

3. Inland Water Transport



Liquefied ammonia being transported in a barge across the Kochi backwaters.
Photo: K K Mustafah

3. INLAND WATER TRANSPORT

Concepts and Definitions

Navigable Inland Waterways - A stretch of water, not part of the sea, over which craft of a carrying capacity not less than 50 tonnes can navigate when normally loaded. This term covers both navigable rivers and lakes (natural water courses, whether or not they have been improved for navigation purposes) and canals (water ways constructed primarily for the purpose of navigation). The length of rivers and canals is measured in mid channel and length of lakes, as well as lagoons, is counted as the length between the most distant points between which the transport is performed. An inland waterway forming a common frontier between two countries is reported by both.

National Waterways means an Inland Waterway of India designated as a National Waterway by the Government.

Major Port vis a vis Non-Major Port-The words "major", "intermediate" and "minor", do not have a strict association with the traffic volumes served by these ports. As an example, Mundra Port, a newly developed minor port in the state of Gujarat registered a cargo traffic of around 28.8 million tonnes per annum during the financial year of 2008, which is higher than that of many major ports.

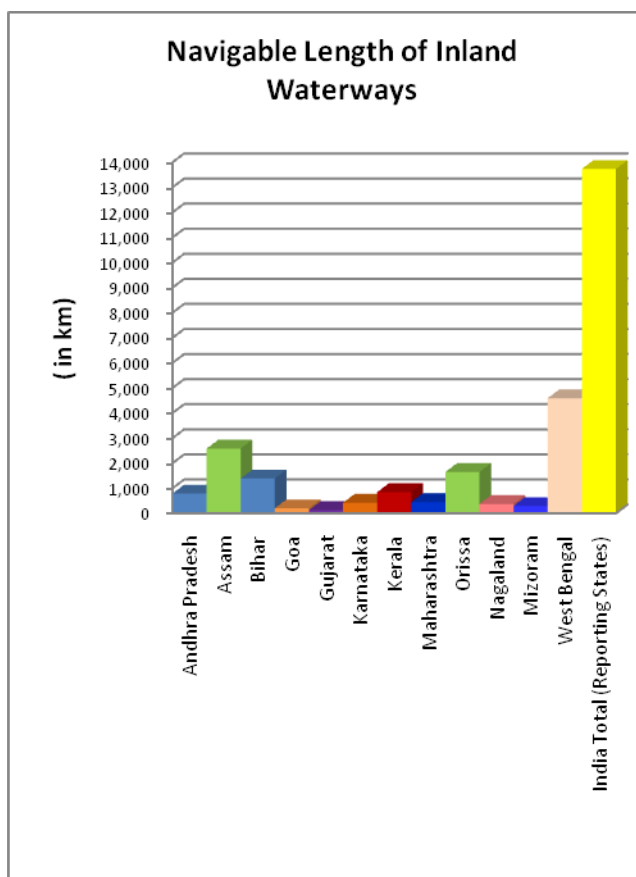
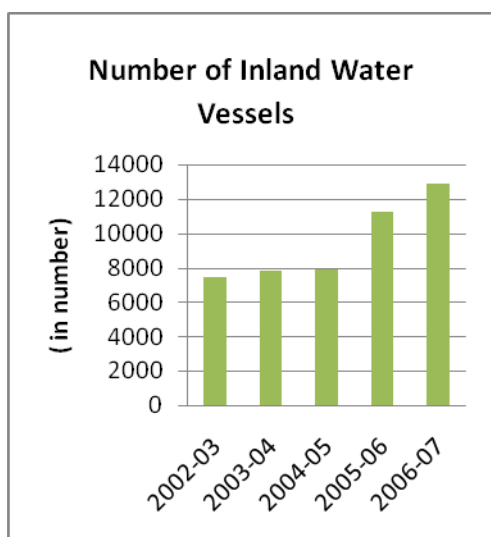
The classification of Indian ports into major, minor and intermediate has an administrative significance. Indian government has a federal structure, and according to its constitution, maritime transport falls under the "concurrent list", to be administered by both the Central and the State governments. While the Central Shipping Ministry administers the major ports, the minor and intermediate ports are administered by the relevant departments or ministries in the nine coastal states of West Bengal, Orissa, Andhra Pradesh, Tamil Nadu, Kerala, Karnataka, Goa, Maharashtra and Gujarat. Several of these 185 minor and intermediate ports are merely "notified", with little or no cargo handling actually taking place. These ports have been identified by the respective governments to be developed, in a phased manner, a good proportion of them involving Public-private partnership

3. INLAND WATER TRANSPORT

3.1 The chief data source for this sector is Transport Research Wing of the Ministry of Road Transport and Highways.

Accessibility

3.2 As on 31st March, 2007 the total navigable length of waterways in the country was 13731.2 kilometre (Table 3A.1). Number of inland water vessels increased from 7434 in 2002-03 to 12906 in 2006-07, showing an impressive CAGR of 15% per annum (Table 3A.4).

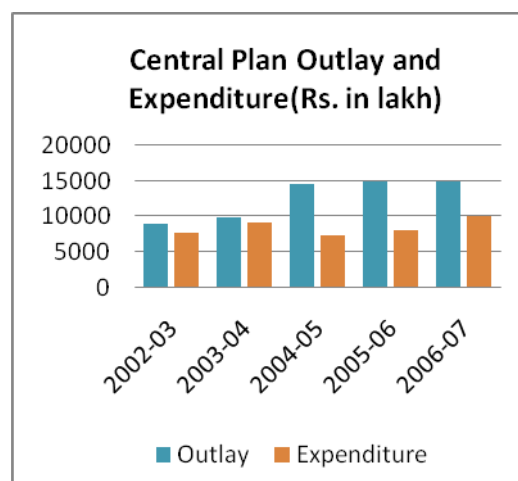


Quality

3.3 Total number of accidents increased from 583 in 2005-06 to 687 in 2006-07. Number of persons killed increased from 742 in 2005-06 to 825 in 2006-07 (Table 3B.1). This shows that suitable safety measures and technology upgradations need to be evolved in IWT to improve safety of passengers.

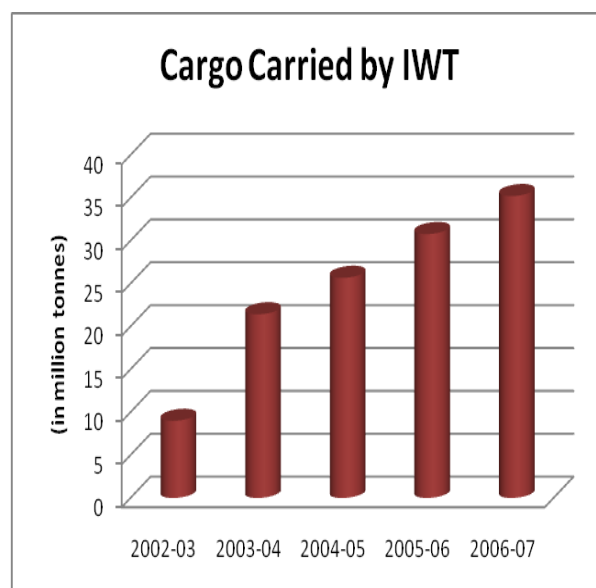
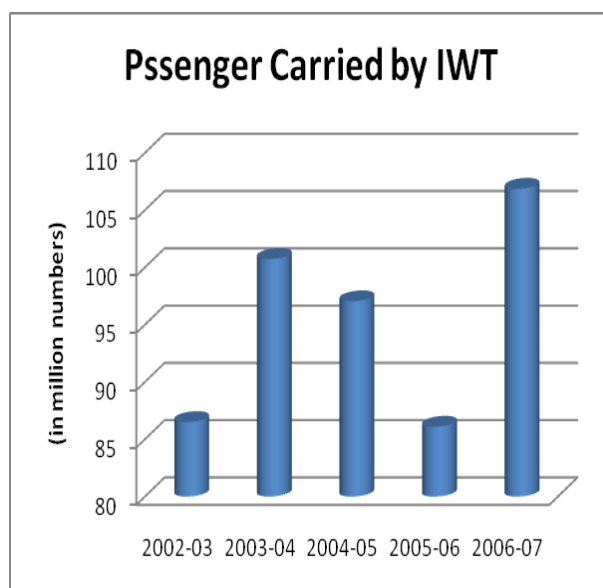
Fiscal Cost

3.4 Central budgetary support for the sector increased from ₹89.9 crore in 2002-03 to ₹150 crore in 2006-07. However utilization of funds is showing a decreasing trend from 87% to 66% during the period. The total state plan outlay during the 10th plan was ₹192 crore compared to central plan outlay of ₹634 crore (Table 3C.1 and 3C.2).



Utilisation

3.5 Cargo movement on inland waterways has shown an impressive increase from 9 million tonnes in 2002-03 to 35 million tonnes in 2006-07. (Table 3D.3). Passenger movement during the period increased from 87 million to 107 million. (Table 3D.2).



Affordability

3.6 The maximum freight per tonne kilometer for cargo transport (for the reporting companies) was ₹3.41/- in 2005-06 and ₹2.10/- in 2006-07 (Table 3E.1). This gives us a very broad idea of freight charges because freight charges may vary widely based on cargo type.

Table 3A.1 : Statewise Total and Navigable Length of Waterways as on 31st March, 2007

Sl. No.	State/UTs	(in km)	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	Andhra Pradesh	2501	791
2	Assam	3700	2584
3	Bihar	3763	1391
4	Goa	260	202
5	Gujarat	801.5	129
6	Jammu & Kashmir	..	..
7	Karnataka	2465	425
8	Kerala	3092	845.2
9	Maharashtra	611	453
10	Orissa	1840	1650
11	Nagaland	937	375
12	Mizoram	559	293
13	TamilNadu	170.1	..
14	Uttar Pradesh	..	..
15	West Bengal	4741	4593
16	A & N Island	..	..
India Total (Reporting States)		25440.6	13731.2

.. Not available

Source : Statistics of Inland Water Transport published by TRW,
M/o Shipping

Table 3A.2 : Infrastructure Facilities Available on National Waterways

Navigational Channel	2002-03		2003-04		2004-05		2005-06		2006-07	
	Size of Vessels that can be accommodated(DWT)	No of Berths	Size of Vessels that can be accommodated(DWT)	No of Berths	Size of Vessels that can be accommodated(DWT)	No of Berths	Size of Vessels that can be accommodated(DWT)	No of Berths	Size of Vessels that can be accommodated(DWT)	No of Berths
National Waterways No.1										
1. Haldia - Farakka	600	3(floating)+ 2(fixed)	600	2(floating)+ 2(fixed)	600	3(floating)+ 2(fixed)	600	6(floating)+ 2(fixed)	600	6(floatin g)+2(fix ed)
2. Farakka - Patna	600	4(floating)	600	4(floating)	600	3(floating)	600	1(floating)	600	3(floatin g)+1(fix ed)
3. Patna - Varanasi	600	6(floating)	600	-	600	-	600	-	600	2(floatin g)
4. Varanasi - Allahabad	600	1(floating)	600	1(floating)	600	3(floating)	600	3(floating)	600	3(floatin g)
National Waterway No.2										
1. Dhubri - Pandu	600	3(floating)	600	1(floating)	600	2(floating)	600	2(floating)	600	3(floatin g)
2. Pandu - Neamati	600	2(floating)	600	-	600	2(floating)	600	1(floating)	600	4(floatin g)
3. Neamati - Dibrugarh	600	1(floating)	600	-	600	-	600	-	600	1(floatin g)
4. Dibrugarh - Sadiya	600	1(floating)	600	-	600	-	600	-	600	2(floatin g)
National Waterway No.3										
1. Udyogmandal Canal	350	-	350	1(Fixed)	350	1(Fixed)	350	1(Fixed)	350	1(Fixed)
2. Champakara Canal	350	-	350	-	350	1(Fixed)	350	1(Fixed)	350	1(Fixed)
3. Kochi - Alapuzha	350	-	350	-	350	2(Fixed)	350	2(Fixed)	350	2(Fixed)
4. Alpuzha - Kollam	350	-	350	-	350	2(Fixed)	350	2(Fixed)	350	2(Fixed)
5. Kochi - Kottapuram	350	-	350	1(Fixed)	350	1(Fixed)	350	1(Fixed)	350	1(Fixed)

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3A.3 : Infrastructure Facilities Available on State Waterways

State / Navigational Channel /Place	2002-03		2003-04		2004-05		2005-06		2006-07	
	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths
1. Andhra Pradesh										
Uppar Godavary River, Godavary Central Delya Canal, G V Bank Canal, GE Main Canal, Kakinada Canal, Samikota Canal, Godavary Western Delta Canal, Kakaraparru Canal, Attili Canal, Narsapur Canal, G W Main Canal, Mandapeta Canal, New Yenamadurru Drain	27.5m X 4m X 1.2m with 2 barges of 75 Tonne capacity	10-80	27.5m X 4m X 1.2m with 2 barges of 75 Tonne capacity	10-80	27.5m X 4m X 1.2m with 2 barges of 75 Tonne capacity	10-80	27.5m X 4m X 1.2m with 2 barges of 75 Tonne capacity	Nil	Nil	Nil
2. Assam										
Brahmputra, Borak, Dhansiri Dikhow, Kapil, Joljoli, Subansiri	Cargo Vessels Small steel & wooden ferry vessel	-	Cargo Vessels Small steel & wooden ferry vessel	-	Cargo Vessels Small steel & wooden ferry vessel	-	Cargo Vessels Small steel & wooden ferry vessel	-	Cargo Vessels Small steel & wooden ferry vessel	Nil Nil
3. Bihar										
Sahebganj Manihari	134' X31' X 6' X 2 Nos 80' X 15' X 7"X1 No	2	134' X31' X 6' X 2 Nos 80' X 15' X 7"X1 No	2	134' X31' X 6' X 2 Nos 80' X 15' X 7"X1 No	2	134' X31' X 6' X 2 Nos 80' X 15' X 7"X1 No	2	134' X31' X 6' X 2 Nos 80' X 15' X 7"X1 No 55X13'3"X4'8" X2Nos	2

Table 3A.3(contd.) : Infrastructure Facilities Available on State Waterways

State / Navigational Channel /Place	2002-03		2003-04		2004-05		2005-06		2006-07	
	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths
3. Bihar										
Kahalgaon	60'X16'X6'X2Nos	2	60'X16'X6'X2Nos	2	60'X16'X6'X2 Nos	2	60'X16'X6'X2No s	2	60'X16'X6'X2 Nos	2
Tintanga										
Sultanganj	70'X18'X1No	2	70'X18'X1No	2	70'X18'X1No	2	70'X18'X1No	2	70'X18'X6X1N o	2
Agwani	59'X15'X5'X1No.	2	59'X15'X5'X1No.	2	59'X15'X5'X1 No.	2	59'X15'X5'X1No .	2	59'X15'X5'X1 No.	2
Munghyr	56'3"X14'X2"X5'4" X1No	2	56'3"X14'X2"X5'4" X1No	2	56'3"X14'X2"X 5'4"X1No	2	56'3"X14'X2"X5' 4"X1No	2	56'3"X14'X2"X 5'4"X1No	2
Rajghat	58' 9"X16' 4"X5'8"X1 No 47' 2"X12' 6"X5' 9"X1No 59' 5"X15' 6"X5' 6"X1No	2	58' 9"X16' 4"X5'8"X1 No 47' 2"X12' 6"X5' 9"X1No 59' 5"X15' 6"X5' 6"X1No	2	58' 9"X16' 4"X5'8"X1 No 47' 2"X12' 6"X5' 9"X1No 59' 5"X15' 6"X5' 6"X1No	2	58' 9"X16' 4"X5'8"X1 No 47' 2"X12' 6"X5' 9"X1No 59' 5"X15' 6"X1No	2	58' 9"X16' 4"X5'8"X1 No 47' 2"X12' 6"X5' 9"X1No 59' 5"X15' 6"X5' 6"X1No	-
Buxar- Ujirghat	NA 1No	2	NA 1No	2	NA 1No	2	NA 1No	2	NA 1No	2
4. Goa										
Panaji Port	75 m length	1	75 m length	1	75 m length	1	75 m length	1	75 m length	1
5. Gujarat										
	-	-	-	-	-	-	-	-	-	-
6. Jammu & Kashmir										
	-	-	-	-	-	-	-	-	-	-

Table 3A.3 (Contd.) : Infrastructure Facilities Available on State Waterways

State / Navigational Channel	2002-03		2003-04		2004-05		2005-06		2006-07	
	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths
7. Karnataka										
Gurupur River									Ferry Boats	2
Sharavathi River, Sharavathi Boats, Kabini, Cauvery							Nil	Nil	Ferry Boats	1
8. Kerala										
	-	-	-	-	-	-	-	-	-	-
9. Maharashtra										
	-	-	-	-	-	-	-	-	-	-
10. Orissa										
<u>Balugaon Sector</u>										
Balugaon- K.Prasad	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2
Balugaon-Kalijai	30 Ft.	2	40 Ft.	2	40 Ft.	2	40 Ft.	2	40 Ft.	2
Balugaon- Nuapada	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2
Balugaon- Satapada	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2	30 Ft.	2
<u>Astrang Sector</u>										
Nuagarh- Sribantpur	26 Ft.	3	26 Ft.	3	26 Ft.	3	26 Ft.	3	26 Ft.	3

- Not Available

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3A.3 (Contd.) : Infrastructure Facilities Available on State Waterways

State / Navigational Channel	2002-03		2003-04		2004-05		2005-06		2006-07	
	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths	Size of Vessels that can be accomodated (DWT/Dimension)	No of Berths
10. Orissa										
Chandbali Sector										
Chandbali-Rajnagar	52Ft.	13	52Ft.	13	52Ft.	13	52Ft.	13	52Ft.	13
Chandbali-Talucha	50 Ft.	10	50 Ft.	10	50 Ft.	10	50 Ft.	10	50 Ft.	10
Chandbali-Aradi	35 Ft.	3	35 Ft.	3	35 Ft.	3	35Ft.	3	35Ft.	3
11. TamilNadu										
	-	-	-	-	-	-	-	-	-	-
12.Uttar Pradesh										
	-	-	-	-	-	-	-	-	-	-
13. West Bengal										
	-	-	-	-	-	-	-	-	-	-
14. A & N Island										
	-	1	-	1	-	1	-	1	-	52
15.Nagaland										
Tiru River	-	-	-	-	-	-	-	-	-	-
16.Mizoram										
R.Tiawng, R.Kolodyne, R.Kamaphuli, R.Twichawng	-	-	-	-	-	-	-	-	Country Boat	-

- Not Available

Source: 1.Material supplied by TRW, M/o Shipping
2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3A.4 : Statewise Number of Inland Water Vessels
(in numbers)

Sl. No.	State/UT	2002-03	2003-04	2004-05	2005-06	2006-07
1	Andhra Pradesh	1077	1077	1075	1075	111
2	Assam	..	..	..	..	267
3	Bihar	20	20	22	21	19
4	Goa	145	206	157	212	273
5	Karnataka	44	45	45	302	302
6	Kerala	4202	4164	4195	6970	9060
7	Maharashtra	..	334	406	447	512
8	Orissa	9	3	..	155	180
9	West Bengal	1903	1935	1972	2084	2182
10	A&N Islands	34	36	..	..	..
Total (reporting states)		7434	7820	7872.00	11266	12906

.. : Not reported,

Source : Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3A.5 : Company-wise Number of Vessels as on 31st March

Sl. No.	Name of the Company	2006		2007	
		Type of Vessels	No. of Vessels	Type of Vessels	No. of Vessels
1	S.V. Salgaocar,Goa	Cargo	3	Cargo	3
2	D.V.Salgaocar,Goa	Cargo	3	Cargo	3
3	V.M.Salgaocar Sales International	Cargo	2	Cargo	2
4	V.S.Dempo & Co. Pvt Ltd., Goa	Cargo	4	Cargo	4
5	Chowgule & Co. Ltd., Goa	Cargo	1	Cargo	6
6	Sesa Goa Ltd. Goa.	Cargo	14	Cargo	15
7	Sociedade De Fomento Ind. Ltd., Goa	Cargo	2	Cargo	2
8	C.I.W.T.C., Kolkata.	Cargo	15	Cargo/Tug/ Spes/Db:	42
9	Indo-Swiss Trading Co.Pvt.Ltd., Kolkata	Pass	2	Pass	2
10	VIVADA Inland Waterways Ltd., Kolkata	CargoTug/Pass	9	Cargo/Tug/ Pass/LCT	13
11	W.Bengal Surface Transport Corporation Ltd.,Kollata	Pass/LCT	23	Pass/LCT	23
12	Hooghly nadi Jalapath Paribahan Samabaya samity, Kolkata	Pass	43	Pass	41
13	West Bengal Tourism Development Corpn. Ltd., Kolkata	Pass	3	Pass	3
14	Eastern Navigation (P) Ltd.,W.Bengal, Kolkata	Cargo/Tug /Pass.	6	Cargo/Tug/ Pass.	5
15	Pardeep Boating Company, W. Bengal, Kolkata	Tugs	2	Tugs	2
16	Government of W.Bengal Tourism Department,Kolkata	Pass	1	Pass	1
17	Hindustan Petroleum Corpn.Ltd.Goa	Tug	1	Tug	1
18	Costa River Transport Pvt. Ltd	Cargo	4	Cargo	3
19	Ghatal Steam Navigation (P) Ltd.Kolkata	Pass	3	Pass	3
20	Diamond Harbour Municipality, Kolkata	Pass	6	Pass	6
21	Karya Autota Pvt. Ltd., Kolkata	Cargo/Pass.	4	Cargo/Pass	5
22	Chandan Nagar Municipality, Kolkata			Pass	3
23	Jain Navigation	Tugs/Pass	2	Tugs/Pass	3
24	Shree Mangesh Enterprises(Marine)Pvt. Ltd	-	-	Cargo	1
25	Sai Waterways Pvt. Ltd.	Cargo	1	Cargo	2
26	Rashmi Ore Carriers	Cargo	1	Cargo	1
27	Kothari Overseas Private Limited	-	-	Cargo	1
28	Mayur Shipping Pvt.Limited	Cargo	1	Cargo	1
29	Cabral & Co. Ltd.	-	-	Cargo	1
30	Vaibhavi Shipping Pvt. Ltd.	-	-	Cargo	9

Note:This table covers only those IWT Operators for whom the data is received by TRW.

Source : Statistics of Inland Water Transport published by TRW,M/o Shipping

Table 3B.1 : No. of Accidents, Persons Killed by Drowning in States with IWT Operations during 2005-06 and 2006-07

(in numbers)

Sl. No.	States	2005-06		2006-07	
		Accidents	Persons Killed	Accidents	Persons Killed
1	Andhra Pradesh	18	33	30	43
2	Arunachal Pradesh	1	1	0	0
3	Assam	6	8	9	9
4	Bihar	50	68	41	59
5	Chhattisgarh	132	132	14	14
6	Goa	1	1	1	2
7	Gujarat	96	96	46	52
8	Haryana	19	19	88	86
9	Himachal Pradesh	52	52	0	0
10	Jammu & Kashmir	5	5	1	1
11	Jharkhand	14	18	29	29
12	Karnataka	45	52	21	24
13	Kerala	20	20	14	17
14	Madhya Pradesh	19	19	270	273
15	Maharashtra	28	43	15	30
16	Manipur	-	-	1	4
17	Meghalaya	0	0	0	0
18	Mizoram	0	0	0	0
19	Nagaland	-	-	0	0
20	Orissa	8	8	18	27
21	Punjab	-	-	0	0
22	Rajasthan	1	1	1	1
23	Sikkim	-	-	0	0
24	TamilNadu	14	114	15	53
25	Tripura	0	0	1	1
26	Uttar Pradesh	44	131	67	82
27	Uttarakhand	2	2	1	6
28	West Bengal	8	19	6	12
Total		583	742	687	825

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3C.1 : Central Plan Outlay and Expenditure during 2002-03 to 2006-07

Year	(Rs. in Lakh)						Utilisation %
	Central Schemes		Centrally Sponsored Schemes		Total		
	Outlay	Expenditure	Outlay	Expenditure	Outlay	Expenditure	
2002-03	8690	7831	300	Nil	8990	7831	87.11
2003-04	8868	8147	1000	985	9868	9132	92.54
2004-05	12557	5796	2000	1598	14557	7394	50.79
2005-06	13500	6551	1500	1500	15000	8051	53.67
2006-07	13300	8839	1700	1200	15000	10039	66.93
Total	56915	37164	6500	5283	63415	42447	66.94

Table 3C.2 : State Plan Outlay and Expenditure during 2002-03 to 2006-07

Year	(Rs. In Lakh)	
	State Plan	
	Outlay	Expenditure
2002-03	19218	1434
2003-04		1340.88
2004-05		3096.31
2005-06		4773.48
2006-07		1398.62
Total	19218	12043.29
(% Utilisation)	(100)	(62.67)

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3C.3 : Statewise Plan Outlay and Expenditure under IWT during 2002-03 to 2006-07

(Rs. in Lakh)

Sl. No.	State/UTs	Plan Outlay (2002-07)	Expenditure				
			2002-03	2003-04	2004-05	2005-06	2006-07
1	Andhra Pradesh	100	-	-	-	-	-
2	Arunachal Pradesh	...	...	...	...	...	41.89
3	Assam	1600	248	300	129	262	209.57
4	Bihar	...	...	...	...	...	...
5	Goa	800	102	83.78	154.47	124.95	112.88
6	Himachal Pradesh	15	2	-	-	10.88	0.86
7	Jammu & Kashmir	1160	154	-	175.10	197.86	-
8	Karnataka	4797	...	...	...	47.57	-
9	Kerala	7000	543	...	576.5	487.62	258.46
10	Maharashtra	1000	60	...	49.75	183.37	257.12
11	Mizoram	47	5	...	4.91	5	32.45
12	Orissa	120	1	...	1.39	31.57	2.39
13	TamilNadu	...	...	...	1658.81	-	...
14	Uttar Pradesh	10	...	...	...	...	...
15	West Bengal	2569	143	...	193.32	964.63	483
15	Lakshadweep	...	176	...	153.06	2458.09	...
India Total		19218	1434	1340.88	3096.31	4773.48	1398.62

- : Nil

... : Not available

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

**Table 3C.4 : Company-wise Freight Collected during
2005-06 and 2006-07**

Sl. No.	Name of the Company	(Rs. in Lakh)	
		2006	2007
1	S.V. Salgaocar,Goa	663.78	783.36
2	D.V.Salgaocar,Goa	695.52	803.32
3	V.M.Salgaocar Sales International	306.36	537.6
4	V.S.Dempo & Co. Pvt Ltd., Goa	(A)	(A)
5	Chowgule & Co. Ltd., Goa	(A)	(A)
6	Sesa Goa Ltd. Goa.		
7	Sociedade De Fomento Ind. Ltd., Goa	(A)	(A)
8	C.I.W.T.C., Kolkata.	489.66	578.46
9	Indo-Swiss Trading Co.Pvt.Ltd., Kolkata	82.00	91.70
10	VIVADA Inland Waterways Ltd., Kolkata	1916.00	1776.00
11	W.Bengal Surface Transport Corporation Ltd.,Kollata	554.17 (B)	601.47
12	Hooghly nadi Jalapath Paribahan Samabaya samity, Kolkata	876.02	927.48
13	West Bengal Tourism Development Corpn. Ltd., Kolkata	50.54	96.08
14	Eastern Navigation (P) Ltd.,W.Bengal, Kolkata	32.98	61.9
15	Pardeep Boating Company, W. Bengal, Kolkata	10.25	5
16	Government of W.Bengal Tourism Department,Kolkata	6.20	-
17	Hindustan Petroleum Corpn.Ltd.Goa	37.99	33.55
18	Costa River Transport Pvt. Ltd	1843.55	1411.75
19	Ghatal Steam Navigation (P) Ltd.Kolkata	22.08	22.45
20	Diamond Harbour Municipality, Kolkata	95.00	4.23
21	Karya Autota Pvt. Ltd., Kolkata	18.22	33.3
22	Chandan Nagar Municipality, Kolkata		4.07
23	Jain Navigation	6.45	7.05
24	Mata Parvati Marine Carrier		-
25	Shree Mangesh Enterprises(Marine)Pvt. Ltd		77.38
26	Sai Waterways Pvt. Ltd.	19.00	11
27	Rashmi Ore Carriers	85.02	115.51
28	Kothari Overseas Private Limited	-	111.82
29	Mayur Shipping Pvt.Limited	91.01	136.88
30	Cabral & Co. Ltd.	-	134.26

(A): Vessels used for captive purpose.

(B): This includes freight collected from passengers also.

Note: This table covers only those IWT Operators for whom the data is received by TRW.

Source : Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3D.1: Cargo Movement on Inland Waterways

Sl. No	Waterway	Year	Cargo Carried	
			Cargo (In Tonnes)	T km (In Million)
1	National waterway no. I(The Ganga-Bhagirathi-Hoogly)	2002-03	632037	-
2		2003-04	786159	159.6
3		2004-05	887328	311.9
4		2005-06	1001450	410.9
5		2006-07	1317387	580.3
6		2007-08	1497964	709.2
7	National waterway no. II(The Brahmaputra)	2002-03	98354	-
8		2003-04	795651	29.5
9		2004-05	810145	38.1
10		2005-06	804401	32.2
11		2006-07	1086026*	172.8
12		2007-08	1304114*	42.2
13	National waterway no. III(The West Coast Canal)	2002-03	1188156	-
14		2003-04	1362149	21.9
15		2004-05	1158783	15.4
16		2005-06	1172889	16.9
17		2006-07	1022776	14.9
18		2007-08	673127	8.9
19	Goa(Mormugao)	2002-03	19008853	-
20		2003-04	22876763	1143.8
21		2004-05	35000000	1698.8
22		2005-06	36271650	1760.6
23		2006-07	40500000	1965.3
24		2007-08	38500000	1925
25	Mumbai Waterways Dharmatar Creek	2002-03	5972204	-
26		2003-04	6661279	273.1
27		2004-05	7720709	416.6
28		2005-06	11162168	602.8
29		2006-07	11897322	642.5
30		2007-08	12906154	696.9
31	Grand Total	2002-03	26899604	-
32		2003-04	32482001	1627.9
33		2004-05	45576965	2480.7
34		2005-06	50412558	2823.4
35		2006-07	54737485	3375.8
36		2007-08	53577245	3382.2
		CAGR %	14.77	20.06

* Subject to final report of IWT, Assam.

- Not Available

Source: Annual Report published by Inland Waterways Authority of India

**Table 3D.2 : Statewise Number of Passengers carried by
Inland Water Vessels (2002-03 to 2006-07)**

(in number)						
Sl. No.	State	2002-03	2003-04	2004-05	2005-06	2006-07
1	Andhra Pradesh	106000	60500	0	0	0
2	Assam	...	...	...	...	2439230
3	Bihar	...	...	...	...	...
4	Goa	...	...	...	...	...
5	Gujarat	-	-	-	-	-
6	Jammu & Kashmir	-	-	-	-	-
7	Karnataka	976630	...	901590	10800000	10800000
8	Kerala	27477140	32572900	28538650	6882690	24192250
9	Maharashtra	...	10861000	13251000	13618000	14551000
10	Orissa	140000	125000	134000	128000	115000
11	TamilNadu	-	-	-	-	-
12	Uttar Pradesh	-	-	-	-	-
13	West Bengal	53500000	53000000	54223000	54671000	54770000
14	A & N Island	4306000	4127000	-	-	-
India Total (Reporting States)		86505770	100746400	97048240	86099690	106867480

Table 3D.3 : Statewise Cargo carried by Inland Water Vessels

(in tonnes)						
Sl. No.	State	2002-03	2003-04	2004-05	2005-06	2006-07
1	Andhra Pradesh	23000	24000	0	0	0
2	Assam	...	...	...	...	741560
3	Bihar	...	...	...	...	...
4	Goa	5574000	8435000	8457000	11762000	14306040
5	Gujarat	-	-	-	-	-
6	Jammu & Kashmir	-	-	-	-	-
7	Karnataka	76830	...	1347000	...	...
8	Kerala	2889590	1934430	2964270	6617970	5678730
9	Maharashtra	...	10236000	12121000	10859000	11553000
10	Orissa	...	...	...	...	...
11	TamilNadu	-	-	-	-	-
12	Uttar Pradesh	-	-	-	-	-
13	West Bengal	434800	796000	788000	1544000	2935000
14	A & N Island	-	-	-	-	-
India Total (Reporting States)		8998220	21425430	25677270	30782970	35214330

Source: 1.Material supplied by TRW, M/o Shipping

2.Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3D.4 : Company-wise Cargo Carried during 2005-06 and 2006-07

Sl. No.	Name of the Company	2005-06		2006-07	
		Cargo (In Tonnes)	Tonne km (In Million)	Cargo (In Tonnes)	Tonne km (In Million)
1	S.V. Salgaocar,Goa	1154400	40.4	1224000	42.84
2	D.V.Salgaocar,Goa	1209600	42.33	1255200	43.93
3	V.M.Salgaocar Sales International	532800	18.64	840000	29.4
4	V.S.Dempo & Co. Pvt Ltd., Goa	1044178	285.06	803583	219.37
5	Chowgule & Co. Ltd., Goa	174414	22.32	927474	118.71
6	Sesa Goa Ltd. Goa.	3859950	347.39	3997479	359.77
7	Sociedade De Fomento Ind. Ltd., Goa	435340	47.88	444393	48.88
8	C.I.W.T.C., Kolkata.	85266	14.348	220322	184.189
9	Indo-Swiss Trading Co.Pvt.Ltd., Kolkata	-	-	-	-
10	VIVADA Inland Waterways Ltd., Kolkata	529000	-	690000	-
11	W.Bengal Surface Transport Corporation Ltd.,Kollata	8890 (D)	-	9720	-
12	Eastern Navigation (P) Ltd.,W.Bengal, Kolkata	7600	-	10200	-
13	Pardeep Boating Company, W. Bengal, Kolkata	7000	-	10000	-
14	Hindustan Petroleum Corpn.Ltd.Goa	28560	-	24960	-
15	Costa River Transport Pvt. Ltd	3206178	416.8	2207582	286.98
16	Jain Navigation	-	-	4100	-
17	Shree Mangesh Enterprises(Marine)Pvt. Ltd	-	-	126000	7.56
18	Sai Waterways Pvt. Ltd.	162000	4.86	215400	14.5
19	Rashmi Ore Carriers	114065	5.13	165263	7.43
20	Kothari Overseas Private Limited	-	-	192222	11.53
21	Mayur Shipping Pvt.Limited	146370	6.59	145227	6.53
22	Cabral & Co. Ltd.	-	-	208000	10.4
23	Vaibhavi Shipping Pvt. Ltd.	-	-	2875600	-

(D): Data relates to No. of vehicles carried.

Note: This table covers only those IWT Operators for whom the data is received by TRW.

Source : Statistics of Inland Water Transport published by TRW, M/o Shipping

**Table 3D.5 : Company-wise Passenger Carried
during 2005-06 and 2006-07**

Sl. No.	Name of the Company	2005-06		2006-07	
		Passenger (in number)	Passenger km	Passenger (in number)	Passenger km
1	Indo-Swiss Trading Co.Pvt.Ltd., Kolkata	2290000	-	2292000	-
2	VIVADA Inland Waterways Ltd., Kolkata	11000	2492000	14000	-
3	W.Bengal Surface Transport Corporation Ltd.,Kollata	17500000	-	17000000	-
4	Hooghly nadi Jalapath Paribahan Samabaya samity, Kolkata	23026000	-	24058000	-
5	West Bengal Tourism Development Corpn. Ltd., Kolkata	2700	-	9100	-
6	Eastern Navigation (P) Ltd.,W.Bengal, Kolkata	20000	-	5800	-
7	Government of W.Bengal Tourism Department,Kolkata	720	-	-	-
8	Ghatal Steam Navigation (P) Ltd.Kolkata	1355000	-	1994000	-
9	Diamond Harbour Municipality, Kolkata	1088000	-	244100	-
10	Karya Autota Pvt. Ltd., Kolkata	-	-	-	-
11	Chandan Nagar Municipality, Kolkata	2000000	-	1215500	-

Note: This table covers only those IWT Operators for whom the data is received by TRW.

Source : Statistics of Inland Water Transport published by TRW, M/o Shipping

Table 3D.6 : Company-wise Tonne km and Passenger km Performed per Ship during 2005-06 and 2006-07

Sl. No.	Name of the Company	2005-06		2006-07	
		Tonne km per ship	Passenger km Per ship	Tonne km per ship	Passenger km Per ship
1	S.V. Salgaocar,Goa	134667	-	142800	-
2	D.V.Salgaocar,Goa	141100	-	146433	-
3	V.M.Salgaocar Sales International	93200	-	147000	-
4	V.S.Dempo & Co. Pvt Ltd., Goa	712650	-	548425	-
5	Chowgule & Co. Ltd., Goa	223200	-	197850	-
6	Sesa Goa Ltd. Goa.	248136	-	239847	-
7	Sociedade De Fomento Ind. Ltd., Goa	239400	-	244400	-
8	C.I.W.T.C., Kolkata.	9565	-	43855	-
9	Indo-Swiss Trading Co.Pvt.Ltd., Kolkata	-	-	-	-
10	VIVADA Inland Waterways Ltd., Kolkata	-	276889	-	-
11	Hindustan Petroleum Corpn.Ltd.Goa	-	-	-	-
12	Costa River Transport Pvt. Ltd	1042000	-	956600	-
13	Shree Mangesh Enterprises(Marine)Pvt. Ltd	-	-	75600	-
14	Sai Waterways Pvt. Ltd.	48600	-	72500	-
15	Rashmi Ore Carriers	51300	-	74300	-
16	Kothari Overseas Private Limited	-	-	115300	-
17	Mayur Shipping Pvt.Limited	65900	-	65300	-
18	Cabral & Co. Ltd.	-	-	104000	-

**Table 3E.1 : Company-wise Average
Freight Collected per Tonne km during
2005-06 and 2006-07**

(in Rs.)			
Sl. No.	Name of the Company	2005-06	2006-07
1	S.V. Salgaocar,Goa	1.64	1.83
2	D.V.Salgaocar,Goa	1.64	1.83
3	V.M.Salgaocar Sales International	1.64	1.83
4	C.I.W.T.C., Kolkata.	3.41	0.31
5	Costa River Transport Pvt. Ltd	0.44	0.49
6	Shree Mangesh Enterprises(Marine)Pvt. Ltd	-	1.02
7	Sai Waterways Pvt. Ltd.	0.39	0.08
8	Rashmi Ore Carriers	1.66	1.55
9	Kothari Overseas Private Limited	-	0.97
10	Mayur Shipping Pvt.Limited	1.38	2.10
11	Cabral & Co. Ltd.	-	1.29