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Assessment of Factors Influencing the Patronage of Calabar Seaport, Southeastern Nigeria

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Abstract

This study explores the underutilization of the Calabar Seaport in Nigeria, despite significant government investment. It thus, aims to propose a sustainable solution to enhance the port's patronage. The Calabar Seaport, located along the shallow Calabar River, faces navigational challenges for larger vessels, necessitating frequent dredging. The proposed Bakassi deep-water port, if effectively connected via rail and road, could probably have alleviated, this issue; however, the geopolitical risks associated with the Nigeria-Cameroon border must be considered. A critical finding of the study is the lack of railway connectivity to northern industrial areas, in contrast to the more successful ports in Lagos and Port Harcourt. Additionally, inadequate road infrastructure-exemplified by the impassable Ikom-Calabar road and poorly connected routes such as Aba-Ikot-Ekpene-Calabar-further limits operational efficiency. Conflicts and infrastructure deficiencies have contributed to a decline in agricultural activity in the region, reducing demand for port services. The port's underutilization is further compounded by issues such as piracy, low industrial activity in Calabar, a predominantly low-income civil servant population, and insufficient household consumption of imported goods, including food products, household equipment, and raw materials for local industries. The study identified the usability of Calabar sea port for agricultural produces, especially, Cassava produce shipment overseas. This report presents recommendations to address these challenges, highlighting the necessity of enhancing security measures, upgrading infrastructure, and fostering stronger connections between the port and key industrial areas to increase usage.

Keyword: Assessment, Patronage, Port Utilization, Cassava exports, Railway connectivity

1. Introduction

Nigeria Ports Plc has been running seven seaports during the last few decades, one of which is the Calabar Sea Port, which the federal military government declared to be an independent transshipment port. The Nigeria Port Authority (1992) proposed Calabar Export Processing Zone, which it was meant to promote. Calabar Sea Port, which was finished in September 1978, is thought to be among Nigeria's most advanced ports. However, the port has been woefully





underutilized for a long time despite having an annual capacity of 1.5 million metric tons. For instance, in 1975–1976 it utilized 13.95% of capacity; by 1980–1981 it had dropped even lower to 10.8%.

Calabar Sea Port's circumstances remained dire by 1993, with a total throughput of 236,934 metric tons. When traffic dropped to 176,000 metric tonnes in 1994, this continued to diminish. These numbers only make up a minor portion of the port's yearly capacity of 1.5 million metric tonnes. One of Nigeria's most underutilized seaports, Calabar Sea Port, has persisted in incurring losses from lost revenue and customs charges that could have helped the national government. Low financial returns on the public monies used to build and maintain the port have also had a impact major on the socioeconomic development of Cross River State and the nation at large. This emphasizes how important it is to look closely into the causes of this persistent underutilization. As maritime and railroad transportation are increasingly acknowledged by all levels of government as crucial components of the production and distribution processes, there have been encouraging efforts in recent years to improve port operations and efficiency in Nigeria (Johnson, 2011; Awosanya, 2012; Naira Land, 2013; Nigeria News, 2013; Osagie, 2013).

Prior studies on seaports have frequently looked at them separately or mostly concentrated on their infrastructure, waterways, and hinterlands. But Baransky (1981) emphasized how crucial it is to examine a seaport, or even a nation, in a larger framework that considers its links to markets, trade, transportation networks, cultural hubs, and industrial regions. He described a "situation" as the interaction between a particular place and surrounding, economically significant components that have been influenced by historical changes and human activities. Other concern about seaports became more common in the post Covid-19 era with worldwide economic challenges (Abramowicz-Gerigk, Burciu, Gerigk, Jachowski (2024), Song (2024), Buonomano, Giuzio, Maka, Palombo and Russo (2024).

The extant literature discloses that Actia Consulting (2012) carried out an assessment to appraise the impact of the Gdańsk and Gdynia Sea Ports on the social and economic circumstances within the Pomorskie Region. In a similar vein, Money (1973) contended that any comprehensive analysis of maritime transportation ought to consider not only the seaports themselves but also the facilities, transport major routes. installations, warehouses, and surrounding land and inland transportation networks. The notion of "situation" or relative placement, which has been used in this evaluation, encompasses all these elements. Consequently, rather than being examined in isolation, the Calabar Sea Port-more appropriately, a river port-will be examined considering other variables that could have an impact on how it is used.

Therefore, the study seeks to accomplish several goals, including determining the elements that have influenced Calabar Sea Port's utilization level, examining patterns and trends in port development throughout Nigeria and their possible effects on Calabar Sea Port, looking into the possibility of hinterland competition between Calabar Sea Port and other Nigerian ports, and providing recommendations and solutions to address the issues raised by the analysis.



2. The Importance of Structural Changes in Nigerian Sea Ports

Apart from those that handle crude oil, Nigerian seaports are essential hubs for managing a wide range of manufactured commodities and raw materials; their functions and importance have changed throughout time. According to Ogundana (1970), seaports are dynamic entities that go through absolute or relative changes in status and function. Ports can be organized into port complexes and are interconnected, especially with those nearby. Understanding the functional and infrastructure dependencies of these complexes is facilitated by their analysis.

Ogundana (1970) added that a port concentration was a defining feature of the decade from 1910 and 1950. On the other hand, a notable diffusion of ports with variations in their quantity has occurred since 1950. For instance, Nigeria had seven

3. Description of Calabar Sea Port and Its Surroundings

Calabar, the Nigerian state capital of Cross River State, is home to Calabar Sea Port. The port can be found at roughly 04° 59' 11" North latitude and 08° 19' 1" East longitude. Situated on a peninsula, it is bounded by the Great Kwa and Calabar rivers. Rivers and vast, low-lying, damp swamp lands divide the city of Calabar from the highland regions to the east. The estuary of the Cross River, which empties into the Bight of Bonny, is located south of Calabar.

The new Calabar Sea Port is situated roughly 93 kilometers from the Cross River's main channel at 08° 15' 20" East longitude and 04° 55' 0" North latitude. The port is around 38 hectares in size and has a 150-meter-wide, fully buoyed river channel that stretches for about 80 nautical miles (Aye, 1967; NPA, seaports in 1950 compared to fourteen in 1910. New ports including Ikang, Bonny, Akassa, Koko, Forcado, Opobo, and Brass appeared between 1910 and 1950. Port Harcourt Sea Port, which opened in 1912, was acknowledged as the second most significant port in Nigeria as early as 1922, with Lagos Sea Port emerging as the country's principal port. Third place went to Sapele Sea Port in this ranking. Meanwhile, the once-higher ranked Sea Ports of Calabar and Burutu had begun to lose importance (Ogundana, 1970).

With crude oil excluded, the volume of cargo throughput in 1986 was 12,276,579 tonnes, a drop of 4,127,109 tonnes or 25.51% from 1985. According to the Nigeria Port Authority, the ports in Lagos constituted 61.6% of the overall throughput, with the River Zone contributing 23.86%, Delta Port at 12.61%, and Calabar Port contributing just 2%.

1993). Calabar Sea Port is hence categorized as a "River Port." To keep the canal open to larger ships, frequent dredging is necessary, and pilot boats are frequently used to ensure safe navigation.

4. Climatic Characteristics of the Seaport area

The climate in Calabar and the surrounding area is equatorial, with year-round highs in temperature, humidity, and precipitation. Moreover, 3000mm of rain falls on the area each year; the heaviest months are November through April, with milder rainfall falling from May through October. The highest recorded temperatures are 31.4°C in February and March and 23.1°C in July. Humidity is still high, ranging from 75% to 95%, even though temperatures rarely get beyond 32°C (TESCO-KOZIT Consulting Engineers (Nig.) Ltd, 1972; Akintoye, 1995).



The Dry Season, which runs from November to March, and the Rainy Season, which goes from April to October, are the two main seasons in the area. Stronger winds are indicative of the Rainy Season, while softer winds are characteristic of the Dry Season (TESCO-KOZIT Consulting Engineers (Nig.) Ltd, 1972; Akintoye, 1995). These climate cycles have, however, recently seen a few slight variations. Furthermore, there are minor annual variations in the sea swell pattern along Calabar's coast.

Sea swells are quite small during the Dry season and significantly larger during the

5. The Historical Trends and Relative Position of Calabar Sea Port

Because of its advantageous location close to the Cross River estuary, Calabar Sea Port is well-known within the Gulf of Guinea and has direct access to the Bight of Bonny. The Calabar River estuary is an important marine route since it provides easy access to the Bight of Bonny. Because of the calm waters surrounding Duke Town and Diamond Hill, this natural advantage has historically facilitated annual trade with Europeans (University of Calabar, Undated). Aye (1967) states that "Old Calabar" gained a distinguished reputation on the West African coast due to its long-standing reliance on maritime trade for its growth and wealth. Because of the calm waterways around Duke Town and Old Diamond Hill, European tradesmen, mainly Portuguese sailors and merchants, were drawn to the area as early as the fifteenth century.

According to Aye (1967), Calabar played a significant role as an export hub for agricultural goods from Southern Cameroun before to the middle of the 20th century. However, following Southern Cameroun's political union with Cameroun in 1961, the port's prominence significantly decreased.

Wet season. Swell heights vary from 304.8 to 914.4 mm during the Dry season to between 1219.2 and 1828 mm during the Rainy season. The duration of the swell phase is roughly 5 seconds for "Shortest Types" and 12 seconds for "High Types." The range of the tidal water is 1.500 meters; the average low water level is around 1.488 meters, and the maximum water level is approximately 3.046 meters (TESCO-KOZIT Consulting Engineers (Nig.) Ltd, 1972). But these patterns are becoming more variable due to climate change.

Calabar Sea Port's exportable commodities volume significantly decreased because of diminishing merger, the port's this commercial significance. Aye denied that isolation was the cause of Calabar's and its port's collapse. Rather, he maintained that the port's superior geographic position and overseas connections—which had previously contributed to its commercial prominenceremained in place. He underlined that trade, particularly in isolated regions, invariably fosters the expansion of associated sectors, of which transportation is a prime example.

According to Udo (1970), Calabar's port and advantageous position were essential to the early development of the palm oil trade. He also emphasized the city's significance as a significant hub for education in the Eastern States of Nigeria and its tenure from 1901 to 1906 as the political hub of the British Protectorate of Southern Nigeria. But Udo pointed out that Calabar's once-dominant role began to wane in the second decade of the 20th century due to a reduction in the city's political and economic significance. He identified several causes for the reduction, chief among them being the development of roads and railroads, which reduced the need for waterways. Consequently, Calabar had a





notable decline in trade due to the absence of direct road and rail links to the interior of the Eastern area. The "most decisive factor," according to him, in the fall of trade and usage at Calabar Sea Port was the growth of Port Harcourt Sea Port. Furthermore, Aye (1967) noted that by 1960, hard economic times had forced British and other foreign companies operating in Calabar to close. The authors transect walk along Old Marina Road in the Calabar Old Harbour area in October 2013 provided evidence for this, as they discovered numerous dilapidated warehouses and abandoned office buildings that had once been home to well-known European international trading enterprises.

Calabar's economic downfall started at this having been the Oil River point. Protectorate's headquarters from 1883 to 1906. It's evident that Old Calabar has declined dramatically from its position forty years ago. Udo (1970) agrees, pointing out that Calabar has experienced economic stagnation since the second decade of the twenty-first century because of losing its advantageous location. He made the case that these circumstances, which are marked by high unemployment, low total income, forced migration, declining purchasing power, and a few social problems, are like those in other similarly disadvantaged locations.

6. Contemporary Trends and Relative Position of Calabar Sea Port

According to Jaja's (2011) data, Nigerian sea ports, from 1996 to 2005, primarily exported crude oil and LNG, while manufactured goods dominated imports. Calabar Sea Port faced challenges with data collection and dissemination, as evidenced by incomplete turnaround time data, which could hinder planning and management Apapa Port led in dry cargo handling, followed by Port Harcourt and Tin Can Island. For liquid cargo, Okrika Port was the leader, with Apapa and Federal Light Port handling smaller volumes. Notably, Calabar Sea Port's role and relevance might need reassessment due to recent developments and emerging trends.

For decades, Lagos and Port Harcourt Sea Ports have posed significant challenges to Calabar Sea Port's utilization. These ports offer unique advantages, such as Lagos's strategic location as a hub for global trade routes and its connections to major airports and inland waterways. Additionally, both Lagos and Port Harcourt have extensive road and rail networks connecting them to industrial zones, boosting their utilization. Calabar Sea Port, on the other hand, is primarily connected to rural agricultural areas and faces competition from Port Harcourt, which benefits from its connection to the national railway network. Despite being connected to major Nigerian cities through pipelines, Calabar Sea Port faces significant connectivity issues. Its lack of rail access. combined with poor road infrastructure, hinders cargo transportation and increases costs.

Notably, Calabar Sea Port enjoys shorter road distances to cities in the north compared to Lagos and Port Harcourt, the decline in agricultural and extractive activities in these regions has reduced its advantage. Additionally, the efficiency of transporting high-value goods is hampered by the Ikom Bridge's overhead metal barricades, which obstruct large vehicles. As of 2013, Calabar Sea Port's strategic position on local and international sea routes remains unimproved. The port continues to lack direct access to the North Atlantic Sea route, one of the world's busiest and most connected trade lanes.





7. The Level of Economic Activities in the Hinterland of Calabar Sea Port

The Calabar Sea Port's hinterland encompasses various agricultural, industrial, and service sectors. Historically, the region focused on cash crops like oil palm, rubber, and timber in the southeast, while in the north-east, there was large production of Ground Nut, Grains, Cotton wool. The level of economic activities in the Hinterland of Calabar Sea Portheast primarily produced groundnuts, benniseed, and cotton. However, significance of these agricultural the activities has declined over time. Fishing activities along the Akwa Ibom and Cross River coastlines contribute minimally to export trade. Illegal fishing by international trawlers further impacts coastal resources. Inland fishing remains primarily subsistence oriented. Calabar Sea Port's prominence was initially tied to the slave trade and later shifted to oil palm and palm kernel exports.

During the colonial era, plantation agriculture, timber extraction, and government-owned farming estates flourished in the Cross River Plain. Today, cattle rearing is less significant, except in the Adamawa region. Figures 1 and 2 illustrate key crop-producing regions and industrial centers in Nigeria. The Calabar Sea Port hinterland currently faces low economic activity and lacks railway connectivity. Major cash crops like cotton and groundnut are no longer widely cultivated, and cocoa production is limited to specific areas. Oil palm cultivation is primarily confined to the southeast, with many plantations operating below peak capacity. Export routes by rail, river, and road predominantly favor Lagos and Port Harcourt Sea Ports, leaving Calabar Sea Port underserved. While the region has historically produced minerals like tin, columbite, and coal, these exports were primarily routed through Port Harcourt and Lagos. Akwa Ibom and Cross River States have been significant crude oil producers, boosting the use of oil bunkering facilities at terminals like Quo Iboe, Eket, and Atan. Recently, Cross River State's loss of several oil wells has exacerbated its economic challenges, further impacting the Calabar Sea Port hinterland. Figure 3, presents, the distribution of Cassava production by States in Nigeria. Cross River is acknowledged as a significant producer.

In contrast to cities like Lagos, Ibadan, Warri, Benin City, Kano, Kaduna, and Port Harcourt, which have a high concentration of market-oriented industries, the Calabar Sea Port hinterland has a relatively sparse distribution of both large-scale and smallscale industries. Major industrial zones, such as the Benin-Sapele-Warri, Kano-Kaduna-Jos, and Lagos-Ibadan-Ilorin zones, are not located within the Calabar Sea Port hinterland. The immediate hinterlands of Lagos and Port Harcourt Sea Ports include industrial estates in Apapa, Ijora, Yaba, Oshodi, Agbara, Ilupeju, Ikeja, Trans-Amadi, and Port Harcourt. These ports are wellconnected by road and rail to industrial estates in Kano, Kaduna, Jos, and Zaria, facilitating the efficient movement of goods. In comparison, Calabar Sea Port's lack of railway connectivity and poor road significantly infrastructure hinders its utilization.

For many years, Calabar Sea Port relied heavily on local industries in Calabar and its surrounding areas. However, many of these industries, including CALCEMCO, Seromwood, Flour Mill Ltd., Quality Ceramic Ltd., Paint Factory, Biscuit Factory, Sunshine Battery, Cross River Breweries, and Eastern Match Industry, have ceased operations. Currently, only the cement industry, now under Dangote Investment, and Flour Mills remain active. Akpogome's



(1982) study provides a detailed examination of the state of Calabar Sea Port over the past two decades.



Figure 1: Major Crop Producing Areas in Nigeria

Source> Created by Author (2012)



Figure 2; Industrial Areas and Manufacturing Locations in Nigeria

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Source: Created by Author (2012) 8. Current Challenges Affecting Calabar Sea Port Utilization

Recent developments, including Cross River State's loss of numerous crude oil wells and the cession of the Bakassi Peninsula to Cameroon (dates). have significantly impacted region's socioeconomic the conditions. These events have led to declines in government and household incomes, affecting consumption patterns and the utilization of the Calabar Sea Port. To address these challenges, initiatives like the Calabar Export Processing Zone (CEPZ) and the

TINAPA Business Resort were established. While CEPZ has shown promise, TINAPA requires more effective strategies to enhance its impact. TINAPA, which had received \$350 million for its development, has recently attracted new investments from AMCON. AMCON is purchasing TINAPA's and allocating funds debt for its revitalization. The Federal Government is constructing a new road link to improve access. Despite these efforts, Calabar Sea Port's overall impact remains limited.



Figure 3: Distribution of Cassava production by States Source: Finelib Website (2024)

Calabar Sea Port's throughput (203.643 meters) is significantly lower than other ports, while its labor input is relatively high. Given its persistent underutilization and lack of industrialization advancements, there is an





urgent need for effective strategies. These strategies should include stimulating local and regional trade, enhancing the transportation network, and pursuing substantial industrialization efforts.

Diversifying the Nigerian economy is also crucial. For decades, the government and populace have emphasized revitalizing the **8. Promoting Economic Diversification to Boost Seaport Activity in Nigeria**

Currently, over 80% of Nigeria's national budget relies on crude oil sales. Significant investments have been made in the Nigeria Liquefied Natural Gas (NLNG) facilities, despite operational challenges. While petroleum resources have contributed to the economy, they have also introduced problems like crude oil spills, oil theft, and resource control disputes, diverting attention agriculture, manufacturing. and from tourism. To improve the utilization of Nigerian sea ports, diversifying the economy and reducing reliance on oil and gas is crucial. However, the tourism industry faces challenges, including STDs and cultural erosion. Nigeria also lacks sufficient indigenous technical expertise and a reliable hindering power supply, industrial productivity.

Agriculture and the export of farm produce present a promising solution, given Nigeria's diverse and fertile soils. Government initiatives, such as the cassava chips export program, highlight agriculture's potential role in economic diversification. Nigeria already exports a range of arable and cash crops, including cacao, ginger, garlic, rice. sorghum, cassava, cowpeas, and soybeans. The Department of Agriculture (1997) has extensively reported on cassava's potential as a major raw material. NIYAMCO, a Nigerian company, processes cassava chips for alcohol national economy through agriculture and the export of farm produce. The exploitation of crude oil has led to corruption, environmental pollution, and conflicts. Exploring and harnessing the opportunities presented by agricultural exports is essential.

production. Although, Cassava is a staple food, high production costs compared to global prices hinder Nigeria's export potential. However, recent upticks in cassava exports, including plans to export cassava chips valued at \$272 million to China (Osagie, 2013), indicate growing global demand. But presently, the on-going Russia-Ukraine conflict has exacerbated the global wheat shortage (2024), driving up prices of wheat-based products. This presents an opportunity for cassava-based alternatives to gain traction. Food scarcity has socioeconomic implications and can be devastating. Calabar's maritime port can also play a crucial role in addressing food scarcity locally and in the West African region. Lagos Seaport from Ilorin, with plans for future shipments to Asia. Empty rail wagons will transport additional cassava chips from Ilorin to the seaport, encouraging farmers and exporters to leverage this opportunity for competitiveness.

Table 1 presents data on cassava producing states and their levels of production in Nigeria. Cross River state is a major producer of Cassava and could assist in the exportation of these produce to Asia and the western countries of Europe and North America. The textile, packaging, food processing, Pharmaceuticals and cosmetics, souvenir, furniture and other industrial activities in these countries require Cassava derivatives.





State	Annual ha planted	Annual MT	Mean yield	Rank
	(x1000)	produced (x1000)	(MT/ha)	
	1	2	3	
Benue	261.1	3551	13.6	1
Kogi	184	2605	14.2	2
Enugu	186.5	2085	11.2	3
Imo	156.5	2052	13.1	4
Cross River	177.5	1958	11	5
Kaduna	206	1835	8.9	6
Rivers	167.5	1735	10.4	7
Ondo	73.2	1267	17.3	8
Ogun	75.7	1178	15.6	9
Оуо	121	1019	8.4	10
Osun	66	915	13.9	11
Akwa-Ibom	117.8	893	7.6	12
Delta	70	811	11.6	13
Ekiti	41.2	651	15.8	14
Anambra	53	627	11.8	15
Edo	45	545	12.1	16
Niger	73.5	535	7.3	17
Bayelsa	30	459	15.3	18
Ebonyi	29	435	15	19
Kwara	30	425	14.2	20
Plateau	26.9	345	12.8	21
Lagos	25.1	300	12	22
Abia	15.7	265	16.9	23
Nasarawa	25	248	9.9	24
Taraba	12	111	9.3	25

Table: Cassava Producing States and their levels of production in Nigeria

Central belt States indicated in bold

Source: PCU Abuja 2002; ICP-IITA Ibadan, 2004

Cassava cultivation thrives in various agroecological zones in Nigeria, from the waterlogged Niger Delta to the arid northern regions. As the world's largest producer of cassava, Nigeria has significant potential for export growth. However, challenges in largeproduction, processing, storage, scale

transportation, and marketing hinder cassava's full potential. The International Institute of Tropical Agriculture (IITA) and its partners have focused on mitigating the impact of Cassava Mosaic Disease (CMD) and promoting cassava productivity through diversification, participatory evaluation,

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germplasm distribution, soil amendments, and integrated pest management. Awosanya (2012) reported that the Nigerian Railway Corporation (NRC) and the Federal Ministry of Agriculture are collaborating to transport cassava chips for global export. The first shipment.

The IITA also emphasizes the importance of post-harvest processing, storage, and marketing to increase household incomes. Government, research institutes, women, private organizations, genetic improvement, and other factors contribute to cassava development. Cassava is a resilient crop with high potential for impoverished farmers. It can be left in the soil for up to two years without significant nutrient loss. Of the 242 million tonnes of cassava produced globally in 2009, only 21 percent was marketed. Nigeria, Thailand, Brazil, Indonesia, and the Democratic Republic of Congo account for over half of the world's cassava production. Thailand, despite being the second-largest producer, has strategically established itself as the leading exporter of cassava. China is the world's largest importer of cassava products, focusing on less processed forms like chips and pellets. Developing countries in Africa, Latin America, and Asia can easily venture into cassava production and export, as it requires lower technology and processing compared to more refined products.

Prior to President Obama's efforts, the United States and its scientists had explored alternative energy sources, including cassava. Hayes (1977) identified cassava as an energy crop with advocates among bioconversion specialists. Brazil's 500 million US dollar program to dilute gasoline with ethanol from sugarcane and cassava highlights the potential of cassava for energy production. Nigeria could also benefit from cassavabased ethanol production and export. To fully

utilize its resources, Nigeria should focus on agricultural crop cultivation, identify markets, consider potential internal consumption needs, and develop efficient processing, packaging, and transportation methods to compete with other countries like Thailand. Diversification is crucial to mitigate risks associated with monoculture, such as price fluctuations, diseases, and technological changes.

Todaro and Smith (2004) discuss various economic development issues in developing including countries. Nigeria. They recommend using market price initiatives to allocate resources and improve decisionmaking. Comparing Nigeria to Bangladesh highlights socio-economic problems, including labor-intensive agriculture's impact at the household level. Sustainable and rapid economic development in Nigeria requires a National Integrated Development strategy, focusing on all relevant sectors and their interrelationships. Improving the utilization of Calabar Sea Port depends on widespread development, socioeconomic including stimulating agricultural produce cultivation and designating it for major export activities. Gary's (1980) three development typologies Enlargement (Modern-sector Growth, Modern-sector Enrichment Growth, and





Traditional-sector Enrichment Growth) need further examination.





9. Conclusion

The analysis traced the historical and developmental trends of the Calabar Sea Port, focusing on port piracy, socioeconomic activities in its hinterland, road connectivity, diversification, agricultural economic produce export, Calabar Sea Port's designation as a major agriculture produce export interface, and the demand and supply mechanism in Asia. Past efforts at industrialization, hampered by inconsistent electricity supply, have been largely unsuccessful in improving Calabar Sea Port utilization. However, current efforts at TINAPA and CEPZ management should not be underestimated. The failure of the Governor Ayade's Government in the realization of the construction and operation of the Deep Sea Port in Bakassi, during his tenure (2015-2023) was a massive blow to the aspired developmental aspirations of the Cross River State population.

The way forward includes revitalizing Nigeria's agricultural productivity for export and designating Calabar Sea Port as a major shipment interface. This will help it compete with other Nigerian sea ports. Large-scale cassava production, which is possible throughout Nigeria, is strongly recommended. However, addressing sea port utilization challenges in Nigeria requires approaches, including multifaceted integrated development options. The level of sea port utilization reflects the level of development and socioeconomic activities in its hinterland. Therefore, careful selection and adoption of development approaches are necessary.

10. Recommendations

The following recommendations are proposed for the Calabar Sea Port:

- 1. Designate Calabar Sea Port as a major, if not sole, interface for agricultural produce export, including cassava chips and pellets.
- 2. Provide complete data on Calabar Sea Port activities for international trade planning and information.
- 3. Update obsolete equipment to keep pace with international operational standards.
- 4. Improve services provided by ship repair and equipment management crews, banks, immigration, and security units.
- 5. Remove bureaucracy, introduce subregional bilateral trade agreements, and involve Calabar Sea Port in transshipment activities to improve cargo and passenger transportation.
- 6. Encourage trade liberalization through government fiscal policies to expedite import and export documentation, pre-shipping inspection, and reduce port-related thefts and vandalism.
- 7. Investigate the impact of dredging activities on local economies, employment opportunities, business growth, and overall economic benefits for the hinterland areas.
- 8. Examine the current state of road connectivity between Calabar River Port and surrounding hinterland regions, identify infrastructure gaps, and propose road development projects to improve access and economic integration for low-income communities.
- 9. Conduct studies on the social effects of port and infrastructure development on low-income residents, evaluating changes in



- 10. living conditions, access to services, and community cohesion.
- 11. Implement government policies to ensure equitable distribution of the benefits of port and infrastructure development, supporting low-income residents through targeted investment in local businesses, job training programs, and affordable housing initiatives.
- 12. Compare Calabar River Port development with similar port projects in other regions of Nigeria to identify best practices and potential pitfalls, guiding more effective and inclusive development strategies.

References

- Abasiattai, B. M. (1987). AkwaIbom and Cross River State: The Land, the people and their culture. Wusen Press Ltd.
- Abramowicz-Gerigk, T, Burciu, Z, Gerigk, MK, Jachowski, J. (2024) Monitoring of Ship Operations in Seaport Areas in the Sustainable Development of Ocean–Land. Connections. *Sustainability*.; 16(2):597.
- Actia Consulting. (2012). The assessment of Influence of Gdańsk and Gdynia Sea Ports on the Social and Economic Situation in the Pomorskie Region.
- Akintoye, O. A. (1995). The Influence of Situation on the Utilization of the Calabar Sea Port (Unpublished bachelor's thesis). Department of Geography and Regional Planning, University of Calabar, Calabar, Nigeria.
- Akpogome, O. S. (1982). The Impact of Calabar Sea Port on its Hinterland: 1975-1981 (Unpublished bachelor's thesis). Department of Geography and Regional Planning, University of Calabar, Nigeria.

Awosanya, Y. (2012, August 10). Nigerian Railway partners Agric Ministry for cassava

exportation [Blog post]. NaijaAgroNet. Retrieved from

- Nigeria Agro-Net (2012) Nigerian Railway partners Agric Ministry for cassava exportation, http://www. Naijaagronet.com.ng/2012/ 08/nigerian-railway-partnersagric.html (Browsed: 21-06-2012)
- Aye, E. (1967). Old Calabar through the centuries. Hope Waddel Press.
- Azogu, I., Tewe, O., Ezedinma, C., &Olomo, V. (2004). Draft root and tuber expansion programme (TREP) diversification of processing options and market expansion: Cassava utilization in domestic feed market. National Centre for Agricultural Mechanization (NCAM), Federal Ministry of Agriculture and Rural Development, Abuja.

Baransky, N. (1981). Selected works in Geography. Progress Publishers.

- Buonomano, A., Giuzio, F, Maka. R, Palombo,F., Russo, G (2024)Empowering with sea ports renewable energy under the enabling framework of the energy communities, Energy Conversion and Management, Volume 314. https://doi.org/10.1016/j.enconman. 2024.118693
- Cole, J. P. (1979). Situations in Geography: A practical approach. Basil Blackwell Oxford.
- Department of Agriculture, Federal Ministry of Agriculture and Natural Resources. (1997).

Cassava development in Nigeria: A country case study towards a global strategy for cassava development.

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Retrievedfromhttp://www.fao.org/docrep/009/a0154e/a0154e05.htm

- Donatus, E. O. (2012). Productivity and efficiency of Nigeria sea ports: A production frontier analysis. International Business Management, 6(1), 41-46.
- Finelib (2022) <u>https://www.finelib.</u> <u>com/images/about/banners/Cassava-</u> <u>Map.jpg</u>
- Food and Agriculture Organization of the United Nations (FAO). (2002). Partnership formed to improve cassava, staple food for 600 million people. Retrieved from <u>http://www.fao.org/english/newsroo</u> m/news/2002/10541-en.html
- Food and Agriculture Organization of the United Nations (FAO). (2009). Food outlook November 2009.
- Tijaja, J. (2009). The impact of china's demand on SMEs in Thai cassava value chains (Doctoral dissertation). The Open University, UK.
- Garry, S. F. (1980). Poverty, inequality and development. Cambridge University Press.
- Hayes, D. (1977). Ray of hope: The transition to a post-petroleum world. W. W. Norton and Company.
- Hilling, D., & Hoyle, B. S. (1970). Seaport and development in tropical Africa. Macmillian.

Hurst, E. E. M. (1974). Transport geography: Comments and readings. McGraw-Hill Book Company. International Institute of Tropical Agriculture (2005, March 21).

Additional funding program description on cassava enterprise development project (CEDP) submitted to the United States Agency for International Development (USAID), Nigeria Mission and the Shell Petroleum Development Company (SPDC), Nigeria. Ibadan, Nigeria.

- Johnson, F. (2011, September). Hints and tips on exporting goods to Nigeria. Reliable Agricultural Procurement for Africa, Vellag.
- Money, D. C. (1972). Introduction to human geography. University Tutorial Press, Ltd.
- Naira Land (2013). Procedures for produce export from Nigeria chart. Export from Nigeria. Retrieved from <u>http://www.nairaland.com/926677/ex</u> <u>port-nigeria</u>
- Nigeria Port Authority (1992). Focus on Calabar Port: Gateway to Nigeria's eastern and northeastern market. Nigeria.
- Nigeria Port Authority Annual Reports (1982-1994).
- Nigerian National Development Plan (1975-1980).
- Nigeria News (2013, August 28). Obasanjo exports cassava bread to Tanzania.
- Office of Agricultural Economics (OAE). (2006). A Study on the Export Potential of Thai Cassava Chips Export to China after Thailand-China Free Trade Agreement (Translated from Thai). In J. Tijaja (Author), The impact of China's demand on SMEs in Thai cassava value chains (Doctoral dissertation, The Open University, UK).
- Jidere, C. M., &Okeke, F. I. (2012). Determination of agro-ecological zones in Nigeria using current satellite information [Microsoft PowerPoint presentation]. University





- of Nigeria, Nsukka and Enugu Campuses, Nigeria.
- Obiozor, C. C., et al. (1989). Shipping trade and development in West and Central African sub-region: Proceedings of an international workshop. Nigerian Shippers Council, Business Graphics.
- Oboli, H. D. N. (1978). A new outline geography of West Africa. African University Press.
- Office of Agricultural Economics (OAE). (2006). A Study on the Export Potential of Thai Cassava Chips Export to China after Thailand-China Free Trade Agreement (Translated from Thai). In J. Tijaja (Author), The impact of China's demand on SMEs in Thai cassava value chains (Doctoral dissertation, The Open University, UK).
- Ogundana, B. (1972). Oscillating seaport location in Nigeria. Annals of the Association of American Geographers, 62(1), 110-121.
- Ogundana, B. (1970). The locational factor in changing seaport significance in Nigeria. *Nigerian Geographical Journal, 14,* 71-88.
- Osagie, C. (2013, January 21). Nigeria to export \$272m worth of cassava chips to China. China

Berry.

Jeevan, J., Yeng, C. K., & Othman, M. R. (2020). Extension of the seaport life cycle (SLC) by utilizing existing inland capacity for current and future trade preparation. *Asian Journal of Shipping* and *Logistics*, https://doi.org/10.1016/j.ajsl.2020.06 .002

- Clemente, D., Cabral, T., Rosa-Santos, P., &Taveira-Pinto, F. (2023). Blue seaports: The smart, sustainable and electrified ports of the future. *Smart Cities*, 6(3), 1560-1588. <u>https://doi.org/10.3390/smartcities60</u> <u>30074</u>
- Selvaduray, M., Suhrab, M. I. R., Somu, R., Jeevan, J., MohdSalleh, N. H., & Zain, R. M. (2022). The fourth industrial revolution: A catalyst for regional development in Malaysian seaport sector. *Australian Journal of Maritime & Ocean Affairs*, 15(3), 284–295. <u>https://doi.org/10.1080/18366503.20</u> 22.2068293
- Song D.P (2024) A Literature Review of Seaport Decarbonisation: Solution Measures and Roadmap to Net Zero. *Sustainability*. 2024; 16(4):1620.

https://doi.org/10.3390/su16041620

- Tesco-Kozit Consulting Engineers (Nig.) Ltd. (1972). Survey and development plan for Calabar, Nigeria. Ministry of Town Planning, Calabar.
- Todaro, M. P., & Smith, S. C. (2004). *Economic development* (8th ed.). Pearson Education.
- Ulman, E. L., &Meye, H. M. (1954). Transport geography. In J. P. James & C. L. James (Eds.), *American* geography: Inventory and prospects (pp. 231-262). Syracuse University Press.
- UNCOMTRADE. (2010). Trade Data. Retrieved from <u>www.worldtrade.org</u>
- University of Calabar. (Undated). University of Calabar students' handbook.





- Zaostrovskikh, E. A. (2018). Seaports and their impact on the regional economy: The current state and development prospects. *IOP Conference Series: Materials Science and Engineering*, 463(4), 042091.
- Zain, R. M., Jagan, J., Salleh, N. H. M., Ngah, A. H., Ramli, A., Zain, M. Z. M., &Yekini, L. S.

(2024). Future opportunities for port city development: A reciprocal evaluation for competitive advantage for Malaysian seaports. *Journal of Marine Research*, 21(1),https://www.jmr.unican.es/inde x.php/jmr/article/view/820