

Indian shipping industry – an ocean of opportunities¹

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Introduction

Since independence, the Indian Shipping tonnage has registered a remarkable growth. The Indian merchant fleet strength stood at 1204 vessels with 10.31 million GRT as on end December 2014, representing 54 fold increases in GRT since independence. The outlay and expenditure on the shipping sector have consistently increased over the plan.

Also, there had been numerous attempts held by the governments along with other private and public sector firms to promote shipping in the country. In the subsequent years, there had been growth in developing countries in a varied level in order to improve their economy. Topping the list are most of the Asian countries.

The growth in international trade & the removal of trade barriers has made the developing countries to concentrate more on the improvement of their infrastructure, like roads, airports, seaports, which played a vital role in the development of the economy. All these things together with product storage and the capacity to move large shipments have placed the shipping industry in a very advantageous position. Eventually, various other aspects of shipping had been developed over years such as - Containerization, multi-modal transport services, advancement of marine engineering technology, and so on.

Some important features of the shipping industries are:

Cyclic: Shipping markets are generally cyclic in nature which extend over decades. With the growth in trade and subsequent shipbuilding bubble, more number of ships are added to the world fleet, inflating the fleet size. However, the demand doesn't rise at an equal pace. This created an imbalance. This was mainly because capacity expansion (addition of new ships to the world fleet) is a medium- to a long-term process involving years of funding that companies often are not able to reverse. This leads to a drop in charter rates which when goes down, it becomes difficult and more time consuming to meet the breakeven cost per vessel (consisting of OPEX +CAPEX). This leads to the scrapping of vessels which again balances the demand-supply gap. In the 1970s, the last shipbuilding bust period had a very similar resemblance to the bust seen lately in 2009 through the magnitude was different. The boom in the shipping tonnage addition was led by the demand for commodities by Japan and Europe in the 1960s. The demand push for Tankers was further amplified due to growth in oil imports by the US.

Highly capital intensive: Apart from the ship breaking business, other business segments in shipping mainly freight & shipbuilding are highly capital intensive. It requires huge investments & in turn has high gestation periods thus pushing break-even time to years. This capital-intensive nature of the shipping business acts as a barrier to entry & in a way protects those already in the business.

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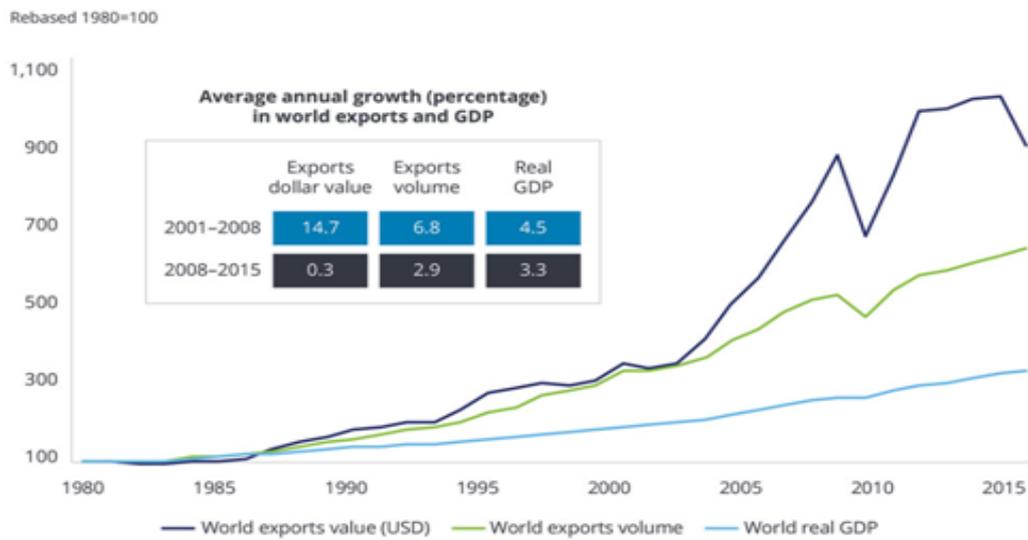


Figure 1: Growth in World export has slowed due to declining economic growth since 2008

Overview

Globally there had been an increase in the cargo movement around the world. World seaborne trade expanded by 2.6 percent, up from 1.8 percent in 2015, which is below the historical average of 3 percent recorded over the past four decades. Japan has been topping the list of countries controlling fleets in terms of dwt followed by Greece and Germany. India was ranked at the 17th position with more than 1200 ships and 17.5 million dwt, a share of 1.4% in terms of dwt.

Strong import demand in China. in 2016 continued to support world maritime seaborne trade, although overall growth was offset by limited expansion in the import demand of other developing regions. With the advent of the global economic slowdown in 2008, the shipping industry was highly impacted. Since the demand for ships/vessels is a derived demand for commodities, the slowdown affected the demand for ships/vessels during this period. This has been evident from the movement of Baltic Dry Index (BDI), which is essentially a daily weighted average of prices of shipping raw materials and is one of the leading indicators of global economic activity. BDI measures the demand to move raw materials, which indicates production, planning and industrial activity worldwide. BDI reflects the freight cost to transport dry bulk cargoes around the world, mainly raw materials such as iron ore, coal, and grains. The index excludes wet cargoes (such as crude oil carried by tankers) and container business (used mainly to carry manufactured products).

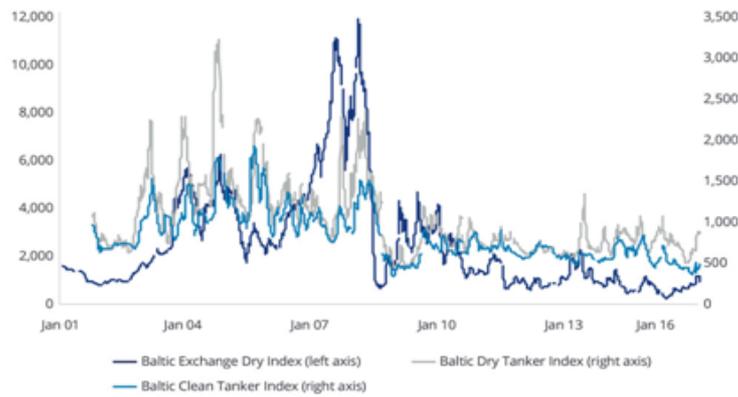


Figure 2: Baltic Dry Index (BDI) from 2001 to 2016

The slowdown in both value and volume of international trade has, in turn, impacted the price paid for shipping goods across continents. And despite a recovery in the past few months, the index is still about 90 percent below the peak of May 2008. Respective indices for tankers used for shipping crude oil and refined products show similar, albeit more moderate, trends.

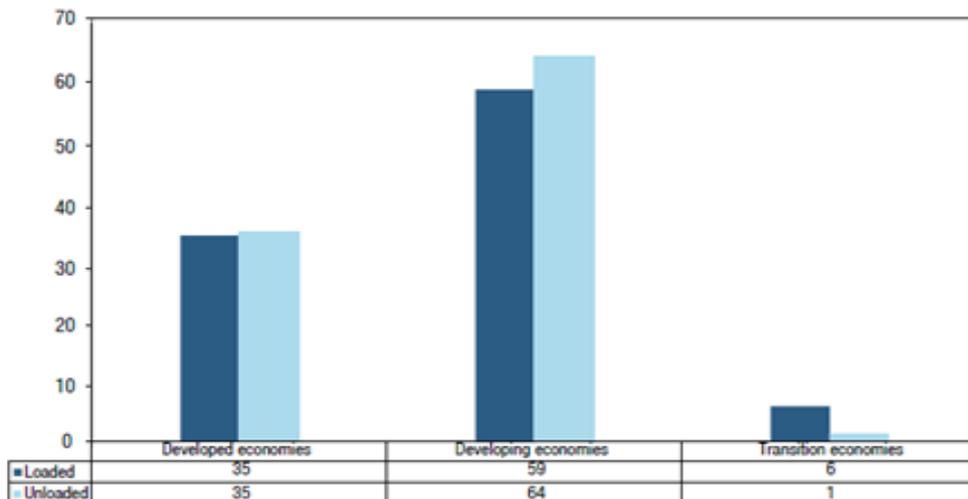


Figure 3: World seaborne trade by type of economy (2017 data)

With the advent of the global economic slowdown, despite the particularly weak import demand and limited exports in many economies, developing economies as a group continued to account for most of world seaborne cargo shipments in 2017. Developing economies accounted for 59 percent of world goods loaded (outbound/exports) as the demand for raw materials is more in developing nations.

Global scenario – some challenges

Revenues are at fall

As international trade slows and freight rates for transporting goods across the world's seas and oceans decline, shipping revenues have been hit. For example, AP Moller Maersk, the largest company in terms of capacity, has been witnessing weak revenue growth since 2010. In 2015, the company's revenues fell by 15.3 percent to \$40.3 billion, the lowest level since 2005. That slide continued into 2016 as well, with revenues declining 17.3 percent year over year in the first nine

months of the year. The slowdown in revenues, coupled with elevated levels of debt for many companies, has also raised questions of sustainability for a few shipping companies.

Arguably that can be done by looking little closely through international trade data for China—a manufacturing exports powerhouse and a big consumer of metals and minerals. For example, the value of exports of transportation equipment as well as machinery and electrical equipment from China slowed significantly during 2010–15 compared with the previous five-year period. This is most likely a result of slower economic growth in major markets such as Europe and the United States. The story is similar for two of China’s major imports: basic metals and mineral products. China and other fast-growing emerging markets such as India had played a key role in the sharp surge in commodity prices prior to the Great Recession and the relatively modest recovery during 2010–11. But, with China’s growth slowing from the double-digit figures witnessed in the previous decade, global metal and mineral demand has been hit, which, in turn, has impacted prices. For example, copper, zinc, and aluminum are trading much below their respective peaks of the last decade. Also, it is likely that shipping companies and the world’s major commodity producers may not experience the sharp price growth witnessed in the previous decade, as policymakers in China attempt to shift to a more sustainable, consumption-led growth model from an investment-driven one.

Rising capacity

The capacity increase always lagged behind the business cycle. Because of the cyclic nature of the shipping business, the capacity remains significantly higher. Moreover, despite a decline in commodity prices and freight rates in recent years, capacity expansion has continued, albeit at a slower pace. This is because capacity expansion is a medium- to a long-term process involving years of funding that companies often are not able to reverse. So even as freight rates have fallen since 2008, shipping capacity has kept growing, although the pace has slowed since 2011, when capacity increased 10.9%



Figure 4: Shipping Capacity growth has outpaced global trade volume growth

Fortune favors the tankers

Even though the crude prices hit an all-time low price, the tanker market was significantly better than the bulk market. This was owing to several reasons.

- Hydrocarbon demand from key emerging markets such as India and China had been strong, as car sales and power generation continue to expand in these economies. For example, in 2010, China replaced the United States as the world's largest automobile market. Between 2010 and 2015, crude import volumes went up 40.2 percent for China and 20.3 percent for India. Also, countries such as China and the United States took advantage of the sharp decline in oil prices in 2015 to increase their strategic reserves.
- Secondly, with the increase in demand for crude oil in Asia and a glut of shale oil in the United States, routes for tankers have turned longer. Crude from Latin America, for example, was earlier mostly destined for the United States. However, the situation has changed drastically in recent times. As Asian hunger for energy rises and the United States turns self-sufficient in oil, crude from Latin America and Africa is increasingly finding its way to Asia. Also, as the United States have started to export oil, Asia is likely to be a key market, ensuring a long route for tankers.
- Finally, as oil prices started declining from mid-2014 and producers kept pumping crude, companies started following a new strategy: keeping oil in tankers offshore at sea to be sold when prices go up.

Indian scenario

As far as the Indian subcontinent is concerned, shipping plays an important role in the transport sector of India's economy. Approximately, 95 percent of the country's trade by volume (70 percent in terms of value) is moved by sea. Indian Shipping Companies There are two geographical factors that put the Indian maritime sector at an advantageous position – the vast coastline of 7,500 km. With a coastline close to 7517 km and 12 major & 187 minor ports India happens to be a potential destination for shipping and transshipment in the futures to come. The classification of Indian ports into major, minor and intermediate has an administrative significance. As per the federal structure, and according to its constitution, maritime transport falls under the "concurrent list", to be administered by both the Central and the State governments. While the Central Shipping Ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states. The second being the strategic location along most major shipping highways.

Important trade routes

Crude and product imports from the Gulf, Malaysia, and Nigeria

India imports around 40 million tonnes of crude and 20 million tonnes of products every year, chiefly from the Gulf, Malaysia, and Nigeria. While Indian ship-owners have a considerable stake in this trade, liberalization, and relaxation of norms has allowed private-sector refineries to make their own shipping arrangements.

Iron ore exports from India to East Asia

India exports around 30 million tonnes of iron ore annually, 70 percent of which is directed toward Japan, China, and South Korea. Iron ore exports are predominantly made on an f.o.b. basis, implying lack of opportunity for Indian ship-owners. It should be noted that globally iron ore shipments are made in large Capesize and Panamax vessels. These vessels, however, constitute a small portion of the Indian fleet.

Coking coal imports from Australia to Visakhapatnam, Paradip, and Haldia

India imports around 10 million tonnes of coking coal, chiefly from Australia, by Handymax vessels for consumption by public sector steel majors like SAIL & RINL and Tata Steel. Indian ship-owners, led by SCI, have a share of 4 million tonnes.

Thermal coal from Haldia, Paradip, and Vizag to Chennai and Tuticorin

More than 14 million tonnes of thermal coal moves along the coast from Haldia, Paradip, and Visakhapatnam to Chennai and Tuticorin primarily to meet the fuel requirements of coal-fired power plants of the Tamil Nadu Electricity Board. The responsibility of making necessary shipping arrangements is borne by Poompuhar Shipping Corporation (PSC), a government of Tamil Nadu undertaking. The firm along with its three Handymaxes, hires around 10 vessels of similar size from Indian shipping companies like - Great Eastern, Tolani, Surrendra Overseas, Essar and Varun Shipping, on a one year time charter basis by way of open tender and in case of need, more vessels are also hired on a spot charter basis.

Iron ore from Visakhapatnam and Paradip to JNPT and minor ports in Gujarat

Around 3 million tonnes of iron ore move in Handymax vessels from the eastern ports to JNPT and Magdalla for shore-based steel plants of Ispat and Essar respectively.

Crude oil from Bombay to various major ports like Kandla, Cochin, and Chennai

Coastal movement of crude oil to the extent of 10 million tonnes while the above routes account for around 8 million tonnes. Crude originates from Bombay High oil fields of ONGC off Bombay and is chiefly bought by oil majors like IOC, HPCL, and BPCL for their shore-based refineries.

Fertilizer and fertilizer material

India had been an importer of 5 million tonnes of fertilizer and 3 million tonnes of rock phosphate and sulphur, chiefly in small size Handymax and Handysize vessels. Imports are made nearly at all the major ports of the country, of which, more than 60 percent of the imports are routed through the East India ports. Better infrastructure facilities at ports such as JNPT have led to prospects of future fertilizer imports being made in Panamax vessels to capitalize on economies of scale.

Containers

India exports and imports around 1 million TEU's each, mainly through Bombay, JNPT, and Chennai. USA, Western Europe, and East Asia are the chief destinations through transshipment ports of Dubai, Colombo, and Singapore. Only one Indian player, SCI, has a role in container shipping. However, most of the leading global container lines like NOL-APL, Maersk-Sealand and P&O-Nedlloyd offer services to Indian shippers.

Coastal shipping

Compared with global trade, coastal trade has remained quite stagnant and today accounts for around 40 million tonnes of cargo, chiefly comprising four bulk commodities viz. crude, products, thermal coal and iron ore. This is primarily because of the typical contours of our country which favors road-rail transport more than coastal shipping. This, added to lack of proper regulatory support to coastal ship-owners and lack of proper integration with road/ rail network has led to present scenario of low coastal trade volumes.

Cement

Cement is another important commodity moving between various minor ports, in smaller 2,500 - 4,000 dwt vessels. Gujarat Ambuja Cement was the first company to set-up bulk-handling facilities to transport cement by sea. Narmada Cement, which has been taken over by L&T, is also using coastal

shipping for transporting cement between ports in Western India. Other companies who have used coastal shipping for movement of cement include L&T, Saurashtra Cements, etc.

Activity wise Distribution of major Indian ports

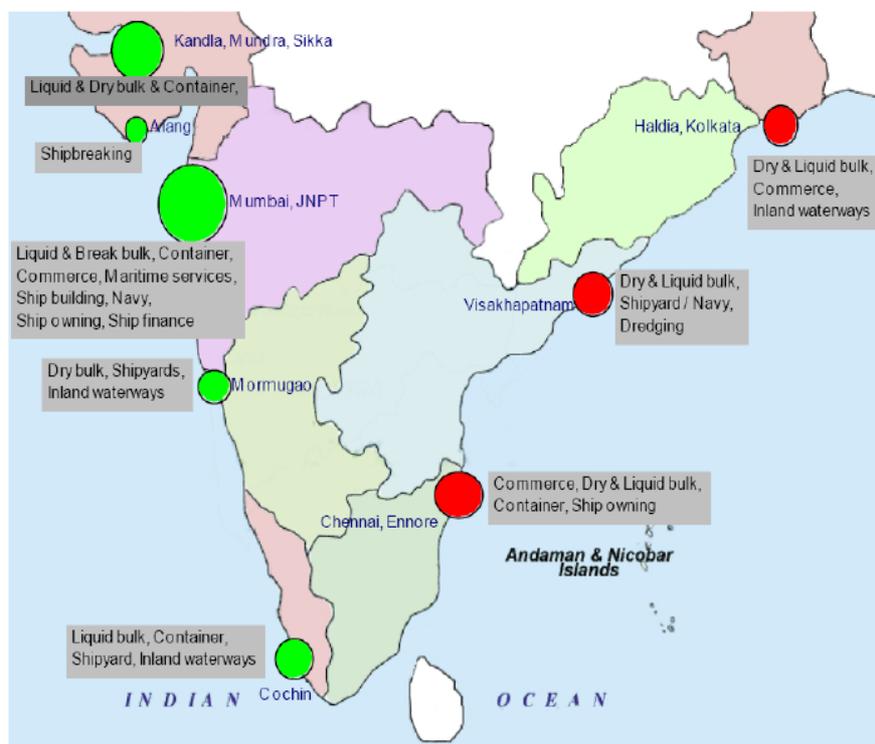


Figure 5: Activity-wise distribution of major Indian ports

Figure 5 shows some of the important ports and the cargo handled by respective ports. It shows that there exists a uniform distribution of cargo by type. However, cargo traffic in the west coast ports is significantly more than the east coast. This is mainly because most of the industries are located in the northern and western region which are geographically closer to the western ports of the country.

Challenges faced by the shipping industry and strategies to overcome

Onerous Tax Regime

The shipping industry is facing significant tax burden such as minimum alternate tax, dividend distribution tax, withholding tax liability on interest paid to foreign lenders & on charter hire charges paid to foreign ship owners, and so on which is ultimately squeezing the bottom line/profit margin further.

The multiplicity of Regulations – costly affair

The shipping industry is regulated by IMO. There are also international regulations on operations of ships, such as International Convention for the Safety of Life at Sea, International Convention for the Prevention of Pollution from Ships, Convention on the International Regulations for Preventing Collisions at Sea, International Convention on Loadlines, International Ship and Port Facility Security Code, and International Safety Management Code. There are also international regulations for seafarers, such as the International Convention on Standards of Training, Certification, and Watch-keeping for Seafarers, and ILO Merchant Shipping Convention. Even though such regulatory framework makes stricter entry barriers into the industry, it adds cost to the compliance of such regulations.

Declining Share of Indian Shipping Tonnage in India's Overseas Trade

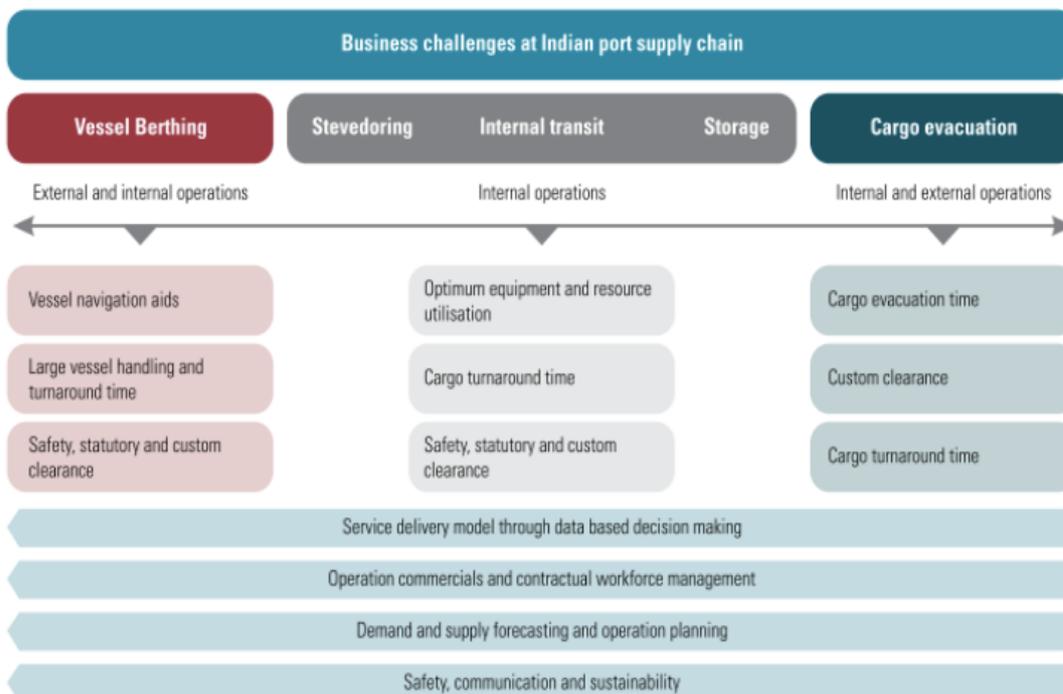
There had been significant decline in the share of Indian Shipping Tonnage because of various problems such as - high transportation costs, port delays, poor turnaround time of coastal ships on account of over-aged vessels, and inadequate mechanical handling, which are ultimately deterring many new players or existing players to add new ships to the Indian fleet.

Manpower Shortage

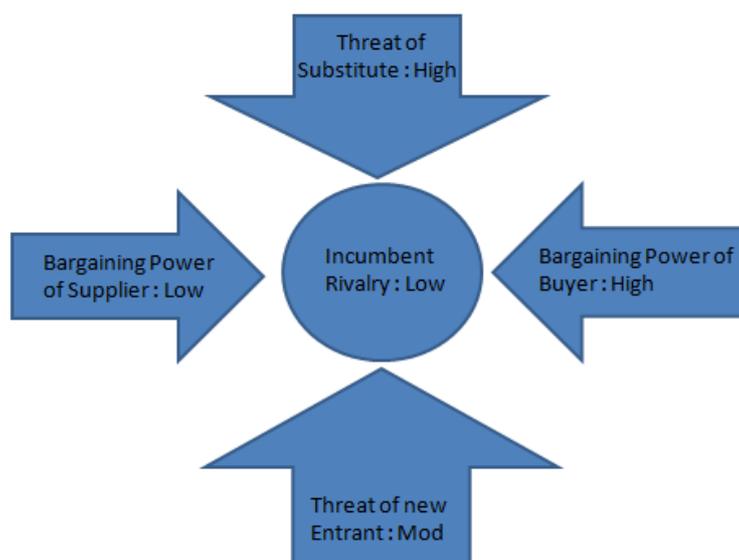
One of the major problems faced by the shipping industry is the shortage of manpower. India is not able to provide an adequate number of seafarers to man Indian flag vessels. This is mainly because not enough young people seem to find seafaring an attractive and appealing career with many of the officers preferring to sail onboard foreign flag vessels owing to favorable taxation policies.

Supply Chain Challenge

These businesses/markets are linked by cash flow and form an inevitable part of the value chain of the shipping industry as a whole.



Analysis of the Indian shipping industry: Porter's 5 force Analysis



Market segmentation :

The shipping industry is not limited to only transportation, it also entails other related industry as well. The shipping industry can be classified into the following segments based on their business function. Though there are many companies which operate in more than one segment.

Shipbuilding industry

The Indian shipbuilding industry currently accounts for a mere 1% of the global shipbuilding market. At present India has 27 shipyards of which 19 belong to the private sector. The current cumulative shipbuilding capacity of Indian shipyards is around 0.5 million deadweight tonnage. The major players in this market are private players such as ABG shipyard and Bharti shipyard along government controlled Hindustan shipyard and Cochin Shipyard. Together these four account for more than 70 percent of the market share. Of late a lot of companies from the infrastructure segment are showing an interest in this industry like L&T, TATA Steel and some other carrier companies like Mercator Lines and Apeejay shipping.

Shipping transport industry/Freight or Cargo Industry

At present, there are 235 shipping companies in India in which the shipping corporation of India is the largest accounting for about 33% of the total tonnage. India has one of the largest merchant shipping fleets with about 997 vessels and is ranked 17th in the world. Most Indian shipping companies ply on

Indian shipping routes only to meet Indian export and import demands; however, a few companies like GE shipping also do business on global routes.

Ship - breaking industry

The Indian shipbreaking industry has a global market share of 25 percent. Alang in Gujarat is one of the world's largest shipbreaking yards. The Andhra Pradesh authorities gave conditional approval to a mega shipbreaking project on Vodarevu beach. The other ship-breaking yards are in Pipavav and Bombay. The ship breaking industry is located in India because of the availability of cheap labor and also a lax government attitude towards stringent regulation of environmental laws.

Ports

India has 13 major ports and about 200 non-major ports covering an extensive coastline of 7517 Km. the port sector has witnessed a substantial growth in cargo traffic leading to utilization levels of almost 94%. Taking this into account government has called for capacity expansion projects on a PPP basis with the private players. The major revenue stream is port charges. Recently, ports have started collecting congestion charges due to over congestion at the ports. Revenues also come from sources like demurrage collection, port handling activities, storage of containers, providing Depot services, etc. In order to improve efficiency productivity and quality of services as well as to bring in competitiveness in port services, the port sector has been thrown open to private sector participation. The Major Port Trust Act, 1963 permits private sector participation in major ports invites Foreign Direct Investment (FDI) up to 100%

Offshore industry

The offshore industry comprises of support services to the exploration and production (E&P) activity of oil and gas in offshore areas. The industry includes a wide array of activities ranging from drilling rigs, marine construction, port support/terminal services to development of oil field and production of support facilities.

Others

Ship sale & purchase, ship engineering & manning personal are also a part of the shipping industry.

Ports

Historically, ports along the west coast have dominated the cargo traffic due to their proximity to India's major consumption centers and the industrial belt in North – West India. China's emergence as India's leading trade partner, India's ' Look East' Policy and overcapacity at the west coast ports provide the east coast ports the opportunity to develop.

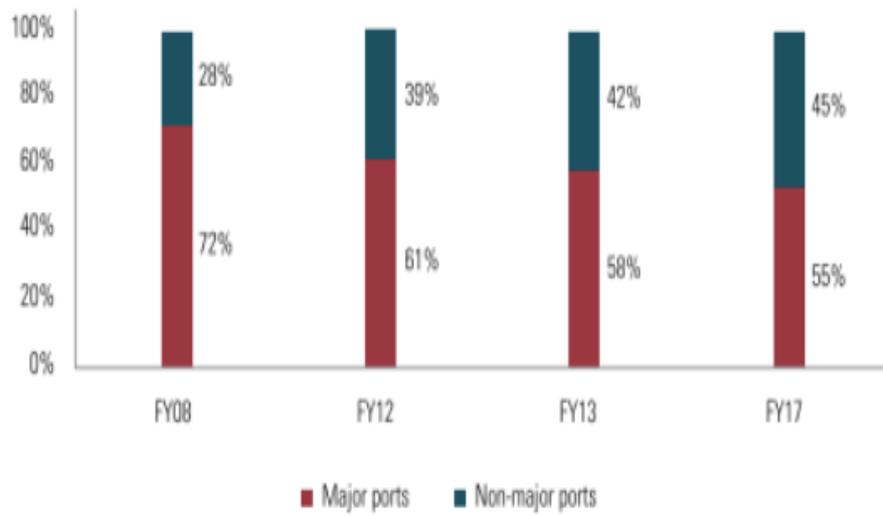


Figure 6: Trade share of major and non-major ports

Inland waterways



Market Share of inland water transport cargo traffic to the logistics:

- India : 0.5%

- China: 8.7%
- Europe: 7 %

Navigable inland waterways: 14500kms

- Major rivers: 5200 km
- Canals: 485 km

5 National Waterways (NWs) - 4,400km

- The Ganges
- The Brahmaputra rivers
- The West Coast Canal
- The Godavari and Krishna rivers
- The East Coast Canal

Apart from the above, there are numerous developments taking place in terms of container freight stations (CFS) and inland container depots (ICD). This phenomenon is largely unique to India which plays a pivotal role in decongesting container traffic at ports, thereby adding value to container trade and also enhancing the operational capacity of the ports

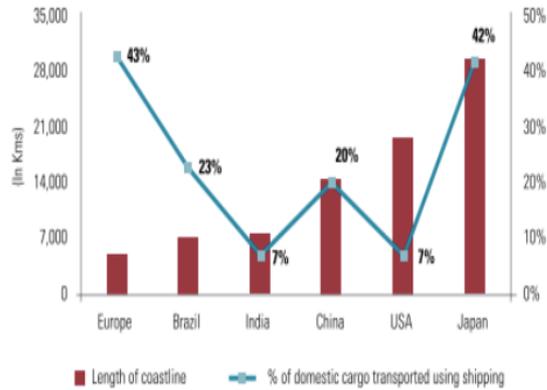
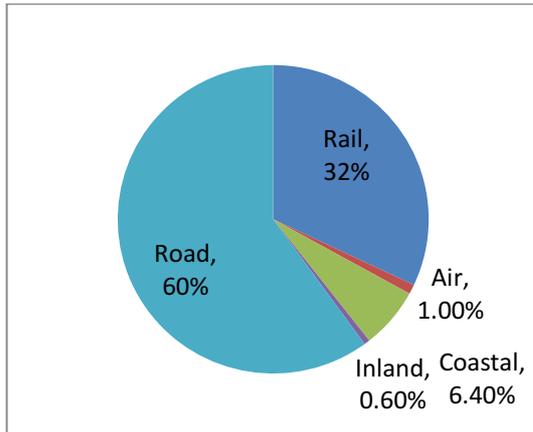
Coastal shipping

Coastal Shipping market share by volume

- Untapped
- Underutilized
- High Growth Potential

Coastal Shipping is highly relevant in India since the country has a long peninsular coastline. Government Initiatives to promote coastal shipping. In recent years the rising delays and costs due to high road and rail congestion have been driving companies to consider coastal shipping to transport their goods. It is significantly underutilized when compared with other emerging and developed countries.

At 6.4 percent, the share of coastal shipping in India in overall cargo movement is low compared to that of the United States, some European and Asian countries. This can be largely attributed to insufficient infrastructure and the absence of favorable policies in India, which are the driving force in developed countries. The water transportation is largely untapped and underutilized despite the high growth potential. The recent shift that has been undertaken by policymakers is mainly towards developing the infrastructure of the segment, routes, capacity addition by port operators, and shipping lines and incentives for shippers and the ship owners. The Ministry of Shipping can foster the growth of the coastal shipping segment by reducing port duties and developing the coastal-specific non-major ports and supporting infrastructure.



Advantages: of Coastal Shipping

- Economical
- Low fuel consumption per ton
- Environment-Friendly
- Low Fatality Rate

Government initiatives

The government has dictated a host of initiatives aimed at developing and sustaining the growth of the sector. As part of the governments push to enhance investment in the sector, a host of business-friendly policies have been introduced. These range from modernizing existing port infrastructure and creating new ones, to promoting green energy, IT development and most importantly skilling the talent to sustain the operation of the structure.

Some of the major initiatives taken by the government to promote shipping in India are as follows:

- The Sagarmala (string of ports) project, is a strategic and customer-oriented ₹8 trillion (US\$120 billion or €100 billion) investment initiative of the Government of India entailing setting up of 6+ mega ports, modernization of several dozen more ports, development of 14+ Coastal Economic Zones and at least 29 Coastal Economic Units, development of mines, industrial corridors, rail, road and airport linkages with these water ports. 'Sagarmala- Concept and Implementation' were approved by the Union Cabinet on March 25, 2015 under a National Perspective Plan (NPP) for the Sagarmala Programme.
- Development of Karwar port, for infrastructure development under the Coastal Berth Scheme of the Sagarmala programme. The scheme aims to provide financial support to ports or state governments for the creation of infrastructure for the movement of cargo and passenger by sea or national waterways. Karwar Port is situated between New Mangalore Port and Mormugao Port. It is acclaimed as one of the best natural all weather ports on the west coast and provides all-weather berthing facilities for ocean-going vessels. The expansion at both the ports will result in increased shipping activity, employment generation and overall improvement in the socio-economic condition. The project at Karwar Port in Karnataka involves the extension of the existing Southern breakwater by 145 meters and construction of a new North breakwater of 1160 meters. The estimated cost of the project is Rs. 215.00 crores and it is expected to be complete in three years.

- Jal Marg Vikas Project: The Project entails development of fairway with 3 meters depth between Varanasi and Haldia (Phase-I) covering a distance of 1380 km at an estimated cost of Rs. 5369 crore with a target for completion in six years to provide an environmentally friendly, fuel efficient and cost-effective alternative mode of transportation, especially for bulk goods, hazardous goods, captive cargo and over dimensional cargo.

E-governance initiatives: The following services have now been made online –

Registration of ships, application, processing, and issuance of chartering permission, Issue of the registration certificate to transport operators. The e – platform is also helpful for candidates for application and seat booking for written and oral examinations, application and processing of Continuous Discharge Certificates (CDCs), renewal and replacement/duplicate CDCs, application processing and issuance of Certificate of Competencies (CoCs), dangerous cargo, GMDSS, Cookery certificates.

Recent developments

The government has recently approved incentives to promote the domestic shipbuilding industry. These include (i) financial assistance to domestic shipyards for any vessel built by them subsequent to its delivery and (ii) relaxation of eligibility criteria for procurements or repair of vessels done by Government departments or agencies including PSUs for government purpose or for their own purpose to grant Right of First Refusal to domestic shipyards.

Special Purpose Vehicle to provide efficient last mile rail connectivity to Major Ports

An SPV, to provide efficient last mile rail connectivity to Major Ports, with equity from 11 Major Ports and Rail Vikas Nigam has been incorporated under the Companies Act. This SPV ‘The Indian Port Rail Corporation Limited’ started functioning from July 2015 and since then has taken up 23 projects which are critical for last mile rail connectivity to the Major Ports.

Developing 78 lighthouses as tourism centers

The Ministry of Shipping, along with the Directorate General of Lighthouses and Lightships (DGLL) has drawn up an ambitious programme to develop 78 lighthouses in the country as centers of tourism in the first phase under Public Private Partnership (PPP). India’s travel and tourism sector ranks 7th in the world in terms of its total contribution to the country’s GDP. the travel and tourism sector generated Rs 14.1 trillion (USD208.9 billion) in 2016, which is world’s 7th largest in terms of absolute size; the sum is equivalent to 9.6% of India’s GDP. Hence, any investments in this sector will surely help in boosting India’s GDP by promoting tourism in the country.

Corporate Developments

- Shreyas Shipping and Logistics signed an initial agreement with Yokohama-based Suzue Corporation of Japan to form a joint venture for exploring business opportunities in the logistics space in the Indian sub-continent and Japan.
- The state-run Shipping Corporation of India (SCI) is expected to purchase five vessels from the state-owned Cochin Shipyard. It is also likely to issue tenders to buy two used liquefied petroleum gas (LPG) carriers as it looks to re-start ship purchases that were frozen after the poor financial performance.
- Great Eastern Shipping has decided to voluntarily strike off the name of its subsidiary GESCO London from the Companies Register in the UK. The entity would cease to exist officially once its name is struck off from the Register. Currently, the entity does not conduct any business activities.

- Adani Ports & SEZ has sought government's approval for clubbing its three notified special economic zones (SEZs) in Gujarat to form a mega multi-product export zone spanning over the 8,500-hectare area.
- The ministry also urged the government to cut logistics cost in the country and streamline the taxation structure, including the implementation of the crucial goods & services tax (GST) in the upcoming budget, to give a much-needed boost to the shipping industry.
- The government recently introduced the Major Ports Bill to provide greater autonomy to port boards so that decision-making is quick and transparent.
- It has finally granted infrastructure status to shipyards. This will enable shipbuilders to avail cheaper long-term financing for Indian shipbuilding and ship repair industry.
- A Foreign Direct Investment of up to 100 percent and an augmented shipbuilding and ship repair policy will provide huge investment opportunities.
- A 70 percent abatement of service tax on coastal shipping brings the fares at par with road and rail. Additionally, central excise duty has been exempted on capital goods, raw materials, and spares used for repair of ocean-going vessels.
- 'Project Green Ports' focuses on sustained growth from an environmental perspective. It aims to install 160.64 megawatts of solar and wind-based power systems at all the major ports across the country.

The government has also signed several MoUs with countries such as Korea and Egypt for cooperation in the development of ports, sharing of technology, manpower training and stimulating the steady growth of maritime traffic. These initiatives clearly show the priority the government has given to the maritime sector and the expectation that it will be a key driver of the Make in India programme.

Road Ahead

Even though there had been numerous initiatives taken by the government, there are few more things that we should look up to so as to foster and accelerate the progress.

Speedy modernization/improvement of infrastructure

An efficient intermodal system is vital to the success of a port as it supports the seamless movement of cargo across all modes - ship, rail, and truck. In fact, a government report says that due to poor port infrastructure and productivity, India's trans-shipment cargo is handled at South Asian hubs like Colombo or Singapore, which costs Indian ports around USD 230 million in revenue annually.

Pursuing 'Make in India'

The 'Make in India' initiative offers tremendous opportunities in the maritime sector, particularly in the shipbuilding and ship repair industry. The government's shipbuilding policy provides a boost by encouraging Indian shipyards to bag foreign orders in a more aggressive manner and meet the requirements of Indian ship-owners. A cost-effective & skilled manpower base, established steel industry, technology know-how and an increased demand in domestic shipbuilding could enhance India's global shipbuilding share from one percent to five percent by 2020. The Indian Navy too is giving a strong push to the Make in India initiative as it strives for self-reliance in the production of warships. A plan to manufacture LNG vessels at the Cochin Shipyard has also been approved. Other Indian shipyards have developed investment plans and accessed capital markets to play an increasing role under the Make in India programme.

Partnerships with successful maritime countries for technology and manpower

The Indian maritime sector needs to be constantly on the lookout for technologies and advancements that help save cost and deliver more for less. A major way could be through partnerships and collaborations with successful maritime clusters especially in areas of ship design, automation, and technology. Such collaborations can improve efficiency and enhance competitiveness. Also in view of the recent regulations to control emissions from ships set by the International Maritime Organization, there will be a growing need to collaborate for environment-friendly technology & solutions, such as LNG powered vessels.

The other key area that could benefit from partnerships and technological assistance of maritime countries will be training & development of manpower to bring the frontline workforce up to speed on world-class manufacturing techniques and processes. The academia can also look at establishing university partnerships to encourage innovation, knowledge sharing, and transfer.

Active development of maritime clusters

Clusters induce innovations, create employment opportunities, attract foreign investors and also spark new ideas. Shipbuilding clusters and maritime parks are some of the concepts practiced in top maritime nations. The government has identified two major maritime clusters in Tamil Nadu & Gujarat similar to the global success stories in Japan and South Korea. These clusters will focus on developing various components of the maritime cluster like shipbuilding & ancillary services, maritime services, promoting maritime tourism and marine products. Given the manufacturing strength, size of the ports and synergies with other steel ancillaries, both the identified locations for maritime clusters can attract business and improve the overall economics for the cluster participants.

We should foster cluster development and encourage ancillary industries and more indigenous components. Clusters will also encourage public-private partnerships and will be a key enabler in attracting new technology, fostering strategic alliances and boosting investments.

Conclusion - A promising future

Given the present scenario, India appears to be among the major economies in the world. India will require a vibrant and strong maritime industry for economic & strategic reasons. There are many factors conducive to the development of a robust and sustainable maritime sector. Finally, it will depend on how the different stakeholders utilize the opportunities presented to them to transform the sector into an engine of growth for India. Therefore it can be convincingly concluded that India is on the cusp of major maritime revolution which will play out over the next couple of years.

References :

1. Indian Ports Association
2. KPMG Consulting reports
3. Delloite Consulting reports on ports and infrastructure
4. Marine Economics by Stopford
5. NTDPC research journal
6. Ministry of Shipping, Government of India www.shipping.nic.in
7. Indian Ports Association, <http://ipa.nic.in>

8. Special Economic Zones in India, Government of India,<http://sezindia.nic.in>
9. Directorate General of Shipping, <http://www.dgshipping.com>
10. Legislative Department, India Code, <http://indiacode.nic.in>
11. Income Tax Department, Government of India,<http://www.incometaxindia.gov.in>
12. UNNATI report.