

ISSN: 2695-2556 (Online)

ISSN: 2651-5679 (Print)

AKSU Journal of Agriculture and Food Sciences 9(2) 1-17, 2025

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A review on Insecurity's Grip on Nigeria's Fisheries: A Threat to Livelihoods and Nutrition

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Abstract

The fisheries sector is a crucial component of Nigeria's economy, driven by the strong demand for fishery products and its significant contribution to the nation's Gross Domestic Product (GDP). With extensive marine and inland fisheries resources, Nigeria holds great potential for attaining self-sufficiency in fish production. However, despite this potential, the country still faces a significant shortfall in meeting domestic fish demand through local production. This gap is attributed to various challenges plaguing the industry, hindering its ability to meet the growing demand for fishery products. This study was conducted through a comprehensive review of relevant reports from local and international fisheries research organizations, national dailies, and online media outlets. The review focused on the significant impact of insecurity on Nigeria's fish production, detailing the various security threats affecting the fisheries subsector. These threats include Boko Haram/Islamic militant insurgency in the North, organized criminal gangs, sea robbery, kidnapping, militant separatist agitations, Niger Delta Militants, opportunistic armed groups, maritime criminal groups, piracy, and illegal, unreported, and unregulated fishing (IUU). The review revealed that these security challenges have substantially contributed to the decline in fish production in Nigeria. The study advocates for a multifaceted approach to addressing security challenges in the fisheries subsector, urging Nigeria's security agencies to implement comprehensive policies that target the underlying causes of these threats. These include addressing the root drivers of insecurity, such as poverty, unemployment, and social inequality, to create a more stable and secure environment for the fisheries industry to thrive.

Key words: Insurgency, Piracy, Fisheries, Maritime crime, Food security

1.0 Introduction

Despite achieving notable socioeconomic advancements in recent years, Nigeria, Africa's most populous nation, still grapples with formidable development hurdles, prominently including a recent surge in insecurity (Kouassi *et al*, 2024), and this escalating insecurity poses a severe threat to food security, exerting devastating consequences on the nation's ability to ensure stable access to sufficient and nutritious food for its population (FSIN, 2021). Persistent violence and instability in the country, fueled by insurgency, banditry, and clashes between herders and farmers, have severely disrupted agricultural production, including fishing, leading to dwindling fish supplies and reduced availability, which in turn has driven up prices of animal protein sources, making it difficult for people, especially poor households, to access protein-rich foods and increasing the risk of protein deficiency (Famine Early Warning Systems Network (FEWS NET), 2023). Conflict in Nigeria intensified in mid-2022, exceeding the levels reported in 2021, with the Northwest and Northcentral regions being the hardest hit and this prolonged insecurity in these areas, especially in Kaduna, Katsina, Kebbi, Sokoto, Zamfara, and Niger states, leading to widespread displacement and significant disruption of livelihoods (Famine Early Warning Systems Network (FEWS NET), 2023). Data from Few NETs in 2023 indicates a troubling escalation of conflict in the southeast, particularly in Imo and Anambra states, which have experienced the most conflict events in the southern region, signaling a worsening security situation.

In addition to the challenges posed by conflict violence and insurgency, various other factors have hindered food production and availability. These include unstable social and political climates, limited natural resources, a weak human resource base, gender disparities, inadequate education, poor health outcomes, and natural disasters like floods (Adebayo, 2015). Moreover, the absence of effective governance has also contributed to these challenges. Notably, conflict violence, particularly insurgency, has emerged as a significant and growing threat to global food security, as highlighted by Adebayo (2015). The growing threat of conflict violence to food security is exemplified by the activities of Boko Haram insurgents in North Eastern Nigeria. The sudden intensification of the insurgency in early 2010 took the government by surprise, as it initially underestimated the severity of the threat. However, the insurgency has persisted, defying expectations of a swift resolution (International Crises Group, 2014). This ongoing conflict has further exacerbated the existing challenges to food production and availability, compounding the negative impacts on food security in the region.

2.0 Consequences of Fishing Challenges on Importation and the Nigerian Economy

The cumulative effect of these challenges, including conflict violence, insurgency, and other factors, has led to a significant reliance on fish imports in Nigeria. As a result, the country has become the world's fourth-largest fish importer, trailing only China, Japan, and the United States (Ships and Ports, 2021). Despite the fisheries sector's notable contributions to Nigeria's economy, accounting for 3-5% of national GDP, generating substantial employment, especially in rural areas, and providing 40% of the country's animal protein intake, domestic fish production remains

inadequate. The existing deficit of 1.9 million metric tons, coupled with an annual demand of 2.7 million tons, necessitates the importation of \$1.2 billion worth of fish annually, as highlighted by the Central Bank of Nigeria (CBN) (Ships and Ports, 2021). This underscores the urgent need to address the underlying challenges hindering Nigeria's fish production and food security.

Nigeria's domestic fish production is largely driven by artisanal small-scale fishing activities, which account for over 80% of the country's total output. These fishing operations are primarily concentrated in coastal areas, inshore creeks, lagoons, inland rivers, and lakes. However, these regions are prone to significant security risks, including kidnappings, pirate attacks, and insurgency, which pose substantial obstacles to the smooth operation of fishing activities and threaten the livelihoods of those dependent on this sector (FAO, 2017).

The fishing industry in Nigeria is plagued by insecurity, which has far-reaching consequences for the country's waters. Foreign vessels are encroaching on Nigerian territorial waters, engaging in illegal fishing practices, and then repackaging the stolen fish for sale in Nigeria. According to a report by Ships & Ports, a maritime media outlet, Nigeria suffered significant financial losses in 2021, with estimates suggesting that illegal fishing by Chinese and European trawlers cost the country around \$70 million (N35 billion) annually (Ships & Ports, 2021).

The World Fisheries Strategy 2014 highlights the significance of the fisheries sector, which supports over 28 million people globally, with women comprising 70% of the workforce. In Nigeria, the fisheries industry faces a substantial production deficit, with an annual production of just over 1 million metric tons, resulting in an import shortfall of approximately 800,000 metric tons. Recognizing the potential of fisheries to address poverty, enhance food and nutrition security, reduce youth unemployment, and foster profitable businesses, both capture fisheries and aquaculture are receiving increased focus from public and private sectors (World Fish Strategy, 2018).

The Nigerian economy is primarily driven by the private sector, yet its full potential remains untapped due to various challenges. Enhancing the availability and accessibility of nutritious food, addressing food insecurity, and improving public health have become key priorities for the government in recent years (World Fish Strategy, 2018). Nigeria's economy, long reliant on crude oil exports, is diversifying towards agriculture as a secondary mainstay due to declining oil prices, rising inflation, and food insecurity. Aquaculture and capture fisheries are crucial components of this shift. For many coastal communities in Nigeria and northeastern regions, particularly in Borno State bordering Lake Chad, fishing has been a primary source of income. However, protracted armed conflict in these areas has led to a severe humanitarian crisis. The resulting insecurity has prompted a fishing ban on Lake Chad, depriving local fishermen of their livelihoods and exacerbating the crisis (Food and Agricultural Organization (FAO), 2021).

Africa's fisheries and aquaculture sector is valued at approximately US\$17.4 billion, accounting for 6% of the continent's total Gross Domestic Product (GDP) of US\$288.4 billion. Among the different fisheries, marine artisanal fisheries make the highest contribution at 1.82% of the total GDP, followed by marine industrial and inland fisheries, each contributing 1.63%, while aquaculture accounts for around 1% (Food and Agricultural Organization (FAO), 2017).

2.1 Relevance of Nigerian Fishery in West Africa

The fisheries sector plays a vital role in supporting the livelihoods of millions of people in West Africa, where an estimated 40% of the population resides in coastal areas along the Gulf of Guinea, relying heavily on fisheries for food and income. In West Africa's coastal region alone, the fisheries sector provides employment opportunities for around 9 million people (Okafor-Yarwood, 2018), while across the African continent, it supports an estimated 12.3 million jobs (FAO, 2014). Breaking down the employment figures, the FAO reports that half of the workforce (6.15 million) are engaged in fishing, while 4.9 million (42.4%) work in processing, and 0.9 million (7.5%) are employed in fish farming. Notably, the majority of fishers (more than half) work in inland fisheries, whereas processors are primarily employed in marine artisanal fisheries (42%), followed by inland fisheries (30%), and industrial fisheries (28%) (Health of Mother Earth Foundation, 2019).

2.2 Impact of the Oil Sector on Fishing

Compared with the fisheries sector, which significantly contributes to employment, extractive industries are highly capital-intensive and provide minimal direct job opportunities (International Monetary Fund, 2005). In Nigeria, the oil sector employed only 0.01 percent of the workforce in 2013, making it the smallest employer in the country at the time (Vanguard, 2014). This trend has persisted, with approximately 95 percent of investments in the industry still occurring offshore. Unfortunately, various environmental and security challenges have severely impacted the sustainability of marine ecosystems and the livelihoods of coastal communities. Factors such as oil spills, toxic waste discharge, piracy, insecurity, and illegal, unreported, and unregulated (IUU) fishing have contributed to the depletion of fisheries resources, threatening both the region's biodiversity and the economic survival of millions (Okafor-Yarwood, 2018).

2.3 Religious Extremist and Armed Militants Impact on Nigerian Fishing Industry

In recent years, Nigeria has witnessed the emergence of new and complex forms of insecurity, characterized by rising discord and distrust. Religious extremists, armed militants, and ethnic militia groups have intensified their activities, posing a greater threat to stability than their predecessors. These older militia groups have evolved into armed entities, perpetrating numerous attacks and inflicting psychological trauma on individuals and families. The country is experiencing heightened insecurity, marked by persistent tensions between the north and south, growing unrest in the Niger Delta, and increased violent incidents and kidnappings nationwide. Underlying factors such as ethnic tensions, religious differences, unemployment, and various social and political grievances are fueling these unrests, creating flashpoints for violence and exacerbating insecurity in Nigeria (Udoh, 2015).

While numerous publications have explored the effects of insecurity on other agricultural subsectors, such as crop production, there is a significant knowledge gap regarding the impact of emerging crises on the fisheries subsector. This review aims to address this gap by synthesizing information on various security threats in Nigeria and their specific effects on the fisheries sector, highlighting the need for targeted interventions to mitigate these impacts.

2.4 Major Security Challenges and Threat in Nigeria

Insecurity refers to a state of vulnerability, where one is exposed to potential harm or threat, leading to feelings of anxiety and apprehension. It is a condition characterized by uncertainty and fear, causing individuals to feel susceptible to danger or injury, and prompting concerns for their safety and well-being (Udo, 2015). Insecurity has been defined as “a state of being not secure, lack of confidence’ Nigeria faces an array of security challenges beyond Boko Haram insurgency (African Centre for Strategic Studies, 2021). Among other security challenges that are facing the nation which threaten the national economic development and the nations fisheries sector of the economy are; boko Haram/Islamic militants’ insurgency, organized criminal gangs, kidnapping, herders-Farmer’s violence, various agitation given rise to militant Pro-Biafra separatists, Niger delta Militants group (African Centre for Strategic Studies, 2021). Our research identifies several threats, including opportunistic armed groups, maritime criminal organizations, sea/coastal robbers, pirates, and perpetrators of illegal, unreported, and unregulated fishing (IUU) attacks. These threats can have far-reaching consequences for overall food production and specifically impact fish production and availability in Nigeria, either directly or indirectly, leading to devastating effects on the country's food security.

2.5 Impact of Pirates on Fisheries in the Nigeria Coastal Region and in the Gulf of Guinea

Nigeria, situated in West Africa, has a coastline along the Atlantic Ocean, bordering the Gulf of Guinea. The country's maritime zones face persistent threats from piracy, sea robbery, illegal, unreported, and unregulated (IUU) fishing, as well as marine pollution. In recent years, emerging security challenges have primarily stemmed from non-military factors, including socio-economic unrest and high levels of unemployment among youth in coastal communities. These issues have contributed to increasing attacks on both fishing vessels and commercial shipping activities (United Nations, 2022).

The fishing industry in Nigeria faces significant challenges due to piracy in the country's territorial waters, exacerbating the already low domestic fish production partly caused by illegal, unreported, and unregulated (IUU) fishing. Despite efforts by the Nigerian government to secure its maritime zones, piracy persists, posing a multifaceted threat to fisheries, including: Research and scientific initiatives, fish population dynamics and stock sizes, fisheries management and at-sea observations, fishing practices, economic viability of fishing enterprises, livelihoods and food security, government revenue and allied industries (Usman *et al.*, 2019).

The impact of piracy on Nigeria's fishing industry became evident in early 2008 when a series of extortion attempts and boat hijackings by pirates severely disrupted fishing activities in Akwa Ibom, a coastal state. These attacks led to an indefinite strike by trawler operators, halting economic activities and causing significant revenue losses for the state (Adedeji & Okocha, 2008). Although the crisis was eventually addressed, security challenges continue to hinder the growth of Nigeria’s fishing sector.

Beyond economic consequences, piracy also poses serious humanitarian risks, as fishermen often suffer injuries or fatalities during hijackings. For instance, in 2003, a total of 107 attacks on fishing trawlers were recorded, while January 2008 alone saw 50 incidents, followed by 64 more in October of the same year (Rashid, 2012).

In 2019, reports indicated that the Gulf of Guinea accounted for nearly 30% of all recorded piracy incidents in African waters, with 427 out of 1,434 attacks occurring between 2003 and 2011—a trend that has been on the rise (Health of Mother Earth Foundation, 2019). The International Maritime Bureau (IMB) identified the waters off West Africa as the most dangerous globally for piracy in its 2019 report. That year, 62 of the 75 seafarers kidnapped or taken hostage worldwide were seized in the Gulf of Guinea, particularly off the coasts of Benin, Cameroon, Guinea, Nigeria, and Togo (Health of Mother Earth Foundation, 2019).

According to IMB data, the Gulf of Guinea accounted for 73% of all maritime kidnappings and 92% of hostage situations (Health of Mother Earth Foundation, 2019), though the actual numbers may be higher due to underreporting. The persistent threats of piracy and insecurity in the region have significant implications for maritime industries, including fisheries and aquaculture. These challenges not only disrupt the marine ecosystem but also jeopardize the livelihoods of many communities dependent on fishing and related activities.

The direct and indirect costs of piracy in the Gulf of Guinea are enormous, totaling \$1.9 billion per year; in addition, the enormous cost of illegal, underreported and unregulated fishing, amounting to \$1.6 billion per year (United Nations, 2022).

In Nigeria, fishermen experience some of the most significant economic losses due to sea robbery and illegal, unreported, and unregulated (IUU) fishing. In some cases, sea robbers exploit fishermen as human shields during attacks on more lucrative targets (Taokodi, 2018). These violent incidents have severely impacted the fishing industry, leading to a decline in fishing trawlers, substantial revenue losses for both fishermen and traders, and widespread unemployment (Usim, 2016; Wajilda, 2013). The persistent threat of piracy has forced many fishermen and trawler operators to avoid the most productive fishing areas in the Gulf of Guinea. As fish stocks decline, concerns about both economic stability and nutritional security in the region have intensified. Notably, fish remains a dietary staple for the poorest 40% of the population. Additionally, the expansive security zones around offshore oil and gas installations often restrict access to key fishing areas, pushing fishermen into more perilous waters (Health of Mother Earth Foundation, 2019).

Piracy in the Gulf of Guinea as reported by the Centre for Strategic Studies in 2021 is one of the worst in the world, accounting for over 95 percent of crew members kidnapped and this has devastating impact on fishing companies in Nigeria coastal waters (African Centre for Strategic Studies, 2021). They further stated that in 2020, a total of 35 piracy incidents were reported off the coast of Nigeria. However, this number is likely an underestimation, as many shipowners may choose not to disclose incidents to avoid higher insurance costs. In Nigeria's Delta region, certain groups have been linked to attacks on pipelines and oil workers. These groups, such as the Movement for the Emancipation of the Niger Delta (MEND), have a decentralized structure and local support, making them challenging to address through security measures alone. They employ tactics like swift attacks and retreats into the region's riverine terrain. Armed and mobile, some groups have expanded their targets to include fishing trawlers and artisanal fishermen in coastal areas, threatening the livelihoods of local communities reliant on fishing and aquaculture.

2.6 Impact of Militant Group Activities on Fisheries in the Nigeria Coastal Region

The Niger Delta region has been plagued by longstanding tensions between local communities and multinational oil corporations, stemming from the companies' operations, which have been tied to environmental devastation and socioeconomic inequalities. This has led to pervasive discontent among the local population, with numerous individuals and groups, including Ken Saro-Wiwa and the Ogoni people, vocalizing their demands for environmental justice and human rights. The resulting pollution has had catastrophic consequences for the local population, with many fishers and farmers facing the loss of their livelihoods due to the degradation of their land and water resources, rendering them unable to sustain their traditional ways of life (African Centre for Strategic Studies, 2021). In May 2023, Anozie of Punch Newspaper reported on the devastating impact of sea piracy on the fishing industry (Anozie, 2023). Fishermen shared their harrowing experiences, including the frequent theft of outboard engines, rampant kidnappings for ransom, and the crippling effect on their livelihoods. An excerpt from the article highlighted the severity of the situation:

"Sea pirates are our major problem. They've been wreaking havoc on fishermen, forcing us to abandon the sea. Each engine costs approximately N3 million. This has been an ongoing nightmare for the past decade. Many fishermen have been kidnapped, with ransoms demanded and paid, sometimes as high as N500,000, just to retrieve our stolen engines" (Anozie, 2023).

Anozie further reported that the situation is compounded with illegal and unregulated fishing which to their estimation account for loss of \$100m annually and this poses a direct threat to food security and socioeconomic stability in Nigeria and other parts of the world. Occasional pirate attacks at high sea lead to loss of lives and property as well as damage to vessels and machines.

Nigeria's internal fish production faces a challenge in fully utilizing its access to the Atlantic Ocean, largely due to persistent pirate attacks. An analysis of data from leading seafood companies in 2019, including MOWI ASA (€4.1 billion in revenue), Maruha Nichiro (over \$8 billion), Thai Union Group (\$4.1 billion), and Trident Seafoods (\$2.6 billion), reveals a common trend; these companies, which generated significant revenues in 2019, tend to locate their shipping, fishing, and aquaculture operations near the ocean (Williams, 2020). This highlights the importance of secure access to the ocean for maximizing fisheries production.

Piracy is severely limiting Nigeria's potential for large-scale fishing operations. The International Maritime Bureau (IMB) reported a 40% surge in piracy and armed robbery incidents worldwide in the first nine months of 2020, with a significant increase in kidnappings in the Gulf of Guinea (Williams, 2020). According to the IMB's Global Piracy Reports, there were 132 attacks in 2020, up from 119 during the same period in 2019; notably, the Gulf of Guinea accounted for 80 of the 85 reported kidnappings, with 14 incidents occurring off the coasts of Nigeria and neighboring countries, including Benin, Gabon, Equatorial Guinea, and Ghana (Williams, 2020). These findings highlight the substantial impact of piracy on Nigeria's ability to fully exploit its ocean resources for seafood production and aquaculture, hindering the country's economic potential.

2.7 Impact of Insecurity on Fish Transport and Distribution Networks in Nigeria

2.7.1 Impact of Insecurity on Fish Distribution from the Lake Chad Region and Neighboring Countries

Contrary to common perceptions, the local fish economy is predominantly driven by the North East and North West regions, rather than other areas of the country. According to various reports, the fish from the Lake Chad are a vital source of protein for rural communities in the region and beyond, meeting a significant portion of their protein needs (Ahmad, 2020). Furthermore, the lake's fish supply plays a dominant role in the trade of fish products in major urban markets in southern Nigeria, including Onitsha, Enugu, Lagos, Ilorin, Ibadan, and other areas, accounting for over 70% of the fish products sold in these markets (Ahmad, 2020). This is corroborated by FAO report of 2020 that smoked fish is a popular and widely consumed food in Nigeria and is sourced from many different parts of the country. The Report stated that the two main regions where smoked fish is produced are the coastal region, including the states of Lagos, Ogun, Ondo, and Akwa Ibom, and the Northern region, including the states of Borno, Yobe, and Adamawa (FAO, 2020). In addition, smoked fish is also produced in other parts of the country, including the states of Kano, Jigawa, and Gombe. The smoked fish from these regions are transported to the various markets in the nation through many routes to areas of high demands such like states in the central and southeastern parts of Nigeria.

Institute for Strategic Studies (ISS) in 2021 reported that prior to the insurgency in Northeastern Nigeria, the Transport Union, with a nationwide presence, employed its own drivers to ensure greater control over its operations. The union facilitated the national transportation of smoked fish and other goods, as well as trans-border trade along Lake Chad, with significant volumes of agricultural commodities passing through Adamawa and Borno for trade with neighboring countries, including Niger, Cameroon, Chad, Benin Republic, Togo, Ghana, Central African Republic, and Burkina Faso (Institute for Strategic Studies, 2021). However, according to Remadji Hoinathy (2021) of the ISS, insurgents repeatedly attacked drivers, burning trucks loaded with fish and other goods, resulting in devastating consequences for the transport industry. The conflict led to the loss of approximately 750 vehicles belonging to Transport Union members. The attacks severely impacted the transportation of produce for export and the importation of products into Nigeria from the Northeast. Major roads to Chad and Cameroon were among the first to be blocked, and in Borno, all roads except the Maiduguri-Damaturu Road were closed. The closure of the Biu-Jos Road had a particularly significant impact on the agricultural sector in Borno and Taraba. At times, vehicular movement became extremely challenging due to fuel shortages, as restrictions were placed on fuel sales in the Northeast to weaken the insurgents, further affecting the movement of fish from the region to other parts of the country.

ISS further has a narration that during this period in 2019, the government-imposed fuel restrictions, limiting sales to small quantities based on geographic area. This, combined with the threat of insurgent attacks on roads, led to cautious fuel use and reduced travel to markets. Farmers in South Borno were particularly affected, complaining that the fuel ban resulted in a shortage of transportation to get goods to market, causing produce like fish to spoil before reaching customers. This led to significant income loss for many farmers (African Centre for Strategic Studies, 2021). As violence in northeast Nigeria escalated from 2009, it spread to neighboring countries around

Lake Chad, making it perilous for boat drivers to operate safely. Following attacks and bombings in Chad in 2015, the lakeside borders with Cameroon, Niger, and Nigeria were closed, severely disrupting the thriving transnational trade network and significantly impacting the supply and movement of fish across borders (African Centre for Strategic Studies, 2021).

Fishing is a vital economic activity in Diffa, with a significant portion of the catch being exported to Nigeria via the Kamadougou River, which forms the border between Northern Nigeria and South Eastern Niger. However, Boko Haram has been exploiting this trade by taxing fishermen and seizing their catches along the shores of Lake Chad, using the proceeds to fund their extremist activities in Northeast Nigeria (Premium Times, 2020). Fish from markets in northern Cameroon and Niger Republic, such as Kusiri and Kinchandi, are regularly transported to Nigerian markets, including Hadeija, Kano, Mubi, and others; nevertheless, the insurgency has severely impacted this trade, with militants forcibly imposing levies on all items and collecting revenue from fish sellers and buyers (Adebayo, 2020). Fishermen are coerced into paying regular fees for fishing rights, while local dealers are forced to surrender a portion of their smoked fish to the insurgents. Additionally, buyers are charged a fee for each carton of smoked fish purchased, generating a steady stream of revenue for the insurgents; some sources familiar with the trade estimate that the militants generate millions of naira daily during peak season, at the expense of fishermen and fish traders (Okoli, 2019).

The prevalence of insecurity, exemplified by road blockades and banditry, has severely impacted the transportation of fish from farms to markets, resulting in a substantial reduction in fish availability and a corresponding increase in prices throughout the value chain. Furthermore, the combination of insecurity, military restrictions aimed at curbing insurgent attacks, and poor road infrastructure has significantly disrupted the movement of goods across borders and within Northeast Nigeria. This has had a devastating effect on fishers, limiting their ability to produce and sell their products, and ultimately hindering their livelihoods (Mercy, 2021).

2.7.2 Impact of Insecurity on Fish Distribution and Transport in Major Fish Hubs of Nigeria

According to Mercy (2021), insecurity is the second-highest concern for fishers, farmers, and market actors in Borno state, significantly impacting the transportation of goods. Prior to the insurgency, the region was a major hub for national and cross-border trade, with large volumes of agricultural commodities passing through Adamawa and Borno to neighboring countries. However, insurgents' attacks on drivers, burning of trucks, and blockage of roads have severely disrupted transportation. The closure of key roads, including those to Chad and Cameroon, has made it nearly impossible to transport produce for export or import products into the rest of Nigeria. Specifically, the Biu-Jos Road closure has had a devastating impact on the agriculture sector in Borno, Taraba, and neighboring states. The National Union of Road Transport Workers also reported that insurgents' seizure of goods and perceived lack of government support further reduced the transport of goods to Local Government Areas, bringing the transport of fuel and food items to a near standstill.

According to firsthand accounts from individuals residing in the South East, while many pro-Biafra groups in the region initially adhered to nonviolent principles, the recent fragmentation of the movement has led to an escalation of violence and brazen actions. The prolonged detention of their

leader by the Federal government has sparked protests and prompted the group to declare periodic "sit-at-home" days, which bring economic activities to a standstill. Furthermore, radical factions have taken to seizing and burning trucks carrying goods, including agricultural products and fish, transported from other parts of the country to the East and South. This destructive behavior is done by the group to serve as a deterrent or punishment for non-compliance with their directives, resulting in severe repercussions for agricultural production and the economy.

2.7.3 Impact of Insecurity on the Livelihood of Fish Folk

Research has consistently demonstrated that armed conflicts and crises have a profound impact on households directly involved in the conflict, affecting their productivity and livelihoods (Arias *et al*, 2019; Brück, *et al.*, 2019). The consequences of these conflicts may include increased market prices for essential food items, including fish, due to reduced supply and output (D'Souza and Jolliffe, 2013). Additionally, uncertainty and fear of conflicts can lead to reduced investments in production (Arias, *et al.*, 2019), resulting in decreased productivity and output of staple crops (Adelaja and George, 2019; George, *et al.*, 2021). In the Lake Chad region, the insurgency has significantly disrupted key economic activities, including commercial fishing and red pepper farming, which were crucial to the local economy and supported numerous communities in the Lake Chad Basin, particularly in Borno State, Nigeria (Premium Times, 2020).

A 2021 World Food Programme report revealed that prior to the Boko Haram crisis, the combined fish and red pepper industries generated \$48 million for the Nigerian economy, primarily through exports; the red pepper sector alone employed over 300,000 people (The conversation, 2021). The insurgency has had a profound impact on fish availability and agricultural production in Nigeria, leading to reduced output and direct economic losses for farmers and fishermen. This has had a ripple effect throughout the entire value chain, hindering sectoral growth and potentially even the broader economy. Reduced production is not only the most immediate consequence of this crisis but also a stark indicator of its scope and severity, underscoring the significant impact on the economy and food security.

Insecurity, including insurgency and banditry, poses significant direct and indirect threats to the livelihoods and food security of smallholder farmers, exacerbating the need for food assistance, particularly among vulnerable populations. This has severe consequences for household food security and nutritional status. The increasing frequency and intensity of attacks in developing countries can lead poor farmers to adopt low-risk, low-return agricultural practices, resulting in reduced investments, lower farm profits, and heightened food insecurity (Aimin, 2010; Cole *et al.*, 2013; FAO, 2017). Furthermore, fish farmers and workers face elevated risks of attack, kidnapping, or even loss of life, given the isolated locations of most aquaculture farms, making them vulnerable to bandits, kidnappers, and herder-farmer conflicts. This can lead to labor shortages, reduced fish production, and decreased availability. Operating under dangerous conditions, fish farmers and employees experience increased stress and anxiety, impacting productivity and work quality.

On July 19, 2023, Vanguard reported that the Fishery Federation Cooperative Association of Nigeria (FCAN) has suspended fishing activities in the Lake Chad Basin due to the destruction of fishing settlements by insurgents and terrorist groups (FAO, 2021). The association stated that over 11 million of its 60 million members across Nigeria have been impacted by the insurgency. The

prolonged armed conflict has forced many to abandon their farmlands and fishing areas, leading to a significant scarcity of fish in the country (FAO, 2021). The insurgency in Northeastern Nigeria has disrupted fishing livelihoods, a crucial source of food and income, particularly for households relying on Lake Chad, which spans across Chad, Cameroon, Niger, and Nigeria's Borno State. Military activities and community volatility have restricted access to fishing grounds, affecting fisherfolk. In response, the FAO launched a fish farming cluster initiative in Borno, the worst-affected state, on April 2, 2019, to support households impacted by the insurgency (FAO, 2019).

It was reported in 2015 how fishermen in Akwa Ibom State were expressing frustration over the escalating attacks by pirates and militants in coastal areas, which are hindering their ability to generate sustainable income and undermining government efforts to alleviate poverty (Udo, 2020). The fishermen have suffered significant losses, including the theft of fishing boats, outboard engines, and nets worth millions of naira, impacting the livelihoods of members of the multipurpose cooperative society in the area; these pirate have also resulted in the loss of lives, making fishing a perilous occupation (Udo, 2020)

A 2021 report by the Health of Mother Earth Foundation (HOMEF) highlights that Nigerian fishermen face significant economic losses due to sea robbery and illegal, unreported, and unregulated (IUU) fishing. In some instances, sea robbers use fishermen as human shields while targeting more valuable vessels (Taokodi, 2018). The fishing industry has been severely affected by these violent attacks, leading to a reduction in fishing trawlers, major financial setbacks for fishermen and traders, and rising unemployment (Usim, 2016; Wajilda, 2013). The persistent threat of piracy has compelled many fishermen and trawlers to avoid the most productive fishing areas in the Gulf of Guinea. As a result, declining fish catches have intensified concerns over both economic stability and food security, particularly for the poorest 40% of the population, who depend on fish as a key dietary staple (Health of Mother Earth Foundation, 2019).

The coastal waters of West Africa, recognized for their rich biodiversity and economic significance, serve as a major global fishing hub. However, the region faces severe challenges due to illegal, unreported, and unregulated (IUU) fishing, which has negatively impacted Nigeria's fish production and weakened its fishing industry. The excessive exploitation of these productive fishing grounds has led to substantial economic and environmental repercussions for Nigeria and other coastal nations (NOAA, 2017; Doumbouya, 2017; Health of Mother Earth Foundation, 2019).

In recent years, the rampant depletion of West African fisheries by foreign trawlers has resulted in the overfishing of more than half of the region's fish stocks, jeopardizing the sustainability of marine resources (Alfonso, 2016). Reports indicate that approximately 40% of the fish caught in West African waters are harvested illegally by international fishing companies that take advantage of weak institutional frameworks and insufficient fisheries management (Merem *et al.*, 2019). The unchecked activities of these entities have pushed numerous fish species toward depletion, severely affecting the livelihoods of local fishing communities, including those in Nigeria.

The impact of IUU fishing extends far beyond marine ecosystems, disrupting sustainable fishing practices, food security, and the well-being of coastal populations worldwide. According to Merem *et al.* (2019), Africa suffers an estimated \$1 billion in annual losses due to IUU fishing, exacerbating poverty and endangering the livelihoods of those reliant on fisheries in the West

African region. This continued exploitation diminishes the region's ability to sustain seafood production, further increasing the vulnerability of coastal communities.

2.7.4 Farmer's Herders Crisis on Fish Availability in Nigeria

While conflicts between herders and farmers pose some challenges to fish production and availability, such as occasional kidnappings and community displacement, their impact is relatively minimal compared to the devastating effects of insurgency in the North and sea piracy in the coastal region. The primary concern lies in the Middle Belt and North West states, where clashes over land have escalated into the formation of ethnic militias, vigilante raids, and extrajudicial killings, leading to a more significant threat to regional stability and fish production. However, it is essential to acknowledge that the occasional attacks and community displacement resulting from herder-farmer conflicts can still have a negative impact on fish production in affected communities, albeit to a lesser extent than the more significant threats of insurgency and sea piracy.

According to the African Centre for Strategic Studies (2021), the North West and Middle Belt states of Nigeria have historically served as a shared space for nomadic pastoralists and sedentary agriculturalists, who coexisted, traded, and relied on local peacekeeping mechanisms to resolve land disputes. However, the encroachment of desiccation and large-scale land allocations to estate owners in the North West have forcibly displaced herders from their traditional grazing routes. Furthermore, an aerial analysis by the U.S. Geological Survey revealed a significant decline of 38% in land available for open grazing in Nigeria's Middle Belt between 1975 and 2013, exacerbating tensions and competition for resources in the region (African Centre for Strategic Studies, 2021). As a result, this has led to clashes over grazing land where herders encroach on wetland or swamp land used for aquaculture along banks of rivers and lakes. These attacks have resulted in the destruction of critical fishing infrastructure, including ponds, nets, and canoes, along the banks of the Benue River and its lakes. Furthermore, our analysis reveals that an entire town in Agatu was temporarily denied access to a vital lake, renowned for its abundant fish stocks, due to herder violence, underscoring the severe consequences of these conflicts on local livelihoods and food security.

In a recent disturbing trend, herders have launched a series of attacks on fishermen in Bayelsa and Delta State, Nigeria, sparking widespread concern among local communities. Residents of Okordia and Zarama clans in Yenagoa Local Government Area, Bayelsa State, and Beneku Community in Ndokwa East Local Government Area, Delta State, have sounded the alarm over the destructive activities of Fulani herders, who have been wreaking havoc on their farmlands and fishing livelihoods. A distraught community member lamented, "Herders have taken over our forest, leaving us in a state of constant fear. As fishermen and farmers, our livelihoods are under threat, and we have no alternative means of supporting our families" (Vanguard, 2024)

3.0 Conclusion and Recommendation

In conclusion, the fisheries sector in Nigeria holds immense potential for contributing to the nation's economy and food security. However, the persistent security challenges, including insurgency, piracy and organized crime, have undermined fish production and distribution, leading to a significant reliance on fish imports. The review highlights that these security threats not only disrupt fishing activities but also threaten the livelihoods of millions of people who depend on the

sector for their income and sustenance. The alarming statistics regarding the decline in domestic fish production and the increasing costs associated with food insecurity underscore the urgent need for comprehensive interventions.

To address these challenges, it is recommended that the Nigerian government and relevant stakeholders adopt a multifaceted approach to enhance the security and sustainability of the fisheries sector. Key recommendations include:

1. **Strengthening Security Measures:** implement targeted security policies that addresses the root causes of insecurity, such as poverty and unemployment, particularly in coastal and fishing communities. This could involve the presence of law enforcement in vulnerable areas and establishing community policing initiatives to foster trust and cooperation between local populations and security agencies.
2. **Promoting Sustainable Fishing Practices:** Encourage the adoption of sustainable fishing practices and effective fisheries management to combat (IUU) fishing. This can be achieved through stricter enforcement of fishing regulations, community awareness programs, and partnerships with local fishermen to promote responsible fishing.
3. **Investing in Aquaculture:** Expand investment in aquaculture as viable alternative to capture fisheries. This can help alleviate pressure on wild fish and provide a more stable source of income for fishing communities. Government incentives, training programs, and access to financing can support the growth of aquaculture initiatives.
4. **Fostering Community Engagement:** Engage local communities in decision-making processes related to fisheries management and security initiatives. Empowering communities to take an active role in protecting their resources can lead to more effective and sustainable outcomes.
5. **Addressing Socioeconomic Factors:** tackle the underlying socioeconomic issues that contribute to insecurity, such as unemployment and social inequality. Programs aimed at skill development, education and economic diversification can help create a more stable environment conducive to the growth of the fisheries sector.

By implementing these recommendations, Nigeria can work towards achieving self-sufficiency in fish production, enhancing food security, and improving the livelihoods of millions who depend on the fisheries sector. A collaborative effort among government agencies, local communities, and international partners will be essential in overcoming the challenges facing this vital industry.

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