

# PORTS

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# PORTS



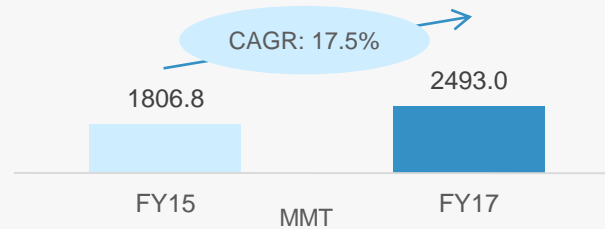
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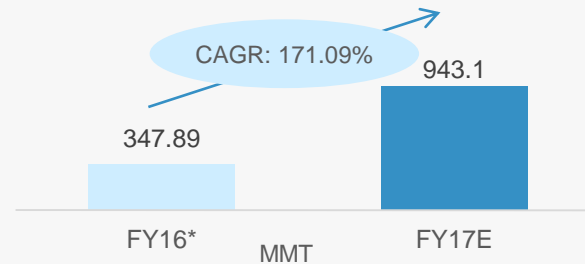
## EXECUTIVE SUMMARY ... (1/2)

Increasing trade activities and private participation in port infrastructure set to support port infrastructure activity



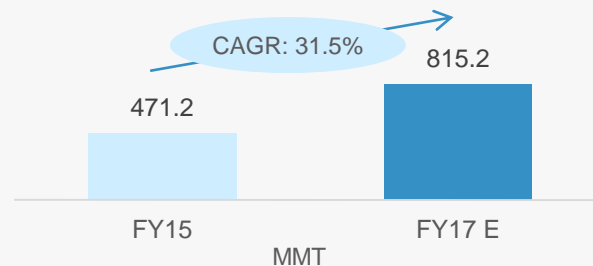
By FY17, cargo capacity in India is expected to increase to 2,493.1 MMT from 1,806.8 MMT in FY15

India has 12 major ports



By FY17, cargo traffic at major ports in India is expected to rise to 943.1 MMT from 581.3 MMT in FY15. Cargo traffic of India's major ports was 347.89 during April-October 2015.

India's 187 non-major ports are strategically located on the world's shipping routes

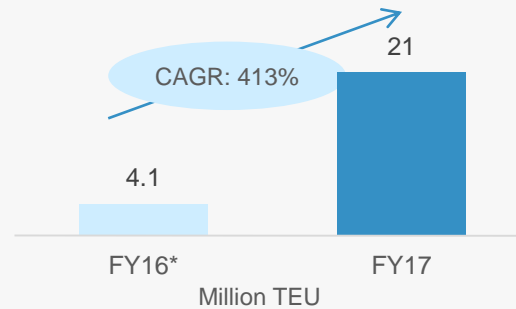


By FY17, cargo traffic at non-major ports in India is expected to grow to 815.2 MMT from 471.2 MMT in FY15

Source: Ministry of Shipping, TechSci Research  
Notes: E – Estimates, , MMT - Million Metric Tonnes  
FY16\*: From April-October 2015

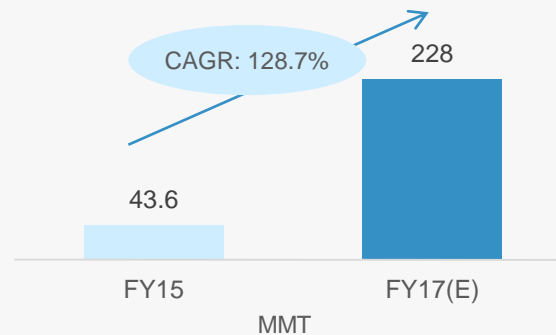
## EXECUTIVE SUMMARY ... (2/2)

Trade to boost demand for containers



By FY17, container demand in India (For major ports) is expected to increase to 21 million TEU from 4.1 million TEU in FY16\*

Infrastructural development to increase demand for iron and steel



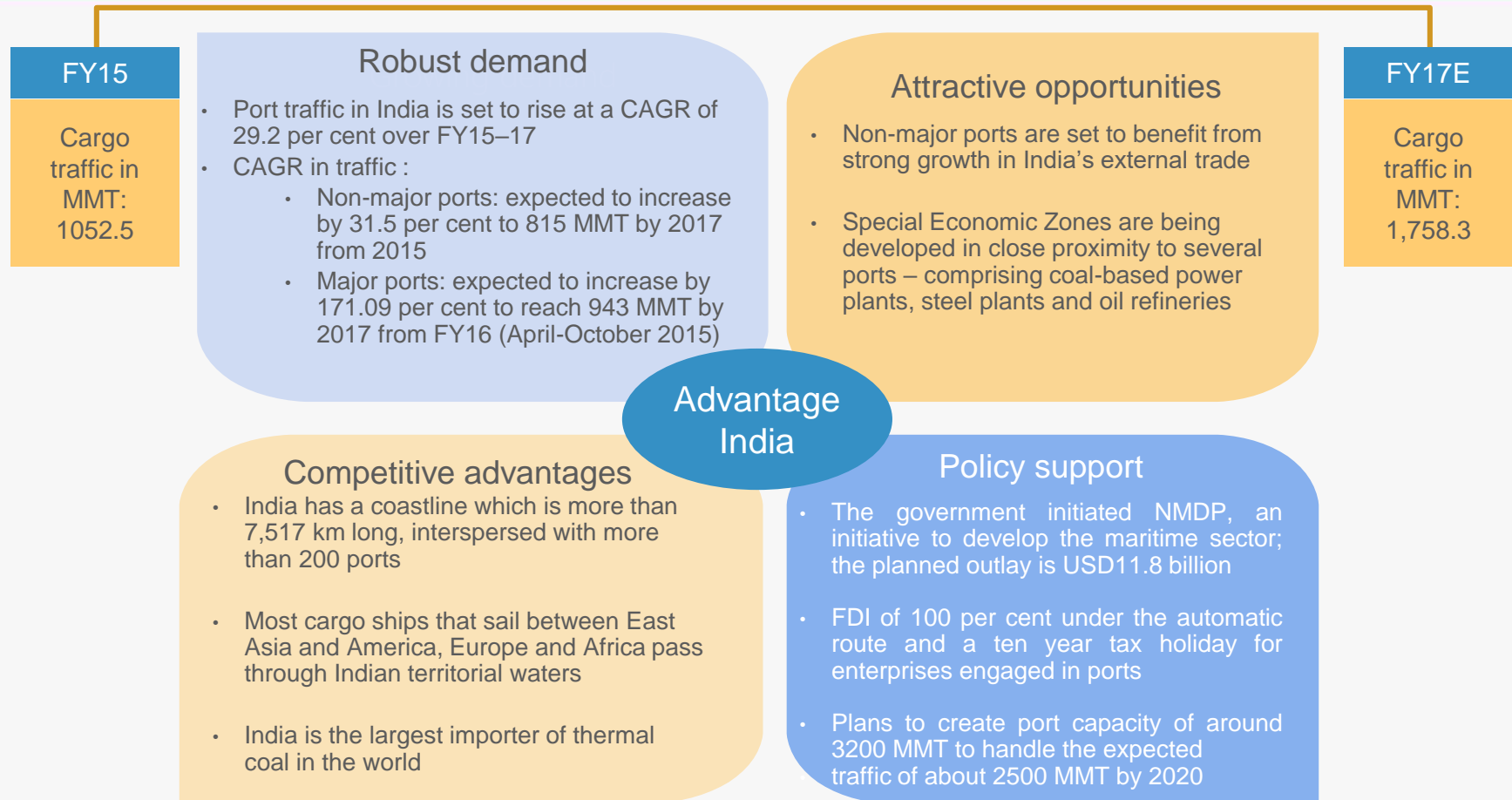
By FY17, iron ore traffic (For Major & Minor ports) is expected to rise to 228 MMT from 43.6 MMT in FY15

Source: Ministry of Shipping, TechSci Research  
Notes: E - Estimates, TEU – Twenty Foot Equivalent Unit, MMT - Million Metric Tonnes  
FY16\*: April-September 2015



# ADVANTAGE INDIA



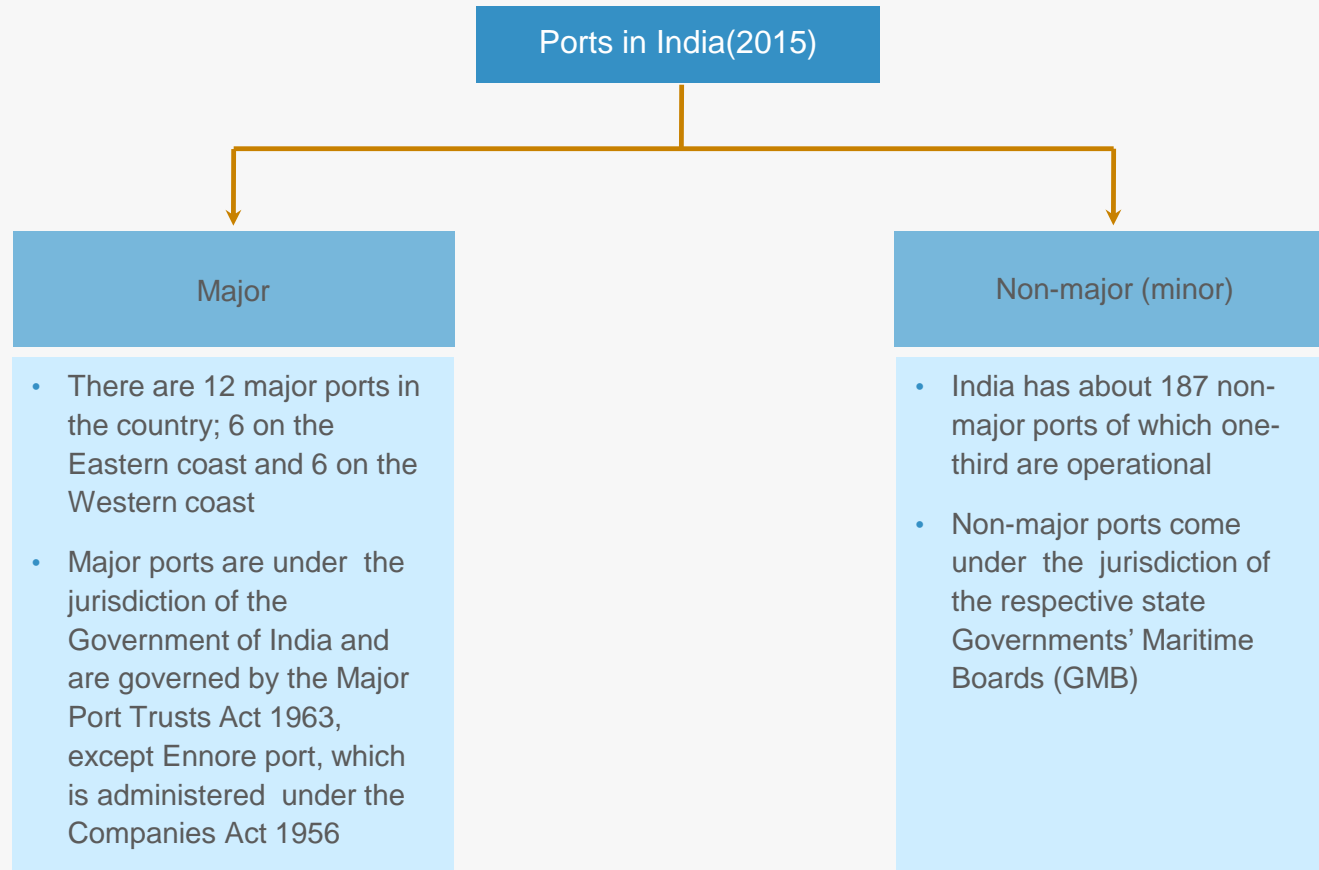


Source: Report of the Task force on Financing Plan for Ports, Govt. of India, TechSci Research  
Notes: FY – Indian Financial Year (April–March), NMDP – National Maritime Development Programme, FDI – Foreign Direct Investment, USD – US Dollar, E – Estimated, MMT – Million Metric Tonnes, CAGR – Compound Annual Growth Rate



## MARKET OVERVIEW AND TRENDS

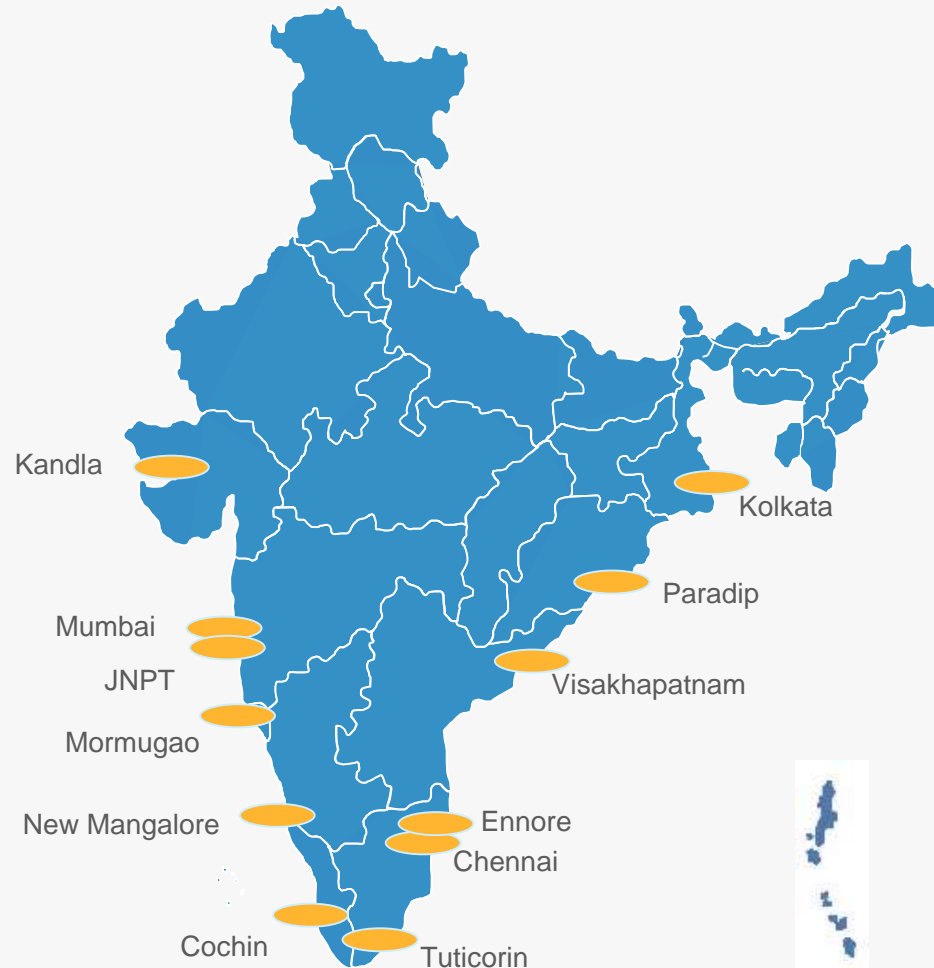
## THERE ARE TWO BASIC CATEGORIES OF PORTS IN INDIA



Source: Ministry of Shipping; TechSci Research



## MAJOR PORTS IN INDIA

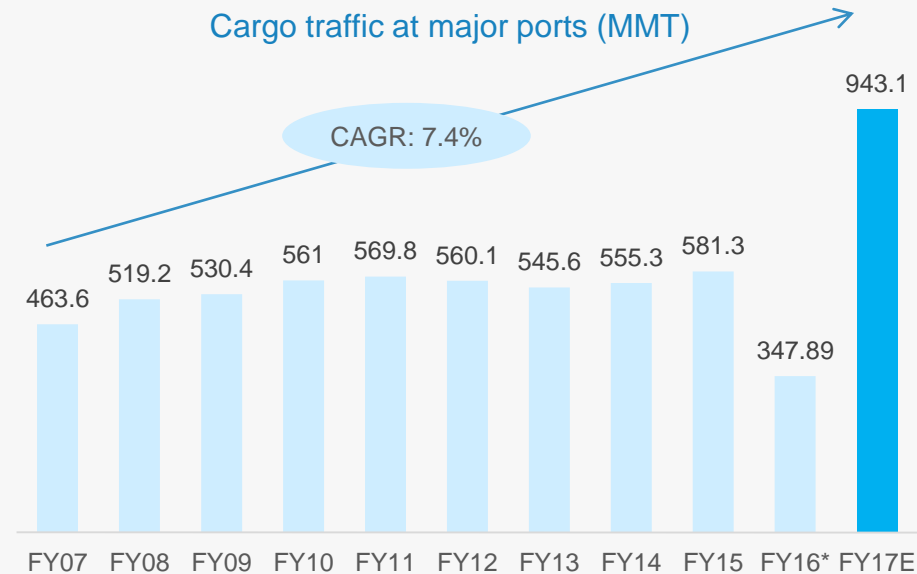


Note: JNPT – Jawaharlal Nehru Port Trust

## CARGO TRAFFIC IS ON THE RISE ... (1/2)

Cargo traffic at major ports in India –

- \* Stood at 347.89 MMT in FY16\*
- \* Increased at a CAGR of 7.4 per cent during FY07–17E
- \* Cargo traffic in 2017 at major ports is expected to reach 943.1 MMT



Source: Ministry of Shipping, TechSci Research

Notes: MMT – Million Metric Tonnes,  
CAGR – Compound Annual Growth Rate,  
FY – Indian Financial Year (April–March)  
FY16\* - From April-October 2015

## CARGO TRAFFIC IS ON THE RISE ... (2/2)

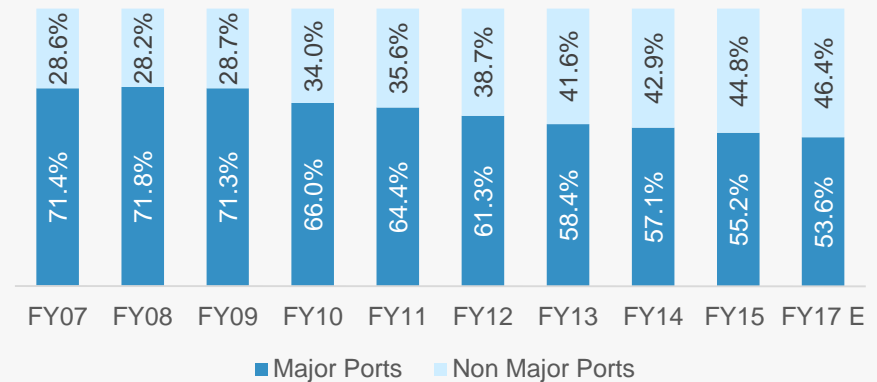
Non-major ports are evolving faster than major ports-

- \* Non-major ports are gaining shares and a major chunk of traffic has shifted from major ports to non-major ports
- \* The contribution of non-major port's traffic to total traffic rose to 44.8 per cent in FY15 from 28.6 per cent in FY07

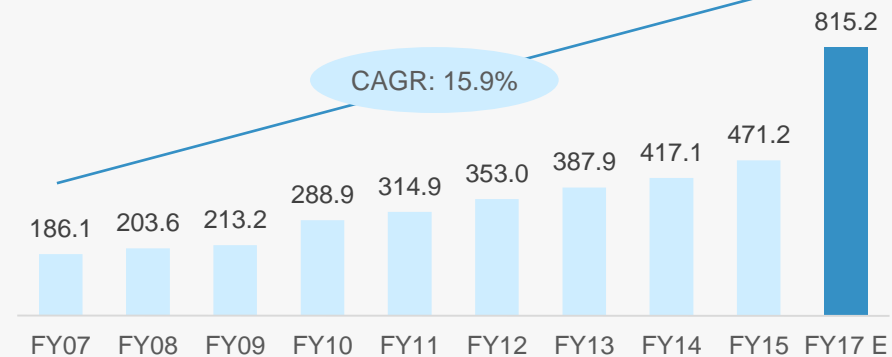
Cargo traffic at non-major ports –

- \* Stood at 471.2 MMT in FY15
- \* Cargo traffic has expanded at a CAGR of 12.3 per cent during FY07–15 and is expected to grow annually at 15.9 per cent during FY07-17
- \* Cargo traffic in 2017 at non-major ports is expected to reach 815.2 MMT

Percentage share of ports

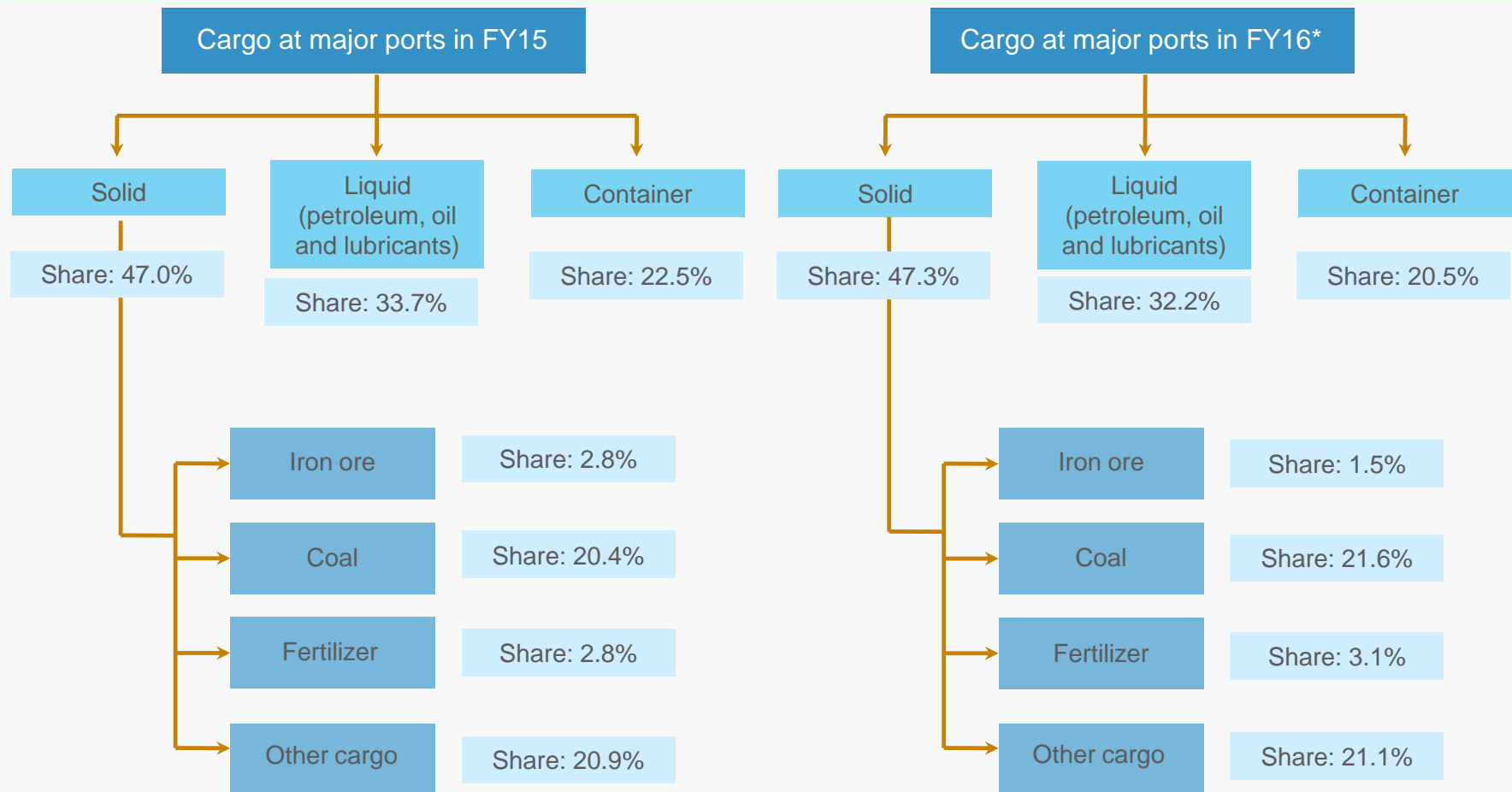


Cargo traffic at non-major ports (MMT)



Source: Ministry of Shipping, TechSci Research  
Notes: MMT – Million Metric Tonnes, CAGR – Compound Annual Growth Rate, Indian Ports Association, FY – Indian Financial Year (April–March); E - Estimate

## CARGO PROFILE AT MAJOR PORTS IN INDIA ... (1/2)

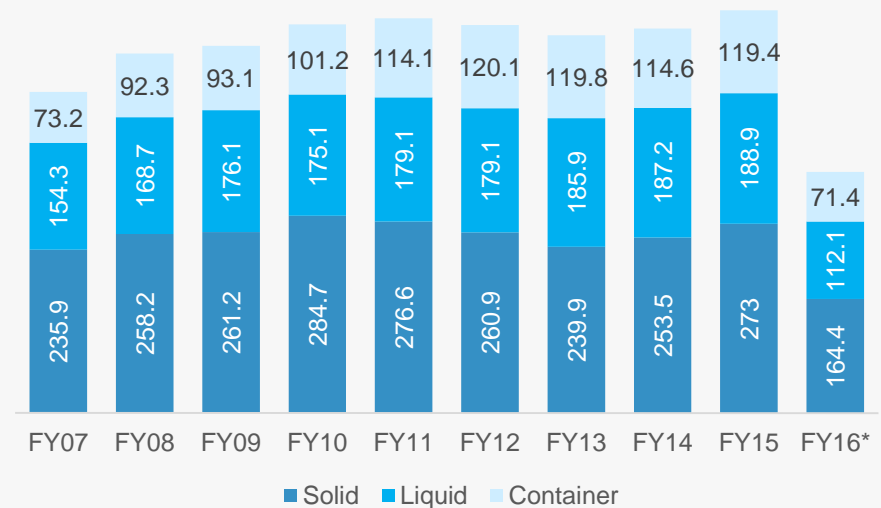


Source: Ministry of Shipping; TechSci Research  
 Note: Other cargo includes Fertiliser Raw Material (dry) and food-grains FY16\*- April-October 2015

## CARGO PROFILE AT MAJOR PORTS IN INDIA ... (2/2)

- \* Between FY07– FY15, cargo traffic grew at CAGR 2.9 per cent
- \* Over FY07–15, CAGR in the volume of different segments was as follows–
  - \* Solid cargo was 1.8 per cent
  - \* Liquid cargo was 2.6 per cent
  - \* Container cargo was 6.3 per cent
- \* Cargo traffic during FY16\* for solid, liquid, and container cargo was 164.4, 112.1, and 71.4 MMT, respectively

Cargo traffic at major ports (MMT)

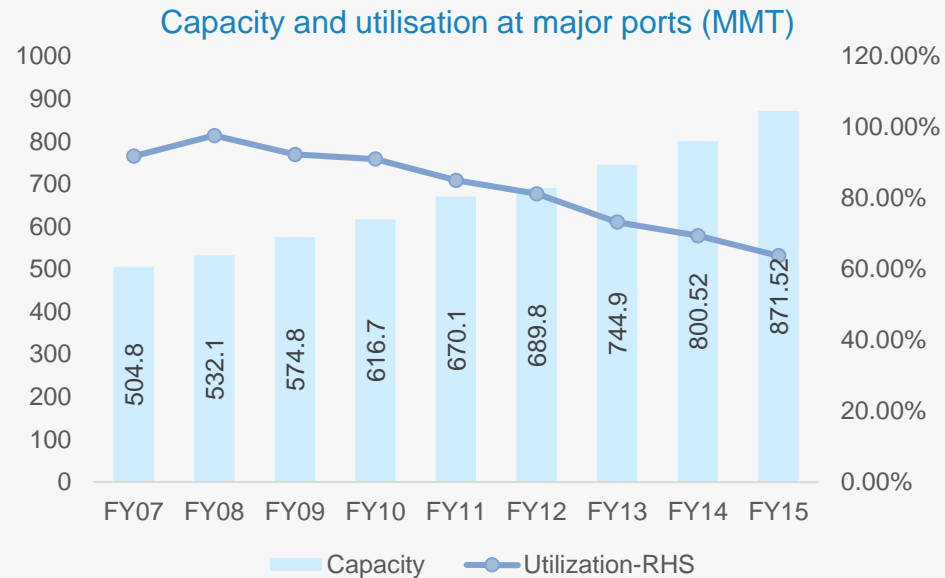


Source: Ministry of Shipping; Indian Ports Association (IPA), TechSci Research  
 • Note: Other cargo in Solid includes fertiliser raw material (dry) and food-grains  
 • T- Tentative  
 FY16\*: April-October 2015



## INCREASE IN CAPACITY OVER THE YEARS

- \* Capacity at major ports grew to 871.52 MMT in FY15, implying a CAGR of 7.1 per cent since FY07
- \* Despite capacity increasing, utilisation rates have been gradually coming down post the global economic meltdown in FY08
- \* Utilisation rates of major ports in India are much above world's average

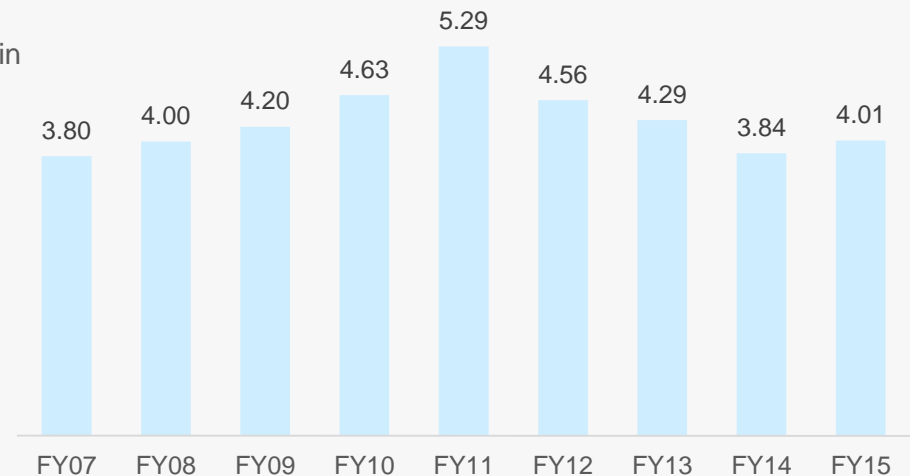


Source: Indian Port Association, Ministry of Shipping, TechSci Research  
Note: MMT – Million Metric Tonnes

## DROP IN TURNAROUND TIME IN FY13

- \* Average turnaround time is influenced by factors such as type of cargo, parcel size and entrance channel
- \* The average turnaround time improved to 4.01 days in FY15 from 3.84 days in FY14

Average turnaround time for major ports (in days)



Source: Ministry of Shipping, Indian Port Association TechSci Research  
Note: Turnaround time – Total time spent by a ship from entry into port until departure

## NOTABLE TRENDS IN THE PORTS SECTOR ... (1/2)

### Increasing private participation

- Strong growth potential, favourable investment climate, and sops provided by state governments have encouraged domestic and foreign private players to enter the Indian ports sector. In addition to the development of ports and terminals –
  - The private sector has extensively participated in port logistics services
  - By March'15, around 99 Public Private Partnership (PPP) projects are operational with a total cost of around USD8813.8 million and capacity of 683.29 million tonnes per annum.
  - In FY15, total cargo handled at Indian ports increased by 8.2 per cent to 1052.5 million tonnes from 972.4 million tonnes during FY14

### Setting up of port-based SEZs

- SEZs are being developed in close proximity to several ports, thereby providing strategic advantage to industries within these zones. Plants being set up include –
  - Coal-based power plants to take advantage of imported coal
  - Steel plants and edible oil refineries
- Development of SEZs in Mundra, Krishnapatnam, Rewas and few others is underway

### Focus on draft depth

- All the greenfield ports are being developed at shores with natural deep drafts and the existing ports are investing on improving their draft depth.
- Higher draft depth is required to accommodate large sized vessels. Due to the cost and time advantage associated with the large sized vehicles, much of the traffic is shifting to large vessels from smaller ones, especially in coal transportation

Source: Ministry of Shipping, TechSci Research  
Notes: SEZ – Special Economic Zone, PPP – Public-Private Partnershi,p

## NOTABLE TRENDS IN THE PORTS SECTOR ... (2/2)

### Specialist terminal-based ports

- Terminalisation: Focus on terminals that deal with a particular type of cargo
  - This is useful for handling specific cargo such as LNG that requires specific equipment and hence high capital costs. Forming specialist terminals for such cargo result in optimal use of resources and increased efficiencies
  - Examples of specialist terminals: ICTT in Cochin, LNG terminal in Dahej Port

### 'Landlord port' model

- To promote private investments, the government has reformed the organisational model of seaports –
  - From: A 'service port' model where the port authority offers all the services
  - To: A 'landlord port' model where the port authority acts as a regulator and landlord while port operations are carried out by private companies
- Major ports following 'landlord port' model: JNPT, Chennai, Visakhapatnam and Tuticorin

### Rising traffic at non major ports

- With the increasing private participation in establishing minor ports. Cargo traffic handled by the minor ports are outpacing cargo traffic at major ports, traffic on non major port has expanded at a CAGR of 31.5 per cent during FY07–15

Source: TechSci Research

Notes: ICTT – International Container Transshipment Terminal, LNG – Liquefied Natural Gas



# PORTER FIVE FORCES ANALYSIS

JANUARY 2016



## PORTER'S FIVE FORCES ANALYSIS

<b>Competitive Rivalry</b>	
<ul style="list-style-type: none"> <li>Increasing trade activities brought by rising imports of commodities like coal and crude to generate higher business and limit overall competition as most ports handle specific geographies</li> <li>There have been instances of private managed ports attracting the share of other ports (usually handled by government agencies) as in the case of JNPT and Mumbai Port Trust. However, demand expected to remain strong</li> </ul>	
<b>Threat of New Entrants</b>	<b>Substitute Products</b>
<ul style="list-style-type: none"> <li>100 per cent FDI under automatic route and income tax exemption (10 years) is attracting foreign players. However, higher capital expenditure acts as a barrier</li> </ul>	<ul style="list-style-type: none"> <li>With rising demand for port infrastructure due to growing imports (crude, coal) and containerisation, the threat of substitute products to remain weak</li> </ul>
<b>Bargaining Power of Suppliers</b>	<b>Bargaining Power of Customers</b>
<ul style="list-style-type: none"> <li>Considerable capacities to be added going forward. However, demand to continue to remain strong</li> </ul>	<ul style="list-style-type: none"> <li>Imports to continue to remain strong led by strong demand. However considerable port capacities to be added going forward</li> </ul>



Source: PricewaterhouseCoopers, Techopak, TechSci Research



## STRATEGIES ADOPTED

## STRATEGIES ADOPTED

### Pan-India presence

- After having a strong advantage on India's West coast, Adani Ports and Special Economic Zone Ltd (APSEZ) is looking to strengthen its position by winning the bid of a new container terminal at Ennore port located on the east coast. Furthermore Adani Ports has acquired Dharma Port to replicate its development and growth on the eastern coast.
- Essar Ports Limited as a part of its strategic move to increase its potential on the east coast has won the contract for the modernisation of three ports at Visakhapatnam

### Geographic diversification

- Geographic diversification as in the case of Adani group acquiring coal mines(Australia and Indonesia) and setting up coal terminal in Australia to take the benefit of increasing coal imports in India

### Allied activities

- Adani group, largest private port operator in India, is now venturing into providing allied services like dredging. Its dredgers which were being used only at its own ports in the past have now started taking work from other ports

### Container train operations

- Adani group has also ventured into the container railway business becoming the largest private link in the country. It conducts operations on a pan-india basis operating 6 container rakes

### Modernisation

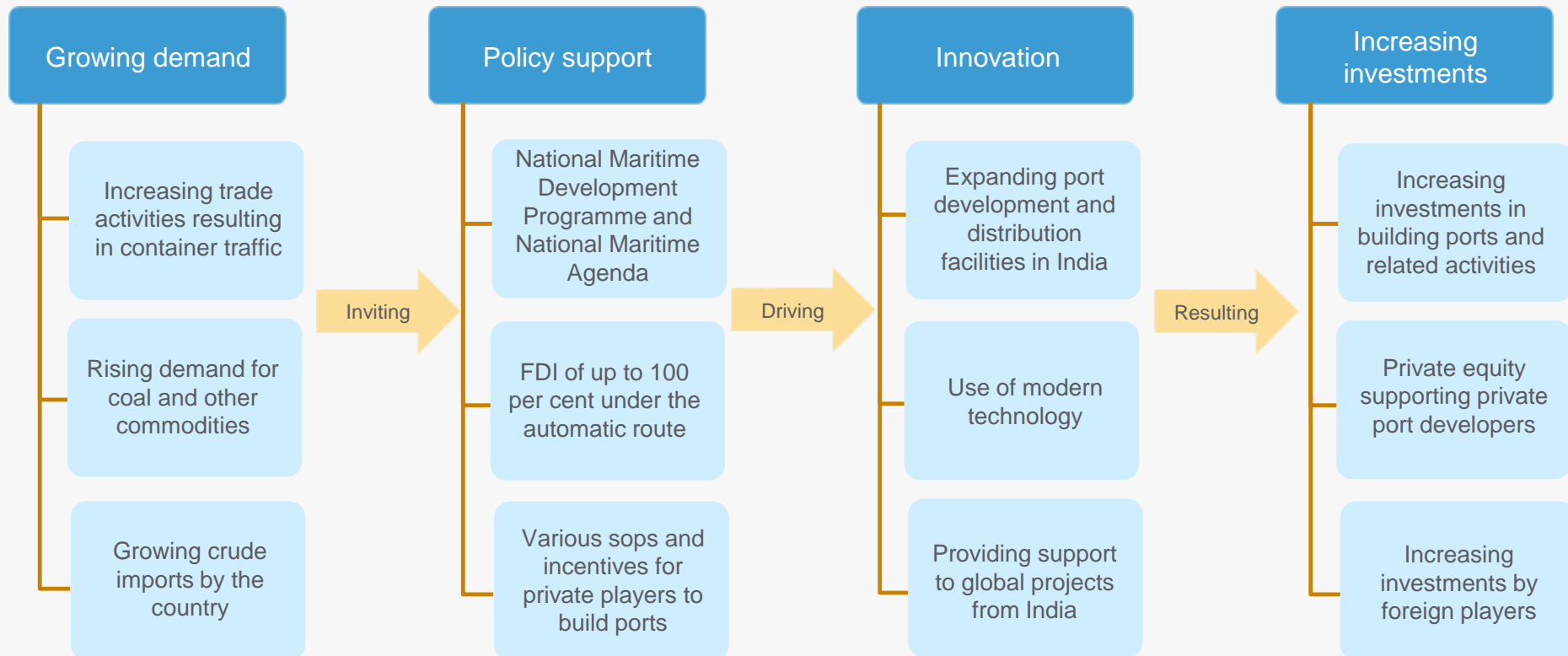
- Port authorities are modernizing and upgrading port facilities to meet the needs of the port users in competitive environment

Source: Company website, TechSci Research



## GROWTH DRIVERS

## SECTOR BENEFITS FROM STRONG DEMAND, PRIVATE PARTICIPATION



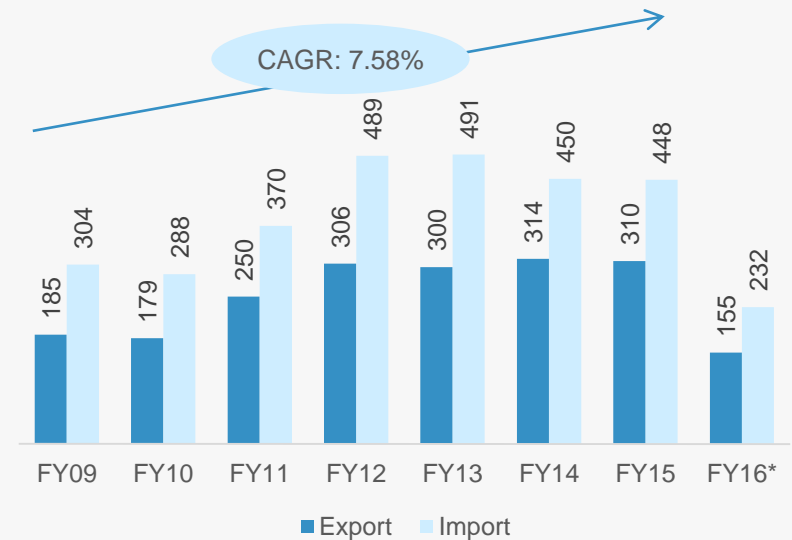
Source: Ministry of Shipping, TechSci Research  
Note: NMDP - National Maritime Development Programme



## INDIA'S PORTS ARE BENEFITTING FROM STRONG GROWTH IN EXTERNAL TRADE ... (1/2)

- \* India's total external trade have grown to USD757.1 billion in FY15, implying a CAGR of 7.58 per cent since FY09
- \* Ports handle almost 95 per cent of trade volumes; thus rising trade has contributed significantly to cargo traffic

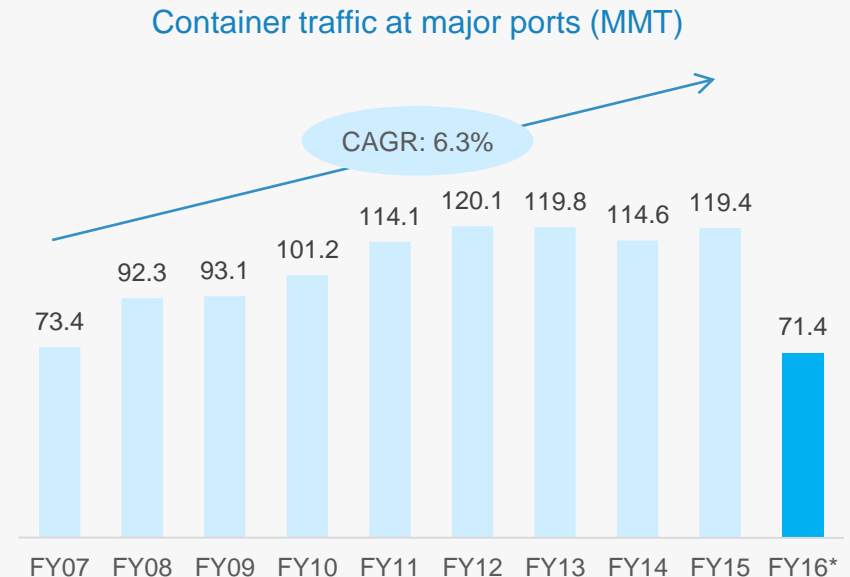
India's external trade flows (USD billion)



Source: Ministry of Commerce, TechSci Research  
CAGR: For Imports from FY09-15  
FY16\*: April-October 2015

## INDIA'S PORTS ARE BENEFITTING FROM STRONG GROWTH IN EXTERNAL TRADE ... (2/2)

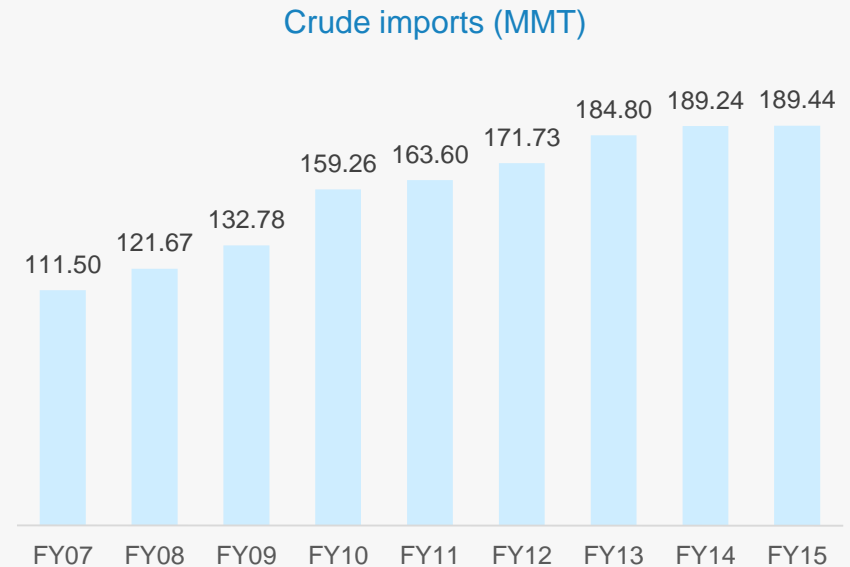
- \* Increasing trade is translating into higher demand for containerisation due to their efficiency
- \* During FY07–15, container traffic rose to 119.4 MMT, implying a CAGR of 6.3 per cent
- \* During FY16\*, container traffic stood at 71.4 MMT



Source: Indian Ports Association, TechSci Research  
Note: MMT – Million Metric Tonnes  
FY16\*: April-October 2015

## PORTS TO BENEFIT FROM GROWING CRUDE IMPORTS ... (1/2)

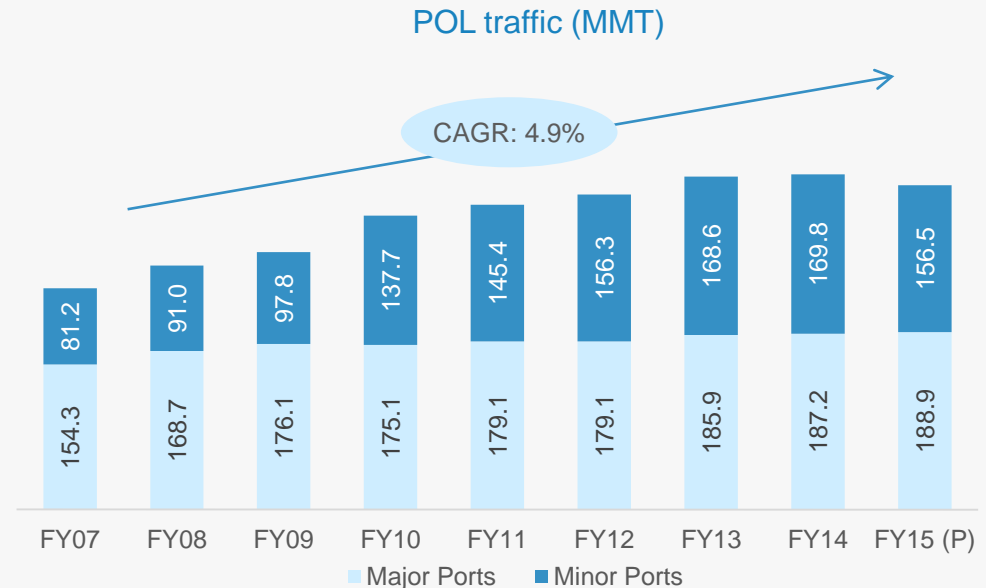
- \* A consequence of strong GDP growth has been rising energy demand; the country currently meets about 75 per cent of total crude oil demand by imports
- \* India's crude imports touched 189.44 MMT in FY15, implying a CAGR of 6.85 per cent over FY07–15



Source: Handbook of Indian Statistics (RBI),  
Petroleum Planning and Analysis Cell, TechSci Research  
Notes: MMT – Million Metric Tonnes,

## PORTS TO BENEFIT FROM GROWING CRUDE IMPORTS ... (2/2)

- \* Private ports have been especially good at attracting crude import traffic
- \* POL have been the major contributors to total traffic at ports and contributed 32.5 per cent in FY15
- \* POL traffic at both major and non-major ports added up to 345.4 MMT in FY15, implying a CAGR of 4.9 per cent over FY07–15

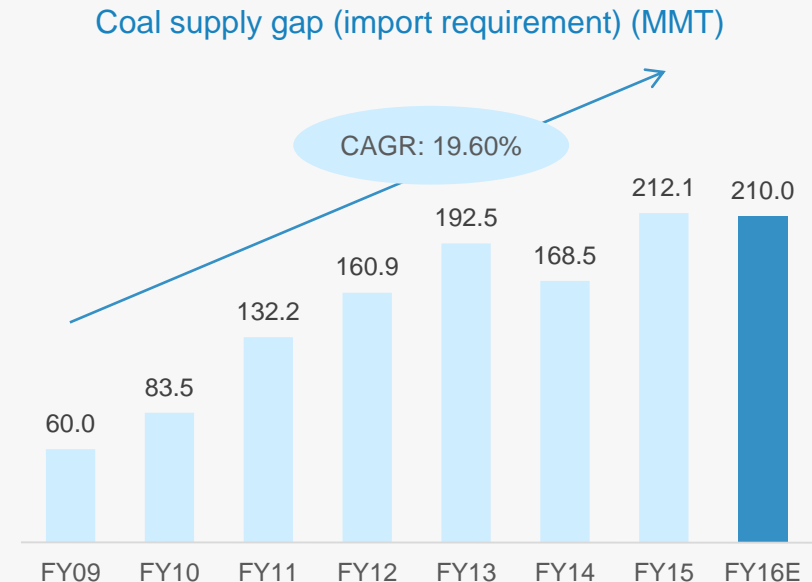


Source: Ministry of Shipping, TechSci Research  
Notes: POL – Petroleum, Oil, and Lubricants,  
MMT – Million Metric Tonnes  
P-Provisional

## INCREASING COAL IMPORTS SET TO DRIVE RISING CARGO TRAFFIC ... (1/2)

- \* India is the largest importer of thermal coal in the world and this is expected to grow due to increased demand for power as coal-based power stations were the biggest contributors.
- \* A major chunk of this import is transported by sea
- \* Coal imports (both thermal and cooking) are estimated to have fallen to 168.5 in FY14 due to the increase in the coal production in the country. Further, the government has given the target of 143.28 million tonnes of coal supply gap which would be filled by import.
- \* With growing demand for power, coal imports are expected to be at 210 MMT in FY16

Notes:: GW – Gigawatt, MMT – Million Metric Tonnes

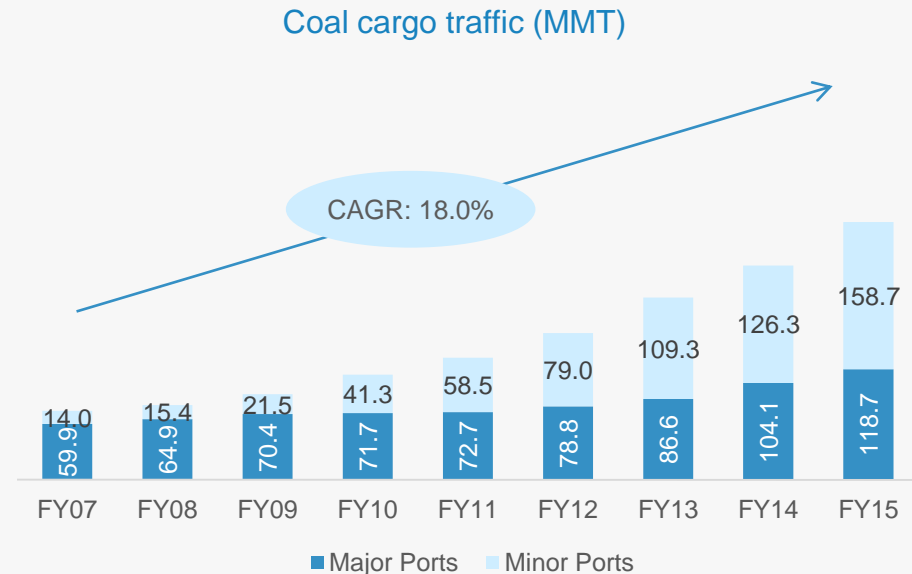


Source: Ministry of Coal, TechSci Research  
Notes: The figures from FY9–14 in the above graph are as per the data provided by Coal Ministry Annual Reports, and the figure for FY17 is taken from the erstwhile Planning Commission Report data sourced from Coal Ministry Annual Report  
E: Estimated



## INCREASING COAL IMPORTS SET TO DRIVE RISING CARGO TRAFFIC ... (2/2)

- \* Increasing coal imports are set to drive coal cargo traffic upwards at both major and non-major ports
- \* With private ports boosting their coal handling capacities, non-major ports look set to handle majority of coal imports in the future
- \* Coal cargo traffic has grown at a CAGR of 18.0 per cent over FY07–15 to reach 277.4 MMT.
- \* Total coal handled by India's 12 major ports jumped to 118.7 million tonnes in FY15 from 104.1 million tonnes in FY14
- \* Thermal coal imports through the ports leaped 22 per cent to 71.6 million tonnes, while shipments of cooking coal, used in making steel, rose 18.3 per cent to 33.1 million tonnes
- \* Coal cargo traffic by minor ports crossed the total traffic of major ports by 2013. In 2015, the coal traffic by minor ports reached 158.7 MMT



Source: Ministry of Shipping; TechSci Research  
Note: MMT – Million Metric Tonnes

## NATIONAL MARITIME AGENDA 2010–2020 ... (1/2)

Focus on increasing capacity

- To create a port capacity of around 3,200 MT to handle the expected traffic of about 2,500 MT by 2020

Increasing investments

- Proposed investments in major ports by 2020 are expected to total USD18.6 billion, while those in non-major ports would be USD28.5 billion

World-class infrastructure

- To implement full mechanisation of cargo handling and movement at ports, thereby bringing Indian ports on a par with the best international ports in terms of performance and capacity

Landlord ports

- Major ports have been working towards implementing 'Landlord port' concept duly limiting their role to maintenance of channels and basic infrastructure leaving the development operation management of terminal and cargo handling facilities to the private sector

Strategically building ports

- To develop two major ports (one each on East and West coast) to promote trade as well as two hub ports (one each on the West coast and the East coast) – Mumbai (JNPT), Kochi, Chennai, and Visakhapatnam

Bringing ports under regulator

- To establish a port regulator for all ports in order to set, monitor, and regulate service levels, technical and performance standards

Source: Ministry of Shipping, TechSci Research

## NATIONAL MARITIME AGENDA 2010–2020 ... (2/2)

National Maritime Agenda 2010–20 is aimed at the all-round development of the Indian maritime sector

- \* 16 PPP projects, which involve capacity addition of 159 MTPA and investment of USD3092.4 million, have been awarded as of 2013-14
- \* Agenda involves investments in new projects at major ports of around USD18.6 billion, of which USD12.4 billion is expected to come from private sector players and the remaining from budgetary allocation
- \* By 2015, National Maritime Agenda aims to increase the share of Indian seafarers in the global shipping industry from 6–7 per cent to at least 9 per cent
- \* The government, through this policy, aims to increase the tonnage under the Indian flag and Indian control as well as the share of Indian ships in EXIM trade
- \* The government is also working to float a specialised Maritime Finance Corporation with the equity of ports and financial institutions to fund the Port projects

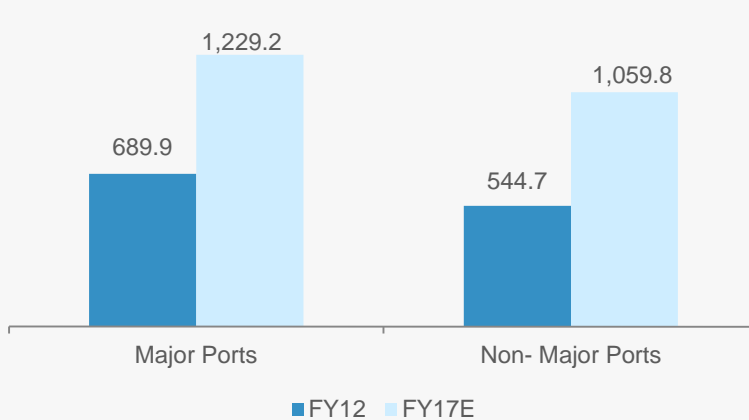
Source: Ministry of Shipping, TechSci Research  
Note: EXIM - Export-Import

## 12<sup>TH</sup> FIVE-YEAR PLAN

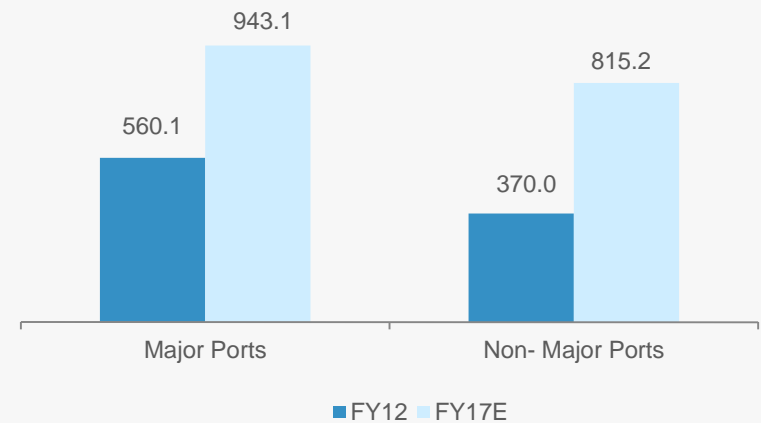
The 12<sup>th</sup> Five-Year Plan (2012–17) is focused on the development of major and non-major ports through public and private investments

- \* The proposed outlay for port sector in the plan, excluding private investment, is USD4.9 billion
- \* The overall projected traffic of 1,758.3 million tonnes to be achieved by FY17, the total capacity of the port sector is envisaged to be 2,289.04 million tonnes by the end of 2017
- \* The government anticipates private sector investment of around USD28.8 billion during the 12<sup>th</sup> Plan Period.

Planned capacity 12<sup>th</sup> Five-Year Plan (MMT)



Projected traffic 12<sup>th</sup> Five-Year Plan (MMT)



Source: E:Estimated

## FAVOURABLE POLICIES ASSISTING THE PRIVATE SECTOR

### De-licensing and tax holidays

- The government has allowed FDI of up to 100 per cent under the automatic route for projects related to the construction and maintenance of ports and harbours
- A 10-year tax holiday to enterprises engaged in the business of developing, maintaining, and operating ports, inland waterways, and inland ports

### Price flexibility

- Private ports enjoy price flexibility, as the government allows non-major ports to determine their own tariffs in consultation with the State Maritime Boards; at major ports, tariffs are regulated by the Tariff Authority for Major Ports (TAMP)

### Model Concession Agreement (MCA)

- An MCA has been finalised to bring transparency and uniformity to contractual agreements that major ports would enter into with selected bidders for projects under the Build, Operate and Transfer (BOT) model

### Monopoly prevention

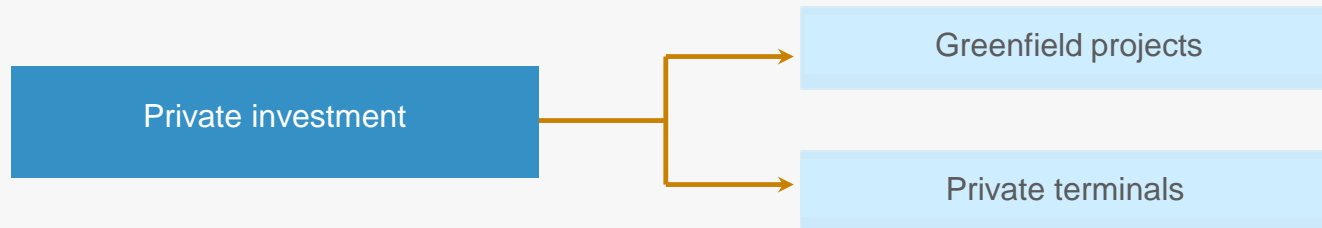
- The Ministry of Shipping has passed a regulation to prevent monopoly power –
  - An existing private operator (at a port) cannot bid for the next terminal to handle similar kind of cargo at the same port

### Favourable system

- The system for security clearance for ports being streamline and made faster
- Expansion of existing framework to attract participation from the private sector for development of infrastructure facilities such as dredging, road infrastructure, creation of SEZ and development of integrated parking zones in the port area

Source: Ministry of Shipping; TechSci Research  
Note: FDI – Foreign Direct Investment

## STRONG PRIVATE SECTOR PARTICIPATION IN PORTS PROJECTS ... (1/3)



- \* 39 Public Private Partnership (PPP) projects are operational at a cost of around USD2219.4 Million and capacity of 240.72 Million Tonnes Per Annum (MTPA).
- \* 32 PPP projects at an estimated cost of around USD3917.6 Million and capacity 264.77 Million Tonnes Per Annum (MTPA) awarded and are under implementation.
- \* Total 91 projects with involving capacity of 521.45MMPA have been awarded during 2012-16 (Upto 30<sup>th</sup> June, 2015)
- \* 15 PPP projects with an estimated cost of about USD1210.6 Million and capacity 69.47 Million Tonnes Per Annum (MTPA) have been awarded/approved and 13 projects at an estimated cost of about USD1466.2 Million and Capacity 108.35 Million Tonnes Per Annum (MTPA) are likely to be awarded/approved by 31.03.2015.
- \* 10 PPP projects with an estimated investment of around USD1.5 billion and capacity of 95.11 million tonnes per annum have been awarded in FY15.

Source: Ministry of Shipping; TechSci Research

## STRONG PRIVATE SECTOR PARTICIPATION IN PORTS PROJECTS ... (2/3)

Terminals in major ports with private sector involvement	Port agency	Estimated cost (USD million)
Container terminal, Ennore	Ennore	293.1
LNG terminal, Cochin	Cochin Port Trust	729.1
Container terminal, NSICT	JNPT	156.3
Oil jetty related facilities (Vadinar)	Kandla Port Trust	156.3
Third container terminal (Mumbai)	JNPT	187.5
Crude oil handling facility (Cochin)	Cochin Port Trust	146.5
ICTT at Vallarpadam (Cochin)	Cochin Port Trust	262.9
Construction of SPM captive berth (Paradip)	Paradip Port Trust	104.2
Development of second container terminal (Chennai)	Chennai Port Trust	103.1

As on 2015

Key private sector companies	Ports they developed
Maersk	JNPT (Mumbai)
P&O Ports	JNPT, (Mumbai and Chennai)
Dubai Ports International	(Cochin and Vishakhapatnam)
PSA Singapore	Tuticorin
Adani	Mundra
Maersk	Pipavav
Navyuga Engineering Company Ltd	Krishnapatnam
DVS Raju group	Gangavaram
JSW	Jaigarh
Marg	Karaikal

Source: Indian Ports Association, TechSci Research

Notes: NSICT – Nhava Sheva International Container Terminal, Mumbai,

ICTT – International Container Transshipment Terminal, SPM – Single Point Mooring

## STRONG PRIVATE SECTOR PARTICIPATION IN PORTS PROJECTS ... (3/3)

Terminals in major ports with private sector involvement (FY15)	Port agency	Capacity (Million tonnes)	Estimated cost (USD million)
Development & Operation of International Container Transshipment Terminal (ICTT) at Vallar-padam	Cochin Port	12.5 to 40 MMT in Phases	353
Setting up of LNG Port & ReGasification Terminal at Puthuvypeen by Cochin. / Cochin Port Trust	Cochin Port	5 MMPTA	691.1
Multi-User Liquid Terminal (MULT) at Puthuvypeen SEZ (International Bunkering Terminal at Cochin)	Cochin Port	4.10 MMTPA	38.4
Conversion of berth No. 8 as container terminal on	Tuticorin	7.2 MTPA	52.03
Development of North Cargo Berth – II on DBFOT basis.	Tuticorin	7.0 MTPA	55.36
Enhancement of Cargo Handling capacity by installing rapid in motion wagon loading facility by SWPL	Mormugao Port Trust	2.50 MTPA	7.5
Development of Container Terminal on DBFOT basis	Kamarajar Port Ltd	16.8MT	210.68
Development of Multi Cargo Terminal on DBFOT basis	Kamarajar Port Ltd	2.00	25.05

As on FY15

Source: Indian Ports Association, TechSci Research

Notes: NSICT – Nhava Sheva International Container Terminal, Mumbai,

ICTT – International Container Transshipment Terminal, SPM – Single Point Mooring



## Projects Completed and Awarded During FY15 & FY16

- \* 10 PPP port development projects have been awarded in FY15 which is expected to add 95.11 million tonnes of annual capacity to the cargo capacity at major state-owned ports
- \* Mechanisation of three berths at Paradip Port has been approved in October, 2015 which is anticipated to handle the growing demand of thermal coal on BOT mode
- \* Increase in capacity due to productivity of CBI & CBII (1.00 MTPA)
- \* Development of WQ6 berth for 225m length and 22.5m width for handling dry bulk cargo on DBOFT basis (6.00) at VPT.
- \* Development of EQ-10 berth in inner harbour for handling liquid cargoes and chemicals on DBOFT basis (1.84 MTPA) at VPT.
- \* Increase in capacity at CICTPL coal berth due to productivity (1.00 MTPA) at KPL.
- \* Increase in capacity at ETTPL berth due to productivity (1.00 MTPA) at KPL.
- \* Increase in capacity at General Cargo berth (2.00 MTPA) at KPL.
- \* Installation of floating cranes for handling the cargo vessels (2.49 MTPA) at VoCPT.
- \* Construction of Mooring Dolphins at Liquid Cargo Jetty (1.00 MTPA) at JNPT
- \* Increase in capacity due to deepening and widening of channel (10.20 MTPA) at JNPT.

Source: Indian Ports Association, TechSci Research

## PRIVATE EQUITY INTEREST IN INDIAN PORTS/SHIPPING REMAINS HEALTHY

### PE deals since 2014

Target	Acquirer	Value (USD million)	Year
Kattupalli port	Adani Ports and Special Economic Zone Ltd	-	2015
The Dhamra Port Co Ltd	Adani Ports and Special Economic Zone	926.0	2014
Samson Maritime Ltd	Kotak Private Equity Group	126.0	2014
JSW Infrastructure	Eton Park Capital	125.0	2010
Fourcee Infrastructure	General Atlantic LLC	104.0	2012
Mundra Port	3I Group, GIC Real Estate	100.0	NA
Karaikal Port Pvt Ltd (Second round)	Ascent Capital	41.7	NA
Ocean Sparkle Ltd	Standard Chartered PE	41.6	2012
Karaikal Port Pvt Ltd (First round)	IDFC Project Equity	32.6	NA
Gujarat Pipavav Port Ltd	IDFC	28.5	NA
Karaikal Port Pvt Ltd	Standard Chartered PE (Mauritius) II Ltd	27.1	2012
20Cube Logistics	Zephyr Peacock India	17.0	2013
Continental Warehousing Nhava Sheva	Aureos India Fund, Eplanet Venture	16.4	NA

Source: E&Y, Grant Thornton, Thompson ONE Banker, TechSci Research



# OPPORTUNITIES

## OPPORTUNITIES

### Increasing scope for private ports

- With rising demand for port infrastructure due to growing imports (crude, coal) and containerisation, public ports (major ports) will fall short of meeting demand
- This provides private ports with an opportunity to serve the spill-off demand from major ports and increase their capacities in line with forecasted new demand

### Ship repair facilities at ports

- Dry docks are necessary to provide ship repair facilities. Out of all major ports, Kolkata has five dry docks, Mumbai and Visakhapatnam have two; the rest have one or no dock at all
- Given the positive outlook for cargo traffic, and the resulting increase in number of vessels visiting ports, demand for ship repair services will go up. This will provide opportunities to build new dry docks and setup ancillary repair facilities

### Port support services

- Operation and maintenance services such as pilotage, dredging, harbouring and provision of marine assets such as barges and dredgers are expected to increase in coming years
- Increasing investments and cargo traffic point to a healthy outlook for port support services
- These include Operation and Maintenance (O&M) services like pilotage, harbouring and provision of marine assets like barges and dredgers

Source: Ministry of Shipping, TechSci Research  
Note: O&M – Operations & Maintenance



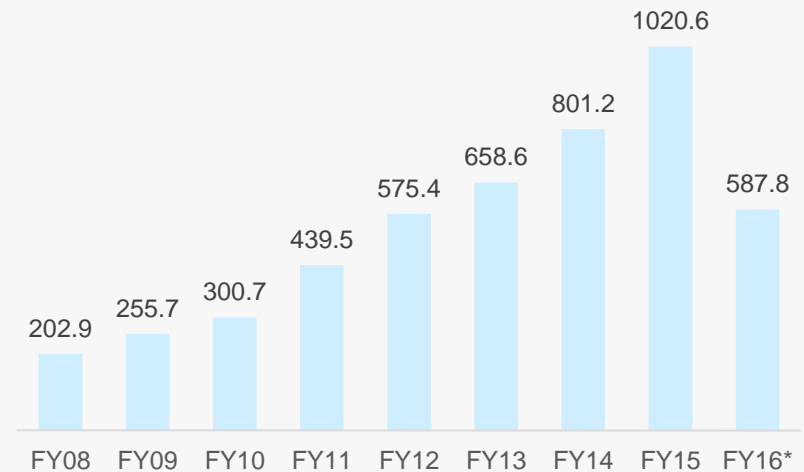
## SUCCESS STORIES



## MUNDRA: THE LARGEST PRIVATE PORT IN INDIA ... (1/2)

- \* Mundra Port and Special Economic Zone Ltd was renamed as Adani Ports & Special Economic Zone Ltd
- \* It is the largest private port in India in terms of volume
  - \* Net Sales (FY16\*): USD587.8 million
  - \* Operating profit\*: USD300.9 million (FY16\*)
- \* Adani's Mundra Port crosses 100 MMT mark of cargo handling in FY14. The only commercial port in India to achieve 100 MMT traffic. Further, cargo traffic of the company touched 57 MMT in FY16\*
  - \* Container traffic contributed the most, followed by coal and edible oil, chemicals and POL
- \* Has the world's largest fully mechanised coal terminal with a capacity of 60 MTPA
- \* Handles the second highest container traffic in India
- \* During FY08–15, total revenue rose to USD1020.6 million, implying a CAGR of 25.96 per cent

Net sales (USD million)



Source: Company sources, including Annual Reports and news items; Assorted news articles; TechSci Research  
 Notes: POL – Petroleum, Oil and Lubricants, MTPA – Million Tonnes Per Annum, MMT – Million Metric Tonnes  
 Indicates P/L Before Int., Excpt. Items & Tax  
 FY16\*- April-September 2015

## JNPT: MAJOR PORT WITH THE LARGEST CONTAINER CAPACITY ... (1/2)

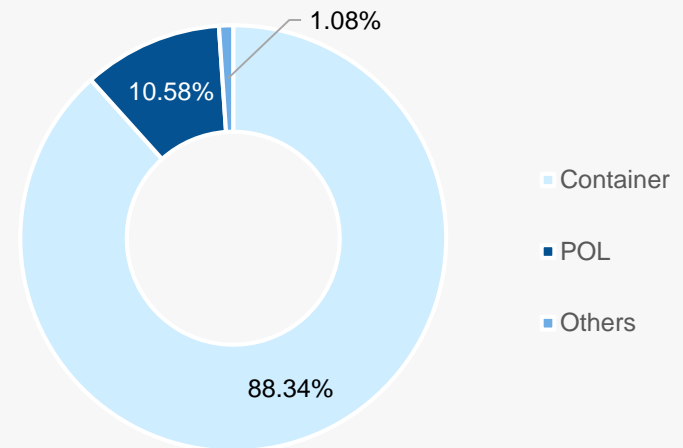
- \* Jawaharlal Nehru Port Trust (JNPT) has the third highest cargo traffic and the highest container traffic in the country
- \* It is a container-focused port and having container traffic of 37.64 MMT in FY16\*
- \* Handled 63.8 million tonnes of cargo in FY15
- \* Poised to handle 3 million TEUs of containers by the year FY16\*
- \* Traffic handled at JNPT for FY16\* was 42.6 MMT
- \* Distribution of JNPT's container traffic for FY16\* across its various terminals was as follows –
  - \* Jawaharlal Nehru Port Container Terminal (JNPCT): 0.86 million TEUs
  - \* Nhava Sheva International Container Terminal (NSICT): 8.7 MMT
  - \* APM Terminals: 16.1 MMT

Notes: TEU – Twenty-Foot Equivalent Unit,  
MMT – Million Metric Tonnes  
FY16\*: April-November 2015

## JNPT: MAJOR PORT WITH THE LARGEST CONTAINER CAPACITY ... (2/2)

- \* JNPT was developed to relieve the pressure of Mumbai port and was commissioned in 1989
- \* It serves most of North India and has good hinterland connectivity through road and rail networks
- \* JNPT, with a capacity of 4.2 million TEU, handles over 55 per cent of India's container traffic and is ranked 24<sup>th</sup> among global container ports
- \* JNPT is a pioneer in involving private sector participation in major ports and operates under a landlord model; NSCIT is the first private terminal in the country
- \* The port is poised to handle 10 million TEUs of containers by 2015–16
- \* Proposed capacity additions by FY17 –
  - \* Marine chemical: 30 MTPA
  - \* Container terminal: 58 MTPA

Cargo profile of JNPT (FY16\*)



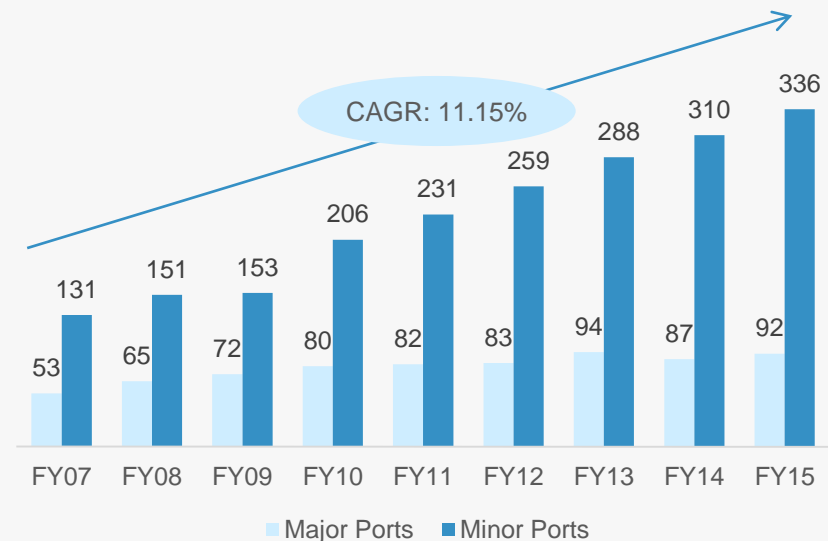
Source: JNPT's website, Indian Ports Association, Ministry of Shipping, TechSci Research  
 Notes: POL – Petroleum, Oil, and Lubricants, MMT – Million Metric Tonnes, TEU – Twenty-Foot Equivalent Unit, MTPA – Million Tonnes Per Annum  
 FY16\*: April-November 2015



## GUJARAT: PORT HUB OF INDIA ... (1/2)

- \* Gujarat is endowed with 1,215 kilo meters of coastline i.e. 1/6<sup>th</sup> of total Indian coastline
- \* The state has 42 ports of which 41 are non major, while Kandla is the sole major port
- \* During FY07–15, cargo traffic in Gujarat increased at a CAGR of 11.15% per cent to reach 429 MMT in FY15.
- \* Favourable policies of the Gujarat government helped the state in gaining private investors interest in port related activities

Cargo handled at major and non-major port of Gujarat (MMT)



Source: Shipping Ministry, Planning Commission, TechSci Research

## GUJARAT: PORT HUB OF INDIA ... (2/2)

- \* During FY15, Gujarat added 35 million tonnes of capacity at non-major ports, augmenting the capacity of non-major ports to 422 million tonnes
- \* In 2015, Gujarat Maritime Board (GMB) focused on the development of new ports and it has already selected 11 Green Field sites. Out of these 11 ports ,6 ports would be developed through private sector and rest would be through joint sector.
- \* During the 12<sup>th</sup> Five-Year Plan, the government estimates investment of about USD9.4 billion in the port sector by private players in Gujarat
- \* With seven ports under construction and five proposed ports, Gujarat has the highest number of privately operated greenfield ports in India

Greenfield ports	Developer
Port of Pipavav	GMB and Gujarat Pipavav Port Ltd
Mundra Port	Gujarat Adani Port Ltd
Dahej Port	Petronet LNG Ltd and GMB
Hazira Port	Shell Gas B.V.

Source: Shipping Ministry,  
TechSci Research



## USEFUL INFORMATION

## INDUSTRY ASSOCIATIONS

### **Indian Ports Association (IPA)**

1<sup>st</sup> floor, South Tower, NBCC Place  
Bhishma Pitamah Marg, Lodi Road  
New Delhi – 110 003  
Phone: 91-11-24369061, 24369063, 24368334  
Fax: 91-11-24365866  
E-mail: [ipa@nic.in](mailto:ipa@nic.in), [ipadel@nda.vsnl.net.in](mailto:ipadel@nda.vsnl.net.in)

### **Indian Private Ports & Terminals Association**

Darabshaw House, Level-1, N.M. Marg,  
Ballard Estate, Mumbai 400 001, India  
Tel. No: 022-22610599  
Fax. No: 022-22621405  
Email: [secretary@ippta.org.in](mailto:secretary@ippta.org.in)

- \* Major and non-major ports do not have a strict association with traffic volumes. The classification has more of an administrative significance
- \* Cargo traffic includes both loading (export) and unloading (imports) of goods
- \* Containerisation is the increased use of container for transporting non-bulk goods. It leads to increased efficiency (both time and money)
- \* Turnaround time is the total time spent by a ship from entry into port till departure
- \* Twenty Equivalent Units (TEU) is a standard measure of containers which are 20 feet in length and 8 feet in width; the height can vary
- \* Draft is the vertical distance between waterline and the bottom of the ship. It determines the depth of water a ship or boat can safely navigate. Higher capacity ships will need higher draft, hence ports with higher natural draft will attract bigger ships
- \* Waterfront availability is the length of the water line on the coast where ships can rest and the goods are unloaded. Longer waterfront lengths reduce waiting time and help raise capacity
- \* Terminals are certain sections of the ports where different types of cargo are unloaded
- \* Single Point Mooring (SPM) is a loading buoy anchored offshore that serves as a mooring point and interconnect for tankers loading or offloading gas or fluid product
- \* A dry dock is a narrow basin that can be flooded to allow a ship to be floated in, then drained to allow that ship to come to rest on a dry platform. Dry docks are used for construction, maintenance and repair of ships

- \* **FY:** Indian Financial Year (April to March) – So FY11 implies April 2010 to March 2011
- \* **USD:** US Dollar
- \* **FDI:** Foreign Direct Investment
- \* **IPA:** Indian Ports Association
- \* **NMDP:** National Maritime Development Programme
- \* **POL:** Petroleum, Oil & Lubricants
- \* **SEZ:** Special Economic Zone
- \* **CAGR:** Compounded Annual Growth Rate
- \* **ICTT:** International Container Transshipment Terminal
- \* **TEU:** Twenty-Foot Equivalent Unit
- \* **MMPA:** Million Metric Tonnes Per Annum
- \* **MMT:** Million Metric Tonnes

- \* **GOI:** Government of India
- \* **NSICT:** Nhava Sheva International Container Terminal, Mumbai
- \* **O&M:** Operation and Maintenance services
- \* **LNG:** Liquefied Natural Gas
- \* Wherever applicable, numbers have been rounded off to the nearest whole number

## EXCHANGE RATES

Exchange rates (Fiscal Year)

Year	INR equivalent of one USD
2004-05	44.81
2005-06	44.14
2006-07	45.14
2007-08	40.27
2008-09	46.14
2009-10	47.42
2010-11	45.62
2011-12	46.88
2012-13	54.31
2013-14	60.28
2014-15	61.06
2015-16(Expected)	61.06

Exchange rates (Calendar Year)

Year	INR equivalent of one USD
2005	43.98
2006	45.18
2007	41.34
2008	43.62
2009	48.42
2010	45.72
2011	46.85
2012	53.46
2013	58.44
2014	61.03
2015(Expected)	63.72

Source: Reserve bank of India,  
Average for the year



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