Indian Ports & Maritime Industry at a glance
Snapshot of Ports in India

### Major Ports in India
- Kandla
- Mumbai
- Jawaharlal Nehru Port
- Marmagoa
- New Mangalore
- Cochin
- Tuticorin
- Chennai
- Vishakhapatnam
- Kolkata
- Ennore
- Paradip

### Key Points
- **7517 Km long coastline. 13 Major Ports; More than 200 Non Major Ports, Jetties and Harbors**
- Indian ports currently have capacity of 1359 MMTPA, expected to reach 3130 MMTPA by 2020
- Total investment in Indian ports by 2020 is expected to reach US$ 43.03 billion
- Major cargo handled: Iron ore, Coal, Fertilizer, POL (Petroleum, Oils and Lubricants) and Containers

### Policy framework and Incentives
- Major Port Trust Act, 1963
- National Maritime Agenda 2010 – 2020
- FDI of up to 100% allowed under the automatic route for projects related to the construction and maintenance of ports and harbors
- Model Concession Agreements, Tax Holidays, Monopoly Prevention
- Sagarmala Initiative

**MMTPA – Million Metric Tonnes Per Annum**

**MMT – Million Metric Tonnes**
Traffic Growth and Highlights

- Seaborne traffic of India CAGR of 5.7% in last ten years
- Traffic growth from 650 MMT in 2006-07 to 1132 MMT in 2016-17
- ~57% Indian traffic handled by major ports (647 MMT) and ~43% handled by non-major ports (485 MMT) in 2016-17
- Dry cargo contributes to major share of traffic handled
- Ports and maritime sector has received cumulative FDI of USD 1.64 billion (~INR 10660 Crores) between April 2000 and March 2018

Source: Ministry of Shipping, Economic Intelligence Unit, Indian Ports Association, CRISIL Research, IBEF, DIPP
India’s Maritime Crown Jewel

- Strategically located with India’s longest coastline of **1600 km**
- Nearest maritime outlet to Middle East, Africa and Europe for India
- Dotted with **49 ports** which includes 1 major port and 48 non-major ports
- State with highest number of operational ports and commercial cargo ports
- 1st state in India to invite **Private sector participation in the port sector**
- 1st **private port** of India – Pipavav
- Port with the highest **throughput** – Mundra
- Home to the 1st two operational **LNG Terminals** – Dahej and Hazira
- Largest grass roots refinery in the world – Sikka
- Home to the world’s **largest ship recycling yard** – Alang
- Only state with a cradle to graveyard ecosystem for ships – **Shipbuilding to Ship Recycling**
Gujarat Maritime Board: Introduction

- First Maritime Board in India; established in 1982
- Established to enable holistic development of maritime sector in Gujarat
- Known for implementing a policy driven and innovative approach to maritime sector development
- Operates, regulates and facilitates business at 48 non-major ports of Gujarat
- Has implemented a unique business model for port led development placing Gujarat as benchmark for other states
- The non-major ports handle all type of bulk, break bulk, liquid and container cargo
- Has a strong manpower of more than 2000 employees with requisite expertise in each domain

Vision
To capture the strategic advantage of India’s longest coastline Gujarat is endowed with; develop maritime infrastructure, facilities & services comparable with global standards and to place Gujarat prominently on the international shipping map

Mission
To sustain, facilitate and excel in developing multi purpose port and logistic facilities and shipping related industry via its competent services and timely infrastructure development
Gujarat Maritime Board: Milestones

- **1982**: Formation of Gujarat Maritime Board, the first maritime board
- **1983**: Announcement of the first Port Policy of the country
- **1995**: Establishment of Alang Ship Recycling Yard, the largest in the world
- **1996**: Port of Pipavav became the first private port of India
- **1997**: Commencement of first BOOT Policy, new model of port development
- **1999**: Captive Jetty guidelines
- **1999**: Establishment of first Chemical Terminal at Dahej by GCPTCL
- **1999**: Port of Pipavav became the first private port of India
- **2001**: Commencement of first Double-stack container train at Pipavav
- **2003**: Establishment of first Chemical Terminal at Dahej by GCPTCL

1. GID Act
2. Modern Concessional Agreement
3. World’s largest grass root refinery at Jamnagar
Gujarat Maritime Board: Milestones

- **2003**: Establishment of first LNG Terminal at Dahej by PLL
- **2004**: Shipbreaking Rules & Regulations
- **2008**: Captive Jetty Expansion
- **2010**: Announcement of first Shipbuilding Policy in the Country
- **2010**: India’s most advanced VTMS unveiled in the Gulf of Cambay
- **2012**: Solid Cargo Port Terminal (SCPT) at Dahej
- **2015**: Notification of Ship Recycling Regulations
- **2017**: Gujarat Maritime University Act published and approval for Maritime Cluster
- **2017**: Approval for LNG Floating Storage & Regasification Unit (FSRU)
## Industry Support Policy Framework for Gujarat

### Policy Initiatives of Gujarat for the Port Sector

<table>
<thead>
<tr>
<th>Policy Initiatives</th>
<th>Implication for Investor</th>
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</thead>
<tbody>
<tr>
<td>1982 Formation of GMB</td>
<td>All ports in Gujarat (except the Major Port) come under the purview of GMB</td>
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<tr>
<td>1987 Captive Jetty Agreement</td>
<td>Allows private companies to operate their own jetties in GMB Ports</td>
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<tr>
<td>1995 Port Policy</td>
<td>Allows public private participation in Gujarat Ports</td>
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<tr>
<td>1997 BOOT Policy</td>
<td>Provides operational flexibility with tariff freedom, low water-front royalty</td>
</tr>
<tr>
<td>1999 GID Law</td>
<td>Gives legal framework &amp; roadmap for PPP</td>
</tr>
<tr>
<td>2004 SEZ Act (Gujarat)</td>
<td>Paves way for provision of minor ports and related services in Special Economic Zones</td>
</tr>
<tr>
<td>2008 Captive Jetty Expansion</td>
<td>Provides expansion of existing captive jetties</td>
</tr>
<tr>
<td>2010 Shipbuilding Policy</td>
<td>Allows private companies to develop shipbuilding parks</td>
</tr>
<tr>
<td>2015 Ship Recycling Regulations</td>
<td>Revamping of charges payable, plot sizes and plot lease timelines</td>
</tr>
<tr>
<td>2017 Guidelines for Reclamation of Land</td>
<td>Provides provision for private companies to develop port/maritime structure on reclaimed land</td>
</tr>
</tbody>
</table>
Gujarat’s share in national maritime trade

- 31% of total national cargo is handled only by Non-Major Ports in Gujarat (2016-17), up from a meagre 3% share in 1982
- 71% of total Indian non-major port traffic handled by Non-Major Ports in Gujarat (2016-17)
- Kandla Port also accounts for a notable share of 16.3% of total cargo handled at all major ports in India in 2016-17; and a 9% share of total cargo handled by all ports across India
- Ports in Gujarat thus collectively handle around 40% of total Indian maritime cargo
- 346 MMT of cargo handled by Non-Major Ports in Gujarat in 2016–2017 v/s a total available cargo handling capacity of ~466 MMTPA

GMB Traffic grew at CAGR of 10.12% between 2006-07 and 2016-17
Commodity Composition

Import of Major Commodity (2017-18)

- Crude Oil: 35%
- Coal: 24%
- Container: 13%
- LNG: 7%
- Iron Ore: 4%
- Others: 17%

Imports majorly from:
Europe, Gulf, USA, South Africa, Indonesia, Australia, China, UAE, Qatar, Panama, Brazil, Mexico

Export of Major Commodity (2017-18)

- POL: 54%
- Container: 30%
- Bauxite: 1%
- Cement Clinker: 3%
- Others: 12%

Exports majorly to:
China, UAE, Europe, USA, Singapore, Indonesia, Japan, Sri Lanka
Floating LNG terminal

- PPP Swiss Challenge route adopted to develop the green-field terminal with Floating Storage and Regasification Unit (FSRU)
- All weather direct berthing port terminal facility with 2 breakwaters
- Estimated cost of over INR 4000 crore
- Planned to have a combined capacity of 10 MMTPA
- Swan Energy Ltd (SEL) in association with Exmar NV of Belgium undertaking development of terminal

LNG Floating Storage and Regasification Unit (FSRU) is a floating system which receives LNG offshore, and the onboard regasification system sends out the gas through flexible risers and pipeline to shore.

A FSRU provides the advantages of lower cost, location flexibility, shorter decommissioning time and a potential reduction in Carbon Dioxide emissions.
Ship Building in Gujarat

- Gujarat boasts of ~60% share of the Indian shipbuilding order book (by DWT)
- 9 operational shipyards having capacity of ~1 million DWT; and 10 more under various stages of implementation
- Gujarat targeting a capacity of 3 million DWT – thus maintaining its existing share of expected national market in shipbuilding / repair market
- Favorable parameters for ship building industry in Gujarat:
  1. Rise in overseas trade resulting in demand of new ship/ship conversion and ship repair
  2. Indian peninsular coastline faces international sea route
  3. Availability of favorable locations for setting up of shipyards
  4. Availability of resources in terms of steel, machineries, wood, non-ferrous metals etc.
  5. Availability of skilled labor at comparatively lower wages
  6. Business friendly atmosphere

Existing Shipyard locations in Gujarat:
- Bhavnagar
- Gogha
- Pipavav
- Dahej
- Hazira
- Billimora
## Operational Shipyards in Gujarat

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Name of shipyard</th>
<th>Location</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ABG Shipyard Ltd.</td>
<td>Jageshwar, Dahej</td>
<td>Private</td>
</tr>
<tr>
<td>2</td>
<td>ABG Shipyard Ltd.</td>
<td>Magdalla, Surat</td>
<td>Private</td>
</tr>
<tr>
<td>3</td>
<td>Modest Infrastructure Ltd.</td>
<td>Old Port, Bhavnagar</td>
<td>Private</td>
</tr>
<tr>
<td>4</td>
<td>Shoft Shipyard Ltd.</td>
<td>Kaladara Village</td>
<td>Private</td>
</tr>
<tr>
<td>5</td>
<td>Pipavav Shipyard Ltd.</td>
<td>Pipavav</td>
<td>Private</td>
</tr>
<tr>
<td>6</td>
<td>L&amp;T Ltd.</td>
<td>Hazira</td>
<td>Private</td>
</tr>
<tr>
<td>7</td>
<td>Wadia Boat Builders</td>
<td>Billimora, Navsari</td>
<td>Private</td>
</tr>
<tr>
<td>8</td>
<td>Alcock Ashdown (Gujarat) Ltd.</td>
<td>Chanch, Near Pipavav</td>
<td>A Government of Gujarat Unit.</td>
</tr>
<tr>
<td>9</td>
<td>Alcock Ashdown (Gujarat) Ltd.</td>
<td>Old Port, Bhavnagar</td>
<td></td>
</tr>
</tbody>
</table>
Home to the Largest and Safest Ship Recycling yard in the world

- Alang Sosiya Ship Recycling Yard is the world’s largest ship breaking and recycling yard accounting for ~50% share in global ship recycling
- World’s largest stretching to 10 km
- Generates about 3.5 MMT of Steel per annum without natural resources
- State of the art Effluent Treatment Plant and waste disposal facilities for hazardous waste are situated at Alang
- Gujarat’s new Ship Recycling Policy 2015 provides greater flexibility and rationalizes charges to increase Ease of Doing Business for ship recycling yards
- Japan International Cooperation Agency (JICA) soft loan of around USD 180 Million is expected for modernization of Alang – Sosiya ship recycling yard
- Some spare plots for ship recycling are also likely to be auctioned in future
Reasons for ship recycling success

- Yard is naturally blessed with **high tidal range** and **gentle slope of sea floor**.

- Availability of **firm ground** allows the ships to beach just at the threshold of the plots.

- This natural facility makes Alang **most preferred destination** for ship recycling compared to other Asian peers.

<table>
<thead>
<tr>
<th>Sno.</th>
<th>Particulars</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Total Ship Breaking Plots at Alang Sosiya</td>
<td>153</td>
</tr>
<tr>
<td>2</td>
<td>Total operational Ship Breaking Plots at Alang Sosiya as of today</td>
<td>131</td>
</tr>
<tr>
<td>3</td>
<td>Annual Ship Recycling Capacity in terms of nos. of Ships</td>
<td>400-450</td>
</tr>
<tr>
<td>4</td>
<td>Annual Ship Recycling Capacity in terms of LDT, in million MT</td>
<td>4-4.5</td>
</tr>
<tr>
<td>5</td>
<td>Total ships recycling in 2017-18</td>
<td>253</td>
</tr>
</tbody>
</table>
Promoting sustainable ship recycling at Alang

- Since last 10 years, Gujarat Maritime Board is running a Safety Training and Welfare Institute at Alang.
- The Institute has trained more than 100,000 workers till date and is continuously upgrading its syllabus and teaching methodology to cope up with the industry demands.
- GMB has employed trained and qualified Safety Officers to train the laborers in various aspects of safety and efficient working.
- Tremendous drop in the number of accidents and their resulting injuries observed since the operation of the institute.
Gujarat’s role in Sagarmala

- Government of Gujarat is keen to leverage the benefits arising out of Sagarmala, for strengthening the maritime infrastructure of the state
- The following projects have been proposed to the Ministry of Shipping to be included under Sagarmala, and to be made eligible for availing benefits under the initiative
  - Capital Dredging for Ro – Pax Ferry Project at Gogha and Dahej in Gulf of Cambay
  - Training Program for skill development/capacity building of workers involved in Alang ship recycling activities - for safety & healthy environment
  - Providing Broad Gauge Rail linkages to Old Bedi Port
  - Berth to promote movement of coastal cargo/passenger by sea in between Coast Guard Jetty and Deep Water Berth at Porbandar port
  - Providing alternative Road from Bhavnagar to Sosiya - Alang Ship Recycling Yard
  - Jetty for coastal movement of cement, fertilizers at Navlakhi
  - Development of Marine Shipbuilding Parks
Major stakeholders in Gujarat’s maritime industry
Major Projects and Avenues for Investment in Gujarat’s maritime sector
Investment Trends

PRIVATE INVESTMENT IN PORT SECTOR - GUJARAT

The private investments in port sector grew at CAGR of 8% from 2003-2004 to 2017-18

Private Investment in the year 2017-18 was INR 1950 Cr
Investment opportunities galore

- Greenfield Port Development
- Ro-Ro and Ro-Pax Ferry Services
- Maritime University
- Maritime Cluster
- Marine Shipbuilding Parks
- Modernization and Automation
- Marine Tourism
Greenfield port development

**Nargol**
- This port is envisaged as a multi purpose port for handling solid, liquid and container cargo
- The proposed site has to be relocated on the downstream of Kalpasar Dam
- Dholera Port Ltd. was selected as developer

**Dholera**

**Chhara**
- Shapoorji Paloonji has been selected as the developer
- Port to be developed for LNG Terminal

**Vansi-Borsi**
- Tenders for appointing transaction advisor for selection of developer for the development of the port invited
Ro-Pax Ferry Services in Gujarat

State of the Art Terminals
Gogha in Bhavnagar
Dahej an Industrial hub in Bharuch

Equipped to Transport
Passengers & Passenger Vehicles
Cargo Vehicles

Distance Reduced from 370 km to 31 km
Covering distance via sea in 1.5 hours only

Built at a total cost of INR 615 Cr

Environment friendly & Economical mode of transport
Saving fuel and Reducing road congestion

Inaugurated by the Hon’ble Prime Minister Shri Narendra Modi, on 22\textsuperscript{nd} of October 2017, at Gogha Terminal

Plans for further expansion
Maritime University

- GMB to establish a **world-class maritime university** with the state-of-art facilities.
- Govt. of Gujarat has already given in-principle approval for establishment of the University
- The University would especially focus on programs aligned with 'Operational Support Services' and 'Business Services'
- University proposed to be set up over 100 Acres of Land
- Proposed to be set up in two phases of 5 years each
- MOUs have been signed by GMB with reputed international universities like **Korea Maritime and Ocean University; Plymouth University, UK; and Southampton Solent University** for development of the University
Development of Maritime Cluster in Gujarat

- Strategic location > 7500km coastline at centre of Europe – Asia maritime route
- 95% of International trade volume in India is by Ports - 13 major & 207 non-major ports (49 ports in Gujarat).

However, India is a Net importer of maritime services

From firms based out of Colombo, Singapore, Dubai, Hong Kong and others, resulting in net direct loss to the economy.

Relocation of Indian maritime players to Dubai or Singapore – due to absence of sector focus, tax/incentives and clustered approach

Solution

“Maritime Cluster - a geographically close agglomeration of firms, in the maritime sector that enjoy positive synergy between their activities.”

Successful Global Maritime Clusters – Transformation Agents of Economy

Regulators (Classification Service, IMO, Government)

Shipping (Ship Owners, Charterers, Brokers)

Intermediate Services (Insurers, Legal Advisors, Consultants, Bankers)

Support Services (Maritime Education, Research, Media, Manning Agencies)
Marine Shipbuilding Parks

- **Cluster based shipyards within a stretch of 5 to 8 km along the waterfronts of Gujarat coasts**
- **Announced to be developed through Gujarat Shipbuilding Policy, 2010**

**GMB Support**
- GMB will assist the private developers for getting clearances and other statutory approvals
- The waterfront will be provided for development on a long-term basis
- Government has also taken initiative to establish/upgrade training institutes to provide training for specific skill required for the Ship Building Industry

**Identified Locations**
- North bank of Narmada River in Dahej region
- Old Bhavnagar port area
- Coastline in Bhavnagar district in the Gulf of Cambay
- Coastal area between Navlakhi to Jodiya
- Coastline near Mandvi in the Gulf of Kutch

**Other Aspects**
- GMB as a Nodal Agency, will develop Marine Shipbuilding Park (MSP)s - development activities shall be carried out in collaboration with GIDC and other involved agencies
- Area for medical facilities, housing, HRD and other allied facilities will be earmarked in the MSP
Modernization and Automation

- **Integrated Port Management System**
  - Proposed system to centralize architecture across all GMB port locations in Gujarat and to track port level transactions
  - IPMS to facilitate GMB Ports in complying with global standards, secured exchange of information, financial transparency, performance monitoring and cater to Coastal Security issues

- **Proposed GMB ports for modernization**
  - Navlakhi
  - Magdalla
  - Porbandar
  - Bedi
Marine Tourism

**Strengths**
- Favorable coastline
- Pristine beaches
- Thrust in Gujarat Tourism Policy 2015

**Opportunities**
- Cruise Tourism
- Adventure Sports
- Religious Tourism
- Island Tourism
- Lighthouse Tourism
- Wildlife Tourism
- Seaplane and Hovercraft Services
<table>
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<tr>
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<tr>
<td>Ports and Transport Department, Govt. of Gujarat</td>
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<tr>
<td>Industries and Mines Department, Govt. of Gujarat</td>
<td><a href="http://www.imd-gujarat.gov.in">http://www.imd-gujarat.gov.in</a></td>
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<tr>
<td>iNDEXTb - Industrial Extension Bureau</td>
<td><a href="http://www.indextb.com">http://www.indextb.com</a></td>
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<td>Gujarat Industrial Development Corporation</td>
<td><a href="http://www.gidc.gov.in">http://www.gidc.gov.in</a></td>
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