and vessels.
- (13) In addition, the economic effect of insecurity to inland waterways is huge. As an example, World Bank, (2021) highlighted that the insecurity in Nigeria waterways creates disruptions that result in higher transport costs and consequently the competitiveness of businesses that will be using the waterways, as well as, preventing the development of industries that may be connected by inland water transport.
- (14) The complexity in the insecurity and inland waterways of Nigeria is a serious issue that requires immediate intervention in order to reduce these problems and harness the benefits of this form of transportation. The importance of this situation is vital to coming up with feasible strategies and policies that would guarantee the safety and effectiveness of inland water transport that would promote socio-economic growth and development of Nigeria in the end.

The insecurity that has been persistent along the inland waterways in Nigeria has caused numerous problems that are pressing and are affecting the functionality, safety, and the efficiency of the transport system in a great way. The following problems were observed:

- (1) Piracy and Armed Robbery: Cases of piracy and armed robbery of passenger ships and cargo via the inland waterways are a significant risk to the security of goods, passengers as well as crews. These criminal acts not only posed threats to the lives, but also play a role in raising the cost of operation and investor unwillingness.
- (2) Vandalism and Infrastructure Destruction: Insecurity has led to a high level of vandalism and sabotage of geographical waterways infrastructure i.e. jetties, buoys and terminals. This destroys critical facilities needed to facilitate the efficient transportation activities and as such, interruptions and higher maintenance expenses are incurred.
- (3) Trade Disruptions and Economic Effects: Insecurity has interfered with economic activities of trade and caused a decrease in cargo transportation along these water routes. This has negative implications on businesses that depend on inland water transportation, high transport costs, low competitiveness, and eventually the entire economy and livelihood of the people living in coastal regions (NIWA, 2021).
- (4) Investment Uncertainty: The existing insecurity is a surrounding factor that cannot encourage potential investors to pour money into the inland water transport industry. The intimidation to invest would limit infrastructure development, modernization, and technological developments needed to have an efficient transportation.
- (5) Social and Environmental Concerns: The consequences of insecurity are spread to the social and environmental spheres as well. It helps to support the spread of illegal practices, influences the lives of communities relying on such waterways, and creates environmental issues because of such phenomena as oil spills and illegal bunkering.

This paper endeavor to tackle these stated issues relating to insecurity in the inland waterways of Nigeria in an effort to rebuild confidence on the system to enable the safety of operations, attract investments, promote economic growth as well as sustainably manage inland waterways transport routes in Nigeria.

This research paper seeks to examine the effects of insecurity on the inland waterways transport in Nigeria, and the complexities of the effects and their implications on the efficiency, safety, and the socio-economic attributes of the transport system. In this direction, the following are specific objectives towards this end.

- (1) To Assess the Nature and Extent of Insecurity
- (2) To Evaluate the Impacts on Transport Operations.
- (3) To Examine Economic and Trade Ramifications
- (4) To Examine the Social and Environmental Consequences.

1.1 Research Questions

Few questions that will help to achieve the objectives of this study were asked. These questions includes

- (1) What are the prevalent forms of insecurity along Nigeria’s inland waterways?
- (2) What are the specific disruptions caused by insecurity in terms of cargo traffic and passengers safety?
- (3) What are the Economic repercussions of insecurity on trade flows and the competitiveness of businesses reliant on inland waterways
- (4) What are the social impacts of insecurity on communities living along or dependent on the inland water transportation routes?
- (5) How does insecurity influence investment decisions and economic development linked to the inland waterways?

2. METHODOLOGY

The study adopted a quantitative research method using questionnaire to get responses from the respondents on their first hand experiences on the subject under review. The questionnaire was structured in a simple way that will not be challenging to less educated class. This interview was carried out online. Four likert scales of Agreed, Strongly agreed. Disagree, and Strongly disagree was used, unlike in Alexander and Irimiagba, 2022; Alexander and Onyejire, 2022; Budnukaeku, 2024; Alexander and Ojule, 2024, and Alexander, Aloni, and Amadi. 2025. Besides, simple percentage was use for analysis. Graphs chart with Microsoft excel and Tables were also used in this work, such approach has been used by Budnukaeku, (2025), Budnukaeku, Clinton, and Ejike, (2025).

The number of people involved in this research is shown on Table 1 and the break down detailed on Table 2

3. RESULTS

Table 1: *Distribution of Questionnaire*

Responses	F	%
Sample size	14700	100
Received	14112	96
Invalid	588	04

Source: Field Survey, 2024

Table 2: Demographic data of respondents

Demographic information	F	%
Gender		
Male	9757	69%
Female	4375	31%
Age		
20-24	282	2%
25-30	1270	9%
31-35	2540	18%
36+	10020	71%
Education		
HND/BSC	9032	64%
MASTERS	3810	27%
PHD	1270	9%
Marital Status		
Single	2963	21%
Married	6068	43%
Separated	988	7%
Divorced	1834	13%
Widowed	2259	16%
Service Duration		
Below 5yrs	3951	28%
5-10yrs	6492	46%
Above 10yrs	3669	26%

Source: Field Survey, 2024

Research Question 1: Are there maritime insecurity in Nigeria Ports?

Table 3: Respondents on question 1

Options	F	%
Agreed	7,056	50
Strongly Agreed	1,976	14
Disagreed	2540	18
Strongly Disagreed	2540	18
Total	14112	100

Source: Field Survey, 2024

From Table 3 above, 50% of the respondents agree that there is maritime insecurity in Niger's inland waterways; 14% of the respondents strongly believed that there is maritime insecurity around and within the inland waterways. That implies that 64% of the respondents are of the view that there is maritime insecurity in Nigeria inland waterways. However, 2540 respondents disagree and strongly disagreed respectively that there is insecurity in Nigeria's inland waterways, this implies that 36% of the respondents do not think that there is really insecurity in Nigeria maritime sector.

Question 2: What are the forms of maritime insecurity prevalent over Nigeria’s inland waterways?

Table 4: Respondents on the forms of maritime insecurity prevalent over inland waterways

S/N	ITEM STATEMENT	SA	A	D	SD
1	Maritime Terrorism	4375	4939	2822	1976
2	Piracy at Sea	5504	5927	2540	141
3	Illegal Oil Bunkering at Sea	4657	4939	2258	2258
4	Migrant and Weapons Smuggling	9464	2574	1088	986

Source: Field Survey, 2024

In Table 4 above, the forms of maritime insecurity prevalent in the study area were analysed.

For instance Figure 1 shows respondents’ response on maritime terrorism in percentage (%) on the study area.

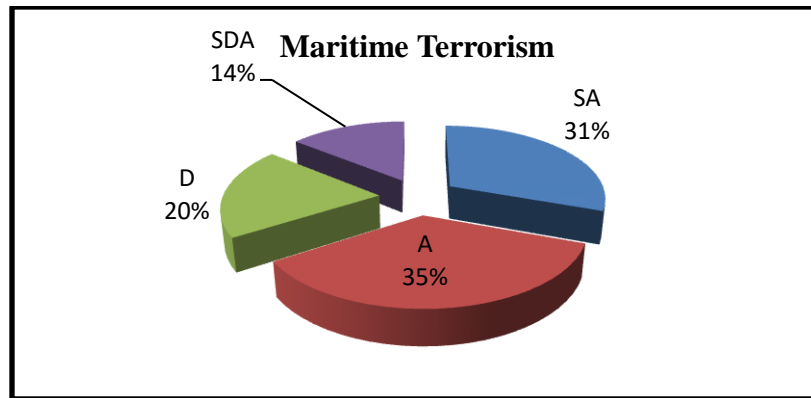


Figure 1: Response on maritime terrorism

Source: Field Survey, 2024

31% of the respondents strongly agree that maritime terrorism is common in inland waterways of Nigeria, while 35% agree that maritime terrorism is prevalent in Nigeria waterways. This implies that 66% of the respondents are sure that maritime terrorism is common in and around Nigeria’s waterways. However, 20% of the respondent’s disagree that maritime terrorism is common in the country’s waterways. Similarly, 14% of those interviewed strongly disagree that maritime terrorism is common within the waterways. That means that 34% of the respondents were of the view that maritime terrorism is not common within Nigeria’s waterways.

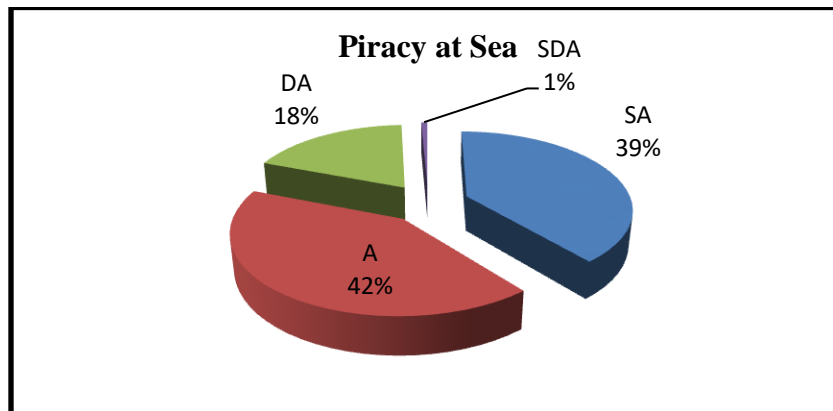


Figure 2: Response on sea piracy

Source: Field Survey, 2024

From Figure 2 it shows that 81% of the respondents accept that sea piracy is a form of insecurity within the waterways. 19% of the respondents do not see sea piracy as a form of insecurity in the waterways.

In response to item 3 on Table 3, Figure 3 shows the respondents response in %. 68% of the respondents accepted that illegal oil bunkering at sea is prevalent in and around some of the waterways in Nigeria; however, 32% of those interviewed were of the opinion that illegal oil bunkering at sea is not common in the waterways.

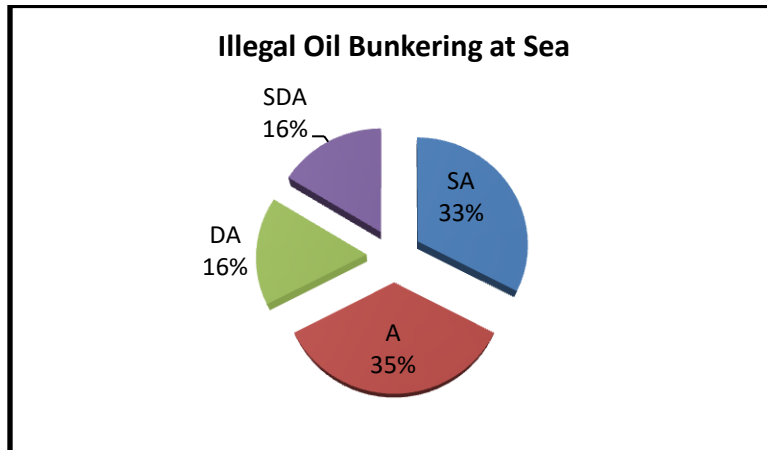


Figure 3: Response on illegal oil bunkering at sea

Source: Field Survey, 2024

Figure 4 shows the response on question 4 in Table 4. It was observed that 67% of the respondents representing 9464 of those interviewed strongly agree that weapon smuggling and illegal migration access inland waterways readily. 18% of the respondents agreed that that inland waterway is not free of smuggling and human trafficking. This implies that 85% of the respondents are aware that weapon smuggling and trafficking passes through inland waterways throughout Nigeria.

8% of the respondents actually disagree that smuggling and trafficking thrive across the waterways of Nigeria. Similarly, 7% of the respondents, representing 986 persons strongly disagreed that inland waterways are breeding ground for smuggling and trafficking in Nigeria.

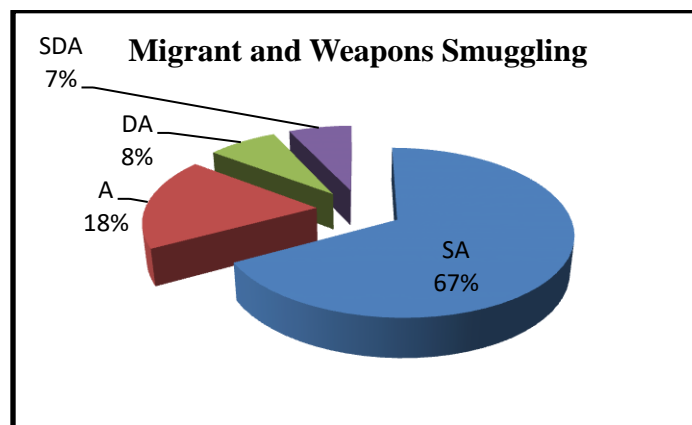


Figure 4: Response on Weapon smuggling and trafficking

Source: Field Survey, 2024

Table 5: Research Question 3: Does maritime insecurity have a negative effect on inland waterways transport?

Options	<i>f</i>	%
Agree	8467	60
Strongly Agree	1552	11
Disagree	3105	22
Strongly Disagree	988	7
Total	14112	100

Source: Field Survey, 2024

From Table 5 and Figure 4.4, 60% of the respondents (84 persons) agree that maritime insecurity has a negative effect on inland waterways. 11% of the respondents strongly agreed that insecurity has negative effect on the port; while the remaining 29% made up of 22% disagree and 7% strongly disagree, stated that maritime insecurity has a negative effect on seaport. This study agrees that maritime insecurity has a negative impact on port.

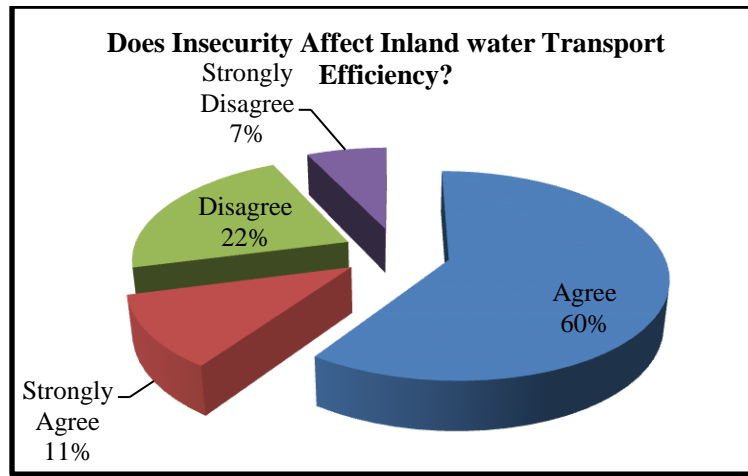


Figure 5: Response on effect of insecurity on inland water transport

Source: Field Survey, 2024

Question 4: What are the effects of maritime insecurity on inland water transport performance in Nigeria?

Table 6: Respondents on the effects of maritime insecurity on inland waterways transport

S/N	ITEM STATEMENT	A	SA	D	SD
1	Does maritime insecurity cause low volume of business on inland waterways of Nigeria?	9455	1835	1411	1411
2	Does maritime insecurity affect performance?	8185	3951	1835	141
3	Does maritime insecurity result to low revenue generation for the port?	8608	2117	1270	847
4	Does maritime insecurity deter investment?	9878	2117	1270	847

Source: Field Survey, 2024

In table 6 above, on the effects of maritime insecurity on inland waterways transport performance, and the Table shows the respondent’s views in all the items (item1-item4) as shown in Figures 3.1-3.4

In responses to question 1 in Table 6 ‘Does maritime insecurity cause low volume of business through Nigeria inland waterways?’

9455 respondents (67%) agree that maritime insecurity affect the volume of business in the inland waterways. Another 1835(13%) of the respondents strongly agree that insecurity affect volume of trade in the inland waterways. The finding implies that 80% of the respondents (11290 persons) were of the opinion that maritime insecurity negatively affects the volume of business along he inland waterways.

In the other hand 1411(10%) of the respondents respectively disagreed and strongly disagrees that maritime insecurity is responsible to low volume of business in the waterways. This implies that 2822(20%) of the respondents said that maritime insecurity does not affect waterways performance or responsible for low volume of business on the inland waterways in Nigeria.

This work based on the finding asserts that maritime insecurity accounts for the low volume of business on inland waterways transport over Nigeria as shown in Figure 6.

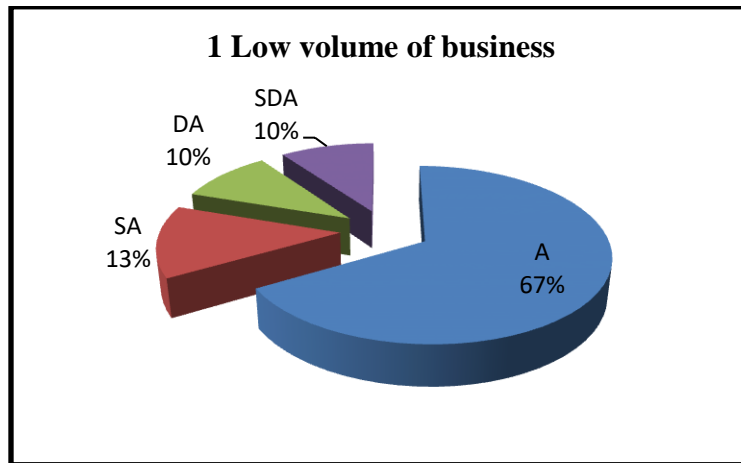


Figure 6: Response on low volume of business at the Port.

Source: Field Survey, 2024

The respondents’ response for question 2 in Table 6 “Does maritime insecurity affect performance”? Was analysed using Figure 3.2. 8185 of the respondents accounting for about 58% of all those interviewed agreed that maritime insecurity affects inland waterways transport performance. Similarly, 3951(28%) strongly agree that maritime insecurity affect performances at the inland water transport. It means that 12136(86%) of the respondents said that maritime insecurity affects inland water transport performance in Nigeria.

1835(13%) of the respondents disagree that maritime insecurity affect performance, another 1% strongly disagree that maritime insecurity affects inland water transport performance. This implies that 14% of the respondents said that maritime insecurity does not affect performance.

This study based on the majority view state that maritime insecurity affect inland waterways transport performance in Nigeria.

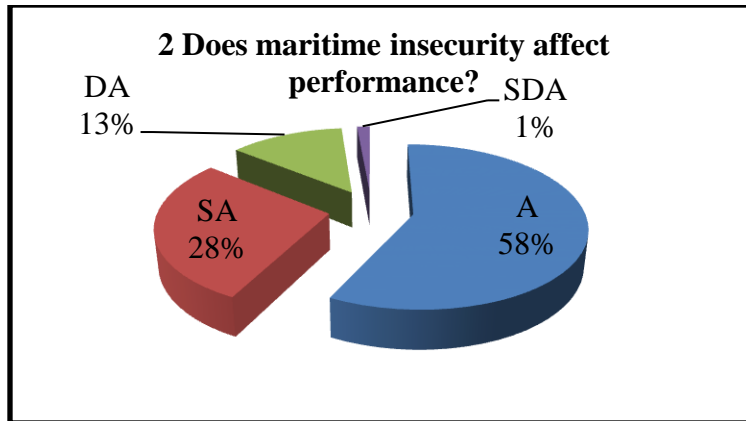


Figure 7: Response on effect of Maritime insecurity on inland waterways performance

Source: Field Survey, 2024

Respondents' response on question 3 "Does maritime insecurity result to low revenue generation for the port"? Has the following responses as shown in Table 6 and explained in Figure 7

8608 representing 61% of the respondents agreed that maritime insecurity account for low revenue generation in inland waterways transport in Nigeria. 1552 persons representing 11% of the respondents strongly agree that maritime insecurity is keys to low revenue generation experience in inland waterways transportation across Nigeria.

This means that about 72% of the respondents (10161 persons) were of the view that maritime insecurity is responsible to low revenue generation experience at the various inland waterways routes.

2540(18%) of the respondents disagree that maritime insecurity can cause low revenue generation in the inland waterways routes. Similarly, 1411 of the respondents (10%) strongly disagree that maritime insecurity is responsible for low revenue generation at the inland water transport. This implies that 3951(28%) of the respondents said that maritime insecurity does not cause low revenue generation in waterways transport.

This study based on the above observations opines that maritime insecurity is a strong factor responsible for low revenue generation in internal waterways transport.

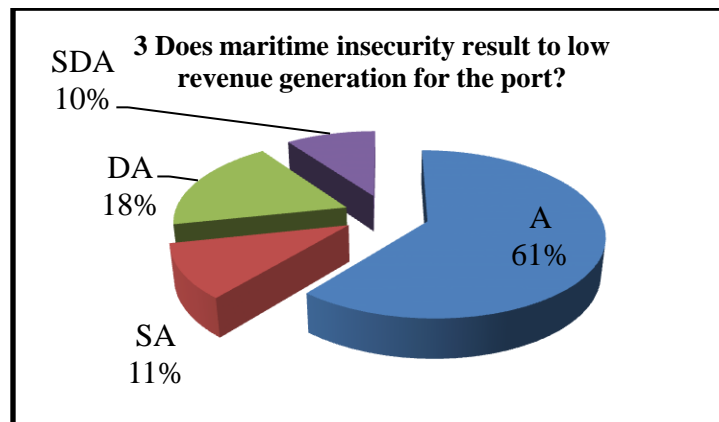


Figure 8: Response to the effect of maritime insecurity on revenue generation

Source: Field Survey, 2024

Response to question 4 is seen on Table 6 “Does maritime insecurity deter investment”? Figure 9 is used for the analysis. The analysis shows that 9878 persons accounting for 70% of the respondents agree that maritime insecurity deter investment opportunity in the waterways. Another group of respondents numbering 2117 persons that is 15% of the respondents strongly agree that maritime insecurity deters investment in the waterways across Nigeria.

Basically, 11995 persons, accounting for 85% of the respondents said that maritime insecurity deters investment in inland water transport over Nigeria.

Different views were expressed by 1270(9%) of the respondents, they disagreed that maritime insecurity deters investment opportunities at the inland water transport system. Another smaller group made up of 847 persons which represents 6% of the respondents strongly disagree that maritime insecurity deters investment inland water transport.

The summation of their opinion is that maritime insecurity does not affect or deter investment opportunity in water transport in Nigeria.

This work aligns with the majority to postulate that maritime insecurity deters investment at inland waterways of Nigeria.

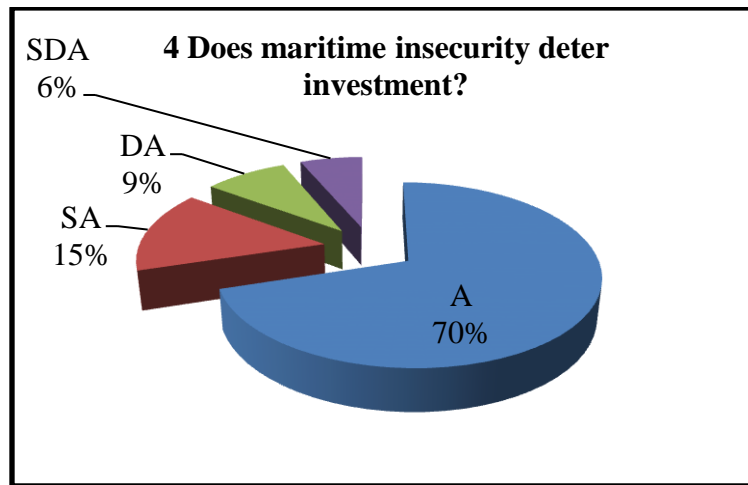


Figure 9: Response to the effect of maritime insecurity on investment

Source: Field Survey, 2024

4. CONCLUSION

It was observed that maritime insecurity is common in and around inland water routes. The types of insecurity around the study area include Maritime terrorism, sea piracy, illegal oil bunkering, and migrant and weapon smuggling. Reasonable number of respondents attested to that. It was also observed that maritime insecurity has negative effects on inland water transport, in term of efficiency as seen by the respondents response, were 71% attested that insecurity affects the inland water transport negatively. Study has shown that maritime insecurity affects waterways transport performance in the study area. For instance, it was observed that maritime insecurity causes low volume of business, reduces waterways transport performances, lead to low revenue generation, and deters investment opportunity in the region.

From the response of respondents, that has vast knowledge in maritime sector, it is clear that maritime insecurity is inimical to the development and improvement of the sector. Maritime insecurity is responsible for low investment at inland waterways transport, low revenue generation, low volume of business and the overall poor inland water transport performance.

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