



PORT SITING AND REGIONAL MARITIME TRADE IN NIGERIA: CHALLENGES AND POLICY DIRECTIONS

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Abstract

Port location is a major factor influencing maritime trade because it determines cargo accessibility, transport costs, and the efficiency of logistics networks. However, despite its extensive coastline and strategic position in the Gulf of Guinea, Nigeria faces spatial and infrastructural challenges that limit the contribution of its ports to regional maritime trade. The study therefore examined port siting and regional maritime trade in Nigeria with a view to identifying the major challenges associated with the location and distribution of ports and proposing practical policy directions. The study was anchored on the Balanced Theory of Port Competitiveness and adopted a qualitative descriptive research design based on documentary analysis of secondary data obtained from the Nigerian Ports Authority, National Bureau of Statistics, UNCTAD, the World Bank, Lloyd's List, and other relevant sources. Based on the analysis, the study found that the concentration of port activities in Lagos, coupled with inadequate channel depths, weak hinterland connectivity, and poor spatial planning, has contributed to congestion, high logistics costs, and the underutilization of eastern ports. The study concluded that a more balanced and integrated port system is necessary to improve regional maritime trade. It recommended aligning future port development with national spatial planning, industrial corridors, and multimodal transport networks to enhance regional trade competitiveness.

Keywords:

Port siting, Maritime trade, Hinterland connectivity, Spatial concentration, Cargo throughput, Gulf of Guinea.

INTRODUCTION

The location of a port has long been recognized as one of the principal factors influencing maritime commerce and regional economic development. Beyond providing access to the sea, the geographical position of a port determines the ease with which cargo moves between shipping routes and inland markets, the cost of transporting goods, and the extent to which surrounding regions participate in domestic and international trade. Ports that are strategically sited and supported by efficient road, rail, and inland transport networks generally attract greater shipping traffic, stimulate industrial activities, and emerge as centres of regional economic growth. For this reason, port siting is no longer viewed as a geographical decision

but as a long-term economic and planning issue that influences the competitiveness of national maritime systems (Rodrigue, 2024; Notteboom & Haralambides, 2025).

Nigeria occupies a strategic position along the Gulf of Guinea, with over 850 kilometres of coastline and a network of seaports comprising Lagos, Port Harcourt, Onne, Warri, and Calabar. These ports were established to serve different economic regions and facilitate the movement of agricultural produce, solid minerals, petroleum products, and manufactured goods (Badejo & Solaja, 2017). Over time, however, maritime activities have become more concentrated within the Lagos port route, while several eastern ports have perennially operated below their installed capacity owing to shallow navigation channels, inadequate dredging, weak hinterland connectivity, and limited supporting infrastructure (Gabriel & Afolabi, 2025). Since global shipping has become more reliant on larger deep-draft vessels, these spatial differences have become more significant, affecting the ability of Nigerian ports to compete for regional cargo and transshipment traffic.

Resulting in acute geographical imbalance, the National Bureau of Statistics (NBS) noted that in the first quarter of 2025, the Apapa Port Complex accounted for about 71.6% of Nigeria's international trade value, with resulting congestion contributing to longer cargo dwell times, higher logistics costs, and increasing pressure on port infrastructure, while ports outside Lagos remain underutilized (NBS, 2025). This is followed by shallow channel depths and poor transport connections, which have limited the capacity of some eastern ports to accommodate larger vessels, encouraging the diversion of cargo to neighbouring ports with better spatial advantages and stronger hinterland linkages (Anagor-Ewuzie, 2019; Onyenucheya, 2025a).

The study therefore examines port siting and regional maritime trade in Nigeria with a view to identifying the major spatial and structural challenges associated with the existing port system and proposing policy directions for achieving a more balanced and competitive regional maritime network.

LITERATURE REVIEW

Conceptual Framework

Port siting is the strategic process through which governments and maritime authorities determine the geographical placement, expansion, or modernization of a seaport. Extending beyond physical facility development, it encompasses spatial planning, intermodal transport connectivity, environmental management, commercial viability, and national economic planning (Rodrigue, 2024; Notteboom, 2022). Generally, it is a long-term policy intervention that governs cargo movement, investment patterns, hinterland development, and overall maritime system competitiveness.

The choice of a port's location is contingent on several interrelated spatial and structural determinants which are physical, economic, and environmental. Physical and hydrographic conditions, including natural draft clearance, coastline stability, shelter from waves, and minimal silting, dictate whether a port can safely accommodate modern commercial vessels without continuous, high-cost maintenance dredging (Li et al., 2024). Equally critical are economic and spatial variables, particularly the quality of landside transport infrastructure (road, rail, and inland waterways) connecting the maritime interface to inland production hubs and consumer markets. These hinterland links largely determine total transit times and freight costs beyond the gate (Rožić, 2025). The environmental factors include land availability,

projected cargo volumes, environmental impact assessments, and national planning directives, which all influence site selection, while commercial viability requires planners to ensure the location can secure long-term liner shipping commitment (Stanković et al., 2021; Pallis et al., 2022).

Port siting directly affects regional maritime trade by dictating the direction, density, and efficiency of cargo flows within a coastal corridor. Ports strategically positioned near major maritime routes, which provide deep navigation channels and strong intermodal linkages, naturally attract mainline shipping services, lower unit shipping costs, and capture regional transshipment traffic. Conversely, facilities constrained by shallow channel drafts, poor landside access, or unfavourable geographic positioning suffer from reduced vessel calls and low throughput, irrespective of internal terminal efficiency (Notteboom, 2022). Thus, the benefits of port development are not determined solely by the quality of terminal facilities but also by how effectively the port is integrated into national and regional transport networks.

Theoretical Framework: Balanced Theory of Port Competitiveness

The Balanced Theory of Port Competitiveness was developed by Hales, Lam and Chang in 2016 to explain how ports achieve and sustain competitiveness in a changing maritime environment. The theory emerged from the observation that previous studies basically assessed competitiveness from either the perspective of port users or investors, without considering the relationship between the two. Hales et al. (2016) proposed that ports perform better when managerial decisions create value for both groups simultaneously. In a subsequent empirical study of 72 leading container ports, Hales et al. (2017) confirmed that ports maintaining this balance consistently recorded stronger competitive performance.

The theory assumes that port competitiveness depends on maintaining a balance between the interests of port users and those of investors. It identifies factors such as port location, infrastructure quality, service efficiency, pricing, and cargo volume as major drivers of customer satisfaction, while reputation, financial capacity, institutional arrangements, and regulatory stability influence investment decisions (Hales et al., 2016). The theory further assumes that geography and market conditions are major factors determining port performance, but that sound administrative decisions are instrumental in determining how well ports respond to these conditions. Thus, the theory submits that a strategically located port will only remain competitive when supported by adequate infrastructure, reliable connectivity, and effective management.

The application of the theory to the study is centred on the identification of port location (port siting) as one of the major determinants of port competitiveness. The theory asserts that the quality of supporting infrastructure, accessibility to hinterland transport networks, and effective administrative planning wield a major influence on the ability of a port to attract cargo and shipping services. Another aspect of the theory applicable to this study is its emphasis on balancing the interests of port users with long-term investment decisions, emphasizing that ports remain competitive when infrastructure development and spatial planning are matched against present and future trade demands.

In the Nigerian case, the theory explains why maritime activities in Nigeria are concentrated in the Lagos port area, while ports such as Calabar, Warri, and Port Harcourt are operational below capacity despite their favourable locations. Therefore, it avers that weak hinterland connectivity, inadequate channel maintenance, and uneven infrastructure development hinder

regional trade by causing imbalances in trade distribution patterns, extending to how development is spread across the country. Consequently, since a greater percentage of port infrastructure and activities are centred in Lagos, the region has become the major economic hub of Nigeria, and in extension, West Africa, which has not only disadvantaged other coastal regions, but has also created anthropogenic challenges related to overpopulation and rapid urbanization such as increasing crime rates, environmental violations, extreme traffic congestion, a massive affordable housing deficit with sprawling slums, and overwhelmed waste management systems.

METHODOLOGY

The study adopted a qualitative descriptive research design based on documentary analysis. Data were obtained entirely from secondary sources, including publications of the Nigerian Ports Authority (NPA), National Bureau of Statistics (NBS), Federal Ministry of Marine and Blue Economy, Lloyd's List, UNCTAD, the World Bank, and other relevant academic and institutional publications. The study focused on Nigeria's major seaports, namely Apapa, Tin Can Island, Lekki Deep Sea Port, Onne, Port Harcourt, Warri, and Calabar, while selected international ports in Singapore, China, and Europe are examined for comparative policy analysis. Data were analyzed through documentary and comparative analysis.

Secondary data were selected using three main criteria: reliability of the source, relevance to West African maritime infrastructure, and recency, covering publications from 2017 to 2026. The study mainly used official sources such as NPA, NBS, UNCTAD, and the World Bank. Where figures differed across reports, they were compared with NBS quarterly reports and NPA performance reports to improve consistency. However, a limitation of the study is its reliance on throughput figures reported by the NPA, as some figures may have been affected by delays in reporting or differences in operational records before final auditing.

RESULTS

1. Overview of Port Siting in Nigeria

Nigeria's seaport system is shaped largely by geography, history, and long-standing policy choices. Almost all major seaports are located along the southern coastline and adjoining river estuaries, with very limited consideration for inland balance. The Nigerian Ports Authority oversees six main seaports, namely the Lagos Port Complex at Apapa, Tin Can Island Port in Lagos, Onne Port Complex in Rivers State, Port Harcourt River Port, Calabar Port in Cross River State, and Delta Port in Warri (NPA, n.d). These locations capture early trade routes and natural water access points rather than a deliberate national logistics design tied to present day production and consumption patterns.

To begin with, Lagos is the dominant centre of maritime activity in Nigeria. Apapa and Tin Can Island ports are situated within the same metropolitan area, separated by only 8km. Over time, they have become the primary entry and exit points for Nigeria's international trade (Nwaogbe et al., 2024). More specifically, Apapa alone accounted for more than 70% of Nigeria's total trade value in the first quarter of 2025, while the two Lagos ports together handled more than 55% of seaborne exports in Nigeria (NBS, 2025). This dominance has been influenced by decades of public investment, road connectivity, customs concentration, and private logistics services that favour the Lagos route.

However, it is noteworthy that this concentration has produced a narrow spatial structure, as ports outside Lagos operate within much weaker logistics ecosystems. For instance, Onne Port, located along the Bonny River estuary, was originally positioned to serve oil and gas operations. Although it has access to over 1800ha of land, much of this space remains underdeveloped. The port handles limited container and general cargo traffic when compared to Lagos, largely because inland transport links and regional cargo flows remain weak. Similarly, the Port Harcourt River Port has struggled with siltation and navigational challenges, which restrict vessel access and reduce throughput (Evans, 2024; NPA, 2025a).

The Calabar port lies approximately 55 nautical miles inland along the Calabar River (Unor, 2025). This physical location places strict draft limits on vessel access (Asare, 2024), forcing regional shippers to reroute bulk cargo (NPA, 2025b; Idowu, 2025).

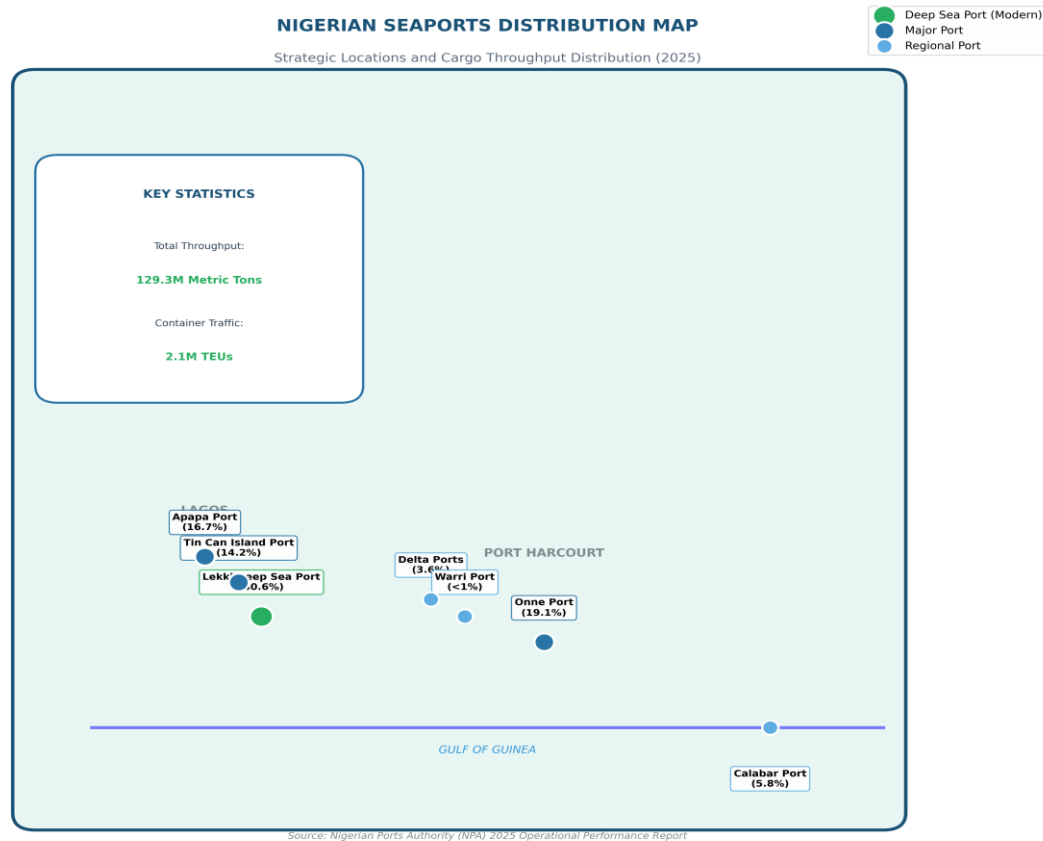
The Calabar port lies approximately 55 nautical miles (55 nmi) inland along the Calabar River (Unor, 2025). This location places physical limits on vessel size and draft, making it unattractive to modern shipping lines (Asare, 2024). As a result, the port operates far below capacity, despite its proximity to eastern and northern markets. Over time, traders have avoided the port due to uncertainty around access, depth, and turnaround time, even when distance should have worked in its favour (NPA, 2025b; Idowu, 2025).

More recently, the Lekki Deep Sea Port was developed to address some of the structural weaknesses associated with older Lagos ports, with deep water access and modern infrastructure capable of handling large container vessels. However, despite these improvements, it remains within the same South West economic zone as the capacity has expanded without altering the national distribution of port access (NPA, 2025c). Meanwhile, proposed ports such as the Ibaka Deep Sea Port in Akwa Ibom State are still at planning and feasibility stages, with no immediate impact on spatial balance as of late 2025, while Bakassi Deep Sea Port in Cross River has recently commenced initial implementation processes (Igbinoba, 2025; Okeke-Korieocha, 2025). Inland dry ports in places like Ibadan, Jos Heipang, and Kano were also conceived to bridge this gap, but implementation has been slow and uneven (Onyenucheya, 2024).

Also worthy of consideration is that major commercial centres in northern and central Nigeria, including Kano, Kaduna, and Abuja, are more than 800km away from the nearest seaport, hence, goods destined for these regions must pass through congested southern routes, particularly Lagos, before long inland journeys by road, raising transport costs, increasing delays, and placing traders at the mercy of infrastructure conditions far from their markets (Anagor-Ewuzie, 2023). Even traders in eastern cities such as Aba, Onitsha, and Enugu route cargo through Lagos instead of Calabar or Port Harcourt, not because of distance, but because logistics services, road reliability, and port clearance processes are more predictable in the Lagos axis (Business Day, 2018). In the same vein, large regions of the country are untouched by any form of maritime or intermodal infrastructure as the North West, North East, and parts of the North Central have no seaports and limited functional dry ports. This is a clear representation of a system where access is determined more by geography than by economic need (Onyenucheya, 2024).

The figure below shows the Nigerian Seaports Distribution Map

Figure 1: Nigerian Seaports Distribution Map



Source: Nigerian Ports Authority (NPA) 2026 Operational Performance Report (released March 2026).
<https://nigerianports.gov.ng/2025/12/29/from-congestion-to-global-influence-inside-npas-historic-2025-maritime-transformation>.

The Nigerian Seaports Distribution Map shows a maritime landscape strategically divided between established Western hubs and a rapidly expanding Eastern corridor. The Western cluster, centred on Apapa and Tin Can Island, is the nation's premier gateway for high-value trade, accounting for over 70% of Nigeria's total trade value. These ports specialize in industrial machinery, raw materials, and the export of agricultural commodities like cocoa and cashew nuts. Notably, Tin Can Island is the primary destination for Roll-on/Roll-off (Ro-Ro) traffic, handling the vast majority of vehicle imports due to its specialized infrastructure.

In contrast, the Eastern port cluster, comprising Onne, Rivers, Calabar, and Delta, is fundamentally shaped by its proximity to the country's energy reserves. This region handles approximately 54.7% of the nation's liquid bulk, driven largely by the oil and gas sector. Onne Port stands out as a global leader in oil and gas logistics, while Calabar and Delta ports serve as vital regional hubs for refined petroleum products and bulk cargo. This geographic specialization ensures that while the West drives industrial and containerized trade, the East

sustains the energy and bulk resource sectors (Evans, 2024; Asare, 2024; NPA, 2025b; NPA, 2026)

The most transformative element of the 2025 distribution is the emergence of the Lekki Deep Sea Port, which now commands a dominant 40.6% share of total cargo throughput. As Nigeria's first fully automated deep-sea facility, it has redefined regional logistics by accommodating mega-vessels that were previously unable to berth in West Africa (NPA, 2026). This has not only relieved chronic congestion at the older Lagos ports but has also positioned Nigeria as a major transshipment hub, with Lekki recording a massive 205.8% increase in transit containers destined for neighbouring countries like Togo and Benin (NPA, 2026)

2. Implications of Port Siting in Nigeria for Regional Maritime Trade

The effects of poor port siting in a densely populated and diverse country like Nigeria are enormous, cutting across economic, social, and even political divides. They are explored below.

Spatial Concentration and Inequality in Port Access

The spatial distribution of Nigerian ports is rooted more in colonial logistics and historical settlement patterns than in a strategic alignment with modern economic geography, resulting in a severe clustering of maritime activity within Lagos State, specifically at the Apapa and Tin Can Island complexes (Nwaogbe et al., 2024). Such a concentration has turned the Lagos ports into a single-node entry point for the entire country, while eastern facilities like Calabar and Onne are solely isolated from major industrial hubs. Additionally, northern and middle-belt regions lack viable maritime alternatives, forcing a reliance on the congested Lagos axis (Onyenucheya, 2024).

Logistics Costs and Supply Chain Competitiveness

The lopsided siting pattern in Nigeria has created a heavy financial burden on inland commerce. According to an investigative report, as of late 2023, hauling a 40ft container from Lagos to northern cities like Kano or Kaduna cost between ₦1.8million and ₦2.3million, representing a 241.67% increase on average from ₦600,000 in 2021 (Odutola, 2021). These figures are known to frequently surpass the initial cost of international shipping as severe congestion at Lagos ports can cause trucks to wait for weeks, driving up costs to over \$4,000 to move a container just 20km within Lagos, which is almost as much as shipping a container 12,000km from China (Anagor-Ewuzie, 2023). These expenses stem from long-haul distances across deteriorating road networks and frequent security checkpoints. If the eastern ports were better integrated into the national rail and road infrastructure, the distance for northern traders would drop by hundreds of kilometers. Therefore, it is apt to note that the lack of a balanced port network acts as a systemic tax on inland regions, which weakens the national supply chain and making domestic markets less competitive.

Cargo Diversion to Neighbouring Hubs

Shippers in northern Nigeria are moving their goods through Cotonou in Benin, Lomé in Togo, and Tema in Ghana. According to the NSC, majority of times, 90% of transit cargo in the Lomé Port are specifically destined for the Nigerian market. The reason behind this shift is simply because the distance from Lomé or Cotonou to northern Nigerian markets is often 300 to 500km shorter than the route from Lagos (Onyenucheya, 2025b). When viewed alongside fewer transit bottlenecks, these foreign hubs offer a lower total landed cost. This trend does not only drain

potential revenue from the Nigerian state; it is also a confirmation that port siting and hinterland connectivity are major determinants of trader behaviour across international borders.

To buttress this point, the table below shows African ports performance by container throughput in 2024.

Table 1: Top African Ports by Container Throughput (TEUS), 2024 (Consolidated in 2025)

Rank	Port Facility	Country	Container Throughput (TEUs)
1.	Tanger Med	Morocco	10,241,392
2.	Port Said	Egypt	3,905,266
3.	Durban	South Africa	3,500,000*
4.	Alexandria	Egypt	2,211,851
5.	Lomé	Togo	2,060,435
6.	Mombasa	Kenya	2,005,076
7.	Tema	Ghana	1,800,000*
8.	Abidjan	Ivory Coast	1,800,000*
9.	Lagos (Apapa/Tin Can)	Nigeria	1,566,109
10.	Djibouti	Djibouti	1,100,000*
11.	Dakar	Senegal	850,000*
12.	Dar es Salaam	Tanzania	800,000*
13.	Douala	Cameroon	800,000*
14.	Lekki Deep Seaport	Nigeria	546,931
15.	Pointe-Noire	Rep. of Congo	500,000*

**Note: TEU figures marked with an asterisk are based on estimated annual capacity or preliminary 2024 fiscal year performance data where final audited throughput is pending.*

Source: Lloyd's List (2025); Business Insider Africa (2025); Maritime Transport & Logistics Sector (2025); Tanger Med Port Authority (2025); Transnet National Ports Authority (2025).

Table 1 shows container throughput across major African ports in 2024, measured in Twenty-foot Equivalent Units (TEUs). While Morocco's Tanger Med leads the continent with over 10 million TEUs, Nigeria's ports rank relatively low, with Lagos (Apapa) at 1,566,109 TEUs and

Lekki Deep Seaport handling just 546,931 TEUs. This disparity is an indication of how port siting and hinterland connectivity influence utilization and access.

It is also shown that ports in Togo (Lomé, 2,060,435 TEUs) and Ghana (Tema, 1,800,000 TEUs) surpass Lekki and come close to Lagos in throughput. These ports have become attractive alternatives for traders, particularly from northern and central Nigeria. In addition, these ports face fewer road bottlenecks, offer more reliable inland transport, and reduce overall logistics costs. Consequently, a significant portion of cargo destined for Nigeria is rerouted through these neighbouring hubs, exemplifying the consequences of spatial concentration. Despite being Nigeria's economic heart, Lagos handles only 1,566,109 TEUs, well below Lomé (2,060,435) and Tema (1,800,000), indicating that proximity to high-density northern markets is more critical than absolute national trade volume. Lekki Deep Seaport, designed to relieve congestion and attract larger vessels, still lags at 546,931 TEUs due to its location within the same South West cluster and limited hinterland connections.

Congestion and Dwell Time Penalties at Key Routes

The decision to funnel the bulk of national trade through a narrow geographical footprint in Lagos has led to chronic congestion. According to logistics surveys, an average container dwell times at Lagos ports usually exceed 14 days, and can spike beyond 20 days during peak periods, far higher than the global efficiency benchmark of 5 days or less (Mbachu et al., 2024). Every additional day a container sits in the terminal adds to storage fees and insurance premiums, costs that are eventually passed on to the consumer. For the trader, these delays create a level of uncertainty that makes lean inventory management nearly impossible, while forcing businesses to operate with higher overheads just to hedge against supply chain disruptions.

3. Factors Influencing the Suboptimal Siting of Nigerian Ports.

Several interrelated factors have influenced the location and development of ports in Nigeria, affecting their ability to support efficient maritime trade. The following are the major factors responsible for the suboptimal siting of Nigerian ports and their implications for regional trade.

Historical Path Dependency and the Lagos Monopoly

The current arrangement of the Nigerian port system is a byproduct of colonial logistics as opposed to modern economic strategy. During British rule, Lagos was established as the primary conduit for the extraction of resources and the entry of manufactured goods, a status it has maintained long after independence (Chilaka, 2022). This historical bias created a self-reinforcing cycle where infrastructure, industrial clusters, and trade policies clustered around the Lagos lagoon. Hence, the Nigerian maritime landscape suffers from a structural imbalance where 2 major ports (Apapa and Tin Can) handle the vast majority of national trade, despite a vast coastline that could support a multi-nodal network (NPA, 2022). This lack of spatial diversification has forced the entire country to rely on a narrow coastal strip, which further creates an artificial monopoly that ignores the shifting economic geography of the hinterland.

Institutional Fragmentation and Planning Gaps

The failure to distribute port operations effectively stems from a lack of synergy between national transport policies and regional development goals. Nigeria's maritime development is characterized by overlapping mandates among various government agencies, leading to a

fragmented approach to infrastructure. Extensively, Nigeria lacks a unified master plan that aligns port locations with inland market demand, while decisions are made in isolation. The result of such policy disconnect is the prevention of the development of vital hinterland connections, such as rail and inland dry ports, which are necessary to make eastern or delta ports viable.

For instance, the Kaduna Inland Dry Port and other inland container depots (IDPs) such as those at Funtua and Dala were established to decentralize cargo handling and relieve pressure on coastal seaports. These facilities were intended to act as logistics hubs for cargo clearance and distribution in the interior (Nigerian Shippers' Council, n.d). However, their viability has been sabotaged by the absence of functional rail connections to seaports. For instance, at the Kaduna IDP, rail operations intended to link the facility with the seaports have been stalled due to technical issues along the Niger Corridor, forcing operators to rely on road transport instead (Yousouph, 2025). This increases haulage costs and negates the logistical advantage of the inland facility, even as operators have noted that transporting goods by road from Lagos to Kaduna can cost up to ₦2 million per container (Yousouph, 2025).

Another case is the Isiala Ngwa Inland Dry Port project in Abia State, which was approved in 2006 and intended as a cargo-clearing hub for the South-East. Nearly 19 years later, construction is largely incomplete, reportedly under 10 % finished as of mid-2025. While the port was designed to link with Port Harcourt and facilitate trade logistics for the region, its progress stalled because of missing backbone infrastructure such as modern rail lines and coordinated transport policy (Ofurum, 2025). This leaves the facility stranded, even though it was strategically sited to serve an important economic corridor.

Political Economy and Geographic Marginalization

Political dynamics and regional interests play a decisive role in the lopsided development of Nigeria's maritime assets. Observably, decisions regarding the funding and expansion of port facilities are often influenced by the concentration of power within specific regional blocs. Historically, this has favoured the South West, leaving potentially viable hubs in the Niger Delta and the South East in a state of neglect. Even when these alternative locations show more favourable geographic traits, such as natural deep-water potential or proximity to eastern manufacturing centers, they are frequently bypassed for political reasons (Imikan et al., 2025).

A clear instance can be seen in the treatment of the recently approved Bakassi Deep Sea Port project in Cross River State. The port was proposed to diversify Nigeria's maritime infrastructure and reduce the heavy dependence on Lagos ports. Its location wields significant geographic advantages, including deep-water access capable of accommodating ultra-large container vessels and proximity to industrial and agricultural zones in the South East (Asare, 2024). Despite these advantages, the project has seen minimal progress since its initial conception in the early 2000s. More specifically, funding and approvals had repeatedly stalled, and environmental and feasibility assessments have dragged on for decades (Asare, 2022). For many, these delays can be attributed in part to political dynamics that prioritize existing ports in Lagos and the South West, which remain the economic and administrative hub of the country. As a result, eastern Nigeria is acutely disconnected from direct maritime access, and potential cargo flows that could relieve congestion in Lagos are left untapped.

Buttressing this fact is a recent revelation by the current Governor of Akwa Ibom State, Pastor Umo Eno, who noted that one of the reasons for his defection from the People's Democratic Party (PDP) to the All-Progressive Congress (APC) was the swift and complete actualization of the long-standing Ibaka Deep Sea Port project, which was conceived since 2003 (Akwa Ibom State Government, 2025; Imukudo, 2025). Though the project gained momentum in 2012 when the state government appointed professional advisors with Federal Government's approval of the Public-Private Partnership (PPP) framework in 2015, the Governor explicitly stated that the deep seaport was a core justification for his move, expressing confidence that President Bola Tinubu would help realize the project which has been in the planning stages for over 30 years (Imukudo, 2025).

4. Global Port Siting Practices: Policy Directions for Nigeria

Some countries in regions of the world have recorded a vast history of strategic and intelligent port siting, stemming purely from geographical and economic factors. As lessons for port siting in Nigeria, few of these countries and their strategies are explored below.

Singapore

The development of Singapore's port system is an indication of a deliberate strategy to align terminal placement with natural geographical strengths and economic flow. Terminals such as Pasir Panjang and the expansive Tuas mega port are positioned along deep-water coastal channels that sit directly on the major shipping lanes of the Strait of Singapore (Mindur, 2020). This specific siting logic enables the port to receive the largest container vessels in the world without the constant need for expensive dredging. Furthermore, placing these terminals near industrial zones and urban logistics centers ensures that the port serves as the core of a functioning maritime city. The Tuas project in particular utilized reclaimed land chosen for its deep-water access and its capacity for long-term growth (Mindur, 2020).

A key lesson from Singapore is that the success of a port begins with where it is located. Instead of expanding ports in already congested areas, future port development in Nigeria would benefit from selecting sites with natural deep-water access and sufficient land for long-term expansion, while integrating road, rail, and logistics infrastructure into the planning process from the outset. This would promote more balanced cargo distribution, reduce pressure on Lagos ports, and support sustained growth in regional maritime trade.

Europe

In Europe, the Port of Rotterdam thrives by exploiting the geography of the Rhine-Meuse-Scheldt delta to create a massive gateway into the continent. The siting of this port was not a simple matter of coastal access but was intended to anchor a supply chain serving Germany, Belgium, and France (Van der Houwen, 2009). Because the port is positioned at a river mouth, cargo is moved immediately from ships to rail, road, or inland waterways, forming a corridor that reaches deep into the industrial heart of Europe. Rotterdam's planners situated container terminals specifically to minimize the distance between the quay and the inland markets. This strategy is quite different from the Nigerian model, where ports are bunched together in Lagos without a clear link to the economic needs of the broader hinterland, leaving many regions without effective service. In Northern Europe, the ports of Hamburg, Antwerp, and

Bremerhaven function as a cluster designed to maximize regional access. Hamburg is situated on the Elbe River, which enables barges to carry freight deep into the German interior (Merk & Hesse, 2012). The placement of these ports is managed to keep transport distances short and to link directly with intermodal hubs, which helps spread the workload across different facilities and keeps congestion low.

From the foregoing, Nigeria should adopt a more balanced port siting strategy by developing and connecting ports according to the economic needs of their hinterlands instead of concentrating maritime activities in Lagos. This should be supported by improved road, rail, and inland waterway links to enable all major ports to serve their respective regions efficiently, reduce congestion at Lagos ports, lower logistics costs, and promote regional maritime trade.

China (Shanghai and Ningbo-Zhoushan)

Shanghai sits at the Yangtze River estuary, a location characterized by natural deep-water access while facilitating a network of rail and river connections to the interior. Similarly, Ningbo-Zhoushan is placed to aid easy movement between manufacturing hubs and bonded logistics zones. These sites were selected to ensure that the physical location of the port supports the movement of goods to and from factories, thereby avoiding the bottlenecks that lead to underutilization (Li et al., 2022). Pragmatically, such decisions are part of a coordinated national strategy where land use, transport paths, and port placement all work together to maximize trade volume.

As a result, Nigeria should adopt a national port siting policy that bases the location and expansion of ports on long-term trade, industrial, and logistics needs in place of historical or political considerations. Future port development should be coordinated with manufacturing centres, logistics hubs, and transport corridors to ensure that all ports operate at their full economic potential and contribute more effectively to regional maritime trade.

CONCLUSION

The lopsided concentration of maritime trade within the Lagos port geography, prompted by historical path dependency, institutional planning gaps, and regional political dynamics, has produced spatial inequalities, high logistics costs, chronic gateway congestion, and cargo diversion to neighbouring West African ports. While facilities like the Apapa Port Complex handle the vast majority of international trade value, eastern and regional maritime assets such as Calabar, Warri, and Port Harcourt have remained chronically underutilized due to shallow channel drafts and degraded hinterland transport connections. As demonstrated by global port siting practices in Singapore, Northern Europe, and China, a nation's maritime competitiveness relies on aligning terminal locations directly with natural deep-water access, intermodal transport networks, and the economic needs of the broader hinterland. Achieving a balanced and competitive regional maritime network in Nigeria therefore requires moving away from historical and political biases. To relieve pressure on Lagos and restore the country's maritime domain authority, future policy directions must focus on a coordinated national siting strategy, strategic deep-channel dredging, and the seamless integration of rail, road, and inland dry ports across all regional trade corridors.

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