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# **UPDATE ON INDIAN PORT SECTOR**

(UPTO 30.9.2008)



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**MINISTRY OF SHIPPING, ROAD TRANSPORT & HIGHWAYS**  
**(TRANSPORT RESEARCH WING)**  
**NEW DELHI**



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## PREFACE

As per the decision of the Maritime State Development Council, the Transport Research Wing in the Ministry of Shipping, Road Transport and Highways has been bringing out the biannual publication "*Update on Indian Port Sector*". Till now twelve issues of the publication has been released. The last issue contained data up to March, 2008.

The current issue of the "*Update on Indian Port Sector*" includes the information on the performance of Major and Non-Major Ports for the period up to end September, 2008. The list of private sector/captive/joint sector port projects under implementation/consideration at Major Ports and Non-Major Ports have also been included. The cooperation extended by the concerned source authorities is gratefully acknowledged.

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## I. RECENT TRENDS IN CARGO TRAFFIC AND POLICY INITIATIVES

### 1.1 International and Domestic Factors Related to Seaborne Trade

1.1.1 After years of strong growth, the global expansion is losing steam. The financial turmoil that erupted in August 2007 and unprecedented increase in fuel and food prices since 2004 presage difficulties for the world economy in 2008 and 2009. The impact of the subprime crises has spread well beyond the United States, causing a widespread squeeze in liquidity and credit. Many advanced economies are close to or moving into recession, while growth in developing/emerging economies is also weakening. As per the World Economic Outlook (IMF, October, 2008) global growth is projected to slow to 3.9 per cent in 2008 and to mere 3 % in 2009 from an annual average increase of 5 per cent in 2006 and 2007 respectively.

**Table 1: Growth in Cargo handled at Indian Ports and related parameters (in %)**

Parameters	2004-05	2005-06	2006-07	2007-08	April-September	
					2007-08	2008-09
Trends in India's Select : Macro Parameters						
I. Total Cargo	12.1	10.9	12.0	10.3	15.5	6.5
(a) Major Ports	11.3	10.4	9.5	12.0	13.7	7.2
(b) Non Major Ports	14.3	12.5	19.0	6.2	20.5	4.7
II. GDP overall	7.5	9.4	9.6	9.0	9.3	7.8
(a) Agriculture	0.0	5.9	3.8	4.5	4.5	2.9
(b) Industry	10.3	10.1	11.0	8.5	9.3	6.5
(c) Services	9.1	10.3	11.1	10.8	10.7	9.8
III. Foreign Trade						
(a) Export in \$ value	30.8	23.4	22.5	23.0	20.9#	23.7
(b) Import in \$ value	42.7	33.8	24.4	27.0	25.3#	36.2
Trends in Select : Global Indicators						
IV. World Output	4.9	4.5	5.1	5.0		3.9f
(a) Advanced Economies	3.2	2.6	3.0	2.6		1.5f
(b) Developing Economies	7.5	7.1	7.9	8.0		6.9f
V. World Trade Volume (Goods)	10.9	7.6	9.3	6.5		5.2f
VI. Export Volume growth (Goods)						
(a) Advanced Economies	8.8	5.6	8.5	5.1		4.3f
(b) Developing Economies	14.0	10.9	10.9	9.2		6.9f
VII. World Import Volume (Goods)						
(a) Advanced Economies	9.7	6.3	7.8	3.8		2.3f
(b) Developing Economies	17.0	12.5	12.8	13.2		11.8f
VIII. World Seaborne Trade*	4.9	3.6	8.3	4.2		NA
(a) Goods Loaded	5.3	3.8	7.6	4.8		NA
(b) Goods Unloaded	4.9	3.3	9.0	3.5		NA
I. Based on data from Major Ports and Non Major Ports						
II. Based on gross domestic product (GDP) at Factor Cost (1999-2000 Prices), Central Statistical Organization						
III. Based on Department of Commerce, DGCI&S data;#:April-October						
IV,V,VI & VII Based on World Economic Outlook, October ,2008, IMF;						
VIII. Based on Review of Maritime Transport, 2008, UNCTAD						
Note : MT: Million Tonnes; For item Nos IV, V, VI &VII year 2004-05 refers to calendar year 2004 and so on						
pe preliminary estimate; f: forecast pertains to the year 2008; * growth in total goods loaded plus unloaded						

1.1.2 The slow down in growth is quite marked in the advanced economies from 3 per cent in 2006 to 1.5 percent in 2008 and further to 0.5 per cent in 2009. In contrast, developing economies are expected to grow at a slower but still robust 6.9 percent and 6.1 per cent in 2008 and 2009 respectively.

The major drags on the global growth performance are the slowdown in the United States driven by the end of the housing bubble and the unfolding of credit crunch. Nonetheless, according to the IMF, India and China are expected to maintain healthy growth which is projected at 7.9 % and 6.9 % in 2008 and 2009 respectively for India and; 9.7 % and 9.3 % in 2008 and 2009 respectively for China. India's resilience lies mainly in its healthy macro economic fundamentals and the fact that its growth dynamics is rooted in domestic demand. On the trade side, the impact of spillovers from slowing activity in the advanced economies has been limited. The volume growth of world export and import (trade in goods) is expected to decelerate for the advanced economies and that of emerging and developing economies to moderate aided by strong growth in their domestic demand.

1.1.3 A noteworthy feature of performance of India's port traffic has been its much higher growth compared to corresponding growth in world seaborne trade. Besides, growth in India's seaborne cargo throughput has outstripped growth in both world trade and output. To a large extent the strong growth of India's seaborne cargo traffic reflects buoyancy in India's overall Gross Domestic Product (GDP) growth and robust growth in merchandise trade in recent years. During the period of the Tenth Five Year Plan (2002-07) the average annual growth in cargo traffic at 11 percent was much higher compared to annual average growth in overall GDP and GDP originating in industry at 7.6% and 9.0% respectively. In the face of uncertain global market conditions and more challenging domestic market environment India's seaborne cargo traffic grew by 10.3 per cent in 2007-08. However, some slowing is evident in the growth of cargo traffic in the first half of 2008-09 to 6.5 per cent from 15.5 per cent in the same period of 2007-08. This moderation in the cargo traffic has coincided with certain external and internal developments.

1.1.4 International trade is a cornerstone of the global economy. Exchange of goods amongst countries widen the choice of supply and ensures that production takes place where it is cheapest and best. This is reflected in the intensification of globalization and the fact that world trade is growing faster than the world output. World trade relies on cheap and secure transport. Seaborne trade plays a key role in this context since an estimated 90 % of global trade in goods takes place by seaborne mode. As trade grows, the demand for maritime transport also grows. Technological developments in bulk and container transport have made maritime transport cheaper. Bulk transport involves shipping one homogeneous commodity (e.g.grain , ore etc) at any one time, but in large quantities; in contrast, container transport entails transporting different goods at the same time, but in standard containers that are easy to load and unload. However, the slower growth in world sea-borne trade compared to world trade in general reflects that the weight of the goods transported increases at a slower rate than their value due to rising trade in processed goods like electronic items, medicines, apparel, gem & jewellery etc. Besides, greater use of lighter materials and lower material intensity in the manufacturing process has also led to slower increase in weight.

## World Sea-borne Trade

1.1.5 Maritime transport activity depends on developments in world trade. An analysis of world seaborne trade based on Review of Maritime Transport (RMT), UNCTAD (2008) shows international seaborne trade (loadings/exports) increased by 4.8% in 2007 to reach a total volume of 8.02 billion tons (Table:2). Indeed during the past three decades, the annual average growth in world seaborne trade is estimated at 3.1 per cent by the RMT (2008), UNCTAD. The figure of 8.02 billion tons of international seaborne trade in 2007 comprised 2.68 billion tons of tanker cargo (33.4%) and 5.34 billion tons of dry cargo (66.6%). Tanker trades (crude oil and products) posted moderate growth of 3.3 % in 2007 in a volatile market. The tanker Cargo, in turn, consisted of 1.87 billion tons (69.6%) of crude oil and 815 million tons (30.4%) of petroleum products. Dry cargo shipments grew at 5.6 % to reach 5.34 billion tons in 2007. Demand for dry bulk is driven, *inter alia*, by industrial production and growth requirements. These shipments accounted for more than two-third of total world goods loaded. Dry bulk consisted of 1.98 billion tons of the five traditional dry bulk types (iron ore, coal, food grains, and bauxite/alumina and rock phosphate) and other dry cargo of 3.34 billion tons which showed an increase of 6.4 % and 5.1 % respectively.

**Table 2: International Seaborne Trade (loaded goods in million tonnes)**

Year	Tanker Cargo		Dry Cargo		Total Cargo	
	In tonnes	% change	In tonnes	% change	In tonnes	% change
1990	1755		2253		4008	
2000	2163		3821		5984	
2001	2177	0.6%	3844	0.6%	6021	0.6%
2002	2139	-1.7%	3981	3.6%	6120	1.6%
2003	2226	4.1%	4274	7.4%	6500	6.2%
2004	2318	4.1%	4528	5.9%	6846	5.3%
2005	2422	4.5%	4687	3.5%	7109	3.8%
2006	2595	7.1%	5057	7.8%	7652	4.3%
2007	2681	3.3%	5341	5.6%	8022	4.8%

Source: Review of Maritime Transport:2008, UNCTAD and earlier issues

1.1.6 Since 1990, global container trade (in TEUs) is estimated to have increased by a factor of five, which is equivalent to an annual average growth of 9.8 per cent (RMT 2008). In 2007, global container trade was estimated at 143 million TEUs reflecting a 10.8 % increase over 2006. In tonnage terms, container trade is estimated at 1.24 billion tons, accounting for about one-quarter of total dry cargo in 2007. Containerized trade is also a major driver of growth in the dry bulk segment. Strong growth in containerized traffic is fuelled by increased demand for consumer goods in developing regions, growth in intra-company trade and production inputs (parts and semi finished goods for assembly) and rising containerization of some traditional agricultural bulks.

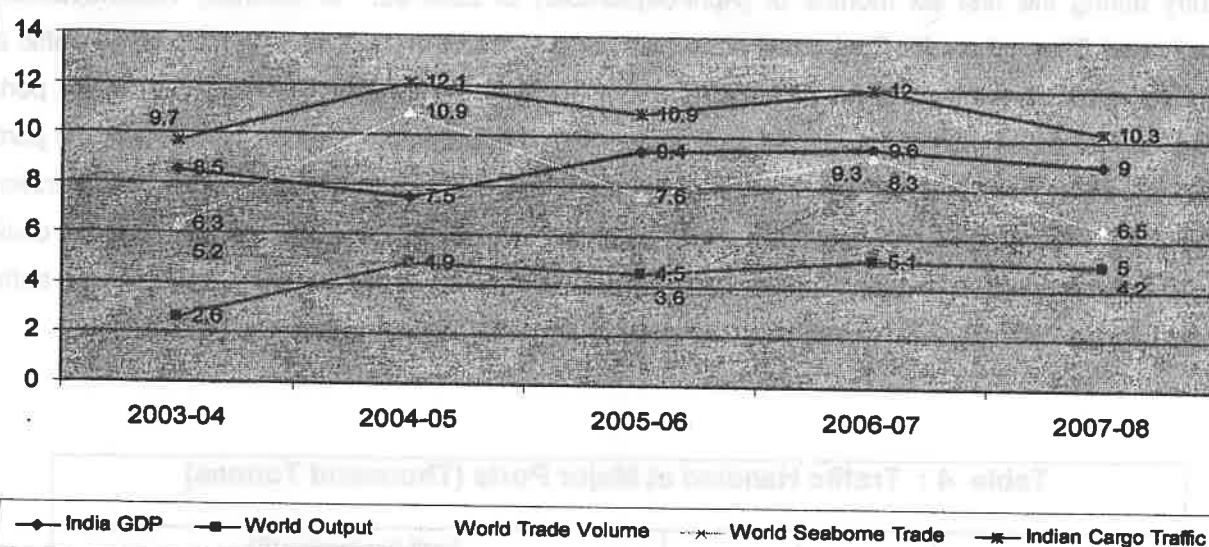


1.1.7 An analysis of world seaborne trade based on RMT (2008), UNCTAD by country groups also yields some interesting insights. Firstly, developed market-economy countries (DMECs) accounted for 2.67 billion tons of seaborne exports/loadings and 4.26 billion tons of seaborne imports/unloadings in 2007. This gave them a market share of 33% of total world seaborne exports and 53% of total world seaborne imports. Secondly, developing countries (across all continents) accounted for more than 63 % of the volume of world seaborne exports (with a very high market share of liquid cargo, reflecting the importance of Oil producers) and about 46% of world seaborne imports. The trade structure of developing countries contrasts sharply with that of DMECs. The developing countries' combined share in crude oil and petroleum products exports represented about 86 % and 48 % respectively. For imports, these shares were about 33% for crude and 39 % for products. In the dry cargo sector, the share of developing countries' exports reached about 58 % of world dry cargo exports, while their share of world imports touched 52 %. Thirdly, developing countries in Asia were the largest traders accounting for more than 40 % of the world seaborne goods loaded/exported and 48 % of the world seaborne goods unloaded. Further developing countries in Asia accounted for 44 % and 32 % of total crude and petroleum products loaded in 2007. The corresponding share of crude and petroleum products in total unloading (imports) were 28 % and 27 % respectively in 2007.

## 1.2 Cargo Traffic at Indian Ports

1.2.1 During the first half (April-September) of 2008-09 major and non major ports in India accomplished a total cargo throughput of 356.5 million tonnes reflecting an increase of 6.5 % over the same period last year. This sustained increase during the current year comes on top of more than 10 % growth in cargo traffic at Indian ports in 2007-08 (Table: 3). However current year has seen a moderation in the growth of cargo handled at major and non-major ports to 7.2% and 4.7% respectively compared to 13.7% and 20.5% achieved in first half of 2007-08. The growth in India's GDP, Port traffic and growth in world output, world export volume and world seaborne trade (loadings and unloading) since 2002-03 is given in Chart I.

**Chart 1 : Growth in Indian Seaborne Trade vis-a-vis Growth in Select Parameters**



Source: Growth rates for India's GDP and Cargo Traffic are based on statistics released by Central Statistical Organization and data available with Transport Research Wing of M/o Shipping, Road Transport & Highways and pertain to fiscal year. Growth rates in the World Output and World Trade Volume refer to calendar years (2003-04 refers to 2003 and so on) based on Trade & Development, (World Economic Outlook, October 2008, IMF)

**Table 3: Traffic Handled at Indian Ports (Thousand Tonnes)**

Table 3: Traffic Handled at Indian Ports (Thousand Tonnes)								
Major/Non-Major Ports	Traffic Handled				Growth over previous year/period			
	2006-07	2007-08	April-September (P)		2006-07	2007-08	April-September (P)	
			2007-08	2008-09			2007-08	2008-09
Major Ports	463782 (71.49)	519240 (72.56)	244146 (72.96)	261723 (73.41)	9.5	12.0	13.7	7.2
Non-Major Ports	184922 (28.51)	196690 (27.44)	90476 (27.04)	94754 (26.59)	19.0	6.2	20.5	4.7
All Ports	648704 (100.00)	715930 (100.00)	334622 (100.00)	356477 (100.00)	12.0	10.3	15.5	6.5
(P): Provisional; Figures within parenthesis indicate percent share in total cargo traffic for Major and Non-Major ports respectively.								

(P): Provisional; Figures within parenthesis indicate percent share in total cargo traffic for Major and Non-Major ports respectively.

## 1.3 Cargo Traffic at Major Ports

1.3.1. In terms of port performance, the analysis of cargo handled at 12 major ports reveals that 7.2% increase in cargo traffic during the first half of 2008-09 was driven by good showing by Kandla Port which posted an increase in cargo handled by 23.4%, followed by JNPT 17.3%, Tuticorin 10.8%, Mormugao 9.1%, Paradip 8.5% and Vishakhapatnam 8.2% (Table:4). The two ports on the west

coast, viz, JNPT and Kandla accounted for a share of about 26 % in the total cargo handled by the major ports but contributed to two third of the total increase in the cargo handled at major ports in the country during the first six months of (April-September) of 2008-09. In contrast, Visakhapatnam, Paradip and Chennai on the East coast accounted for a share of around 32 % in total cargo traffic at major ports but contributed to an increase of about 30 % in the total cargo handled at major ports during the first six months of the current year. However, the cargo traffic attained by the 12 major ports at 261.72 million tonnes during the first half of the current year fell short of the target of 282.39 million tonnes by 7.3%. In particular, only three major ports, viz, Kandla, Ennore and Vishakhapatnam could exceed their respective targets of cargo traffic during the first half of the current year. Port-wise traffic handled during 2006-07, 2007-08 and first half of 2007-08 and 2008-09 is given in Table:4.

**Table 4 : Traffic Handled at Major Ports (Thousand Tonnes)**

Ports	2006-07	2007-08	April-September (P)				
			2007-08	2008-09		% Change over	
				Target	Actual	CP	Target
Kolkatta	55050	57282	26763	33720	26878	0.4	-20.3
Kolkatta DS	12596	13741	4758	6020	4803	0.9	-20.2
Haldia DC	42454	43541	22005	27700	22075	0.3	-20.3
Paradip	38517	42438	19881	23868	21564	8.5	-9.7
Vizag	56385	64597	30614	32040	33135	8.2	3.4
Ennore	10714	11563	5734	5090	5759	0.4	13.1
Chennai	53414	57154	28223	31670	29244	3.6	-7.7
Tuticorin	18001	21480	10032	11990	11112	10.8	-7.3
Cochin	15257	15810	7861	9180	7692	-2.1	-16.2
New Mangalore	32042	36019	17979	19730	18425	2.5	-6.6
Mormugao	34241	35128	12389	17550	13514	9.1	-23.0
Mumbai	52364	57038	28104	30550	26196	-6.8	-14.3
JNPT	44815	55838	25875	30930	30345	17.3	-1.9
Kandla	52982	64893	30691	36070	37859	23.4	5.0
<b>All Ports</b>	<b>463782</b>	<b>519240</b>	<b>244146</b>	<b>282388</b>	<b>261723</b>	<b>7.2</b>	<b>-7.3</b>

(P): Provisional; CP: Corresponding period April-September, 2007-08

## 1.4 Commodity wise Cargo Traffic at Major Ports

1.4.1 In terms of Commodity-wise traffic at 12 major ports, the 7.2% increase in cargo at major ports during the first half of 2008-09 was driven by increase in 3 broad categories of cargo viz. coking coal (38.6%), 25.6% in fertilizer and 14.5% in container traffic (in tonnes) cargo (Table:5). In particular, coking coal and container traffic contributed to more than 60% of the total increase of 7.2% in total cargo handled at major ports during the first half of 2008-09.

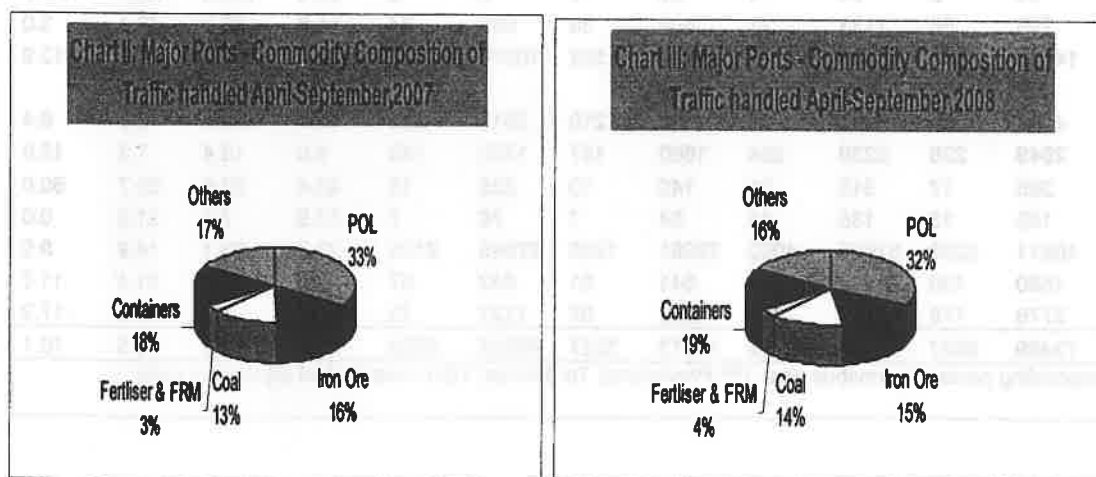
**Table 5 : Commoditywise wise Traffic Handled at Major Ports (Thousand Tonnes)**

Commodity	2006-07	2007-08	April-September (P)		% Change Over		
			2007-08	2008-09			
				Target	Actual	CP	Target
1	2	3	4	5	6	7	8
POL	145878	168897	81829	93530	84145	2.8	-10.0
Iron Ore	80613	91974	39482	42860	40092	1.5	-6.5
Fertiliser	19060	16664	7726	9500	9700	25.6	2.1
a. Finished	7929	10612	4611	5330	6586	42.8	23.6
b. Raw	11131	6052	3115	4170	3114	0.0	-25.3
Coal	65738	64725	31275	38270	36433	16.5	-4.8
a. Thermal Coal	28429	39580	19264	23810	19789	2.7	-16.9
b. Coking Coal	37309	25145	12011	14460	16644	38.6	15.1
Container	73469	92134	43273	51858	49537	14.5	-4.5
Others	79024	84846	40561	46370	41816	3.1	-9.8
Total	463782	519240	244146	282388	261723	7.2	-7.3

(P) : Provisional; CP : Corresponding period-April-September 2007-08

(P) : Provisional; CP : Corresponding period-April-September 2007-08

1.4.2 The shares of different commodities in total cargo traffic are depicted in the Charts II and III during the first half of 2007-08 and 2008-09. Energy imports consisting of POL and coal constitute 46 % of the total cargo traffic at India's major ports.



POL : Petroleum, Oil &amp; Lubricants

FRM : Fertiliser Raw Material

1.4.3 The Port-wise & commodity-wise traffic handled at major ports during the last few years and the first six months of 2007-08 and 2008-09 are given in Annex 3.



**1.4.4 Container Traffic:** Total Container traffic at major ports has increased both in terms of tonnes (14.5%) and twenty foot equivalent units [TEUs] (10.1%) during the first six months (April-September, 2008-09) of the current financial year. In particular, growth in the container traffic (in terms of tonnes) at 14.5 % was more than double the level of growth posted in non containerized throughput (in tonnes) of 5.6 % in the first half of the current year. However, amongst the major ports, the ports at Kandla and Paradip witnessed fall in container traffic. Jawahar Lal Nehru Port continues to be the leading container handling port in the country with a share of about 55% in terms of tonnage and about 60 % in terms of TEUs in the total container traffic at major ports (Table:6) (Annex 3). Efficiency in container handling operations at some of the select container terminals in India is given in Table:6A. Recent trends in Cargo traffic and container traffic at major ports of the world are given in the Table 6B and 6C respectively.

**Table 6: Container Traffic at Major Ports (In thousand tonnes/TEUs)**

PORT	2006-07		2007-08		April-September (P)				% Change			
	Tn	TEU	Tn	TEU	2007		2008		2007-08		Apr-Sep, 2008	
					Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU
Kolkata	4003	239	5139	297	2558	150	2855	157	28.4	24.3	11.6	4.7
Haldia	1918	110	2242	128	778	51	1402	76	16.9	16.4	80.2	49.0
Paradip	34	2	54	4	20	2	0	0	58.8	100.0	-100.	-100.0
Visakhapatnam	799	56	1133	71	496	33	695	34	41.8	26.8	40.1	3.0
Chennai	14166	885	18049	1128	8831	552	10070	629	27.4	27.5	14.0	13.9
Ennore												
Tuticorin	4011	377	5630	450	2742	219	2913	233	40.4	19.4	6.2	6.4
Cochin	2949	226	3239	254	1660	127	1785	143	9.8	12.4	7.5	12.6
New Mangalore	265	17	319	21	140	10	225	15	20.4	23.5	60.7	50.0
Mormugao	155	13	135	14	64	7	78	7	-12.9	7.7	21.9	0.0
J. L. Nehru	40811	3298	51923	4060	23981	1938	27545	2129	27.2	23.1	14.9	9.9
Mumbai	1580	136	1632	118	641	51	842	57	3.3	-13.2	31.4	11.8
Kandla	2778	178	2639	167	1362	87	1127	72	-5.0	-6.2	-17.3	-17.2
<b>All Ports</b>	<b>73469</b>	<b>5537</b>	<b>92134</b>	<b>6712</b>	<b>43273</b>	<b>3227</b>	<b>49537</b>	<b>3552</b>	<b>25.4</b>	<b>21.2</b>	<b>14.5</b>	<b>10.1</b>

Note: CP - Corresponding period of previous year. (P) Provisional; Tn: tonnes; TEU –twenty foot equivalent units

**Table 6A: Performance Indicators of Select Container Terminals**

Terminal	Year	Moves / Crane Hr.	Moves / Berth Hr.	TEU /Mtr. Quay	TEU /Htre Terminal	TEU / Employee	Dwell Time(Day)	TRT Day
<b>Tuticorin</b>	2004-05	28.0#	37.0	878	52061	2292	3.6	1.12
	2005-06	26.0#	43.0	917	32093	2031	3.4	1.02
	2006-07	27.0#	43.0	1077	37705	2192	3.8	1.08
	2007-08	27.0#	52	1283		2822	5.51	1.38
<b>Chennai</b>	2004-05	16.5	31.0	686	28784	1518	4.2	2.64
	2005-06	20.9	40.1	826	34648	1828	2.9	1.38
	2006-07	22.1	43.0	996	35263	2204	2.5	1.00
	2007-08	21.0	42.0	1267	44860	2670	2.6	1.08
<b>JNPCT</b>	2004-05	15.5	38.9	1675		1314	3.9\$	1.78
	2005-06	16.8	44.0	1827	21772	1478	3.2*	1.98
	2006-07	17.3	45.9	1778	21220	1433	0.9\$	1.89
	2007-08	16.2	41.0	1756		1349	2.2\$	1.90
<b>NSICT</b>	2004-05	20.5	58.8	2054		1896		1.22
	2005-06	21.3	60.9	2206	51152	2037	2.8*	1.51
	2006-07	22.7	64.5	2265	52516	2091	2.7*	1.36
	2007-08	23.0	70.4	2513		2687	2.5\$	1.02
<b>GTICT</b>	2006-07	22.3	49.3	891	21253	632	3.6	0.98
	2007-08	23.7	53.9	1813		2678	2.4\$	1.21
<b>Cochin</b>	2007-08	14.6	25.8	469	28112	539	6.53	1.14

#Per effective crane hour; \$: for Container Freight Station(CFS)Containers -Import

\*Average for CFS containers ;

Moves /Crane Hour(Hr): Total container vessel moves/sum of gross craned Hours

Moves/Berth Hr : Total container vessel moves/sum of gross vessel working hours

TEU/Mtr. Quay : Total TEUs handled per annum / total quay length in meter

TEU/Htre Terminal: Total TEUs handled per annum / total terminal area in hectare.

TEU/Employee: No. of TEUs over the quay wall/total headcount

Dwell time : Total No. of container storage days/total no. containers

JNPCT: Jawaharlal Nehru Port Container Terminal

8.NSICT: Nhava Sheva International Container Terminal

9.GTICT: Gateway Terminals India Container Terminal : TRT:Turn Around Time

**Table 6B : World Major Ports (In Million Tonnes)**

Port	2004	2005	2006	2007
Shanghai (PRC)	379.7	443.0	537.0	561.0
Singapore	393.4	423.3	448.5	483.6
Rotterdam (Netherlands)	352.7	370.2	381.8	406.8
Ningbo (PRC)	225.9	268.6	309.0	344.0
Guangzhou (PRC)	215.2	250.9	302.0	340.0
Tianjin (PRC)	206.2	241.4	258.0	309.0
Qingdao (PRC)	162.7	186.8	224.0	265.0
Hong Kong (PRC)	220.9	230.1	238.2	245.0
Dalian (PRC)	145.2	170.0	200.0	220.0
Nagoya (Japan)	182.3	187.0	208.0	215.0
Antwerp (Belgium)	152.3	160.1	167.4	182.9
Hamburg (Germany)	114.4	125.7	134.9	140.4

Source: Port Statistics, Port of Rotterdam Authority, May 2008; PRC-Peoples Republic of China

**Table 6C :World Major Container Ports (in Million TEUs)**

Port	2004	2005	2006	2007
Singapore	21.329	23.192	24.792	27.932
Shanghai (PRC)	14.554	18.084	21.719	26.150
Hong Kong (PRC)	21.984	22.427	23.540	23.881
Shenzhen (PRC)	13.660	16.197	18.469	21.099
Busan (Republic Korea)	11.490	11.843	12.039	13.260
Rotterdam (Netherlands)	8.292	9.288	9.653	10.791
Dubai Ports (UAE)	6.429	7.619	8.923	10.653
Kaohsiung (Taiwan Province of China)	9.714	9.471	9.775	10.257
Hamburg (Germany)	7.003	8.088	8.862	9.890
Los Angeles (USA)	7.321	7.485	8.470	8.355
Antwerp (Belgium)	6.064	6.488	7.018	8.176

Source: Port Statistics, Port of Rotterdam Authority, May 2008; Peoples Republic of China; TEU-Twenty Feet Equivalent Units

### 1.5 Non-Major Ports

1.5.1 In the Tenth Five Year Plan, traffic at non-major ports increased at an annual average growth rate of 13.7% and grew at modest rate of 6.2% in 2007-08 and 4.7% in first half of 2008-09. Non-Major Ports handled more than a quarter of the total maritime freight traffic of the country during the first half of the current fiscal year.

1.5.2 Table 7 presents maritime state-wise share and growth of traffic handled at Non-major ports during last two years and the first six months of the current and previous years.

**Table 7 : Traffic Handled by Non-Major Ports by Maritime States/UTs**

Maritime State/UT	Traffic Handled ('000 Tonnes)				% Change over Previous Year			
	2006-07	2007-08	April-September		2006-07	2007-08	April-September P	
			2007-08	2008-09			2007-08	2008-09
Gujarat	131265 (70.98)	147598 (75.16)	69035 (76.30)	73226 (77.28)	21.5	12.4	24.3	6.1
Maharashtra	11580 (6.26)	11556 (5.88)	4881 (5.39)	4941 (5.21)	3.8	-0.2	2.6	1.2
Andhra Pradesh	18609 (10.06)	19262 (9.81)	12196 (13.48)	11763 (12.41)	1.0	3.6	20.8	-3.6
Goa	14306 (7.74)	12825 (6.53)	1978 (2.19)	2166 (2.29)	21.6	-10.4	-26.8	9.5
Tamil Nadu	805 (0.44)	899 (0.46)	400 (0.44)	420 (0.44)	13.2	11.7	35.6	5.0
Karnataka	6561 (3.55)	2788 (1.42)	970 (1.07)	1153 (1.22)	59.4	-57.5	-16.2	18.9
Other States /UTs	1796 (0.97)	1762 (0.90)	1016 (1.12)	1085 (1.15)	53.2	-1.8	79.7	11.6
All M .States/UTs	184922 (100.00)	196690 (100.00)	90476 (100.00)	94754 (100.00)	19.0	6.2	20.5	4.7

Note: Figure in parenthesis is the percentage share of traffic handled by the maritime state to the total traffic handled by all the maritime states. Provisional.

1.5.3 The growth in cargo handled by the non-major which was 20.5% in the first half of 2007-08 has decelerated to 4.8 % in the first half of 2008-9 (Table:7) The growth in cargo handled at non-major ports has been facilitated by sustained growth in non-major ports located in Gujarat aided by substantial increase in the coal and fertilizer & FRM in particular (Tables 7 & 8). The growing importance of non-major ports in handling cargo traffic has helped alleviate the congestion at major ports. Table 7 provides traffic handled by non-major ports in terms of maritime states (geographic location) and Table 8 gives a glimpse of commodity profile of the cargo handled. Table:7 reflects that Gujarat accounted for more than three-fourth (77.28 %) of the total traffic handled by the non-major ports followed by Andhra Pradesh (12.4%), Maharashtra (5.2%) and Goa (2.3%). Three maritime States, viz, Gujarat, Maharashtra and Andhra Pradesh together accounted for close to 95% of the total cargo traffic handled by the non-major ports in the first half of the current year.

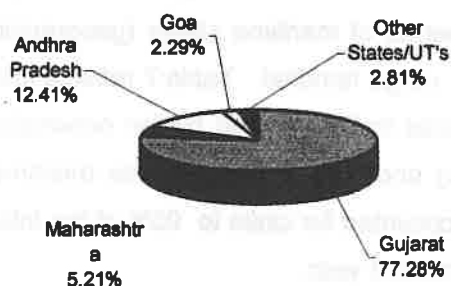
1.5.4 Four commodities, viz. POL, iron ore, building materials and coal accounted for more than three-fourth of the total cargo handled at the non major ports (Table :8).

<b>Table 8 : Commodity-wise Traffic Handled by Non-Major Ports</b>								
Commodity Group	Traffic Handled ('000 Tonnes)				% Change over Previous Period			
	2006-07	2007-08	April-September		2006-07	2007-08	April-September	
			2007-08	2008-09			2007-08	2008-09
POL	81200 (43.91)	94726 (48.15)	51378 (56.79)	51801 (54.66)	16.5	16.6	24.4	0.8
Iron Ore	33973 (18.37)	28509 (14.49)	9024 (9.97)	9767 (10.31)	17.8	-16.1	-7.0	8.2
Building Materials	14308 (7.78)	12664 (6.43)	4853 (5.36)	4727 (4.98)	7.4	-12.2	-20.4	-2.6
Coal	14015 (7.58)	15397 (7.83)	5536 (6.12)	7468 (7.88)	3.3	9.9	-4.2	34.9
Fertilizer & FRM	6818 (3.69)	7504 (3.82)	2546 (2.81)	3274 (3.46)	21.4	10.1	-12.7	28.6
Others	34525 (18.67)	37938 (19.29)	17139 (18.94)	17717 (18.71)	42.2	9.9	84.6	3.4
All	184922 (100.00)	196690 (100.00)	90476 (100.00)	94754 (100.00)	19.0	6.4	20.5	4.7
Note: Figure in parenthesis is the percentage share of major commodity groups in the total traffic handled by the Non major ports.								

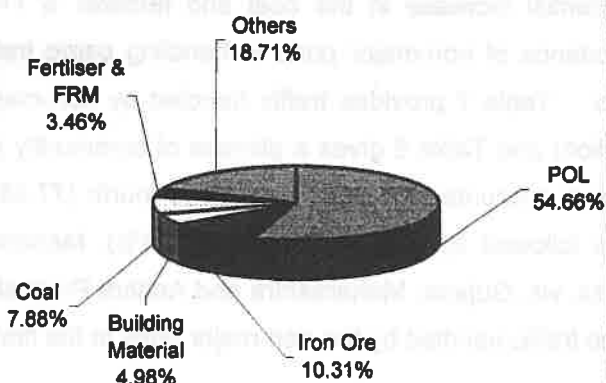
1.5.5 The share of Maritime States/UTs in the total traffic and Commodity-wise composition of traffic is revealed in the pie Charts IV and V.



**Chart IV : Non-Major Ports - Share of Maritime States/UTs in the Traffic Handled April-September 2008**



**Chart V : Non-Major Ports-Commodity Composition of Traffic Handled - April-September 2008**



POL : Petroleum, Oil & Lubricants FRM : Fertiliser Raw Material

1.5.6 Maritime State-wise & commodity-wise traffic handled at non-major ports during the last few years and the first six months of the current financial year is given in Annex 4.

## 1.6 Policy Initiatives-Central Government

1.6.1 In October 1996, the then Ministry of Surface Transport issued guidelines for Private Sector participation in Major Ports. The guidelines were intended to precisely define the options for the involvement of private sector in the Major Ports.

1.6.2 Government also issued guidelines on joint venture formation in Major Ports which came into effect from 1.9.2000. In order to attract private sector investment, model bid documents were finalised for private sector projects laying down transparent bidding procedure, qualifications and selection criteria, bid evaluation procedure, termination payment, dispute resolution process etc. and detailed terms and conditions of the License Agreement, to ensure bankability, uniformity and reduction in time taken to select the private parties.

1.6.3 The Major Port Trust Act, 1963 was further amended in the year 2000 for allowing Major Ports to form joint ventures with Non-Major/Foreign Ports as well as companies.

1.6.4 Given the vital role of maritime infrastructure in economic development and trade, it has been felt that policy framework for maritime sector concerning Ports, Shipping and Inland Water Transport needs to be in position. Accordingly, the Department of Shipping had brought out a Draft *Policy for Maritime Sector*. Suggestions/views were invited from all those connected with the maritime sector. Based on this feed back from the various stake-holders, the policy is in the process of finalisation.

## **1.7 Eleventh Plan (2007-12)**

1.7.1 The Approach Paper to the Eleventh Five Year Plan (2007-2012): "Towards Faster and More Inclusive Growth (November, 2006)" by the Planning Commission has proposed an annual average growth target of 9% in terms of GDP for the Eleventh Plan and laid emphasis on following aspects for the Port Sector:

- (a) To develop ports and related infrastructure to bring them to international standards in turn around time and clearing of import & export cargoes;
- (b) Substantial capacity augmentation at major and minor ports;
- (c) A deep sea port to be developed and drafts of existing ports be deepened, where feasible, through capital dredging;
- (d) Bulk of capacity augmentation would be undertaken through public private partnership and captive users; and
- (e) Rail road connectivity of ports with the hinterlands to be improved on priority basis.

## **1.8 Impact of Global Slowdown and Credit Crises on Maritime Trade and Prospects**

### **1.8.1 Global macro developments**

1.8.1.1 Growth in developing and emerging-market economies has been fairly resilient, but there is strong evidence that they cannot escape the global slowdown. Despite a global slowdown, output growth in India and China in 2008 is expected to be strong compared to sharp expected slowdown in the advanced economies from 3 % in 2006 to 1.5 % in 2008 and further slide to 0.5 % in 2009. Also volume growth in world trade in 2007 at 6.5 % in 2007 was lower than in the preceding 3 years, and is expected to decelerate to 5.2 % in 2008 and further to 4.4 % in 2009[IMF Outlook (October, 2008)].

1.8.1.2 It needs to be noted that trade is much more volatile than global growth, partly because it is still dominated by commodities and manufactured goods whose output is more variable than the service industries that have a larger share of domestic economies. Trade does not transmit weakness around the world with the lightning speed of financial markets. But what it lacks in pace it may make up for in impact. Trade in goods and services remains the dominant transmission mechanism for a global slowdown. Since it takes time for existing contracts to expire, a trade slowdown can lag a deceleration in gross domestic product. India is not immune to global developments, but neither is it hostage to them. Its longer-run growth trajectory will be much more a function of structural and supply-side dynamics. In the short run, the impact of the global slowdown on cargo traffic is likely to be modest.

## 1.8.2 Impact of global growth on India's seaborne cargo

1.8.2.1 The growth in cargo traffic is in the nature of derived demand. Therefore developments in both global and domestic activity have a bearing on India's seaborne trade. The robust growth in India's GDP and a healthy growth in world economy kept growth in India's seaborne trade at double digit over 10 % in the Tenth Plan (2002-07) and 2007-08 as well. The impact of current global slowdown is reflected in moderation in growth of India's total cargo handled at major ports to 7.2% in April-September 2008 from 13.7 % in the same period last year. This moderation in the growth has to be viewed in the backdrop of commodity growth profile of cargo traffic which shows a sharp deceleration in case of iron ore (predominantly for export) to 1.5% during April-September 2008 compared to 9.1 % in the same period of last year (Table A). This to a large extent reflects substantial weakening of demand for steel in the China. Similarly, container traffic which reflects trend in trade in manufactures has also decelerated to 14.5 % in April-September 2008 from around 24 % in the same period of last year.

**Table 8A: Quarterly Growth Rates in GDP & Cargo Traffic \***

Parameters	2007-08					2008-09		
	Q1	Q2	Q3	Q4	H1	Q1	Q2	H1
GDP (real)	9.2	9.3	8.8	8.8	9.3	7.9	7.6	7.8
Total Cargo*	14.2	13.3	10.4	10.5	13.7	8.7	5.3	7.2
POI	20.0	9.6	3.2	6.8	14.6	-0.5	7.1	2.8
Iron ore	4.8	14.6	17.4	19.2	9.1	15.0	-14.5	1.5
Coal	8.4	12.7	11.8	-1.7	10.5	28.5	24.5	16.5
Fertilisers	35.7	24.8	9.7	10.0	29.0	31.0	16.1	25.6
Containers	22.4	25.2	26.8	26.8	23.9	16.9	11.5	14.5
Others	8.0	6.2	2.3	2.2	7.1	-5.8	-4.8	3.1

\*: Major Ports; Q1 (April-June); Q2 (July-Sept); Q3 (Oct-Dec); Q4 (Jan-March); H1 Apr-September; H1 growth rates are based on cumulative data which includes revisions as well and therefore may not exactly correspond to first two quarter averages.

## 1.8.3 Impact on Global Ocean Freight Rates

### 1.8.3.1 Baltic Dry Index

1.8.3.1.1 The Baltic Dry Index (BDI) is a daily average of prices to ship raw materials and represents the cost paid by an end user to transport raw materials across seas on the Baltic Exchange, the global marketplace for brokering shipping contracts. The BDI is one of the leading indicators of global economic activity. It measures the demand to move raw materials. Unlike stock and commodities markets, the BDI is devoid of speculative players.

1.8.3.1.2 The surge in BDI from 2005 to the end of 2007 was primarily due to Chinese demand. There was also a shortage of supply for dry bulk cargo ships and a large backlog at shipyards. The combination of these two factors caused a surge in the index. However, BDI has lost almost 90 % from

its record highs. BDI has dropped from its all time high of 11,793 on May 20, 2008 a few months ago to less than 1000 as of now (715 as on November 28,2008). Its downward slide has continued and it fell further to 684 points on December 2, 2008. BDI touched its low at 553 points on July 31, 2008. It is now almost 90% cheaper to ship goods over the oceans than it was at the beginning of the year.

**Table 8B : Trend in Baltic Indices**

Index	20 <sup>th</sup> May 2008	30 <sup>th</sup> Sept. 2008	31 <sup>st</sup> Oct. 2008	28 <sup>th</sup> Nov. 2008	% Change Nov./May
Baltic Dry	11793	3217	851	715	-93.9%
Baltic Panamax	11425	2382	677	622	-94.6%
Baltic Supramax	6641	2729	583	622	-90.6%
Baltic Cape	18105	4318	1265	838	-95.4%

Source: S& P Monthly Report,2008 accessed from [www.cotzias.gr](http://www.cotzias.gr)

1.8.3.1.3 This fall in BDI is due to a simultaneous convergence of several factors. Chief among these is the rapid plunge in the 'global growth' phenomenon. In addition to this, credit has been nearly impossible to get for the purchase of goods and the payment of time charters on the vessels. Many of vessels under shipping companies operate under Contract of Affreightment (is a contract to move cargo over a specified time between named ports and regions and may be performed by any ship as distinct from charter hire arrangements that pertains to a named ship) for a fixed period, which have been fixed much earlier or operate under long-term time charter. So, it is only that spot rate that gets affected immediately by this. It needs to be kept in view that the supply of large carriers tends to remain very tight with long lead times and high production costs, the index can experience high levels of volatility if global demand increases or drops off suddenly.

## 1.8.4 Trends in Global shipping charter hire rates

1.8.4.1 Capesize are attracting rates of less than \$ 7,000 a day, close to daily operating expenses of about \$ 6,000 from US \$ 100,000 plus a few months ago. All this has its toll on the charter market. The charter rate of a large bulk carrier has dropped from US \$60,000 plus a day to around \$ 10,000 at present. Besides, Ship-owners are also slowing down vessel speeds to cut fuel costs.

**Table 8C : Average Dry Cargo Time Charter Earnings (US \$ per day)**

Size Thousand DWT	Aug.2008	Sept.2008	Oct.2008	Nov.2008	% Change Nov./Aug.
Capes>144	127,831	71,606	25,357	6,785	-95.7%
Large Bulk 85-144	63,800	61,000	17,333	8,700	-86.4%
Panamax 59-82	51,408	40,238	13,881	7,238	-85.9%
Handymax 48-59	48,138	34,626	15,793	7,573	-84.3%
Handy 40-48	46,525	27,404	9,900	6,389	-86.3%
Bulkers 30-40	33,625	23,625	12,756	5,968	-82.2%
Small Bulk 12-30	30,550	24,383	12,058	5,088	-83.3%

Source: S& P Monthly Report,2008 accessed from [www.cotzias.gr](http://www.cotzias.gr)



## 1.8.5 Implications for Maritime Finance

1.8.5.1 The impact of the sub-prime crisis has spread well beyond the United States, causing a widespread squeeze in liquidity and credit. Letter of credit and the credit lines for trade have been adversely affected. Lack of letters of credit, in which banks guarantee payment for merchandise goods, could adversely affect world trade. Letter of credit assures a shipper of payment for cargo after it is loaded on a ship, but before the buyer receives it. About 90 percent of world trade moves by sea. Lack of trade finance has left cargoes stranded at the ports around the world.

1.8.5.2 Shipping, a capital intensive industry depends on the cross border flow of capital. As a result of US sub prime and housing loan crisis, financial institutions are expected to be more cautious on ship financing. As a capital intensive industry with expensive assets, shipping is expected to feel the effect of the US crisis. Traditional players in ship financing are likely to trim their exposure to shipping and reduce their single client borrowing limit. This will result in less bank lending to shipping companies and less money is available to purchase them. Fall in the Baltic Dry Index (BDI) have resulted in a global slump of shares of shipping companies.

### 1.8.4 Trends in Global shipping charter hire rates

1.8.4.1 Capesize are showing rates of less than \$1,200 a day, down to daily seasonal averages of about \$1,000 from US\$1,100,000 plus a few months ago. All this time it fell on the charter market. The charter rate of a large bulk carrier has dropped from US\$300,000 plus a day to around \$10,000 in recent months. Ship owners are also showing their ability to adapt to the market.

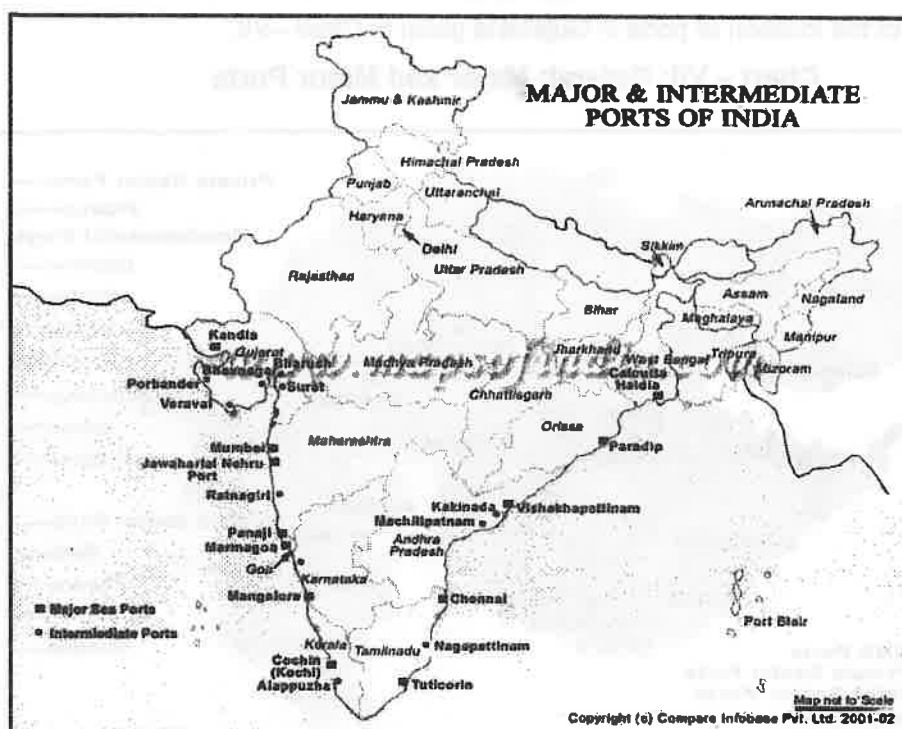
Table 10: Average Dry Cargo Time Charter Earnings (US\$ per day)

Ship Type	2007	2008	2009	2010	2011
Handysize	15,000	12,000	10,000	8,000	7,000
Supramax	12,000	10,000	8,000	6,000	5,000
Handysize	10,000	8,000	6,000	4,000	3,000
Handysize	8,000	6,000	4,000	2,000	1,000
Handysize	6,000	4,000	2,000	1,000	500
Handysize	4,000	2,000	1,000	500	200
Handysize	2,000	1,000	500	200	100
Handysize	1,000	500	200	100	50
Handysize	500	200	100	50	20
Handysize	200	100	50	20	10

## II. POLICY AND PERFORMANCE OF MARITIME STATES

2.1 Ports are economic and service provision units of a remarkable importance since they act as a place for the interchange of two transport modes, maritime and land, whether by rail or road. Therefore, the essential aspect of ports lies in their intermodal nature. India has a coast-line of around 7517 Kms with 12 major ports and 187 notified non-major (minor/intermediate) ports along the coast-line and sea-islands. Of the Non-Major Ports, around 60 are handling traffic. Chart-VI gives the geographical location of the Major and prime Non-Major Ports. The Maritime Ports operate within the statutory framework of the Indian Ports Act 1908 which applies to all the ports. However, the Major Ports Act 1963 applies only to Major Ports. Each Major Port is administered by a 'Port Trust' (except for the port of Ennore which is a corporatised entity).

Chart - VI



Source: <http://www.mapsofindia.com>

2.2 The Major Ports are under the purview of the Centre while the Non-Major Ports are under the purview of the States. Port development in the Central Sector has emphasized additions to capacity as well as provision of commodity specific handling facilities (at Major Ports) as per the plan schemes. With the liberalization of the economy, private sector participation in development of Major Ports has been encouraged. The Maritime States are also actively pursuing the development of Non-Major Ports to meet the growing needs of the sea borne trade.

## 2.3 Maritime States Development Council (MSDC)

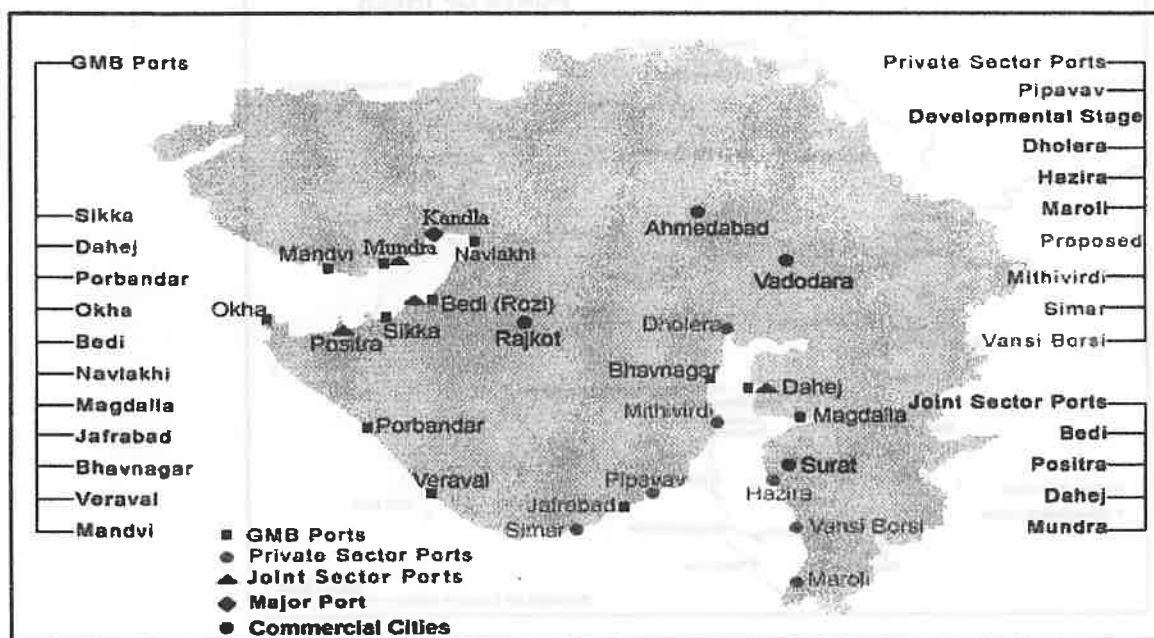
2.3.1 With a view to have an integrated approach for the development of both Major and Non-Major Ports, the **Maritime States Development Council (MSDC)** was constituted in May, 1997 under the Chairmanship of the Honourable Minister of Shipping. The Ministers in-charge of Ports in all Maritime States, Union Territories of Puducherry, Andaman's & Nicobar Administration, Daman & Diu and Lakshadweep are its members. The deliberations and decisions of the MSDC provide the institutional framework for coordinated development of Major and Non- Major ports. So far nine meetings of MSDC have been held.

## 2.4 Port Policy in Maritime States

### 2.4.1 GUJARAT

2.4.1.1 The state of Gujarat is endowed with 1215 km length of coastline which constitutes about one-sixth of the total Indian coastline. Out of 41 ports located along its coastline, 40 are non major ports while one port, viz. Kandla is a major port. Presently, 20 non-major ports in the State are handling cargo. A snap view of the location of ports in Gujarat is given in Chart –VII.

**Chart – VII: Gujarat: Major and Minor Ports**



Source : [http://www.gmbports.org/port\\_pog.htm](http://www.gmbports.org/port_pog.htm)

2.4.1.2 The trends in the cargo handled at both major and non-major ports of Gujarat State during the last few years and the first six months of the current year are given in Table: 9. The overall growth in port cargo traffic in case of Gujarat was 11.4% in the first half compared to 6.5% for overall cargo growth for India.

**Table : 9- Gujarat: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)**

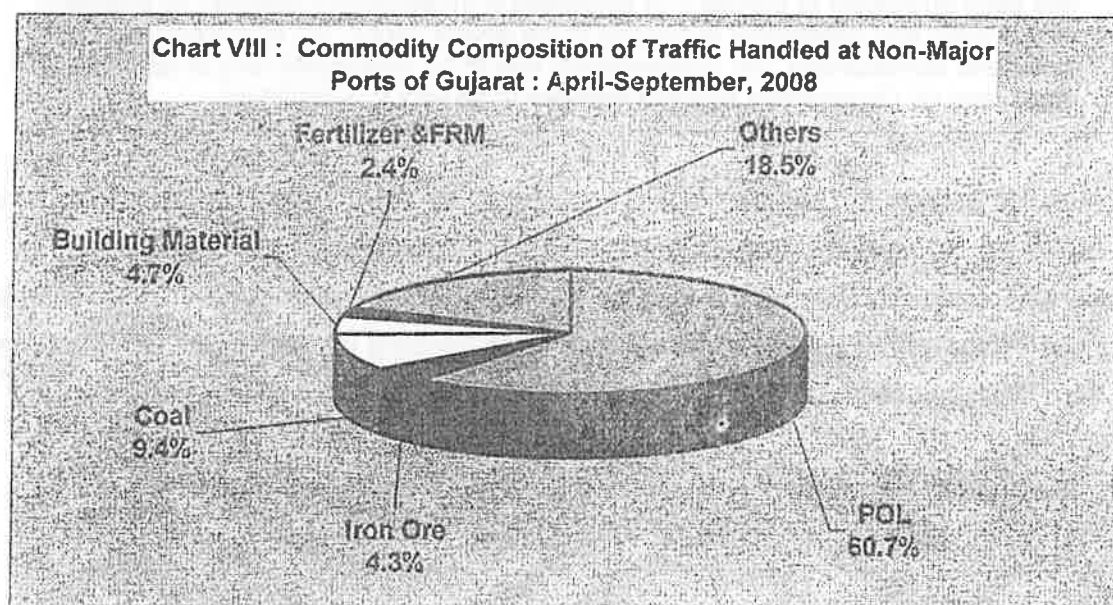
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	41.55 (0.1)	45.91 (10.5)	52.98 (15.4)	64.89 (22.5)	30.69 (29.7)	37.86 (23.4)
Non-Major Ports	97.13 (8.7)	108.08 (11.3)	131.27 (21.5)	147.60 (12.4)	69.04 (24.3)	73.23 (6.1)
All Ports	138.68 (6.0)	153.99 (11.0)	184.25 (19.7)	212.49 (15.3)	99.73 (25.9)	111.1 (11.4)

Figures in bracket represents percentage change over the previous year/period

(P) Provisional.

2.4.1.3 It is noteworthy that all ports (major and non-major) located along the coast of Gujarat handled more than 31% of the total cargo handled by Indian ports in the first half of 2008-09. In particular, non-major ports of Gujarat alone handled more than three-fourth of total cargo traffic at India's non-major ports.

2.4.1.4 The share of commodity-wise traffic handled by non major ports of Gujarat is shown in the Chart VIII.



POL: Petroleum, Oil and Lubricant

FRM: Fertiliser Raw material

2.4.1.5 Amongst the Maritime States of India, Gujarat is one of the States, which has played a proactive role in the development of minor ports on its coastline. It announced an integrated Port Policy in December 1995. The salient features of the Policy are given in the Box:1



### Box: 1-Gujarat: Objectives of Integrated Port Policy

- To increase Gujarat's share in the export and import sectors in national and international trade and commerce in pursuance of the policy of liberalisation and globalization.
- To reduce the burden on existing major ports on the western coast of India.
- To provide port facilities to promote export oriented and port based industries which are estimated to contribute 50% of the total industrial investment in Gujarat.
- To take full advantage of the strategic location of Gujarat coast by (a) encouraging shipbuilding, ship repairing and related manufacturing activities and; (b) providing facilities for coastal shipping and ferrying passengers between Saurashtra and South Gujarat and other destinations.
- To meet Gujarat's potential power requirements by (a) establishing barge mounted power plants and (b) providing exclusive port facilities for importing different kinds of power fuel.
- To attract private investment for the development of minor ports BOOT framework has been envisaged to provide – (i) timeliness of infrastructure creation, (ii) efficiency of operation and operational autonomy to the private sector, (iii) synchronization with hinterland development, (iv) Government's role to be maintained only in appropriate areas, and (v) Government financial liabilities to be kept to a minimum.

2.4.1.6 Recent trends in cargo handled and capacity creation in non major ports of Gujarat are captured in the Table: 10. It indicates sustained increase in cargo throughput, capacity addition and improvement in capacity utilization. During the year 2007-08, 15 million tonnes of capacity addition in the port sector was expected, taking the total cargo handling capacity in the port sector in the Gujarat to 197 million tonnes.

**Table : 10 - Gujarat: Non Major Ports - Current Capacity & Utilization (Million Tonnes)**

Item	2003-04	2004-05	2005-06	2006-07	2007-08
Capacity*	146	151	164	182	198
Cargo Handled	89.35	97.13	108.08	131.27	147.60
% Utilization	61.20	64.32	65.90	72.13	74.54

\* Including Lighterage Port Capacity; Figures within parenthesis indicate capacity addition in MT during the year

2.4.1.7 As per the port policy, Gujarat Maritime Board (GMB) has selected 10 Green Field sites for development of new ports as "All weather Deep Water Direct Berthing Ports". Amongst 10 ports, 6 ports are to be developed through private investment and remaining 4 ports in the joint sector. The GMB has identified some major projects for capacity augmentation for the Eleventh Plan

period (2007-12). The list of projects indicated by the GMB for capacity augmentation is given in the Table 11 & 11A.

**Table 11 : Major projects undertaken at Gujarat ports \***

No.	Year	Major Projects undertaken	Capacity addition	Cumulative Capacity
Up to 2002-03			138	138
1	2003-04	<ul style="list-style-type: none"> <li>Container terminal at Mundra</li> <li>GMB jetty at Navlakhi</li> <li>Private jetty at Jakhau</li> </ul>	6 1 1	146
2	2004-05	<ul style="list-style-type: none"> <li>Dahej LNG Terminal</li> </ul>	5	151
3	2005-06	<ul style="list-style-type: none"> <li>Container and bulk terminal at Mundra</li> <li>LNG Terminal at Hazira</li> </ul>	8.5 2.5	164
4	2006-07	<ul style="list-style-type: none"> <li>Hazira: Extension of captive jetty by Essar</li> <li>Mundra : T-2 Bulk terminal at Mundra</li> <li>Mundra : Additional 2 berths for container</li> </ul>	8 6 2	182
5	2007-08	<ul style="list-style-type: none"> <li>Establishment of additional one SPMs at Sikka by M/s. Reliance</li> <li>Expansion of Pipavav port by Gujarat Pipavav Port Ltd.</li> <li>Private jetty at Navlakhi</li> </ul>	10 5 1	198
6	2008-09	<ul style="list-style-type: none"> <li>Establishment of additional 2 SPMs</li> <li>Private jetty at Vedi</li> </ul>	25 1	224

\* Excludes Kandla Major Port

**Table 11A : Trends in Capacity creation (MTPA)**

No.	Port	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09*
1	Mundra (GAPL)	17.70	17.70	28.20	36.20	36.20	36.20
2	Mundra (GMB)	0.24	0.24	0.24	0.24	0.24	0.24
3	Okha	3.96	3.96	3.96	3.96	3.96	3.96
4	Bedi	5.69	5.69	5.69	5.69	5.69	6.69
5	Pipavav (GPPL)	9.41	9.41	9.41	9.41	14.41	14.41
6	Magdalla & Hazira	14.55	14.55	17.05	27.05	27.05	27.05
7	Navlakhi	3.82	3.82	3.82	3.82	4.82	4.82
8	Sikka	57.57	57.57	57.57	57.57	67.57	92.57
9	Porbandar	5.26	5.26	5.26	5.26	5.26	5.26
10	Veraval	2.17	2.17	2.17	2.17	2.17	2.17
11	Muldwaraka	7.72	7.72	7.72	7.72	7.72	7.72
12	Jafrabad	4.53	4.53	4.53	4.53	4.53	4.53
13	Dahej	8.19	13.19	13.19	13.19	13.19	13.19
14	Bhavnagar	1.18	1.18	1.18	1.18	1.18	1.18
15	Jakhau	3.25	3.25	3.25	3.25	3.25	3.25
16	Mandvi	0.32	0.32	0.32	0.32	0.32	0.32
17	Ghogha	0.08	0.08	0.08	0.08	0.08	0.08
	Total	146	151	164	182	198	224

\* expected

## 2.4.2 MAHARASHTRA

The State has a coastline of around 653 km, with 2 major ports viz. Mumbai and Jawahar Lal Nehru and 53 non-major ports. Out of 53 non-major ports only 13 handle cargo. Maharashtra Maritime Board (MMB) is the nodal agency for regulation and development of the State's maritime activities. MMB has taken many policy initiatives for development of port sector which are given in the Box:2.

### **Box:2-Maharashtra: Policy Initiatives for Port Development:**

- Development on BOOST basis
- Developer's selection on MOU basis or by tender if many investors interested.
- Concession period of 50 years
- Concessional Wharfage
- Government land on lease, if available, at market valuation
- Equity participation by Government/MMB up to a maximum of 11 %
- Road linkage to nearest State Highway to be part funded by the State
- Rail connectivity by Developer
- Freedom to fix tariff

### **Policy Guidelines for Captive Terminals**

- Land and site for jetty will be leased out for a period of 30 years
- Development on Build, Operate & transfer (BOT) basis
- No berthing dues from vessels calling at captive jetty
- Wharfage charges as per the prescribed rates notified by the State Government.
- At the end of 30 years, the jetty, superstructure & facilities on jetty will revert back to MMB.

2.4.2.2 Rewas-Aware and Dighi are both located in Raigad District, are in the process of development since March, 2002. The developer of Dighi Port has issued work order for construction of first berth in November 2007. The Rewas-Aware Port Project has secured Environmental Clearance from M/o Environment & Forests in May 2007 and pre-construction activities as well as validation of some earlier data are in progress. Further, 3 more ports viz. Redi, Vijaydurg and Jaigad are likely to come up shortly. Letters of Intent have been issued to the concerned developers. It is expected these ports to be ready for cargo handling in next 3-4 years. The proposed capacity of these ports is given in Table: 12.

<b>Table 12 : Proposed Capacity Creation (in million tonnes per annum)</b>		
<b>Port</b>	<b>Initial Phase</b>	<b>Ultimate Phase</b>
Rewas-Aware	47.00	127.00
Dighi	5.45	18.15
Jaigad (Dhamankhol Bay)	5.00	18.00
Jaigad	1.12	2.90
Vijaydurg	7.50	75.00
Redi	5.10	33.0

2.4.2.3 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table: 13.

<b>Table : 13 Maharashtra: Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2006-07	2007-08
Major Ports	68.00 (11.1)	82.03 (20.7)	97.18 (18.5)	112.88 (16.2)	53.98 (16.3)	56.54 (2.6)
Non-Major Ports	12.14 (17.5)	11.16 (-8.1)	11.58 (3.8)	11.56 (-0.2)	4.85 (2.6)	4.94 (2.5)
All Ports	80.14 (12.0)	93.19 (16.3)	108.76 (16.7)	124.44 (14.4)	58.83 (14.9)	61.48 (4.5)
Figures in bracket represents percentage change over the previous year /period (P) Provisional						

#### 2.4.3 GOA

2.6.3.1 Goa with a coastline of about 118 kms is criss-crossed by 7 rivers. Apart from the major port at Mormugoa, there are five non-major ports all of which are riverine ports with an average depth of about 2 meters except Panaji (which is the lone cargo handling non-major port in 2005-06) with a depth of 4 meters.

2.4.3.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table: 14.

<b>Table :14 Goa : Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	30.66 (10.0)	31.69 (3.4)	34.24 (8.0)	35.13 (2.6)	12.39 (-7.7)	13.51 (9.4)
Non-Major Ports	8.46 (0.2)	11.76 (39.0)	14.31 (21.6)	12.83 (-10.4)	1.98 (-26.7)	2.17 (9.5)
All Ports	39.12 (7.7)	43.45 (11.1)	48.55 (11.7)	49.44 (1.8)	14.37 (-10.9)	15.68 (9.1)
Figures in bracket represents percentage change over the previous year /Period ;(P) Provisional; MT Million Tonnes						

## 2.4.4 KARNATAKA

2.4.4.1 Karnataka has a coastline of about 280 kms. At present, there is one major sea port, the New Mangalore Port at Mangalore and 10 non-major ports in Karnataka. The ports of Karwar and Mangalore are two cargo handling non-major ports in the state.

2.4.4.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table: 15.

<b>Table :15 Karnataka:Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	33.89 (27.1)	34.45 (1.6)	32.04 (-7.0)	36.02 (12.4)	17.98 (14.0)	18.43 (2.5)
Non-Major Ports	3.51 (200.0)	4.12 (17.4)	6.56 (59.4)	2.79 (-57.5)	0.97 (-16.2)	1.15 (-20.7)
All Ports	37.40 (34.3)	38.57 (3.1)	38.60 (0.0)	38.81 (0.1)	18.95 (11.9)	19.58 (0.3)

Figures in bracket represents percentage change over the previous year Period (P) Provisional; MT Million Tonnes

## 2.4.5 KERALA

2.4.5.1 Kerala has a coastline of 570 kms, with one major port at Cochin and 13 other non-major ports. The Vallarpadam Container Terminal Project in Cochin is being promoted on a BOT basis under private participation.

2.4.5.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months are given in Table: 16. Port capacity of non major ports in Kerala has increased from 1.125 MT in 2002-03 to 2.125 MT in 2006-07 and estimated at 2.175MT in 2007-08. In Kerala of the 4 non major ports 3 ,viz,Azhikkal, Beypore (handles more than 90 % of the total non major cargo traffic in the State), and Vizhinjam are handling cargo for the last few years.

<b>Table : 16 Kerala : Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	14.10 (3.9)	13.88 (-1.6)	15.31 (9.9)	15.81 (3.0)	7.86 (0.9)	7.69 (-2.1)
Non-Major Ports	0.08 (33.3)	0.14 (75.0)	0.17 (21.4)	0.17 (0.0)	0.08 (0.0)	0.04 (-50.0)
All Ports	14.18 (4.0)	14.02 (-1.1)	15.48 (10.4)	15.85 (10.4)	7.94 (1.0)	7.73 (-2.6)

Figures in bracket represents percentage change over the previous year/period (P) Provisional; MT Million Tonnes

## 2.4.6 TAMIL NADU

2.4.6.1 Tamil Nadu has a coastline of about 906 km, with 3 major ports at Chennai, Ennore and Tuticorin and 15 non-major ports. Out of 15 non-major ports only five handled cargo. A Port Policy for promoting private investment for the development of minor ports in Tamil Nadu has been formulated. Its main objectives are to provide exclusive port facilities for import of Coal/Naphtha/Oil/Natural Gas for shore based thermal power plants, promote export oriented and port based industries along the coastal districts of Tamil Nadu, encourage ship-repairing, ship-breaking and manufacture of cranes and floating cranes. In addition, leisure tourism and water sports along the coastline are also aimed. The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table:17.

<b>Table:17 Tamil Nadu: Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	69.10 (15.8)	73.56 (6.4)	82.13 (11.7)	90.20 (9.7)	43.99 (12.0)	46.12 (2.13)
Non-Major Ports	0.85 (23.2)	0.71 (-16.5)	0.81 (13.2)	0.90 (11.7)	0.40 (35.6)	0.42 (5.0)
All Ports	69.95 (15.9)	74.27 (6.2)	82.94 (11.7)	91.10 (9.8)	44.39 (12.1)	46.54 (4.8)
Figures in bracket represents percentage change over the previous year /period (P) Provisional; MT Million Tonnes						

### 2.4.6.2 Sethu Samudram Canal Project

2.4.6.2.1 The project envisages creation of a two-way navigational channel connecting the Gulf of Mannar to the Bay of Bengal through a dredged channel on either side of Palk Bay. Originating from Tuticorin Port crossing Adam's Bridge and passing through Palk Bay & Palk Strait, the project would end in Bay of Bengal.

2.4.6.2.2 The project is expected to reduce average distance by 335 Nautical Miles and reduce sailing time for the vessels operating to/from east and west coast of the country by 22.50 Hrs. The total cost of the project is estimated at Rs. 2427 crore. Tuticorin Port has been appointed as a nodal agency for implementing the project. The project work was inaugurated by Honorable Prime Minister on 2<sup>nd</sup> of July 2005.

2.4.6.2.3 The dredging work on Adams Bridge area was launched in December 2006. The quantity dredged upto September 17, 2007 is 11.89 million cubic metres. The work has been temporarily suspended since September 17, 2007 on the basis of order passed by Hon'ble Supreme Court of India. Dredging Corporation of India has been entrusted with the dredging work of a stretch in



Palk Strait involving a length of 13.57 kms with an estimated quantity to be dredged at 13.55 million cubic metres. The quantity dredged upto 30.09.2008 at Palk strait is 32.31 million cubic meters ( Hoppers quantity ).

## **2.4.7 ANDHRA PRADESH**

2.4.7.1 The State is bestowed with a coastline of about 974 kms. There is one major port viz Visakhapatnam and 12 non-major ports in Andhra Pradesh.

2.4.7.2 The State had prepared a perspective developmental plan, in its *VISION 2020 Document* for development of its ports with a view to enhance cargo handling capacity at its Non-Major Ports to around 173 million tonnes by 2020. As large investments are required for capacity creation, the State Government policy intends to encourage the participation of private sector in port development. The status of privatized ports and private investment in Andhra Pradesh Ports is as follows:

### **Status of Privatized Ports**

- (i) Kakinada Deep Water Port was privatized in March 1999 to M/S ISPL on OMST terms for 20 years.
- (ii) Krishnapatnam Port was privatized in Jan 1997 on BOOT terms to M/S Krishnapatnam Port Company Ltd.(NATCO) for 30 years. Revised agreement was signed on 17-9-2004. Navayuga Engineering Company has taken 74% equity stake in KPCL and NATCO 26%.
- (iii) Gangavaram Port was privatized in August,2003 for development of Deep Water Port on BOOT terms initially for 30 years. The port has started handling cargo.

### **Proposed Private Investment**

(i)The proposed investments in approved port projects are (i) Gangavaram Port (Rs.2000crore); (ii) Krishnapatnam Port (Rs.850 crore); and (iii)Kakinada Deep Water Port Expansion (Rs.230 crore).

(i) The projects under pipeline are (i) Machilipatnam Port (Rs.1000 crore); and (ii) Nizampatnam Port (Rs.1000 crore).

2.4.7.3 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table: 18.

<b>Table:18 Andhra Pradesh: Trends in Cargo Handled at Major &amp; Non-Major Ports(MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	50.15 (5.1)	55.80 (11.3)	56.39 (1.1)	64.60 (14.6)	30.61 (16.9)	33.14 (8.3)
Non-Major Ports	15.07 (50.4)	18.43 (22.3)	18.61 (1.0)	19.26 (3.3)	12.20 (20.8)	11.76 (-3.6)
All Ports	65.22 (12.9)	74.23 (13.8)	75.00 (1.0)	83.86 (11.8)	42.81 (18.0)	44.90 (4.9)
Figures in bracket represents percentage change over the previous year period (P) Provisional; MT Million Tonnes						

## 2.4.8 ORISSA

2.4.8.1 Orissa has about 476 kms coastline with one major port at Paradip and two non-major ports at Gopalpur and Dhamara which are being developed by private companies. In Orissa the Department of Commerce & Transport is the nodal department for the port activities of the State. There has been no cargo traffic during the last four years at non-major ports of Orissa.

2.4.8.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table19.

<b>Table : 19 Orissa : Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08(P)	April-September (P)	
					2007-08	2008-09
Major Ports	30.10 (18.9)	33.11 (10.0)	38.52 (16.3)	42.44 (17.7)	19.88 (12.4)	23.87 (8.5)
Non-Major Ports	-	-	-	-	-	-
All Ports	30.10 (18.9)	33.11 (10.0)	38.52 (16.3)	42.44 (17.7)	19.88 (12.4)	23.87 (8.5)
Figures in bracket represents percentage change over the previous year. period (P) Provisional						

## 2.4.9 WEST BENGAL

2.4.9.1 The State of West Bengal has a coastline of about 158 kms which has two Docks at Kolkata and Haldia under a single major port and one non- major port. The non-major port namely Kulpi is being developed for which consultants have been shortlisted. Presently there is no cargo traffic at non major ports.

2.4.9.2 The trends in the cargo handled at both major and non-major ports of the State during the last few years and first six months of the current and previous year are given in Table: 20.

<b>Table : 20 West Bengal-Trends in Cargo Handled at Major &amp; Non-Major Ports (MT)</b>						
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	April-September (P)	
					2006-07	2007-08
Major Ports	46.21 (12.0)	53.14 (15.0)	55.05 (3.6)	57.28 (4.1)	26.76 (9.5)	26.88 (0.4)
Non-Major Ports	-	-	-	-	-	-
All Ports	46.21 (12.0)	53.14 (15.0)	55.05 (3.6)	57.28 (4.1)	26.76 (9.5)	26.88 (0.4)
Figures in bracket represents percentage change over the previous year period (P) Provisional						

## 2.4.10 OTHER NON-MAJOR PORTS

2.4.10.1 The other non-major ports are spread across the Union Territories (UTs) of Daman & Diu, Puducherry, Lakshadweep, and Andaman & Nicobar Islands. These ports in the UTs are administered through their respective Departments. Andaman & Nicobar Islands administration has constituted a 'Port Management Board' for the development of ports in the Islands. The two non-major ports of Daman & Diu are not handling any cargo traffic for the last few years. The trends in the cargo handled at these ports of the State during the last few years and first six months of the current and previous year are given in Table: 21.

2.4.10.2 Presently, the cargo handling capacity of at Puducherry is around 200,000 tonnes of cargo per annum. In January 2006, the Government of Puducherry entered into a concession agreement with private developers for the development of deep water ports on BOT basis at Puducherry and Kariakal. The development work at Kariakal port has begun and is expected to be commissioned in June 2009.

<b>Table : 21 Union Territories: Trends in Cargo Handled at Non-Major Ports(MT)</b>						
	2004-05	2005-06	2006-07	2007-08(P)	April-September	
					2007-08	2008-09
Andaman & Nicobar Islands	0.88	0.92	0.92	1.55	0.96	1.00
Lakshadweep	0.03	0.03	0.03	0.03	0.01	0.01
Puducherry	0.06	0.10	0.03	0.01	-	0.03
(P) Provisional ; - negligible						

### III. EFFICIENCY INDICATORS OF MAJOR PORTS

3.1 Major ports have improved their efficiency of operations as reflected in select physical performance indicators over the last several years. Some key indicators of physical performance for select years and for current half year in comparison with corresponding period of previous year are elaborated in this section.

#### 3.2 Average Turn Round Time (TRT)

3.2 1 This parameter has improved significantly during the past one and half decades for all the major ports. Average TRT for all major ports improved from 8.10 days in 1990-91 to 3.97 days in 2007-08. However, during April-September 2008, the TRT at 4.1 was slightly higher compared 3.69 days in the corresponding period of the last year with a range between 2.02 days at Jawahar Lal Nehru (JLN) Port to 5.78 at Kandla. Amongst the 12 major ports improvement in TRT during April-September 2008-09 as compared to April-September 2007-08 is discernible in case of Mormugoa, New Mangalore, Paradip and Haldia. Port-wise TRT for select years are given in Table:22. The path of turn round time at major ports for select years since 1990-91 to 2007-08 and April-September 2008-09 is presented in the Chart IX.

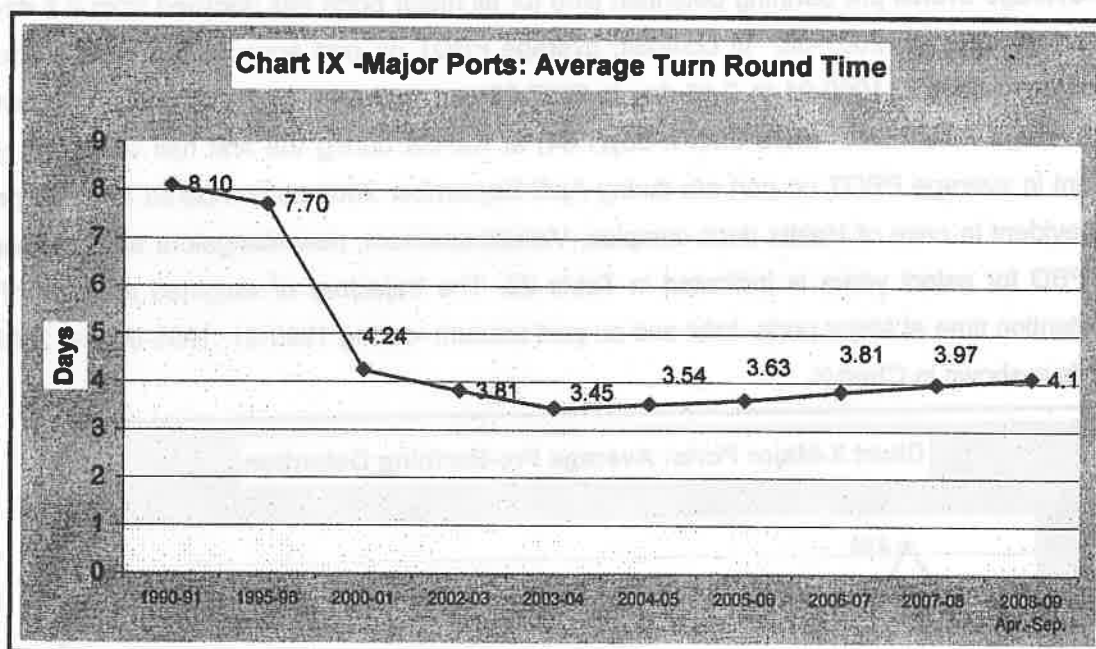
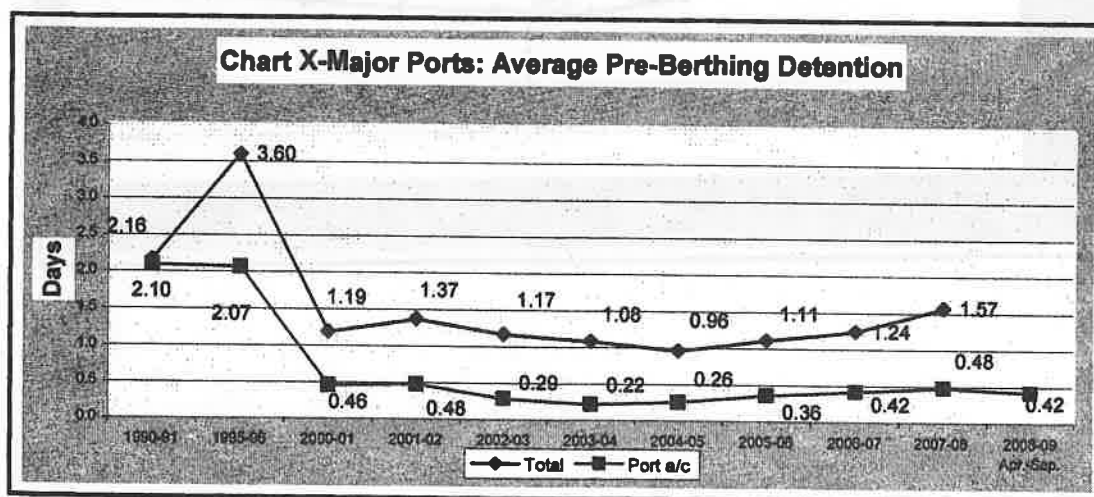


Table 22: Average Turn Round Time (days)						
Port	1990-91	2000-01	2005-06	2007-08(P)	April-September	
					2007	2008(P)
1	2	3	4	5	6	7
Kolkata D.S	11.90	5.50	4.12	4.87	4.51	4.79
Haldia D.C	6.47	3.97	4.89	4.48	4.13	3.78
Paradip	8.40	4.16	3.56	5.54	5.69	5.50
Vishakhapatnam	7.07	3.71	3.79	3.91	3.94	4.24
Ennore			2.23	2.08	2.04	2.65
Chennai	7.20	5.83	3.32	4.55	3.80	4.55
Tuticorin	4.70	4.10	2.83	3.80	3.35	3.85
Cochin	4.00	3.11	2.70	1.99	2.04	2.23
New Mangalore	4.96	2.89	3.00	3.21	3.60	3.11
Mormugoa *	6.40	4.25	4.08	4.03	3.92	3.78
J.L.Nehru		2.21	1.97	1.85	1.76	2.02
Mumbai	10.80	5.20	4.06	4.44	4.32	5.21
Kandla	10.00	4.72	4.39	5.13	4.42	5.78
All Ports	8.10	4.24	3.63	3.97	3.69	4.10

(P) Provisional  
 \* Relate to dry bulk cargo for MOHP(Mech.) and Berth No. 10 &11 (Mech.)  
 Source: Major Ports/ Indian Ports Association (IPA)

### 3.3 Average Pre Berthing Detention Time (PBDT)

3.3.1 The average overall pre berthing detention time for all major ports has declined from 2.2 days in 1990-91 to 1.57 days in 2007-08. In contrast, average PBDT on port account has seen a sharper decline from 2.10 days in 1990-91 to 0.48 day in 2007-08 and further to 0.42 during April-September 2008-09. Average PBDT was more than a day(1.64) at Kandla during the first half of current year. Improvement in average PBDT on port a/c during April-September 2008 as compared to same period of 2007 is evident in case of Haldia dock complex, Vishakhapatnam, new Mangalore and Mormugoa. Port-wise PBD for select years is indicated in Table 23. The trajectory of weighted average of pre berthing detention time at Major ports- total and on port account -during 1990-91, 1995-96 and 2000-01 and onwards is shown in Chart X.



<b>Table 23 : Average Pre-Berthing Detention(Days)</b>						
<b>Port</b>	<b>1990-91</b>	<b>2000-01</b>	<b>2005-06</b>	<b>2007-08</b>	<b>April-September*</b>	
					<b>2007</b>	<b>2008(P)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>
Kolkata D.S	0.90	0.61	0.40	0.51	0.00	0.06
Haldia D.C	1.66	0.91	2.15	2.86	1.04	0.53
Paradip	1.59	1.41	1.04	2.97	0.06	0.06
Vishakhapatnam	1.83	0.75	1.03	1.10	0.35	0.18
Ennore			0.19	0.30	0.05	0.09
Chennai	2.10	2.45	0.65	1.56	0.04	0.04
Tuticorin	0.90	1.40	0.73	1.23	0.11	0.19
Cochin	0.83	0.74	0.57	0.60	0.02	0.03
New Mangalore	0.79	0.77	0.78	0.63	0.12	0.06
Mormugoa**	2.51	1.32	2.11	2.16	0.96	0.47
J.L.Nehru		0.67	0.86	0.84	0.34	0.51
Mumbai	3.40	1.26	1.00	0.97	0.21	0.34
Kandla	4.40	1.51	1.66	2.63	0.73	1.64
All Ports	2.16	1.19	1.11	1.57	0.36	0.42
(P): Provisional. * Relates to Port Account only; Source: Major Ports/ Indian Ports Association(IPA) ** Relate to dry bulk cargo for MOHP(Mech.) and Berth No. 10 &11 (Mech.)						

### 3.4 Average Output Per Ship Berth-day

3.4.1 During the last 17 years this indicator has seen a tremendous improvement. Average Output per Ship-berth day has more than trebled from 3,372 tonnes in 1990-91 to 10,176 tonnes in 2007-08 for major ports. However, average output per ship berth day is marked by substantial variation across major ports ranging from a high 26,696 tonnes in case of Ennore to a low of 2,630 tonne at Kolkata Dock System during April-September, 2008. This variation reflects the type of cargo being handled, level of mechanization and labour practices. Amongst the 12 major ports improvement in average output per Ship-berth day during April-September 2008-09 as compared to April-September 2007-08 is discernible in all major ports except Kolkata, Haldia, Ennore, Chennai, Tuticorin and Mumbai. Port-wise average output per Ship-berth day for selected years and latest period are given in Table: 24.



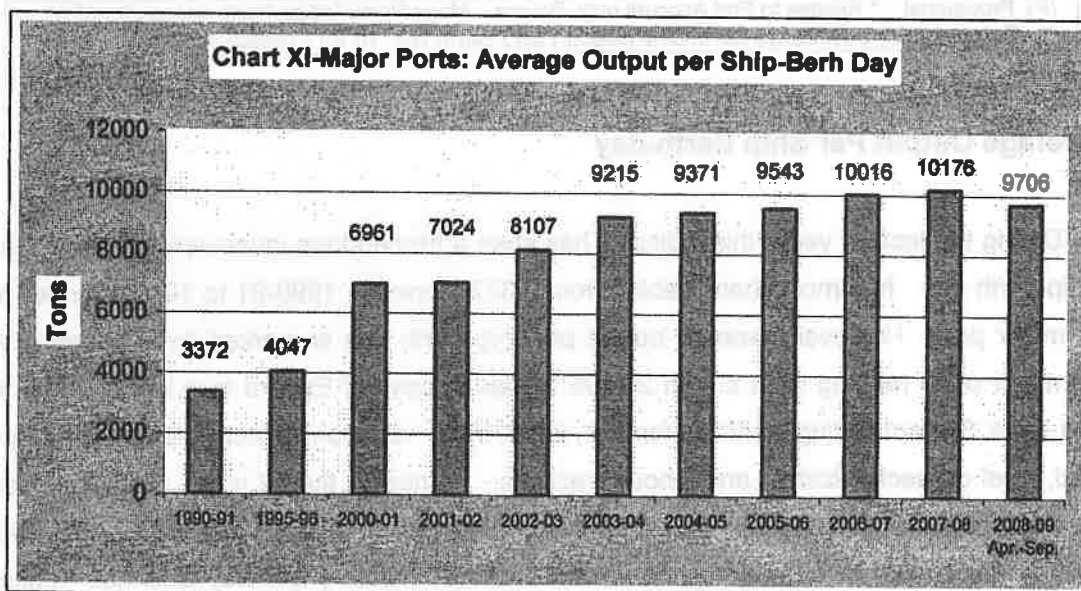
**Table 24 : Average Output per Ship-Berth-Day (Tonnes)**

	1990-91	2000-01	2005-06	2007-08	April-September	
					2007	2008(P)
1	2	3	4	5	6	7
Kolkata D.S	560	2305	3984	3702	2657	2630
Haldia D.C	5659	6384	8755	8219	8706	7841
Paradip	4082	8503	11316	11181	10755	11154
Visakhapatnam	5325	9799	10558	10600	10507	10761
Ennore			33614	35251	34747	26696
Chennai	3912	6977	10378	10347	10911	10084
Tuticorin	2130	3983	5392	5348	5639	5210
Cochin	3714	6138	7778	10934	9894	10330
New Mangalore	4412	12192	15057	12664	11696	12614
Mormugoa*	10429	12438	16834	17106	14562	16096
J.L.Nehru		6383	16150	20171	16903	21684
Mumbai	2310	4213	6314	7196	7069	5556
Kandla	4417	8230	8700	11079	10432	13046
All Ports	3372	6961	9543	10176	9672	9706

(P): Provisional. \*Relate to dry bulk cargo for MOHP(Mech.) and Berth No. 10 &11 (Mech.)

Source: Major Ports /Indian Ports Association(IPA).

3.4.2. The average out-put per ship-berth-day for selected years since 1990-91 is presented in the Chart XI.



#### IV. PRIVATE SECTOR/CAPTIVE/JOINT SECTOR PORT PROJECTS

4.1 Brief details of the approved Private Sector/Captive/Joint Sector Port Projects and a list of these projects under consideration as on 30.09.2008 are brought out in Appendix-I, Appendix-II in respect of Major Ports and in Appendix-III, Appendix-IV for Non –Major Ports.

**Ongoing Private Sector/Captive/Joint venture Port Projects  
(Major Ports)**

Sl. No	Project Name	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
1.	Marine Liquid Terminal (BOT Basis-Licensee Ennore Tank Terminal Pvt. Ltd.	Ennore	3 MTPA	1963	Environmental clearance has been obtained by Ennore Port. All other permits relevant during construction & operation phase has to be obtained by Licensee. Construction activities are in progress. Likely date of completion is December, 2008.
2.	Construction of Coal terminal on BOT Basis.	Ennore	8 MTPA	3991	Jetty construction work is in progress. Likely date of commission is August, 2010.
3.	Construction of Iron Ore Terminal on BOT Basis.	Ennore	12 MTPA	4800	Construction work is in progress. Likely date of completion is August, 2010.
4.	Extension of container berth by 330 m. towards north.	Jawaharlal Nehru		6000	M/s UTI Bank has been appointed as Adviser for the project. The Adviser has submitted Feasibility Report. The Board has approved to take-up the work in BOT basis. In Principle approval from MoSRT&H has been received on 26.9.2007 to go ahead with global comparative bidding. Accordingly Port is in process for invitation of RFQ. Draft RFQ document modified as per the model RFQ document circulated by Ministry of Finance. The same will be sent to Ministry along with PPPAC filled up form shortly. Likely date of commissioning January, 2010.
5.	Construction of two New Off-shore Container berths & Development of Container Terminal berth on BOT basis in Mumbai Harbour.	Mumbai Port	0.80 MTEUs	12280	i) LOI issued to BOT operator on 8.8.2007. tenders for MbPT component of work received and opened on 28.07.2008 has been scrutinized 7 shortlisting of the bidders approved by the Board on 26.08.2008. Scrutiny completed & being put up to Board meeting scheduled on 07.10.2008. BOT operator has taken over BPX yard & commenced it on 15.06.2008. EPC (Engineering & Construction) contract is being finalized by BOT operator.
6.	Development & Operation, manage	Kandla Port	7.20MTPA	4468 (Investme	The 1 <sup>st</sup> phase of Container Terminal at Berth No. 11

	ment and maintenance of Berth 11&12 as Container Terminal (BOT Basis – M/s ABG Industries)			nt of Port is 1160 and that of M/s ABG is 3308)	commenced on 10.03.2007. 2 <sup>nd</sup> Phase is expected to commence from March, 2009.
7.	Development of existing 8 <sup>th</sup> Berth as Container Terminal	Tuticorin	3.6	1500	The RFQ stage has been completed. PPPAC Clearance is sought.
8.	Development & Operation of International Container Transshipment Terminal (ICTT) at Vallarpadam (BOT basis by M/s India Gateway Terminal Pvt. Ltd. A subsidiary of M/s. Dubai Ports International)	Cochin	Capacity addition of 12.5 to 40 MMT in phases	18650	<p>Environmental Clearance for the Phase – I Development of Terminal Facilities for the ICTT, was issued by MoE&amp;F as per letter No. 10-27/2005-IA-III dated 09/11/2006. Cochin Port had issued consent on 27/03/2007 to the Preliminary Design of ICTT furnished by M/s.India Gateway Terminal Pvt. Ltd.</p> <p>IGT have commenced construction of 600m berth and development of container handling area for Phase-I development of the project on 15.12.2007. Soil stabilisation by stone columns and band drains, casting of pavement blocks and precast planks, sand piling of railway yard and piling works in progress.</p> <p>National Highway connectivity project is executed through National Highway Authority of India (NHAI). Acquisition of land is nearing completion. Reclamation work for embankment formation is in progress. NHAI awarded the contract for road and bridge construction on 18-05-2007, and work commenced on 10/08/07 and is in progress.</p> <p>The Rail connectivity project is implemented through Indian Railways by funding from the Dept. of Shipping and RVNL is the execution agency. Acquisition of land is nearing completion. RVNL awarded the contract for construction on 21/02/2007 and the construction activities commenced on 23/03/2007. Earthwork for approaches, piling work and substructure for the major bridge VR4 completed. Piling work and casting of I-Girders and trough girder are in progress. Launching of trough girders completed. Over all progress</p>

					<p>is 45.6% against the original target of 65%.</p> <p>Regarding Capital Dredging for providing approach channels and berth basin required for safe maneuvering of container vessels of 8000+ TEU capacity with 14.50m draft with an estimated cost of Rs.381.25 crores, PIB in its meeting on 6<sup>th</sup> May 2008 recommended the implementation of the project with grant-in-aid of Rs.297.42crores and loan assistance of Rs.83.83crores from the GOI. CCEA note is being finalised by the Department of Shipping.</p> <p>Although tenders were invited for Capital-cum-maintenance dredging in anticipation of sanction from the Competent Authority, the lone qualified bid was discharged since the offer was considerably higher than the estimated cost.</p> <p>The Board of Trustees of CoPT in the meeting held on 14/05/2008 resolved to approve revised Minimum Qualification Criteria (MQC) subject to the final decision of GOI for the retendering.</p> <p>Fresh tenders were invited with revised MQC and two bids were received on 29/07/08. The price bid of M/s. Jaisu Shipping Co. Pvt. Ltd, Kandla, the lone techno commercially qualified bidder was opened on 14/08/08. The Port Trust Board during its meeting held on 16/09/2008 has approved the acceptance of the bid subject to Govt. approval for the MQC and Govt. Sanction of the project.</p>
9.	Construction of Coal Jetty by M/s. Udupi Power Corporation Ltd. (UPCL) Erstwhile NPCL.	New Mangalore	3.00 MTPA	2300	<p>Work started at site and is in progress. Anticipated date of completion is December,2010.</p>
<p>No Information from Kolkatta, Haldia, Tuticorin &amp; Chennai Ports has not been received. Latest available information is given in respect of these ports Source: Major Ports.</p>					

Appendix – II

**Private Sector/Captive/Joint Venture Port Projects Under Formulation  
(Major Ports)**

Sl. No	Project	Port Name	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
1.	Construction of Deep Draught Iron Ore berth on BOT basis.	Paradip	10 MTPA	5914	Short listing of qualified bidders has been approved by the trust board on 17.10.2007. The upfront tariffs have been approved by TAMP on 26.07.2008 and the same has been incorporated in the RFP document. PPPAC in their meeting dated 23.10.2008 have approved to take up the project. Draft CCEA note has been submitted to ministry for consideration.
2.	Construction of Deep Draught Coal Berth on BOT basis	Paradip	10 MTPA	4790	Short listing of qualified bidders has been approved by the trust board on 17.10.2007. Ministry has already been informed the list of qualified bidders to communicate security clearance in favour of qualified bidders. The upfront tariffs have been approved by TAMP on 26.07.2008 and the same has been incorporated in the RFP document. PPPAC in their meeting dated 23.10.2008 have approved to take up the project. Draft CCEA note has been submitted to ministry for consideration.
3.	Development of two Multi-Purpose berths to handle clean cargo including container on BOT basis.	Paradip	5 MTPA	3590	Feasibility study completed. The expression of interest has been invited to ascertain the nos. of interested participants. The proposal along with feasibility report and copy of EOI has been submitted to ministry for in principle approval to take up the project on BOT basis.
4.	Construction of Container Terminal (BOT- Basis )	Ennore Port	18 MTPA	14070	22 Applicants submitted their Applications. 6 Applicants were short-listed with the approval of the Board of Directors of EPL on 27.06.2008. The draft

					<p>RFP document and draft Concession Agreement were issued to short-listed bidders and the Pre-Bid Meeting was held on 27.07.2008. Meanwhile, relevant documents of the short-listed bidders have been submitted to Ministry on 19.07.2008 for obtaining Security Clearance. The PPPAC memo along with RFP and draft Concession Agreement were forwarded to Ministry for obtaining approval of PPPAC on 29.08.2008.</p> <p>Eight Writ Petitions have been filed at the High Court of Madras against Ministry of Shipping, Road Transport &amp; Highways, Ministry of Finance, Ministry of Law &amp; Justice and EPL questioning the rationale and basis of the shortlisting of the Bidders. No interim order has been granted by the High Court of Madras. The next date of hearing is on 10th November 2008.</p>
5.	Construction of LNG Terminal (Joint Venture)	Ennore Port	5 MTPA	27000	<p>'In Principle' approval for the proposal for development of LNG berth through joint venture with IOCL/CPCL granted by the Ministry on 18.7.2005. Proposal/implementation schedule is awaited from IOC</p>
6.	Construction of general cargo berth	Ennore Port		1100	<p>Environmental Clearance for the project awaited. Application to TNPCB submitted for CRZ clearance and NOC. Tendering work is in progress for berth construction.</p>
7.	4 <sup>th</sup> Container Terminal & Marine Chemical Terminal (DBFOT Basis)	Jawaharlal Nehru Port	1.5 MTEUs & 6 MTPA	<p>41000 Phase - I</p> <p>26000 Phase - II</p>	<p>Feasibility Report is submitted by Consultant. M/s. Consulting Engineering Services. EOI for the development of the project is invited. 41 parties have submitted the EOI and same are under scrutiny.</p> <p>M/s Axis Bank has been appointed as Adviser. The Adviser has submitted final report on the technical, commercial and financial aspects in July, 2007. The same is submitted to board of trustees on</p>



					20.10.2007. The ministry has approved to take up the project on BOT basis. Draft RFQ is finalized and submitted to the ministry for approval on 25.5.2008.
8.	Extension of container berth by 330 m. towards north.	Jawaharlal Nehru		6000	M/s Axis Bank has been appointed as Adviser for the project. The Adviser has submitted Feasibility Report. The Board has approved to take-up the work on PPP basis in its board meeting held on 15/3/2007. Approval is received from the ministry to go ahead with private sector participation. Accordingly port is in the process to invite RFQ. Draft RFQ is approved by the ministry. Global notice for invitation of RFQ is published. RFQ submission was on 8.9.2008. Eight parties submitted RFQ, the same are under evaluation.
9.	New Cruise Terminal near Gateway of India (BOT Basis)	Mumbai Port	-	1520	Proposal to appoint M/s. Zabec Marine Consultant (I) & Services for carrying out feasibility study sent to Ministry on 22.5.07 for sanction which has been approved on 10.10.07 & consultant appointed on 18.10.07. Site selection report submitted on 15.1.08. Draft DPR from consultant received on 18.06.2008. Based on MbPT comments consultant is finalizing final DPR. Expected date of concession agreement is April, 2009.
10.	Construction of 13 <sup>th</sup> to 16 <sup>th</sup> cargo berths.	Kandla Port	8 MTPA	7020	11 bidders have been pre-qualified for the project. PPPAC in its meeting held on 27.12.2006 has granted final clearance to the proposal. CCEA approval is to be obtained. Meantime proposal for getting security clearance in respect of 11 bidders from Ministry of Home has been sent to MOSRT&H on 10.8.2007. The concession Agreement is being modified as per approved MCA by Transaction Adviser. A proposal for Upfront Tariff setting to TAMP for approval on 12.6.2008. Joint hearing by

					TAMP has been conducted on 05.09.2008. Approval of Upfront Tariff received from TAMP on 17.10.2008. A proposal seeking PPPAC clearance has been submitted to Ministry on 27.10.2008.
11.	Creation of berthing and allied facilities off Tekra near Tuna (Outside Kandla Creek)	Kandla Port	12 MTPA	8820	Request for Qualification has been invited..
12.	Setting up of Mechanised Iron Ore handling facilities at Berth No. 14.	New Mangalore	3 MTPA (Capacity of Jetty)	2771	Ministry vide their letter No. PD-11015/2/2004-NMPT dated 24th August, 2005 have conveyed the "in-principle approval" of the Government. The Ministry vide letter No. PD-11015/2/2004-NMPT dated 17th October, 2007 has directed to revise the RFP and MCA. The proposal for setting upfront tariff is submitted to TAMP on 15.04.2008. The consultative meeting by TAMP with bidders was held on 18.08.2008. The bidders requested to revise the cost of project. The revised estimate submitted to TAMP on 5.09.2008 and further revision based on TAMP observations is submitted on 23.09.2008. The RFP & MCA will be sent for approval of competent Authority shortly. RFP & MCA will be circulated to the already shortlisted bidders by December, 2008. The Security clearance for the subject proposal is awaited.
13.	Construction and development of Container Terminal on BOT basis	New Mangalore	NA	3000	The proposal to create Container Transshipment Terminal at New Mangalore Port was included in Tenth Five Year Plan Under BOT scheme. The Port has got certain advantages like deep draft and also proximity to the international sea route for setting up of Container Transshipment Terminal. Business Plan of Port suggest that the Port can initiate action once the TEU's expected to reach 1,00,000 TEU's. However, as directed by the Ministry

					"Expression of Interest" has been invited keeping last date for submission of EOI as on or before 31.10.2008.
14.	Dedicated berth for Suzlon	New Mangalore	NA	1420	In-principle approval of the Ministry has been received to provide Port facilities to M/s. SUZLON. M/s. SBI Capital Markets Limited has been appointed for preparation of License Agreement & Determination of Tariff Structure for captive facilities. The feasibility study regarding fixing of tariff will be finalised shortly. The firm has submitted the Detail Project Report (DPR) which is under examination.
15.	Allotment of waterfront & backup land for providing bunkering facilities at NM Port (BOT Basis)	New Mangalore	NA	Yet to be decided	Port proposed to invite bids on open competitive under Land Management Guidelines instead of BOT scheme. Approval of the Ministry has been requested in this regard vide letter No. 3/10/BUNKER/06-07/CE(C)/TS dated 15.02.2007. Ministry vide their letter dated 31st July, 2008 stated that a committee has been constituted under the Chairmanship of Chairman, Kolkata Port Trust to review the existing Land Policy Guidelines. Accordingly, Port has been directed to send the proposal afresh when the new Land Policy Guidelines come into existence.
16.	Development of berth WQ 6 for multi cargo in the Inner Harbour for multi cargoes on BOT basis.	Visakhapatnam	2.08	980	RFQ opened on 31.7.2008. Work order released on 18.8.2008 for appointment of transaction advisers. Proposal for upfront tariff was sent to TAMP on 8.11.2008. Joint hearing for fixation of upfront tariff has to be fixed by TAMP.
17.	Development of EQ-10 Berth in Inner Harbour for handling Liquid Cargo & Chemicals on BOT Basis.	Visakhapatnam	1.84	544	RFQ issued on 21.11.2007. Letter addressed to ministry on 17.6.2008 for security clearance for the applicants. Work order released on 18.8.2008 for appointment of transaction advisers.
18.	Mechanized Coal Handling Facilities at General-	Visakhapatnam	9.0 MTPA	4140	RFQ issued on 16.9.2008. The date of announcement of short

	cum-bulk at Outer Harbour (BOT basis).				listed applicants is 10.12.2008. For appointment of legal and financial advisers, tenders will be opened on 18.11.2008.
19.	Installation of mechanized fertilizers unloading facilities at EQ-7 in Inner Harbour on DBFOT basis.	Visakhapatnam	4.2 MTPA	1535	RFQ issued on 14.11.2008 with a last date of 20.1.2009 for submitting the bids.
20.	Phase II : Deepening of IH entrance channel and turning circle from draft 11mts. To 12.5 mts.	Visakhapatnam	1.2 MTPA	450	Approval for the project communicated by the ministry. Phase-II deepening has to be commenced by the BOT operator after completion of phase-I. The phase -I deepening is expected to be completed by November, 2008. Ministry's clarification was sought regarding proposed withdrawal of MOU by the BOT operator.
21.	Development of SBM facility for crude oil (HPCL)	Visakhapatnam	15 MTPA	5400	MoU entered with M/s HPCL on 31.3.2008 on allotment of land.
22.	Upgradation of iron ore facilities to accommodate 2,00,000 DWT vessels(EAP).	Visakhapatnam	6.5 MTPA	1852	Administrative approval and expenditure sanctioned for the project was received. RFP issued to the short listed consultants.
23.	Development of Berth No.7 for handling coal cargo at Mormugao Port Trust on DBFOT basis.	Mormugao	Capacity addition 5-6 MTPA	3340	The PPPAC appraisal Memo along with Draft RFP, Draft Concession Agreement, Feasibility Report and RFQ has been sent to the ministry on 20.09.2008 for seeking approval.
24.	Construction of Two additional Berths at Vasco Bay	Mormugao	5.0	900	The Ministry has been informed that the Port proposes to close the tender for appointment of consultant for preparation of DPR and invite bidders for appointing consultant for preparation of feasibility report.
25.	Setting up of an International Bunkering Terminal.	Cochin	5MTPA	950	'In principle' approval for establishing an International Bunkering Terminal at Cochin Port under license system was received from the Dept. of Shipping on May 2004.  The Port had invited and received RFQ twice for the Bunkering Terminal Project. During the interactions with the prospective operators

					<p>they have informed that their expertise is in the procurement, storage and supply of bunkers and they are not having expertise in the construction and operation of the terminal facilities for the receipt of bunker vessels. Their general consensus was that Port should provide the terminal facilities and the operator would provide storage and supply facilities. It has been proposed that the terminal facilities to be constructed with the internal resources of the Port, and land be made available on lease basis to the operators for establishment and operation of the bunkering facilities. As such, the original proposal of Construction of a Bunkering Terminal under PPP model has been shelved.</p> <p>In this connection, Indian Ports Association was appointed for the work of 'Preparation of Feasibility Report for Development of a Multi-user Liquid Terminal at Puthuvypen SEZ, under Cochin Port'. IPA have submitted the final report on 24/9/08. Action is being taken to appoint a Transaction Adviser for Project development.</p>
26.	Setting up of an International Cruise Terminal at Cochin (Joint Venture through BOT)	Cochin	-	3750	Consultants furnished the final Feasibility Report and Business plan on 31/03/2008. M/s. Feedback Ventures Pvt.Ltd Hariyana was appointed as Transaction Adviser on 02/06/2008 and they have commenced the assignment on 09/06/2008.
27.	Setting up of LNG Regasification Terminal at Puthuvypen by M/s PLL on captive basis	Cochin	Initial 2.5 MMTPA Final 5 MMTPA	32000	The finalized draft concession agreement in respect of this project has been submitted to the Dept. of Shipping on 14-12-2007 for obtaining the approval of CCEA. The draft concession agreement has been

					<p>modified in consultation with PLL by incorporating the comments of Appraisal Ministries/Departments. The modified draft C.A has been furnished to the Ministry on 20/09/08 and final CC&amp;A note is being submitted.</p> <p>Land development works have been completed by PLL. Construction of Boundary Wall for LNG Terminal and site grading work are in progress.</p> <p>7 firms have been short-listed for the time charter of 2Nos.LNG tankers of 1,65,000 to 1,75,000 cu.m capacity.</p> <p>PLL has awarded the Lump sum EPC contract for the storage tanks to M/s. IHI Japan. The EPC contract with M/s .IHI Japan has been signed on 07/03/2008. Tenders have been invited for EPC contract for regasification package and for marine works.</p> <p>Exp.date of completion-2011</p>
28.	Development of Second Container Terminal on BOT basis	Chennai	8 Lakh TEUs	4917.6	<p>RPF bids were received from three qualified applicants and Technical bids opened on 7-11-2005. Clarifications were obtained from the bidders. Price bid opening deferred till 15-06-06. as advised by Ministry pending security clearance for bidders. The award of work and signing of License Agreement was expected during Sept., 2006.</p>
<p><b>Note:</b> Latest information from Kolkata,Haldia, Tuticorin &amp; Chennai Ports has not been received. Available earlier information is given in respect of these ports</p> <p><b>Source:</b> Major Ports.</p>					



**Ongoing Private Sector/Captive/Joint venture Port Projects  
(Non-Major Ports)**

Sl. No	Project Name	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
1.	Development of Karaikal Port (BOT)	Karaikal Port Puducherry	4	3500	Construction work is under progress. Work expected to be completed by June 2009.
2.	Kakinada Anchorage Port	Kakinada, A.P.	0.20 MT	400	In progress. Likely date of completion is March, 2009
3.	Kakinada Deep Water Port Project (PPP)	Kakinada Deep Water Port, A.P.	0.80 MT	800	Scheme completed.
4.	Rawa Port Project (Captive Jetty)	Rawa port, A.P.	0.10 MT		In progress. Likely date of completion is March, 2009
5.	Gangavaram Port (PPP-BOOT)	Gangavaram, A.P.		8000	In progress. Likely date of completion is August, 2008
6.	Krishnapatnam Port (PPP-BOOT)	Krishnapatnam, A.P.		1000	In progress. Likely date of completion is August, 2008
7.	Nizampatnam Port (PPP-BOOT)	Nizampatnam, A.P.			In progress. Likely date of completion is March, 2012
8.	Machilipatnam Port (PPP-BOOT)	Machilipatnam, A.P.			In progress. Likely date of completion is March, 2011
9.	Development of all weather and Multi user Port on BOOST basis by M/s. Amma Lines Ltd.	Maharashtra	To become hub port in South Asia with draft 20 Mtrs. 44.7 MTPA (1.7 MTEUs) container	43000	Share holding pattern approved. Environmental clearance awaited. Anticipated date of completion is 2010
10.	Development of all weather and Multi user Port on BOOST basis by M/s. Balaji Infra Projects Ltd.	Maharashtra	5 MTPA in phases. 18.5 MTPA (0.28 MTEUs) Container	6000	Detailed engineering designs under scrutiny. Anticipated date of completion is 2008
11.	Thiruchopuram Port/Nagarjuna Oil Corporation Ltd.	Tamil Nadu	9.3	6000	Construction to be commenced.
12.	Coal Handling Jetty/Cuddalore Power Co. Ltd.	Tamil Nadu	3.5	3250	Detailed project report under preparation.
13.	Silambimangalam Shipyard/Good-earth Ship-building Pvt. Ltd.	Tamil Nadu	-	10000	Detailed project report under preparation.
14.	Thirukkuvilai Port/ Tridem Port & Power Co. Pvt. Ltd.	Tamil Nadu	20	7500	Detailed project report under preparation.
15.	Kattupalli Port/ Shipbuilding Ltd.	Tamil Nadu	-	12000	Detailed project report under preparation.
16.	Manappad Port/ Indian Gas Ltd.	Tamil Nadu	-	10000	Detailed project report under preparation.

Sl. No	Project Name	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
17.	Construction of Modern Dry Dock for Ship repair (BY BOOT Basis by 'Three Circle Contractors', Mumbai)	Diu (Daman & Diu)		250	The private party has withdrawn from the project, Hence U.T. Admn. of Daman and Diu has closed the process of Modern Dry Dock for Ship Repair Yard at Malala in Diu district and decided to re-invite fresh proposals. The concerned party has asked for Arbitrator and hence the project is delayed.
<p>Note : Latest information in respect of maritime States/UTs other than Kerela, Goa, Puducherry &amp; Diu is not available. Earlier available information is given in respect of Others States/UTs.</p> <p>Source: Maritime States/Maritime Boards</p>					

**Appendix – IV**

**Private Sector/Captive/Joint Venture Port Projects Under Formulation  
(Non-Major Ports)**

Sl. No	Project	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
1.	Landing facilities for cargo & passenger vessel	Diu		23	Proposal is submitted for approval of Ministry.
2.	Cargo & Passenger Landing Facility at Malala on BOT basis.	Diu		600	Proposal is submitted for approval of Ministry.
3.	Kakinada Anchorage Port	Andhra Pradesh	1.00 MT	150	The work is in progress.
4.	Kakinada Deep Water Port (PPP-BOOT) by M/s KPCL	Andhra Pradesh	3.80 MT	2300	Scheme completed.
5.	Rawa Port Project (Captive Jetty-BOOT) by M/s Cairn Energy Ltd.	Andhra Pradesh	0.50 MT		Likely date of completion is March 2009
6.	Gangavaram Port (PPP-BOOT) by GPL	Andhra Pradesh	35 MT	20000	Work is in progress. Likely date of completion is 08/2008.
7.	Krishnapatnam Port (PPP-BOOT) by M/s KPCL	Andhra Pradesh	17 MT	8500	Work is in progress. Likely date of completion is August, 2009.
8.	Nizampatnam Port(PPP-BOOT) by Marrix India	Andhra Pradesh	10 MT	10000	Likely date of completion is March 2012.
9.	Machilipatnam Port (PPP-BOOT) by M/s MITHAS	Andhra Pradesh	12 MT	15900	Likely date of completion is March 2011.
10.	Development of Jaigarh Port by M/s. Chowgule Steamship Ltd. (BOOST basis)	Maharashtra	4.02 MTPA	3354.2	LOI issued in September 2006. Likely date of completion is 2010.
11.	Development of Vijaydurg Port (BOOST basis)	Maharashtra	7.5 MTPA	10000	Proposal under scrutiny
12.	Development of Redi Port	Maharashtra	7.4 MTPA	9500	Proposal under scrutiny
13.	Development of Captive port facilities at Dhamankhol Bay (Jaigarh)-BOOT basis by M/s. JSW Infrastructure and Logistics	Maharashtra		4000	LOI issued in September 2006.
14.	Development of captive port facilities at Girye Bay near Vijaydurg Private.	Maharashtra	Captive port facilities for import of coal for proposed 4000 MW ultra		Power financing corporation is handling the project. Pre-bid conference held in Sept, 2006

Sl. No	Project	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
			Mega Power plant.		
15.	Establishing a captive port at Marakkanam in Villupuram District	Tamil Nadu	8 MT	13600	Preparation of Detailed Project Report under progress.
16.	Establishing a captive port in Cuddalore District	Tamil Nadu	14 MT	4800	Preparation of Detailed Project Report under progress.
17.	Establishing a captive port at Thirukkadaiyur in Nagapattinam District	Tamil Nadu	4.5 MT	3650	Preparation of Detailed Project Report under progress.
18.	Establishing a captive port at Cheyyur in Villupuram District	Tamil Nadu	11 MT	9000	Preparation of Detailed Project Report under progress.
19.	Construction of jetty at Panaji-Ribandar, Goa	Goa		300	Administrative work in progress
20.	Construction of jetty at Old Goa- Dauji Goa	Goa		30	Administrative work in progress
21.	Renovation of Marine Slipway, Britona Goa	Goa		10	Administrative work in progress
22.	Purchase of vessels for Panaji Port	Goa		70	Administrative work in progress
23.	Upgradation/Expansion of Maritime School	Goa		15	Administrative work in progress
24.	Dredging of river Zuari & Mandovi & Enforcement of river banks	Goa		50	Administrative work in progress
25.	Development of Vizhinjam port.(BOT)	Vizhinjam Port, Kerala	14.5	18830	Tender process completed. Central Government has agreed to this project.
26.	Development of Kollam port. (BOT)	Kollam Port, Kerala	1.25	500	Tender invited for appoint consultant for feasibility study.
27.	Development of Azhikal port. (BOT)	Azhikal Port, Kerala	12.5	4510	Consultant selected for feasibility study.
28.	Development of Beypore Port, Government of Kerala (BOT)	Beypore Port, Kerala	1.75	1060	Consultant selected for feasibility study.
29.	Development of Pondicherry Port	Puducherry	18	18670	Revised DPR submitted by the developer is under evaluation.
30.	Development of Karaikal Port	Puducherry	4	3500	Construction works under progress.
<p>Note : Latest information in respect of maritime States/UTs other than Kerela, Goa, Puducherry &amp; Diu is not available. Earlier available information is given in respect of Others States/UTs.</p> <p>Source: Maritime States/Maritime Boards</p>					

## Plan Outlay and Expenditure : Port Sector (Central Sector)

Name of the Port	Xth Plan Outlay	(Rs. Crore)											
		Annual Plan		Annual Plan		Annual Plan		Annual Plan		Annual Plan		Annual Plan	
		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09	
		Oly.	Exp.	Oly.	Exp.	Oly.	Exp.	Oly.	Exp.	Oly.	Exp.	Oly.	Exp.*
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Kolkata (a)	789.42	210.30	10.48	46.22	47.55	54.04	59.66	50.04	71.99	37.37	63.05	44.97	12.36
Mumbai	880.20	54.21	57.81	56.15	44.49	74.53	19.23	59.86	14.55	50.36	26.10	150.00	9.09
JNPT	262.75	143.02	12.73	102.14	58.85	96.84	65.77	106.14	40.71	188.18	70.28	175.17	20.59
Chennai	326.70	36.69	29.21	16.75	22.68	46.71	25.11	35.00	26.07	47.81	44.41	72.95	19.26
Cochin	366.51	18.88	10.86	85.41	9.52	53.12	24.76	73.84	72.89	158.52	139.07	255.65	77.38
Visakhapatnam	240.84	51.00	55.65	54.44	27.68	27.00	17.68	27.33	43.80	83.00	36.61	39.97	8.42
Kandla	416.71	66.71	41.50	92.98	52.89	93.30	91.29	94.66	80.19	89.49	38.25	140.87	11.13
Mormugao	348.06	87.14	43.06	53.85	11.05	33.50	17.92	28.06	20.77	10.10	11.18	22.07	6.11
Paradip	222.70	53.40	14.56	87.16	28.99	116.00	44.02	83.40	23.15	100.00	42.05	288.00	17.70
New Mangalore	147.40	25.00	5.14	20.00	29.60	26.00	18.09	18.00	18.02	36.00	25.81	30.00	7.86
Tuticorin	230.00	17.54	21.84	25.81	5.48	43.67	13.56	52.31	29.11	79.46	63.16	96.87	25.23
Ennore Port Ltd.	300.00	150.00	0.99	95.00	2.32	76.00	13.40	70.00	9.57	61.00	34.53	70.00	29.56
Sethusamudram Ship Canal Project	0.00	0.00	0.00	10.00	0.00	107.00	150.00	304.00	334.66	664.22	119.47	1581.07	120.69
WEB Based EDI Port Community System	0.00	0.00	0.00	0.00	0.00	6.00	0.34	7.83	1.66	7.50	0.04	6.00	4.70
Others (b)	587.00	237.00	44.06	221.04	19.87	259.74	79.14	333.78	213.64	477.26	170.67	598.38	37.71
Survey Vessels	300.00	50.00	0.00	100.00	0.00	50.00	0.00	20.00	0.00	19.00	0.00	79.00	233.50
Total	5418.29	1200.89	347.89	1066.95	360.97	1163.45	639.97	1364.25	1000.81	2109.27	884.68	3650.97	641.29

(a) Includes Haldia &amp; RR Schemes

(b) Includes DCI, ALHW, R&amp;D Studies (including minor ports, R &amp; D studies for Deep Sea Port in West Bengal Rs. 6.45, MSDC Meetings Rs. 0.35, Assistance to State Govt. for development of Minor Port Rs. 0.98), Post Tusumani Works, Minor Port Studies etc.

\*: Expenditure upto september 2008

Source: Department of Shipping/IPA

## Plan Outlay and Expenditure : Ports &amp; Light Houses (State Sector)

(Rs.Lakhs)

STATES/UTs	Xth Plan Outlay	Annual Plan		Annual Plan		Annual Plan		Annual Plan		Annual Plan	
		2002-03		2003-04		2004-05		2005-06		2006-07	
		Re. Oly	Exp.	Re. Oly	Exp.	Re.Oly.	Exp.	AprOly.	Exp.	Apr.Oly	Re.Oly.
1	2	3	4	5	6	7	8	9	10	11	12
<b>States</b>	30691	5461	5366	5013	2330	6397	5593	7485	5482	13043	14710
1. Andhra Pradesh	338	1000	2203	200	0	5150	3739	5150	3395	5150	5150
2. Goa	25	5	2	17	1	20	24	71	8	70	70
3. Gujarat	0	0	0	0	0	0	0	0	0	0	0
4. Karnataka	0	0	496	0	0	524	535	575	571	650	700
5. Kerala	6000	750	367	1206	424	653	790	1093	695	4690	4690
6. Maharashtra	20000	3644	1759	3390	1538		290	546	672	1500	1500
7. Orissa	1328	62	539	200	367	50	215	50	123	133	100
8. Tamilnadu	3000	0	0	0	0	0	0	0	18	850	2500
<b>UTs</b>	17032	3348	2044	2890	2095	3288	2488	4046	5462	8726	5739
9. A&N Islands	7146	1180	1477	1500	1520	1896	1814	2099	3508	4993	4993
10. Daman & Diu	180	23	21	34	0	34	32	82	39	63	62
11. Lakshadweep	7706	1745	178	781	0	358	291	365	425	270	270
12. Pondicherry	2000	400	368	575	575	1000	351	1500	1490	3400	414
<b>Total(State+UT)</b>	47723	8809	7410	7903	4425	9685	8081	11531	10944	21769	20449

Exp. : Expenditure Re.Oly:Revised Outlay. Apr.Oly. :Approved Outly.

Note: Information for the year 2007-08 not received from Planning Commission.

Source: Planning Commission



## Commodity-wise Traffic Handled at Major Ports

(000 Tonnes/TEUs)

(000 Tonnes/TEUs)												
Port	Period	POL & its Products	Iron Ore	Thermal	Coking	Ferti.&	Food	Container		Others	Total	
				Coal	Coal	FRM	Grain	Tonnes	TEUs			
1	2	3	4	5	6	7	8	9	10	11	12	
Kolkata	2006-07	5181	225	6	0	15	75	4003	239	3091	12596	
	2007-08	4523	488	0	0	11	560	5139	297	3020	13741	
	Apr.-Sept.	2007-08	445	150	0	0	0	213	2558	150	1392	4758
	2008-09	327	237	0	0	5	128	2855	157	1251	4803	
Haldia	2006-07	17596	8312	5433	2443	1386	7	1918	110	5359	42454	
	2007-08	17841	9821	1797	5462	713	7	2242	128	5658	43541	
	Apr.-Sept.	2007-08	9127	4606	1075	2708	433	0	778	51	3278	22005
	2008-09	9161	4572	904	3447	274	0	1402	76	2315	22075	
Paradip	2006-07	1376	11880	4275	12475	4254	0	34	2	4223	38517	
	2007-08	1764	12960	13348	4733	3556	0	54	4	6023	42438	
	Apr.-Sept.	2007-08	765	5982	6249	2073	1709	0	20	2	3083	19881
	2008-09	817	6337	6124	3254	1950	0	0	0	3082	21564	
Visakha- patnam	2006-07	18178	14718	6740	2406	3916	980	799	56	8648	56385	
	2007-08	19803	18686	2895	7472	4000	486	1133	71	10122	64597	
	Apr.-Sept.	2007-08	9266	8540	1542	3615	1866	83	496	33	5206	30614
	2008-09	9378	9081	1469	4892	2524	157	695	34	4939	33135	
Chennai	2006-07	12987	10531	6912	2180	1034	661	14166	885	4943	53414	
	2007-08	12794	10815	1888	1656	882	82	18049	1128	10988	57154	
	Apr.-Sept.	2007-08	6554	5413	835	834	397	28	8831	552	5331	28223
	2008-09	6515	4478	1057	1314	418	19	10070	629	5373	29244	
Ennore	2006-07	188	1724	0	8802	0	0	0	0	0	10714	
	2007-08	319	2190	9051	0	0	0	0	0	3	11563	
	Apr.-Sept.	2007-08	121	1166	4447	0	0	0	0	0	5734	
	2008-09	194	577	4752	0	0	0	0	0	236	5759	
Tuticorin	2006-07	626	0	0	5608	1470	54	4011	377	6232	18001	
	2007-08	460	0	6112	0	1730	298	5630	450	7250	21480	
	Apr.-Sept.	2007-08	250	0	2954	0	855	56	2742	219	3175	10032
	2008-09	228	0	2835	0	857	128	2913	233	4151	11112	
Cochin	2006-07	10475	0	0	219	639	184	2949	226	791	15257	
	2007-08	11299	0	246	0	354	0	3239	254	672	15810	
	Apr.-Sept.	2007-08	5459	0	155	0	206	0	1660	127	381	7861
	2008-09	5117	0	202	0	237	0	1785	143	351	7692	
New Mangalore	2006-07	21868	6248	1047	0	1258	88	265	17	1268	32042	
	2007-08	21781	9266	0	1691	840	56	319	21	2066	36019	
	Apr.-Sept.	2007-08	11125	4554	0	861	467	0	140	10	832	17979
	2008-09	9788	5298	0	1356	491	37	225	15	1230	18425	
Mormugao	2006-07	786	26741	3605	350	620	0	155	13	1984	34241	
	2007-08	874	27329	357	3887	192	0	135	14	2354	35128	
	Apr.-Sept.	2007-08	376	8767	168	1711	110	0	64	7	1193	12389
	2008-09	439	9512	170	2088	97	0	78	7	1130	13514	
J. L. Nehru	2006-07	2625	0	0	0	2	0	40811	3298	1377	44815	
	2007-08	2188	0	0	0	0	0	51923	4060	1727	55838	
	Apr.-Sept.	2007-08	991	0	0	0	0	23981	1938	903	25875	
	2008-09	1929	0	0	0	0	0	27545	2129	871	30345	
Mumbai	2006-07	24281	0	0	2533	473	308	1580	136	23189	52364	
	2007-08	37074	0	2951	0	310	41	1632	118	15030	57038	
	Apr.-Sept.	2007-08	18675	0	1474	0	129	21	641	51	7164	28104
	2008-09	16773	0	1216	0	173	6	842	57	7186	26196	
Kandla	2006-07	29711	234	411	293	3993	2024	2778	178	13538	52982	
	2007-08	38177	419	935	244	4076	1373	2639	167	17030	64893	
	Apr.-Sept.	2007-08	18675	304	365	209	1554	425	1362	87	7797	30691
	2008-09	23479	0	1060	293	2674	787	1127	72	8439	37859	
All Ports	2006-07	145878	80613	28429	37309	19060	4381	73469	5537	74643	463782	
	2007-08	168897	91974	39580	25145	16664	2903	92134	6712	81943	519240	
	Apr.-Sept.	2007-08	81829	39482	19264	12011	7726	826	43273	3227	39735	244146
	2008-09	84145	40092	19789	16644	9700	1262	49537	3552	40554	261723	

Note: Figures other than for 2006-07 and April to September 2007-08 are provisional.

Source: Major Ports and Indian Ports Association.

## Commodity Composition of Traffic Handled at Non- Major Ports.

(000 Tonnes)

Maritime Status / UTs	Period	POL	Iron Ore	Building Material	Coal	Fertiliser & FRM*	Others	Total
1	2	3	4	5	6	7	8	9
Gujarat	2005-06	60149	5191	11000	10541	3636	17558	108075
	2006-07	71159	5713	11231	11306	4208	27648	131265
	2007-08	84179	6078	9523	12978	4925	29915	147598
	April - Sept 2007-08	43825	2571	3328	5037	1427	12847	69035
	2008-09	44466	3174	3425	6852	1747	13562	73226
Maharashtra	2005-06	230	4947	1495	2550	38	1896	11156
	2006-07	576	4582	1772	2290	473	1887	11580
	2007-08	396	4259	2064	2276	444	2117	11556
	April - Sept 2007-08	0	2178	821	499	0	1383	4881
	2008-09	0	2467	647	490	82	1255	4941
Andhra pradesh	2005-06	8507	3876	410	138	1837	3659	18427
	2006-07	8490	3876	343	138	1950	3812	18609
	2007-08	9175	3591	42	49	1997	4408	19262
	April - Sept 2007-08	7090	1802	41	0	1075	2188	12196
	2008-09	6859	1149	29	120	1403	2203	11763
Goa	2005-06	0	11428	0	333	0	1	11762
	2006-07	0	14027	0	279	0	0	14306
	2007-08	0	12623	0	89	0	113	12825
	April - Sept 2007-08	0	1978	0	0	0	0	1978
	2008-09	0	2166	0	0	0	0	2166
Tamil Nadu	2005-06	592	0	0	0	56	63	711
	2006-07	667	0	8	0	69	61	805
	2007-08	727	0	0	5	86	81	899
	April - Sept 2007-08	328	0	0	0	30	42	400
	2008-09	383	0	0	0	17	20	420
Karnataka	2005-06	98	3398	9	4	30	578	4117
	2006-07	141	5775	10	2	102	531	6561
	2007-08	54	1958	0	0	36	740	2788
	April - Sept 2007-08	43	495	0	0	14	418	970
	2008-09	0	811	0	6	23	313	1153
Others states / Uts #	2005-06	148	0	480	0	17	527	1172
	2006-07	167	0	1027	0	16	586	1796
	2007-08	172	0	1010	0	16	564	1762
	April - Sept 2007-08	92	0	663	0	0	261	1016
	2008-09	93	0	626	0	2	364	1085
All Major Ports	2005-06	69724	28840	13394	13566	5614	24282	155420
	2006-07	81200	33973	14391	14015	6818	34525	184922
	2007-08	94703	28509	12639	15397	7504	37938	196690
	April - Sept 2007-08	51378	9024	4853	5536	2546	17139	90476
	2008-09	51801	9767	4727	7468	3274	17717	94754

Note :All figures for 2007-08 & 2008-09 are provisional and No traffic was handled at ports of Orissa and Daman & Diu.

No traffic was handled at ports of Orissa and Daman & Diu.

# : Consists of Pondicherry, Kerala, Andaman & Nicobar Islands and Lakshadweep Islands.

\* : Includes liquid fertiliser raw material also.