

CONTENTS	Page
Summary	1
Key Performance Indicators	2
Editorial: Indian Ports - Calling International Players	3
Market Snapshot	14
Transactions Snapshot	17
Newsline	19
Avendus Power Index	27
Abbreviations	28

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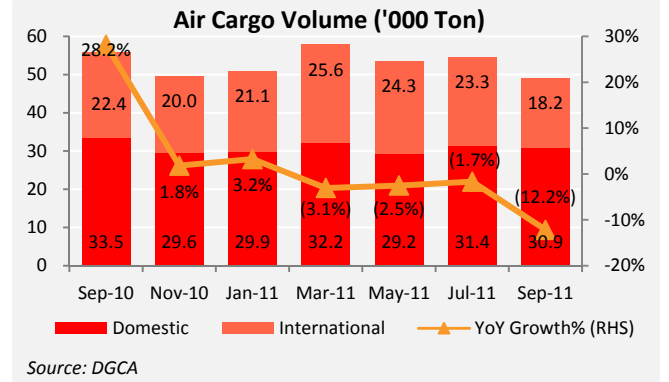
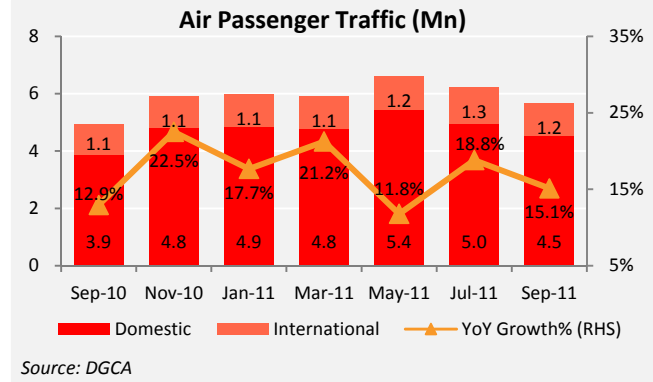
Indian infrastructure sector saw M&A transactions aggregate to USD1.2bn over the last quarter with the USD203.9mn investment in ReNew Wind Power by Goldman Sachs being the highlight. Outbound deal activity was mostly in the oil & gas and mining sectors including stake acquisition in Carrizo Oil & Gas by GAIL India and the takeover of Coal Mine Concession by Mercator Lines in Indonesia.

In this second edition of Avendus Infrasight, we present to you an in-depth look at the participation of global players in Indian ports sector. India has witnessed over 9% year-on-year traffic growth at its ports over the last decade. With capacity growth lagging the traffic growth, overcrowding is already occurring with vessels jostling for berths. Cargo traffic is set to explode further with significant volume drivers such as coal imports and containerized cargo to come into play. With 90% of India's trade happening through ports, there exists a pent up demand for new and improved port infrastructure. Over 80% of the investment in ports is projected to come from the private sector over the next few years. Surprisingly, though private participation has picked up in ports over the last decade, participation by international players has been limited mostly to container terminal operations. However, even their limited participation has yielded better operating efficiencies. With large number of global port operators scouting for investment opportunities, their participation in India could help transform Indian ports into world class facilities, while India offers them an attractive investment opportunity. Given the dynamics influencing the sector, it is only a matter of time before this segment of Indian infrastructure sees increased participation from global port operators.

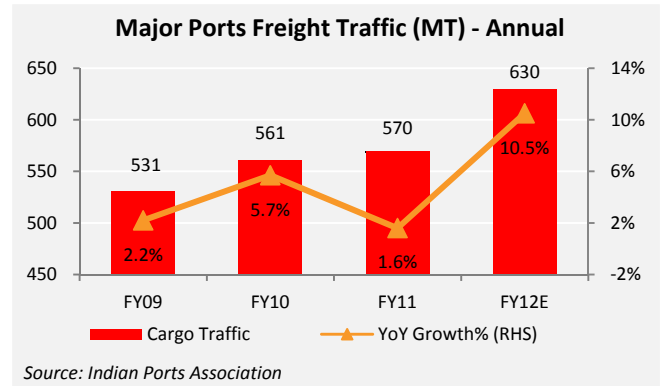
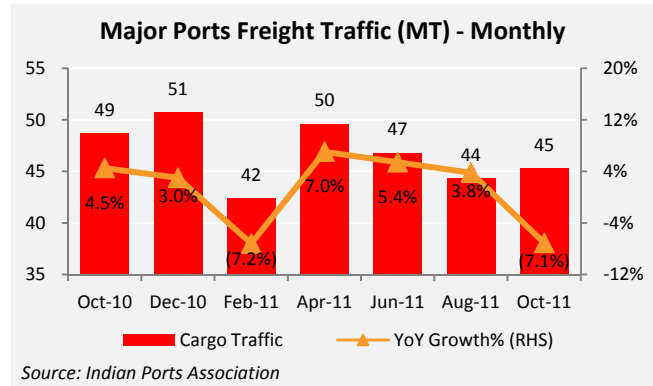
Infrastructure Team, Avendus Capital

KEY PERFORMANCE INDICATORS

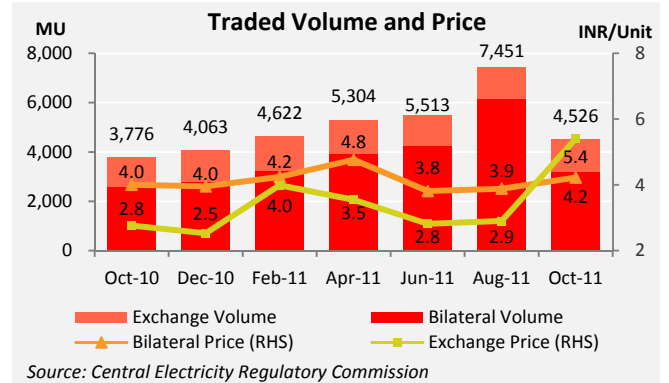
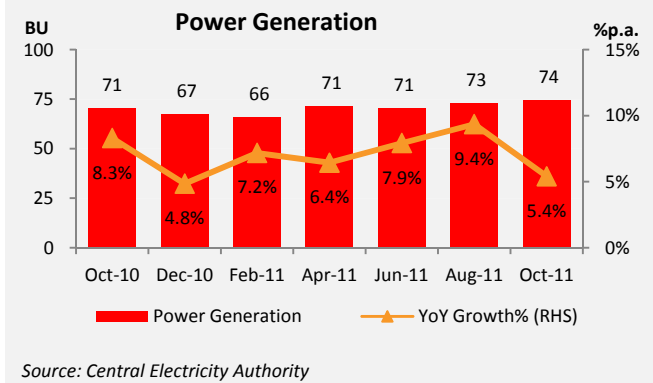
AIRPORTS



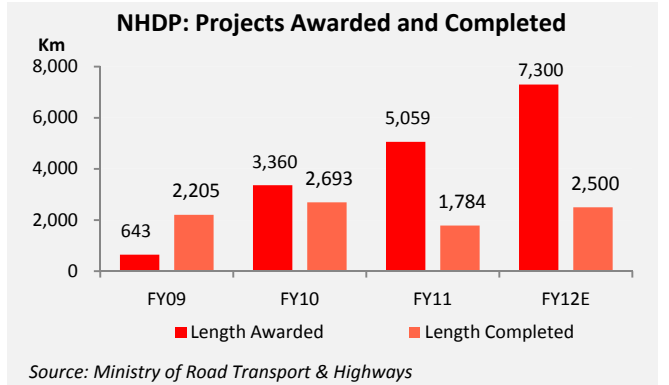
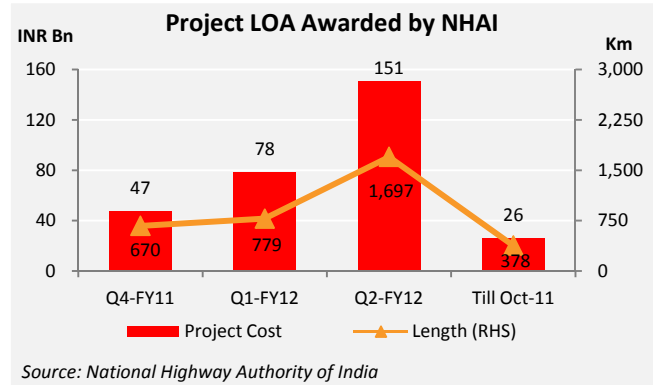
PORTS



POWER



ROADS





INDIAN PORTS – CALLING INTERNATIONAL PLAYERS

INTRODUCTION

Trade in any commodity between regions is driven by the demand-supply imbalance and is influenced by the policy framework governing the markets and the infrastructure supporting the trade process. While the current global economic conditions do pose the risk of a second round of economic downturn, the long term view on global trade remains positive, primarily driven by the emerging markets of India and China.

Growth in international trade has forced the emerging markets to concentrate more on the improvement of supporting infrastructure - seaports, roads and airports. Considering that over 80% (by volume) of world trade is carried out through the international shipping industry, corresponding figure for India being 90%, there is little doubt that development of road and airport infrastructure without adequate investments in seaports would not contribute significantly to the economy of a nation.

Trade growth of 18.8% CAGR and port traffic growth of 9.7% CAGR in India over FY01-10, coupled with under-investment in seaport infrastructure, has led to high capacity constraint at Indian ports today. With port traffic projected to grow to more than 2,495MT by FY20E from 892MT in FY11, over INR 2,800Bn of investment is envisaged in the Indian seaport infrastructure over the next decade. Given the huge quantum of investment required in the sector and the constrained financing capability of Government, private players would need to play a major role in the development of the sector.

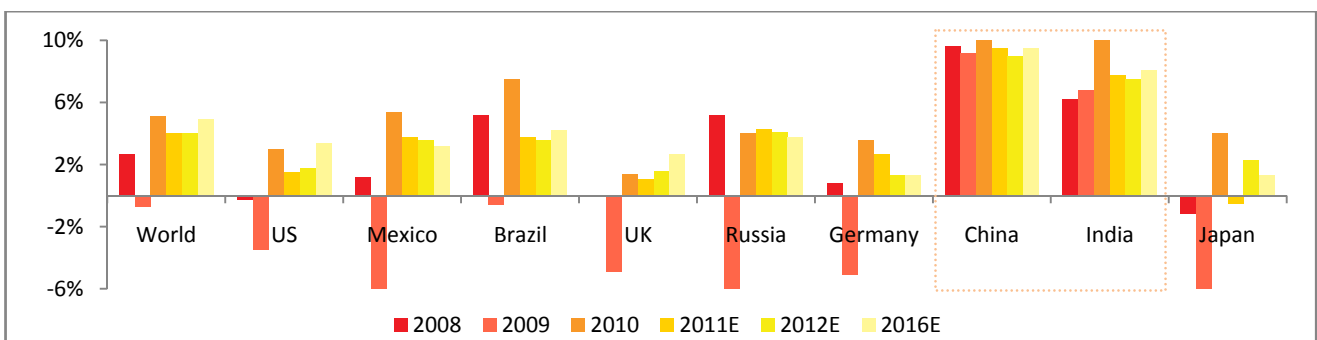
Indian seaport infrastructure has witnessed increased private participation over the last few years but overall the ports continue to under-perform when compared with the leading ports of the world. Global port operators, with the strong know-how of port operations, could hold the key to bringing about efficiencies in Indian port operations. Given that there has been a limited participation of global players in India's bulk cargo port operations till now, but even this limited participation has brought about improvements in operational efficiency, increased participation of Global Port Operators could act as a catalyst for transformation of Indian ports into world class facilities.

India offers strong trade growth prospects to international players and in-turn is presenting an opportunity to participate in developing a world class seaport infrastructure in India.

INDIA AT THE FOREFRONT OF GLOBAL TRADE

Weaknesses in major developed economies continue to prolong the global economic recovery from the 2008 financial crisis. However, in contrast with the continuing subdued GDP outlook of the developed economies, some of the developing economies have shown resilient GDP growth and have been contributing to more than half of the expansion of world economy since third quarter of 2009. The growth in developing economies has been led particularly by China, India, Russia and Brazil.

Real GDP growth rate – Indian & China leading the pack

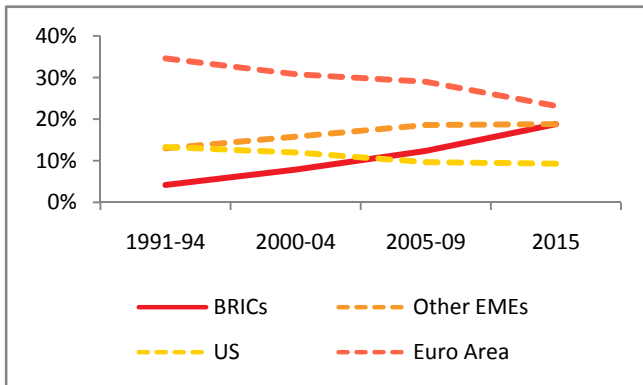


Source: World Economic Outlook, September 2011

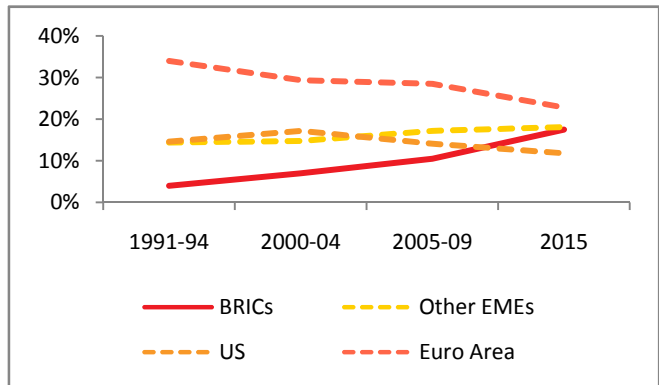


The growing GDP per capita of the world economies highlight the rising levels of wealth in the BRIC countries. Rising level of wealth in India is expected to contribute to a private consumption growth higher than its industrial production growth – leading to increased import activity at its ports. International trade has had high correlation with GDP growth of a nation, and with BRICs GDP expected to continue growing at a fast pace, bulk of the growth in international trade is expected to be contributed by the BRIC countries.

Exports (% of World Total) – BRICs moving up the order



Imports (% of World Total) – BRICs moving up the order



Source: IMF Working Paper – Low-Income Countries BRIC Linkage: Are their growth spillovers, September 2011

With India’s trade volume of goods and services projected to grow at over 10% vis-à-vis less than 10% in Russia and Brazil, its contribution to international trade would significantly move up. To put things in perspective, over 2001-2010, seaborne dry bulk trade (main driver of global shipping industry) grew at 5% CAGR - 75% of this growth was contributed by increase in trade of Iron ore and Coal out of which India contributed 26% of increased trade in coal.

As India’s contribution to growth of global trade increases, it is expected to see heightened pace of traffic growth at its ports.

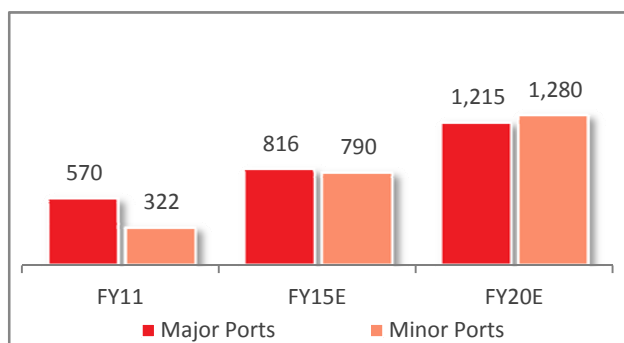
LARGE INVESTMENT REQUIRED AT INDIAN PORTS TO KEEP PACE WITH TRAFFIC GROWTH

As of September 2011, Indian port infrastructure comprised of 13 major ports with capacity of 672.2MT and ~200 non-major ports (with only ~60 being active) with capacity of 391.7MT. For high productivity of ports, the optimal capacity utilization standard is estimated at 70-75%, which currently stands at 89% at major ports (some ports even operating at over 100%) of India and 79% at minor ports of India. The existing capacity constraint along with low level of mechanization and inefficient processes (non-availability of berth / equipment, documents not being ready, lack of storage space, waiting for barges etc.) is leading to under-performance of Indian ports. Just to highlight the state of affairs, the pre-berthing detention time, which was at 11.96 hours (under port account) for major ports of India during FY2011, is not even a concept in some of the world class ports as the capacity is larger than the traffic.

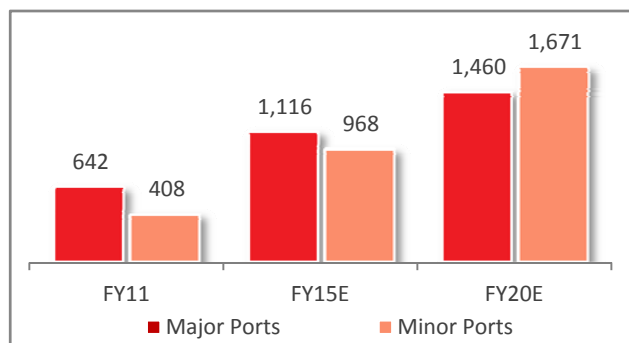
Given that over 90% (by volume) of Indian trade is carried out through the shipping industry, development of Indian seaport infrastructure is critical to sustain the success of accelerated growth of the Indian economy. With port traffic projected to grow strongly in the medium to long term, existing scenario of Indian ports would only worsen if large investments are not made in the sector and utilized efficiently. Development is required not only in the form of capacity creation but also in the form of mechanization, deeper draft, and hinterland connectivity of Indian ports. The exhibit below shows the projected traffic growth at Indian ports and the capacity required at Indian ports.



Traffic growth at Indian Ports (MT)



Capacity growth at Indian Ports (MT)

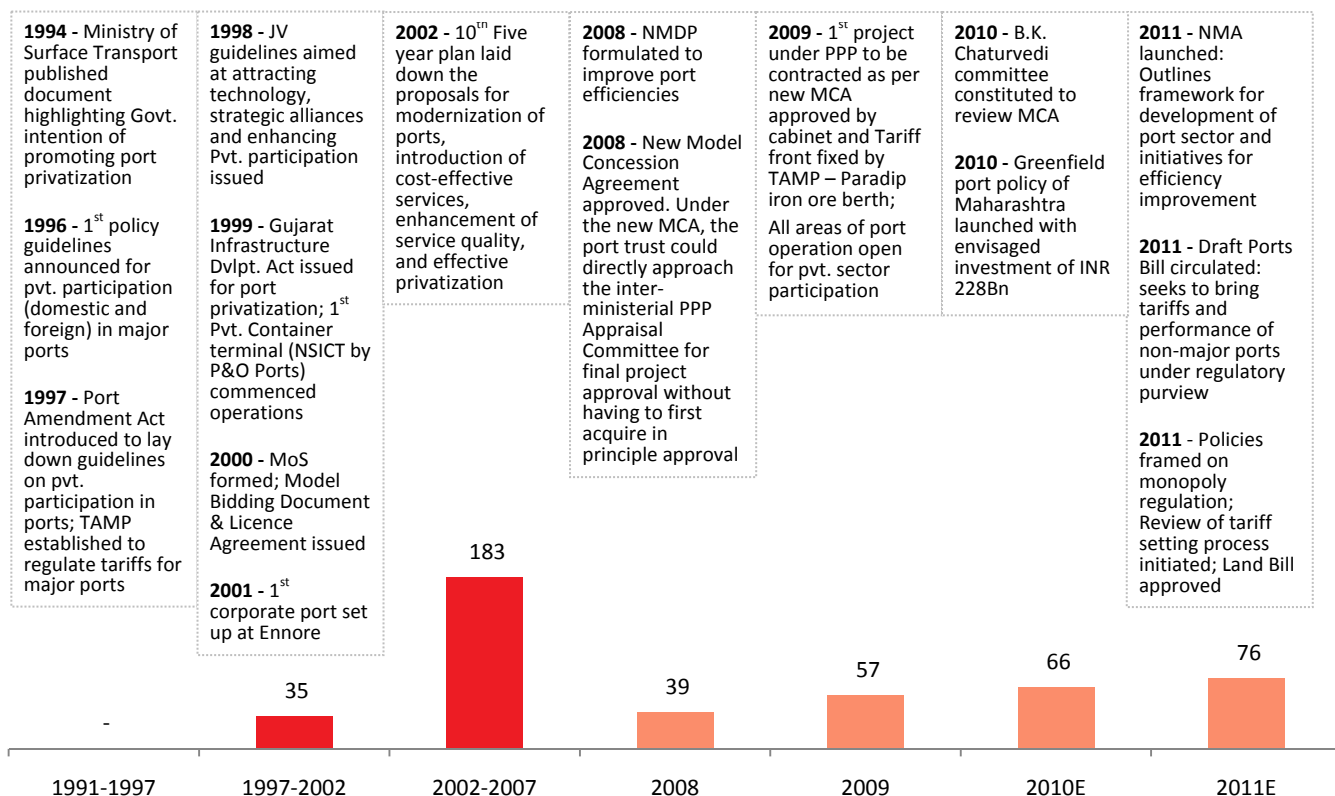


Source: Maritime Agenda 2010-2020

PRIVATIZATION OF INDIAN PORTS HAS PICKED UP BUT OBJECTIVES OF PRIVATISATION REMAIN UNFULFILLED

With large scale development required in the industry to enhance capacity and to transform Indian ports into world class facilities, privatization of Indian ports was initiated with the 1996 policy document with the objectives of getting financing support and of improving operational efficiencies (refer 'Background on need for private participation in ports' on Page 12). Since then, investments by private participants in the sector have picked up considerably.

Increasing private investment in Indian ports (INR Billion at 2006-07 prices) since opening up of the sector



Source: Planning Commission, Mid-term appraisal of 11th five year plan; Infrastructure Development in India: Emerging Challenges by Rakesh Mohan

With further large scale investments required in Indian ports, continued private participation in the sector would be a must for its growth.



Fund Requirement in Indian Ports (Amount in INR Billion)

	Budgetary Support & Internal Resources	Private Investment	Total
Major Ports (FY11-FY2020)			
Deepening of channels/ berths	86	-	86
Construction/reconstruction of berths	118	430	547
Procurement of equipment	32	17	49
Rail and road connectivity works	32	18	50
Others related schemes	98	264	362
Total	366	729	1,094
Minor Ports (FY11-FY2020)			
Deepening of channels/ berths	7	107	115
Construction/reconstruction of berths	8	1,237	1,248
Procurement of equipment	8	86	103
Rail and road connectivity works	22	72	93
Others related schemes	8	111	121
Total	53	1,613	1,679*

Source: Maritime Agenda 2010-2020; *includes INR13Bn of other sources of funding

Given the scale of investment required by the private sector, the Ministry of Shipping, Government of India has initiated many path-breaking measures which will facilitate enhanced private investment, improve the service quality and promote competitiveness, apart from achieving the expansion of capacities in the country. Such measures include opening up of sector to 100% FDI, formulation of Maritime Policy, revision of various operational policies, preparation of Perspective Plans for the major ports, commissioning of two more major ports one each on the East Coast & the West Coast, introduction of Port Community System, paperless regime, etc.

However, an analysis of the development of Indian seaports post the initiation of privatization reveals that while the financing objective is being fulfilled by increased participation of private sector, the operational efficiency of ports are yet to achieve international standards.

Indian ports continue to lag behind global ports in operational efficiency

Port efficiency is often referred to in terms of parameters like vessel dwell time, vessel turn-around time, vessel pre-berthing detention time, output-per-ship-berth-day. When comparing the same with international world class ports, measures like pre-berthing detention time completely fall out of comparison as there is no concept of pre-berthing detention in these ports since the capacity is much more than the actual traffic. Comparison in terms of turn-around time and dwell time could get distorted depending upon the parcel size of the vessel calling, length of the channel in which pilotage takes place, type of commodity, mode of discharge/loading and other time spent in documentation works. The parameter which could be used to assess port's efficiency is the quantum of cargo that the port discharges/ loads from/ to a ship in a day – Output-per-ship-berth-day or the productivity of equipments such as Cranes. While these would also differ according to the nature of commodity, comparisons can be made commodity-wise.

The table below highlights the performance of Indian ports vis-à-vis international world class ports in terms of Berth productivity and Crane productivity:



Port / Terminal	Berth Productivity (moves/hour)		Crane Productivity (moves/hour)	
	Small Vessels	Large Vessels	Small Vessels	Large Vessels
India – NSICT	30	40	18	22
India – JNPCT	24	36	16	20
India – Tuticorin	14	-	14	-
Singapore PSA	45	140	23	36
Shanghai	-	-	-	35
Belgium Ports	-	-	-	30-35
Colombo – SLPA	23	45	14	18
Colombo – SAGT	25	-	13	24-25
Khor-Fakkan, Fujairah, UAE	32	100	20	28
Port Rashid and Jabel Ali, UAE	40	110	22	30
Salalah	-	90	-	29
Aden	-	70	-	28

Source: National Maritime Agenda 2010-2020

While Indian ports have been performing below par in terms of broad measures such as dwell time, turn-around time etc., the berth and crane productivity performance highlight the inefficiencies in its core operations as well. The low productivity at Indian ports can only be explained through inefficient operational procedures, inferior quality of equipments etc. as these productivity measures are unlikely to be affected by any other infrastructure constraint. If the other aspects of port operation are added (pilotage, anchorage, documentation etc.) then the productivity of Indian ports would look far worse than it does in the above figures. Some of the reasons being:

- Limited availability of physical infrastructure – linear quay length at JNPT is 680m for three container terminals compared to 11,754m for four terminals at PSA Singapore; limited land availability for the terminals
- Limited draft at Indian ports – size of vessel entering Indian ports is therefore limited
- Low level of mechanization and inadequate number of equipments – JNPT has just 8 quay cranes compared to 131 in PSA Singapore; Other equipments like reach stackers, trailers too present in limited numbers in Indian ports
- Inefficient work flow (manual with low level of IT penetration) / documentation processes (limited use of ERP for container handling)

INTERNATIONAL OPERATORS CAN HELP INDIAN PORTS ACHIEVE INTERNATIONAL STANDARDS

As noted in the earlier sections, investment by private sector has increased in Indian seaports over the past few years. Of the 642MT of major ports capacity, approximately 170MT is with the private sector with additional 135MT capacity projects currently under implementation. Most of the new capacities coming up under the state sector are also being created by the private participants. Given the Governments initiatives towards addressing the outstanding concerns and increased participation of private players, the only factor holding back the growth of sector seems to be the improvement in port efficiencies, which is most likely to be improved through significant expertise of the leading global port operators. Global port operators through their experience bring in several efficiencies to the system as:

- They have advanced know-how on the construction and management of terminals which has also helped them create barriers for new entrants



- The output of R&D units stationed at various locations across the world is typically shared among the terminals of their global network
- Global terminal operators often have central purchasing departments involved in making large contracts with the suppliers of terminal equipments such as gantry cranes or terminal tractors which provide them high bargaining power
- Fixed costs in container handling business are comparatively higher relative to operating costs and economies of scale are fairly high. Global players seem to be best placed to meet the high capital requirements to cover initial investments in a terminal of a reasonable size
- Scale of operations of some of the leading global terminal operators has created substantial surplus capital available for investments
- World class facilities can often be setup by replicating business model of other ports
- Relationships with global liners of global container terminal operators can help attract steady and stable traffic for the port

The performance figures of Indian ports / terminals reveal that the international players have managed to achieve high productivity levels that had been eluding the public run terminals for a long time. NSICT, the first container terminal to be set up by an international player in India brings out the contrast starkly:

Crane Productivity (moves/hour) at Indian Container Terminals

Year	JNPCT	NSICT
1999	14.2	17.2
2001	16.9	23.5
2003	16.0	24.7
2008	16.2	23.0

Source: Industry reports

NSICT commenced operations in April 1999 and right from the start it has outmatched the productivity of JNPCT located in the same port. Further, over the years, while the berth productivity at JNPCT has improved marginally, berth productivity at NSICT has almost doubled. NSICTs productivity looks better in comparison even with other terminals operated by domestic private participants – crane productivity at Kolkata container terminal during 2008 was 19.5 in comparison with 23.0 at NSICT.

NSICT is not the only example where participation of international players has improved productivity to international benchmarks.

- VCTPL, Vishakapatnam average gross crane productivity improved from 19.7 moves per hour in the year FY2004 to 24.6 moves per hour in the year 2006-07, and has stabilized at ~22 moves/ hour since then
- Chennai Container terminal (CCT) attained a steep 97% reduction in average pre-berth waiting time within just one year of control being taken over by P&O Ports (now DP World). Even the average turn-around time fell 74% in one year; Crane productivity at CCT is ~21 moves/hour
- Tuticorin Container terminal (TCT), taken up by PSA-SICAL, decreased the average turn-around time by 80% between FY2000 and FY2003. Even with respect to average pre-berth waiting time, the terminal achieved an appreciable reduction from 17 hours to 30 minutes in just three years. Crane productivity in TCT is also upto international standards at ~27moves/hour



When comparing the productivity of bulk cargo operations, with some exceptions, ports in India in general unload/load cargo at the rate of 8,000-10,000 MT/day which is dismally low compared to international standards of 50,000-60,000 MT/day.

Given the success of global port operators in India, increased participation by them in the Indian seaport infrastructure could contribute significantly in transforming Indian ports into world class facilities.

PARTICIPATION BY INTERNATIONAL OPERATORS IN INDIA PRIMARILY LIMITED TO CONTAINER TERMINALS TILL NOW

A quick snapshot of the deals in Indian port sector over the last couple of years reveals that of all the private investments, participation by international operators have still been very limited beyond container terminal operations till now.

International Player Participation in Indian Major Ports

Year	Port	Successful Bidder
2011	JNPT: fourth terminal	PSA-ABG
2010	Ennore: container terminal	Eredene Capital Plc, Grup Maritim TCB SL, Obrascon Huarte Lain SA and Lanco Infratech Ltd.
2010	Tuticorin: cargo berth	ABG-LDA Bulk Handling (49% stake bought by Louis Drefus Armaters)
2010	Paradip: multipurpose clean cargo berth	Sterlite –Leighton
2009	Paradip: iron ore berth	Noble-Gammon-MMTC
2009	Vishakhapatnam: cargo berth mechanisation	Sterlite –Leighton
2008	Kolkata: Container terminal	ABG Infralogistics (49% stake bought by PSA)
2008	Ennore: coal terminal	Consortium of SICL, Portia Management Services, Navayuga Group
2007	Chennai: second container terminal	Chennai International Terminals Private Limited a JV of PSA International Pte Limited and Sical Logistics Limited
2006	Mumbai	Gammon–Dragados
2005	Kandla: container terminal (Phase 1)	ABG-Voltri, PSA
2004	Cochin: ICTT	Dubai Ports International, CONCOR
2004	JNPT: third terminal	Maersk-CONCOR
2002	Kolkata: multipurpose berth	Subsidiary of International Seaports, Singapore, formed by L&T, Precious Shipping Public Co., SSA Asia
2002	Kolkata: multipurpose berth	Tata Martrade International Logistics (JV between Tata Steel and IQ Martrade)
2002	Vishakapatnam: container terminal	Dubai Ports International, JM Baxi Group
2001	Chennai: first container terminal	DP World
1998	Tuticorin: container terminal	PSA, SICAL
1997	JNPT: second terminal	DP World (erstwhile P&O Ports)

Source: Industry reports, Company websites

Most of the participation by international players in Indian Ports has been in the major ports whereas a larger share of port investments is expected to be towards the state ports / non-major ports. Some of the investments by international operators in non-major ports of India include:

-
- **Gujarat Pipavav Port:** APM Terminals
 - **Mundra Port:** DP World
 - **Karaikal Port:** Marg Constructions, Prembianaan Redzai
 - **Kakinada Port:** Developed by Govt. of Andhra Pradesh, International Sea ports Ltd has been given the OMST concession in 1999

Apart from the above investments, DP World had invested in Kulpi Ports but the project has not seen any progress over the last six years. Further, PSA exited from Shell Gas promoted HPPL citing stiff commercial terms particularly with regard to waterfront royalty.

Recognizing the fact that involvement of international participants in Indian seaports is of utmost importance for efficient growth of sector, the government has been actively working towards resolving the concerns of domestic private and international participants. However, some of the following concerns would need quick attention of the government to encourage participation by global port operators in India:

- **Draft Captive Policy 2011:** The Policy is aimed at allowing port-based industries to set up their captive berths at the major ports on a nomination basis. This could significantly impact the traffic prospects of the nearby terminals and enhance their business risk.
- **The Draft Port Regulatory Authority Bill 2011:** The Bill is aimed at providing level playing field to major ports by bringing the functions of tariff setting and performance monitoring for the non-major ports under the ambit of the respective State port regulatory authorities. If enacted, the Bill would significantly impact the non-major ports as they would lose the flexibility to set tariffs which could result in lower competitiveness and increased pressure on business returns (due to mismatch in tariff revisions and cost increases). Further, tariff setting and revision could cause delays in projects going by the experience of major ports.
- **Hinterland connectivity:** Moving away from the regulatory front, the hinterland connectivity is of prime importance for the competitiveness of a port. However, most of the Indian ports suffer from poor road and rail connectivity to the hinterland. While large investments are proposed in this area, the actual investments have been far and few.
- **Limited draft availability:** Limited draft availability (10-12m in most major ports) constrains the size of vessels entering the Indian ports. Larger vessels enhance the productivity of port operations and thus its operating returns. Large amount of initial and maintenance dredging is required to increase the draft at Indian ports but limited activity has been observed in this area.
- **Cumbersome bidding process:** The bidding of several PPP projects at Major ports has tended to be cumbersome and long with several bureaucratic procedures leading to cancellations and re-bidding, as was recently observed in 'Upgradation of Barge handling facilities' project at Kandla Port.

The current regulatory environment and some of the infrastructure constraints present challenges for the Indian regulatory authorities in attracting continued investment by domestic private and international operators in Indian seaports. Quick response to these challenges would go a long way in enhancing India's reputation as an attractive investment destination. Once addressed, increased participation by global port operators would increase the prospects of transformation of Indian ports into world class facilities.

INDIA PRESENTS THE RIGHT GROWTH OPPORTUNITY TO LARGE GLOBAL PORT OPERATORS

Globally, terminal operators are becoming multinational enterprises with varying degrees of involvement in the main cargo handling markets around the world. Some terminal operators have strategically expanded globally (PSA, DP Worlds, APM Terminals) while some focus on specific regions (Ports America, Eurogate, SSA and ICTSI). India's trade potential offers all global port operators an attractive investment opportunity. Further, with large scale investment lined up in the sector, there are a number of opportunities for global players to participate in. Participation by a larger set of international players in Indian seaports would also induce a higher level of competition which would then be dependent



upon higher operational efficiencies, given that the equipments required by the industry is getting increasingly standardized (eg: Shanghai based ZPMC supplies ~60% of world’s demand for quay cranes).

The table below shows that of all the leading global port terminal operators, only a handful are currently present in India’s port operations.

Operator	Presence in Port Operations			Primary Business of Company
	Asia	India	Presence in Asian Countries	
PSA International	✓	✓	India, Singapore, China, Japan, Korea, Pakistan, Saudi Arabia, Vietnam, Thailand	Port Operation
APM Terminals	✓	✓	India, Malaysia, China, Vietnam, Japan, Thailand, Malaysia	Port Operation & Shipping
DP World	✓	✓	India, China, Philippines, Indonesia, HK, Pakistan, South Korea, Thailand, Vietnam	Port Operation
Dragados (ACS Group)	✓	✓	India	Port Operation
Grup TCB	✓	✓	India	Port Operation
ICTSI	✓	✓	Philippines, Japan, Indonesia, China, India	Port Operation
Cosco Pacific	✓	✗	HK, China, Singapore	Port Operation & Shipping
Hutchison Port Holdings	✓	✗	China, HK, Indonesia, Korea, Malaysia, Myanmar, Pakistan, Thailand, Vietnam	Port Operation
Evergreen Marine	✓	✗	Taiwan, Thailand	Shipping
SSA Marine	✓	✗	Vietnam	Port Operation
NYK Line	✓	✗	Japan	Port Operation & Shipping
Hanjin Shipping Co. Ltd.	✓	✗	Vietnam, Taiwan, Korea, Japan	Shipping
K Line	✓	✗	Japan	Shipping
MOL	✓	✗	N.A.	Shipping
Orient Overseas Container Line	✓	✗	Taiwan	Shipping
Hyundai Merchant Marine	✓	✗	China	Shipping
Yang Ming	✓	✗	Taiwan	Shipping
Eurogate	✗	✗	-	Port Operation
Mediterranean Shipping Co.	✗	✗	-	Shipping
HHLA	✗	✗	-	Port Operation
American Present Line	✗	✗	-	Shipping
CMA CGM	✗	✗	-	Shipping

Source: Company websites

Given the nature of global port business, the large players have been scouting for opportunities to scale and consolidate their operations. With most of the global terminal assets already part of the portfolio of global terminal operators, opportunities for them to grow their business lies in countries like India. Also, various players have emerged in the sector who are trying to build their international portfolio. While they have not been successful in neutralizing the power of leading global operators in other markets, the nascent and virgin market of India brings to them the right kind of



opportunity to expand. By investing in Indian ports, the global port operators also have the opportunity of getting into favourable tie ups with shipping lines along the most active trade regions of the world.

India's strong trade potential and large scale investment opportunity offers all global operators the right ingredients for expanding their businesses. In turn, India would benefit through transformation of its seaport infrastructure into world class facilities.

CONCLUSION

Since the opening up of Indian seaports to private and foreign investment, several leading global terminal operators have taken part in the development of seaport infrastructure of India. Utilizing their inherent strengths, the global players have been able to setup efficient operations at Indian ports. The improvements are there to see when compared with ports still being run by public or some of the domestic private institutions. However, in the context of the potential scale of India's seaport infrastructure and the strategy of global operators expanding globally, investments by global operators have been limited in India, especially in the non-major ports. Increased participation by the existing and other leading global port operators is highly necessary to support the large scale development envisaged in Indian ports over the next decade. Involvement of leading global players is expected to enhance the competitiveness of Indian ports through better operational efficiencies while the economic trends of India present an attractive investment opportunity to the global players.

BACKGROUND

PRIVATE PARTICIPATION NECESSARY FOR FAST AND EFFICIENT GROWTH OF SECTOR

Globally, several objectives have prompted Governments to initiate port privatization in varying degrees. Financing and efficient operation of ports have been among the key reason for bringing about privatization globally. The exhibit below shows a comparison of selected countries objectives for port privatization and the approaches adopted therein.

Government Objectives	FR	UK	AU	CN	HK	ID	IN	KR	MY	PH	SG	TH	TW	VN	US
Downsize Bureaucracy									o						
Finance Deficit		o					o								
Finance Facilities				o	o	o	o	o	o	o	o	o		o	o
Improve Efficiency		o		o			o			o		o		o	o
Labour Problems	o	o	o									o	o		o
Commercialise Management			o	o	o										o
Widen Share Ownership		o													
Approaches Used	FR	UK	AU	CN	HK	ID	IN	KR	MY	PH	SG	TH	TW	VN	US
Decentralise				o											
Corporatise			o	o				o	o		o				
Partial Privatisation (Services)	o	o				o		o		o			o	o	o
Partial Privatisation (JV)				o		o			o						
Landlord Ports (Leases)	o							o				o	o		o
Landlord Ports (Concessions)					o	o	o		o	o		o			o
Capitalisation (Share offering)		o							o		o				
Sell Assets		o			o										

Source: ADB, *Developing Best Practices for Promoting Private Sector Investment in Infrastructure, 2000*

Abbreviation – FR: France; UK: Ukraine; AU: Australia; CN: China; HK: HongKong; ID: Indonesia; IN: India; KR: Korea; MY: Malaysia; PH: Philippines; SG: Singapore; TH: Thailand; TW: Taiwan; VN: Vietnam; US: United States



Depending upon the approach used by different Governments, the ownership of port infrastructure between Government/Private player has varied, with Government divesting part/all of port operations and infrastructure to private players. Typical ownership and operating structures of port terminals are as follows:

Mode of Ownership	Land Area	Terminal Infrastructure	Terminal Superstructure	Quayside Operations	Landside Operations
100% State Owned & Operated	State owned	Owned & Constructed by port authority	State owned	Port Authority	Port Authority
“Suitcase” Stevedores	State owned	Owned & Constructed by port authority	State owned	Private stevedores (on common-user berths)	Port Authority
Leased Terminal	State owned	Owned & Constructed by port authority	Privately owned or Rented from port authority	Terminal Operator	Terminal Operator
Concession Agreement	State owned	Owned & Constructed by port authority	Privately owned	Terminal Operator	Terminal Operator
BOT Concession	State owned	Construction privately funded	Privately owned	Terminal Operator	Terminal Operator
100% Privately Owned	Privately owned	Privately owned	Privately owned	Terminal Operator	Terminal Operator

Source: RREEF Research – Global Ports: Trends and Opportunities, April 2009

India has used the Landlord Port model, based on BOT concession model, towards privatization of its major ports. This has been a widely accepted model globally in larger and medium sized ports and its prime examples include the leading global ports - Rotterdam, Antwerp, Hamburg, New York, Singapore, Hong Kong, China (Container Terminals), etc

Under this model, the port authority acts as regulatory body, owns the land and basic infrastructure but allows the private sector to lease out berths and backup areas either through a capital lease or concession agreement. While this model does pose the risk of overcapacity as a result of pressure from various private operators, the private operators are better able to cope with market requirements. Other benefits of Landlord port concessions include:

- Better and more efficient port management (especially port operations) performed by private operators
- Avoidance of the drawbacks associated with monopolies through the inclusion of detailed concession conditions

MARKET SNAPSHOT

All figures in INR million; Financials are for FY11 end (except as indicated); Financials are on a consolidated basis (except as indicated); Market Capitalization figures and 1 Yr Return are as on 09-Dec-11.

Large / Diversified

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
Larsen & Toubro	7,50,642	10,42,473	3,02,591	5,32,044	76,930	13.6x	17.1x	2.5x	(36.2%)
BHEL	6,45,555	5,51,192	2,01,551	4,36,913	96,684	5.7x	3.3x	3.2x	(39.8%)
Reliance Infra	1,03,732	2,20,426	2,37,064	1,61,029	14,981	14.7x	6.7x	0.4x	(49.3%)
GMR Infrastructure	72,983	2,81,547	79,613	60,851	7,569	37.2x	N.A.	0.9x	(57.6%)
Lanco Infratech	27,569	1,81,182	60,053	80,419	18,905	9.6x	6.2x	0.5x	(80.4%)
GVK Power & Infra	16,898	69,055	36,147	19,432	5,140	13.4x	10.9x	0.5x	(71.5%)
Gammon India	6,774	69,977	16,231	88,971	5,652	12.4x	5.7x	0.4x	(69.9%)

Roads, Construction, and EPC

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
Jaypee Infratech	58,405	1,03,217	48,437	27,787	18,110	5.7x	4.1x	1.2x	(28.2%)
IRB Infra Developers	49,389	83,645	24,558	25,026	10,939	7.6x	10.9x	2.0x	(21.9%)
IL&FS Transportation	32,520	81,914	24,342	41,274	11,549	7.1x	7.5x	1.3x	(42.2%)
Era Infra Engineering	27,010	54,159	7,987	38,526	7,347	7.4x	12.3x	3.4x	(29.6%)
Sadbhav Engineering	16,854	35,518	8,883	23,561	3,434	10.3x	18.2x	1.9x	(18.3%)
Punj Lloyd	15,808	49,083	31,347	81,870	4,111	11.9x	N.A.	0.5x	(51.7%)
Hindustan Cons Co	12,981	79,824	14,935	72,035	5,981	13.3x	N.A.	0.9x	(48.3%)
Simplex Infra	10,213	25,755	9,434	49,266	4,998	5.2x	8.1x	1.1x	(49.6%)
NCC	9,800	52,680	25,999	62,521	7,150	7.4x	4.4x	0.4x	(71.9%)
IVRCL Limited	9,412	49,968	27,426	68,548	7,374	6.8x	18.6x	0.3x	(69.6%)
Gammon Infra	8,917	33,793	8,149	3,424	2,020	16.7x	51.9x	1.1x	(41.4%)
Patel Engineering	6,386	28,695	13,443	34,988	4,848	5.9x	5.2x	0.5x	(69.4%)
Madhucon Projects	4,247	36,882	4,930	8,026	928	N.A.	N.A.	0.9x	(51.9%)
Ahluwalia Contracts	4,221	4,762	3,221	17,529	1,508	3.2x	6.0x	1.3x	(55.0%)
CCCL	3,372	6,835	6,895	22,039	1,531	4.5x	7.2x	0.5x	(71.1%)
KNR Constructions	2,721	4,057	3,702	10,544	1,514	2.7x	4.3x	0.7x	(30.8%)
C&C Construction	2,267	14,736	6,165	12,841	2,288	6.4x	5.3x	0.4x	(55.4%)
MBL Infrastructures	1,798	2,248	152	10,021	1,376	1.6x	2.9x	11.8x	(38.3%)
Simplex Projects	1,084	2,580	2,051	8,284	805	3.2x	3.1x	0.5x	(57.1%)

* indicates use of last available Balance Sheet data

** indicates use of standalone P&L & last available Balance Sheet data

Power Generation

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
NTPC Ltd	13,69,572	16,98,522	7,00,663	6,00,082	134,256	12.7x	14.7x	2.0x	(9.0%)
NHPC Ltd	2,70,001	3,94,864	2,83,152	51,437	42,876	9.2x	11.7x	1.0x	(16.9%)
Reliance Power	2,36,893	2,91,080	1,68,344	19,180	2,291	N.A.	N.A.	1.4x	(44.1%)
Tata Power	2,25,917	4,51,475	1,46,086	1,98,613	45,956	9.8x	11.0x	1.5x	(24.9%)
Adani Power	1,62,413	3,94,889	65,993	21,532	12,205	32.4x	31.6x	2.5x	(40.1%)
Jaiprakash Power	99,872	2,11,049	54,794	8,407	7,207	29.3x	65.8x	1.8x	(22.9%)
Torrent power	93,805	1,19,723	56,153	69,197	17,976	6.7x	8.9x	1.7x	(27.4%)
JSW Energy	70,932	1,57,530	58,327	44,275	15,642	10.1x	8.4x	1.2x	(54.6%)
CESC Ltd	28,735	57,722	61,498	51,568	7,525	7.7x	10.3x	0.5x	(35.0%)
Indiabulls Power	20,230	27,112	42,223	446	(359)	N.A.	N.A.	0.5x	(62.4%)
KSK Energy	17,551	74,439	29,677	11,593	5,555	13.4x	9.7x	0.6x	(64.2%)

Power and Infra Ancillary

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
ABB Ltd	1,28,321	1,22,450	24,237	66,799	2,225	N.A.	N.A.	5.3x	(20.1%)
Crompton Greaves	80,251	81,970	33,990	1,01,193	13,465	6.1x	8.7x	2.4x	(61.5%)
Engineers India	71,060	53,079	14,898	28,481	6,547	8.1x	13.4x	4.8x	(35.4%)
Areva T&D India Ltd	48,072	55,830	10,061	42,549	4,743	11.8x	22.7x	4.8x	(33.8%)
Alstom Projects India	23,958	16,573	25,121	18,036	2,465	6.7x	14.2x	1.0x	(44.5%)
BGR Energy Systems	17,059	19,984	12,598	47,721	5,363	3.7x	5.3x	1.4x	(62.2%)
Kalpataru Power TX	15,200	21,645	19,924	44,118	5,248	4.1x	0.8x	0.8x	(37.2%)
KEC International	9,870	22,652	9,963	44,767	4,308	5.3x	4.8x	1.0x	(55.4%)
Tecpro Systems	8,630	13,104	6,687	19,828	3,245	4.0x	6.5x	1.3x	(53.0%)
Elecon Engg Co	5,540	11,747	4,183	12,954	1,914	6.1x	6.2x	1.3x	(21.0%)
V Guard	5,370	6,696	1,780	7,283	746	9.0x	12.6x	3.0x	12.2%
Shriram EPC	4,436	13,779	5,346	16,817	2,027	6.8x	6.4x	0.8x	(47.1%)
Jyoti Structures Ltd	3,865	8,330	6,017	23,881	2,822	3.0x	3.5x	0.6x	(62.0%)
Bharat Bijlee Ltd	3,404	3,296	2,859	7,117	616	5.3x	4.6x	1.2x	(32.9%)
Mcnally Bharat Engg	2,994	7,371	3,409	22,669	1,411	5.2x	4.5x	0.9x	(52.4%)
Sunil Hitech	841	3,281	2,358	8,080	1,530	2.1x	2.3x	0.4x	(42.0%)

* indicates use of last available Balance Sheet data

** indicates use of standalone P&L & last available Balance Sheet data

Ports and Shipbuilding

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
Mundra Port & SEZ	2,55,032	2,80,744	52,368	19,348	13,100	21.4x	25.9x	4.9x	(6.4%)
Pipavav Shipyard	45,075	61,005	17,649	8,676	1,695	36.0x	N.A.	2.6x	3.9%
Essar Ports	27,542	70,787	21,495	19,408	7,667	9.2x	39.3x	1.3x	(37.7%)
Gujarat Pipavav Port*	23,275	29,299	7,359	8,546	1,197	24.5x	N.A.	3.2x	(1.9%)
ABG Shipyard	20,010	38,784	16,940	21,369	5,181	7.5x	10.3x	1.2x	27.8%
Bharati Shipyard	2,480	37,252	9,142	16,115	4,776	7.8x	2.7x	0.3x	(58.0%)

Shipping and Logistics

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
CONCOR	1,16,855	93,898	52,064	36,281	10,014	9.4x	13.3x	2.2x	(29.6%)
Shipping Corp of India	26,340	51,924	71,681	35,434	6,998	7.4x	3.9x	0.4x	(59.2%)
AllCargo*	18,127	20,562	12,220	28,613	2,707	7.6x	10.9x	1.5x	(4.4%)
Gateway Distriparks	13,622	13,270	7,019	6,120	1,597	8.3x	14.1x	1.9x	30.4%
Mercator	5,120	30,739	22,966	28,069	6,166	5.0x	10.9x	0.2x	(56.9%)
Aqua Logistics	3,885	3,885	2,365	5,181	497	7.8x	13.6x	1.6x	(64.0%)
Varun Shipping	2,630	29,504	8,192	8,368	216	N.A.	17.8x	0.3x	(46.5%)
GATI*	2,580	2,261	7,743	12,030	988	2.3x	18.3x	0.3x	(49.7%)
Global Offshore	1,680	7,522	2,829	2,005	853	8.8x	7.6x	0.6x	(50.1%)
Chowgule Steamships	800	1,180	5,649	722	436	2.7x	2.9x	0.1x	(33.3%)
Shreyas Shipping	570	1,140	1,497	1,930	304	3.7x	4.5x	0.4x	(41.9%)
SKS Logistics**	150	587	391	445	138	4.3x	3.7x	0.4x	(41.9%)

Other Segments

Company	MCap	EV	NW	Revenue	EBITDA	EV/EBITDA	P/E	P/B	1 Yr Return
Ramky Infrastructure	11,920	22,634	11,025	32,345	3,718	6.1x	5.8x	1.1x	(36.7%)
VA Tech Wabag	9,160	5,915	6,136	12,418	1,122	5.3x	17.4x	1.5x	(44.5%)
Sanghvi Movers	4,470	10,675	6,188	3,735	2,558	4.2x	5.2x	0.7x	(38.9%)
Triveni Engineering	3,830	15,502	11,503	22,443	2,012	7.7x	7.6x	0.3x	(85.4%)
Pratibha Industries	3,700	6,807	5,019	12,740	1,720	4.0x	5.2x	0.7x	(37.6%)
Hindustan Dorr Oliver	2,090	4,412	2,606	10,884	848	5.2x	5.4x	0.8x	(74.8%)
Ion Exchange India	1,320	1,487	1,363	6,133	199	7.5x	15.8x	1.0x	(37.8%)

* indicates use of last available Balance Sheet data

** indicates use of standalone P&L & last available Balance Sheet data

TRANSACTIONS SNAPSHOT

Transactions during the period September-2011 to November-2011

Private Equity

Date	Target	Investor	Sector	Deal Size (USD Mn)	Stake
Nov 2011	Azure Power India	DEG	Power	14.0	N.A.
Nov 2011	Kiran Energy Solar Power	New Silk Route, Bessemer Venture Partners, Argonaut Ventures	Power	50.0	N.A.
Nov 2011	Soham Renewable Energy	SBI-Macquarie Infra Fund	Power	25.3	N.A.
Oct 2011	Indian Energy	Infrastructure India	Power	13.0	N.A.
Oct 2011	C&C Constructions	India Venture Advisors	Construction	10.7	8.1%
Oct 2011	Shi-Vani Oil & Gas Exploration Services	Templeton Strategic Emerging Markets Fund	Oil & Gas	5.1	2.7%
Oct 2011	Moser Baer Clean Energy Italy SRL	GE Energy Financial Services	Power	60.4	N.A.
Sep 2011	Shree Maheshwar Hydel Power Corp	Infrastructure India	Power	26.6	N.A.
Sep 2011	HCC Concessions	Xander Group	Construction	54.3	14.5%
Sep 2011	ReNew Wind Power	Goldman Sachs	Power	203.9	N.A.
Sep 2011	Vishwa Infrastructures and Services	Olympus Capital, NEA	Water & Waste Management	63.1	35.6%
Sep 2011	SMS Paryavaran	Aditya Birla Capital Advisors	Water & Waste Management	8.9	N.A.

Domestic M&A

Date	Target	Acquirer	Sector	Deal Size (USD Mn)	Stake
Oct 2011	Bangalore International Airport	GVK Power & Infrastructure	Airport	134.8	14%
Oct 2011	Mumbai International Airport	GVK Power & Infrastructure	Airport	231.0	13.5%
Oct 2011	EnSearch Petroleum	Sahara India Pariwar	Oil & Gas	N.A.	100%
Sep 2011	Sical Logistics	Coffee Day Resorts & Hotels	Logistics	24.2	21.1%
Sep 2011	ARSS Bus Terminal	Welspun Infratech	Urban Infra	N.A.	N.A.
Sep 2011	Yellow Renewable Energy	Surana Telecom & Power	Power	N.A.	60%

Inbound M&A

Date	Target	Acquirer	Sector	Deal Size (USD Mn)	Stake
Oct 2011	SunBorne Energy	Eoxis Energy	Power	N.A.	49%



Outbound M&A

Date	Target	Acquirer	Sector	Deal Size (USD Mn)	Stake
Nov 2011	Coal Mines, Indonesia	India Cements	Mining	20.0	N.A.
Oct 2011	Repower Systems AG	Suzlon Energy	Power Ancillary	87.6	
Sep 2011	Carrizo Oil & Gas Inc, Shale Gas Assets in Texas	GAIL India	Oil & Gas	95.0	20%
Sep 2011	Coal Mine Concession, Indonesia	Mercator Lines	Mining	30.0	100%
Sep 2011	EPM Mining Ventures Inc, Canada	Tata Chemicals	Mining	16.2	30.6%

NEWSLINE

Power

Coal India Cuts Target

The Hindu, Dec 08, 2011

There is bad news for the power plants, which are currently struggling with inadequate coal stocks. State-run Coal India Limited (CIL) on Wednesday announced that it had lowered its production target for the fiscal year to 440 million tonnes from 453 million tonnes outlined in its annual plan.

A large number of coal-based power plants, including those of public sector undertakings, are faced with a shortage of coal stocks due to the inability of CIL to meet its fuel supply obligations. With power producers already faced with a high cost of imported coal, the power scenario is likely to take a hit with the latest announcement of CIL. "We have kept the production target of at least 440 million tonnes," CIL Chairman N. C. Jha told reporters. Mr. Jha said heavy rainfall, strike and delays in the grant of forestry and environmental clearances to coal projects were the reasons for the downward revision in the production target. He said it was planning to mine between 556 million tonnes and 615 million tonnes in the terminal year of the XII Plan.

CCEA Clears Rs 6,500 Cr FDI Proposals Of Two Power Entities

The Economic Times, Dec 07, 2011

The government today approved the proposals of two power sector entities for bringing in foreign direct investment worth Rs 6,500 crore.

The Cabinet Committee on Economic Affairs (CCEA) gave the green signal to Grid Equipment for bringing in FDI to the tune of Rs 4,500 crore.

Energy Grid Automation Transformers and Switchgears India's proposal for Rs 2,000 crore FDI was also approved.

These proposals are for "downstream investment" and transfer of entire equity shares of Grid Equipment and Energy Grid from Areva T&D India Limited and other resident shareholders.

Equity shares of the two entities -- Grid Equipment and Energy Grid -- would be transferred to "Alstom Grid Finance and other foreign collaborators and their nominees," said an official.

India To Seek Indonesian Coal Blocks Under 'Special Status'

The Economic Times, Dec 05, 2011

Against a widening demand-supply gap that is likely to reach 265 MT in the next five years, the government today said it will seek Indonesia's cooperation for grant of blocks to Indian firms under a 'special status'.

The Ministry of Coal will "...impress upon provisional government/regional government to allocate blocks under their special status (most favoured nation type) to the Indian government coal companies..." Coal Ministry said. The decision to approach Indonesian government was taken in a joint working group meeting of India-Indonesia on Coal. Seeking allocation of large greenfield (new) coal concession on nomination basis, the Ministry will also impress upon the Indonesian government for expeditious environmental and forest clearances besides land acquisition.

The PSU has put together a war-chest of Rs 6,000 crore for acquisition of the mines.

Utilization of Hydro Power Capacity

Press Information Bureau, Govt. of India, Dec 07, 2011

As per the re-assessment of hydro-electric potential carried out by Central Electricity Authority (1978-87), the hydro potential of the country has been estimated about 1,50,000 MW. As on 30.11.2011, the installed Hydro power capacity in the country (having station capacity above 25 MW) is 38748.40 MW.

The installed hydro power capacity at the end of 10th Plan was about 34,654 MW. About 6200 MW hydro capacity addition is likely to be achieved during 11th Plan, which will make the installed hydro capacity at the end of 11th Plan as 40,854 MW. During 12th Plan, about 9000 MW hydro capacity is planned to be added, which would make the likely installed hydro capacity at the end of 12th Plan as about 50,000 MW. It is expected that the full hydro potential would be developed in about 30 year time.

As per the information available, India ranks 7th in the world in annual hydro-electric energy production.

India's NSM Auction Drives Tariffs To Record Lows

PV Tech, Dec 05, 2011

India's Ministry of New and Renewable Energy has awarded PV project contracts worth 350MW to 28 developers in its latest National Solar Mission (NSM) auction. Projects in batch II of phase II were allotted by a reverse bidding process and have an initial completion deadline of March 2013.

The maximum capacity of systems in this latest auction was 20MW, although developers were permitted to bid for an additional two projects and a further 30MW of capacity. Welspun Solar was the only solo bidder to take up this option, securing one 20MW (with a tariff bid of INR7.97) and two 15MW projects (tariffs of INR8.05 and INR8.14).

Other successful developers were Azure Power, Solairedirect, GreenInfra Solar Farms and the joint venture of Mahindra Solar One and Kiran Energy. Together the latter two captured over 50MW of capacity – a 20MW and 15MW project were won under Mahindra's name while another 20MW system was awarded to Kiran.

Stricter Grid Laws For Renewable Energy Sector Soon: CERC

Business Standard, Dec 02, 2011

The renewable energy (RE) sector will soon be in for stricter grid laws and standards compliance regime, a member of Central Electricity Regulatory Commission (CERC) said here today.

The power sector regulator CERC also expressed concern over the high cost of wind power in the nation and blamed the wind equipment manufacturers for 'exploiting' the market, owing to lack of transparency. "The renewable energy sector must follow the grid laws and standards strictly. The metering at their end should be made proper, and they should follow the grid standards like unscheduled change charges etc.," CERC Member VS Verma said.

"They must invest in technology to predict right outputs. Then they will have to follow our scheduling and let us know like how much power they are going to produce tomorrow," he said. "Certain margins will be given to them, but not forever," Verma said adding that to start with we had relaxed the norms, the tariffs, but this is going to be tightened.



Minister Seeks Action On Poor Coal Output

The Times of India, Dec 02, 2011

Expressing dissatisfaction with the performance of government-run Central Coalfields Limited (CCL), Mahanadi Coalfields Ltd (MCL) and Bharat Coking Coal Ltd (BCCL), Union coal minister Sri Prakash Jaiswal on Thursday warned of taking action against the officials of these companies, including those serving in the coal ministry found responsible for poor performance.

Talking to newsmen after a review meeting at the CCL headquarters, he said, "It was only because of the poor performance of CCL in terms of coal off-take and production that he is reviewing it on a regular basis. We are concerned because of the increasing demand of coal from all over the country in the wake of the rising demand for power. The demand of existing power plants is growing each day and there is a long queue of new power sector units waiting for our commitment to fulfill their requirement of coal."

Karnataka Renewable Energy Receives 22 Bids For Setting Up Solar Projects

The Hindu Business Line, Nov 24, 2011

Karnataka Renewable Energy Development Ltd (KREDL) has received 22 bids for setting up solar power projects under the 'Karnataka solar policy'.

As part of its 350 MW programme, KREDL had floated a tender inviting bids for setting up projects that total to 80 MW. The projects would be allocated under 'reverse bidding' process. They will be allocated to bidders who have quoted the steepest discounts to the tariff fixed by KREDL (Rs 14.50).

The allocation of projects with respect to these tenders would start soon, he said. The government has identified land to set up the 80 MW of solar plants, which would be allotted for a period of 30 years of lease.

Apart from the projects under the solar policy, Mr. Kumar had recently said that projects with a total capacity of 200 MW would be taken up under the REC scheme of the Ministry of New and Renewable Energy (MNRE).

Bengal May Clear JSW Steel's Salboni Project Very Soon

The Hindu Business Line, Oct 30, 2011

JSW Steel may get the final go ahead from West Bengal government for its proposed greenfield integrated steel project at Salboni in West Bengal, in a week's time.

The company has already promised to achieve financial closure for 3 million tonne plant coupled with 300 MW captive power unit in phase-I, soon after receiving the approval from the State Government.

According to sources close to the development, the Chief Minister, Ms Mamata Banerjee, has approved the proposal for regularising JSW's possession of 297 acres of land, directly purchased from the farmers. The company was holding the land – dispersed across the proposed project area of 4,334 acres – without due notification under the Land Reforms Act, 1955. The notification is required for holding beyond 24 acres in rural areas of Bengal.

'Power Sector Has Potential To Create 6 Lakh Jobs In 2012-17'

The Economic Times, Nov 29, 2011

The country's fast growing power sector has the potential to create as many as six lakh jobs during the 12th Five-Year Plan period (2012-17), a top government official said.

The power sector, vital for good economic growth, is projected to see a capacity addition of about 1,00,000 MW during 2012-17 period.

"... to set up about 1,00,000 MW, we need about two lakh people for construction of power plants. For operation and maintenance, generation transmission and distribution, there is a requirement of four lakh people during the 12th Five-Year Plan," Power Secretary P Uma Shankar said. He was speaking at 27th Skoch Summit here. According to Uma Shankar, there is an estimated requirement of four lakh technical persons for the power sector during the 13th Five-Year Plan period (2018-22). However, he noted that employment potential in the power sector is going to come down in the future due to automation and technical upgradation.

India Power Investment Slows, Chronic Deficit Worsens

Reuters, Nov 23, 2011

Investments into India's power sector are slowing despite a chronic electricity shortage that threatens GDP growth, executives told the Reuters India Investment Summit, due to coal shortages, land hassles and an inability by distribution companies to raise tariffs.

Asia's third-largest economy, where blackouts are common, faces a peak power shortage of 13 percent as rising demand from industry, homes and shopping malls outstrips capacity growth.

The energy-hungry nation needs to add over 75,000 megawatts in the five years to March 2017 to support its target of 9 percent GDP growth, according to a government report. That will cost roughly 11 trillion rupees (\$210 billion), with half the investment to come from the private sector. But investor appetite is weak.

India's peak power deficit in October stood at 13.1%, according to data from the Central Electricity Authority, up from 9.4% a year previously.

Coal Mining: Centre Dumps 'Go, No-Go', Dubs It Illegal

DNA, Sep 21, 2011

Less than two years after splitting coal mining zones into 'go and no-go' — a move that has stalled almost every big-ticket coal mining project in India — the government is scrapping the policy.

The Ministry of Environment and Forest (MoEF), which had framed the policy guidelines along with the Ministry of Coal, on Tuesday accepted that the categorisation of 'go and no-go' did not have any legal sanctity.

The move was expected after Jayanti Natarajan was given charge of the MoEF, replacing Jairam Ramesh, whose brainchild the policy was.

"Had this happened in any other country, the government would have been sued left, right and centre for loss in business and opportunity cost, now that there is a mea culpa," said an analyst who tracks the resources sector with a foreign brokerage. "India has unnecessarily lost two years of crucial productivity gains and also fixed capital formation opportunities."



Roads, Construction and EPC

Government To Meet Banks And Financial Bodies After Increase In Premium

Business Standard, Nov 29, 2011

The government is convening a meeting of financial institutions and banks against the backdrop of a possible viability problem in the future, given that some of the road developers' aggressive bidding has led to an increase in the premium of projects for NHAI.

"We are glad that the premium amount is increasing. All the same, we need to ensure that the project completion does not become an issue in the future," a senior road transport ministry official said. In the recent past, NHAI has awarded 14 out of the around 45 projects with an annual premium of Rs 1,900 crore. This amount will increase at the rate of five per cent per annum for 25 years.

The bankers, however, feel the high premium war is happening because of less supply in the market. This will be so as long as the company has a decent number of projects in its portfolio, he adds. The only way to stop aggressive bidding is to have "enough projects in the market".

Electronic Tolling System Will Save Rs 1,000 Cr. Worth Fuel: Crisil

Business Line, Nov 23, 2011

Implementing an electronic toll collection system across the entire national and State highways could save fuel worth Rs 1,000 crore annually by reducing waiting time of vehicles at toll plazas, says a report by Crisil.

The National Highways Authority of India proposes to replace manual toll collection at highway toll plazas with Electronic Toll Collection, a nationwide automated collection system.

"Currently, there are close to 525 toll plazas, operating on national and State highways in India. Over 20,000 vehicles cross these plazas daily, each queuing up for approximately 5-10 minutes awaiting their turn to pay the toll fare. Each vehicle consumes almost 0.5-1 litre of fuel in an hour. Collectively, these vehicles spend around 1,800-3,600 hours at toll plazas, which accounts for a daily wastage of Rs 3-6 crore and annually, Rs 1,000 crore," stated Mr. Ajay D'Souza, Head, Crisil Research.

NHAI Asked To Strictly Adopt E-Tendering

Business Standard, Nov 22, 2011

The Ministry of Road Transport and Highways has asked NHAI and states to strictly adopt e-tendering system for better transparency in highways projects, saying it is not being properly implemented.

"E-tendering system which has been proposed by the ministry for better transparency of works on the national highways is not being followed for some of the projects in some states," the Ministry of Road Transport and Highways said in a letter to NHAI (National Highways Authority of India).

The ministry has decided that all the executing agencies will have to follow the e-tendering system on mandatory basis for all NH works and for other centrally sponsored schemes with effect from January 1, 2012, it said.

The e-tendering system would also apply to the National Highway Development Programme (NHDP), PPP (Public-Private Partnership) projects on the NHs.

NHAI Bid System Faulty: Experts

Financial Express, Nov 25, 2011

NHAI continues to award projects on premium despite banks and small players raising doubts on sustainability of the trend.

NHAI, the nodal agency to bid out national highway contracts, has awarded four new projects at a total annual premium of R250 crore. The premium would increase 5% every year over the concession period. Ramky Infrastructure, IVRCL, Ashok Buildcon and Larsen & Toubro have won these projects. "The trend is going to last for a while as no new project is on offer in other infrastructure sectors," said an NHAI official.

With the award of these projects, 17 out of 24 projects awarded so far this year have been bid out on premium. The balance has gone on viability gap funding (VGF). In case of premium, the private concessionaire pays a particular amount to NHAI, while VGF denotes the amount paid by NHAI to the concessionaire to bridge the gap between toll earnings and investments in the project.

2016 Deadline For 73 Border Roads

The Pioneer, Nov 23, 2011

Defence Minister AK Antony assured Parliament on Wednesday that all the 73 strategic roads in States bordering China and Pakistan will be completed in phases by 2016. His reply comes in the backdrop of China rapidly improving its military infrastructure including roads all along the Line of Actual Control (LAC) and 58,000-km long network in Tibetan plateau.

Listing out the reasons for slow progress and resultant cost overruns, Antony said delay in forest and wildlife clearance, hard rock stretches, limited working season and inadequate air efforts to mobilise resources. The Border Roads Organisation (BRO) is entrusted with building these roads.

Incidentally, Arunachal has 27 strategic road projects and Jammu and Kashmir 15 and Antony last week reviewed the pace of progress with the Border Roads Organisation (BRO) top brass.

Fast Lane: Drive To Agra On Yamuna Expressway From December

The Tribune, Nov 16, 2011

The much-awaited 165 km Yamuna Expressway between Greater Noida and Agra is expected to be completed by the end of December after which commuters will be able to drive to Agra at 100 kmph. The speed limit of 100 kmph for light motor vehicles and 60 kmph for heavy vehicles has been fixed in consultation with the Uttar Pradesh government, Yamuna Expressway Industrial Development Authority and Jaypee Infratech officials.

Scheduled to open two years ahead of the target date, it has been projected that the Rs 11,000-crore access-controlled and elevated Yamuna Expressway corridor would benefit an estimated 1.2 lakh commuters heading towards Agra and beyond daily. The six-lane toll road between Greater Noida and Agra will provide commuters seamless connectivity along a six-lane main carriageway and a single-lane shoulder road, besides the option for extending the expressway by another lane in the future.



Ports and Shipping

Mundra Port Delivers Record Coal To Adani Power

The Hindu Business Line, Nov 30, 2011

The Mundra Port and SEZ, the country's top private multi-port operator and a subsidiary of Adani Enterprises Ltd, has said its West Basin bulk coal handling terminal in the Gulf of Kutch delivered 62,718 tonnes a day of coal to Adani Power's power plant located adjacent to the port.

This large tranche of coal was delivered recently through a high speed conveyor belt at a speed of 6,000 tonnes per hour. The belt runs across 20 km from the port to the power plant, the company said in a statement here.

Adani Power Ltd is setting up a 4,620-megawatt imported coal-fired power plant at Mundra, while Tata Power Company is constructing a 4,000 MW ultra power power project (UMPP) nearby.

Mundra Port also commenced double-stack container trains to help control transportation costs. The trains are running from Mundra Port to Patli near Gurgaon, Haryana, thus, connecting Northern India to the west.

JNPT To Expand Capacity Five Fold In 8-10 Yrs

Business Standard, Nov 08, 2011

The Jawaharlal Nehru Port Trust (JNPT), in navi Mumbai, is in the process of expanding its capacity five fold in the next eight to 10 years, apart from its major projects such as setting up of a special economic zone (SEZ) in a public private partnership. The company is, in the process of floating a tender, seeking eligible partners for dredging of the Channel up to 14 metres at a cost of Rs 1,600 crore, in the next two years, according to a senior official from JNPT.

Speaking to reporters on the sidelines of JNPT's agreement with Venice Port Authority to enhance direct shipping between the two ports, L Radhakrishnan, chairman said, "We would be increasing our capacity from around 4.5 million TEUs (Twenty Foot Equivalent Units) to 20 million TEUs in the next eight to 10 years in a phased manner."

At present, it handles 55-60 per cent of the total container trade in India.

JNPT Set To Get PIB Nod For Widening Of Mumbai Harbour Channel

Business Standard, Oct 17, 2011

The Public Investment Board (PIB) is set to approve the project Jawaharlal Nehru Port Trust (JNPT) project for deepening and widening of the Mumbai harbour channel and JN port channel (Phase-II) with a revised estimated cost of Rs 1546.30 crore.

A senior finance ministry official told Business Standard that JNPT had submitted the revised plan which was expected to be cleared by the PIB, headed by the expenditure secretary, this week. He added that the fresh cost estimate had been worked out at Rs 1546.30 crore instead of Rs 1347 crore at the time to pre-PIB basing on estimated cost in December 2010. Any project beyond Rs 500 crore requires a mandatory PIB clearance.

JNPT currently has a draft of 11 meters and the biggest ship it can receive is partially laden 6,000 twenty equivalent units vessels. With the deepening of the draft to 14 meters it will be able to receive fully laden 6,000 Twenty-foot equivalent units (TEUs) vessels and up to 8,000 TEUs partially laden ships.

Major Ports Held Back On Land-Lease Policy

Business Standard, Nov 25, 2011

For the past nine months, the major ports of India are facing a policy hurdle. They have been unable to give out land on lease in the absence of an approved policy. The result is that several projects there are failing to start.

Until now, major ports followed a land policy framed by the shipping ministry under the Major Ports Trust Act, 1963, since the legislation permitted lease of land on a long-term basis. In March 2011, to put a check on the use of natural resources like land, water, spectrum, etc, the government instructed the shipping ministry to get its land policy approved by the cabinet.

The ministry is finalising a draft for cabinet approval. Among other things, it is likely to recommend regularisation of lease amounts and periods by bringing this under the jurisdiction of the Tariff Authority for Major Ports.

Andhra Pradesh Looks Forward To Second Major Port

The Hindu Business Line, Nov 08, 2011

Andhra Pradesh is looking forward to having a second major port in the State, after Visakhapatnam, as announced by the Union Government in the maritime agenda for the current decade (2010-20) and has requested the Centre to initiate the necessary steps.

The plea was made by the Principal Secretary (Investment and Infrastructure Dept), AP, Mr Sutirtha Bhattacharya, at a seminar on ports and logistics, organised by the Confederation of Indian Industry (CII) and the State Government.

He said the non-major ports in the State were being developed in association with the private sector and they would have the major share (54 per cent) of the cargo being handled by 2020.

He said the State was formulating a development strategy for the non-major ports in the State and would make all efforts to add to capacities.

Mundra Lone Bidder For Chennai Terminal

Mint, Oct 02, 2011

Chennai port's proposed third terminal has received only one price bid after six groups backed out of the auction to build the Rs. 3,686 crore facility, posing a setback to India's container terminal privatization programme.

The lone, single-digit bid is also the lowest ever quoted for a terminal at a Union government-owned port. Chennai port is India's second biggest after Jawaharlal Nehru port near Mumbai. Its new terminal will have a capacity to load four million standard containers (msc) a year and be deep enough to allow berthing of ultra large ships capable of carrying more than 15,000 containers.

But only Mundra Port and Special Economic Zone Ltd (MPSEZ) submitted a price bid for the facility when the deadline ended on Friday. It offered a revenue share of 1.5% to Chennai port to develop and operate the new terminal, a Chennai port official said on condition of anonymity because the bid results have not been made public yet.



Airports

Navi Mumbai International Airport To Throw Up Challenges For Bidders

Economic Times, Nov 26, 2011

Navi Mumbai International Airport (NMIA) would be one of the last big PPP airport opportunities in India in the medium term and, hence, likely to see intense competition. Cidco projects that the airport will handle 10 million passengers in its first year of operations.

Airport bids are inherently more challenging than other infrastructure projects as they involve a complex interplay of non-aero (duty-free, F&B, etc) businesses with the core aero (passenger, aircraft and cargo movement) business, and the city-side property development. In addition, Navi Mumbai bidding brings in a unique set of challenges for the bidders.

The total air-traffic potential of the region and the quantum of shift are dependent on events that are not under the control of the developer. For instance, the quantum of shift is inherently dependent upon MIAL's success at debottlenecking the Mumbai airport and progressively expanding its passenger capacity.

30 Airports To Be Upgraded Via Public-Pvt Partnership

The Hindu Business Line, Nov 17, 2011

Centre has so far identified 30 airports that needs to be modernised via public private partnership (PPP). This announcement has been made by Mr Nasseem Zaidi, Civil Aviation Secretary.

The Civil Aviation Ministry is hoping to bag \$130-billion investment in the sector in the upcoming 10 to 15 years. Centre is also planning to establish a national aviation university.

India and the US have formalised a Bilateral Aviation Safety Agreement (BASA) to offer airworthiness certification of these items. This move is expected to open up a huge market abroad for indigenously developed aeronautical products.

At the India-US Aviation Summit, both the countries would ink the Implementation Procedures for Airworthiness (IPA) which offers airworthiness technical cooperation between the US Federal Aviation Administration (FAA) and its Indian counterpart Directorate General of Civil Aviation (DGCA).

Airports Authority Asks Kingfisher To Clear Rs 210-Cr Dues

The Financial Express, Oct 25, 2011

The Airports Authority of India (AAI) has sent notice to Kingfisher Airlines for clearing dues worth Rs 210 crore. The public sector AAI has advised the airline to raise loans from banks to pay off the outstanding as the move would help them save on interest rate.

The airline has said that it would secure bank loan shortly and clear the dues. It makes sense since the dues is attracting an interest rate of 18%. Bank loan can be raised at an interest of 11-12%. "It's pure economics," a senior AAI official told The Financial Express.

The Vijay Mallya-promoted Kingfisher Airlines is currently making upfront payment for using the airport infrastructure managed by the AAI across the country. As per the mutually agreed commercial terms, the airline is paying 15 days in advance for airport usage to the operator.

AAI And District Officials Discuss Land Acquisition

The Hindu, Nov 23, Aug 06, 2011

The proposal on the next phase of expansion of the Tiruchi Airport could soon move forward with officials of the Airports Authority of India (AAI) and the district administration holding "positive discussions" on the land acquisition for the project, here on Tuesday.

Having completed the first phase of expansion of the airport runway and the construction of the new terminal building a few years back, the AAI had drawn up plans for the next phase of the expansion of the airport.

The proposal was part of a master plan for the airport taking into account future requirements. One of the major issues that came up for discussion was the technical feasibility of building the runway over the Uyyakondan River that runs behind the airport. It has been proposed that a bridge could be built across the river to lay the runway, in the same way the runway expansion has been taken up across the Adyar river in Chennai.

AAI Proposes To Spend Rs 17.5k Cr During 12th Plan

The Financial Express, Nov 09 2011

The country's largest airport operator, Airports Authority of India (AAI), has proposed to spend Rs 17,500 crore during the 12th Five-Year Plan (2012-17), up 40% from the 11th Plan period, in building and upgrading the airport infrastructure.

While AAI plans to fund major chunk of developmental works through internal accruals it expects to get Rs 5,000 crore from the government as gross budgetary support (GBS). "We have presented our five-year expenditure plan to the MOCA. Major works include upgrade of communication and air navigation systems and sourcing of security equipments," said an AAI official.

AAI has projected domestic passenger demand to grow to 500 million annually by 2030, requiring dozens of greenfield airport facilities across the country. It plans to build 28 low-cost airports in the next few years besides modernising the existing facilities.

Airports Authority Says It Won't Finance DIAL Bailout

Business Standard, Oct 03, 2011

The Airports Authority of India (AAI) has rejected a move to bail Delhi International Airport Ltd (DIAL) out of a financial crisis by extending it a Rs 350 crore loan at nine per cent rate of interest.

The proposal was mooted at a Prime Minister's Office (PMO) meeting, chaired by the principal secretary to the prime minister in August. AAI has also not accepted another proposal to let DIAL pay its share of revenue on a 'cash' basis, saying it was not found to be in conformity with its accounting principles. Paying on a 'cash' basis would mean the payment would be made based on actual revenues, excluding dues from Air India.

DIAL has been facing a cash crunch because the state-owned Air India has not paid dues of over Rs 250 crore. However, the company has to pay its 45.99 per cent revenue share to joint venture partner AAI at the beginning of the month, based on normal revenue projections.



Infrastructure Finance

Banks Lend 200% Of Road Project Costs, Government Worried

The Times of India, Nov 28, 2011

On an average, banks lend 39% more than the project cost arrived at by the National Highways Authority of India, the agency that hands out bids across the country. A key reason is the huge gap between the cost arrived at by NHAI and the estimate drawn up by developers who win the contracts.

With private developers bidding aggressively for highway contracts and willing to fork out a significant premium, the road transport and highways ministry decided to examine 66 projects where funding has been tied up. In three projects, the developer's estimate was more than twice the project cost calculated by NHAI. Another one-fourth of the projects sought loans 50%-100% higher than NHAI figures.

Bankers, however, argued that there was a six-month gap between NHAI finalizing the project cost and awarding the contract. Then, the developer took another three-four months to mobilize funds. During this period, the cost of most raw materials, from cement to steel, as also labour went up

All Banks Should Fund Infrastructure Projects: Speaker

Times of India, Oct 24, 2011

"Corporate and public sector banks should have a focused approach towards funding infrastructure development projects that benefit local economies," said N Yogish Bhat, deputy speaker of the state assembly at Vijaya Bank Founder's Day celebrations here on Sunday. "Such investments can be made as part of corporate social responsibility (CSR). It will yield long term returns to investors and also help fund vital infrastructure projects," he added.

Citing the example of public-private partnership that helped meet infrastructure needs of Calicut Airport, Bhat said banks in Karnataka, including Vijaya Bank, should think on those lines. "Extension of runway at Mangalore Airport, to enable the operations of wide-bodied jets, is hanging fire over cost involved," he said. Both Mangalore and Calicut airports are in a race against time to acquire the international airport tag and Union civil aviation ministry will be disinclined to give the tag to both the airports as they are within a distance of 150 km.

India Needs Islamic Finance For Infrastructure Development

Standard and Poor's, Oct 13, 2011

It is high time that India should develop Islamic Sukuk markets seeking guidance from Malaysia or Middle East experts. Finance Ministry and Reserve Bank of India has to co-ordinate with Accounting and Auditing Organizations of Islamic Financial Institute (AAOIFI), Bahrain and Islamic Finance Service Board (IFSB), Malaysia to amend its Banking and Financial regulations and provide a level playing field for Islamic Finance and Banking along with conventional financial banking as done in modern, secular and industrialized countries like UK, Singapore, Japan, Hong Kong and France to become a developed country with 9.0 -9.5% growth with the Islamic Finance in the infrastructure development. China has already made a base in Hong Kong to be an Islamic Finance Hub by amending its banking and financial regulation along with taxation policies thus, Hong Kong has become an effective corridor for Islamic Finance. It has also joined Islamic Finance Service Board of Malaysia.

The Indian Government has estimated a gap of US\$300 (30% funding gap) in its target to achieve infrastructure investment of US\$ 1 Trillion by 2017.

Department Of Industrial Policy And Promotion Seeks Debate On Infrastructure Funding

The Economic Times, Oct 31, 2011

The Department of Industrial Policy and Promotion (DIPP) has put out a discussion paper on the 'Financing requirements of infrastructure and industry' to begin a debate on the issue.

The 12th Five-year Plan pegs the total funds requirement for infrastructure development at over \$1 trillion, most of which is to come from private sector. The manufacturing sector needs to grow at 13-14% per annum for the economy to expand at 9-10% rate every year, the paper says, making a case for the need to attract global investors for building world class infrastructure.

"The Infrastructure finance market in India is characterised by the absence of an active long-term corporate debt market, asymmetric information on infrastructure projects, and inherent risks in financing infrastructure projects," the paper notes.

India's First IDF Likely In Next 2 Months: R Gopalan

The Economic Times, Oct 20, 2011

Economic Affairs Secretary R Gopalan today said he expects India's first Infrastructure Development Fund in the next two months and the size of the fund is estimated at USD 3 billion.

While discussing the IDF with Singapore investors here, Gopalan said that it was early to state the size of the first IDF but it could be as much as USD 3 billion. Gopalan, who is on a two-day visit to promote IDF here, said the fund could be launched within the next two months, and for now the fund was going through the initial process of establishment. The decision to set up IDFs ` Fund would be regulated by the Securities and Exchange Board of India (Sebi), the RBI will be in-charge of the IDF-NBFC.

Gopalan said once the first fund is established with Indian investors' participation, other similar funds would be followed on with participation from foreign investors.

SEBI Revises Bidding Norms For FIIs In Infra Bonds

Financial Chronicle, Sep 30, 2011

Revising its norms for foreign institutional investors (FII) in the infrastructure debt bonds, the capital market regulator SEBI today lowered the minimum bidding and allocation amounts for such investors.

As per the revised guidelines, no single FII shall be allocated more than Rs 2,000 crore of the investment limit against the existing Rs 10,000 crore. The market regulator has also reduced the minimum bid size to Rs 50 crore from the existing Rs 250 crore, a SEBI circular said.

Recently, the government allowed FIIs to invest up to \$ 5 billion in infrastructure bonds with reduction of lock-in period to one year from earlier three years. Subsequently, the National Stock Exchange (NSE) will hold the bidding process for the allocation of entire \$ 5 billion on October 7, 2011. These revised norms are likely to attract a higher number of FIIs into the infrastructure bond segment. Despite the last budget announcement of raising investment limit to \$ 25 billion from \$ 5 billion earlier, there was cold response from FIIs to such bonds.



Other Segments

101 Railway Projects Delayed; 153 Percent Cost Overrun

The Times of India, Nov 30, 2011

Railways top the list among infrastructure projects that missed the deadline, causing huge cost overruns to the exchequer. Among the 134 rail projects monitored by the government, 101 were facing delays leading to cost overrun to the tune of Rs 56,609.3 crore, an increase of 153.5 percent. There are 26 projects running behind schedule — ranging from two to 213 months — leading to the rise in cost by Rs 20,575 crore. Of these 26 projects, 10 are running over 60 months behind schedule.

Railways leads from the front, when it comes to the duration of delay. For instance, the Guna-Etawah-New Delhi new line is running 213 months (around 17 years) behind the completion target.

Data collected by the ministry of statistics and programme implementation till July shows that roads and highway projects are behind railways, whose 123 projects are delayed and 11 are facing cost overrun. Out of 558 central projects, worth Rs 150 crore, monitored, 241 are delayed, 140 are on schedule and seven are running ahead of deadline.

NCR Needs 8 Inter-City Rail Corridor

Business Line, Nov 22, 2011

Eight inter-city rail corridors in the National Capital Region (NCR) are required to facilitate commuters as per a study report.

The total cost of the rail link proposed between Delhi and neighbouring cities covering a distance of 640 km has been calculated at Rs 1,41,470 million.

The longest leg of the rail link with 158 km has been proposed from Delhi to Alwar in Rajasthan covering Gurgaon and Rewari in Haryana at a cost of Rs 34,100 million.

The shortest link between Delhi and Baraut via Shahdara at a cost of Rs 12,500 million will cover a distance of 56 km. The other rail corridors have been proposed to connect cities such as Meerut, Palwal, Panipat, Khurja, Rohtak, Hapur, Bahadurgarh and Sonapat.

India's Longest Railway Tunnel Unveiled In Jammu & Kashmir

The Economic Times, Oct 14, 2011

The northern railways on Friday opened India's longest railway tunnel piercing through the Pir Panjal range in Jammu & Kashmir. The tunnel is part of the ambitious Udhampur - Srinagar - Baramulla rail link project of Northern Railways. At 10.96km long, the Pir Panjal Railway Tunnel is India's longest and Asia's 2nd longest tunnel, aimed at reducing the travel distance between Quazigund and Banihal to only 11 km and providing a hassle-free travel up to Baramulla.

The 10.96 kms tunnel, which is aligned straight from north to south, is 100 percent water-proof and is also equipped with fire fighting system throughout its entire length. According to project manager Hindustan construction corporation S Yala, the construction of the tunnel started in November 2005 and was complete in 2011. The total cost of the tunnel was Rs.391 crores. The train would take 6.6 minutes to travel this distance from Banihal in south side to Qazigund in north side of the mountain and thus would take passenger from Jammu region in to Kashmir region just six minutes.

India To Narrowly Miss '07-12 Infrastructure Target

Economic Times, Nov 26, 2011

India is likely to narrowly miss its target of investing \$500 billion in infrastructure under the five-year plan ending in 2012, a senior official at the country's Planning Commission said.

"Provisional estimates suggest we will be in the region of \$480 billion, which will be more than a doubling of investment compared to the previous plan," Gajendra Haldea, Advisor to the Deputy Chairman of the Planning Commission, told an infrastructure conference in London.

India's 11th five-year plan had raised infrastructure investment targets to \$500 billion from \$216 billion during the previous plan. The next plan envisages investment of \$1 trillion to push annual growth to 10 percent.

Metro Travel Still A Dream For Many Cities

Business Standard, Oct 21, 2011

A little less than a decade after the Delhi metro system came into operation, another mega city, Bangalore, gets rolling on the latest in urban transport. The past decade has seen rapid expansion of the metro network, but many other cities like Patna, Ludhiana, Kochi and Pune wait in queue for a more comfortable city travel experience.

Experts estimate the investment in metro systems would reach as much as Rs 80,000 crore in two years. The figure will be much more, once metro plans take off in 20 other cities.

Though Kolkata was the first Indian city to have a metro system in place in 1984, Delhi became the trendsetter in 2002. The reasons were not far to see — timely implementation and use of the latest technology. "Metro systems have the tendency of breeding success after the first one," said Parvesh Minocha, managing director, Feedback Infrastructure.

Route Emerges For First Hi-Speed Rail Corridor

Business Standard, Oct 7, 2011

Pune-Mumbai-Ahmedabad would probably be the first rail line in the country to have a high-speed corridor, from the six being planned.

Tendering for creation of infrastructure for the corridor is expected to begin in 2014. French consultancy Systra recently gave a pre-feasibility report on the project to Indian Railways (IR). The latter are considering financial options for the entire project. One is on a design, build, finance, operate and transfer basis, through a single private developer who will be responsible for construction, operations and maintenance.

There will be no interface risk on IR and all revenue risk can be transferred to the private developer. The option is unbundling the project into components. This may make it attractive to more companies from the perspective of affordability, in terms of size and risk allocation. The estimated cost for the infrastructure might be around Rs 50,000 crore and another Rs 7,000 crore for rolling stock, averaging approximately Rs 100 crore per km.



World Infrastructure News

Coal Prices Not Likely To Recover In 2012 As China, India May Limit Purchases

Bloomberg, Nov 27, 2011

Coal in Asia is unlikely to recover in 2012 from its first decline in three years as electricity-price controls prompt Chinese and Indian utilities to limit purchases of the fuel.

Power-station coal at the Australian port of Newcastle, a benchmark price for Asia, will average about \$118 a metric ton next year, according to the median estimate of six analysts and traders surveyed by Bloomberg News. Prices have averaged \$122 so far in 2011. Coal at Richards Bay in South Africa, which supplies Asia and Europe, will trade at about \$111 a ton in 2012, down from \$118 this year, the survey showed.

Power providers in China and India, Asia's biggest energy users, are struggling to recoup their costs as governments restrict prices to curb inflation, reducing the incentive to boost electricity generation from thermal coal.

Malaysia Calls For Infrastructure Partnership With India

Business Standard, Nov 14, 2011

The Malaysian Government said that about \$ 30 billion (around Rs 1.35 lakh crore) could be sourced by creating an infrastructure investment-based fund, which could be listed on the Malaysian stock exchange by both Indian and Malaysian companies and institutions.

Speaking at the South India Infrastructure Investment Summit 2011, S Samy Vellu, Malaysia's Special Envoy to India and South Asia on infrastructure said: "Both, India and Malaysia, must work together to creative financial packages along with strategic alliance to realise the actual potential of this vast infrastructure opportunity."

He unfolded a six-point forward looking strategy to finance India's infrastructure. He also said, India should recognise and reward the role of the private sector which should participate actively in the 'Stakeholders inclusive investment model'.

Canada Eyes India For Investment In Trillion-Dollar Infrastructure Plan

Reuters, Nov 4, 2011

India is on Canada's radar screen as it wishes to be a part of a trillion-dollar infrastructure plan to consolidate trade and investment ties with Asia's third-largest economy, Canadian international trade minister Ed Fast said. India wants infrastructure investment of \$1 trillion over the five years starting in April 2012 as it aims to bolster economic growth and raise living standards. Indian infrastructure ranks 89th out of 133 countries, a World Economic Forum report found.

"India has a very ambitious infrastructure plan going forward worth \$1 trillion and of course, Canada wants to be a part of it because we are a world leader in infrastructure development," Ed Fast told Reuters in an interview. The Canadian minister is on a week-long visit to India to meet with Indian government ministers and business leaders to attract Indian investment to Canada, and press on the commercial interests of businesses in the rapidly growing market of 1.2 billion.

Japan Stake In Delhi-Mumbai Industrial SPV

Financial Express, Nov 14, 2011

India's \$90-billion urbanisation project to build a Delhi-Mumbai industrial corridor will get a boost with the government plan to offer 26% in the venture to Japan. The government also plans to sell some equity in the Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) to domestic public sector financial institutions like LIC.

Simultaneously, DMICDC's initial equity will be raised to Rs 100 crore from the current Rs 10 crore. The corporation will run the trust fund into which the government, multilateral agencies and Japanese entities will invest to finance the city-building projects likely across decades.

A department of industrial policy and promotion official told FE that "considering the \$9-billion commitment from Japan, we will be giving 26% in DMICDC to Japan." IL&FS and IDFC will transfer their combined 51% stake to government-owned financial firms making DMICDC a deemed government company. Currently, IL&FS holds 41%, IDFC 10% while the balance 49% is owned by the government in DMICDC.

Canadian Pension Funds Interested In Indian Infrastructure Sector

Economic Times, Nov 13, 2011

Canadian pension funds are interested in investing in the infrastructure projects in the country, provided regulatory hurdles are addressed by the government.

"Big pension funds from Canada are interested to invest in infrastructure sector in India. But, the concerns relating to regulatory issues should be addressed by the government," Canada-India Business Council vice-chairman Peter Sutherland said. "The recent steps such as allowing FIIs to invest in infrastructure are steps in the right direction".

The government plans to invest around USD 1 trillion in the infrastructure in the next five year plan beginning April. The government expects to garner around 50 percent of the proposed investment from private sector through public-private partnership projects. Referring to sectors, Sutherland said Canadian investors are looking at all infra sectors including ports, roads and power.

Italy May Ink MoU On Infrastructure

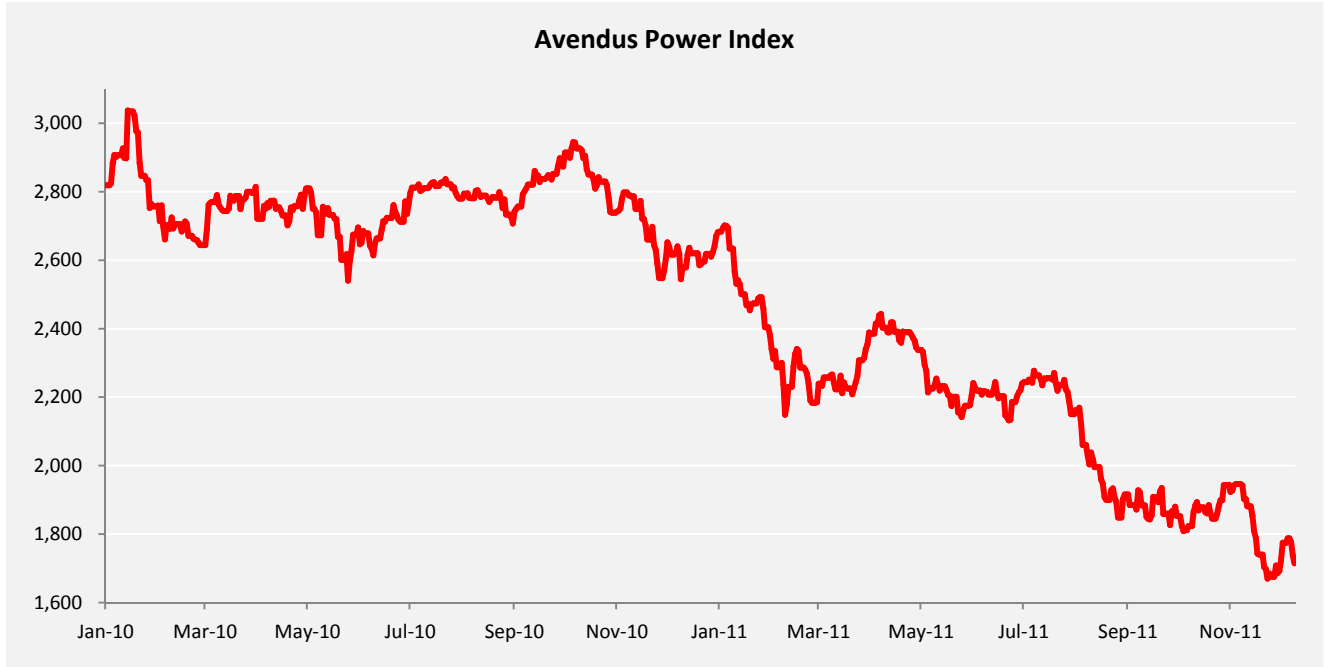
The Hindus Business Line, Oct 2, 2011

Italy is planning to sign a memorandum of understanding (MoU) with India on infrastructure, primarily roads. The MoU will cover aspects of road building and maintenance as well as technical co-operation between the two nations, Mr Giacomo Sanfelice di Monteforte, Italian Ambassador to India, said here.

"An inter-ministerial delegation is expected to arrive in India in October where it would sign an MoU on infrastructure with the Union Ministry of Roads and Highways," Monteforte said, speaking at an interactive session organised by the Confederation of Indian Industry (CII). The delegation will have industry representatives across various sectors such as renewable energy. According to Mr di Monteforte, Italy has also decided to participate at the Kolkata Book Fair to expand its cultural ties.

AVENDUS POWER INDEX

The Avendus Power Index is the first index designed to indicate the performance of major listed Power Generation companies in India. While there are a plethora of indices which track the performance of Energy/Power sector in India, we felt the need to create a separate index for the power generation companies.



Key Highlights

Returns Summary (ending 09-Dec-11)	Avendus Power Index	NSE Nifty	BSE Sensex
1 month	(9.9%)	(6.8%)	(6.6%)
3 month	(9.0%)	(5.6%)	(5.6%)
6 month	(22.3%)	(11.9%)	(11.8%)
1 year	(33.5%)	(15.6%)	(15.7%)
2 year	(37.3%)	(4.8%)	(5.3%)
YTD	(36.1%)	(20.2%)	(20.5%)

Methodology

The index is free float market capitalization weighted and comprises the following stocks- Adani Power, CESC, GMR Infra, GVK Power, Indiabulls Power, Jaiprakash Power, JSW Energy, KSK Energy, Lanco Infratech, NHPC, NTPC, Reliance Power, Tata Power and Torrent Power. The index begins with a value of 1000 on 01-Jan-06 with only CESC, Jaiprakash Power, NTPC and Tata Power. As and when more Power Generation Companies have got listed, we have added them to the index after making appropriate adjustments. The index has also been adjusted for various corporate actions. We have used free float market capitalization data till 09-Dec-11 for this edition of the newsletter.



ABBREVIATIONS

Term	Description	Term	Description
BU	Billion Units = 1 billion kWh	MT	Million Ton
BRIC	Brazil, Russia, India and China	MW	Mega Watt
BOT	Build-own-transfer	NHDP	National Highways Development Project
CYxx	Calendar Year ending 31-Dec-20xx	NHAI	National Highways Authority of India
CAGR	Cumulative Annual Growth Rate	NMA	National Maritime Agenda
DGCA	Directorate General of Civil Aviation	NSICT	Nhava Sheva International Container Terminal
EBITDA	Earnings before Interest, Tax, Depreciation and Amortization	NW	Net Worth
EV	Enterprise Value	OMST	Operate-Manage-Share-Transfer
FYxx	Financial Year ending 31-Mar-20xx	P/B	Price to Book Ratio
FDI	Foreign Direct Investment	P/E	Price to Earnings Ratio (Earnings is represented by PAT)
GDP	Gross Domestic Product	PAT	Profit After Tax
JNPCT	Jawaharlal Nehru Port Container Terminal	PPP	Public Private Partnership
kWh	Kilo Watt Hour	SEZ	Special Economic Zone
MCA	Model Concession Agreement	TAMP	Tariff Authority for Major Ports
MCap	Market Capitalization	YoY	Year on Year
MoS	Ministry of Shipping	Yr	Year
MU	Million Units = 1 million kWh	YTD	Year-To-Date for the Calendar Year



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