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Reducing Dependence on Foreign through the Development of Domestic Infrastructure: Vizhinjam Port as India's Future Trans-Shipment Hub

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Abstract: *The maritime sector has been an important contributor to India's international trade with more than 90 per cent of the trade volume being transported through sea routes. Despite the strong geographic advantage of India, the country remains heavily dependent on foreign ports for its trans-shipment activities. Therefore, higher logistics costs, longer delivery times and strategic risks that affect trade efficiency and competitiveness are the outcomes of this dependence on foreign ports. This looks at the main reasons why India depends on foreign ports like Colombo, Singapore and Jebel Ali. It explains reasons like constraints of port capacity, deep draft facilities, congestion, slow procedures and weak connectivity that have prevented Indian ports to become major transshipment hubs. The study also highlights the potential of Vizhinjam International Seaport. With its location as a modern deep-water port at the doorway to major international shipping lanes, Vizhinjam can accommodate big container ships and pull in cargo that now passes through foreign ports. This can help India build its own maritime network. The research, through comparative analysis and available data, indicates that building domestic transshipment facilities can contribute to lowering logistics costs, saving time, increasing cargo handling within India, creating employment opportunities, and generating more revenue. It also highlights the strategic benefits like enhanced supply chain security, reduced dependence on foreign countries, and a stronger position for India in the Indian Ocean trading region.*

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Introduction

Although more than 90% of India's exports by volume and nearly 70% by value are transported through its major seaports located on major shipping routes, the ports are still lagging in meeting the demand. On the one hand geographical features such as lengthy coastlines and proximity to major shipping corridors offer India opportunities in this sector, but on the other hand investments are not commensurate with the requirements. Transshipment - a cargo transfer facility from one vessel to another in an inland port - is a standard practice in international trade since it helps in reducing costs, making full use of the cargo space, and linking distant markets in an efficient manner. Typically, countries with efficient transshipment hubs enjoy advantages such as higher port revenues, better employment prospects, larger foreign investment inflows, and higher positions in the global league tables. For a long

time India has practically been relying on foreign ports Colombo, Singapore, and Jebel Ali for movement of containers related to import or export activities. Consequently, Indian firms have been suffering not only from different additional loading and unloading charges but also from transport costs because of the geographical distance and problems in delivery time schedule. As most of the shipping traffic remains in foreign hands, India still exposes itself to port congestions, sudden policy shifts, and supply chain disturbances. Additionally, by relying on ports.

Conceptual framework: Transshipment in Global Trade

Considering what is at stake for India, India a good way to understand that transshipment is to see how this functions within the global trade system as a whole. At its core, modern maritime logistics is based upon a hub-and-spoke model. Big container vessels go between main hub ports along very busy trade lanes and smaller feeder vessels carry the goods to regional and local destinations. This kind of arrangement helps shipping companies work together their different times of shipment, get the best use of the vessels, and drastically lower the cost of transporting one unit. The idea of economies of scale is central to such a model. Very large container ships are extremely cost-effective mainly due to the fact that they carry a very large amount of goods over long distances however, they need a special kind of environment, including deep-water berths, high-capacity cranes, and advanced cargo management systems to operate. Not all ports can handle them, and that is why only a few hubs dominate the global transshipment flows. What is it that makes a port successful in this ecosystem? Of course, location plays a great role; being close to major shipping routes is essential.

India's Port-Led Development Strategy

Port management used to feel like separate tasks, siloed without any real link - until now. The Sagarmala Programme flips that script by turning ports into engines of regional growth, not just cargo hubs. It upgrades old terminals, scales up processing. Tightens workflows, and builds coastal zones where industry can grow and jobs get created. On the other hand, a completely new thought was emphasized by Prime Minister Gati Shakti: instead of working one section of the road at a time, it is better to get trade shipping from the sea to the rail and then to inland waters so that goods are not stuck halfway through the country. What's more interesting is that these initiatives regard transport networks as living organisms instead of static ones. Not only are new roads and ports being built but a national network is also being created which enables the rapid and smart movement of goods. This turns out, if this mesh works right, shipping delays could shrink noticeably and operating costs would fall noticeably. At least in theory, India might actually compete with top-tier global ports on efficiency and speed.

Extent of Foreign Dependence

The plight of India's reliance on foreign transshipment ports is pretty extensive. Reports suggest that roughly 70 to 75 percent of India's container transshipment cargo is still being conducted abroad. Colombo, among these foreign hubs, not only dominates the transshipment market but has also been for a long time the principal port for southern India's cargo. Its geographic advantage, well-developed facilities, and excellent shipping connectivity have established this port as the first choice of almost all international shipping lines. But in fact, a logistical problem is at the core of this scenario. It betrays a fundamental flaw worldwide in India's maritime system.

Whenever Indian cargo travels through foreign ports, the country forgo a number of economic benefits direct as well as indirect. The income port fees, storage services bunkering repair, warehousing, and other value-add activities goes to competing nations which of course is not in India's favor. This dependence also adds to the costs of Indian exporters and importers. Each additional cargo movement through a foreign port results in extra handling charges, more documentation, and increased shipping costs. In the fiercely competitive global markets, even tiny cost increments can lead to changes in the pricing of Indian goods and and a lower profit margins for the businesses.

Time is truly a vital factor. Goods rerouted via overseas hubs are not only exposed to the risk of longer wait times but also to vessel changes and other disruptions before they arrive at the destination. Such delays can really throw the entire supply chain out of gear. For instance manufacturers retailers banks pharmaceutical companies, producers of perishable goods are among those who are significantly affected. Also, going to foreign ports, exposes India to a host of risks such as political instability, labor strikes, port congestion, and other unforeseen world events. Even a small problem at these foreign hubs can cause a great deal of disruption in India's trade flow. India with its long coastline and rapidly rising

economy focused on increasing the level of trade cannot afford to depend on the outside world all the time. Besides, if India enhances its transshipment capabilities, it will be able to keep cargo in its ports, create jobs, attract foreign shipping lines, and upgrade its logistics network.

Cost, Time and Strategic Implications

When Indian cargo is routed through foreign transshipment hubs, the consequences are practical and felt at multiple levels. If the focus is on the cost side first and foremost, the logistics expenses can be increased by using such a practice by about 10 to 15 percent as a direct result, additional port charges, handling fees, feeder vessel costs, documentation expenses, and storage costs at intermediate hubs will be accumulated. Going further, these additional expenses mostly limit the profitability of the exporters as well as increase the landed cost of the imported products. Besides the cost side, the time implications are quite significant too,Since multiple routing of cargo often results in the diversion of the cargo it usually adds several days to the delivery schedules.

Impact of Foreign Transshipment on Cost, Time and Strategy

Factor	Current Scenario (Foreign Transshipment)	Impact on India	With Vizhinjam Port (Proposed)
Logistics Cost	High (10–15% extra)	Increased export/import cost	Reduced cost due to direct
Handling Charges	Multiple handling at foreign ports	Additional port charges	Single handling within India
Transit Time	Longer (2–5 days extra)	Delay in delivery and supply chain	Faster delivery
Vessel Deviation	Higher (route diversion)	Increased fuel and operational cost	Minimal deviation
Supply Chain Efficiency	Low	Unreliable and delayed shipments	Improved reliability
Control Over Cargo	Limited (foreign dependency)	Reduced operational control	Full domestic control
Strategic Risk	High	Vulnerable to geopolitical issues	Reduced external risk
Revenue Generation	Lost to foreign ports	Economic loss	Revenue retained within India
Employment	Benefits foreign economies	Missed job opportunities	Job creation in India
Trade Competitiveness	Reduced	Higher export pricing	Increased competitiveness

Comparative Analysis of Global Transshipment Hubs

India's port infrastructure faces a massive challenge when compared to the success of ports like Singapore, Colombo, and Jebel Ali and the reasons behind the Indian ports falling short are well worth examining. Among others, the case of Singapore is very revealing. Its huge success in global transshipment did not just happen by chance but is the result of a long term effort and investment combined with a choice of clear policies on the part of Singapore.

Although geographically Singapore is located along one of the busiest routes in the world for shipping, over the years it has gone on to build port facilities that are considered by many as the highest standard internationally. However, what really differentiates Singapore from the rest is not only the physical port facilities but also the port.Indian ports were simply not able to accommodate large container vessels due to the lack of sufficient draft depths and that is when Colombo came up to occupy the slack. It focused on deepening its berths, increasing its capacity, and making its operations more efficient and the Indian cargo almost immediately followed.

As a matter of fact, Colombo still handles a major part of India's transshipment traffic a role that it has held long enough to be structurally ingrained in the regional shipping patterns. Jebel Ali, run by DP World in Dubai, is yet another paradigm not just of port efficiency but of the entire creation of an integrated logistics and commercial ecosystem. It is a port integrated with one of the largest free trade zones in the world which attracts manufacturers, distributors, and logistics providers who are able to take advantage of the co-location.

Such a clustering effect turned Jebel Ali into a natural hub for goods transportation between Asia, Africa, and Europe, and simultaneously, it helped change the perception of Dubai as a regional commercial powerhouse. The real message of the story is that being the leader in transshipment, at its very core, means much more than just port operations; it involves developing the whole value chain around the movement of cargo. It entails integrated logistics parks, free trade zones, advanced warehousing, multimodal connectivity, efficient customs systems, and business-friendly regulatory environment. These supporting elements make a mere cargo-handling port a global trade ecosystem.

Indian ports when measured by these standards reveal a combination of structural and operational handicaps. Over time, many Indian ports have largely concentrated on gateway cargo rather than on hub-and-spoke transshipment models. Constraints like draft restrictions at some ports congestion slower turnaround times, fragmented hinterland connectivity, and relatively high logistics costs have diminished their attractiveness to mainline vessels. Besides, procedural delays, complicated documentation requirements, and lesser inclination toward advanced digital systems have frequently impacted their operational efficiency.

Strategic and Economic Implications of Developing Vizhinjam Port

Port Name	Country	Draft Depth (m)	Annual Capacity (TEUs)	Key Strengths	Limitations
Singapore Port	Singapore	20	37+ Million	Global connectivity, automation, efficiency	High operational cost
Colombo Port	Sri Lanka	18	7+ Million	Proximity to India, strong feeder network	Dependence on Indian cargo
Jebel Ali Port	UAE	17	19+ Million	Integrated logistics hub, free zones	Longer distance from Indian coast
Shanghai Port	China	15–16	47+ Million	World's busiest port, strong infrastructure	Congestion issues
Rotterdam Port	Netherlands	23	14+ Million	Advanced technology, EU connectivity	Far from Asian trade routes
Vizhinjam Port	India	18–20	(Upcoming)	Natural depth, minimal deviation, strategic location	Developing stage, connectivity gaps

Vizhinjam Port: Strategic Advantage

Of all the efforts to make India less dependent on international transshipment hubs, the Vizhinjam Port is the one which is most significant from the strategic point of view. Situated on India's southwestern tip very near to Thiruvananthapuram, the port is blessed with a rare combination of natural and geographical features that put it on a genuine equal footing with the region's top hubs. The closest one to this is probably its nearness with the East-West international shipping track that one of the busiest sea corridors of the world. Whereas, many Indian ports require a ship to take a considerable detour from the main route of the vessel, the position of Vizhinjam is so close to this lane that a ship may call at the port even with a very minor departure. To make it short, this means a lower consumption of fuel and reduced costs of the voyage for the shipping companies - which is one of the most important factors when deciding a cargo route.

Equally important is the port's natural draft depth of 18 to 20 meters. This isn't just a minor technical specification, but rather the key condition for operating the ultra-large container vessels that are the main feature of world trade. Most Indian ports are far from having such depths and therefore they have to be kept dredged regularly to stay functional, which increases their costs and also brings environmental issues. On the other hand, Vizhinjam naturally attains such depth and thereby it doesn't require large-scale dredging, which is not only good for the environment but also a way to ensure that the port will still be able to function with the new generation of ships without having to spend a lot of money. All these features have made the Vizhinjam port foundation so strong that it has a few that even Indian ports do not have and that foreign competitors have had to spend a lot of money to create. Infrastructure and connectivity. Vizhinjam Port are planned as modern transshipment hubs will include first-class infrastructure, high throughput container terminals, state-of-the-art cargo handling equipment, and automated systems that will not only increase efficiency but also minimize turnaround

time. The port will be developed in phases, which makes it possible to increase capacity according to demand and also allow for the most efficient use of resources. Besides marine infrastructure, a great deal of attention is directed towards enhancing the port's connections to the interior by the construction of roads and railways.

Strategic and Economic Implications

Vizhinjam International Seaport's significance doesn't end with its direct operations alone. The port, if fully utilized and regularly improved, is able to change India's position in international maritime trade not only substantially but also in a lasting way. It has the capacity to serve as a cargo gateway as well as a strategic hub that bolsters India's positioning in the global supply chains and regional shipping networks.

The greatest immediate advantage would be the lowering of logistics costs. By allowing Indian cargo to be transshipped within the country instead of being routed via Port of Colombo or Port of Singapore, Vizhinjam could remove a major part of the extra charges that currently weigh down Indian exporters and importers. Reduced transit time, lower feeder costs, and fewer handling stages would improve supply chain efficiency and make Indian goods more competitive in world markets.On top of that, the new port is expected to facilitate development of the entire region. Being a major port generally means generates warehousing transport customs clearance, ship chandler, container repair, cold storage and logistics park needs. It may lead to the creation of hundreds of direct and indirect job positions, at the same time steadily increasing small and medium enterprises in Kerala and southern India.

Major port infrastructure projects generally attract investments not only in the logistics warehousing cold chain, and light manufacturing sectors but also in ancillary services, thus leading to job creation and economic growth outside the port limits.

Challenges and Risks

One should not overlook the hurdles that constrain Vizhinjam's potential when trying to imagine what the future of port might be. These problems are very real and serious. The competition is tough. Ports such as Colombo and Singapore have been developing their connections with global shipping lines, enhancing their operational standards, and integrating themselves into major trade routes for years. It is going to be quite a challenge to convince these lines to move or share the cargo with.

Connectivity is also a matter of concern. Although plans for road and rail connections are made, the speed and extent of their implementation will greatly determine how well the port can serve its hinterland. If there are issues such as delays or lack of links in this connectivity, they can drastically limit the amount of cargo that could be handled.

The consequence would be that the very economic justification of the project would be under threat. Smooth functioning of the combined cargo evacuation and the attraction of shipping lines can be guaranteed if there is a facilitation of efficient road rail inland container depot, and last-mile logistics connections. Even a state-of-the-art port without a good multimodal integration might have a tough time achieving its anticipated throughput and revenue targets.

Beyond that, environmental factors must also be taken into account. Large-scale projects at the coastline are most often associated with the potential of ecological harm, and the legal/regulatory framework in this regard is well known for being very complex/governmental processes linked to such projects can sometimes be very lengthy. This includes concerns such as coastal erosion, marine biodiversity loss, impact on fishing communities, water pollution, effects of dredging, alterations in coastal currents. Ignoring such issues may result in lawsuits, postponement of permits, and difficulties related to the image of the project/company.

Indeed, how a company deals with such problems openly and responsibly is one of the determining factors not only for satisfying the regulatory requirements but also for that of sustaining the social license to operate over the long term. Honest and open stakeholder engagement, equitable rehabilitation measures, community development initiatives, and regular environmental monitoring are the measures that secures the trust of the local population and officials. Engaging actively with the local communities is not only a favor to the communities but it is also beneficial for the companies.

Conclusion

India's reliance on foreign transshipment hubs has been a source of concern for a long time. Besides the issue of high logistics costs, such dependence also results in lost economic opportunities, decreased strategic autonomy, and lessened ability to compete effectively in global trade.

The large share of Indian cargo being routed through foreign hubs means that often the handling charges, value-added services, employment generation, and associated port revenues end up benefiting the economies of competing countries rather than India.

Vizhinjam International Seaport has come up as a genuine and well-justified solution in this regard. The port, due to its deep natural waters, being near major international east-west shipping lanes, and the implementation of the latest infrastructure design, certainly has a competitive edge that many Indian ports lacked in the past. Since it can accommodate very large vessels with the smallest deviation from world shipping routes, it has a strong potential to attract direct calls from the largest shipping lines.

One may logically expect a more efficient and robust maritime sector of India, if such efforts are supported with other comprehensive policy measures such as Sagarmala Programme and PM Gati Shakti. These programs intend to facilitate smoother integration of logistics chains, better industrial connectivity, multimodal transport integration, and coordinated infrastructure planning all being vital aspects for the establishing a successful transshipment hub.

References

1. Baiju, P. & Devi, K. (2025). A smart decision support system application for improving the competitiveness of shipping and ports sectors in India. 2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG) Indore India, pp. 1-6. DOI: https://doi. org/10.1109/ICTBIG68706. 2025. 11323677
2. Baiju, P. & Devi, K. (2025). Implementation of machine learning techniques for analyzing the operational efficiency of Indian port management.2025 IEEE 5th International Conference on ICT in Business Industry & Government (ICTBIG) Indore India, pp. 1-6. DOI: https://doi. org/10.. 1109/ICTBIG68706. 2025. 11323956
3. Ministry of Ports, Shipping and Waterways. (2023). Annual report. New Delhi: Government of India.
4. NITI Aayog. (2021). Changing logistics landscape: Strategies that will boost logistics efficiency and cut costs. New Delhi: Government of India.
5. Sagarmala Programme. (2022). Report on port-led development. New Delhi: Government of India.
6. PM Gati Shakti. (2021). Comprehensive master plan for multimodal transport connectivity. New Delhi: Government of India.
7. Adani Vizhinjam Port Private Limited. (2024). The Vizhinjam port project - An introduction.
8. Colombo Port Authority. (2023). Annual report on performance. (9) PSA International. (2023). Global report on port operations.

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