

**ISSN 2454-5597**



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**MARITIME AND INLAND TRADE IN INDIA: A PERSPECTIVE  
STUDY**

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**Working Paper - 38**  
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**Issue - June 2020**

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# MARITIME AND INLAND TRADE IN INDIA: A PERSPECTIVE STUDY

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## Abstract

India has a vast coastline with so many natural harbors and inland waterways. The country's exports and imports logistics revolves mostly around the ports. This study aims to highlight the various projects for development of ports, the progress so far and the various future plans. Government as well as private sector participation in this regard is discussed. Market size and the contribution of maritime trade in Indian economics are detailed. India's Sagarmala Project and the efforts to revive the inland water transport discussed in detail with their scope and advantages. Multimodal transport with the effective use of inland waterways included. Development of existing and future ports outlined. Various investments by different stake holders and the present port developments along with some hurdles experienced examined. Government's initiative of the same and the future prospects of Indian port developments discussed.

**Key Words:** Coastline and ports, Maritime Trade, History of Indian Maritime trade, Major and minor ports, Port Developments, Sagar Mala Project and Inland Waterways, Ganga Waterway, Present Scenario, Investments, Progress, Government Initiatives

**JEL Codes:** L9, L91, L92, L99

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## **1. INDIAN COASTLINE AND PORTS:**

India being one of the biggest peninsulas, has a vast and varied coastline spanning 7516.6 kilometers<sup>#1</sup>, and is the sixteenth largest maritime country in the world. Indian coastline stands unique with its varying topography and nature. There are many natural, artificial and protected ports along the east and west coasts of India. Maritime trade plays a major role in India's economy. Hence the development of ports and other inland water ways of transport is vital in the country's progress.

### **1.1. Brief History #2:**

India boasts of the first ever global trade through the maritime sector by the Mesopotamians trading with the Indus Valley people as early as the 3<sup>rd</sup> Millennium BC. The world's first ever dock was found at Lothal which dates back to 2400 BC. After the Roman invasion of Egypt there was an increase in trade with India and Rome around 25 BC. India had developed a predominant trade relationship with South East Asian Empires of Arabia and Persia during the 8<sup>th</sup> Century. Excavations in the Odisha coast had yielded proof of Indo China Trade dating back to 2300 BC due to the presence of some artifacts which were common in Vietnam area. Chandra Gupta Maurya (322-298 BC) tried to make a naval force in India as per the writings of Megasthenes. The Mauryas had ventured out and achieved many ocean voyages for various reasons.

The Maritime Silk route (2<sup>nd</sup> Century BC to 15<sup>th</sup> Century AD) was the major maritime trade route connecting India, China, SE Asia and Arabia, Somalia, Egypt and Europe and goods even from South India found their way out to foreign nations. Kalinga (present Odisha) after its annexure to the Maurya Empire by Ashoka in 3<sup>rd</sup> Century BC, had established maritime trade with China, Java and Sumatera etc.

From 200 to 1280 AD, the Chola Emperors had an upper hand in developing the maritime trade with China and Java as they had absolute control over the west and eastern side of Indian peninsula. Their empire the Srivijaya was the largest empire in SE maritime Asia. Even the Pandyas and Cheras also had developed ports like Kollam and engaged in maritime trade.

In 1497 AD, four merchant vessels set sail from Portugal under the leadership of Vasco De Gama as per the orders of the then Portugal ruler Manuel 1. They rounded the Cape of Good Hope sailing towards India and finally made landfall in India in 1499 thus providing an alternate sea route between India and Europe paving way for a strong trade pact even though the chain of events that followed led to the colonization of India.

On April 05<sup>th</sup>1919, SS Loyalty, the first ship of the Scindia Steam Navigation Company sailed from India to the UK which was a mile stone in India's Maritime history as the sea routes were all dominated then by the British.

## **2. INDIAN MARITIME TRADE AND PORTS: PRESENT SCENARIO:**

Today, according to the Ministry of Shipping, around 95 per cent of India's trading by volume and 70 per cent by value is done through maritime transport. Hence the country's exports and imports logistics revolves mostly around the ports and the trade through maritime sector plays a major role in Indian Economy.

India has 12 major and 205 notified minor and intermediate ports. Under the National Perspective Plan for Sagarmala, six new mega ports will be developed in the country in addition to some major private sector ports. The Indian ports and shipping industry plays a vital role in sustaining growth in the country's trade and commerce. The Indian Government plays an important role in supporting the ports sector. It has allowed Foreign Direct Investment (FDI) of up to 100 per cent under the automatic route for port and harbor construction and maintenance projects. It has also facilitated a 10-year tax holiday to enterprises that develop, maintain and operate ports, inland waterways and inland ports.<sup>#3</sup>

### **2.1. Market Size:**

During FY18, cargo traffic at major ports in the country was reported at 679.36 million tonnes (MT). In the first quarter of the FY19P, the traffic increased by 2.79 per cent year-on-year to reach 633.87 million tonnes. Cargo traffic at non-major ports was estimated at 491.95 million tonnes FY18 and grew at 9.2 per cent CAGR between FY17-18. The major ports had a capacity of 1,452 million tonnes by FY18 end. The Maritime Agenda 2010-20 has a 2020 target of 3,130 MT of port capacity<sup>#4</sup>. The government has taken several measures to improve

operational efficiency through mechanization, deepening the draft and speedy evacuations. Still there is a long way to go till we can utilize the boon of the vast coastline to the optimum. The reasons are many varying from financial issues to labor and trade union issues. #4

## 2.2. Multi Modal Transport Through Inland Waterways: #5

In India the domestic freight movement is generally as follows:

65% By Road

27 % by Rail

But only 0.5% is done through inland waterways even though we boast about a vast network of rivers and inland waterways. India has yet to develop this cheaper and greener mode of transportation. Goods still travel by congested road and rail networks, slowing the movement of cargo, adding to uncertainties, and increasing the costs of trade. So much so that logistics costs in India are estimated to account for as much as 18 percent of the country's GDP. The Government of India is now reviving the Ganga watercourse – known as National Waterway 1 or NW1- to ferry cargo from the eastern seaport of Haldia to Varanasi, some 1,360 km inland. The waterway has the potential to emerge as the leading logistics artery for northern India. The waterway's stretch between Kolkata and Delhi passes through one of India's most densely populated areas. A sizeable forty percent of all India's traded goods either originate from this resource-rich region or are destined for its teeming markets. While the region is estimated to generate about 370 million tonnes of freight annually, only a tiny fraction of this - about 5 million tonnes - currently travels by water.

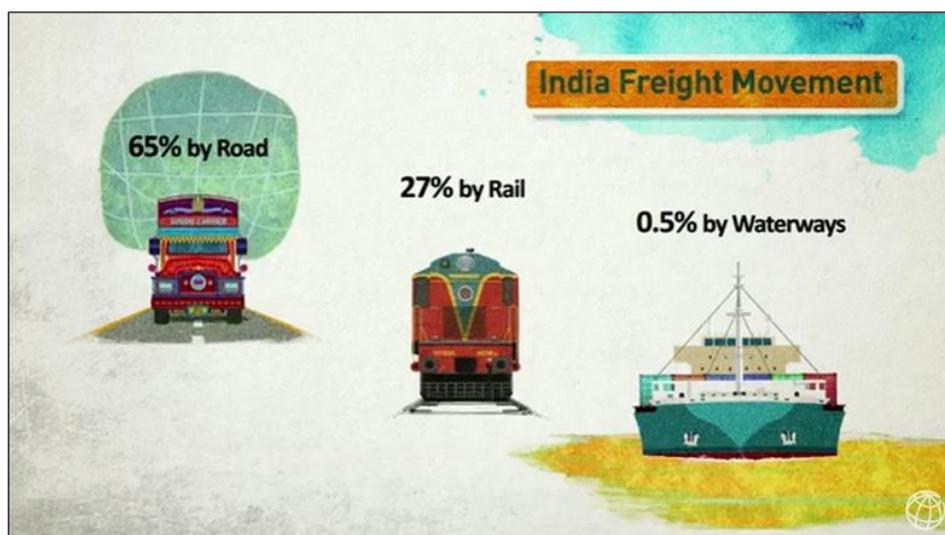


Figure 1: Freight Movement by various means

Currently, cargo from the Gangetic states of Bihar and Uttar Pradesh takes circuitous land routes to reach the sea ports of Mumbai in Maharashtra and Kandla in Gujarat, rather than going to the much-closer port at Kolkata. The development of NW1 will help these states direct some of their freight to the Kolkata-Haldia complex, making the movement of freight more reliable and reducing logistics costs significantly. The World Bank is financing the development of the Ganga waterway with a loan of \$ 375 million. The Capacity Augmentation of National Waterway 1 Project will help put in place the infrastructure and services needed to ensure that NW1 emerges as an efficient transport artery in this important economic region. Once operational, the waterway will form part of the larger multi-modal transport network being planned along the river. It will link up with the Eastern Dedicated Rail Freight Corridor, as well as with the area’s existing network of highways. This web of water, road and rail arteries will help the region’s industries and manufacturing units switch seamlessly between different modes of transport as they send their goods to markets in India and abroad. Farmers in the agriculturally-rich Gangetic plain will also benefit, as the waterway opens up markets further afield.

This is more eco-friendly and greener and also cheap as: 1 litre of fuel can move 24 tonnes by road, 85 tonnes by rail and 105 tonnes by water.

Cost to transport 1 ton through 1km: Rs.2.28 for Highways, Rs. 1.41 for Railways but only Rs. 1.19 for Inland Waterways. #5

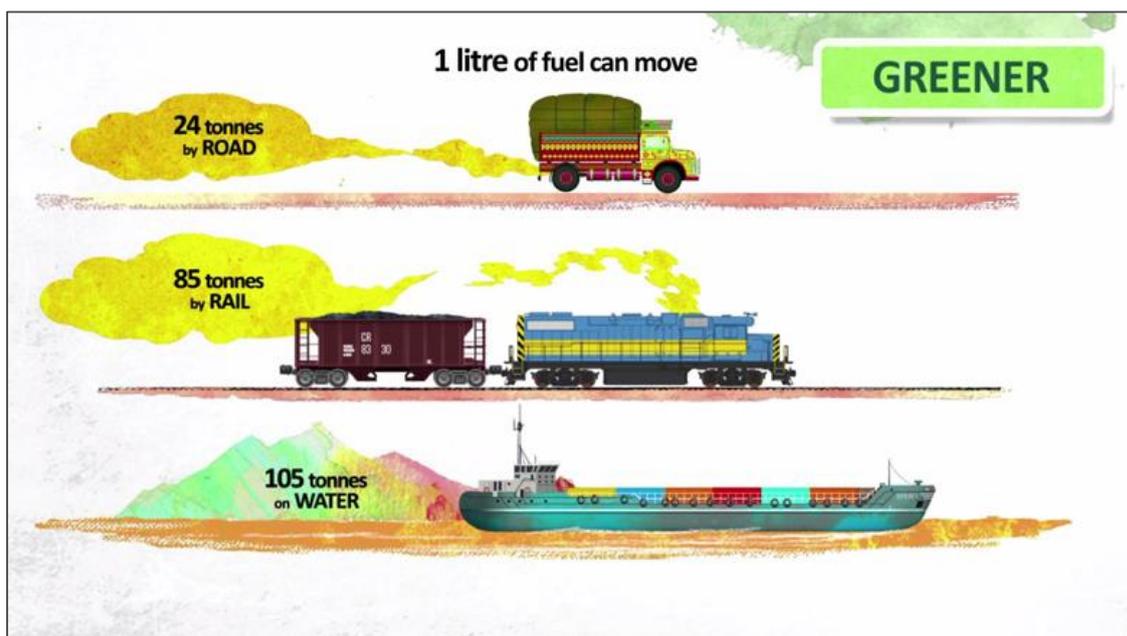


Figure 2: Freight Movement Cost Comparison

### **2.3. Development of existing and new Ports-Hurdles:**

There is immense potential for modernization and growth of Indian ports. The main problem is that, due to pressure from trade unions, the government has not been able to modernize the major ports. As a result, Indian ports are highly over manned making a direct effect on efficiency. Political pressure, lack of autonomy, absence of incentives, excessive bureaucracy, labor issues and hierarchical rigidities are contributors to the current state of the Indian ports. In some cases, there has been a vehement repulsion for private or external investments for the development of ports. These issues have caused an undue delay in completion of projects in time like the Vizhinjam port Project which is still lagging behind due to various issues.

Compared to the large international ports, India lags behind badly. For instance, the largest port in the world in Hong Kong, processes more than 20.01 million TEUs (20-foot equivalent units) in a year. The tenth largest port, Antwerp, processes about 5.4 million TEUs. In contrast, the Jawaharlal Nehru Port (JNPT)/ India's largest container port, handles only about 2 million TEUs.

There are also problems with average pre-berthing time, which is in the range of 11 hours, and the average turnaround time, which is around three days. In Singapore, for instance, the corresponding numbers are 3 hours and half a day respectively. These low performance indicators are primarily because of the poor road and rail container evacuation infrastructure from the port.

Unlike terminals at major public ports, privately-built independent ports are free from complicated bureaucratic controls associated with pricing and investment. <sup>#6, #7</sup>

### **3. INVESTMENTS/DEVELOPMENTS: <sup>#8</sup>**

- Adani Ports and Logistics have developed/developing ports of Mundra, Dahej, Mormugao, Kattupilli, Vizag, Tuna, Hazira, Ennore, Dhamra and Vizhinjam. Mundra Port is the largest private port of India located on the north shores of the Gulf of Kutch near Mundra, Kutch district, Gujarat. The deep draft, all weather port is a major economic gateway that caters to the northern hinterland of India with multimodal connectivity. <sup>#9</sup>

- Diversified business conglomerate Shapoorji Pallonji Group, which has a controlling stake in Gopalpur port off the coast of south Odisha, envisions that port capacity will be 55 million tonnes (mt) by 2025. After taking over the port in 2017, Shapoorji Pallonji Group had undertaken an expansion project entailing an investment of Rs 2,000 crore to enhance the capacity to 20 million tonne. <sup>#10</sup>
- In November 2019, JSW Infrastructure commissioned a new iron ore terminal at the Paradip port in Odisha with a capacity to handle up to 18 million tonnes of cargo per annum.
- In November 2019, first ever movement of container cargo on Brahmaputra (National Waterway -2), focused on improving the connectivity to North Eastern Region (NER).
- In October 2019, Ease of Doing Business-Implementation of Radio Frequency Identification (RFID) based Port Access Control System (PACS) at Kolkata Dock System (KDS) was introduced.
- JSW Infrastructure enter into built, operate and transfer agreement with Paradip Port Trust at an investment of Rs 750 crore (US\$ 107.31 million) to operate Paradip port.
- In August 2019, India became the first country in the world to issue Biometric Seafarer Identity Document (BSID), capturing the facial bio-metric data of seafarers.
- Adani Port and Special Economic Zone (APSEZ) became the first Indian port operator to handle cargo movement of 200 million tonnes (MT) in 2018-19.
- Essar Ports will invest US\$ 70 million in Hazira port by 2020.
- In 2019, the previous Indian Minister for Shipping, Road Transport and Highways, Mr. Nitin Gadkari had announced a massive investment in India's ports and roads sector, which is likely to help boost the country's economy. The Indian government plans to develop 10 coastal economic regions as part of plans to revive the country's Sagarmala (string of ports) project.
- The zones would be converted into manufacturing hubs, supported by port modernization projects, and could span 300–500 km of the coastline. The government is also looking to develop the inland waterway sector as an alternative to road and rail routes to transport goods to the nation's ports and hopes to attract private investment in the sector.
- Ports sector in India has received a cumulative FDI of US\$ 1.64 billion between April 2000 and March 2019.
- Indian ports and shipping sector witnessed three M&A deals worth US\$ 29 million in 2017.

#### **4. GOVERNMENT INITIATIVES:**

Indian Government has already realized and understood the importance of the Maritime trade and its role for shaping the destiny of the nation. Hence it has come up with lot many projects to develop ports and inland/maritime trade. National Waterways as mentioned earlier are being developed for the effective and economical transportation of the goods from interior areas to the ports for exports and vice versa. Also the Sagar Mala Project is aimed for development of the ports along the peninsula.

In addition to the above, some of the major initiatives taken by the government to promote the ports sector in India are as follows: #8

- As of November 2019, a number of projects with total project cost of Rs 13,308.41 crore (US\$ 1.90 billion) have been awarded in the last three years on upgradation of the major ports.
- As of Union Budget 2019-20, the total allocation for the Ministry of Shipping is Rs 1,902.56 crore (US\$272.22 million).
- Net profit at major ports has increased from Rs 1,150 crore (US\$ 178.4 million) in FY13 to Rs 3,413 crore (US\$ 529.6 million) in FY18 while operating margin increased from 23 per cent to 44 per cent.
- In May 2018, Ministry of Shipping allowed foreign flagged ships to carry containers for transshipment.
- In March 2018, a revised Model Concession Agreement (MCA) was approved to make port projects more investor-friendly and make investment climate in the sector more attractive.

Shipping is one of the key beneficiaries in terms of percentage increase with their budgets increased by 18.2% increase over FY20 outlay. The spend on shipping and ports sector has increased marginally in absolute value terms compared to FY20. However, one of the crucial announcements in the Budget was regarding corporatizing at least one major port and listing on the stock market. Various Infra Structure Projects are announced in the Budget for development of port roads and facilities.

The capacity addition at ports is expected to grow at a CAGR of 5-6 per cent till 2022, thereby adding 275-325 MT of capacity.

Under the Sagarmala Program, the Government has envisioned a total of 189 projects for modernization of ports involving an investment of Rs 1.42 trillion (US\$ 22 billion) by the year 2035. India's cargo traffic handled by ports is expected to reach 1,695 million metric tonnes by 2021-22, according to a report of the National Transport Development Policy Committee.

Within the ports sector, projects worth an investment of US\$ 10 billion have been identified and will be awarded over the coming five years.

As per the present Shipping Minister Mr. Mansukh Mandaviya the government will put in place a comprehensive 'Port Grid and Port Development' plan in six months for 204 minor ports in the country to boost coastal shipping and inland waterways, and bring a Bill in Parliament to provide a fillip to major ports. #11

With these projects by the Government as well as private sector investments, India can regain its historical glory of the major exporter/importer through the maritime sector. These collaborated efforts will bear fruit only if executed as planned and without any unforeseen issues.

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Off Link Road, Malad West, Mumbai 400 064, India