



**2nd India Port Expansion and Capacity Upgrading
Chennai, India on November 3rd & 4th, 2011**

**Demand & Supply Assessment of ports in India
&
Growth Drivers for Investors**

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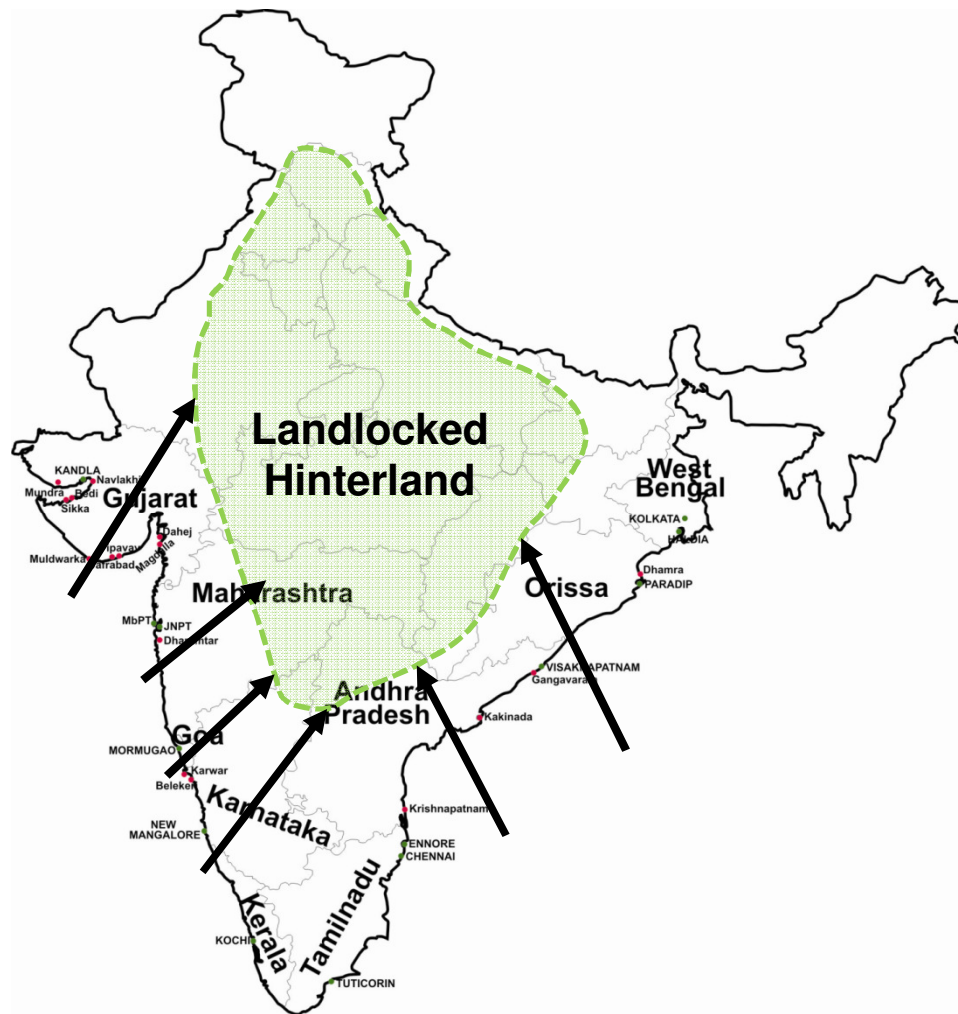
Indian Ports Sector Overview



- Indian trade is dominated by low value high volume commodities
 - ✓ Share of 1.5% of Global trade by Value & Close to 8% by Volume
- Liquid & Bulk Dominates Indian Port Traffic, with following key drivers
 - ✓ Cumulative Refining Capacity of 193 MMTPA
 - ✓ Export of raw material, **Iron Ore** – India is 3rd largest exporter
 - ✓ Energy Demand from Coal Fired power plants, Steel Plants & Industrial Units
- Containerized Cargo would be the next growth drivers
 - ✓ Rise in Per Capita Income would lead to higher consumption of finished goods
 - ✓ Gradual rise of export oriented manufacturing in India
- Existing Government owned ports find difficult to accommodate growth
 - ✓ Cities have grown around them restricting their expansion
 - ✓ Commercially unattractive to handle new generation ships with large draft by way of Dredging.

Opens Opportunity for Large Scale Private Participation & Greenfield Ports

Demand Drivers of Ports in India



India has huge landlocked region
Large population spread with rising disposable income
Huge investment in Infrastructure @ coast
Industrial development – such as power plants/ steel plants

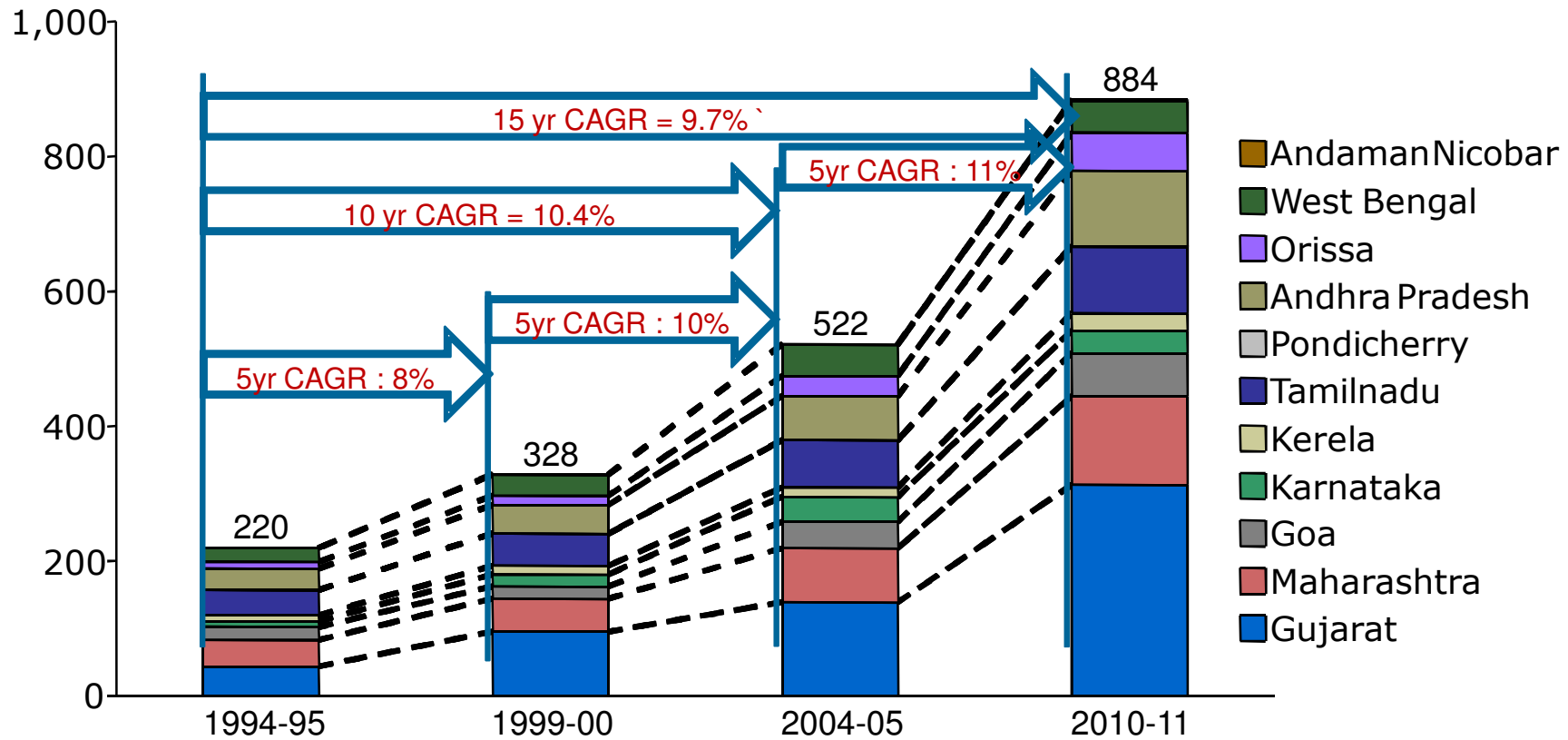
Source: Mantrana Maritime Advisory

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Historic Trend for Port Traffic Growth by region

State Wise Port Traffic (mn Tonnes)



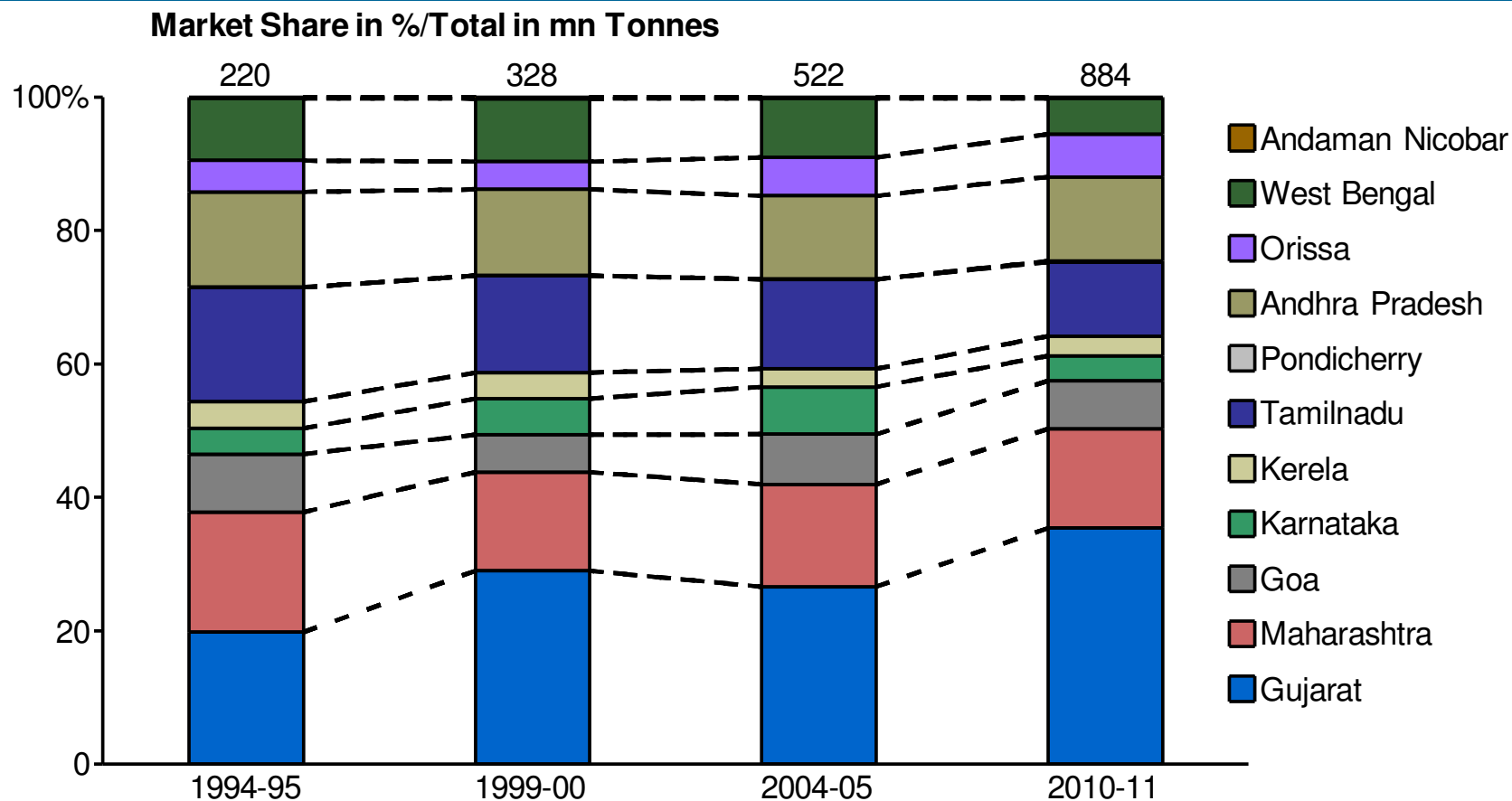
Source: Mantrana Maritime Advisory

Data: IPA/INA/GMB

2010-11 traffic is Provisional

In last 15 Years, Indian Port Traffic has increased 4 times. How much Stakeholders Gained from Growth?

Region wise Market Share of Indian Ports



Source: Mantrana Maritime Advisory

Data: IPA/INA/GMB

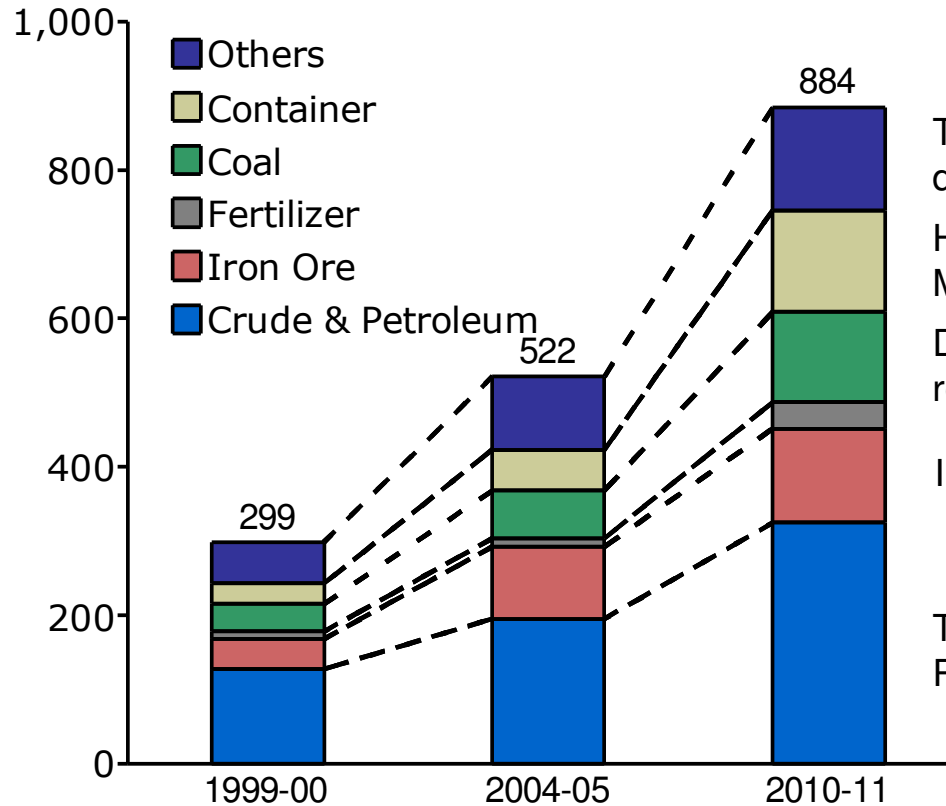
2010-11 traffic is Provisional

In last 15 Years, Every State has gained traffic. However, Gujarat has gained maximum Market Share increasing from 20% to 30% & Maharashtra, Goa, Tamil Nadu and West Bengal have lost theirs

Analysis of Commodities Handled at Indian Ports



Commodity Wise Port Traffic (mn Tonnes)



These are distributed in lower volumes across ports depending upon Hinterland

Huge Potential in Future due to rise of consumption & Manufacturing. However, traffic dictated by shipping lines

Driven by industries. However, industries with large requirements such as power plants look for captive Jetty

Iron Ore has influence of government policy on Export

Traffic Driven by Refineries, With Use of SBM/SPM. Relevance & Benefit to Port is Limited

Source: Mantrana Maritime Advisory
Data: IPA/INA/GMB/

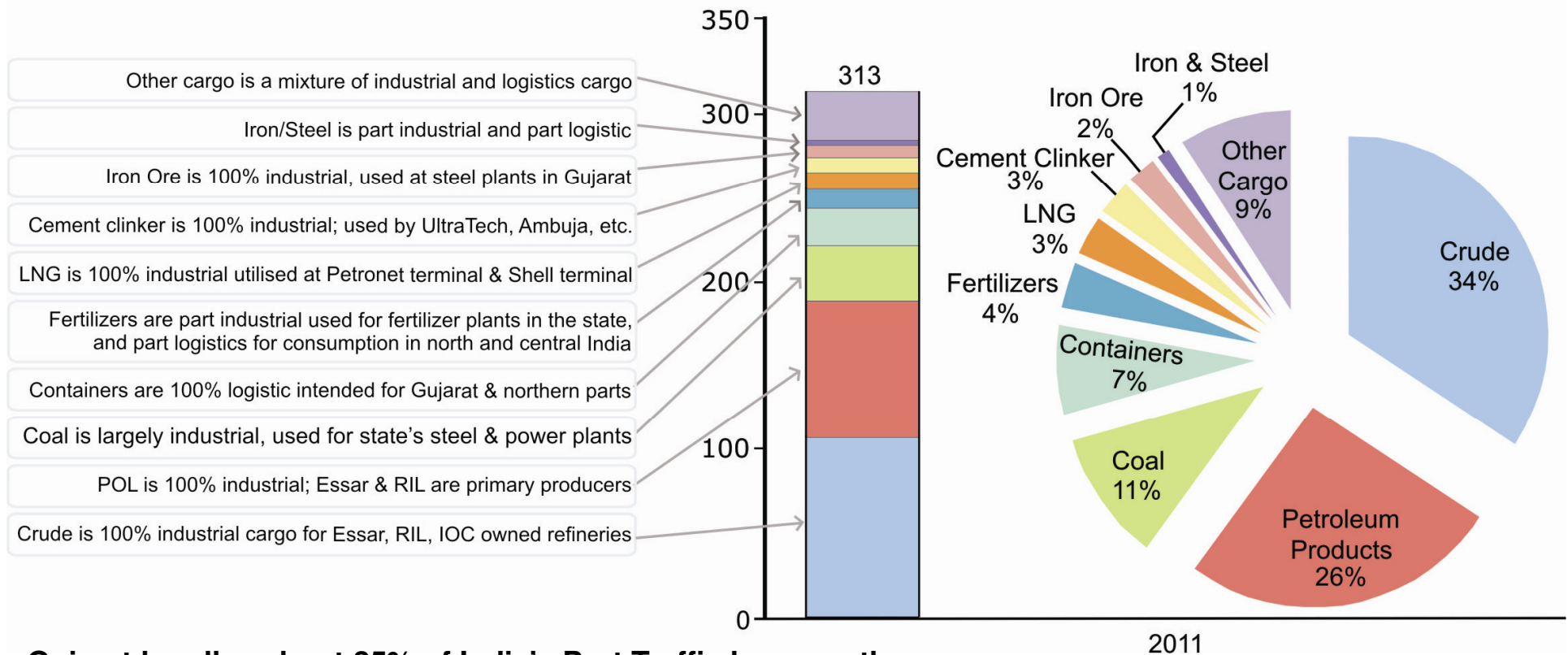
2010-11 traffic is Provisional

Reasons & Impact of Port Development in Gujarat – A Case Study



Industries & Ports together have led to the overall Social & Economic development of Gujarat

Port Traffic in Gujarat by Commodity (mn tonnes)



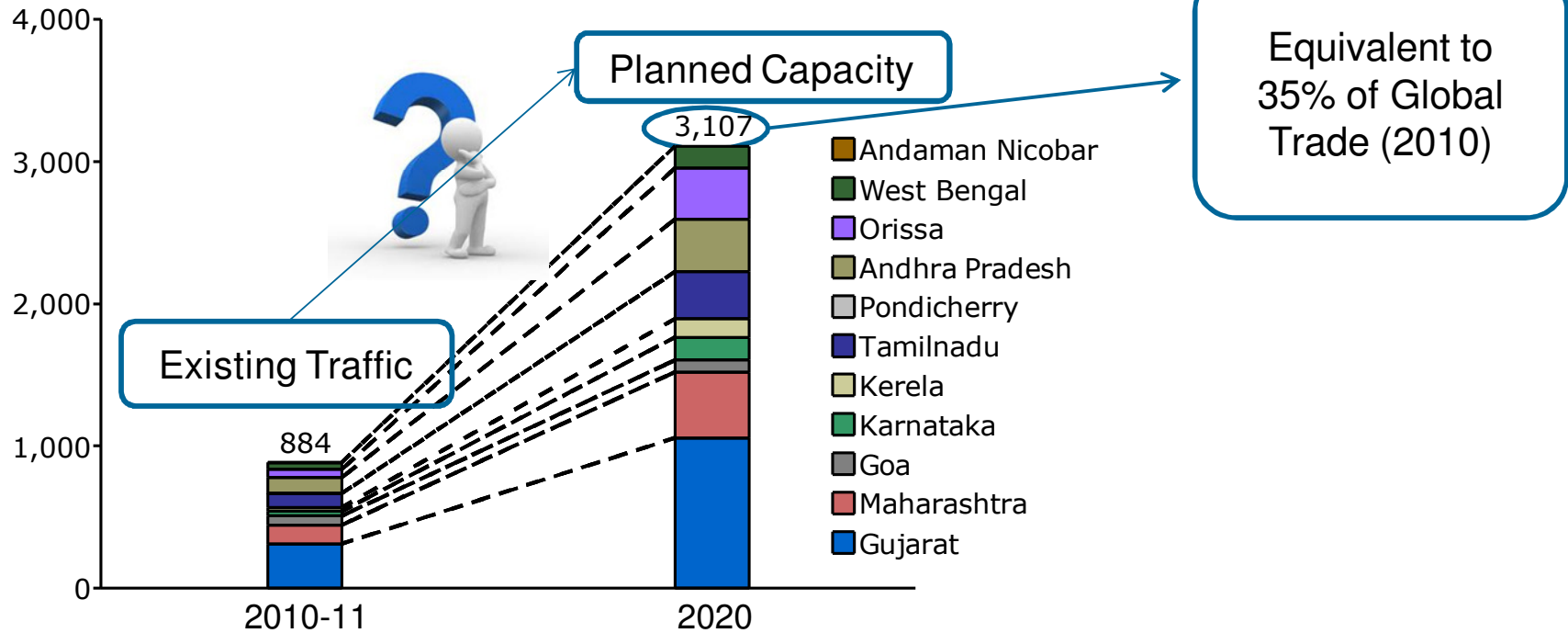
Gujarat handles about 35% of India's Port Traffic because they have developed Industries as well, which is driving port volumes

Source: Mantrana Maritime Advisory
Data: IPA/INA/GMB/

Upcoming Capacity – An Assessment



Comparison Between Existing Port Traffic & Capacity Planned (mn Tonnes)



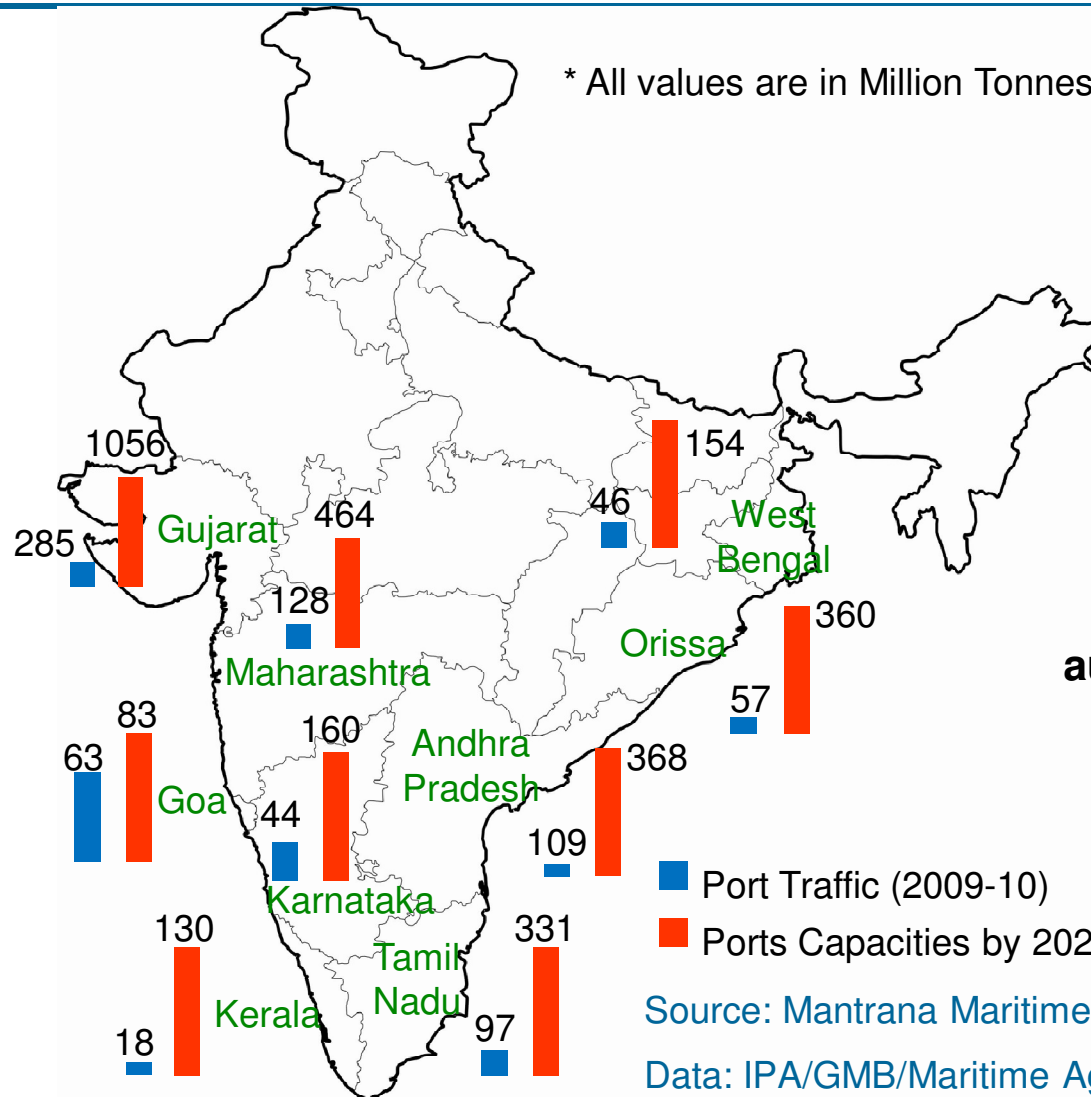
Source: Mantrana Maritime Advisory
Data: IPA/INA/GMB/Maritime Agenda

2010-11 traffic is Provisional

- 2020 Capacity does not include plans for captive Ports / Green Field Ports
- What could be Capacity if they too come up?



Upcoming Capacity – An Assessment



Will the trade in these states increase to complement the augmented capacities at its ports by 2020?

Source: Mantrana Maritime Advisory

Data: IPA/GMB/Maritime Agenda



Upcoming Capacity – Backlash & Resolution

- **Will these maritime states have enough trade volume to justify the capacity expansion by 2020?**
- Trade growth may not be uniform across all the maritime states
- Increase in handling capacity doesn't translate into increase in port traffic
 - ✓ Addition in port capacity will not ensure availability of corresponding cargo
- In case of overcapacity, ports will be contending for the same share of cargo
 - ✓ Consequently, uneven distribution of cargo volume
 - ✓ Some companies may perform better than others
- It's the presence of industries that, ultimately, drives the port business
 - ✓ Augmentation in capacity is borne out of demand from thriving industries in the region
 - ✓ Only presence of adequate industries can justify the increase in ports' capacities
- Increase in port capacity will be logical only if it's accompanied by industrialization



Upcoming Capacity – Real-world examples

• JNPT vs Mumbai Port Trust

- ✓ JNPT was commissioned as MbPT's satellite port, to help decongest the MbPT
- ✓ Over a period of time, due to better infrastructure, JNPT attracted more traffic
- ✓ JNPT started attracting container share from MbPT
- ✓ In the last 15 years, JNPT has grown to become the largest container terminal in India, while MbPT has been reduced to the smallest container terminal in India

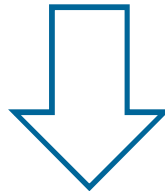
• Kolkata Dock System (KDS) vs. Haldia Dock Complex (HDC)

- ✓ HDC, similar to JNPT, was intended as KDS's satellite port
 - ✓ In 2001-02, KDS handled barely 5 mn Tonnes, while HDC handled nearly 25 mn Tonnes.
 - ✓ Even today, HDC witnesses more traffic than KDS. In 2010-11, KDS's traffic was 12.5 mn Tonnes, while HDC's was 34.8 mn Tonnes
- Inter-port competition is a potential threat for the intended capacity expansion drive
 - Of the two competing ports, one is bound to lose some amount of either existing or additional traffic share

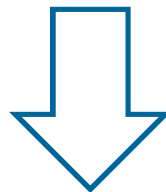


Conclusion

- **India Needs more port capacity. However, judicious planning is essential**
- **Just Setting up port does not attract traffic**
- **In the absence of Industries and trade growth, Ports fight for Same Cargo. Win for one port is loss to another port..**
- **Skewed ratio of supply and demand may render some of the expansion ventures non-viable**



- **Be Choosy in selecting Right Investment – Herd Mentality will Cost you High**



- **Port Prospers and Rewards, if it is developed at right location with right infrastructure and Correct market focus ----- -Else it could turn out to be Sunk Cost**

About Mantrana

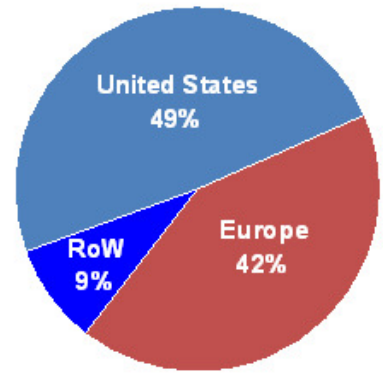


- Undertakes Independent Assessment of Ports & Related infrastructure
- Statistical Analysis & Primary Interaction with the Customer is the Key Methods used for Analysis
- No Room for Passionate views/ Opinions & All recommendations are driven by Numbers & Logic
- Has Association with Arcadis, A Dutch company with expertise on all technical matters related to port.

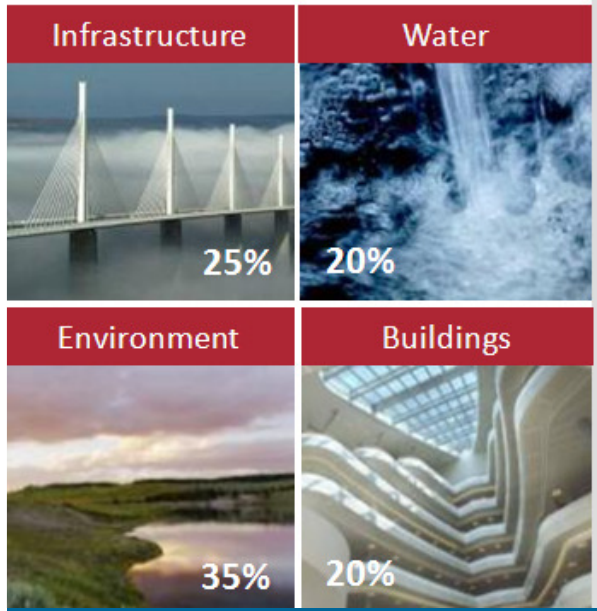


ARCADIS at a Glance

Geography



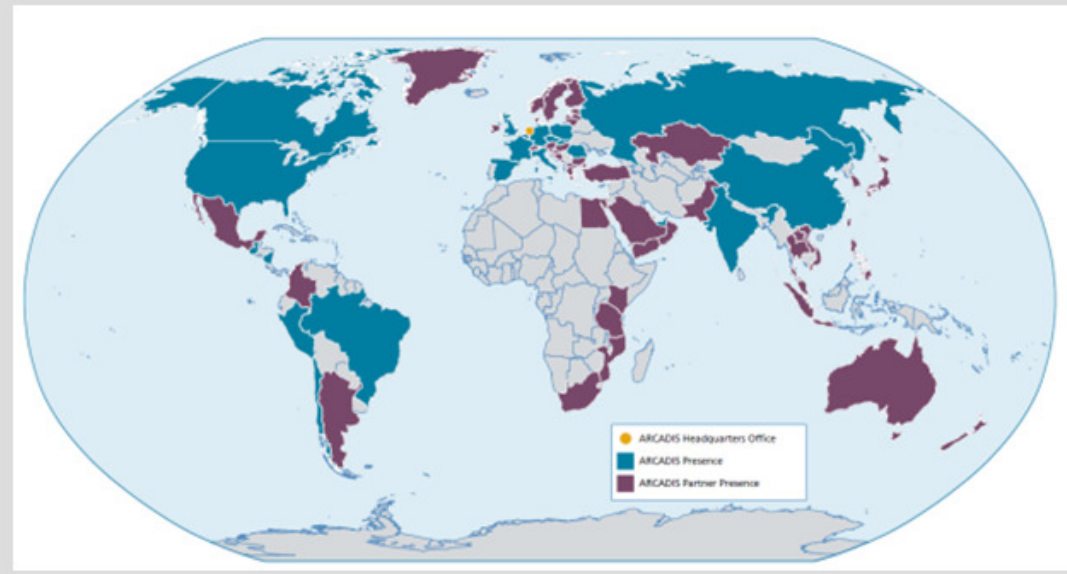
Business Lines



Key Statistics

- Revenue € 2 billion
- 15.000 people worldwide
- Europe top 3
- Worldwide top 10

Services





Thank You for Attention

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