EAST COAST MARITIME BUSINESS SUMMIT

Container Terminal Perspective- Capacities and Utilization

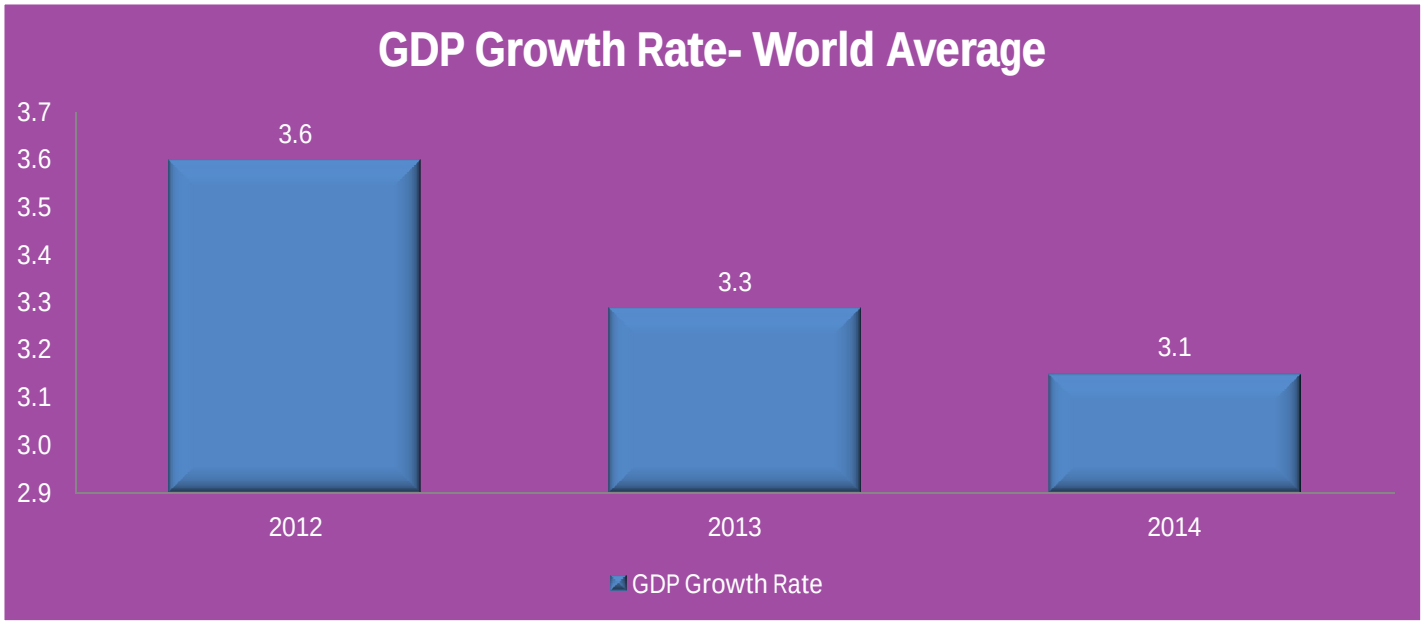
Redefining Port & Logistics Sector

adani™

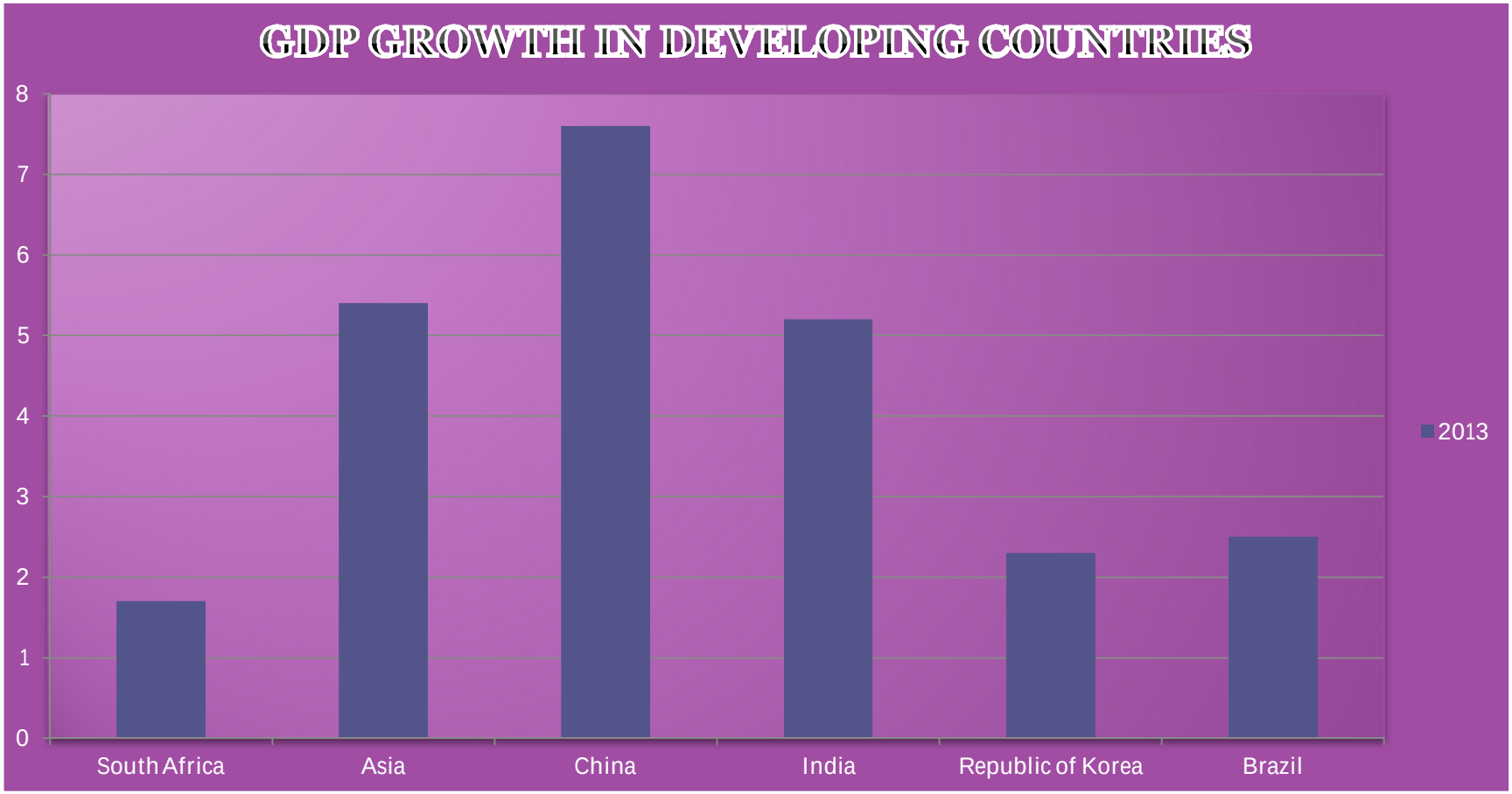
In the Presentation

- Perspective of the World GDP growth figures and compare them with the container growth levels.
- Establish the current correlation between GDP and Container traffic.
- Analyze the trends in containerization. Comparison with World averages.
- Capacity availability in South and East India
- Container Traffic analyses of South India Ports.
- Estimated Traffic Trends in South India.
- Brief introduction to Adani Group and AVCTPL and AECTPL Salient features

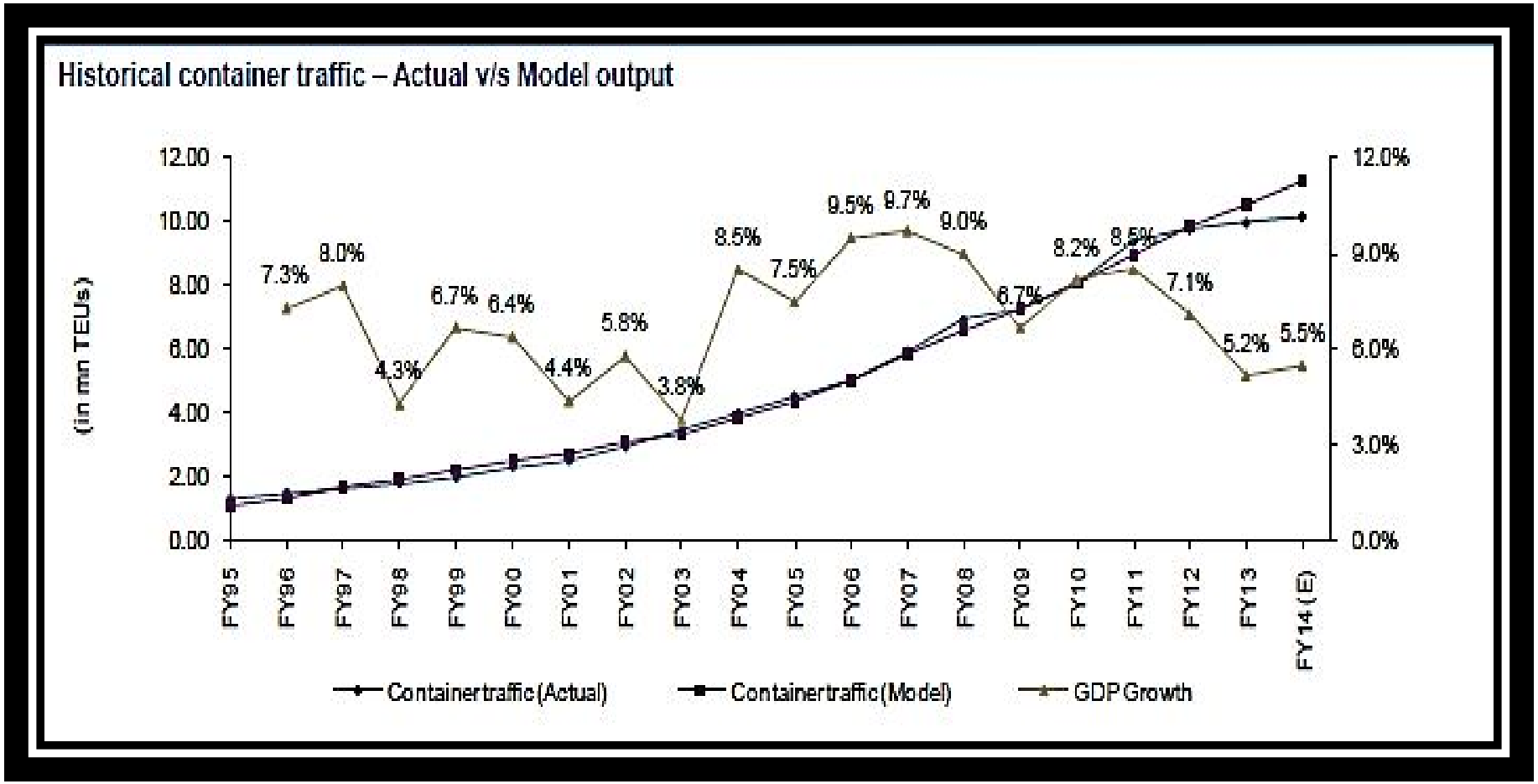
World GDP- Average Growth Rates



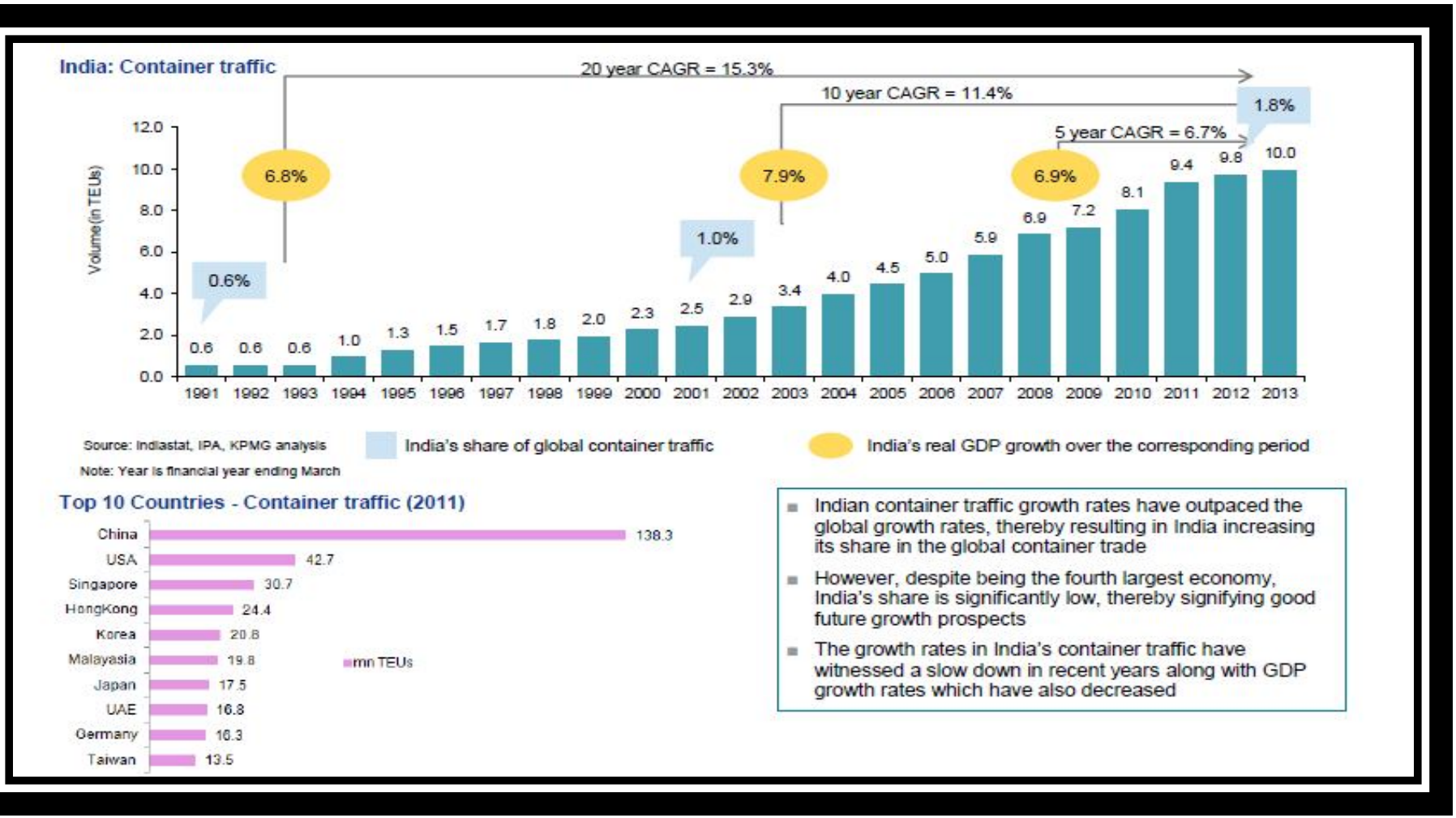
GDP Of Developing Countries



The gateway container traffic in India shows a strong correlation with the country's GDP



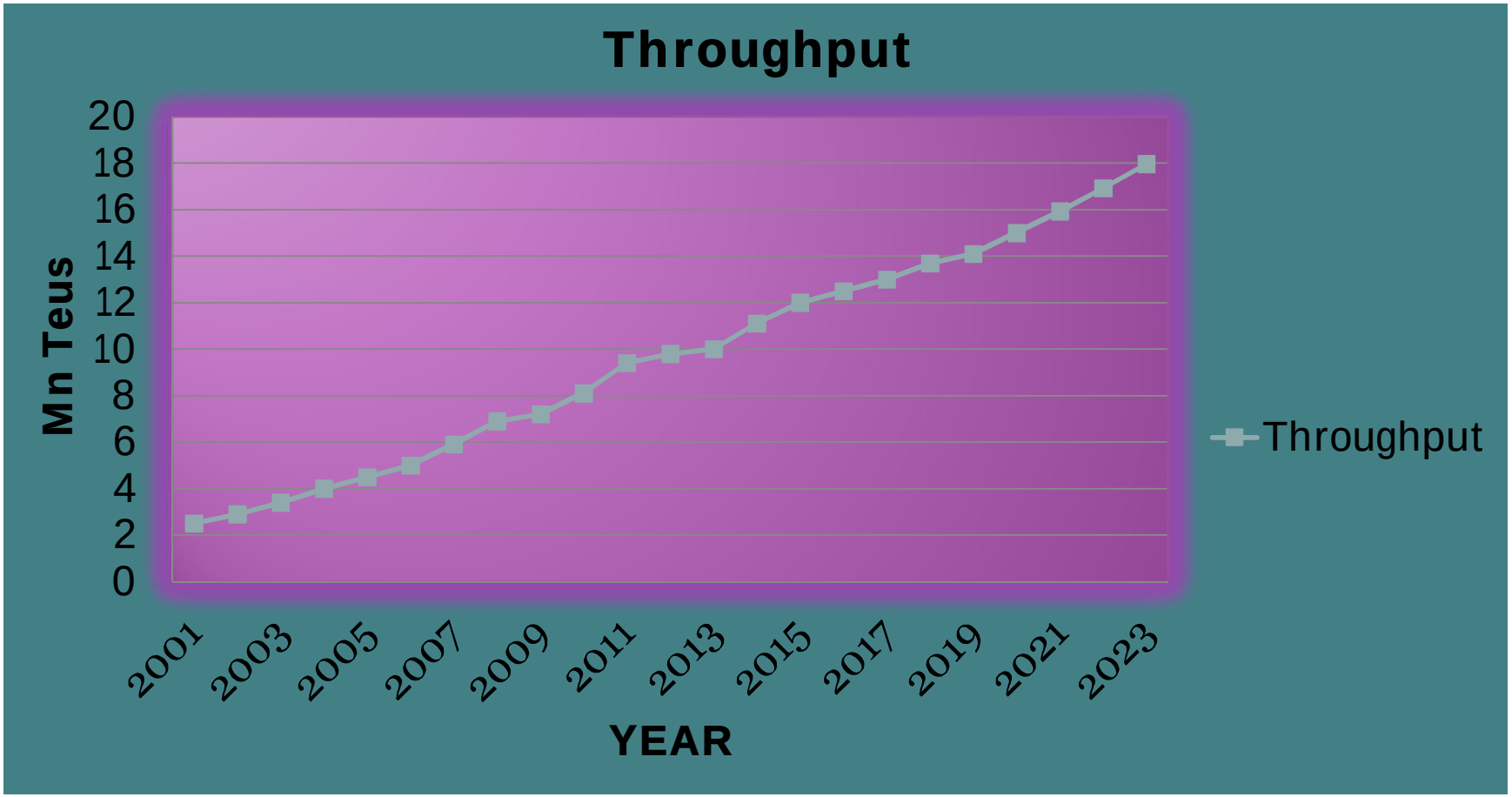
The Container Traffic in India has grown at 15% CAGR over past 20 years and the traffic share has increased from 0.6% in 1991 to 1.8% in 2011



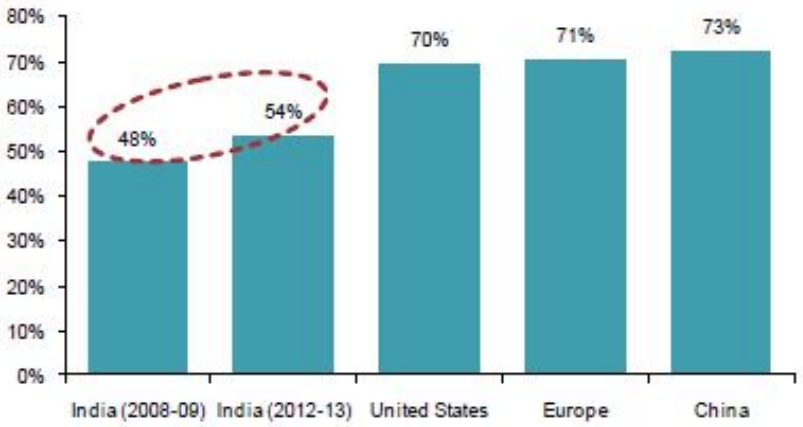
Under different scenarios of GDP growth and containerization levels, India's container traffic is projected to be between 17.7-20.5mn TEUs by FY2023

	Projected Traffic (mn TEUs)		CAGR
	FY18	FY 23	FY 18-23
Base case scenario	14.1	19.1	7.2%
Increase in GDP by 1%	14.4	19.8	7.5%
Increase in GDP by 2%	14.6	20.5	7.8%
Decrease in GDP by 1%	13.9	18.5	6.9%
Decrease in GDP by 2%	13.7	17.9	6.5%
Constant Containerization levels	13.5	17.7	6.2%

Container Traffic Forecast- India Next Decade



Containerization level: India vs. other countries



Source: IPA, Drewry, KPMG analysis

- Containerization levels in India are lower than that achieved in countries with high container traffic
- Containerization levels in India have increased in the past due to high containerization commodities such as electronics, textiles, automobiles, etc
- There is further potential to increase overall containerization in India by increasing penetration in agri commodities like rice, maize, sugar, etc
- Containerization levels are further expected to grow on the back of more infrastructure available in terms of ports, CFS and ICDs

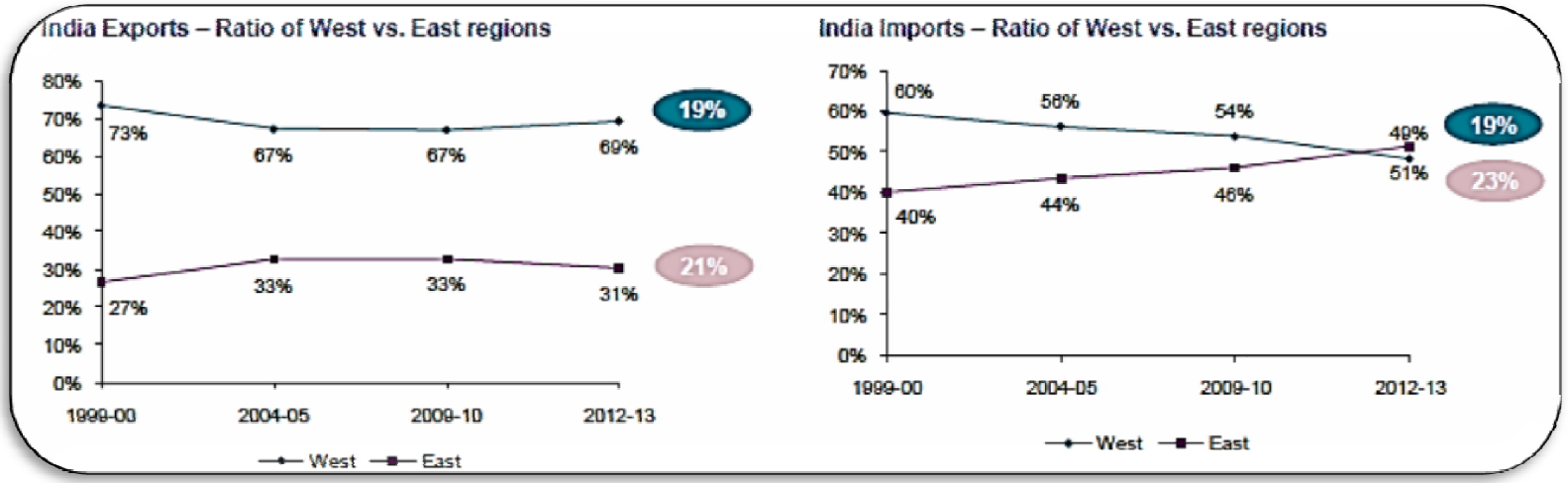
Commoditywise share in EXIM

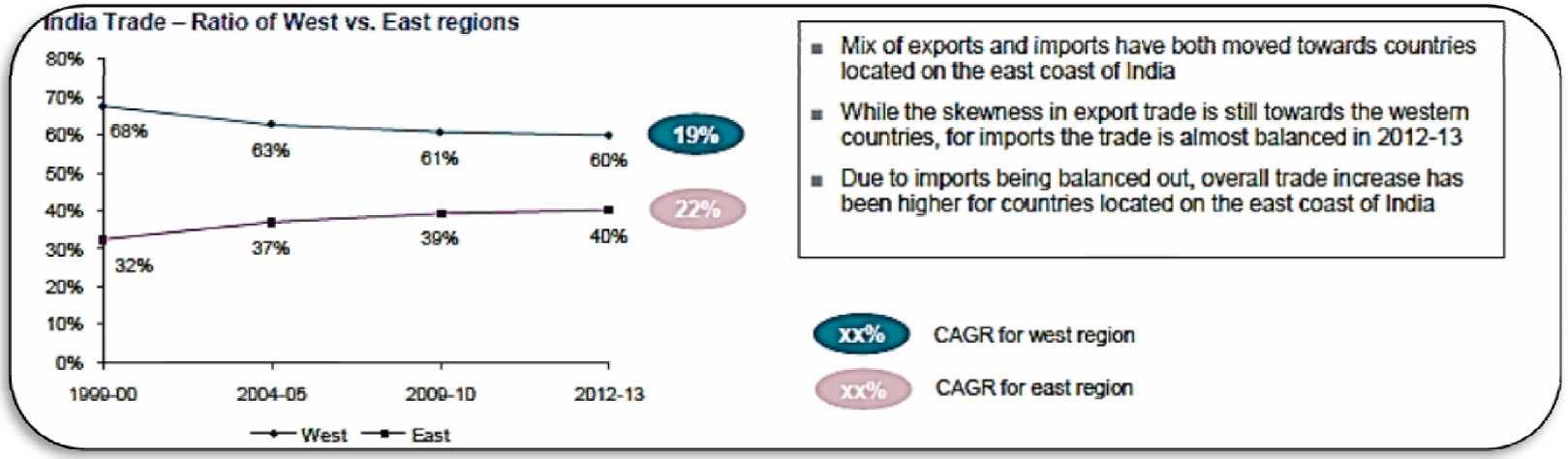
	Exports	Imports
Auto	7%	6%
Chemicals and Pharma	9%	13%
Textiles / Handicrafts / Leather	20%	6%
Paper	0%	13%
Machinery & Engineering	9%	8%
Electronics	3%	7%
Agri commodities	19%	1%
Minerals / Metal / Industrial products	12%	16%
Others / Miscellaneous goods	20%	31%
Total	**100%**	**100%**

Commodities in which there is still bulk movement and there is potential to increase containerization

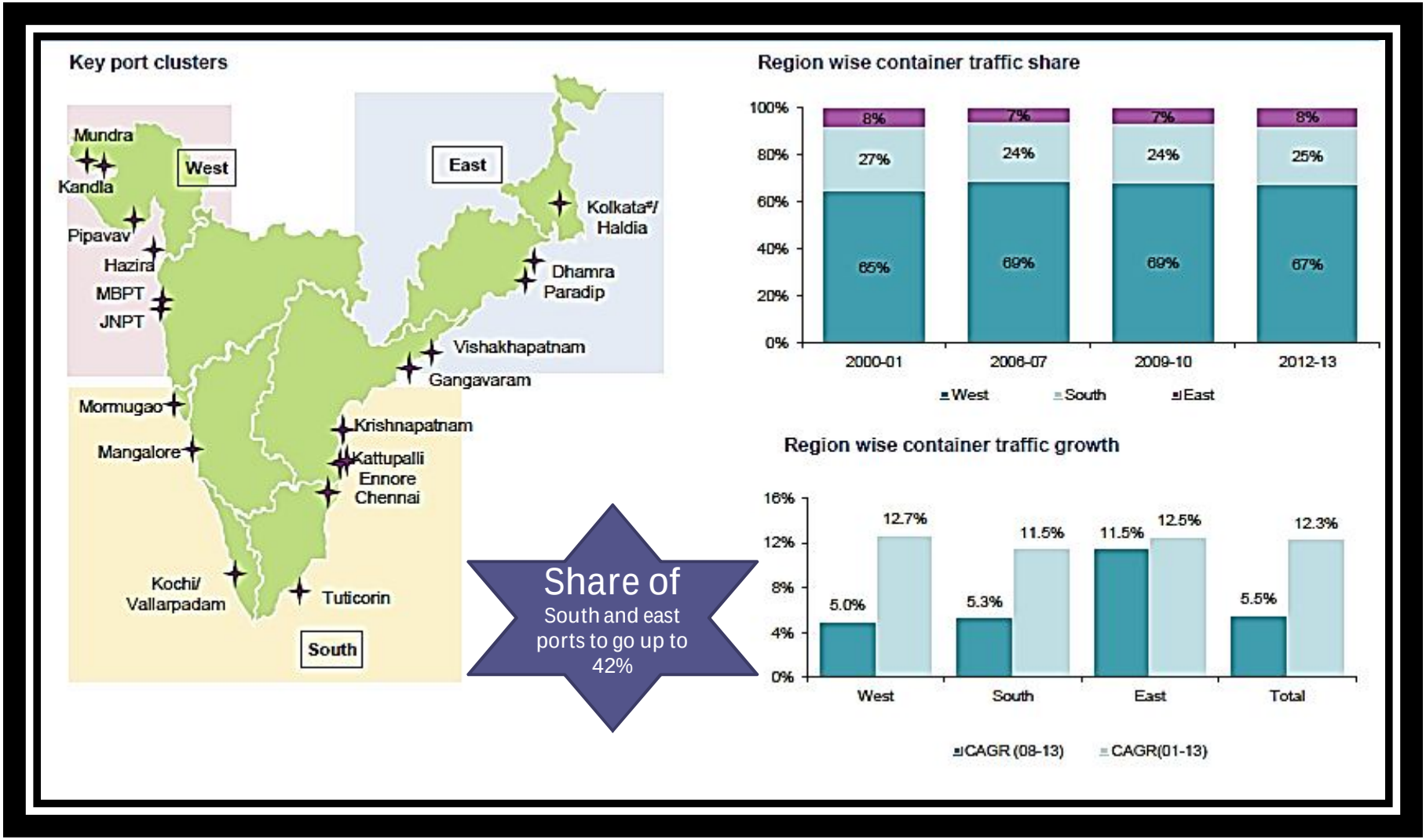
- Majority of agri commodities like rice, wheat, maize, etc still move in bulk trade
- Minerals and metal scrap also move in bulk which can be fully containerized
- Pharmaceuticals moves primarily in containers; however there are still chemicals which move in bulk and can be containerized

There is a trade shift wherein share of Eastbound traffic has increased from 32% in 1999 to 40% in 2012

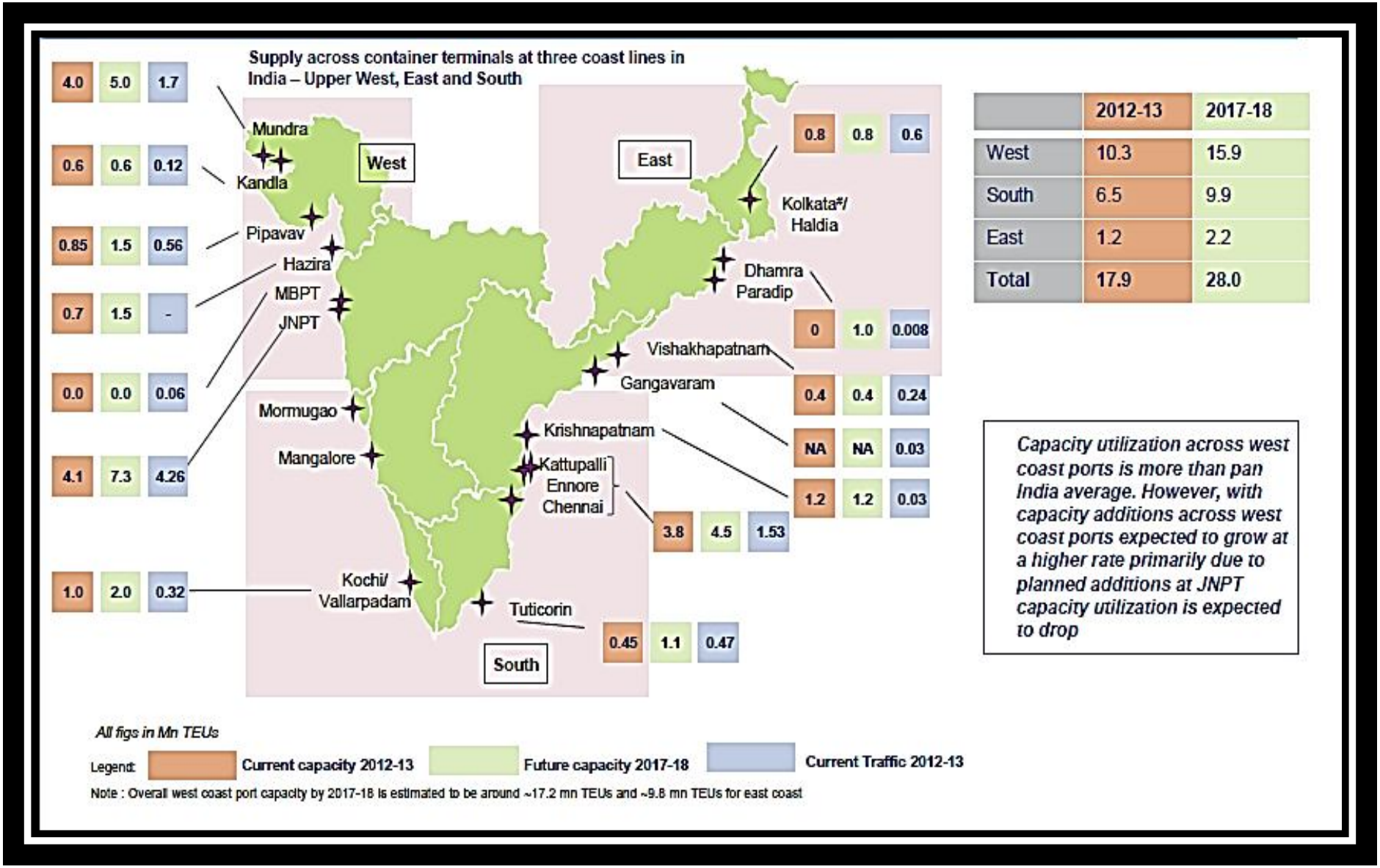




Even when growth in trade has been higher with countries in east, traffic share growth has been higher for western ports from 2000-13



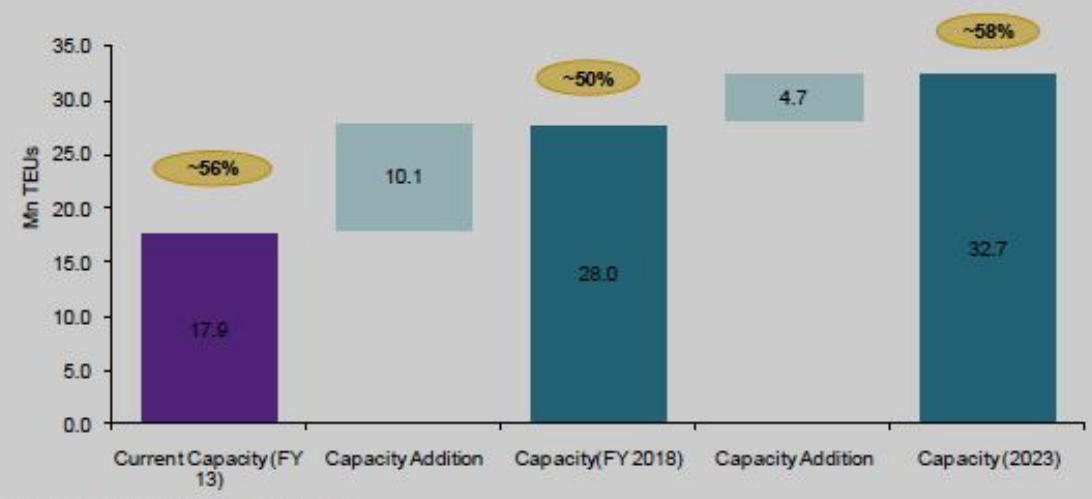
Terminal Capacities- An Overview



	2012-13	2017-18
West	10.3	15.9
South	6.5	9.9
East	1.2	2.2
Total	17.9	28.0

Capacity utilization across west coast ports is more than pan India average. However, with capacity additions across west coast ports expected to grow at a higher rate primarily due to planned additions at JNPT capacity utilization is expected to drop

Container handling capacity by FY 2023 (Base Case)



CAGR
FY 13-18: 9.4%
FY 13-23: 6.2%

Source : Industry discussions, KPMG Analysis

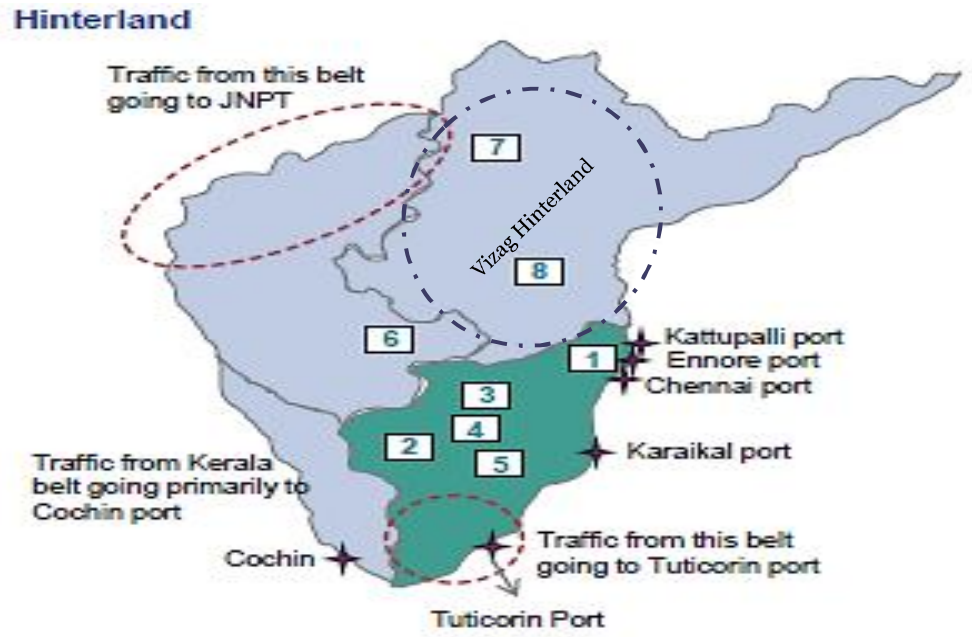
Legend: Capacity Utilization assuming projected traffic

- Currently, c.56% of the container handling capacity is utilized across various ports in India. Given the expected demand and supply scenario going forward, utilization levels are expected to drop to ~50% by FY 18 and again increase to ~58% by FY 23
- Under an optimistic case container handling capacity can be expected to increase to 39.9 mn TEUs by FY 2018 and to a further 57.7 mn TEUs by 2022-23

Vessel Sizes

Gearless			
Year built	Ships	TEU	Average vessel size (TEU)
2005	217	847 530	3 906
2006	285	1 237 630	4 343
2007	297	1 166 968	3 929
2008	321	1 319 897	4 112
2009	204	978 900	4 799
2010	217	1 297 291	5 978
2011	159	1 126 977	7 088
2012	172	1 161 695	6 754

Hinterland of South East Coast Terminals



Legend

1 -> Chennai	5 ->- Karur + Dindigul
2 -> Coimbatore	6 -> Bangalore
3 -> Salem + Namakkal	7 -> Hyderabad
4 -> Tiruppur	8 -> South AP

Projected Traffic- Growth rate of 7%

	Traffic 2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Tamilnadu	1674480	1791694	1917112	2051310	2194902	2348545	2512943	2688849	2877068	3078463	3293956
Karnataka	300000	321000	343470	367513	393239	420766	450219	481734	515456	551538	590145
Andhra Pradesh	208000	222560	238139.2	254809	272646	291731	312152	334003	357383	382400	409167
Kerala	210000	224700	240429	257259	275267	294536	315153	337214	360819	386076	413102

Over 20 ports have plans to add capacity in the next 10 years.

Port	Capacity planned upto 2018	Capacity Planned 2018-2023
Kolkata/ Haldia	1.2	0
Dhamra	1	0
Vizag	0.5	0
Tuticorin	0.7	0
Ennore	0.7	0.7
Chennai	0	0
Krishnapattnam	4.8	0
Katupalli	1	0
Total	**9.9**	**0.7**

Capacity and Utilization in SE Ports

	2018			2023		
	Capacity	Throughput	Utilization	Capacity	Throughput	Utilization
Vizag	1.5	700000	23%	1.5	981786	28%
Krishnapattnam	1.5			2		
Ennore	0.7	2558928	54%	1.4	3589029	66%
Chennai	2.5			2.5		
Katupalli	1.5			1.5		

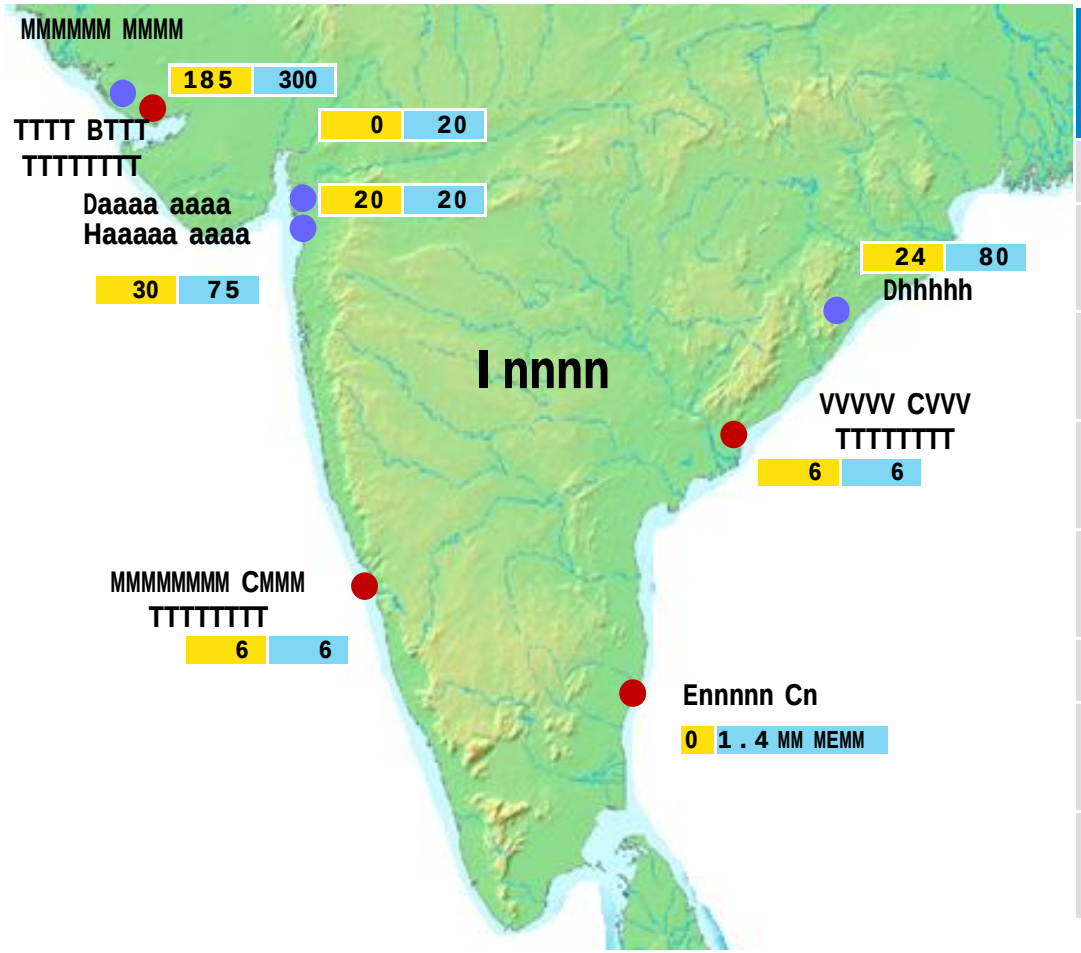
Bangalore Cargo distributed between Chennai/Ennore and Krishnapattnam

d□□□□ ३□□□□




Adddd dddd ddd ddddddd Eddddddd dddd ddddddd

000 00000000 00 I0000 - PPPPP PPP PPPPPPPPP



PPPPP & PPPPPPPPP	YYYY YY 0000000000*
Adddd dddddd dddd	1998
Adddd ddddddddd (Ddddd) PPPP PPP . PPP .	2010
Adddd Hddddd dddd PPPPPPP PPP .	2012
Adddd ddddddddd Cddd TTTTTTTT TTT . TTT	2014
Adddd ddddd Cddd TTTTTTTT TTT . TTT .	2014
Dhhhhh hhhh	2014
Adddd dddddd Bddd TTTTTTTT TTTTTTT TTT .	(2015)
Ennnnn Cnnnnnnnn TTTTTTTT	(2016)

Exxxxxxx Cxxxxxxx 2014	PPPPPPPP CPPPPPPP 2020
271 MMMMA	525 MMMMA

Innnnn ppppp tt iii pppppppppp .

- In ttt llll fff yyyy Adddd PPPPP hhhhhhh oooo 113 MMMMMMM MM oo ccccc

* Fiiiiii ii ( ) iiiiiiiii iiiiiiii iiii ii oooooooooo

Adddd ddddddddd ddddddd – Deeeeeeeeeeeeeee eee eeeeeeeee eeeeee ee Innnn

000 0000 0000 000 0000 000000000 00000

- MMMMMMMMMM lllllllll sssssssss fff EXIX & Doooooooo ccccc
- PPP-Innnn LLLLLLL tt ooooooo ccccccccc tttttt
- 6 PPPPPPP rrrrr fff ccccccccccc .
- Deeeeeeeee nnnnnnn oo ICDs
- OOO oo ttt lllllll ICDs ii Innnn ssssss aaaaaa 210 aaaaa
- Caaaaaaa oo 200,000 TETT ppp aaaaa wwww 5020 gggggg sssss

ძ□□□□ □□□□□ ჭ□□□ □□□□□□□□ვ □□□□□ □□□□ □□□□□

- ჭ□□□□□□□□□ □□□□□□□ □□□ □ □□□□□□ □□ ვნ □□□□□
- ჭ□□□□□□□ ფ ს □□□□□□□ □□□□ □□□ ძ□□□□
- ჯ□□□□ □□□□□□□□□□□ □□□□ ოუნ □□□□ □□□□□ □□□□□□
- □□□□□□□ □□□□□□□□□ □□ ონჲუ

Adani Ennore Container Terminal

- BOT Contract for 30 years awarded in Sept 2014.
- Quay length 750 M (450 m in 1st Phase).
- 7 Super Post Panamax Cranes (60 m outreach).
- Deep draft of 16 m

Adani Ennore Container Terminal ….Contd

- ✓**Paper Less Operations. Direct Access to customers to track containers.**
- ✓**RFID controlled operations with OCR will allow trucks to move from Factory to RTG and Vice Versa.**
- ✓**Proven Track Record- India's largest Port operator.**

Along With Adani Logistics Adani Group will facilitate trade and provide Logistics efficiency

Conclusion

- Indian Cargo is likely to grow at around 7 % in the next decade.
- Share of South and East coast ports likely to go up from 36% presently to 42%.
- Cargo availability for the South east coasts to be around 6 Mil Teus in the next decade.
- Sufficient Capacity is available in Ports on the East Coast

Conclusion

- Terminal Utilization will be between 50 and 60%
- Traffic meant for the Far East must be diverted to the east coast ports.
- Lines must start more services to the Far East from the east coast.
- Infrastructure must be created to distribute cargo easily to gateway ports on the east coast, at low cost.
- Rail costs to be made cheaper in order to shift cargo from Road to Rail.
- Since Vessel Sizes are increasing, the deep drafted South East coast ports can readily accommodate large vessels providing the cost benefits.


Thank You