Shipbuilding, Ship Repair and Ship Breaking
Sector Profile
The Indian Shipbuilding and Ship Repair industry primarily comprises firms that design, build and repair ships for the shipping industry, offshore industry, fishing industry, naval defence and extraction of ocean resources. A growing Indian economy, favorable government policies and incentives, a long coastline and growing sea borne trade present a huge investment opportunity within the Indian Shipbuilding and Ship Repair industry. Bulk carriers (within large sea going vessels segment) and offshore vessels (within medium size specialized vessels segment) are a major share of the current order book of the major Indian shipbuilding companies. The growth drivers for this sector include, low labor cost, availability of a skilled workforce, robust domestic demand and a growing steel industry in the country. India is the world leader in Ship Breaking and Recycling and accounted for about 28% of the total ship demolitions, in terms of tonnage in 2017.

1.1. Introduction

The Indian Shipbuilding, Ship Repair and Ship Recycling industry plays a very important role in the Maritime Sector of the country. This industry is key to bringing about economic prosperity for the large number of people living in the coastal regions of the country by providing employment, increasing maritime trade and helping promote ancillary industries, such as steel, light engineering etc.

Figure 1: Factors driving the growth of the shipbuilding and repair industry in India

- **Ageing Fleet**: 41% of ships are over 20 years of age and this presents opportunities for India’s shipbuilding sector/Considering that the average life of a shipping vessel is about 26 years, most of the existing vessels need to be replaced.
- **Long Coastline**: India enjoys a long coastline of more than 7,500 km with several deep water ports serving as good locations for setting up shipyards. This further facilitates growth of Indian shipbuilding industry.
- **Growing Demand from Indian Navy**: The Indian Navy usually gives orders to Indian shipyards based on national interests. This also acts in favor of the Indian shipbuilding industry and helps drive growth.
- **Growing Cargo Traffic at Indian Ports**: The cargo handled by ports increased 8% in 2014-15 as compared with 4% in the previous year, with major ports handling 381.3 million tonnes of cargo in 2014-15, an increase of 4.80% from 2013-14.
- **Increasing Demand for Oil & Gas**: Petroleum, Oil and Lubricants (POL) contribute 40% to the total cargo handled at Indian major ports. Indian natural gas demand is expected to more than double, from 342.6 million cubic meters/day in FY 13 to 516.3 cubic meters/day by FY22. An increase in imports will boost demand for ships in India.

Figure 2: Strategic Importance of the Shipbuilding and Ship Repair Industry

Besides economic progress, the Indian Shipbuilding industry is also critical to sustained national security.

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1.2. **Shipbuilding**

In India, private players hold the majority of the shipbuilding capacity. Three public sector entities (Cochin Shipyard, Goa Shipyard Limited and Hindustan Shipyard) have the required infrastructure and capacity to build large vessels. Below is a snapshot of shipbuilding capacity and current order book of the eight largest shipbuilding companies in India.

<table>
<thead>
<tr>
<th>Company</th>
<th>CSL</th>
<th>HSL</th>
<th>AAL</th>
<th>GSL</th>
<th>ABGS</th>
<th>BDIL</th>
<th>TSL</th>
<th>CHL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DWT in '000 Tonnes</td>
<td>120</td>
<td>80</td>
<td>60</td>
<td>40</td>
<td>140</td>
<td>60</td>
<td>40</td>
<td>20</td>
</tr>
</tbody>
</table>

Source: Ministry of Shipping

**Figure 3: Company-Wise Shipbuilding Capacity Dead Weight Tonnage (DWT) (In Thousands) (As on 31st March 2017)**

<table>
<thead>
<tr>
<th>Company</th>
<th>CSL</th>
<th>HSL</th>
<th>AAL</th>
<th>GSL</th>
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<th>BDIL</th>
<th>TSL</th>
<th>CHL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Ships</td>
<td>15</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>30</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
</tbody>
</table>

**Figure 4: Company-Wise Total Ship Order Book Dead Weight Tonnage (DWT) (In Thousands), Number of Ships (As on 31st March 2017)**
As on 31 March 2015, Indian Shipyards had an order book of 284 vessels with a DWT of 2668.77 thousand.³

1.3. Ship Repair³

In India, Ship Repair facilities are available at Shipbuilding yards, as well as at Major Ports. There are 34 dry docks for Ship Repair in India, across the public and private sectors include the 12 dry docks operated by eight Major Ports. India’s strategic location on the international trade route, offers huge Ship Repair and maintenance services opportunity to ships traveling on both the Eastbound and Westbound trade route. Below is a snapshot of Ship Repair capacity and number of ships repaired by seven Major public and private sector shipyards.

![Ship Repair Capacity (In '000 DWT) (As on 31st March 2017)](chart)

Source: Ministry of Shipping


In 2016-17 total 282 ships were repaired out of which 126 ships were repaired by private sector shipyards and 156 ships were repaired by public sector shipyards against 446 in 2015-16.⁴

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³ Transport Research, Ministry of Shipping

*Note - Name of Pipavav Defence and Offshore Engineering Company Ltd. is now Reliance Defence Engineering Ltd. with effect from March 3, 2016.

⁴ Transport Research; Ministry of Shipping

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1.4. Ship Breaking and Recycling

Ship Breaking or demolition helps replace the old fleet which is less fuel efficient and encourages the modernization of the fleet and in turn helps preserve the environment. As per the UNCTAD Maritime Transport Review 2017, India, China, Bangladesh and Pakistan accounted for 94% of the demolition in terms of Gross Tonnage (GT). The following graph depicts the market share of the leading countries in the Ship Breaking industry.

**Figure 12: Market share of leading countries in Ship Breaking (In ’000 GT)**

Source: UNCTAD Marine Transport Review 2018

Bulk Carriers, Container Ships and Oil Tankers account for more than 80% of the Ship Breaking Gross Tonnage. Ship-Breaking nations have different specializations – Container Ships are demolished in India, while Bangladesh and China demolish dry bulk carriers and Pakistan mostly oil tankers.

The AlangSosiya Ship Breaking and Recycling Yard located in Gujarat is the one of the largest Ship Recycling Yards in the world. This yard was developed by the Gujarat Maritime Board in 1982 and has the capacity to recycle about 450 ships per year generating more than 4.5 million tones of re-rollable steel per annum. There are 167 plots available for Ship Recycling spread over a 10 km stretch along the coast of Alang.

**Key Government Policies and Initiatives**

The Government of India has a strong focus on the Shipbuilding, Ship Repair and Ship Recycling industries. Some of the key policies instituted by the Union Government are as follows:

1.5. Shipbuilding

- **Financial assistance policy for local shipbuilders:** The Government of India has introduced a Rs. 4000 Crores (US $ 600 Million) financial assistance policy for 10 years to encourage domestic shipbuilding.
- **Exemption on Customs and Central Excise Duty:** The Government of India has given an exemption from Customs and Central Excise duties on inputs used in Shipbuilding.
- **Infrastructure status:** The Union Government has granted infrastructure status to the Shipbuilding industry.

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5 Gujarat Maritime Board
• **100% FDI in Shipbuilding**: The Government of India permits 100% Foreign Direct Investment in shipbuilding.

• **Revision of domestic eligibility criteria**: The Government has revised the domestic eligibility criteria to ensure that all government departments or agencies procuring vessels for governmental purposes or for own purposes shall undertake bulk tendering for their vessel related requirements with deliveries starting from 2016-17 and will grant a Right of First Refusal (RoFR) for Indian Shipyards for such order till 2025.

• **Simplification of procedure to avail Customs and Central Excise duty exemption on procurement of goods for Shipbuilding and Ship Repair**: The procedure for procuring goods at concessional/NIL rate of Central Excise and Customs duty for the Ship Building and Ship Repair has been considerably streamlined.

### 1.6. Ship Repair

• Service tax exemption has been granted by the Central Government in July, 2014 for repair of foreign going vessels by Indian shipyards to reduce operational costs of Ship Repair Units (SRUs).

• Elimination of registration requirement of Ship Repair Units (SRUs) with Directorate General (Shipping) as part of efforts to improve ease of doing business.

• Reduction of Central Excise duty on capital goods, raw materials and spares used for repair of ocean going vessels. This would reduce the material cost used for repair of the ocean going vessels by 4%, if domestically procured.

### 1.7. Ship Breaking & Recycling

• Modernization of AlangSosia Ship Breaking Yard: The AlangSosia Ship Breaking Yard located on the Western Coast of Gulf of Cambay in Gujarat is considered to be the largest Ship Breaking and Recycling Yard in the world. This facility is being upgraded to meet the international standards of environmental safety that forms part of the Ship Breaking Code 2013 of the Government of India.

**Potential and Opportunities in Indian Shipbuilding, Ship Repair and Ship Recycling Sector:**

India is among the top 20 maritime countries with a total fleet strength of 1,246 ships and Gross Registered Tonnage (GRT) of 10.51 million as of December 2015. The Shipbuilding, Ship Repair and Ship Recycling industry has tremendous potential for growth and the key growth drivers for the industry are, low cost of labor as compared to other leading Shipbuilding Maritime nations, demand from the Indian Navy, increasing cargo traffic at Indian Ports, increase in import of POL and Coal and an ageing fleet.

**Shipbuilding**

1. Although over 95% of India’s foreign trade in terms of volume and 70% in terms of value takes place through the sea mode, predominantly all vessels owned by Indian companies are foreign-built. This provides a significant opportunity for indigenous shipbuilding companies to expand their capacity and presents considerable scope for government and other companies to invest in the Indian Shipbuilding and Ship Repair industry.

2. Petroleum, Oil and Lubricants (POL) and Coal account for about 60% of the total traffic at Indian Ports. A booming Indian economy and a growing population are expected to drive the demand for Oil & Gas and

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6 [http://mospi.nic.in/sites/default/files/statistical_year_book_india_2015/Table%2022.1_0.xlsx](http://mospi.nic.in/sites/default/files/statistical_year_book_india_2015/Table%2022.1_0.xlsx)
imported coal in the near future. India's crude oil import expected to increase by ~90MMTPA by 2024-25 driven by refinery capacity expansion of HPCL, IOCL & other petroleum companies and higher fuel demand in the economy.

3. India's imports of LNG have grown 12% over last decade. The momentum is expected to be sustained with 5-7% YoY growth driven by power and fertilizer industries. 43 LNG projects with capacity of ~300 MTPA is under construction. This will create demand for ~250-300 new vessels.

4. There has been a steady increase in the cargo traffic handled at the Indian Ports, which registered an 8% increase in 2014-15 as compared to 4% in the previous year. The increase in cargo traffic at Indian Ports will translate into a corresponding increase in new orders for Indian Shipyards.

5. The Indian Navy is expected to play an important role in driving the growth of Shipbuilding in India. In order to safeguard India's long coastline, the navy continuously keeps upgrading its fleet and relies on Indian Shipyards to fulfill its requirements. Indian Navy needs to acquire nearly 100 vessels by 2025.

6. Indian ship operators would need to replace the ageing fleet of vessels in the coming 5-10 years. At present, more than 50% of Indian vessels are > 15 years in age; this accounts to approximately 4.4 Mn GT of vessel capacity.

**Figure 14: Percentage of ageing fleet of Indian vessels**

![Age of vessel vs % of total # of Indian vessels](image)

Source: Ministry of Shipping

**Ship Repair**

1. India’s strategic position on the Eastbound and Westbound international trade route offers an excellent advantage to the Indian Ship Repair industry. India has the potential to serve vessels plying in either direction (East-West and West-East)

2. India has a long coastline of more than 7,500 km in length with a number of all-weather ports that are naturally protected and at strategic locations on the international trade route. This makes it easier for container ships to access ship repair facilities in India.

**Figure 15: Major shipping routes in the world**

((Yellow) => Busiest routes in the world)
3. There exists an opportunity to create infrastructure for the repair of large ships in India and attract business that is currently going to international yards. This untapped potential could be targeted by existing as well as new entrants in the Indian Ship Repair sector.

4. The Indian Shipyards can realize this potential if the economics of the Ship Repair business matches or exceeds that of the competition. The Government of India has taken several investor friendly steps in order to make Indian Shipyards more competitive globally, like service tax exemption, elimination of the registration requirement for the Ship Repair Units and so on.

5. The growing Indian economy is likely to create demand for new vessels, leading to an increase in Shipbuilding capacity, growth of ancillary businesses and generation of additional employment over the years.