

Port & Container Terminal Landscape in South Asia -Challenges and Actions Required in Making it a Truly World Class



Container Terminals in South Asia





Container Cargo Volume Growth in South Asia (in Million TEUs)





Source: Industry Sources

Capacity (Mn TEUs) and Utilisation at Container Terminals in South Asia





Source: Industry Sources

Why we require World Class Ports??-Ever increasing Vessel Sizes

C DP WORLD

- Bigger vessels bring bigger parcel sizes
- Demands superior QCs delivering higher
 BMPH
- Higher parcel size requires effective utilization of yard area with advanced yard handling equipment
- Faster cargo evacuation requires
- robust railway infrastructure
- efficient gate operations to ensure minimum time required for trucks
- quicker connection to
 transshipment boxes



300

400

500

100

Length Overall (LOA) in meta

200

Sources: Drewry, Alphaliner

Ingredients of World Class Ports/ Terminals



Hard Infrastructure



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Soft Infrastructure





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Essentials to become a World Class Port/ Terminal



Infrastructure

- Strategic location
- Created before time
- Sufficient expansion headroom

Policies

- Consistent policy framework
- Ability to alter framework with passage of time
- Corporatisation of ports

Customer Centric

- Meet customer expectations
- Flexible and Cost
 Competitiveness
 solutions
- Efficient customs processes

Productivity

- No waiting time for ships
- Higher berth productivity
- Competitive
 Vessel related
 charges

Proximity to Cargo Originating Hubs





Some examples of World Class Ports/ Terminals





Some Stats about World Class Ports/ Terminals - 2014



Sources: Port of Rotterdam Authority, JOC

* Averaged for Jan-June2014

DP WORLD



	Quay Cranes	Quay Length (KMs)	Draft	Berths	Current Capacity (Mn TEUs)	Proposed Capacity (Mn TEUs)	Volume Handled 2014 (Mn TEUs)
Singapore	212	17	15-18	57	40	50 (by 2017)	33.9
Dubai- Jebel Ali	97	20	13-17	29	15	22 (by 2018)	15.2

The biggest port in South Asia

JNPT	31	2.8	13-14	9	5.5	7.5 (by 2018)	4.6
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Sources: PSA Singapore, DP World, JNPT



Parameters	Indian Ports	International Ports
Average number of containers handled per ship per hour	15-23	Colombo: 25 Singapore:30
Annual container Throughput Capacity (Mn TEUs)	JNPT: 4.3	Singopore: 30 Hong Kong: 25
Maximum crane productivity (TEUs per quay crane per annum)	NSICT 188,000 TEUs	Hong Kong : 272,700 Hamburg : 252,200
Maximum quay productivity (TEUs per meter)	JNPT: 2500	Hong Kong: 3,050

Shanghai: Overcoming Capacity Constraints through Innovative Infrastructure Creation





To expand capacity, Shaghai created YDP on an island located 32 KMs away from mainland and provided connectivity by constructing Donghai Bridge.

YDP has 3 KM long quay length, 32 quay cranes 120 RTGs and has capacity to handle 5 Mn TEUs

Railway Infrastructure : Necessary for Faster





Hamburg is Europe's largest railway port

Around 12% of German railway goods traffic begins or ends in the Port of Hamburg

The port has 135 railway sidings

On normal working day, around 200 goods trains with over 5,000 wagons pass through the port area

Railway network is equipped with modern control and safety technology

Goods traffic on network is coordinated down to the last minute

Gate Automation: Necessary to reduce congestions at entry points



Gate OCR



Driver Kiosk





Traffic Management



Remote Crane Operations : Necessary to Boost Productivity





Integrated Systems at Ports: Real Time Communication between Port users





Source: PSA Singapore

Challenges in Making Ports World Class





Actions Required for Making Ports World Class





DP World Making World Class Port in South Asia – NSIGT, Nhava Sheva





- DP World is constructing new terminal- NSIGT having 800,000 TEUs capacity along 330 Mtrs quay length
- > The terminal will be the first in India to handle mega vessels with capacity of 14,000TEUs
- NSIGT is equipped with the state of the art 4 Super Post Panamax Twin Lift Cranes (QCs) and are designed with 'remote operation' capabilities in future
- > NSIGT will deploy electric RTGs as against the normally used diesel RTGs to reduce carbon emissions
- > NSIGT will use Gate Automation to prevent delays at terminal entry points





Thank You