



## **Can India Become the Next Biggest Transshipment Hub in Asia?**

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Transshipment is the movement of cargo from one vessel or conveyance to another vessel (trucks railcars included) for further transit to complete the voyage and carry the cargo to its final destination. Cargo is usually transported from a smaller port to an international transshipment hub. This paper analyzes India's capability to become the next biggest transshipment hub in Asia, in the wake of South-East Asia's dilemma with dangerous traffic congestion in the Straits of Malacca. The capabilities of Asian-Pacific ports (China and Singapore) are compared to India's port expanding initiatives. India continues to progress as the second strongest economy in Asia. India's pursuit to port development is required not only to maintain their own economic growth but is also vital to the overall development of other smaller landlocked nations around India, such as Nepal, Bhutan, and Afghanistan. Recently India's economic growth has started to stagnate. This stagnation is linked to its limited export/import (EXIM) capabilities (proportional to their ports container throughput). Majority of the empirical data for this research was gathered from the Internet. Additionally, a few interviews were conducted with personnel currently involved in this area of expertise. The findings suggest: India is making major progress at developing its ports but internal bureaucracies, high tariffs, inadequate multi-model transportation network and China's initiatives in Sri Lanka has imposed significant challenges for India to become the next biggest transshipment hub in Asia-Pacific region.

### **Introduction**

India is strategically located at the assimilation mark of the Arabian Sea and the Pacific Ocean. India has a long coastline of approx. 4600 miles with more than 200 ports. India's current

population is 1.3 billion with a GDP of 2.59 trillion in 2018. Its economy grew by 7.2% in 2018 (Moya 3). It is the world's sixth-biggest consumer market. However, it is only listed as the 29th nation in the world for port capacity throughput (World Shipping Council 4). With the current government's keen emphasis on developing manufacturing industry and port expansions, does India have the potential to become the next biggest transshipment hub in Asia? Similar studies (Venu and Mohammad 1) in this regard has been published in the past but the authors focused only on India's internal growth, excluding its trade contribution to neighboring economies. It is important to state that of the total exports made to neighboring countries, 32.2% was exported to Nepal, and 67.7% to Bhutan in 2014 (De 11) and 11% to Afghanistan in 2017 (OEC World 5). This research paper aims to capture India's overall throughput capacity and transshipment capacity in TEUs, including multi-model transshipments via railcars and inland waterways, amounting to its comprehensive potential as a transshipment hub.

### **Sea Port Infrastructure in India**

Through intensive research, it was discovered that India has about 12 major ports, 6 on the Eastern coast and 6 on the Western Coast. It also has 200 non-major ports of which only one-third are operational. Of the 22 strategic ports that were researched, the total installed capacity was calculated to about 24.9M TEUs, with actual throughput of only 14.4M TEUs. Also, of the 22 ports, 6 ports are considered as International Container Transshipment Terminals (ICTT), with few others under major development with joint foreign interventions. These are Adani Mundra Port, Adani Hazira Port, Cochin Port and Jawaharlal Nehru Port on the west coast, while Krishnapatnam and Vishakapatnam ports are on the east coast (IBEF 11). Combined throughput of these 6 transshipment terminals currently totals to about 1M TEUs.

### **The Potential Next Biggest Transshipment Hub in Asia**

Singapore and China have long-established their dominance in the Pacific Ocean and the South China Sea as the major transshipment hubs. However, along with the benefit of progressing economies through the shipping industry came the perils of overly increased sea-traffic and congestion. The Strait of Malacca is considered one of the world's busiest shipping route and chokepoint—and growing traffic in the waterway has resulted in recent warnings of the increased risk of accidents, ultimately resulting in two significant collisions with U.S. Navy vessels, costing multiple lives. Much has been done since these collisions to mitigate such occurrences in future and a number of techniques have been developed to ease the traffic congestion problems, including using Artificial Intelligence and Big Data Analytics (Saftey4Sea) to develop mathematical models for identifying and routing ships thru the channels. Another option explored by surrounding nations such as China, India and Sri Lanka was to develop transshipment hubs outside of congested traffic lanes such as Columbo Container International Terminal (CCIT), Hambantota ports in Sri Lanka (Maria, Abi-Habib) and 3 different ports on the southern tip of India. The Hambantota port in Sri Lanka was opened in 2016 and has been considered an economic dud. Only 12 ships docked

at this port in 2017 compared to 334 at CCIT in 2017 (Moya). India is emerging as a strong economic power in Asia with its National Waterways cargo traffic increasing from 55 million metric tons (MMT) in 2017-18 to nearly 72 MMT in 2019, increasing by nearly 31%.

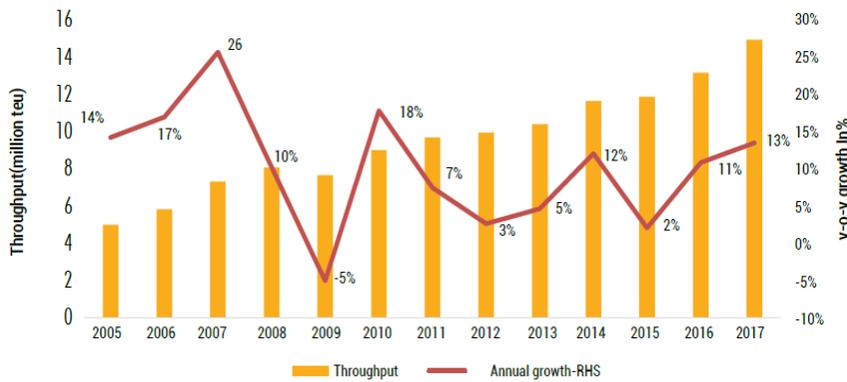
The rationale for this increased growth is country's exponentially increased consumption, new government policies, including relaxed cabotage law (Venu and Mohammed) and government's renewed focus to develop manufacturing industry with a catchy motto "Make in India". India's recent relaxation to its cabotage law (Venu and Mohammad) now allows special foreign-flagged vessels such as roll-on, roll-off (RoRo) vessels to transport cargo along the country's coastline. This has opened doors to major international shipping lines such as Maersk and Mediterranean Shipping Company to ply the coastal routes stretching into Indian waters. Relaxation of this cabotage law would bring back 48% of Indian transshipment cargo from CCIT port in Sri Lanka, 22% in Singapore and 10% from Port Klang in Malaysia. This has also allowed foreign shipping and port construction companies to develop and expand India's deep-water ports such as Mundra in Gujrat, Vallarpadam (ICTT) in Cochin, Vizhinjam in Kerala and Enayam in Tamil Nadu.

Also, after the relaxation in cabotage law, The Bharat Kolkata and Haldia Container Terminals (HCIT) are now starting to exploit their full potential and significant growth has been observed in the year 2017-2018. Bharat Kolkata port "is keen on Bangladeshi proposal for third country access through its [their] port as a part of the initiative to shift the bilateral trade from road to inland water" (Behera 50). HCIT achieved throughput of 1,56,028 TEUs on FY 2017-18 with a progressive growth of 14.87% over 1,35,828 TEUs in FY 2016-17. In 2016-17, this port accounted for over 70% of the trade to Bangladesh. India also launched major dredging work through Indo-Bangladesh Protocol route to improve connectivity to the North East, with Bangladesh investing 20% to this project.

Adani International Container Terminal (AICTPL) at Mundra Port, in a joint venture with Mediterranean Shipping Company of Switzerland, was engaged in an aggressive expansion to double the capacity of this port to 3.1M TEUs. Adani Ports and Special Exclusion Zone Pvt. Ltd (APSEZL) has also initiated a joint effort with France-based CMA CGM, to further expand Mundra port, now called Adani CMA Mundra Terminal (ACMT), making Mundra as the major transshipment hub. Adani Ports and Special Exclusion Zone Ltd (APSEZL), India's biggest port developer, has invested nearly \$79.8 million USD in various port development project around India's coastal line and has projected growth of its commercial ports by 23% by 2030. Such joint ventures have increased investments and cargo traffic point for the Indian ports sector. Operations and maintenance (O&M) service providers, pilotage and harboring and marine assets such as barges and dredgers are benefiting from these investments. The capacity addition at these ports is expected to grow at a compound annual growth rate (CAGR) of 5-6% by the year 2022, thereby adding 275-325 MT of capacity. Ministry of Shipping has set a target capacity of over 3,130 MMT by 2020, which would be driven by participation from the private sector. Non-major ports are expected to generate over 50 percent of this capacity. India's cargo traffic handled by ports is

expected to reach 1,695 MMT by 2021-22, according to a report of the National Transport Development Policy Committee. Within the ports sector, projects worth an investment of \$10 billion have been identified and will be awarded over the coming five years.

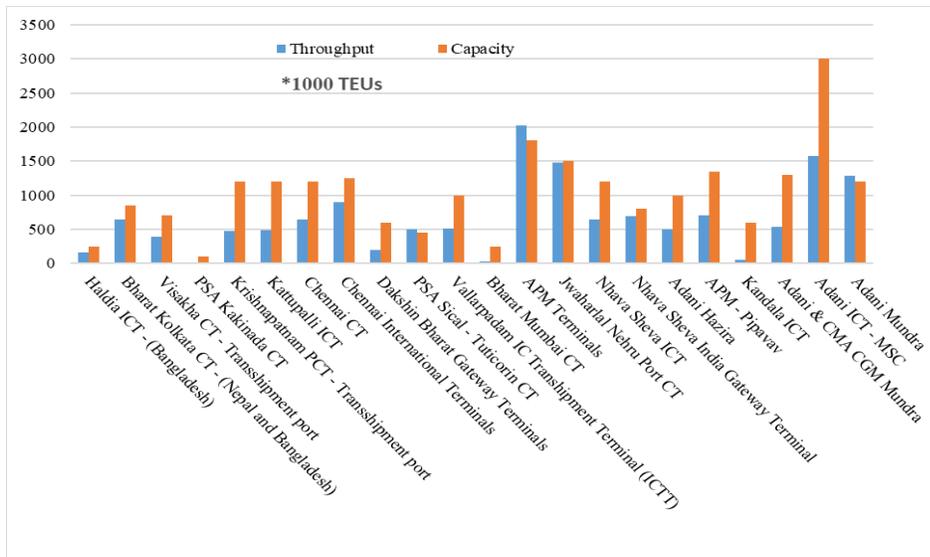
In FY 2017-18, total container throughput at Indian terminals was recorded roughly at 15.5M TEUs. “This growth is expected to increase by 12% by the end of FY 2019. However Indian imports have since grown by 16% whereas and the exports grew by 7%, significantly higher than estimated global containerized demand growth of 3-4%. This is in line with an upward trajectory the Indian container market has posted.” (IBEF). The combined throughput of these ports, once fully functional is expected to be nearly 25M TEUs.



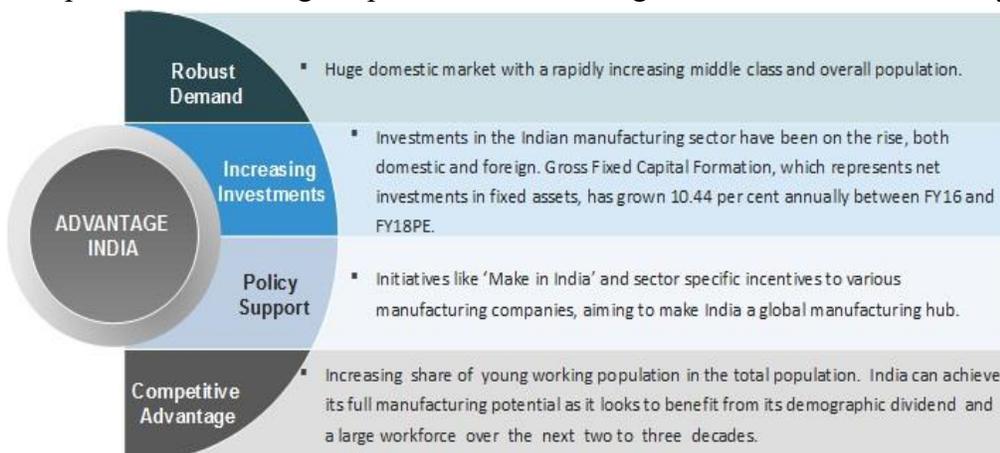
Source: Drewry maritime Research

The Indian government has launched a nationwide port development initiative called Sagarmala, terming port development as its “topmost priority of capacity augmentation” (Economic Times Survey 2019). Under this initiative, the Indian government envisions a total of 189 projects for modernization of ports involving an investment of \$22 billion USD by the year 2035.

For the ease doing business, reduce dwell time and transaction costs at the major ports, India government has “eliminated the need of manual forms, allowed accommodation of laboratories to participating government agencies, induced direct port delivery, installed container scanners, and introduced e-delivery orders, radio frequency identification-based gate-automation systems” (Economic Times Survey 2019). To speed its container throughput, India has also launched its first multi-modal inland water transport terminal in November of 2018. India currently pays about \$46 billion USD for freight to foreign shipping companies for cargo that could be handled at Indian transshipment ports, once developed.



The Indian National Shipowners Association has proposed a strategy to the government that can triple Indian deadweight tonnage and boost inland waterways cargo by 20% by 2022 (Economic Times, 1). Although labeled as a country’s biggest drawback, India enjoys a huge domestic market with a rapidly increasing middle class and overall population (IBEF). Under the “Make in India” initiative with enhanced strategic partnerships in manufacturing of defense equipment, India’s manufacturing sector is “expected to reach \$1 trillion USD by 2025 and India is expected to be amongst top three manufacturing destinations of the world by 2020.” (IBEF)



Note: PE – Provisional Estimate

Source: [www.ibef.org](http://www.ibef.org)

The country which stood 13<sup>th</sup> in 1997, stood at the third position in 2017 for overall EXIM throughput.

## Conclusion

“Since last few years, Indian ports have built huge capacities not only to serve EXIM cargo but also to recapture the transshipment volume which has been handled by neighboring ports. There are not much effective strategies implemented by major ports still, but on the other side private port operators are striving to bring back the lost cargo from neighboring foreign countries. Adani Mundra Port, Adani Hazira Port and Cochin Port on west coast and Krishnapatnam and Visakhapatnam port on east coast have shown impressive results in handling transshipment volumes. Some major Indian reforms in the last two years, such as competitive pricings, infrastructure upgrades, and liberalized cabotage rules, have induced interest among port operators, who are now reaping benefits of handling transshipment at Indian coast in order to diminish transshipment at foreign ports in FY 2017 and FY 2018” (Behera 21). Indian coastline of nearly 4600 miles has nearly 200 ports, of which only twelve are considered major ports. Out of these only four ports operated at or above 100% of the total installed capacity. The total combined throughput of the 22 ports studied for this research amounted to 14.4M TEUs which is still only 39% of the total throughput of Singapore port, 67% of Port Klang, Malaysia however only 6% of all ports in China (World Shipping Council 3). Currently only six ports can operate as transshipment ports with a total throughput of about one million TEUs in 2018. The average call cost for vessels of 3,000 TEU capacity in India works out to \$32,000, compared with \$7,000 in Colombo, \$8,000 in Singapore and \$12,000 in Hong Kong but the transshipment cost at CCIT, Sri Lanka and at Port Klang, Malaysia costs 2-3% higher when compared with Indian ports like Visakhapatnam, Krishnapatnam and Chennai. Given these statistics, one concludes that although Indian ports possess a huge potential for growth and productivity, India cannot become the next biggest transshipment hub until the capabilities discussed above are fully developed and have matured enough to beat the low priced, high throughput competition imposed by existing transshipment giants as China, Singapore or Malaysia.

## Reference

- Indian Container Market Report 2018. This report had significant and recent data needed to make sound analysis. This was used as a primary, scholarly (1), subjective and predictive source.
- India Brand Equity Foundation (IBEF) reports. IBEF.org. This website provided three different yet relevant source of applicable data. Data provided was very recent. These were used a primary, popular, objective and predictive sources.
- Article by M. K. Venu and Noor Mohammad, “Modi Wants India to be a Trans-shipment Hub. But Can it Beat Sri Lanka and Singapore.” This is a scholarly article that provided pertinent data in tariff rates. This was used a primary source as well as a scholarly (2) source. “The Wire” is a popular Indian magazine that publishes scholarly articles on India politics, economy, external affairs etc. This magazine is equivalent of magazines listed in under paragraph C.2 of Research Project Evaluation Rubric.
- Article by Prabir De, “Disentangling transit costs and time in South Asia.” Although a bit dated (2015), this was the only report available on inland waterways initiative in Nepal and

Bangladesh. This was a primary, popular, subjective and historic source for empirical data cited on Indo-Bangladesh protocol route.

World Shipping Council. [www.worldshipping.org](http://www.worldshipping.org). This source provided world standing of countries based on annual container throughput. This was used a secondary, scholarly (3), objective, current source to make calculated assumption for India's ranking by annual container throughput.

Article by Maria Abi-Habib, "How China Got Sri Lanka to Cough Up a Port." This source provided current challenges imposed by China's initiatives and helped derive the conclusion. This was used as a primary, popular, objective, historic source.

Article by Stephanie Moya, "India GDP Annual Growth Rate." This source was used a secondary, scholarly (4), popular and predictive source to cite India's GDP growth.

Safety4sea.com, "Port of Singapore to use AI to improve port calls." This source was consulted as a secondary, popular, subjective and historic source to cite Singapore's traffic congestion issue and Artificial Intelligence aided measures being implemented.

"Afghanistan", The Observatory of Economic Complexity (OEC). This source provided trade statistics between India and Afghanistan and was used a primary, scholarly (5), subjective and historic source.

The Economic Times, "INSA urge govt to formulate shipping development policy." This source was used a secondary, popular, objective and predictive source to amplify India's initiatives. This media report provided a business case study on India's deadweight tonnage and its effects on maritime sector