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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 thirteen issues of the publication has been released. The last issue contained data up to September, 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 March, 2009. 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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June, 2009



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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 on a down slide. The financial turmoil that erupted in August 2007 coincided with unprecedented increase in fuel and food prices adversely affected 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 (International Monetary Fund (IMF), April 2009) global growth is expected to slow down to 3.2 per cent in 2008 and projected to shrink by 1.3 % in 2009. Growth in world output 2008 was slowest since 2001 and well below the preceding 7 year average rate of 4 %. This is the first decline in total world production since the 1930s, and its impact is magnified in trade. Developed countries only managed a meagre 0.9 % output growth in 2008 compared to 2.7 % in 2007. Developing countries expanded their output in 2008 by 6.1 %, down from 8.3 % in 2007. India and China are expected to experience a moderation in growth in 2009 (Table:1). India's resilience lies mainly in its healthy macro economic fundamentals and the fact that its growth dynamics is rooted in domestic demand.

1.1.2 World trade grew by 3.2% in volume terms for the whole of 2008 compared to 6.6% volume increase posted in 2007. For the last 30 years trade growth has often outpaced growth in output. Production for many products is sourced around the world so there is a multiplier effect – as demand falls sharply overall, trade will fall even further. The collapse in global demand brought on by the biggest economic downturn in decades is expected to drive down world trade by 11.5 % in 2009, the biggest such contraction since the Second World War. The contraction in developed/advanced countries will be particularly severe with export volume expected to fall by 14.4% in 2009. In developing countries, which are far more dependent on trade for growth, exports will shrink by some 7.2% in 2009. Signs of the sharp deterioration in trade were evident in the latter part of 2008 as demand sagged and production slowed. Trade growth was very close to GDP growth in 2008, compared to earlier years when trade growth exceeded GDP. It is likely to be below GDP growth next year.

1.1.3 Notable aspect of the current slowdown in world trade is its synchronized nature. With the growing share of developing countries trade in the global total, and increased geographical diversification, it was assumed by many that a “decoupling” effect would have made developing countries less vulnerable to turmoil in the developed world. However, this has not turned out to be true. Trade prospects for 2009 are heavily conditioned by the financial crisis that began almost two years ago in the United States. Trade has also been affected adversely by a sharp shrinkage in credit to finance imports and exports. Therefore, **it is difficult for any country to insulate itself from global downturn when most of its main trading partners are in recession.**

1.1.4 **Trade growth decline is expected to be larger than in past slow-downs. A number of factors may explain this.** One is that the fall-off in demand is more widespread than in the past, as all regions of the world economy are slowing at once. A **second** reason for the magnitude of recent declines relates to the increasing presence of global supply chains in total trade. A **third** element in current conditions that is likely to contribute to the contraction of trade is a shortage of trade finance. A **fourth** factor that could contribute to trade contraction is protection. Any rises in protection will threaten the prospects for recovery and prolong the downturn. One indicator of the severity of the global downturn in trade has been the fall-off in international shipping. Movements in the Baltic Dry index reflect cost of shipping bulk and are related to global demand for manufactured goods. Between June and November of 2008 the Baltic Dry Index fell by 94%.

1.1.5 A noteworthy feature of performance of India's port traffic during the years 2002-08 in particular has been its much higher growth compared to corresponding growth in world seaborne trade. To a large extent the strong growth of India's seaborne cargo traffic reflected buoyancy in India's overall Gross Domestic product (GDP) growth and robust growth in merchandise trade in recent years. As a result, growth in India's seaborne cargo throughput during 2002-08 outstripped growth in both world trade and output. In the face of uncertain global market conditions and more challenging domestic market environment India's seaborne cargo traffic grew by a mere 2 per cent in 2008-09 which was barely one fifth of the growth at 10.4 % in 2007-08. This deceleration in the growth of

cargo traffic is attributed to mainly exogenous factors rooted in global and domestic growth dynamics.

Table 1: Growth in Cargo handled at Indian Ports and related parameters (in per cent)

Parameters	2004-05	2005-06	2006-07	2007-08	2008-09
Trends in India's Select : Macro Parameters					
I. Total Cargo	12.0	10.9	12.2	10.4	2.1
(a) Major Ports	11.3	10.4	9.5	12.0	2.1
(b) Non Major Ports	14.1	12.5	19.7	6.5	2.0
II. GDP overall	7.5	9.4	9.6	9.0	6.7
(a) Agriculture	0.0	5.9	3.8	4.9	1.6
(b) Industry	10.3	10.1	11.0	8.1	3.9
(c) Services	9.1	10.3	11.1	10.9	9.7
III. Foreign Trade					
(a) Export in \$ value	30.8	23.4	22.5	29.0	3.5
(b) Import in \$ value	42.7	33.8	24.4	35.5	14.4
IV. World Output	4.9	4.5	5.1	5.2	3.2 (-1.3)
(a) Advanced Economies	3.2	2.6	3.0	2.7	0.9 (-3.8)
(b) Developing Economies	7.5	7.1	8.0	8.3	6.1(1.6)
V. World Trade Volume (Goods)	11.0	7.5	9.3	6.6	3.2(-11.5)
VI. Export Volume (Goods)					
(a) Advanced Economies	9.0	5.7	8.7	5.2	1.5 (-14.4)
(b) Developing Economies	14.3	10.7	10.8	8.9	6.1(-7.2)
VII. Import Volume (Goods)					
(a) Advanced Economies	9.7	6.3	7.9	4.1	0.0(-12.7)
(b) Developing Economies	16.9	12.6	12.6	13.7	10.9(-8.7)
VIII. World Seaborne Trade*	4.9	3.6	8.3	4.2	
(a) Goods Loaded	5.3	3.8	7.6	4.8	
(b) Goods Unloaded	4.9	3.3	9.0	3.5	

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;

IV,V,VI & VII Based on World Economic Outlook, April ,2009, IMF;

VIII. Based on Review of Maritime Transport, 2008, UNCTAD

Note : MT: Million Tonnes; For item Nos IV, V, VI, VII and VIII year 2004-05 refers to calendar year 2004 and so on;; **figures within parenthesis indicate forecasts for the relevant parameter for the year 2009: * growth in total goods loaded plus unloaded**

1.1.6 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

1.1.7 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 tonnes (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 tonnes of international seaborne trade in 2007 comprised 2.68 billion tonnes of tanker cargo (33.4%) and 5.34 billion tonnes 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 tonnes (69.6%) of crude oil and 815 million tonnes (30.4%) of petroleum products. Dry cargo shipments grew at 5.6 % to reach 5.34 billion tonnes 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 tonnes 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 tonnes 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

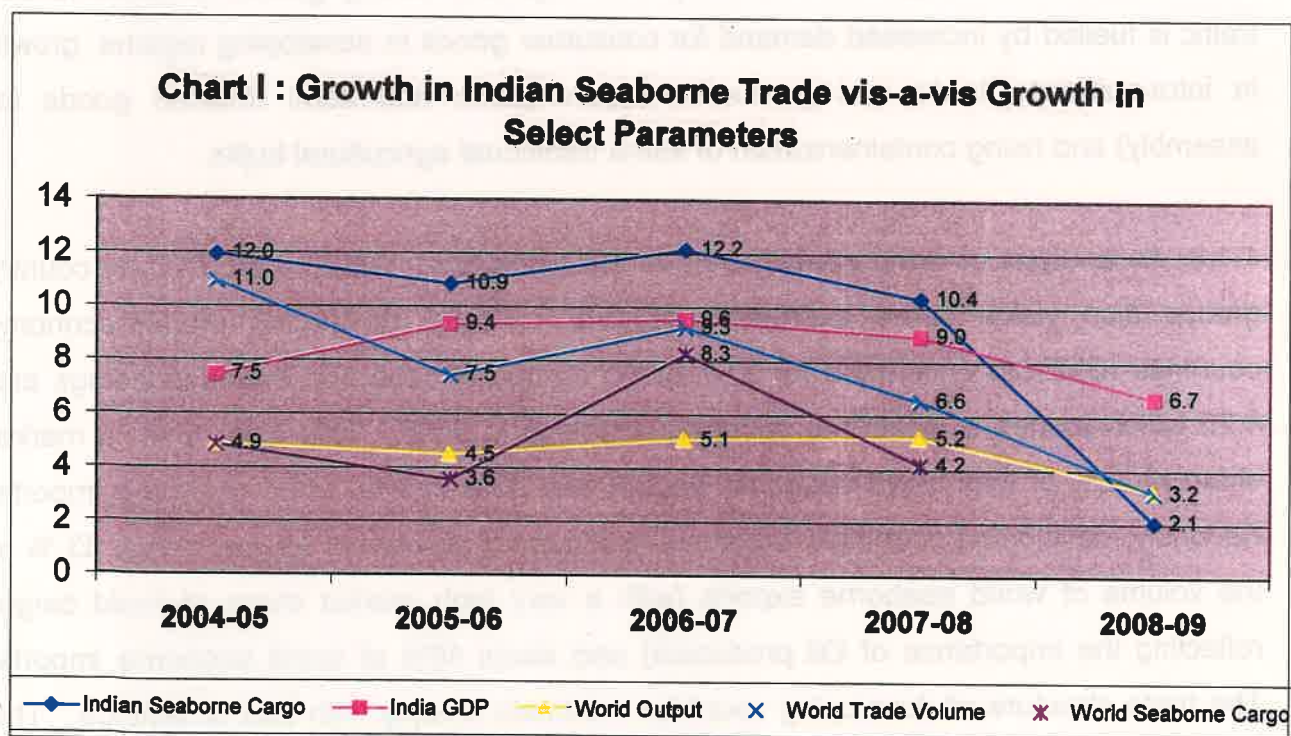
1.1.8 Since 1990, global container trade (in TEUs) is estimated to have increased by a factor of five, which is equivalent to an annual average growth of 9.8 per cent (RMT 2008). In 2007, global container trade was estimated at 143 million TEUs reflecting a 10.8 % increase over 2006. In tonnage terms, container trade is estimated at 1.24 billion tonnes, 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.

1.1.9 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 tonnes of seaborne exports/loadings and 4.26 billion tonnes 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 2008-09 major and non major ports in India accomplished a total cargo throughput of 732.5 million tonnes reflecting an increase of 2.1 % over 2007-08 compared to a robust increase of 10.4 % in 2007-08. The growth of cargo handled at major and non-major ports in 2008-09 was 2.1% and 2.0% respectively compared to 12.0% and 6.5% achieved in of 2007-08. The deceleration in the growth is the result of severe slowdown in world trade during second half of 2008-09. The growth in India's GDP, Port traffic and growth in world output, world trade volume and world seaborne trade (loadings and unloading) since 2004-05 is given in Chart I.



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 (2004-05 refers to 2004 and so on) based on (World Economic Outlook, April 2009, IMF)

Table 3: Traffic Handled at Indian Ports (Thousand Tonnes)						
Major / Non-Major Ports	Traffic Handled			Growth over previous year/period		
	2006-07	2007-08	2008-09	2006-07	2007-08	2008-09
Major Ports	463782 (71.36)	519314 (72.38)	530369 (72.40)	9.5	12.0	2.1
Non-Major Ports	186099 (28.51)	198196 (27.62)	202179 (27.60)	19.7	6.5	2.0
All Ports	649881 (100.00)	717510 (100.00)	732548 (100.00)	12.2	10.4	2.1
(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. Cargo traffic at India's 12 major ports which accounts for around 72 % of India's total sea borne cargo at 530.37 million tonnes showed a slender growth of 2.1% in 2008-09 compared to 12% increase in 2007-08. This meagre 2% growth is barely a one-fifth of the annual average growth of 11 % in cargo traffic during the last six years (2002-03 to 2007-08) for major ports. The sharp down turn in the global growth and slackening of India's growth momentum has affected the sea borne cargo traffic in 2nd half of the year 2008-09 in particular. It is noteworthy that Shanghai Port alone handled (582 million tonnes in 2008) more than the combined throughput at India's 12 major ports at 530 million tonnes in 2008-09; also Zhoushan/Ningbo (PRC) handled 520 million tonnes close to the combined traffic throughput of India's 12 major ports (Table 6B).

1.3.2 In terms of port performance, the analysis of cargo handled at 12 major ports reveals that 2.1% increase in cargo traffic during 2008-09 was driven by good showing of Mormugao Port which posted an increase in cargo handled by 18.7%, followed by Kandla (11.3%), Paradip (9.4%), JNPT(2.6%) and Tuticorin(2.5%), New mangalore(1.5%)and Chennai(1.6%) (Table:4). The Kandla Port accounted for a share of 13.6% in the total cargo handled by the major ports but contributed two third of the total increase in the cargo handled at major ports in the country during 2008-09. However, the cargo traffic attained by the 12 major ports at 530.4 million tonnes during

2008-08 fell short of the target of 576.0 million tonnes by 7.9%. In particular, only three major ports, viz, Ennore, Mormugao and Kolkata Dock System could exceed their respective targets of cargo traffic during 2008-09. Port-wise traffic handled during 2005-06 to 2008-09 is given in Table:4.

Table 4 : Traffic Handled at Major Ports (Thousand Tonnes)							
Port	2005-06	2006-07	2007-08	2008-09		% Change over	
				Target	Actual(P)	CP	Target
1	2	3	4	5	6	7	8
Kolkata	53143	55050	57329	60280	54051	-5.7	-10.3
Kolkata DS	10806	12596	13741	12280	12428	-9.6	1.2
Haldia DC	42337	42454	43588	48000	41623	-4.5	-13.3
Paradip	33109	38517	42438	55000	46412	9.4	-15.6
Vizag	55801	56385	64597	65000	63908	-1.1	-1.7
Ennore	9168	10714	11563	10550	11500	-0.5	9.0
Chennai	47248	53414	57154	64000	57491	0.6	-10.2
Tuticorin	17139	18001	21480	24060	22011	2.5	-8.5
Cochin	13888	15257	15810	18960	15228	-3.7	-19.7
New Mangalore	34451	32042	36019	40340	36691	1.9	-9.0
Mormugao	31688	34241	35128	40600	41681	18.7	2.7
Mumbai	44190	52364	57038	61030	51876	-9.1	-15.0
JNPT	37836	44815	55838	63500	57295	2.6	-9.8
Kandla	45907	52982	64920	72770	72225	11.3	-0.7
All Ports	423568	463782	519314	576090	530369	2.1	-7.9
(P): Provisional; CP: Corresponding period 2007-08							

Commodity wise Cargo Traffic at Major Ports

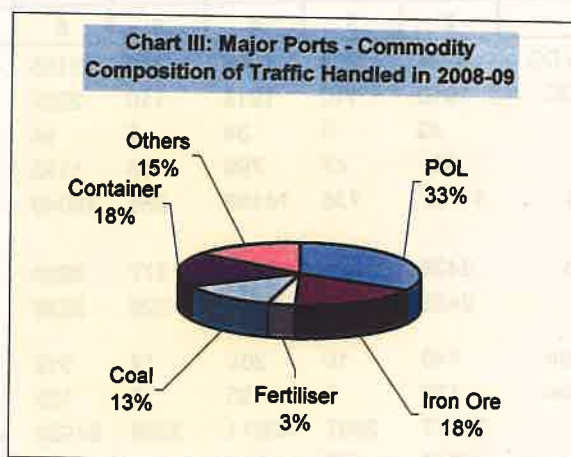
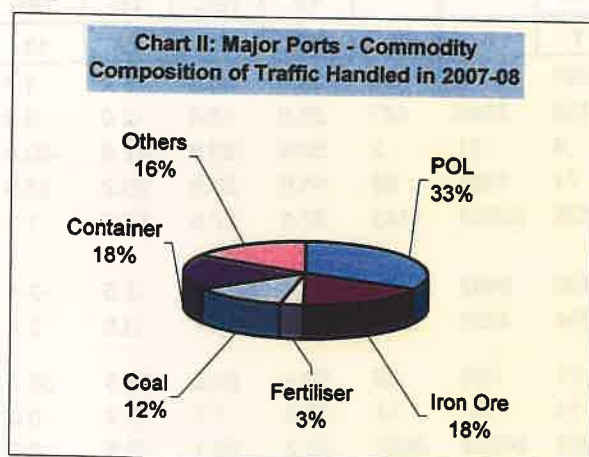
1.3.3 In terms of Commodity-wise traffic at 12 major ports (Table:5), the 2.1% increase in cargo at major ports during 2008-09 was driven by increase in all broad categories of cargo viz. except 'other cargo'. Amongst the dry bulk categories thermal coal, fertilizer and coking coal posted robust growth rates of 9.8%, 9.2% and 7.9% respectively. Iron ore traffic which is mainly for export, recorded growth of 2.3% in 2008-09 compared to 14.2% in 2007-08. In the liquid bulk category, cargo growth in crude & petroleum was modest at 3.3.% during 2008-09 compared to 10.0% in the same period last year. Container traffic which largely reflects trade in manufactures and components showed a marginal growth of 0.9% in 2008-09 compared with a robust increase of 25.6 % in 2007-08, while "other cargo" traffic declined by 5.7% in 2008-09.

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

Commodities	2005-06	2006-07	2007-08	2008-09			
				Target	Actual	CP	Target
1	2	3	4	5	6	7	8
POL	142094	153548	168829	188010	174384	3.3	-7.2
Iron Ore	79217	80584	91993	91210	94091	2.3	3.2
Fertiliser	12196	14136	16662	20670	18198	9.2	-12.0
1. Finished	6624	7929	10612	11970	12130	14.3	1.3
2. Raw (DRY)	5572	6207	6050	8700	6068	0.3	-30.3
Thermal Coal	37545	37309	39580	49000	43444	9.8	-11.3
Coking Coal	31282	23042	25159	29200	27150	7.9	-7.0
Container (Tonnes)	62009	73469	92283	106690	93123	0.9	-12.7
Others	59225	81694	84808	91310	79979	-5.7	-12.4
Total	423568	463782	519314	576090	530369	2.1	-7.9

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

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



POL : Petroleum, Oil & Lubricants

1.3.5 The Port-wise & commodity-wise traffic handled at major ports during 2005-06 to 2008-09 are given in Annex 2.

Container Traffic

1.3.6 The container traffic (in million tonnes) which reflects largely trade in manufactures and components witnessed compression in growth to 0.9% from 25.6% increase in 2007-08.

The growth of container traffic collapsed from 17.6% in 1st Quarter(April – June) of 2008-09 to 11.5% in 2nd quarter(July – September), -8.5% in 3rd quarter(October – December) and -13.4% in fourth quarter(January – march) of 2008-09. In terms of Twenty Equivalent Units, the containers handled by Major Ports in 2008-09 fell by 1.8% compared to the containers handled in 2007-08. Amongst the major ports, the ports at JNPT, Mumbai, Kandla, Tuticorin, Paradip and Haldia Dock complex 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 54% in terms of tonnage and about 60 % in terms of TEUs in the total container traffic at major ports (Table:6). Efficiency in container handling operations at some of the select container terminals in India is given in Table: 6A. The total throughput measured in terms of TEUs at all the major ports at 6.59 million TEUs in 2008-09 was less than the quarter of TEU throughput at the Shanghai port alone. Recent trends in Top 20 Container Ports (in million TEUs) are given in Table:6C.

Table : 6 Container Traffic at Major Ports (in thousand tonnes/TEUs)												
PORT	2005-06		2006-07		2007-08		2008-09 P		% Change			
	Tn	TEU	Tn	TEU	Tn	TEU	Tn	TEU	2007-08		2008-09 P	
									Tn	TEU	Tn	TEU
1	2	3	4	5	6	7	8	9	10	11	12	13
Kolkatta DS	3234	203	4003	239	5155	297	5483	302	28.8	24.3	6.4	1.7
Haldia DC	1910	110	1918	110	2397	128	2349	127	25.0	16.4	-2.0	-0.8
Paradip	49	3	34	2	54	4	31	2	58.8	100.0	-42.6	-50.0
Vizag	631	47	799	56	1133	71	1362	88	41.8	26.8	20.2	23.9
Chennai	11757	735	14166	885	18049	1128	20581	1143	27.4	27.5	14.0	1.3
Ennore												
Tuticorin	3428	321	4011	377	5630	450	5482	439	40.4	19.4	-2.6	-2.4
Cochin	2488	203	2949	226	3239	254	3256	260	9.8	12.4	0.5	2.4
New												
Mangalore	149	10	265	17	319	21	404	29	20.4	23.5	26.6	38.1
Mormugao	130	9	155	13	135	14	147	14	-12.9	7.7	8.9	0.0
JNPT	33777	2667	40811	3298	51923	4060	50602	3952	27.2	23.1	-2.5	-2.7
Mumbai	2145	156	1580	136	1632	118	1291	92	3.3	-13.2	-20.9	-22.0
Kandla	2311	149	2778	178	2617	165	2135	138	-5.8	-7.3	-18.4	-16.4
All Ports	62009	4613	73469	5537	92283	6710	93123	6586	25.6	21.2	0.9	-1.8
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 / Employee	Dwell Time(Day)	TRT Day
Tuticorin	2005-06	26.0#					
	2006-07	27.0#	43.0	1077	2192	3.8	1.08
	2007-08	27.0#	52.0	1283	2822	5.5	1.38
	2008-09	25.0	48.0	1189	2880	2.7	0.71
Chennai	2005-06	20.9	40.1	826	1828	2.9	1.38
	2006-07	22.1	43.0	996	2204	2.5	1.00
	2007-08	21.0	42.0	1267	2670	2.6	1.08
	2008-09	22.7	46.8	1289	2717	1.9	1.45
JNPCT	2005-06	16.8	44.0	1827	1478	3.2*	1.98
	2006-07	17.3	45.9	1778	1433	0.9\$	1.89
	2007-08	16.2	41.0	1756	1349	2.2\$	1.90
	2008-09	15.8	40.8	1450	1133	2.1\$	1.69
NSICT	2005-06	21.3	60.9	2206	2037	2.8*	1.51
	2006-07	22.7	64.5	2265	2091	2.7*	1.36
	2007-08	23.0	70.4	2513	2687	2.5\$	1.02
	2008-09	22.9	69.2	2379	2478	2.8\$	0.98
GTICT	2006-07	22.3	49.3	891	632	3.6	0.98
	2007-08	23.7	53.9	1813	2678	2.4\$	1.21
	2008-09	27.3	73.9	2054	2483	2.3\$	1.14
Cochin	2007-08	14.6	25.8	469	539	6.53	1.14
	2008-09	16.28	27.3	483	536	7.25	1.37
Kolkata DS	2008-09	19.55	15.91@	NA	NA	7.18	3.86
#: Per effective crane hour; \$: for Container Freight Station(CFS)Containers -Import *: Average for CFS containers; @: Starting times and finishing times have been considered as vessels sometimes have to wait at berth after completion of work due to non-availability of suitable tide in the river. 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/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 NSICT: Nhava Sheva International Container Terminal GTICT: Gateway Terminals India Container Terminal; TRT:Turn Around Time							

Table 6B : Top 20 World Major Ports (In Million Tonnes)				
Port	2005	2006	2007	2008
Shanghai (PRC)	443.2	537.5	560.0	582.0
Zhoushan/Ningbo* (PRC)	272.4	309.7	473.4	520.1
Singapore	423.2	448.5	483.6	515.3
Rotterdam (Netherlands)	370.3	381.8	409.1	421.1
Tianjin (PRC)	245.1	257.6	309.6	355.9
Guangzhou (PRC)	241.7	302.8	343.3	344.3
Qingdao (PRC)	184.3	224.2	265.0	300.3
Hong Kong (PRC)	230.1	238.2	245.4	259.4
Qinhuangdao (PRC)	167.5	204.9	245.7	252.2
Busan (South Korea)	217.2	217.9	243.6	241.7
South Louisiana (USA)	243.0	262.9	258.1	233.7
Nagoya (Japan)	187.1	208.0	215.6	218.1
Shenzhen (PRC)	153.9	176.0	199.9	211.2
Gwangyang (S Korea)	177.5	195.1	198.2	200.0
Antwerp (Belgium)	160.1	167.4	182.9	189.5
Dalian (PRC)	176.8	145.2	165.4	185.2
Los Angeles (USA)	162.1	181.6	190.1	170.0
Chiba (Japan)	165.7	167.0	169.2	170.0
Rizhao (PRC)	84.2	110.1	130.6	151.0
Source: Port Statistics, Port of Rotterdam Authority, May 2009; PRC-Peoples Republic of China				

Table 6C : Top 20 World World Container Ports (in Million TEUs)				
Port	2005	2006	2007	2008
Singapore	23.19	24.79	27.93	29.92
Shanghai (PRC)	18.08	21.72	26.15	28.01
Hong Kong (PRC)	22.60	23.54	23.80	24.49
Shenzhen (PRC)	16.20	18.47	21.10	21.42
Busan (Republic Korea)	11.84	12.04	13.26	13.42
Dubai Ports (UAE)	7.62	8.92	10.65	11.83
Guangzhou (PRC)	4.68	6.60	9.20	11.20
Zhoushan/Ningbo* (PRC)	5.21	7.07	9.36	10.92
Rotterdam (Netherlands)	9.29	9.65	10.79	10.78
Qingdao (PRC)	6.31	7.70	9.46	10.02
Hamburg (Germany)	8.09	8.86	9.89	9.74
Kaohsiung (Taiwan Province of China)	9.47	9.78	10.26	9.68
Antwerpen (Belgium)	6.49	7.02	8.18	8.66
Tianjin (PRC)	4.80	5.95	7.10	8.50
Los Angeles (USA)	7.48	8.47	8.36	8.08
Port Klang (Malaysia)	5.72	6.33	7.12	7.97
Long Beach (USA)	6.71	7.29	7.31	6.49
Tanjung Pelepas (Malaysia)	4.18	4.77	5.50	5.60
Bremen (Germany)	3.74	4.45	4.91	5.53
New York/New Jersey	4.78	5.09	5.30	5.24
Source: Port Statistics, Port of Rotterdam Authority, May 2009; China refers to Peoples Republic of China; * Ports combined in 2006; TEU-Twenty Feet Equivalent Units				

1.4 Non-Major Ports

1.4.1 In the Tenth Five Year Plan, traffic at non-major ports increased at an annual average growth rate of 13.7% but slackened to 6.5% in 2007-08 and 2.0% in 2008-09. Non-Major Ports handled more than a quarter of the total maritime freight traffic of the country during 2008-09.

1.4.2 Table 7 presents maritime state-wise share and growth of traffic handled at Non-major ports during 2005-06 to 2008-09.

Table 7 : Traffic Handled by Non-Major Ports by Maritime States/UTs								
Maritime State/UT	Traffic Handled ('000 Tonnes)				% Change over Previous Year			
	2005-06	2006-07	2007-08	2008-09 (P)	2005-06	2006-07	2007-08	2008-09 (P)
Gujarat	108075 (69.54)	132442 (71.17)	147598 (74.47)	152802 (75.60)	11.3	22.5	11.4	3.5
Maharashtra	11156 (7.18)	11580 (6.22)	11613 (5.86)	10412 (5.15)	-8.1	3.8	0.3	-10.3
Andhra Pradesh	18427 (11.86)	18609 (10.00)	19262 (9.72)	18903 (9.35)	22.3	1.0	3.5	-1.9
Goa	11762 (7.57)	14306 (7.69)	12825 (6.47)	11901 (5.89)	39.1	21.6	-10.4	-7.2
Tamil Nadu	711 (0.46)	805 (0.43)	887 (0.45)	896 (0.44)	-16.7	13.2	10.2	1.0
Karnataka	4117 (2.65)	6561 (3.53)	2695* (1.36)	2954* (1.46)	17.4	59.4	@	9.6
Other States /UTs	1172 (0.75)	1796 (0.97)	3316 (1.67)	4251 (2.10)	11.8	53.2	84.6	28.2
All M .States/UTs	155420 (100.00)	186099 (100.00)	198196 (100.00)	202119 (100.00)	12.5	19.7	6.5	2.0
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. (P) Provisional. * - traffic pertains to Karwar port only. @ - Growth over previous year not comparable.								

1.4.3 The growth in cargo handled by the non-major which was 6.5% in the 2007-08 decelerated to 2.0% in 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 fertilizer & FRM, coal and building materials 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 (75.6 %) of the total traffic handled by the non-major ports followed by Andhra Pradesh (9.4%),Goa (5.9%) and Maharashtra (5.2%). Four maritime States, viz, Gujarat, Andhra Pradesh, Goa and Maharashtra together accounted for 96% of the total cargo traffic handled by the non-major ports in 2008-09.

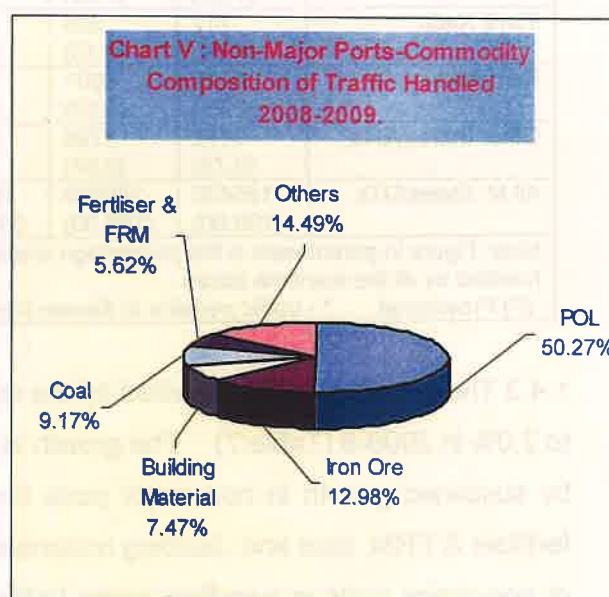
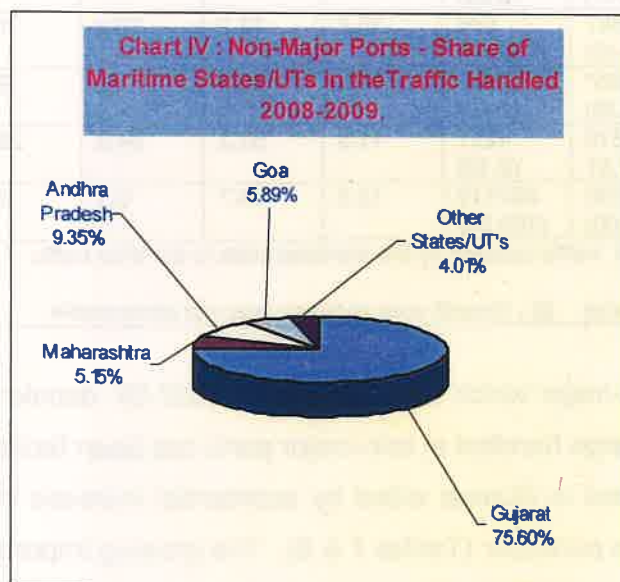
1.4.4 Four commodities, viz. POL, iron ore, building materials and coal accounted for four-fifth of the total cargo handled at the non major ports (Table :8).

Table 8 : Commodity-wise Traffic Handled by Non-Major Ports

Commodity Group	Traffic Handled ('000 Tonnes)				% Change over Previous Period			
	2005-06	2006-07	2007-08	2008-09	2005-06	2006-07	2007-08	2008-09
POL	69724 (44.86)	81200 (43.63)	94310 (47.58)	101600 (50.27)	2.9	16.5	16.1	7.7
Iron Ore	28840 (18.56)	33973 (18.26)	28778 (14.52)	26245 (12.98)	34.8	17.8	-15.3	-8.8
Building Materials	13394 (8.62)	14391 (7.73)	12736 (6.43)	15103 (7.47)	-5.2	7.4	-11.5	18.6
Coal	13566 (8.73)	14015 (7.53)	14477 (7.30)	18525 (9.17)	0.4	3.3	3.3	28.0
Fertilizer & FRM	5614 (3.61)	6818 (3.66)	5572 (2.81)	11358 (5.62)	43.6	21.4	-18.3	103.8
Others	24282 (15.62)	35702 (19.18)	42323 (21.35)	29288 (14.49)	38.9	47.0	18.5	-30.8
All	155420 (100.00)	186099 (100.00)	198196 (100.00)	202119 (100.00)	12.5	19.7	6.5	2.0

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.



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 is given in Annex 4.

1.5 Policy Initiatives-Central Government

1.5.1 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.

1.5.2 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.

1.5.3 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.

1.5.4 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.*

1.6 Eleventh Plan (2007-12)

1.6.1 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.

1.7 Impact of Global Slowdown on Maritime Trade and Prospects

1.7.1 The recession has had a much more than proportional impact on trade volumes and thus on maritime transport activity. This has resulted in an oversupply of capacity on most container trades, the likes of which has not been seen since the early 1980's. In response, vessel owners have idled vessels – in May 2009 almost 10% of the world container fleet capacity was inactive (1.1 million TEU's). Depressed GDP growth forecasts and tight credit markets mean that relatively fewer container (or other) vessels will be ordered over the next few years thus retarding the penetration of the most recent fuel saving designs and technologies after the current backlog of new builds are delivered.

1.7.2 As demand for finished goods has retreated, so too has demand for primary commodities such as ores, coal and oil, and intermediate commodities such as steel. This has led to a precipitous drop in demand for bulkers and tankers. Charter-party rates for these vessels have crashed (e.g. the Baltic Dry Index which covers bulk ship charter prices fell nearly 97% from July 2008 to December 2008 before recovering slightly in Q1 2009) effectively removing much of the short-term incentive for ordering new vessels. Just as with container vessels, owners have laid-up bulk vessels – in April 2009, 314 vessels or approx. 5% of available tonnage of bulk vessels above 10 000 dwt had been idled.

1.7.3 Idling vessels has been an immediate response to the drop in demand but many owners have also sought to scrap their older, less economic vessels. This has not been without consequence on the scrap value for vessels which has dropped from approximately \$ 750/ldt in the summer of 2008 to \$ 250/ldt in May, 2009. The drop in scrap vessel values has an incidence on fleet renewal as owners may wish to now hold on to vessels while waiting for higher scrap values in order to regain some of the residual capital value of their ships. Many ship owners have cancelled newbuild orders – even when this has entailed penalties. Det Norske Veritas estimates that by May 2009 orders for 325 bulk carriers, 47 tankers and 78 container vessels (37 million dwt overall) worldwide have been cancelled.

1.7.4 Clearly, the recession has modified the face of the world fleet. What is unclear is what impact the recession will have on future trade volumes and levels of maritime activity. Already, maritime trades had changed in response to the growth leading up to the summer of 2008. Export-led industrial production and related energy requirements had led China to move from being a net exporter of coal to a net importer. As a knock-on impact, countries that used to source coal from China had to source it from countries further away, leading to a rise in bulk trade

expressed in tonne/kilometers. Future demand for bulk commodities in China and elsewhere in the developing world will likely impact trading patterns in the years to come.

1.7.5 How trade patterns are impacted by the recession will also hinge on the way domestic savings and consumption are impacted by the recovery and how these, in turn, affect international trade. Should households in OECD countries reduce debt and increase savings, consumption of finished goods from developing countries (principally China) might drop- and this would impact container vessel activity. A rebalancing of China-OECD trade flows might relieve imbalances in the trans-pacific and Asia-Europe container trades – but imbalances are likely to remain albeit at a lower scale. At the same time if savings-rich countries, like China, increase domestic consumption, demand for bulk commodities may increase thus leading to a relative increase in bulk shipping volumes. (This section – para 1.7.1 to para 1.7.5 draws extensively on facts/analysis given in “Transport Outlook 2009: Globalisation, Crises & Transport May, 2009, Preliminary version, Joint Transport Research Centre of the OECD & International Transport Forum).

1.7.6 One unexpected impact of the changes in freight rates is that, for many operators, it is becoming less expensive to round the Cape of Good Hope rather than taking the Suez Canal. The cost per day of chartering a 170 000 tonne bulk carrier declined from US \$ 200 000 in August 2008 to US \$ 20 000 in February 2009. The longer voyage via the Cape of Good Hope is now less expensive than taking the Suez Canal US \$ 600 000 for a 9 000 TEU container carrier). At the same time, the price of diesel for ships has fallen by nearly two-thirds (from US \$ 700 per tonne to US \$ 230) and counting savings on insurance costs by avoiding passage through the Gulf of Aden, the extra seven days via the Cape of Good Hope can produce substantial savings in money terms. (This para draws on facts given in “Transport for a Global Economy, Challenges and Opportunities in the Downturn May, 2009, International Transport Forum).

1.7.7 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 difficult to escape.

1.8 Impact of global growth on India's seaborne cargo

1.8.1 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. This sharp deceleration in the growth of cargo comes to the fore when viewed in the backdrop of commodity growth profile of cargo traffic during the four quarters in the course of 2008-09 (Table 9).

Table:9 Quarter wise Growth in India's Cargo Traffic at Major Ports & GDP								
	2007-08				2008-09			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP*	9.2	9.0	9.3	8.6	7.8	7.7	5.8	5.8
GDP Mfg.	10.0	8.2	8.6	6.3	5.5	5.1	0.9	-1.4
Growth in Commodity wise Cargo Traffic (in tonnes)								
POL	18.7	10.7	3.2	6.5	0.4	5.3	5.2	5.6
Iron Ore	4.9	14.6	17.3	18.4	15.0	-14.2	-4.3	9.6
Coal	8.4	12.9	11.7	-0.1	18.3	14.7	-0.1	6.7
Fertiliser	35.7	25.1	9.6	9.2	28.1	24.0	22.4	-43.1
Container	34.3	24.1	26.8	27.5	17.6	11.5	-18.5	-13.4
Others	2.0	3.9	2.1	2.6	1.2	5.1	-22.0	-14.8
Total	14.2	13.3	10.3	10.6	9.0	5.4	-3.4	-1.4
GDP: Gross Domestic Product at factor cost at 1999-2000 prices; Mfg.. Manufacturing								

1.8.2 On a quarterly basis during the course of 2008-09, the growth in total cargo traffic at major ports fell from 9% in Q1 (April-June 2008) to 5.4% in Q2 (July-September 2008), -3.4% in Q3 (October-December 2008) and -1.4 Q4 (January-March 2009). Quarter wise trajectory of growth in POL traffic shows a steady built up in growth from 0.4% in Q1 to 5.3% in Q2 to 5.2% in Q3 and 5.6% in Q4. A noteworthy aspect of quarter wise growth trajectory in container traffic during the course of 2008-09 is its dramatic collapse from 17.6% in Q1 to 11.5% in Q2, -18.5% in Q3 and -13.4% in Q4. The growth trajectory in container traffic which is driven by trade in manufactures and components to a large extent reflects weakening of GDP originating in the manufacturing from 5.5 % in Q1 to 5.1% in Q2, 0.9% in Q3 and -1.4 Q4 during course of 2008-09.

BOX 1: Boom and bust in shipping

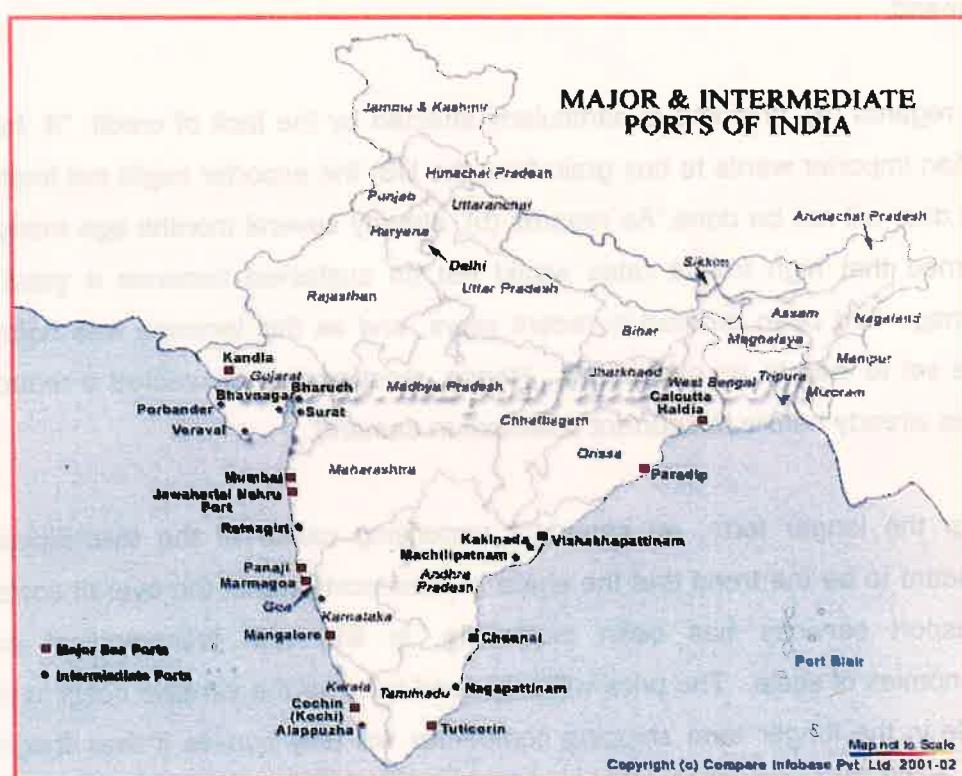
- Vessel charter rates and freight costs have become ever more volatile in recent years. On 5 December, the Baltic Dry Index stood at 663 points – a decline of 95 percent in five months. Containership charter rates, too, have been fluctuating much more in this decade than in previous decades. “The shipping industry is now attempting to undo the self-inflicted damage of a bloated new building order book, the growth of which has encouraged a near doubling of shipbuilding capacity in the past ten years.”
- Two main causes of the current bust are (a) the downturn in demand, including the difficulty to obtain trade financing, and (b) the fluctuations of a more general shipping cycle. The particularly strong decline towards the end of 2008 is due to the fact that the downturn in the shipping cycle has coincided with a historically strong downturn in demand.
- As regards (a), shipping is particularly affected by the lack of credit. “If, for instance, an Indian importer wants to buy grain from the US, the exporter might not trust you and then the deal will not be done.” As regards (b), already several months ago many analysts had warned that high freight rates would not be sustained because a great deal of new tonnage had been ordered in recent years, and as this tonnage was being delivered, it was set to lead to an oversupply. Hence, most analysts expected a reduction in freight rates already before the current downturn in demand.
- Over the longer term, an important underlying cause of the ever-higher fluctuations appears to be the trend that the share of fixed costs within the overall costs of supplying transport services has been increasing, in line with technological advances and economies of scale. The price will only need to cover the variable costs in the short term, while in the longer term shipping companies will only survive if their freight rates cover their total average unit costs. In the short term, however, they may choose to supply shipping services even if their average unit costs are not covered by the freight rate, as long as the short-term marginal costs are covered. As a result, a small surplus or shortage of supply will lead to larger fluctuations in the price.
- The supply of shipping capacity is very inelastic in the short term, as it takes time for the supply of capacity to adjust to changes in demand. Consequently, small fluctuations in demand lead to large fluctuations in the freight costs in the short run.

Source: UNCTAD Transport Newsletter, No. 41, Fourth Quarter 2008.

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 ten 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

2.4.1.2 The trends in the cargo handled at both major and non-major ports of Gujarat State during 2004-05 to 2008-09 are given in Table: 10. The overall growth in port cargo traffic in case of Gujarat was 5.9% during 2008-09 compared to 2% for overall cargo growth for India.

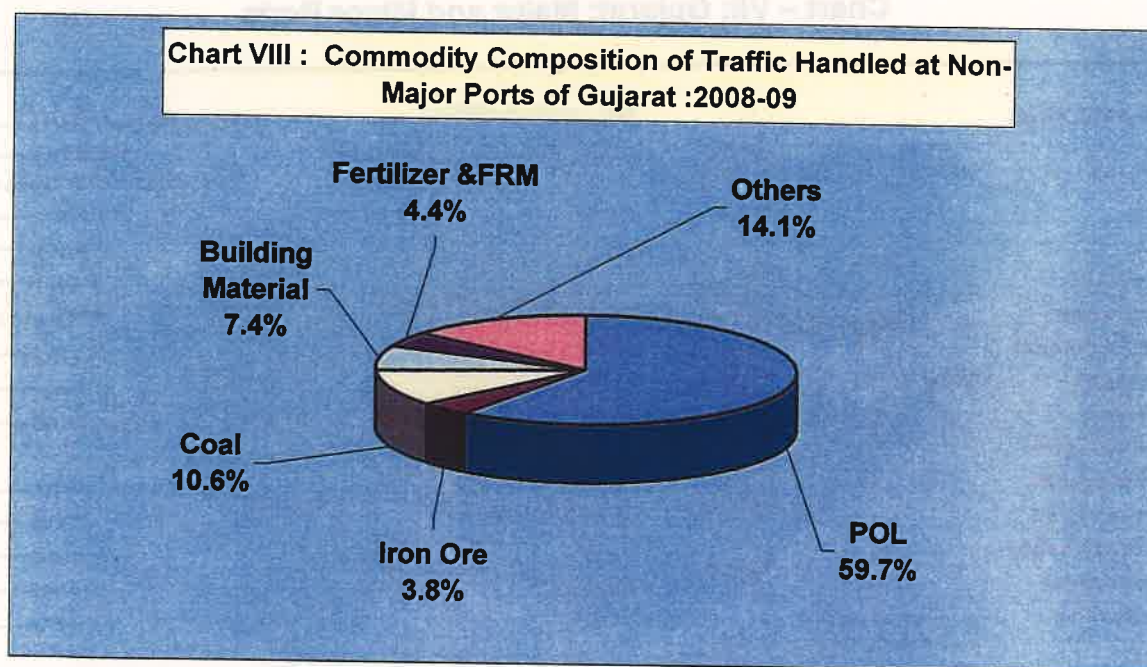
Table : 10 Gujarat: Trends in Cargo Handled at Major & Non-Major Ports (Million Tonnes)

Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	41.55 (0.1)	45.91 (10.5)	52.98 (15.4)	64.92 (22.5)	72.23 (11.3)
Non-Major Ports	97.13 (8.7)	108.08 (11.3)	132.44 (22.5)	147.60 (12.4)	152.80 (3.5)
All Ports	138.68 (6.0)	153.99 (11.0)	185.42 (20.4)	212.49 (15.3)	225.03 (5.9)

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 around 31% of the total cargo handled by Indian ports in 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 non major ports on its coastline. It announced an integrated Port Policy in December 1995. The salient features of the Policy are given in the Box:2

Box: 2-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: 11. It indicates sustained increase in cargo throughput and capacity addition. During the year 2008-09, 38 million tonnes of capacity has been added taking the total cargo handling capacity in the non major port sector in the Gujarat to 235 million tonnes.

Table : 11 - Gujarat: Non Major Ports - Current Capacity & Utilization (Million Tonnes)

Item	2004-05	2005-06	2006-07	2007-08	2008-09
Capacity*	152.23 (4.9)	163.23 (11.0)	182.0 (18.77)	197.0 (15.0)	235.0 (38.0)
Cargo Handled	97.13	108.08	132.44	147.60	152.80
% Utilization	63.80	66.21	72.14	74.92	64.89
* 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 list of projects undertaken for capacity augmentation and portwise trend in capacity creation are given in the Table12 & 12A respectively.

Table : 11 Major projects undertaken at Non Major Gujarat Ports				
No.	Year	Major Projects undertaken	Capacity addition	Cumulative capacity
Up to 2003			138	138
1	2003-04	<ul style="list-style-type: none"> • Container terminal at Mundra • GMB jetty at Navlakhi • Private jetty at Jakhau 	6 1 1	146
2	2004-05	<ul style="list-style-type: none"> • Dahej LNG terminal 	5	151
3	2005-06	<ul style="list-style-type: none"> • Container and Bulk terminal at Mundra • LNG Terminal at Hazira 	8.5 2.5	164
4	2006-07	<ul style="list-style-type: none"> • Hazira: Extension of captive jetty by Essar • Mundra: T-2 bulk terminal at Mundra • Mundra: Additional 2 berths for container 	8 6 2	182
	2007-08	<ul style="list-style-type: none"> • Establishment of additional one SPMs at Sikka by M/s Reliance. • Expansion of Pipavav port by Gujarat Pipvav port Ltd. • Private jetty at Navlakhi 	10 5 1	198
5	2008-09	<ul style="list-style-type: none"> • Establishment of additional 2 SPM • SPM at Sikka by BORL 	25 12	235
6.	2009-10#	<ul style="list-style-type: none"> • Establishment of SPMs at Bhogat by Cairn Energy • Deepwater jetty by Essar at Magdalla port 	10 15	260
#: expected; Source : Gujarat maritime Board				

Table 12A : Trends in capacity creation (Million TPA)						
Ports	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
Mundra (GAPL)	17.70	28.20	36.20	36.20	36.20	36.20
Mundra (GAB)	0.24	0.24	0.24	0.24	0.24	0.24
Okha	3.96	3.96	3.96	3.96	3.96	3.96
Bedi	5.69	5.69	5.69	5.69	5.69	5.69
Pipavav (GPPL)	9.41	9.41	9.41	14.41	14.41	14.41
Magdalla	14.55	17.05	27.05	27.05	27.05	42.05
Navalakhi	3.82	3.82	3.82	4.82	4.82	4.82
Sikka	57.57	57.57	57.57	67.57	104.57	104.57
Porbander	5.26	5.26	5.26	5.26	5.26	5.26
Veraval	2.17	2.17	2.17	2.17	2.17	2.17
Muldwarka	7.72	7.72	7.72	7.72	7.72	7.72
Jafrabad	4.53	4.53	4.53	4.53	4.53	4.53
Dahej	13.19	13.19	13.19	13.19	13.19	13.19
Bhavnagar	1.18	1.18	1.18	1.18	1.18	1.18
Jakhau	3.25	3.25	3.25	3.25	3.25	3.25
Mandvi	0.32	0.32	0.32	0.32	0.32	0.32
Gogha	0.08	0.08	0.08	0.08	0.08	0.08
Bhooj	0.00	0.00	0.00	0.00	0.00	0.00
Total	151.00	164.00	182.00	198.00	235.00	260.00
*: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.

Box:3- 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. These ports are expected to be ready for cargo handling in next 3-4 years. The proposed capacity of these ports is given in Table: 13.

Table 13 :Maharashtra: Proposed Capacity Creation
(in million tonnes per annum)

Port	Initial Phase	Ultimate Phase
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 2004-05 to 2008-09 are given in Table: 14.

Table : 14 Maharashtra: Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	68.00 (11.1)	82.03 (20.7)	97.18 (18.5)	112.88 (16.2)	109.17 (-3.3)
Non-Major Ports	12.14 (17.5)	11.16 (-8.1)	11.58 (3.8)	11.61 (0.3)	10.41 (-10.3)
All Ports	80.14 (12.0)	93.19 (16.3)	108.76 (16.7)	124.49 (14.5)	119.58 (-3.9)
Figures in bracket represents percentage change over the previous year /period (P) Provisional					

2.4.3 GOA

2.4.3.1 Goa with a coastline of about 118 kms is criss-crossed by 7 rivers. Apart from the major port at Mormugao, 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) 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 2004-05 to 2008-09 are given in Table: 15.

Table :15 Goa : Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	30.66 (10.0)	31.69 (3.4)	34.24 (8.0)	35.13 (2.6)	41.68 (18.7)
Non-Major Ports	8.46 (0.2)	11.76 (39.0)	14.31 (21.6)	12.83 (-10.4)	11.90 (-7.20)
All Ports	39.12 (7.7)	43.45 (11.1)	48.55 (11.7)	49.44 (1.8)	53.58 (8.4)
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 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 2004-05 to 2008-09 are given in Table: 16.

Table :16 Karnataka:Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	33.89 (27.1)	34.45 (1.6)	32.04 (-7.0)	36.02 (12.4)	36.69 (1.9)
Non-Major Ports	3.51 (200.0)	4.12 (17.4)	6.56 (59.4)	2.70*	2.95* (9.3)
All Ports	37.40 (34.3)	38.57 (3.1)	38.60 (0.00)	38.72	39.64 (2.1)
Figures in bracket represents percentage change over the previous year Period; (P) : Provisional; MT : Million Tonnes * : Pertain to Karwar Port only.					

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 2004-05 to 2008-09 are given in Table: 17. In Kerala of the 4 non major ports 3 ports,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.

Table : 17 Kerala : Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	14.10 (3.9)	13.88 (-1.6)	15.26 (9.9)	15.81 (3.0)	15.23 (-3.7)
Non-Major Ports	0.08 (33.3)	0.14 (75.0)	0.17 (21.4)	0.17* (0.0)	0.17* (0.0)
All Ports	14.18 (4.0)	14.02 (-1.1)	15.43 (10.1)	15.85 (10.4)	15.40 (-2.8)
Figures in bracket represents percentage change over the previous year/period; (P) : Provisional; MT : Million Tonnes; * : Estimated					

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 2004-05 to 2008-09 the last few years and first six months of the current and previous year are given in Table:18.

Table:18 Tamil Nadu: Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	69.10 (15.8)	73.56 (6.4)	82.13 (11.7)	90.20 (9.7)	91.00 (0.9)
Non-Major Ports	0.85 (23.2)	0.71 (-16.5)	0.81 (13.2)	0.89 (11.7)	0.90 (1.1)
All Ports	69.95 (15.9)	74.27 (6.2)	82.94 (11.7)	91.09 (9.8)	9.90 (0.9)
Figures in bracket represents percentage change over the previous year /period (P) Provisional; MT Million Tonnes					

2.4.6.2 Sethu Samudram Ship Canal Project (SSCP)

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 approved in 2005 was 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 2nd of July 2005.

2.4.6.2.3 Pursuant to the direction of the Supreme Court in July,2008, a committee of Experts has been constituted by the Government of India under the Chairmanship of Dr.R.K.Pachouri , Director General, TERI to consider alternate alignment for SSCP.

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

The proposed investments in approved port projects are (i) Gangavaram Port (Rs.2000 crore); (ii) Krishnapatnam Port (Rs.850 crore); and (iii) Kakinada Deep Water Port Expansion (Rs.230 crore). The projects under pipeline are (i) Machilipatnam Port (Rs.1000 crore); and (ii) Nizampatnam Port (Rs.1000 crore).

2.4.7.3 The various measures taken by the government of Andhra Pradesh are expected to increase capacity of s non-major ports in Andhra Pradesh to 31.85 million tonnes by March 2009.

2.4.7.4 The trends in the cargo handled at both major and non-major ports of the State during 2004-05 to 2008-09 the last few years and first six months of the current and previous year are given in Table: 19.

Table:19 Andhra Pradesh: Trends in Cargo Handled at Major & Non-Major Ports(MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	50.15 (5.1)	55.80 (11.3)	56.39 (1.1)	64.60 (14.6)	63.91 (-1.1)
Non-Major Ports	15.07 (50.4)	18.43 (22.3)	18.61 (1.0)	19.26 (3.3)	18.90 (-1.9)
All Ports	65.22 (12.9)	74.23 (13.8)	75.00 (1.0)	83.86 (11.8)	82.81 (-1.2)
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.

2.4.8.2 The trends in the cargo handled at both major and non-major ports of the State during 2004-05 to 2008-09 are given in Table 20.

Table : 20 Orissa : Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	30.10 (18.9)	33.11 (10.0)	38.52 (16.3)	42.44 (17.7)	46.41 (9.4)
Non-Major Ports	-	-	-	0.95	2.00 (110.5)
All Ports	30.10 (18.9)	33.11 (10.0)	38.52 (16.3)	43.39 (12.7)	48.41 (11.6)
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 2004-05 to 2008-09 are given in Table: 21.

Table : 21 West Bengal-Trends in Cargo Handled at Major & Non-Major Ports (MT)					
Major/Non-Major	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Major Ports	46.21 (12.0)	53.14 (15.0)	55.05 (3.6)	57.33 (4.1)	54.05 (-5.7)
Non-Major Ports	-	-	-	-	-
All Ports	46.21 (12.0)	53.14 (15.0)	55.05 (3.6)	57.33 (4.1)	54.05 (-5.7)
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 2004-05 to 2008-09 are given in Table: 22.

2.4.10.2 Presently, the cargo handling capacity 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.

Table : 22 Union Territories: Trends in Cargo Handled at Non-Major Ports(MT)

	2004-05	2005-06	2006-07	2007-08	2008-09 (P)
Andaman & Nicobar Islands	0.88	0.92	0.92	2.16	2.01
Lakshadweep	0.03	0.03	0.03	0.03	0.03
Puducherry	0.06	0.10	0.03	0.01	0.04

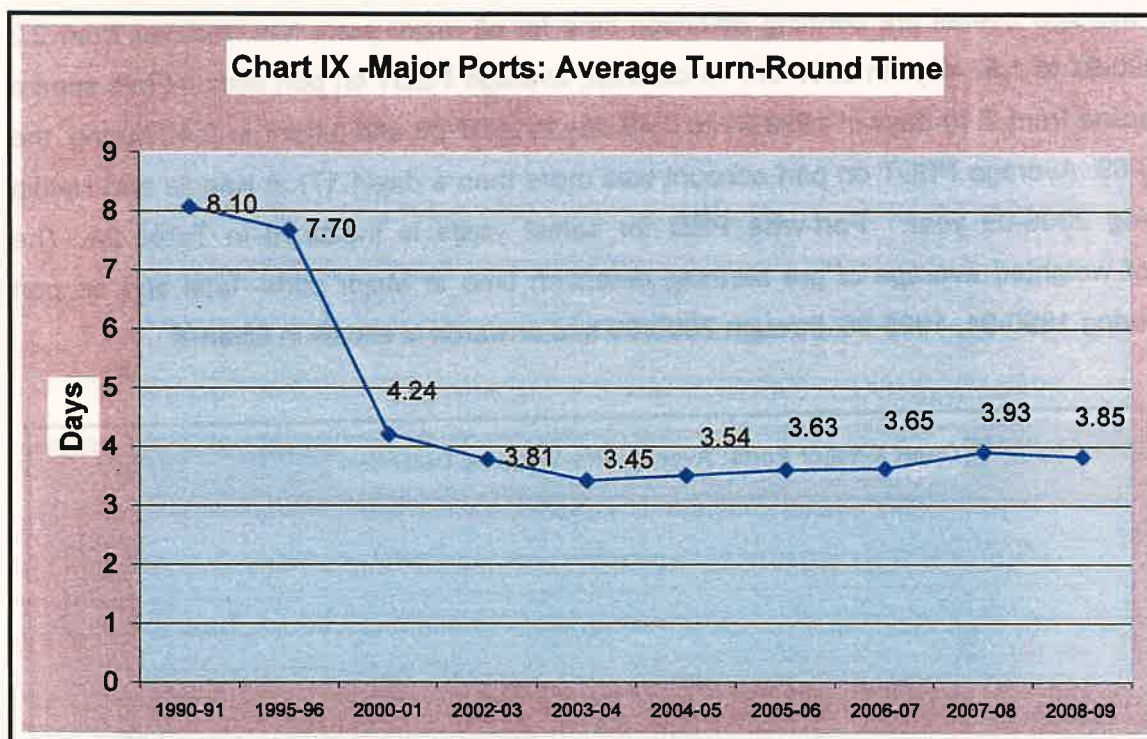
(P) Provisional - negligible

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 operational indicators of physical performance pertaining to major ports for the years 1990-91, 1995-96, 2000-01 through 2008-09 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 3.85 days in 2008-09. It is observed that during 2008-09, the TRT varied in a range between 1.96 days at Jawahar Lal Nehru (JLN) Port to 5.20 at Kandla. Amongst the 12 major ports improvement in TRT during 2008-09 in comparison to 2007-08 is discernible in case of Kolkata, Haldia, Paradip Chennai Tuticorin, New Mangalore and Mormugao. Port-wise TRT for select years are given in Table:23. The path of turn round time at major ports for select years since 1990-91 to 2008-09 is presented in the Chart IX.



Turn-Round Time - Total time spent by a ship since its entry till its departure.

Table 23: Average Turn Round Time (days)

Port	1990-91	2000-01	2005-06	2006-07	2007-08	2008-09(P)
1	2	3	4	5	6	7
Kolkata D.S	11.90	5.50	4.12	4.38	4.87	4.60
Haldia D.C	6.47	3.97	4.89	3.85	4.48	4.21
Paradip	8.40	4.16	3.56	3.54	5.54	4.78
Vishakhapatnam	7.07	3.71	3.79	3.65	3.91	3.93
Ennore			2.23	1.89	2.08	2.35
Chennai	7.20	5.83	3.32	3.36	4.55	4.15
Tuticorin	4.70	4.10	2.83	3.67	3.80	3.66
Cochin	4.00	3.11	2.70	2.17	1.99	2.14
New Mangalore	4.96	2.89	3.00	3.14	3.21	3.00
Mormugoa *	6.40	4.25	4.08	6.15	4.03	3.61
J.L.Nehru		2.21	1.97	1.43	1.85	1.96
Mumbai	10.80	5.20	4.06	4.63	4.20	4.73
Kandla	10.00	4.72	4.39	5.46	5.13	5.20
All Ports	8.10	4.24	3.63	3.65	3.93	3.85

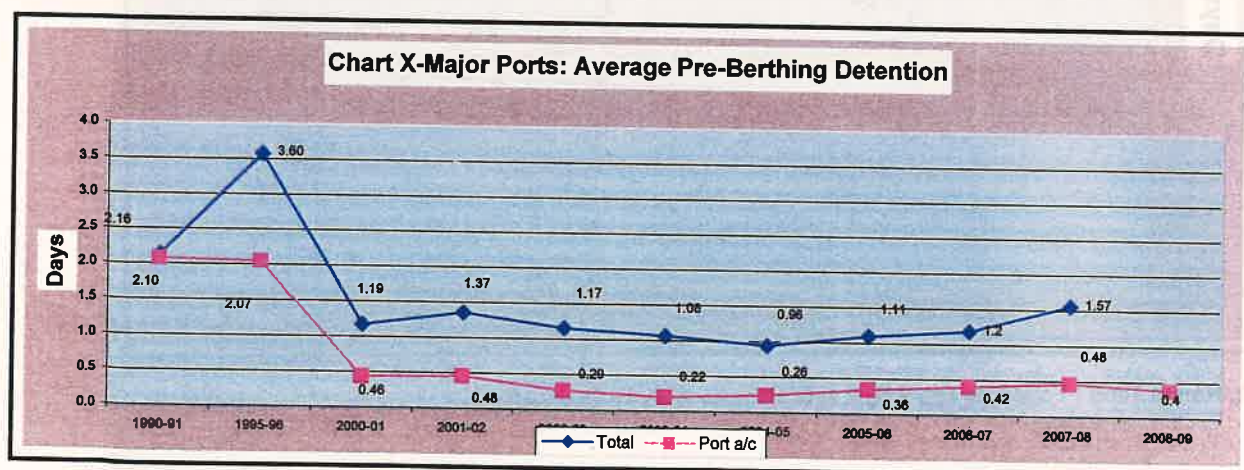
(P) Provisional

* 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 0.40 during the year 2008-09. Average PBDT on port account was more than a day(1.17) at Kandla and Haldia (1.02) during 2008-09 year. Port-wise PBD for select years is indicated in Table 24. The trajectory of weighted average of pre berthing detention time at Major ports- total and on port account -during 1990-91, 1995-96 through 2008-09 and onwards is shown in Chart X.



Pre-Berthing Detention - The time for which a ship waits before getting entry into berth.

Table 24 : Average Pre-Berthing Detention(Days)						
Port	1990-91	2000-01	2005-06	2006-07	2007-08	2008-09* (P)
1	2	3	4	5	6	7
Kolkata D.S	0.90	0.61	0.40	0.43	0.51	0.05
Haldia D.C	1.66	0.91	2.15	1.92	2.86	1.02
Paradip	1.59	1.41	1.04	1.06	2.97	0.05
Vishakhapatnam	1.83	0.75	1.03	0.93	1.10	0.18
Ennore			0.19	0.13	0.30	0.03
Chennai	2.10	2.45	0.65	0.58	1.56	0.04
Tuticorin	0.90	1.40	0.73	1.24	1.23	0.14
Cochin	0.83	0.74	0.57	0.58	0.60	0.05
New Mangalore	0.79	0.77	0.78	0.64	0.63	0.04
Mormugoa**	2.51	1.32	2.11	2.53	2.16	0.48
J.L.Nehru		0.67	0.86	0.56	0.84	0.41
Mumbai	3.40	1.26	1.00	1.00	0.97	0.30
Kandla	4.40	1.51	1.66	2.68	2.63	1.17
All Ports	2.16	1.19	1.11	1.20	1.57	0.40
(P): Provisional. * Relates to Port Account only; ** Relate to dry bulk cargo for MOHP(Mech.) and Berth No. 10 &11 (Mech.) Source: Major Ports/ Indian Ports Association(IPA)						

3.4 Average Output Per Ship Berth-day

3.4.1 During the last 18 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 10,960 tonnes in 2008-09 for major ports. However, average output per ship berth day is marked by substantial variation across major ports ranging from a high 28,429 tonnes in case of Ennore to a low of 3477 tonnes at Kolkata Dock System during 2008-09. 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 2008-09 as compared to 2007-08 is discernible in Paradip, Vishakhapatnam, Chennai, Tuticorin, New Mangalore, Mormugao, JNPT and Kandla. Port-wise average output per Ship-berth day for selected years and latest period are given in Table: 25.

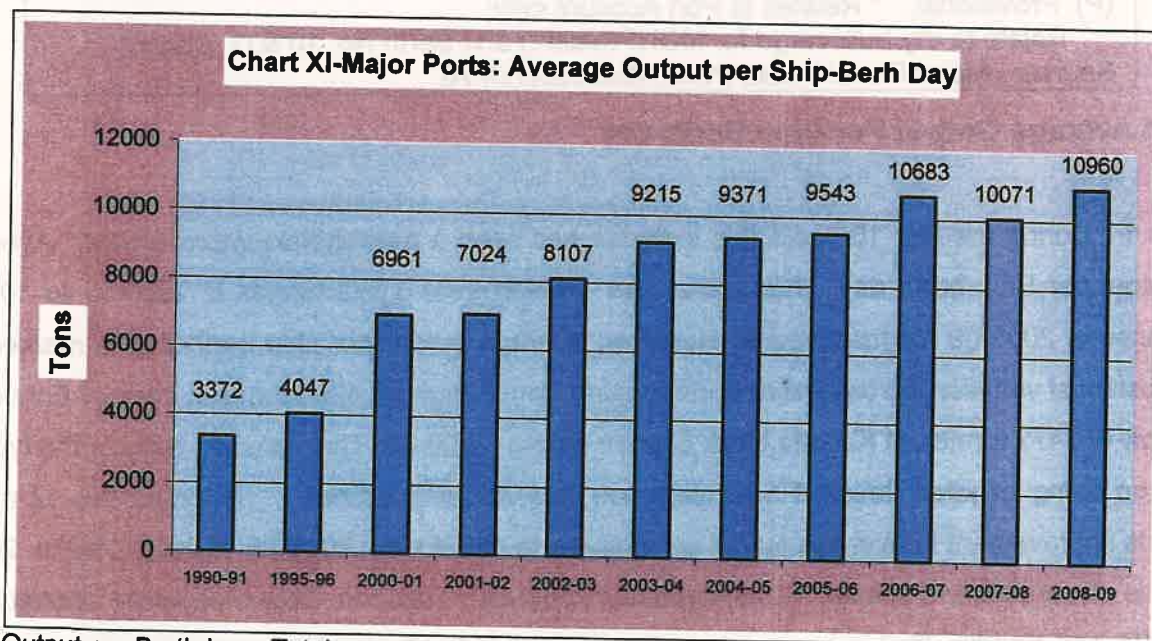
Table 25 : Average Output per Ship-Berth-Day (Tonnes)

Port 1	1990-91 2	2000-01 3	2005-06 4	2006-07 5	2007-08 6	2008-09 (P) 7
Kolkata D.S	560	2305	3984	4490	3702	3477
Haldia D.C	5659	6384	8755	8770	8353	7643
Paradip	4082	8503	11316	11795	11181	12635
Visakhapatnam	5325	9799	10558	10868	10600	11171
Ennore			33614	35113	35251	28429
Chennai	3912	6977	10378	10165	10385	10893
Tuticorin	2130	3983	5392	5051	5348	5574
Cochin	3714	6138	7778	8282	10934	10417
New Mangalore	4412	12192	15057	13080	12664	13644
Mormugoa*	10429	12438	16834	17799	17106	20797
J.L.Nehru		6383	16150	16727	20171	22772
Mumbai	2310	4213	6314	5942	7196	6190
Kandla	4417	8230	8700	9843	11082	12998
All Ports	3372	6961	9543	10683	10071	10960

(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.



Output per Berthday – Total tonnage handled distributed over total number of berth days

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 31.3.2009 are brought out in Appendix-I, Appendix-II in respect of Major Ports and in Appendix-III, Appendix-IV for Non –Major Ports.

Appendix – 1

**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.
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.	Construction of two New Off-shore Container berths & Development of Container Terminal berth on BOT basis in Mumbai Harbour.	Mumbai Port	0.80 MTEUs	14610	M/s. ICTPL (BOT) operator took over BPX yard and commenced it on 15.6.2008. EPC contract awarded by BOT operator on 2.12.08. Work order for dredging work issued on 1.4.09.
5.	Captive Coal Berth at Trombay.	Mumbai Port	4.0 MTPA	580	With the approval of the Board, permission was granted to M/s. Tata Power Company Ltd. On 13.5.08 to construct captive coal berth at Pir Pau within their premises within port limit. The berth is expected to be commissioned by May 2009.
6.	Development & Operation, management and maintenance of Berth 11&12 as Container Terminal (BOT Basis – M/s ABG Industries)	Kandla Port	7.20 MTPA	4468 (Investment of Port is 1160 and that of M/s ABG is 3308)	The 1 st phase of Container Terminal at Berth No. 11 commenced on 10.03.2007. (achieved) 2 nd Phase is expected to complete in March, 2009.
7.	Phase II : Deepening of IH entrance channel and turning circle from 11mts. To 12.5 mts. Draft.	Visakhapatnam	1.2 MTPA	700	The process of calling tenders for deepening has been initiated.

8.	Development of Berth No. 7 for handling coal cargo on DBFOT basis	Mormugao	4.61	2520	RPF issued. First pre bid meeting held.
9.	Development of existing 8 th Berth as Container Terminal	Tuticorin	3.6	1500	The RFQ stage has been completed. PPPAC Clearance is sought.
10.	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&F on 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 being 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 being implemented through Indian Railways by funding from the Dept. of Shipping and RVNL is the execution agency. Acquisition of land is nearing completion. RVNL was 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</p>

					<p>casting of I-Girders and trough girder are in progress. Launching of trough girders completed. Over all progress 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 6th 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. The GOI has accorded sanction to fund the project through Grant-in-Aid by GOI to the extent of Rs. 297.42 crore and loan assistance of Rs. 83.83 crores towards capital investment.</p> <p>For Capital-cum-maintenance dredging Contract for the work awarded to M/s. Jaisu Shipping Co. Pvt. Ltd., Kandla, on 27.11.08. Work commenced on 11.12.08 and is in progress. Physical progress is 18%.</p>
11.	Construction of Coal Jetty by M/s. Udupi Power Corporation Ltd. (UPCL) Erstwhile NPCL.	New Mangalore	3.00 MTPA	2300	Work started at site and is in progress. Anticipated date of completion is December,2010.
<p>No Information from Kolkatta, Haldia, Tuticorin & 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. LOA has been issued in favour of the consortium firm Noble Group Ltd., Gammon Infrastructure Projects Ltd. And MMTC Ltd. On 30.04.09.
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 of 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. The price bids have been received & opened on 15.04.09. After evaluation, Board of Trustees recommended for retendering subject to approval of Govt.
3.	Development of two Multi-Purpose berths to handle clean cargo including container on BOT basis.	Paradip	5 MTPA	3873	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. DPR has been prepared & is under scrutiny. In the mean time, PPT is finalizing the appointment of Transaction Advisor.
4.	Construction of Container Termini	Ennore Port	18 MTPA	14070	22 Applicants submitted their

	nal (BOT- Basis)				<p>applications. 6 Applicants were short-listed with the approval of the Board of Directors of EPL on 27.06.2008. The draft 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 & Highways, Ministry of Finance, Ministry of Law & 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 th Container Terminal & Marine Chemical Terminal (BOT Basis)	Jawaharlal Nehru Port	1.5 MTEUs & 6 MTPA	<p>41000 Phase - I</p> <p>26000 Phase - II</p>	<p>Feasibility Report is sub-mitted 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. M/s Axis Bank has been appointed as Adviser. The Adviser has submitted final report on the technical, commercial and financial aspects. The ministry has approved to take up the project on BOT basis. Draft RFQ has been approved by the Ministry on 3.1.09. FRQ documents have been invited.</p>
8.	Development of standalone	Jawaharlal Nehru	...	6000	<p>M/s Axis Bank has been appointed as Adviser for the project. The</p>

	container handling facility with a quay length of 330 m. to the north of JNPT.				Adviser has submitted Feasibility Report. Port has shortlisted two parties based on the RFQ submission. The PPPAC memo has been sent to Ministry on 12.03.09. List of parties for security clearance has been sent to the Ministry.
9.	New Cruise Terminal near Gateway of India (BOT Basis)	Mumbai Port	-	18600	Final DPR from M/s. Zebec Marine Consultant and services received on 14.01.09. Clearance sought on 20.10.08 & 16.10.08 from Navy \$ MCGM respectively for the project. Navy has objected to the location of the cruise Terminal on security ground. Meeting is being arranged with Naval Authorities to sort out the matter.
10.	Privatisation of three cargo terminals (BOT Basis)	Mumbai Port	-	600	The Board in its meeting held on 12.04.05 approved the private sector participation to develop the conventional cargo terminal in Indira Dock on BOT basis. It was decided to ammend the tender document providing protection to the workers and other labour related conditions and finalise the tender documents for advertisement after completion of tender process for development of 16/17 ID as dedicated dry bulk terminal with private sector participation. No progress thereafter and the project is kept in abeyance.
11.	Development of 16/17 ID as a dedicated dry bulk terminal (BOT Basis)	Mumbai Port	-	350	The Board in its meeting held on 10.05.05 approved the private sector participation for development and operation of 16/17 ID as dry bulk handling terminal. Tender invited on 7.9.05. Fresh tender readvertised on 4.7.06. Only one bid received from a consortium of M/s. Chettinad Logistics Pvt. Ltd. Price proposal was opened on 20.12.06 and scrutinized. The offer of the consortium was financially not viable to the port. Hence, Tender was discharged by the Board on 20.03.07.
12.	Construction of 13 th to 16 th cargo berths.	Kandla Port	8 MTPA	4401	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. Upfront Tariff has been approved by TAMP on 17.10.2008. A proposal seeking PPPAC clearance has been submitted to Ministry on 23.12.2008. The proposal was considered and discussed on PPPAC meeting held on 20.2.2009. The RPF & DCA were submitted for approval in its meeting dated 4.4.2009.
13.	Creation of berthing and allied facilities off Tekra near Tuna (Outside Kandla Creek)	Kandla Port	12 MTPA	4920	The work for geotechnical investigation has been completed. A proposal seeking in principal approval from PPPAC has been sent to Mos. Ministry has directed to construct the berths on BOT basis on 26.2.08. M/s. Abacus Legal Group has been appointed as Transaction Adviser. RFQ document has been prepared in house and NIT issued on 11.8.08 and opened on 11.12.08 and same are under scrutiny.
14.	Setting up of Mechanised Iron Ore handling facilities at Berth No. 14.	New Mangalore	3 MTPA (Capacity of Jetty)	2771	Ministry has in principle approved the project on 24th August, 2005. The Ministry has directed to revise the RFP and MCA on 17.10.07. TAMP has approved the upfront tariff proposal on 17.10.2008. The PPPAC memo submitted to the Ministry on 10.11.08. PPPAC Appraisal Committee meeting held on 20.02.09. Cabinet Note is being submitted.
15.	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. "Expression of Interest" was invited keeping last date for submission of EOI as on or before 31.10.2008. Eleven parties submitted their EOI. Action is being taken to prepare the Detailed Pre-feasibility Report.
16.	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..
17.	Allotment of	New	NA	Yet to be	Port proposed to invite bids on open

	waterfront & backup land for providing bunkering facilities at NM Port (BOT Basis)	Mangalore		decided	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.
18.	Development of berth WQ 6 for multi cargo in the Inner Harbour for multi cargoes on BOT basis.	Visakhapatnam	2.08	981	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. The upfront tariff proposal approved by TAMP received on 25.2.09. EFC memo along with draft RFP, MCA documents submitted to Ministry on 27.2.09 for approval.
19.	Development of EQ-10 Berth in Inner Harbour for handling Liquid Cargo & Chemicals on BOT Basis.	Visakhapatnam	1.85	545	Ministry has sought clarification from SEBI inquiry on M/s, Maytas and also sought net worth certificate from the banker. Work order released on 18.8.2008 for appointment of transaction advisers. The upfront tariff proposal approved by TAMP on 25.2.09. EFC memo along with draft RFP, MCA documents submitted to Ministry on 27.2.09. Ministry has sought certain clarifications pertaining to proposal and the same are under consideration.
20.	Mechanized Coal Handling Facilities at General-cum-bulk at Outer Harbour (BOT basis).	Visakhapatnam	9.0 MTPA	4139	RFQ issued on 16.9.2008. RFQ received by 10.11.08. Evaluation is under progress. A letter was addressed to Mos on 24.11.08 for security clearance of RFQ bidders. Work order issued on 31.12.09 for appointment of Transaction Advisers. Revised proposal for fixation of upfront tariff was sent to TAMP on 12.3.09 along with clarification.
21.	Installation of mechanized fertilizers unloading facilities at EQ-7 in Inner Harbour on	Visakhapatnam	4.2 MTPA	1535	RFQ issued on 14.11.2008. Last date of submission of RFQ extended until further notice. For appointment of Transaction advisers, price proposals received and evaluation is under progress. EIA study entrusted

	DBFOT basis.				to Andhra University.
22.	Development of waterfront at west of Breakwater.	Mormugao	...	4500	The DFR is already entrusted to M/s. Transystem, USA in consortium with M/s. MIR PROJECTS, Kerala and they have submitted the inception report. The final report will be submitted by June 2009.
23.	Construction of Two additional Berths at Vasco Bay	Mormugao	5.0 MTPA	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.
24.	Setting up of an International Bunkering Terminal.	Cochin	5 MTPA	950	<p>'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.</p> <p>The Port had invited and received RFQ twice for the Bunkering Terminal Project. During the interactions with the prospective operators 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 'Preparation of Feasibility Report for Development of a Multi-user Liquid Terminal at Puthuvypeen SEZ, under Cochin Port'. IPA have submitted the final report on 24/9/08. Tenders for appointing a Transaction Adviser for Project development were invited on 6.2.09</p>

					from the firms empanelled by the dept. of economic affairs. Eight tenders were received on 25.2.09. Cover "A" the technical bid was opened on the same day and evaluation of bids are under process.
25.	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 Haryana was appointed as Transaction Adviser on 02/06/2008 and they have commenced the assignment on 09/06/2008. Application seeking Prior Environmental Clearance for the project has been submitted to the MoE&F on 3.1.09. Proposal seeking 'In Principal' approval of PPPAC enclosing the PPPAC documents duly prepared by the Transaction Adviser has been submitted to the Ministry on 27.2.09.
26.	Setting up of LNG Regasification Terminal at Puthuvypeen by M/s Petronet LNG Ltd. on captive basis	Cochin	Initial 2.5 MMTPA Final 5 MMTPA	32000	Land development work has been completed by PLL. Construction of Boundary Wall for LNG Terminal and site grading work are in progress. 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. 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. The Cocession Agreement between Cochin Port Trust and M/s. PLL has been executed on 12.3.09. Action is being taken for inviting tenders for appointment of Independent Engineer.
27.	Development of Second Container Terminal on BOT basis	Chennai	8 Lakh TEUs	4917.6	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.
<p>Note: Latest information from Kolkata, Haldia, Tuticorin & Chennai Ports has not been received. Available earlier information is given in respect of these ports</p> <p>Source: 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	350	Construction work is under progress. Work expected to be completed by June 2009.
2.	Nizampatnam Port (PPP-BOOT)	Nizampatnam, A.P.		1500	In progress. Likely date of completion is March, 2012
3	Machilipatnam Port (PPP-BOOT)	Machilipatnam, A.P.		1200	In progress. Likely date of completion is March, 2011
4.	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
5.	Thiruchopuram Port/Nagarjuna Oil Corporation Ltd.	Tamil Nadu	9.3	6000	Construction to be commenced.
6.	Construction of Modern Dry Dock for Ship repair (BY BOOT Basis by 'Three Circle Contractors', Mumbai)	U.T. of (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.
7.	Development of an anchorage port at Gopalpur	Orissa		780	Repair Rehabilitation, Dredging & Addition as facility provided to handled 3 Lake.
8	Development of an all weater Direct berthing port at Gopalpur to cater the requirements of traffic upto year 2016.	Orissa		11200	Presentation to OSCZMA made on 4 th March 2009 OSCZMA clearance is awaited Presentation for finalization of ToR was made on 14 th March 2009. MOEF clearance is awaited due to constraint in land availability. Financial closure is not achieved.
	Development of an	Orissa	40 MTP	23433	

9	all weater Direct berthing port at Gopalpur to cater the requirements of traffic upto end of concessional agreement upto year-2036				The ultimate development of the port upto the concession period is planned for a total traffic of 40 million Tonnes per annum.
10	Expansion and development of Dhamra port	Orissa		24640	Port Construction is in progress.
11	Providing Pollution control Measure at Port Blair Harbour (Haddo Wharf).	A &N Islands		12.37	Work completed, action being taken for the installation at Port Blair.
12	Manufacturing, supplying & installation of Navigational buoys at Chatham in Port Blair.	-do-		11.83	Buoys brought to site, installation being carried out.
13	Construction of RCC structure for local navaid at Middle Andaman.	-do-		24.13	Work awarded Not yet started due to non availability of floating crafts. During Tsunami floating craft damaged and same is under fabrication after fabrication of pontoon work will be started.
14	Shore protection at Rangat Bay Phase-1	-do-		4.29	Main work completed Additional protection work taken up.
15	Conduction survey and Investigation and Environmental studies for construction of jetty at Kausalya Nagar.	-do-		1.17	Sanction received. .Work is in progress Hydrographic and topographic survey completed REIA studies agreement executed.
16	Construction of RCC Jetty at Borinal near Bakuntala in Middle Andaman.	-do-		9.59	Work awarded. Not yet started waiting for portion.
17	Special repairs to Cargo handling equipments at Campbell bay.	-do-	-	3.82	Balance works are under progress to restore the machineries.

18	Special repairs to jetty at Kondul.	-do-	Existing jetties are maintained for safe berthing.	1.50	Work is being taken up.
19.	Special repairs to be mobile TIL crane at Kamorta and Campbell bay	-do-	Safe cargo handling facilities.	6.02	Till crane at C/Bay has been repaired, other machineries repair work are in progress.
20	Attending restoration work at Malacca jety in Car Nicobar.	-do-		6.07	Side walls of approach jetty completed. Revised scope of work is being executed.
21	Special repairs to 06Ton ELL Wharf crane at Hut Bay	-do-		.45	Work commenced to repair Ell Crane to utilize balance amount.
22	Providing & laying of G1 pipe line to the sump at port area at Hut Bay in Little Andaman.	-do-		4.23	Water supply restored, construction of additional sump is in progress.
23	Special repairs to Mobile crane at Hut Bay.	-do-		9.93	EOI called for repairs of all cranes.
24	Supply of polymer gabions to be placed as a unit of 2T-3T weight along the sea side at Break water to protect the core at Break water at Hut Bay.	-do-		1.02	Supply order placed and Gabion received at Port Blair payment made.

Note : Latest information in respect of maritime States/UTs other than Maharashtra & Kerala is not available. Earlier available information is given in respect of States/UTs.
Source: Maritime States/Maritime Boards

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	U.T. of Daman & Diu.		500	Proposal has been submitted for approval to Ministry of shipping.
2.	Cargo & Passenger Landing Facility at Malala in Diu district.	U.T. of Daman & Diu.		600	Proposal has been submitted for approval to Ministry of shipping.
3.	Kakinada Anchorage Port	Andhra Pradesh	1.00 MT	150	The work is in progress.
4.	Krishnapatnam Port (PPP-BOOT) by M/s KPCL	Andhra Pradesh	17 MT	8500	Work is in progress. Likely date of completion is August, 2009.
5.	Nizampatnam Port(PPP-BOOT) by Marix Indfia	Andhra Pradesh	15 MT	10000	Likely date of completion is March 2012.
6.	Machilipatnam Port (PPP-BOOT) by M/s MITHAS	Andhra Pradesh	12 MT	15900	Likely date of completion is March 2011.
7.	Development of Jaigarh Port by M/s. Chowgule Steamship Ltd. (BOOST basis)	Maharashtra	4.02 MTPA	3354.2	LOI issued in September 2006.
8.	Development of Vijaydurg Port (BOOST basis)	Maharashtra	7.5 MTPA	10000	Proposal under scrutiny
9.	Development of Redi Port	Maharashtra	7.4 MTPA	9500	Proposal under scrutiny
10.	Establishing a captive port at Marakkanam in Villupuram District	Tamil Nadu	8 MT	13600	Preparation of Technical Feasibility Report under progress.
11.	Establishing a captive port in Cuddalore District	Tamil Nadu	14 MT	4800	Preparation of Detailed Project Report under progress.
12.	Establishing a captive port at Thirukkadaiyur in Nagapattinam District	Tamil Nadu	5 MT	3650	Preparation of Detailed Project Report under progress.
13.	Establishing a captive port at Cheyyur in Kancheepuram District	Tamil Nadu	14 MT	N.A.	Preparation of Technical Feasibility Report under progress.
14.	Construction of jetty at Panaji-Ribandar, Goa	Goa		300	Administrative work in progress
15.	Establishing a captive port at	Tamil Nadu	Ship building	12000	Detailed Project Report under preparation.

Sl. No	Project	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
	kattupalli in Thiruvallur district				
16.	Establishing coal handling facility within Cuddalore port	Tamil Nadu	3.5	3250	Preparation of Detailed Project Report under progress.
17.	Establishing a captive port at Thirukkuvalai in Nagapattinam district	Tamil Nadu	8	7500	Construction of the facility to be commenced
18.	Establishing a captive port at Thirukkadaiyur in Nagapattinam district	Tamil Nadu	3.5	6770	Technical Feasibility Report under preparation.
19.	Establishing a captive port at Mugaiyur in Kancheepuram district	Tamil Nadu	Ship repair yard		Technical Feasibility Report under study.
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 por.(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.
31.	Construction of proposed jetty at phoenix Bay complex for berthing yatches in	A & N Islands		81.70	Dropped proposal and matter under consideration for shifting J/Ghat

Sl. No	Project	State/ Maritime Board	Capacity (Million Tonnes)	Project Cost (Rs. Million)	Project Status
1	2	3	4	5	6
	Port Blair.				
32	Desilting around the proposed jetty at Phoenix bay complex for berthing of yatches in Port Blair.	-do-		41.70	Dropped proposal and matter under consideration for shifting J/Ghat
33	Construction of 2 Nos. Navigational towers at landing place in shore at Kakana in Nancowry.	-do-		.23	Location yet to be finalized and work is to be started. Sounding chart sent to PMB for finalization of location.
34	Construction of RCC structures and local avaidis of submerged rock including fabrication and erection of navigational tower over cyberous rock at Campbell Bay.	-do-	-do-	1.57	Location yet to be finalized and work is to be started. Sounding chart sent to Port Management Board for finalization of location.
35	Reconstruction of Tsunami destroyed RCC structure and construction of additional RCC structure for local Navaids at eastern entrance of Nancowry Harbour.	-do-		21.50	TSE under preparation and location to be finalized.
36	Construction of RCC platform for focal Navaids for making Western entrance of Nancowry Harbour.	-do-		34.80	TSE under preparation and location to be finalized.
37	Special repairs of Teressa jetty in Nancowry group of Islands.	-do-		1.00	Jetty submerged. Work could not be taken up.
38	Special repairs to RCC jetty at Campbell bay in	-do-		4.17	Revised estimate has been already submitted.

	Great Nicobar.				
39	Construction of RCC platform for local Nav aids at Kamorta for making western entrance of Nancowrie Harbour	-do-	Safe navigation facilities	12.87	TSE under preparation. Location yet to be finalized.
40	Construction of 6 Nos. RCC structure for making navigational channel at Philobhabi in Great Nicobar.	-do-	-do-	.84	Work was under progress, Due to Tsunami effect entire physical structures have been washed away. The report on this is still awaited & requires RCE.
41	Construction of 2 Nos. Navigational towers at landing place in shore at Philobhabi in Great Nicobar.	-do-	-do-	.29	Sounding chart was received for fixing location at Tsunami affected & location yet to be finalized.
42	Construction of 2 Nos. Navigational towers at landing place in shore at Pilomilo in Great Islands.	-do-	-do-	.24	Location yet to be finalized. Works to be started.
43	Construction of 4 Nos. RCC Structure for making Navigational Channel at Pilomilo in Great Islands.	-do-	Safe berthing facilities will be provided	.60	Tsunami affected area, hence work is to be decided.
44	Procurement of consultancy service for consultation of new jetty of inter island vessels and Safed Balu in Teressa Island on Turnkey basis.	-do-	Providing additional berthing Structure at southern group of Islands	39.90	DPR received from the consultant submitted to A&N Admn. and submitted to Ministry of Shipping.
45	Procurement of consultancy service for consultation of new jetty of mainland vessels at Katchal on Turnkey basis.	-do-	-do-	42.10	DPR received from the consultant submitted to A&N Admn. and submitted to Ministry of Shipping.
46	Re-Construction of	-do-	-do-	5.83	Scope of the work changed

	port control Tower at Hut Bay in little Andaman				by PMB. Revised TSE is in progress.
47	Construction of local Navaids at Hut Bay	-do-		12.22	CPA, PMB has informed ALHW to provide floating buoys. Confirmation is required from Administration.
48	Construction of local navaids at Car Nicobar	-do-	-do-	205.03	CPA, PMB has informed ALHW to provide floating buoys. Confirmation is required from Administration.
49	Conducting S&I for landing facilities at Butter Bay in Little Andaman.	-do-	Additional berthing structure to be construction	9.37	Mathematical model studies entrusted to CWPRS Pune. The feasibility and seismic survey report is awaited from CWPRS.

Plan Outlay and Expenditure : Port Sector (Central Sector)

(Rs. Crore)

Name of the Port	Xth Plan Outlay	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	53.64
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	23.50
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	48.77
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	48.98
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	246.33
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	31.44
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	58.07
Momugao	348.06	87.14	43.06	53.85	11.05	33.50	17.92	28.06	20.77	10.10	11.18	22.07	17.52
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	101.47
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	30.11
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	65.12
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	102.43
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	221.22
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	1.00
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	88.50
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	5.00
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	1143.10

(a) Includes Haldia & RR Schemes

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

*: Equity contribution

Source: Department of Shipping/IPA

Commodity-wise Traffic Handled at Major Ports

(000 Tonnes)

Port	Period	POL & its Products	Iron Ore	Thermal Coal	Coking Coal	Ferti. & FRM (Dry)	Food grain	Container		Others	Total
								Tonnes	TEUs		
1	2	3	4	5	6	7	8	9	10	11	12
Kolkata	2005-06	4934	146	0	46	3	10	3234	203	2433	10806
	2006-07	5181	196	0	6	15	75	4003	239	3120	12596
	2007-08	4523	488	0	0	11	560	5155	297	3004	13741
	2008-09 P	3355	482	0	8	9	390	5483	302	2701	12428
Haldia	2005-06	17689	7941	3408	7099	832	34	1910	110	3424	42337
	2006-07	17596	8312	2443	5433	807	7	1918	110	5938	42454
	2007-08	17723	9841	1797	5476	712	5	2397	128	5637	43588
	2008-09 P	16872	8720	1902	5930	541	6	2349	127	5303	41623
Paradip	2005-06	910	10273	12529	3758	1567	0	49	3	4023	33109
	2006-07	1376	11880	12475	4635	2953	0	34	2	5164	38517
	2007-08	1764	12959	13348	4733	3556	0	54	4	6024	42438
	2008-09 P	3240	14272	14698	5464	3569	0	31	2	5138	46412
Visakhapatnam	2005-06	16941	16170	2740	9427	3186	543	631	47	6163	55801
	2006-07	18178	14718	2406	6740	3449	980	799	56	9115	56385
	2007-08	19803	18686	2895	7472	4000	486	1133	71	10122	64597
	2008-09 P	19758	17520	3440	7581	4134	383	1362	88	9730	63908
Chennai	2005-06	13113	9527	1914	5164	1072	1	11757	735	4700	47248
	2006-07	12987	10531	2180	1165	1018	661	14166	885	10706	53414
	2007-08	12794	10815	1888	1656	882	82	18049	1128	10988	57154
	2008-09 P	13112	8247	2435	1664	761	25	20581	1143	10666	57491
Ennore	2005-06	244	537	8387	0	0	0	0	0	0	9168
	2006-07	188	1724	8802	0	0	0	0	0	0	10714
	2007-08	319	2190	9051	0	0	0	0	0	3	11563
	2008-09 P	366	1111	9708	0	0	0	0	0	315	11500
Tuticorin	2005-06	774	0	6146	1094	1442	61	3428	321	4194	17139
	2006-07	626	0	5608	0	1375	54	4011	377	6327	18001
	2007-08	460	0	6112	0	1730	298	5630	450	7250	21480
	2008-09 P	503	0	5880	0	1824	195	5482	439	8127	22011
Cochin	2005-06	9641	0	199	0	679	0	2488	203	881	13888
	2006-07	10475	0	219	0	604	184	2949	226	826	15257
	2007-08	11300	0	246	0	354	6	3239	254	665	15810
	2008-09 P	10491	27	259	0	458	0	3256	260	737	15228
New Mangalore	2005-06	22392	9307	0	513	662	7	149	10	1421	34451
	2006-07	21868	6248	0	1047	995	88	265	17	1531	32042
	2007-08	21781	9266	0	1691	840	56	319	21	2066	36019
	2008-09 P	21328	9774	0	1929	917	111	404	29	2228	36691
Mormugao	2005-06	833	25314	378	3747	228	0	130	9	1058	31688
	2006-07	786	26741	350	3605	226	0	155	13	2378	34241
	2007-08	874	27329	357	3887	192	0	135	14	2354	35128
	2008-09 P	898	33809	449	4107	182	0	147	14	2089	41681
J. L. Nehru	2005-06	2545	0	0	0	0	0	33777	2667	1514	37836
	2006-07	2625	0	0	0	0	0	40811	3298	1379	44815
	2007-08	2189	0	0	0	0	0	51923	4060	1726	55838
	2008-09 P	4551	0	0	0	0	0	50602	3952	2142	57295
Mumbai	2005-06	27781	0	1844	0	595	98	2145	156	11727	44190
	2006-07	31951	0	2533	0	473	857	1580	136	14970	52364
	2007-08	37074	0	2951	0	310	79	1632	118	14992	57038
	2008-09 P	34371	0	3266	0	310	14	1291	92	12624	51876
Kandla	2005-06	24297	2	0	434	1930	1379	2311	149	15554	45907
	2006-07	29711	234	293	411	2221	2024	2778	178	15310	52982
	2007-08	38225	419	935	244	4075	1373	2617	165	17032	64920
	2008-09 P	45539	129	1407	467	5493	1029	2135	138	16026	72225
All Ports	2005-06	142094	79217	37545	31282	12196	2133	62009	4613	57092	423568
	2006-07	153548	80584	37309	23042	14136	4930	73469	5537	76764	463782
	2007-08	168829	91993	39580	25159	16662	2945	92283	6710	81863	519314
	2008-09 P	174384	94091	43444	27150	18198	2153	93123	6586	77826	530369

P : Provisional

Source: Major Ports and Indian Ports Association.

Annex - 3

Commodity Composition of Traffic Handled at Non- Major Ports.

(000 Tons)

Maritime Status / UTs	Period	POL	Iron Ore	Building Material	Coal	Fertiliser & FRM*	Others	Total
Gujarat	2005-06	60149	5191	11000	10541	3636	17558	108075
	2006-07	71159	5713	11231	11306	4208	28825	132442
	2007-08	84179	6078	8945	12978	2857	32561	147598
	2008-09	91160	5873	11261	16161	6771	21576	152802
Maharashtra	2005-06	230	4947	1495	2550	38	1896	11156
	2006-07	576	4582	1772	2290	473	1887	11580
	2007-08	0	4402	2027	1356	0	3828	11613
	2008-09	0	4162	2163	1460	30	2597	10412
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
	2008-09	9445	1905	71	891	3082	3509	18903
Goa	2005-06	0	11428	0	333	0	1	11762
	2006-07	0	14027	0	279	0	0	14306
	2007-08	0	12736	0	89	0	0	12825
	2008-09	0	11901	0	0	0	0	11901
Tamil Nadu	2005-06	592	0	0	0	56	63	711
	2006-07	667	0	8	0	69	61	805
	2007-08	713	0	0	5	93	76	887
	2008-09	801	0	0	0	21	74	896
Karnataka	2005-06	98	3398	9	4	30	578	4117
	2006-07	141	5775	10	2	102	531	6561
	2007-08	54	1958	257	0	36	390	2695
	2008-09	17	2376	377	13	29	142	2954
Others states / Uts #	2005-06	148	0	480	0	17	527	1172
	2006-07	167	0	1027	0	16	586	1796
	2007-08	189	13	1465	0	589	1060	3316
	2008-09	177	28	1231	0	1425	1390	4251
All Non Major Ports	2005-06	69724	28840	13394	13566	5614	24282	155420
	2006-07	81200	33973	14391	14015	6818	35702	186099
	2007-08	94310	28778	12736	14477	5572	42323	198196
	2008-09	101600	26245	15103	18525	11358	29288	202119

Note : All figures for 2007-08 & 2008-09 are provisional.

: Includes Pondicherry, Kerala, Andaman & Nicobar Islands and Lakshadweep Islands.
Data for Kerala pertain to 2008-09.

No traffic was handled at ports from Daman & Diu.

* : Includes liquid fertiliser raw material also.