

# **STATISTICS OF INLAND WATER TRANSPORT**

**2009-10**



**Government of India**  
**Ministry of Shipping**  
**Transport Research Wing**  
**New Delhi**

## P R E F A C E

Transport Research Wing (TRW) is the nodal agency for providing information/data on various facets of road and water borne transport modes. The present issue "Statistics of Inland Water Transport 2009-10" is the 17<sup>th</sup> issue in the Series.

The present volume begins with an overview of the current status of Inland Water Transport (IWT). Besides, it consists of 8 sections covering navigable waterways and infrastructure, cargo movement on waterways, commodity/route wise cargo movement, IWT activities undertaken by private and public sector undertakings, plan outlays/expenditure for IWT Sector, accidents related to inland waterways and Inland Waterways in select countries.

As the information contained in the volume is obtained from a large number of source agencies spread across both public and private sector, there is a time lag in bringing out collated data. We hope to reduce the time lag in bringing out this publication with the cooperation of the various stake holders. In particular, we would like to thank all who have contributed to improve and complete this issue. Suggestions from the users of information are welcome to improve quality and coverage. The officers and staff of the TRW deserve special mention for the considerable effort put in by them leading to the release of this publication.

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# Inland Water Transport: An Overview

## INTRODUCTION

India is endowed with a variety of navigable waterways comprising river systems, canals, back waters, creeks, and tidal inlets. However, navigation by mechanized crafts is possible only over a limited length covering about half of the reported navigable waterways. The navigable waterways are confined to a few States and location specific. The Inland Water Transport (IWT) is functionally important in regions covered by the Brahmaputra and the Ganges in the North East and Eastern parts of the country, Kerala, Goa and in the deltas of the rivers of Krishna and Godavari where IWT offers natural advantages. IWT has an important role to play in many parts of the country since it offers an economic, energy efficient, employment intensive and almost pollutant free mode of transport service. In spite of the merits of IWT, its operation is constrained by several factors like shallow water, narrow width during dry weather, siltation and bank erosion, inadequate vertical and horizontal clearances in a large number of overhead structures making navigation throughout the year a daunting task.

## POLICY INITIATIVES AND MILESTONES

2. Before 1950, there was no proper institutional set up for the development of IWT. A beginning was made during the First Plan when the Ganga-Brahmaputra Water Transport Board was set up as a Joint Venture of the Central Government and State Governments of Uttar Pradesh, Bihar, West Bengal and Assam. Its objective was to coordinate the efforts of the participating Governments in developing water transport on the Ganga and Brahmaputra Systems. Subsequently, the Government of India established the Inland Water Transport Directorate in the then Ministry of Shipping and Transport in 1965. In March, 1967, the Ganga-Brahmaputra Water Transport Board was merged with the IWT Directorate. Also, Central Inland Water Transport Corporation Ltd. (CIWTC) was set up at Kolkata in 1967 after taking over the assets and liabilities of the erstwhile River Steam Navigation Company Ltd.

3. In pursuance of the recommendations of the National Transport Policy Committee (NTPC), the Inland Waterways Authority of India (IWAI) was set up on October 27, 1986 by an Act of Parliament in 1985 for development, maintenance and regulation of National Waterways for shipping and navigation in the country. Three basic IWT related infrastructure for development of waterways are:

- (a) Fairway or navigational channel with desired width and depth
- (b) Terminals for berthing of vessels, loading/unloading of cargo and for providing interface with road and rail; and
- (c) Navigational aid for safe navigation.

4. The Ministry of Shipping is entrusted with the overall responsibility of development of inland water transport in the country. Besides, assistance is being provided to States by the Central Government under Centrally Sponsored Schemes to develop waterways, terminals, navigational aids and undertake survey and studies related to IWT. The assistance under this scheme used to be upto 50% by way of loan on reimbursement basis. However, the pattern of assistance was revised in 2002-03 to 100% in the form of grant under the scheme to the North Eastern States, (including Sikkim) and 90% grant to other states for the development of Inland Water Transport. An Inland Vessel Building Subsidy Scheme was also in place since April, 2002 upto 31<sup>st</sup> March 2007. Under this scheme, subsidy up to 30% cost of Inland Vessel built in India for operation on National Waterways (NWs), Sunderbans and Indo-Bangladesh protocol routes could be availed. With a view to attract private sector participation in IWT a number of promotional measures and fiscal incentives have been provided. IWAI Act was amended in September 2001 to facilitate promotion of Joint Venture by IWAI; equity participation of Government/IWAI has been limited to a ceiling of 40% for BOT project; Tax exemptions similar to National Highways notified for IWT and customs duty concessions for specified IWT equipments were notified in 2002.

## **INLAND WATERWAYS AUTHORITY OF INDIA**

5. The Inland Waterways Authority of India (IWAI) was set up under the Inland Waterways Authority of India Act, 1985 is entrusted with the regulation and development of Inland Waterways for the purpose of inland shipping and navigation. Its important functions are:

- (i) Conducting surveys and investigations and techno-economic feasibility for developing inland water transport mode;
- (ii) Development and regulation of National Waterways for shipping and navigation by providing conservancy measures, river training works, setting up infrastructural facilities etc.;
- (iii) Other connected/subsidiary functions include regulation of traffic, coordination with other modes of transport for movement on the National Waterways maintenance of Pilot age etc;

(iv) To assist and advise central and State Government on matters relating to Inland Water Transport.

### **Box 1: Inland Water Transport (IWT): A Historical Perspective**

The commercial history of India gives a glorious account of growth of navigation on inland waterways. The location of a large number of towns on waterways, which were also centers of trade and commerce, much before railways, indicate the value of this mode in the past.

The era of mechanical propulsion in India started in 1823 when the first propelled craft-Diana-weighing 89 tonnes, sailed with passengers from Kulpi road to Calcutta, a distance of 80 kms on the Hooghly. In 1834, a regular monthly steamer service was established between Calcutta and stations upstream on the Ganga for carrying the East India Company's officials and stores. In 1842, a regular fortnightly service grew up between Calcutta and Agra on the river Yamuna. By 1863, a regular steam service commenced between Calcutta and Assam. A network of steamer services soon developed extending as far as Garh-Mukteshwar on the river Ganga in Uttar Pradesh, about 645 kms from Allahabad, and Ayodhya on the river Ghagra, about 325 kms at its confluence with the Ganga.

In the 19<sup>th</sup> century navigation by power crafts and country boats played a dominant role in development of trade and commerce along river banks and catchment areas of the navigable river and canal system. Bulk of traffic was, however, carried in country boats plying from Delhi and Nepal border to Assam. At its peak in 1876-77 country boat traffic registered at Calcutta were about 180,000 cargo boats, at Hooghly 124,000 cargo boats, and at Patna about 62,000 cargo boats.

The advent of railways and extension of its network marked a turning point for water-transport in India. To start with, construction of main railway lines gave a spurt to river traffic as the two modes supplemented each other, with waterways providing feeder service to railways. This complementarily between IWT and railways was, however, short-lived. The decline of navigation started by about 1860. By that time extension of East Indian Railways had begun to make itself felt. With an increase in rail network new centers of economic activity away from waterways developed. Gradually, IWT lost its superiority.

Source: Chapter 15, Inland Water Transport,  
India, Planning Commission, May 1980

Report of the National Transport Policy Committee, Government of

## **NAVIGABLE WATERWAYS & INFRASTRUCTURE**

6. Length of waterways alongwith its navigable length is an indicator of inland water potential of a state. Table 1 gives Total and Navigable length of Waterways reported across States/UTs. It is observed that the maximum length of waterways is in the State of Uttar Pradesh with 6444 kms followed by West Bengal with 4741 kms. However, the ratio of the navigable length to the total length of the river/canal better reflects the potential for IWT.



As per the available data presented in Table 1, it is observed that the ratio of navigable length to the total length is about 97% in the State of West Bengal; by contrast, in case of Gujarat the ratio of navigable length to total length is a mere 16%. Other States with good inland water transport prospects are Goa, Maharashtra and Bihar where waterways navigable length is 77.9, 73.5 and 62.4% respectively. Twelve states have reported river length as well as navigable length for 123 rivers. These 123 rivers have total length of 23381 Km of which 51.50% is navigable length.

State	Total Length of the Rivers/ Canals/ Lakes in State(Km.)	Navigable Length(Km.)	Percentage of Navigable Length to Total Length
Andhra Pradesh	501	791	31.62
Assam <sup>#</sup>	3700	1043	28.18
Bihar <sup>##</sup>	2229	1391	62.40
Goa	260	202	77.69
Gujarat	802	129	16.10
Karnataka	2862	1407	49.16
Kerala <sup>###</sup>	2779	845.2	30.41
Maharashtra	634	466	73.50
Orissa <sup>####</sup>	1378	508	36.86
Nagaland <sup>**</sup>	937	375	40.02
Mizoram	559	293	52.41
Tamil Nadu	170	...	...
Uttar Pradesh	6444	425 <sup>@</sup>	—
West Bengal	4741	4593	96.87

... Not Available \*\* Pertains to 2006-07.

@ Navigable length Pertains to NW I for Allahabad-Buxar stretch in Uttar Pradesh.

# Pertains to 2 rivers. There are 24 others rivers in Assam having navigable length of 1514 Kms whose total length is not available.

## Pertains to 6 rivers. There are 9 others rivers in Bihar having total length of 1534 Kms whose navigable length is not available.

### Pertains to 34 rivers. There are 7 others rivers in Kerala having total length of 313 Kms whose navigable length is not available.

#### Pertains to 3 rivers. There are 26 others rivers in Orissa having navigable length of 1142 Kms whose total length is not available.

## CARGO MOVEMENT ON MAJOR WATERWAYS

7. Table 2 provides a snap view of cargo moved on the three national waterways, waterways of Goa and Maharashtra which carry most of the cargo traffic on India's Inland Waterways. The total cargo movement on India's waterways comprising the three national waterways and waterways in the State of Goa and Maharashtra increased to 69.6 million tonnes in 2009-10 from 58.0 million tonnes in 2008-09 reflecting an increase of 20%. In terms of tonnage Goa and Maharashtra, accounted for about 78.2% and 18.0% of the cargo volume respectively with balance 3.8% being accounted by the 3 National Waterways in 2009-10. However, in terms of tonne km. (movement of one tonne of cargo over a distance of one km) there was an annual growth of 25.78% in 2009-10. Goa waterways accounted for around 63.1% of the total cargo movement on inland waterways across India. In case of Goa and Maharashtra, high volume of cargo movement was carried over relatively short average distances of about 43 Kms and 25 Kms respectively leading to their intensive use. However, in the three National Waterways the volume of cargo traffic was relatively much small. In case of National Waterway II (The Brahmaputra) and National Waterway III (Champakara canal, Udyogmandal canal and West Coast canal) the distance traversed by cargo was on an average around 40 Kms and 15 Kms respectively in 2009-10. In case of National Waterway I (Ganga- Bhagirathi-Hooghly) the average distance over which cargo moved was relatively much longer at around 566 Kms.

**Table 2: Cargo Movement on Waterways**

Sl. No.	Details of Waterway	Cargo Moved ( lakh Tonnes)		Tonne Kms (in lakh )	
		2008-09	2009-10	2008-09	2009-10
1	National Waterway No. I	13.54(2.3)	18.37 (2.6)	7068(24.0)	10402(28.0)
2	National Waterway No. II	2.31(0.4)	1.83(0.2)	142(0.5)	74(0.2)
3	National Waterway No. III	7.66(1.3)	6.67(1.0)	109(0.4)	97(0.3)
	Sub Total NWs	23.51(4.0)	26.87(3.8)	7319(24.8)	10574(28.6)
4	Goa Waterways	457.10(78.8)	544.32(78.2)	19677(66.8)	23405(63.1)
5	Maharashtra Waterways	99.63(17.2)	125.10(18.0)	2487(8.4)	3107(8.4)
	<b>Grand Total</b>	<b>580.24(100.0)</b>	<b>696.29(100.0)</b>	<b>29483(100.0)</b>	<b>37085(100.0)</b>

Source : (i) Inland Waterways Authority of India.for National Waterways  
(ii) Data for Goa Waterways include the data received from Ports department, Govt of Goa and the the data received from the Mormugao Port Trust (MPT).  
(iii) Maharashtra Maritime Board for Maharashtra Waterways.

Note

1. Cargo handled in Kolkata-Bangladesh-Kolkata route is included in the traffic on National Waterway No.I. The route is a link between NW-I & NW-II through Bangladesh
2. Average IWT distance of 50kms for the data received from Govt of Goa and 40.6kms for the data received from Mormugao Port Trust.
3. Figure within bracket indicates percentage to the total.

### **Box 2: Criteria for declaration of National Waterway**

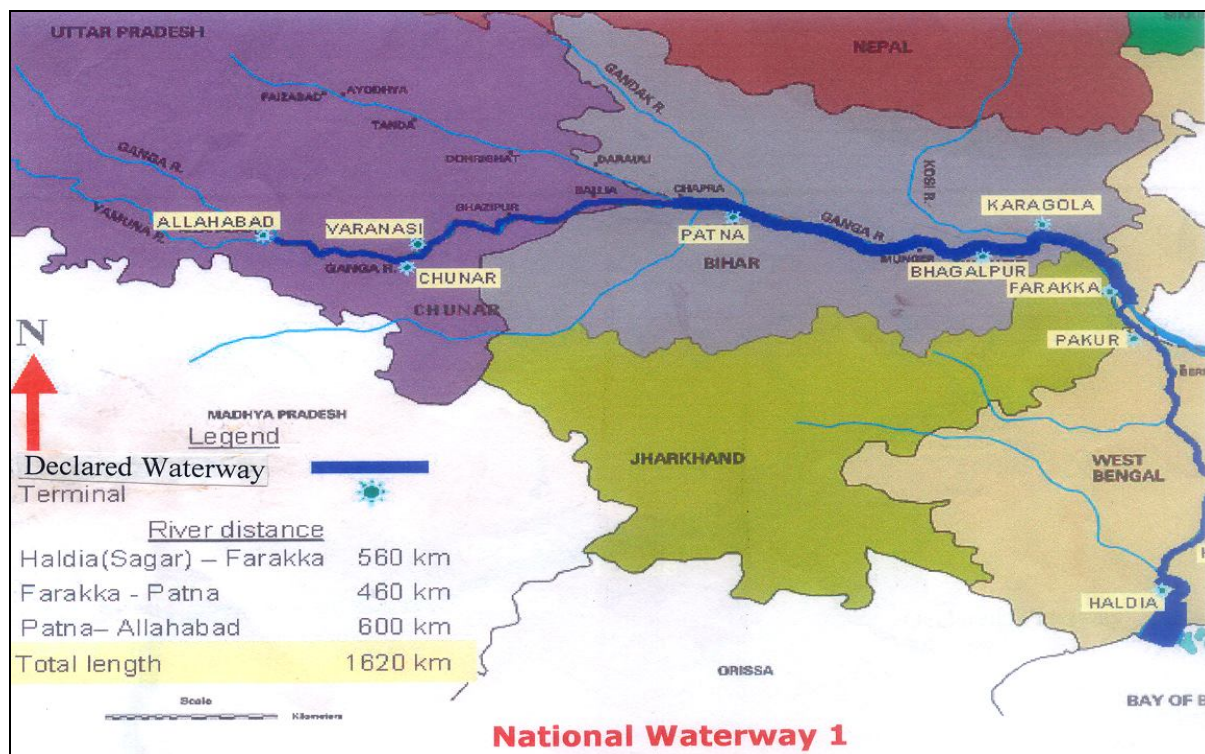
- It should possess capability of navigation by mechanically propelled vessels of minimum 300 tonnes (DWT) capacity (45m x 8m x1.2m);
- It should have a fairway of minimum 40m wide channel with 1.4m depth in case of rivers and minimum 30m wide channel with 1.8m depth in case of canals. Exception may be given in case of irrigation-cum-navigation canals based on request of the concerned State Govt in order to safeguard the interest of irrigation;
- It should be a continuous stretch of minimum 50 kms; the only exception to be made to waterway length is for urban conglomerations and intra-port traffic; and
- It should pass through and serve the interest of more than one States or connect a vast and prosperous hinterland and major port, or either pass through or connect a strategic region where development of navigations is considered necessary to provide logistic support for economic development or national security, or connect place not served by any other mode of transport.

8. The Three waterways that have been declared as National Waterways are:

- (a) Allahabad-Haldia stretch (1620 kms) of Ganga-Bhagirathi-Hooghly river system was declared National Waterway- 1 in October, 1986.
- (b) Sadiya-Dhubri stretch (891 kms) of the Brahmaputra river was declared National Waterways- II in September, 1988.
- (c) Kottapuram-Kollam stretch (168 kms) of the West Coast Canal along with Champakara canal (14 kms) and Udyogmandal canal (23 kms) was declared National Waterways-III in February, 1993.

### **National Waterways-I (The Ganga-Bhagirathi-Hooghly)**

9. The National Waterway No. 1 has been divided into three stretches for operational convenience and is being developed for shipping and navigation. Over the years, schemes for river conservancy works have been undertaken along with the issues connected with river depth and navigability, repair of vessels, terminal maintenance and other related works. Least Available Depth (LAD) of 2m round the year is being maintained between Haldia and Patna (1020 km) and; LAD of 1.5m between Patna-Varanasi (363 km) for most part of the year. However, LAD of 1.5 metre is maintained only for 4-5 monsoon months in a year between Varanasi and Allahabad stretch (237 Km). The volume of freight movement on National Waterways-I has gone up to 18.37 lakh tonnes in 2009-10 from 13.54 lakh tonnes in 2008-09 reflecting an annual growth of 35.67%.



The composition of cargo movement on National Waterway I shows that share of POL/POL Products, food items and ore/minerals in the total cargo movement has declined whereas share of Building material & miscellaneous items has gone up in the year 2009-10 compared with their share in total cargo in the preceding year. Building material has gained in significance over the years in terms of its share in total cargo moved through NW-I. It accounts for a share of more than 75% in total cargo movement along the NW-I. POL/POL products was second largest commodity group which used the NW-I, however, share of POL/POL products in total cargo moved through NW-I has fallen over the years. Table 3 give an idea of composition of different cargos moved along the NW-I over the years.

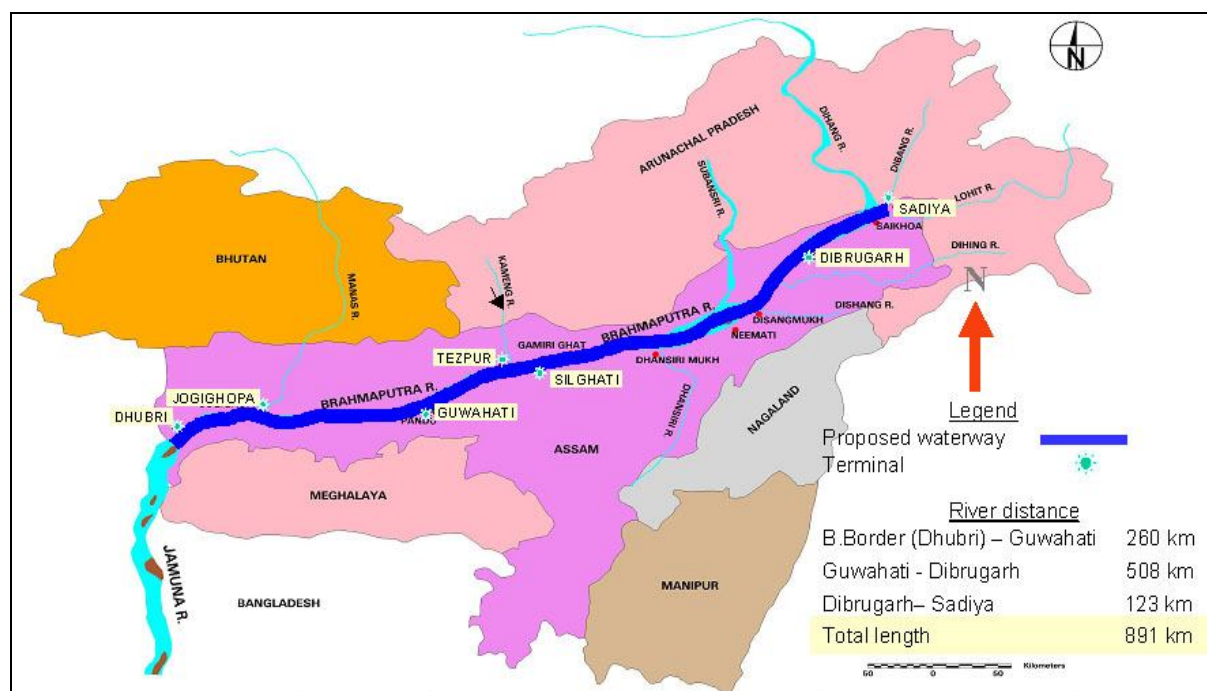
Table 3 : Composition of Cargo Moved on National Waterway- I (In Tonnes)

Name of the Commodity	2005-06	2006-07	2007-08	2008-09	2009-10
Building Material	525779(52.6)	773740(58.7)	899519(59.6)	835585(61.7)	1388365(75.6)
Fertilizers	1719(0.2)	-	2400(0.2)	-	-
Food items	37781(3.8)	10268(0.8)	4894(0.3)	42352 (3.1)	1434 (0.1)
Miscellaneous	20944(2.1)	1297(0.1)	193917(12.8)	42814(3.2)	145000(7.9)
Mix	3368(0.3)	191936(14.6)		-	-
Ore/Minerals	80989(8.1)	48606(3.7)	68284(4.5)	96358(7.1)	25283(1.4)
POL/POL products	328663(32.9)	291548(22.1)	341404(22.6)	337189(24.9)	277030(15.0)
Total NW I	999243(100.0)	1317395(100.0)	1510418(100.0)	1354298(100.0)	1837112(100.0)

Note: Figure within bracket indicates percentage to the total.

## National Waterways No. II (The Brahmaputra)

10. Since its declaration as National Waterway II various developmental activities have been taken up on the Sadiya- Dhubri stretch of Brahmaputra. Some of the schemes undertaken to improve navigability include river conservancy works such as bandalling, channel marking and hydrographic surveys. Pilotage services have also been provided to the vessels plying on this waterway. River conservancy works for maintaining navigable depth are taken up on a year to year basis. LAD of 2 metres between Dhubri and Dibrugarh (768 km) is maintained for most part of the year. However, between Dibrugarh and Sadiya, LAD of 1.5 metres could be maintained only during monsoon months.



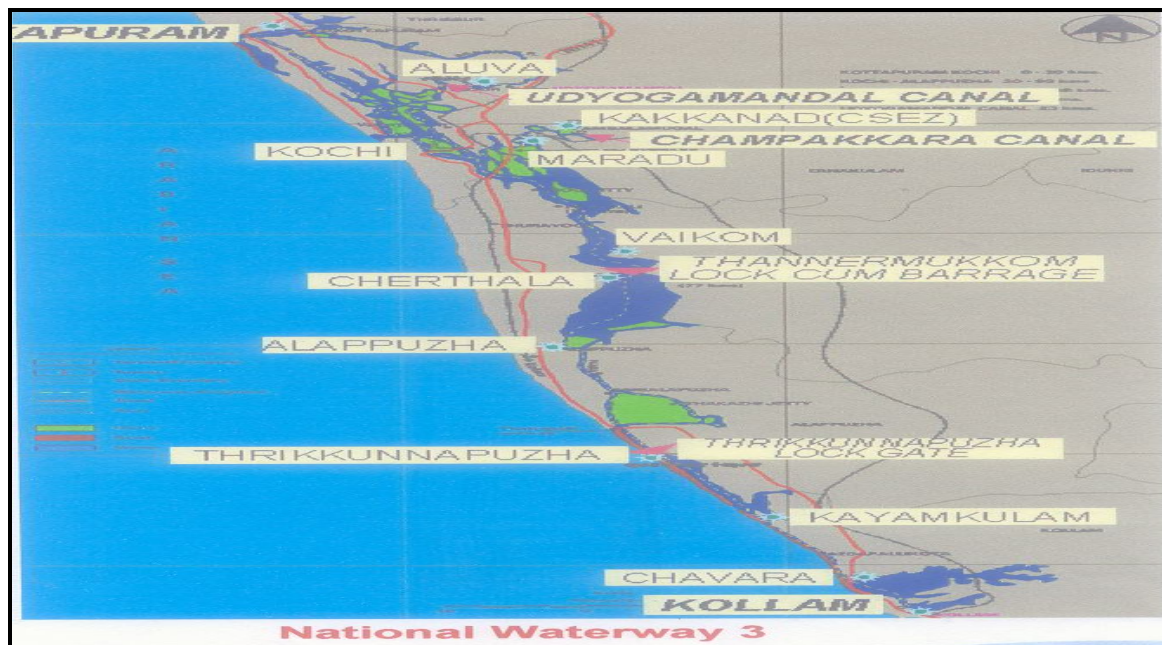
11. The total cargo traffic on NW II has gone down to 18.33 lakh tonnes during 2009-10 from 23.13 lakh tonnes during 2008-09 reflecting a decline of (-) 20.8%. Commodity wise composition of cargo movement indicates that there is no single item with significant share on this waterway. The overwhelming share of cargo moved on this waterway is of a mixed nature.

Commodity	2005-06	2006-07	2007-08	2008-09	2009-10
Building Material	0 (0.0)	360(0.03)	2500(0.2)	5100(2.2)	745 (0.4)
Food items	0 (0.0)	985(0.09)	-	-	336 (0.2)
Miscellaneous	220(0.03)	-	1298410(99.3)	225040(97.3)	182260(99.4)
Mix	796612(99.03)	1076874(99.16)	-	-	-
Ore/Minerals	1051(0.13)	-	-	-	0 (0.0)
POL/POL Products	6518(0.81)	7807(0.72)	6679(0.5)	1169(0.5)	0 (0.0)
<b>Total NW II</b>	<b>804401(100.0)</b>	<b>1086026(100.0)</b>	<b>1307589(100.0)</b>	<b>231309(100.0)</b>	<b>183341(100.0)</b>

Note: Figure within bracket indicates percentage to the total

## The National Waterway No. III (West Coast Canal)

The National Waterway No. III consists of three main stretches viz. Champakara Canal, Udyogmandal canal and West Coast canal. It runs parallel to the coastline. Fairway maintenance works including maintenance, dredging, channel marking are taken up on a year to year basis. Capital dredging for widening and deepening of canal has been completed between Kochi and Thakazhi jetty and large parts of Kochi-Kottapuram stretch is under progress.



The total volume of cargo moved on National Waterway III has been fluctuating over the past few years. It has, however, gone down from 76.62 lakh tonnes in 2008-09 to 66.71 lakh tonnes in 2009-10 recording a (-)12.9% decline. The cargo composition of freight traffic shows that Fertilisers, Food items and POL/POL products were the major commodities moved through NW-III accounting for 37.3%, 29.9% and 19.7% respectively of the total cargo movement in 2009-10.

**Table 5 : Composition of Cargo Moved on National Waterway - III (In Tonnes)**

Commodity	2005-06	2006-07	2007-08	2008-09	2009-10
Chemicals	39131(3.3)	18864(1.8)	53319(7.9)	-	-
Fertilisers	564153(48.1)	509703(49.8)	168083(25.0)	327824(42.8)	248917(37.3)
Food items	432860(36.9)	336570(32.9)	-	-	199400(29.9)
Mix	17680(1.5)	23080(2.3)	288678(42.9)	308218(40.2)	34868(5.2)
Ore/Minerals	-	-	136505(20.3)	44953(5.9)	52452(7.9)
POL/POL products	119065(10.2)	134559(13.2)	26542(3.9)	85219(11.1)	131560(19.7)
Total NW III	1172889(100.0)	1022776(100.0)	673127(100.0)	766214(100.0)	667197(100.0)

Note : Figure within bracket indicate percentage to the total

12. The total cargo moved through all the three National Waterways (NW) increased by 14.3% to 26.87 lakh tonnes during 2009-10 compared with 23.51 lakh tonnes during 2008-09. In 2009-10, share of cargo moved in volume terms across the three national waterways i.e NW I, (The Ganga- Bhagirathi- Hooghly) NW II (The Brahmaputra) and NW III (Champakara canal, Udyogmandal canal and west Cost canal) has been 68.4%, 6.8%, and 24.8% respectively of the total cargo moved in national waterways respectively. In terms of tonne kilometers, the share of NW I, NW II and NW III is 98.3%, 0.7% and 1.0% of the total tonne kilometers moved. The high share of NW I in tonne kilometers reflect long average distance traversed by cargo of 566 kms compared with an average distance of about 40 kms for NW II and average distance of 14.5 kms for NW III in the year 2009-10. Table 6 gives cargo movement of National Waterways in Tonnage and Tonne Kilometers.

<b>Table 6 : Cargo Movement on National Waterways</b>					
<b>Sl. No.</b>	<b>Details of Waterway</b>	<b>Cargo Moved ( lakh Tonnes)</b>		<b>Tonne Kms (in lakh )</b>	
		<b>2008 – 09</b>	<b>2009-10</b>	<b>2008-09</b>	<b>2009-10</b>
1	National Waterway No. I	13.54(2.3)	18.37 (2.6)	7068(24.0)	10402(28.0)
2	National Waterway No. II	2.31(0.4)	1.83(0.2)	142(0.5)	74(0.2)
3	National Waterway No. III	7.66(1.3)	6.67(1.0)	109(0.4)	97(0.3)
	<b>Total NWs</b>	<b>23.51(100.0)</b>	<b>26.87(100.0)</b>	<b>7319(100.0)</b>	<b>10573(100.0)</b>
Source : Inland Waterways Authority of India for National Waterways . Cargo handled in Kolkata-Bangladesh-Kolkata route is included in the traffic on National Waterway No.I. The route is a link between NW-I & NW-II through Bangladesh Note : Figure within bracket indicate percentage to the total					

The movement of Building material and Fertilizer has shown significant increase on the National Waterways since 2004-05. The share of Building material has increased from 4.5% in 2004-05 to 51.6% in 2009-10. However, the movement in Food items and chemicals has shown considerable decrease during this period. Share of Building materials has gone up from 35.8% in 2008-09 to 51.6% in 2009-10 from 1.8% to 7.5%. Share of fertilizers, Ore/Mineral and POL/POL products has declined in 2009-10 over 2008-09. The details of the commodities moved on the National Waterways may be seen from Table 7.

Commodity	2005-06	2006-07	2007-08	2008-09	2009-10
Building Material	525779(17.7)	774100(22.6)	902019(25.8)	840685(35.8)	1389110 (51.6)
Chemicals	39131(1.3)	18864(0.6)	53319(1.5)	-	-
Fertilisers	565872(19.0)	509703(14.9)	170483(4.9)	327824(13.9)	248917 (9.3)
Food items	470641(15.8)	347823(10.2)	4895(0.1)	42352(1.8)	201170 (7.5)
Miscellaneous	21164(0.7)	1297(Neg.)	1492327(42.7)	267854(11.4)	327260(12.2)
Mix	817660(27.5)	1291890(37.7)	288678(8.3)	308218(13.1)	34868 (1.3)
Ore/Minerals	82040(2.7)	48606(1.4)	204789(5.9)	141311(6.0)	77735 (2.9)
POL/POL Products	454246(15.3)	433914(12.7)	374625(10.7)	423577(18.0)	408590 (15.2)
Total	2976533(100.0)	3426197(100.00)	3491135(100.0)	2351821(100.0)	2687650(100.0)

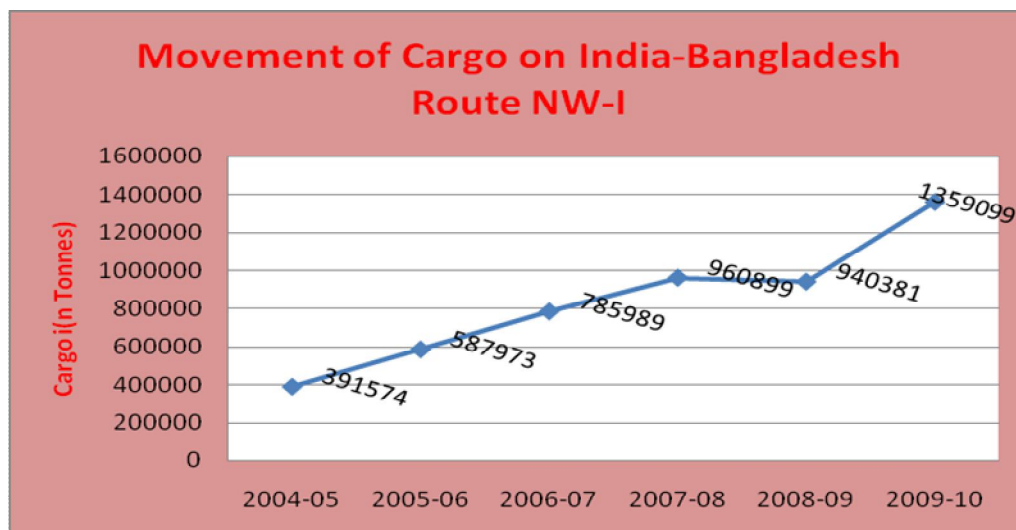
Note : Figure within bracket indicate percentage to the total

### Box: 3- Indo-Bangladesh Protocol for Inland Water Transport

An Inland Water Transit and Trade Protocol exist between India and Bangladesh under which inland vessels of one country can transit through the specified routes of the other country. The existing protocol routes are (i) Kolkata-Pandu-Kolkata, (ii) Kolkata-Karimganj-Kolkata, (iii) Rajshahi-Dhulian-Rajshahi and (iv) Pandu-Karimganj-Pandu. For inter-country trade, four ports of call have been designated in each country. These are: Haldia, Kolkata, Pandu and Karimganj in India and Narayanganj, Khulna, Mongla and Sirajganj in Bangladesh. Under the protocol, 50:50; cargo sharing by India and Bangladesh vessels is permitted both for transit and inter country trade. While the protocol permits vessels of either country to carry Indo-Bangladesh trade cargo and prohibits one country's vessels carrying intra- country traffic of the other, Bangladesh vessels are permitted to carry Indian domestic cargo transiting Bangladesh.

### Cargo carried on Indo -Bangladesh Waterway Route

13. Movement of cargo along India Bangladesh route of National Waterways I has shown steep growth of 44.5% in year 2009-10 compare to decline of 0.02% registered in 2008-09. The cargo moved over this route has increased to 1359099 tonnes in 2009-10 against 940381 tonnes in 2008-09. The graph inserted below depicts trend in cargo movement on India-Bangladesh route National Waterway-I during the years 2004-05 to 2009-10.





The table 8 shows the cargo and the main commodities carried on India-Bangladesh route on National Waterway-I during the years 2005-06 to 2009-10

Route	2005-06	2006-07	2007-08	2008-09	2009-10	Commodities
India to Bangladesh	586973	785989	955722	940381	1359099	Flyash, Salt in bulk, Rice, Wheat POL, Coal, Slag Gypsum, HSD.
Bangladesh to India	1000	-	5177	-	-	Cement, Bone crushed
<b>Total</b>	<b>587973</b>	<b>785989</b>	<b>960899</b>	<b>940381</b>	<b>1359099</b>	
*Data pertains to cargo carried on Indian registered vessels only.						

## **TWO NEW NATIONAL WATERWAYS**

14. Two new water ways have been declared by the Government as National Waterways.
- (i) The Kakinada - Puducherry stretch of Canals and the Kaluvelly Tank; Bhadrachalam - Rajahmundry stretch of River Godavari and Wazirabad - Vijayawada stretch of River Krishna (NW-4, 1095 km); and
  - (ii) the Talcher -Dhamra stretch of river Brahmani, Geonkhali-Charbatia stretch of East Coast Canal, Charbatia-Dhamra stretch of Matai river and Mangalgadi- Paradip stretch of Mahanadi delta rivers (NW5,623km Gazette notifications for both these waterways were published on 25.11.2008. Detailed Project Reports (DPR) for these new NWs are being prepared.

### **NATIONAL WATERWAY 4 (KAKINADA-PUDUCHERRY CANALS WITH GODAVARI AND KRISHNA RIVERS)**

15. The stretches of the waterway (1095 kms) which has been declared as National Waterways (NW) are as follows:
- (i) Godavari river from Bhadrachalam to Rajahmundry - 171km.
  - (ii) Krishna River from Wazirabad to Vijayawada- 157 km.
  - (iii) Kakinada canal from Rajahmundry-50 km.
  - (iv) Eluru canal from Rajahmundry to Vijayawada-139 km.
  - (v) Commamur canal from Vijayawada to Peddaganjam lock-113 km.
  - (vi) North Buckingham canal from Peddaganmjam lock to Chennai-34 km.
  - (vii) South Buckingham canal from Chennai to Mercanum-103; and
  - (viii) Kaluvelli tank from Mercanum to Puducherry-22km.

16. The waterway is located in the States of Andhra Pradesh (888Km), Tamil Nadu (205 km) and Union Territory of Puducherry (2 Km). Out of 1095 km, 50 km stretch within Chennai city (from Ennore to Muthukadu) is not envisaged for development due to encroachment of canal. This waterway runs through rural and Urban centres like Chennai, Vijayawada, Rajahmundry, Kakinada, Eluru, Bhadrachalam &Wazirabad and hence provide a vital link between rural areas and Urban centres Besides bulk cargo namely coal, cement fertilizers etc. it would help movement of agriculture products from rural area to Urban centres and industrial goods from Urban centres to rural areas. Further it also connects sea ports of Kakinada, Krishnapatnam, Ennore and Chennai and will facilitate import/export of cargo from/to hinterland. The waterway is proposed to be developed with 32 m wide and 1.8m deep navigational channel for Godavari river, Krishna river and North and South Buckingham canal while for Kakinada, Eluru and comamur canals with 14 m wide and 1.6m deep navigational channel The Estimated Cost of development of National Waterways at 2008-09 prices is (Rs. 1372 crore).

17. The Government of Andhra Pradesh has suggested for making availability of water in rivers and Irrigation canals for 330 days in a year for navigation. After the construction of dams at Polavaram in Godavari and Pulichinthala in Krishna by the year 2014-15, the development of waterway in Andhra Pradesh has been planned in two Stages as given below:-

Under stage I, 583 km of water way will be completed by the year 2013-14. Stage II works will be taken up after completion of construction of dams at Polavaram across Godavari river and at Pulichintala across Krishna river. Under Stage-II, 462km of waterway will be completed by the year 2016-17.

18. In addition to the above mentioned cargo transportation by the environment friendly mode of water transport, the development of this waterway will provide social benefits e.g. employment generation, reduction in pollution, providing port- hinterland connectivity, reduction in road maintenance and road accidents, increase in economic activities etc.

## **NATIONAL WATERWAYY-5 (EAST COAST CANAL ALONG WITH BRAHMANI RIVER AND MAHANADI DELTA).**

19. The stretches of the water way which have been declared as National waterway (NW) are as follows.

(i) East Coast Canal (Geonkhali-Charbatia)	217km.
(ii) Matai River (Charbatia- Dhamra)	40 km.
(iii) River Brahmani (Talcher-Dhamra)	265 km.
(iv) Mahanadi delta river (Mangalgadi-Paradip)	<u>101 km.</u>
<b>Total.</b>	<b>623 km.</b>

20. The waterway is located in the States of West Bengal (91) km) and Orissa (523km). For Brahmani- Kharsua-Dhamra River, Matai river and Mahanadi delta portion (406 km), the waterway is proposed to be developed with 45 m wide and 2m deep navigational channel while for East Coast Canal portion (217 km), with 32 m wide and 1.5 deep navigational channels. Developmental works envisaged are as follows:

- (i) Widening of narrow canal
- (ii) Dredging, Excavation
- (iii) Bank protection
- (iv) Construction of barrages in Brahmani river at 5 placed
- (v) Repair of locks
- (vi) Modification of bridges & roads
- (vii) Navigational aids
- (viii) Setting up of IWT terminals (all terminals are in Orissa)

The estimated cost of development of National Waterway at 2002 price is Rs. 1526 crore.

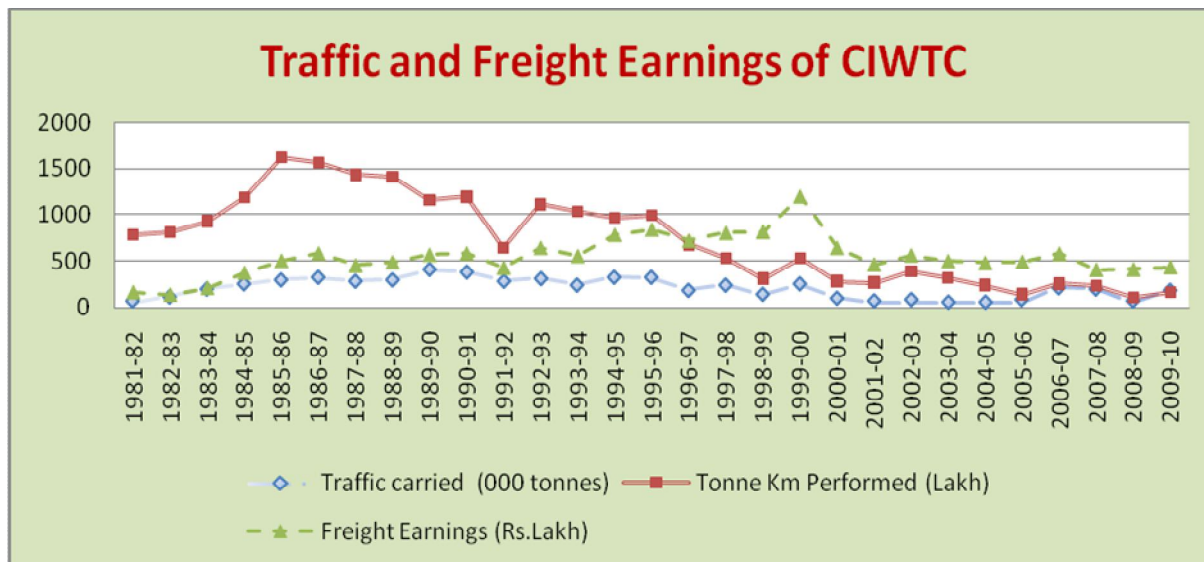
## **CENTRAL INLAND WATER TRANSPORT CORPORATION (CIWTC LTD)**

21. Central Inland Water Transport Corporation Ltd. (CIWTC) was established as a Government of India undertaking in the year 1967. (CIWTC took over the assets and liabilities of the River Steam Navigation Company Ltd. which was looking after Inland Water Transport services on river Barak). It is primarily responsible for transportation of cargo through inland waterways spread across Kolkata-Bangladesh-Assam and Allahabad-Haldia-Budge. It is operating on different routes on National Waterways- I and II including the protocol routes through Bangladesh and other parts of the country in Eastern and Northern India.

CIWTC Ltd. has three main divisions, viz. River services Division (RSD), Rajabagan Dockyard (RBD) and Deep Sea Ship Repair (DSSR).

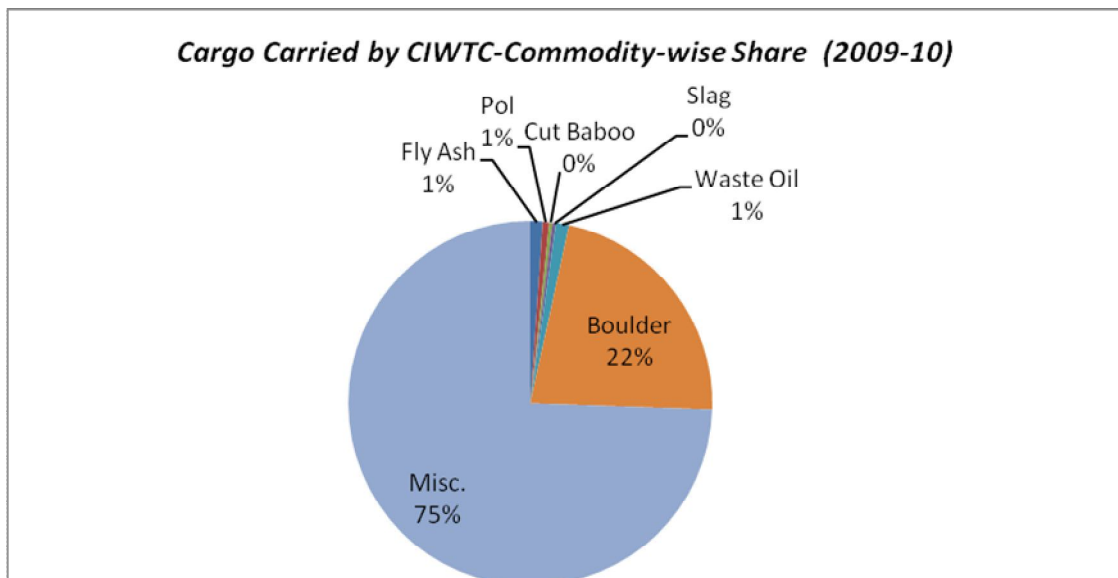
- i) River Services Division (RSD) has its main terminal at Kolkata and branch offices at Haldia, Patna, Karimganj, Badarpur, Dhubro, Pandu and Guwahati. For running, repair and maintenance of its own crafts, the RSD has two workshops, one at Kolkata (West Bengal) and the other at Pandu (Assam).
- ii) The Rajabagn Dockyard (RBD), whose main factory establishment is located at Kolkata, is engaged in ship building, ship repair and general engineering activities.
- iii) The Deep Sea Ship Repair Division (DSSR) located at Kolkata undertakes repair of ocean going vessels for outside agencies.

22. The cargo carried by CIWTC increased by 155.4% in the year 2009-10 to 189000 tonnes against 74070 tonnes in 2008-09. Concomitantly, the freight earnings also went up by 58% from Rs. 125.99 lakh in 2008-09 to Rs.198.68 lakh in 2009-10. The non-commodity earnings of CIWTC showed a downward growth of (-) 13.8% as it slipped to Rs. 244.97 lakh in 2009-10 from 283.51 lakhs in 2008-09. Following graphs gives a picture of long term trend in traffic and earning of CITWC.



23. The maximum cargo carried during 2009-10 was on the Saugar/Haldia Diamond Harbour-Kolkata route with freight volume of 140766 tonnes and freight earnings of about Rs. 158.3 lakh and 119.6 lakh tonne kms and; these three parameters registered an annual growth of 113%, 93% and 99% respectively in 2009-10 over 2008-09.

Haldia-Ghorma Island route had second largest share of 22% in cargo carried (41841 tonnes) by different routes in 2009-10. 75% of the cargo carried by CIWTC was mixed cargo. Boulder was the largest carried commodity with a share of 22% in all commodities carried by CIWTC. Waste oil, POL and Flyash had a mere share of around 1% each in total cargo. Commodity wise share in cargo carried by CITWC in 2009-10 is given in chart below:



## IWT ACTIVITIES - STATE GOVERNMENT

24. The number of vessels deployed and volume of cargo carried on Inland Waterways across the reporting States & UTs is given in Table 8.

State/UT	Number of Vessels				Volume of Cargo Carried ( thousand tonnes)			
	2006-07	2007-08	2008-09	2009-10	2006-07	2007-08	2008-09	2009-10
Andhra Pradesh	...	111	111	111	...	...	...	...
Assam	267	240	240		741.56	846.24	865.15	...
Bihar	19	21	21	21	...	...	...	...
Goa	273	221	191	193	14306.0	12824.59	11901.32	13897.38
Karnataka	302	49	49	39	...	611.00	159.00	986.75
Kerala	9060	10069	9230	9756	5678.7	8637.13	5129.01	5092.08
Maharashtra	512	512	662	691	11553.0	13056.00	9963.00	12510.00
Orissa	180	163	155	260	...	...	...	...
West Bengal	2182	2245	2321	2484	2935.0	3312.0	3644.00	17705.00
<b>TOTAL (reporting states)</b>	<b>12795</b>	<b>13631</b>	<b>12980</b>	<b>13555</b>	<b>35214.56</b>	<b>39286.96</b>	<b>31661.48</b>	<b>50191.21</b>

... Not Available

## PERFORMANCE OF COMPANIES ENGAGED IN IWT

25. The data received from 34 IWT companies shows that amongst the private companies the maximum number of cargo vessels were held by the Sesa Goa Ltd., Goa followed by Vivada Inland Waterways Ltd. Kolkata AND Eastern Navigation Private Ltd. The Maximum cargo of 6125.86 thousand tonnes was carried by Sesa Goa Ltd Goa.

26. CIWTC Kolkata had the maximum number of powered vessels (292) which carried a cargo of 89.04 thousand tonnes and 10618.6 lakh tonnes kilometres during 2009-10. Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata (44 vessels) carried 20.3 million passengers followed by West Bengal Surface Transport Corporation Ltd. with 23 powered vessels carrying 6.8 million passengers during 2009-10. The cargo/passengers carried and freight collected pertaining to 34 companies is shown in Table No. 5.2.

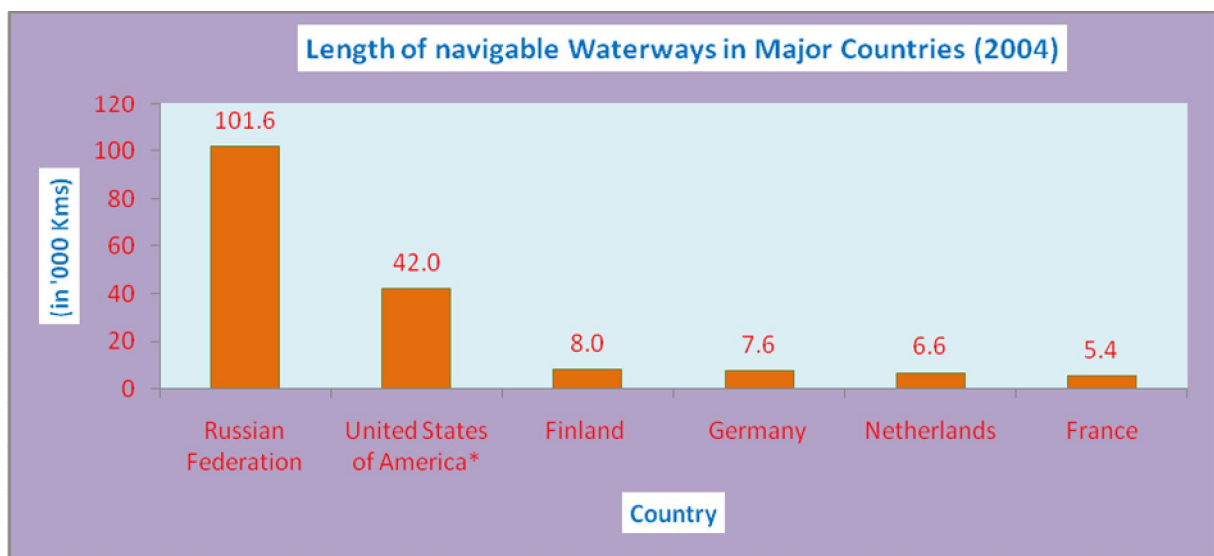
Name of the Company	No. of Vessels	Cargo moved ('000 tonnes)
1. Sesa Goa Ltd. Goa.	16	6125.86
2. S.V.Salgaocar, Goa	4	1581.60
3.D.V.Salgaocar, Goa	4	1500.00
4. Sesa Resources Ltd Goa	3	832.04
5. V.M. Salgaocar Sales International	2	693.60
6.Costa River Transport Pvt. Ltd.,Goa	3	657.97
7. VIVADA Inland Waterways Ltd,Goa	16	570.13
8. Sociedade De Fomento Ind Ltd,Goa	2	547.99
9.M.N. Shipping	1	274.82
10. Sai Waterways Pvt Ltd	9	244.12

## INLAND WATERWAYS TRANSPORT ACCIDENTS

27. The total number of accidents on inland waterways during the year 2009 were 791 out of which 319 were reported in Madhya Pradesh followed by Uttar Pradesh with 127 accidents. The numbers of deaths due to boat mishaps were highest for Madhya Pradesh at 323 followed by Uttar Pradesh at 161 in 2009. A striking feature observed (Table No. 7.1) is that the number of persons killed is more in all the States than the number of persons injured on waterways unlike in the road accidents.

## INLAND WATERWAYS IN SELECT COUNTRIES

28. The maximum length of Navigable Inland Waterways belongs to Russian Federation with 101,679 Kms followed by United States of America with 42,000 Kms , Finland with 8,018 Kms, Germany with 7,565 Kms., Netherlands with 6,595 Kms and France 5372 Kms. However, the maximum quantity of Goods carried was in the United States of America with 2662 million tonnes followed by Russian Federation with 104 million tonnes and Germany with 55.2- million tonnes .



\* Relates to 2003

Source: Annual Bulletin of Transport Statistics for Europe & North America,2008(UN Publication)

**SECTION – 1**

**NAVIGABLE WATERWAYS**

**AND**

**INFRASTRUCTURE**



Table No. 1.1

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2009-10	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
1	<b>ANDHRA PRADESH</b>		
	(i) Godavari	1530	171
	(ii) Krishna	386	35
	(iii) Others **	585	585
		<b>2501</b>	<b>791</b>
2.	<b>ASSAM</b>		
	(i) Brahmaputra	2800	891
	(ii) Borak	900	152
	(iii) Subansiri	...	111
	(iv) Dhansiri	...	26
	(v) Lohit	...	132
	(vi) Gangadhar	...	112
	(vii) Sonkosh	...	48
	(viii) Manas	...	48
	(ix) Aai	...	64
	(x) Beki	...	56
	(xi) Nakhonda	...	41
	(xii) Pahumara	...	40
	(xiii) Pagladia	...	40
	(xiv) Borolia	...	24
	(xv) Puthimari	...	64
	(xvi) Dikrang	...	41
	(xvii) Rangandi	...	45
	(xviii) Kapil	...	102
	(xix) Dehing	...	160
	(xx) Katakhal	...	160
	(xxi) Sonai	...	48
	(xxii) Amguri	...	16
	(xxiii) Mahura	...	32
	(xxiv) Badri	...	25
	(xxv) Chiri	...	42
	(xxvi) Jiri	...	64
	<b>Total</b>	<b>3700</b>	<b>2584</b>
3.	<b>BIHAR</b>		
	(I) Damodar	...	...
	(ii) Ganga	510	510
	(iii) Gandak	300	300
	(iv) Koshi	233	160
	(v) Ghaghra	100	100
	(vi) Sone	226	31
	(vii) Mahananda	140	...
	(viii) Burhi Gandak	400	...
	(ix) Punpun	200	...
	(x) Phalgu Harihar	300	...
	(xi) Kiul	100	...
	(xii) Kari Koshi	150	...
	(xiii) Chandan	100	...
	(xiv) Karamnasha	144	...
	(xv) Others	860	290
	<b>Total</b>	<b>3763</b>	<b>1391</b>

Sl. No.	State/Rivers/Canals/Lakes	2009-10	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
4	<b>GOA</b>		
	(i) Mandovi	78	65
	(ii) Zuari	56	45
	(iii) Mapusa	26	20
	(iv) Chapora	34	25
	(v) Tiracol	29	15
	(vi) Sal	20	15
	(vii) Others	17	17
	(viii) <b>Total</b>	<b>260</b>	<b>202</b>
5	<b>GUJARAT</b>		
	(i) Narmada	250	50
	(ii) Tapti	200	25
	(iii) Ambica	136	30
	(iv) Auranga	75	10
	(v) Purna	141	14
	<b>Total</b>	<b>802</b>	<b>129</b>
6	<b>KARNATAKA</b>		
	(i) Sharavathi	80	27
	(ii) Tungabhadra	375	375
	(iii) Malaprabha	230	230
	(iv) Ghataprabha	160	160
	(v) Krishna	325	325
	(vi) Cauvery	270	34
	(vii) Kabini	117	22
	(viii) Gurupur	80	20
	(ix) Gangolli	48	20
	(x) Bheema	860	125
	(xi) Udyavara	37	14
	(xii) Netravathi	96	26
	(xiii) Kali	184	29
	<b>Total</b>	<b>2862</b>	<b>1407</b>
7	<b>KERALA</b>		
	(i) Manjeswar	16	3.2
	(ii) Uppala	50	...
	(iii) Shiriya	67	4.8
	(iv) Mogral	34	...
	(v) Chandragiri	105	12.8
	(vi) Chittari	25	...
	(vii) Nileswar	46	11.2
	(viii) Karingode	64	24
	(ix) Kavvayi	31	9.6
	(x) Peruvamba	51	16
	(xi) Ramapuram	19	6.4
	(xii) Kuppaxxivim	82	24

Table No. 1.1(Contd...)

## Navigable Waterways in India

ms.)

Sl. No.	State/Rivers/Canals/Lakes	2009-10	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
(xiii)	Valapattanam	110	44.8
(xiv)	Anjara Kandy	48	27.2
(xv)	Telcicherry	28	21.6
(xvi)	Mahe	54	24
(xvii)	Kuthiadi	74	9.6
(xviii)	Korapuzha	40	24.8
(xix)	Kallai	22	9.6
(xx)	Chaliyar	169	68.4
(xxi)	Kadalundy	130	43.2
(xxii)	Tirur	48	9.6
(xxiii)	Bharathappujha	209	40
(xxiv)	Keecheri	51	...
(xxv)	Puzhakkal	29	...
(xxvi)	Karivannur	48	24
(xxvii)	Chalakkudy	130	16
(xxviii)	Periyar	244	72
(xxix)	Muvattei puzha	121	25.6
(xxx)	Meenachil	78	41.6
(xxxi)	Manimala	90	54.4
(xxxii)	Pamba	176	73.6
(xxxiii)	Achan coil	128	32
(xxxiv)	Dallickal	42	2
(xxxv)	Kallada	121	40
(xxxvi)	Ithikkara	56	16
(xxxvii)	Ayroor	17	1
(xxxviii)	Vamanapuram	88	11.2
(xxxix)	Mamom	27	1
(xL)	Karamana	68	...
(xLi)	Neyyar	56	...
	<b>Total</b>	<b>3092</b>	<b>845.2</b>
8	<b>MAHARASHTRA</b>		
(i)	Dande River	2	1
(ii)	Pangere River	2	1
(iii)	Girye River	3	1
(iv)	Kajali River	35	5
(v)	Kalbadevi River	10	2
(vi)	Are River	6	1
(vii)	Jog River	10	5
(viii)	Kelshi River	10	3
(ix)	Savitri River(Bankot to Mahad)	45	40
(x)	Kal River	6	4
(xi)	Vaitarna River	24	9
(xii)	Ulhas River	32.5	28
(xiii)	Mahim River(Bay)	1.5	1
(xiv)	Amba River	23	20
(xv)	Patalganga River/Creek (Aware to Kharpada)	11	6.5
(xvi)	Kundalika River	16	16

Table No. 1.1(Contd...)

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2009-10	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
	(xvii) Mandad River(Rajpuri to Mandad)	14	10
	(xviii) Mhasla River(Turmad to Mhasla)	9	5
	(xix) Vashisti River(Dabhol to Govalkot)	45	38
	(xx) Jagbudi River(Karambavne to Khed)	20	20
	(xxi) Shastri River/Jaigad Creek(Jaigad to Kurudunda)	45	40
	(xxii) Rajapur River(Musakazi to Rajapur)	30	30
	(xxiii) Vagothan River/Vijaydurg Creek(Vijaydurg to Kharepatan)	38	22
	(xxiv) Gad Riv er(Kalaval Creek)	13	7
	(xxv) Terekhol River/Creek(Terekhol to Banda)	28	28
	(xxvi) Karli River(Malva)	23	13
	(xxvii) Others	129	105
	<b>Total</b>	<b>634</b>	<b>466</b>
9	<b>ORISSA</b>		
	(i) Mahanadi	493	199
	(ii) Brahmani	541	277
	(iii) Baitarani	344	32
	(iv) Subarnarekha	...	50
	(v) Budha Balanga	...	35
	(vi) Dhamara	...	20
	(vii) Salandi	...	17
	(viii) Panchputra	...	21
	(ix) Parnei	...	45
	(x) Hatel	...	30
	(xi) Bansagadal	...	32
	(xii) Hansua	...	37
	(xiii) Tirkota	...	18
	(xiv) Jamboo	...	6
	(xv) Gobari	...	16
	(xvi) Ramchandi	...	16
	(xvii) Kharansi	...	14
	(xviii) Batigharia	...	14
	(xix) Birupa	...	110
	(xx) Genguti	...	45
	(xxi) Luna	...	37
	(xxii) Devi	...	20
	(xxiii) Pradhi	...	15
	(xxiv) Kadha	...	30
	(xxv) Kusavadra	...	25
	(xxvi) Daya	...	9
	(xxvii) Rajua	...	7
	(xxviii) Makara	...	11
	(xxix) Others **	...	462
	<b>Total \$</b>	<b>1378</b>	<b>1650</b>
10	<b>TAMIL NADU</b>		
	(i) North Buckingham Canal	58	...
	(ii) Central Buckingham Canal	7	...
	(iii) South Buckingham Canal	105	...
	<b>Total</b>	<b>170</b>	...

Table No. 1.1 Contd...

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2009-10	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
11	<b>UTTAR PRADESH</b>		...
	(i) Gomti	960	...
	(ii) Rapti	778	...
	(iii) Ghaghra	1116	...
	(iv) Ganga	2345	425 #
	(v) Sai	760	...
	(vi) Tons	485	...
	<b>Total</b>	<b>6444</b>	
12	<b>WEST BENGAL</b>		
	(i) Hooghly	580	580
	(ii) Mahananda	206	58
	(iii) Ajoy	174	174
	(iv) Jalangi	232	232
	(v) Dwarka	129	129
	(vi) Bakreswar	102	102
	(vii) Damodar	437	437
	(viii) Dwarekeswar	103	103
	(ix) Silabati	135	135
	(x) Kumari	347	347
	(xi) Ichamati	232	232
	(xii) Others@	2064	2064
	<b>Total</b>	<b>4741</b>	<b>4593</b>
13	<b>NAGALAND</b>		
	(i) Doyans	185	105
	(ii) Tizu/Zungki	287	90
	(iii) Dhansiri/Chathe	170	75
	(iv) Dikhu	120	52
	(v) Tapi-Yangnyu	95	18
	(vi) Tsurang/Disai	60	15
	(vii) Others	20	20
	<b>Total</b>	<b>937</b>	<b>375</b>
14	<b>MIZORAM</b>		
	(i) R. TlawNg (Dhaleswari)	185	60
	(ii) R. Kolodyne (Chhimtuipoi)	138	138
	(iii) Khawthlang Tuipui	128	40
	(iv) R. Tuichawrg	108	55
	<b>Total</b>	<b>559</b>	<b>293</b>

\*\* Including Canals.

@ Includes 268 Kms. each of Total Length and Navigable Length pertaining to canals.

... : Not available

# Navigable length Pertains to NW I for Allahabad-Buxar stretch in Uttar Pradesh is available.

\$ Total length is less than navigable length as length of canals is not provided whereas navigable length of canals is provided.

Source: IWT Directorate of states &amp; IWAI.

Table No. 1.2

## Infrastructure Facilities Available on National Waterways (As on 31-3-2009)

Navigational Channel	Availability and Capacity of Terminals						Remarks
	Depth (Meters) about 330 days in a year	Place	Size of Vessels that can be accommodated (DWT)	No. of Berths	Cargo Handling Equip. and their Capacity	Type and Extent of Storage Facility Available	
1	2	3	4	5	6	7	8
<b>National Waterway No.1</b>							
<b>1. Haldia - Farakka</b> (560 Km)	2.5	(a) Haldia	600	One(Floating)	One EOT crane of capacity 1 Ton.	One godown of size 12x30m and open storage (1630 sq.m.).	
		(b) G.R. Jetty (BISN), Kolkata	600	One(Floating)	-	Open storage	
		(c) Botanical garden, Kolkata	600	One(Floating)	-	-	
		(d) Putimari (pakur)	600	One(fixed)	-	-	Owned by Farakka Barrage Project.
		(e) Farakka	600	One(fixed) and one (floating)	-	One covered godown	Both the berth and godown are owned by Farakka Barrage Project
		(f)Shantipur	600	One(Floating)			
		(g) Katwa	600	One(Floating)			
<b>2. Farakka - Patna</b> (460 km)	2.0	(h) Rajmahal(Manglaghat)	600	One(Floating)	-	-	Fully operational condition for cargo operation
		(i) Samudarghat(Sahibganj)	600	One(Floating)	-	-	- do -
		(j) Manihari	600	One(Floating)			- do -
		(k) Bhagalpur	600	One(floating)	-	Open storage	- do -
		(l) Semaria	600	One(floating)			- do -
		(m) Patnazz	600	One (floating) and one (fixed)	Pontoon with crane facility and shore crane	Open storage and one godown of 45 x 15 m	Low level permanent berth capable of handling containers and general cargo. Besides storage facility, bunkering facility, weigh bridge etc. and one container crane also available. Project for high level jetty also approved.
<b>3. Patna-Varanasi</b> (363 km)	1.5	(n) Dorigang	600	One (Floating)	-	-	
		(o) Buxer	601	One (Floating)			
		(p) Ghazipur/Kaithy	600	One (floating)	-	-	
<b>4. Varanasi-Allahabad</b> (237 km)	0.8	(q) Chunar	600	One(floating)	-	-	
		(r) Allahabad	600	One (floating)	Pontoon with crane	Open storage	
1) Floating terminals with pontoon/crane can be provided at any location along waterway on demand.							
2) Night navigation aids have been provided between Tribeni and Varanasi							
3) River notices are issued on fortnightly/monthly.							
6							

Table No 1.2 Contd....

## Infrastructure Facilities Available on National Waterways (As on 31-3-2009)

Navigational Channel	Availability and Capacity of Terminals						
	Depth (Meters) about 330 days in a year	Place	Size of Vessels that can be accommodated (DWT)	No. of Berths	Cargo Handling Equip. and their Capacity	Type and Extent of Storage Facility Available	Remarks
1	2	3	4	5	6	7	8
		(b) Jogighopa	600	One(floating)	-	-	Terminal being developed for cool loading.
		(c) Pandu	600	One(floating)	Two floating and Two godowns each of size 75x20m and	Construction of one low level permanent berth for handling container and general cargo under progress.	
<b>2. Pandu-Neamati</b> (376 km)	2.0	(d) Tezpur	600	One(floating)	-	-	
		(e) Silghat	600	One(floating)	Pipeline for POL	-	
		(f) Jamuguri	600	One(floating)	-	-	
<b>3. Neamati-Dibrugarh</b> (137 km)	2.0	(g) Neamati	600	One(floating)	-	-	
<b>4. Dibrugarh-Sadiya</b> (123 km)	1.0	(h) Dibrugarh	600	One(floating)	-	-	
					-	-	

Note:

- 1) Floating terminals with pontoon/crane can be provided at any location along waterway on demand.
- 2) Night navigation aids are available between Tribeni and Varanasi
- 3) River notices are issued on fortnightly/monthly.

Table No 1.2 Contd....

## Infrastructure Facilities Available on National Waterways (As on 31-3-2009)

Navigational Channel	Availability and Capacity of Terminals						
	Depth (Meters) about 330 days in a year	Place	Size of Vessels that can be accommodated (DWT)	No. of Berths	Cargo Handling Equip. and their Capacity	Type and Extent of Storage Facility Available	Remarks
1	2	3	4	5	6	7	8
3. Champakara Canal (14 km)	2.0	(c) Ernakulam GC (Maradu)	350	One fixed	One 18 T crane & 3 T Fork lift	Covered storage(20x20m) Open storage(2000 sqm)	
		(d) Kakkanad (CSEZ)			-	-	Only Land for terminal acquired
4. Kochi-Alapuzha (63 km)	2.0	(e) Vaikkom	350	One fixed	One 18 T crane & 3 T Fork lift	Covered storage(20x20m) Open storage(2000 sqm)	
		(f) Chertala	350	One fixed	One 18 T crane & 3 T Fork lift	Covered storage(20x20m) Open storage(2000 sqm)	
		(g) Alapuzha					Land yet to be handed over by State Govt.
5. Alapuzha-Kollam (71 km)	1.5	(h) Trikunnapuzha	350	One fixed	One 18 T crane & 3 T Fork lift	Covered storage(20x20m) Open storage(2000 sqm)	
		(i) Kayamkulam	350	One fixed	One 18 T crane & 3 T Fork lift	Covered storage(20x20m) Open storage(2000 sqm)	
		(j) Chavara					Only land acquired
		(k) Kollam (l) willingdon island	12 TEU	Container Material	5 T Crane through agency	5000 sqm open storgae	A contauner terminal is under construction These terminals are constructed for containers movement to ICTT, agency has been selected operation of Ro-Ro barge service
6. CPT Area	2.2	(m) Bolgatty island	12 TEU	Container Material	40 T Crane through agency	8000 sqm open storgae	



Table No 1.3

## Infrastructure Facilities Available on State Waterways (As on 31-3-2010)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9
1	ANDHRA PRADESH	NIL	NIL	NIL	NIL	NIL	NIL	NIL
2	ASSAM*	....	....	....	....	....	....	....
3	BIHAR	2 metres	(I) (a) Sahebganj- Manihari	134'x31'x2 Nos 80'x15'x7"x1No 55x13'3"x4'8"x1 Nos	2 Nos. 2 Nos.	Nil Nil	Nil Nil	- -
			(II) Kahalgaon- Tintanga	60'x16'x6'x2Nos.	2 Nos.	Nil	Nil	-
			(III) Sultanganj - Agwani	70'x18'x6'x1 No.	2 Nos.	Nil	Nil	-
			(IV) (a) Munghyr- Raighat	56'3"x14'2"x5'9"x1 No. 58'3"x16'4"x5'8"x1 No. 47'2"x12'6"x5'8"x1 No. 59'5"x15'6"x5'6"x1 No.	2 Nos.	Nil	Nil	-
			(V) Buxar-Ujirghat	NA 1 No.	2 Nos.	Nil	Nil	-
4	GOA							
	Panaji Port (River Mandoi)	3 metres	Panaji	75 Mtrs Length	1	-	-	Ports jetty being used by vessels calling in the Ports
5	GUJARAT	-	-	-	-	-	-	-
	Mangleshwar-Kabirwad Narmada	3.5 to 4 Meters	Mangleshwar	Boat	-	NA	NA	NA
	Tapi-Magdalla Bridge	2.5to3.5Meters	Surat	Boat	-	Small Equip.	NA	NA
7	KARNATAKA	Nil	Nil	Nil	Nil	Nil	Nil	
8	KERALA*	-	-	-	-	-	-	-
9	MAHARASHTRA*	-	-	-	-	-	-	-

Table No 1.3 Contd...

## Infrastructure Facilities Available on State Waterways (As on 31.3.2010)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9

## 10 ORISSA

**Balugaon Sector**

Balugaon-K.Prasad	Varies between 2 to 10 metres	Lake Chalika	30 ft	2	-	NA	Passenger waiting hall is available at Balugaon. Repair of jetties and construction are needed. Black wall at Balugaon and Krishnaprasad waiting hall is not available at Krishnaprasad at present.
Balugaon-Kalijai	2 to 10 Metres	Lake Chalika	40 ft	2	-	NA	Block wall at kalijai is available for berthing & landing. Waiting hall is not available at kalijai.
Balugaon-Nuapada	2 to 4 Metres	Lake Chalika	30 ft	2	-	-do-	No Jetty and waiting hall is available at Nuapada.
Balugaon-Satapada	2 to 4 Metres	Lake Chalika	30 ft	2	-	-do-	Berthing & landing facilities are available at Satapada. No waiting hall is availing for the passengers at present.
<b>Astrang Sector</b>							
Nuagarh-Sribantpur	2 to 10 Metres	River Devi	26 ft	3	-	-do-	No jetty & wating hall is available for the sector.
<b>Chandbali Sector</b>							
Chandbali-Rajnagar	Varies between 7 to 18 metres	River Baitarani/	52 ft	13	-	-do-	Jetty & waiting hall are available at Chandbali. The Jetty at Rajnagar washed
Chandbali-Talucha	Varies between 7 to 20 metres	Baitarani/Kharastrot/	50 ft	10	-	-do-	Jetty at Nalitapatia in the Chandball. Talchua, route has been severely damaged during super cyclone 1999 & Floor 2001. Waiting hall at Nalitapatia is not availabl
Chandbali-Aradi	Varies between 7 to 18 meters	Brahmani	35'	3	-	-do-	Both Jetty and waiting hall is available at Aradi. Both the structures require repair & renovation.

Table No 1.3 Contd...

## Infrastructure Facilities Available on State Waterways (As on 31.3.2010)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9
<b>11 TAMILNADU</b>								
		....	....	....	....	....	....	....
<b>14 ANDAMAN &amp; NICOBAR</b>								
		....	....	....	....	....	....	....
<b>15 NAGALAND**</b>								
1.	Tiru River	1.5 to 8	Lpmgmatra - Pursutsu Phokungri	-	-	-	-	Under survey.
<b>16 MIZORAM #</b>								
1.	R. Tlawng	0.5 - 3.00	(a) Sairang (b) Assam Border	Country Boat	-	-	-	Being hill rivers there are many rapids. Small molotorised boat can navigate in monsoon and small country boat in dry season
2.	R. Kolodyne	0.5 - 3.00	(a) Kawichaw (b) Ngengpulchhuah	Country Boat	-	-	-	-do-
3.	R. Khawthlang	0.5 - 3.00	(a) Marpara (b) Bangladesh Border	Country Boat	-	-	-	-do-
4.	R. Twichawng	0.5 - 3.00	)a_ Chawngte (b) Diplibagh	Country Boat	-	-	-	-do-

Data not received.  
Source : State Govts.

\*\* pertains to 2007-08 # pertains to 2008-09

**SECTION – 2**

**CARGO MOVED ON**

**VARIOUS WATERWAYS**

**Table No. 2.1****Cargo Movement on National Waterways,  
Goa & Maharashtra Waterways**

SI.No.	Details of Waterway	Distance (Kms)	Cargo Moved (lakh Tonnes)		TonneKms (in lakh)	
			2008-09	2009-10	2008-09	2009-10
1	2	3	5	4	7	6
1	National Waterway No. I  (Allahabad-Haldia stretch of  Ganga – Bhagirathi – Hooghly  river system)	1620	13.54	18.37	7068	10402
2	National Waterway No. II  (Sadiya-Dhubri stretch of  Brahmaputra River system)	891	2.31	1.83	142	74
3	National Waterway No. III  (Kollam-Kottapuram stretch  of West Coast Canal along  with Champakara Canal  and Udyogmandal Canal)	205	7.66	6.67	109	97
	Sub Total NWs	2716	23.51	26.87	7319	10573
4.00	Goa Waterways	202	457.10	544.32	19677	23405
5	Maharashtra Waterways	453	99.63	125.1	2487	3107
	<b>Grand Total</b>	<b>3371</b>	<b>580.24</b>	<b>696.29</b>	<b>29483</b>	<b>37085</b>

Source : Inland Waterways Authority of India for National Waterways  
Data for Goa Waterways include the data received from Ports department, Govt of Goa and the  
the data received from the Mormugao Port Trust.(MPT)  
Maharashtra Maritime Board for Maharashtra Waterways

**Table No 2.1****Details of Cargo Moved on National Waterways  
(National Waterway No.I) - THE GANGA**

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>A. CIWTC</b>						
1	Haldia-Budge-Budge	74	....	...-	3300	POL, Waste Oil
2	Kolkata-Bangladesh * (I)Saugar-Diamond Harbour/Haldia /Kolkatta/ Kolkatta Internal	790	1500	5100	545	Flyash,Slag, Pulses,Logs,Salt,Iron Ore,Steel, Fly Ash,Aluminium block
3	Kolkata-Karimganj-Badarpur	144/80	192304	66773	140766	GC, Cement, Fly ash,EdibleOils,Cement Clinkers.
4	Bangladesh-Assam-Bangladesh	1218	2807	2197	2043	Cement,POL
5	Jogighopa-Badapur	690	3475	....	0	
6	Haldia-Gorma Island	1089			550	
7		30			41841	
<b>Sub Total (A)</b>			<b>200086</b>	<b>74070</b>	<b>189045</b>	
<b>B. VIVADA IWL</b>						
1	Haldia-Kolkata	100	218815	...	...	POL.
2	Haldia-Budge-Budge	78	86705	78823	209236	FO, LDO, HSD
3	Haldia-Kantapur	104	...	17612	10955	FO
4	Haldia-NSD	...	...	103995		LO,HSD
5	Haldia-River Moori	...	...	112277		FO,HSD, LDO
6	Budge-Budge-Kolkata	22	16824	...		POL.
7	Budge-Budge-NSD	...	...	8132		HSD/LDO
8	Budge-Budge-Surinam	48	...	...	49608	FO, HSD
9	Budge-Budge-KPD	...	...	659		FO, HSD
10	Budge-Budge-Haldia	78	17085	12122	3931	LDO
11	Haldia-Namkhana	...	...	3569		LDO
<b>Sub Total (B)</b>			<b>291548</b>	<b>337189</b>	<b>273730</b>	

.. : Not available.

\* : The route is a link between NW-I &amp; NW-II through Banagladesh.

Cargo handled in this route is taken in NW-I.

^ : Data for the year 2007-08 , 2008-09 and 2009-10 is taken from monthly returns.

Table No 2.1 Contd....

**Details of Cargo Moved on National Waterways  
(National Waterway No.1) - THE GANGA**

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>C.</b>	<b>OTHER PRIVATE OPERATORS</b>					
<b>1</b>	<b>TIRUPATI VESSEL( P)LTD.</b>					
1	Klokatt-Mongla (Bangla desh)		...	...	7034	Flyash
2	Kolkatta-Khulna (Bangla desh)		...	...	45288	Flyash
3	Kolkatta-Narayanjung (B'Desh)		...	...	361146	Flyash
<b>2</b>	<b>RELIANCE EXPORT CORPORATION</b>					
1	Kolkata-Narayanganj(B'Desh)		...	...	9233	IronOre
2	Haldia-Narayanganj(B'Desh)		...	...	10534	Flyash
<b>3</b>	<b>Maitrayee Shipping &amp; Logistics</b>					
1	Kolkatta-Khulna (B'Desh)	424	...	...	8711	Flyash
2	Kolkatta-Narayanjung (B'Desh)	758	...	...	41629	Flyash
3	Kaldia-Khulna(B'Desh)	446	...	...	6440	Flyash
4	Haldia-Narayanjung (B'Desh)	758	...	...	15945	Flyash
<b>4</b>	<b>P K Shipping</b>					
1	Kolkata-Khulna (B. Desh)	424	...	...	1308	Flyash
2	Kolkata-Narayanganj(B. Desh)	758	...	...	138017	Flyash, Slg, MS wired rod
3	Kolkatta-Karimgung	1318	...	...	980	Flyash
<b>5</b>	<b>SOHOM COMMERCIAL</b>					
1	Kolkata- Khulna(B' Desh)	424	...	...	881	Flyash
2	Kolkata-Narayanganj (B' Desh)	758	...	...	47106	Flyash
<b>6</b>	<b>RENAISSANCE IMPEX Pvt Ltd</b>					
1	Kolkata-Narayanganj ( B'Desh)	758	...	...	41541	Slag,Flyash,MS wire Rod
2	Haldia-Khulna(B. Desh)	446	...	...	4518	Flyash
3	Haldia-Narayanganj	780	...	...	12999	Flyash, Slag
<b>7</b>	<b>R.S. SHIPPING</b>					
1	Kolkata-Narayanganj	758	...	...	782	HP Seprator, MS Wire Rod
2	Kolkatta-Pandu	1518	...	...	926	Machinery
<b>8</b>	<b>GLOBAL SHIPPING</b>					
1	Kolkata-Khulna	424	...	...	1959	Flyash
2	Kolkata-Narayanganj(B' Desh)	758	...	...	18198	Flyash
3	Haldia-Mongla(B' Desh)	413	...	...	2323	Flyash
4	Kolkata-Mongla(B' Desh)	413	...	...	9814	Flyash
5	Haldia-Narayanganj(B' Desh)	780	...	...	1268	Flyash

Table No 2.1 Contd....

**Details of Cargo Moved on National Waterways  
(National Waterway No.1)- THE GANGA**

(In tonnes)

SI. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>9</b>	<b>COASTAL CONNEXIONS</b>					
1	Kolkata-Narayanganj(B' Desh)	758	...	...	64342	Flyash
2	Haldia-Narayanganj	780	...	...	5966	Flyash
3	Haldia-Khulna	446	...	...	7972	Flyash
<b>10</b>	<b>KANISHKA SHIPPING LINES</b>					
1	Kolkata-Narayanganj(B' Desh)	758	...	...	19817	Flyash
2	Haldia-Narayanganj (B' Desh)	780	...	...	767	Flyash
3	Kolkata-Khulna(B' Desh)	424	...	...	3944	Flyash
<b>11</b>	<b>Eastern Navigation Pvt Ltd., Kolkata</b>					
1	Kolkata-Jamnia	1065	...	...	1216	Boiler Drum, Stator(ODC)
2	Kolkata-Barh	751	...	...	286	Boiler Drum, Stator(ODC)
3	Kolkata- Ballia	923	...	...	1116	Stator(ODC)
4	Kolkata-Fatur	854	...	...	690	Flyash
<b>12</b>	<b>A.K.Navigation</b>					
1	Kolkata- Narayanganj		...	...	4025	Flyash
2	Kolkata-Khulana		...	...	1703	Flyash
<b>13</b>	<b>Desha International</b>					
1	Haldia- Narayanganj		...	...	176611	Flyash
2	Kolkata-Narayanganj		...	...	208097	Flyash, Coal Durt, Slag
3	Haldia-Kulna		...	...	10750	
4	Kolkata-Kulana		...	...	7055	
5	Kolkata-Mongla		...	...	780	
6	Haldia-Mongla		...	...	685	
<b>14</b>	<b>Reliance Enterprise</b>					
1	Kolkata-Narayanganj				43049	Flyash
2	Haldia-Narayanganj				10005	Flyash
3	Haldia-Kulna				1848	Flyash
4	Kolkata-Kulna				3885	Flyash
5	Kolkata-Mongla				580	
<b>15*</b>	<b>Private Operators</b>					
	Kolkata-Narayanganj		811553	810908		Flyash,Non Alloy Steel,Wire Rod,Slag,ODC packages,ironOre,Steel Sheet,rice, Clay lamps
	Kolkata-Khulna		115034	88967		Fly Ash,Gypsum
	Kolkata-Mongla		28237	34237		Flyash,Slag
	Narayanganj-Pandu		1100	...		Cement
	Kolkata-Karimganj		2214	...		Flyash
	Zakiganj-karimganj		602	...		Flyash
	Karimganj-Kolkata		3386	...		Clinker
	Kolkata-pandu		300	1441		Edibleoil
	<b>Sub Total ( C )</b>		<b>-</b>	<b>962426</b>	<b>935553</b>	<b>1363769</b>

\* : Names of Private operators not available



Table No 2.1 Contd....

**Details of Cargo Moved on National Waterways  
(National Waterway No.1) - THE GANGA**

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>D</b>	<b>IWAI</b>					
<b>1</b>	<b>M.V. RAJGOPALACHARI</b>					Cement, Stonechip, Bitumen, Jute, Bales, Coal
1	Rajmahal-Kolkata		925	876	...	SilicaSand
2	Rajmahal-Haldia		...	...	...	Iron Ore
3	Haldia-Patna		1535	325	...	Edible-Oil
4	Haldia-Guwhati		...	...	...	Edible Oil
5	Haldia-Karimganj		...	516	...	Bitumin
<b>2</b>	<b>M.V.LALBAHADURSHATRI</b>					
1	Rajmahal-Kolkata		250	...	...	SilicaSand, China Glay
2	Haldia-Patna		638	...	...	Edible-Oil
3	Kolkatta-Karimgunj		...	229	...	SoneSand
4	Rajmahal-Haldia		...	...	...	Iron Dust
5	Haldia-Karimganj		237	...	...	Edible Oil
<b>3</b>	<b>M.V.Homi Bhabha</b>					
1	Sahibgunj-Patna		...	745	...	Iron-dust
2	Haldia-Patna		1684	423	...	Edible-Oil
3	Rajmahal-Kolkata		1337	560	...	Chinaclay, Silica Sand
4	Haldia-Karimganj		...	...	...	Edible Oil
<b>4</b>	<b>MV Vishweshsariya</b>					
1	Haldia-Varansi		590	...	...	CDSB Oil
<b>5</b>	<b>MV Rabindra Nath Tagore</b>					
1	Haldia-Karimganj		...	...	...	Edible Oil
<b>2</b>	<b>Sahibgunj-Patna</b>					
2	Sahibgunj-Patna		...	285	...	Stone chips
<b>6</b>	<b>D.B.Sucheta</b>					
1	Rajmahal-patna		907	...	...	Stone chips
2	Sahibgunj-Patna		...	2717	...	
<b>7</b>	<b>Private Operator</b>					
1	Haldia-Semaria		375	...	...	
2	Haldia-Patna		...	473	...	ODC
3	Kolkata-Ballia		...	337	...	
<b>8</b>	<b>Cargo handled at Patna Terminal</b>					
1	Haldia-Patna				300	Edible Oil and others
2	Kolkatta-Karimganj				300	flyash
3	Haldia_Pandu				1134	Edibleoil
4	Patna-Kolkatta				283	Silicasand
5	Samdaghat-Patna				8551	Stonechips
	<b>Sub Total (D)</b>		<b>-</b>	<b>8478</b>	<b>7486</b>	<b>10568</b>
	<b>Total (NW-I) (A+B+C+D)</b>		<b>1317395</b>	<b>1510419</b>	<b>1837112</b>	

... : Not available.

Source : Inland Waterways Authority of India / CIWTC.

Table No 2.1 Contd....

**Details of Cargo Moved on National Waterways  
(National Waterway No.II)- BRAHMAPUTRA**

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>A. CIWTC</b>						
1	Kolkata-Banladesh #	790	...	5100	545	Fly Ash, slag
2	Bangladesh-Assam-Bangladesh ;	440	3475	...	...	Cement,POL
<b>Sub Total</b>			<b>3475</b>	<b>5100</b>	<b>545</b>	
<b>B. Other Pvt.Operators</b>						
1	Silghat-Kolkata	1711	1268	...	...	HSD
2	Narayanganj-Pandu	665	1000	...	...	Cement
3	Silighat-Baghabari	590	3436	1169	...	HSD
4	Kolkata-Jogighopa	1392	...	882	166	Boiler with accessories,, Separator(ODC)
5	Kolkata-Pandu	1535	...	...	237	Shed/Valve/Rubber(ODC)
6	Kolkata-Tejpur	1693	...	...	689	Main Shed (ODC), Main Volve Turbine Runner(ODC)
<b>Sub Total</b>			<b>5704</b>	<b>2051</b>	<b>1092</b>	
<b>C</b>	<b>IWTD Assam</b>		1298410	224158	...*	Goods
<b>D</b>	<b>Unorganised Sector</b>				181168	Goods
<b>E</b>	<b>IWAI Vessel</b>					
1	Haldia-Pandu		...	...	...	
2	Jagighopa-Badapur	1120	...	...	200	Bamboo
3	Kolkata-Pandu	1535	...	...	336	Edibleoil
<b>Sub Total(D+E)</b>			<b>1298410</b>	<b>224158</b>	<b>181704</b>	
<b>Total (NW-II)(A+B+C+D+E)</b>			<b>1307589</b>	<b>231309</b>	<b>183341</b>	

**Source : Inland Waterways Authority of India / CIWTC**

... : Not available.

# : Also shown in movement on NW I.

\*: Data of IWT Directorate, Govt of Assam not included

Table No 2.1 Contd....

**Details of Cargo Moved on National Waterways  
(National Waterway No.III) - WEST COAST CANAL,  
CHAMPAKARA CANAL & UDYOG MANDAL CANAL**

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2007-08(^)	2008-09(^)	2009-10(^)	Cargo generally moved
1	2	3	4	5	6	7
<b>A. CHAMPAKARA CANAL</b>						
1	<b>KSINC</b>					
	Cochin Port-FACT-CD	21.5	210071	207015	31195	Raw Sulphur, Rock Phosphate & Phosphoric Acid etc..
2	<b>LOTS Shipping &amp; Trading</b>					
	Cochin Port-FACT-LD	21.5	45092	...	...	Raw Sulphur, Rock Phosphate & Phosphoric acid
	Cochin Port-Cochin Shipyard	4	2447	...	...	Steel
	Cochin Port-FACT-CD	21.5	...	748	121086	Raw Sulphur, Rock Phosphate & Phosphoric Acid & Stone aggregates
3	Kerala Backwater Navigation Co	21.5	...	...	37676	Rock Phosphate, Sulphur
	<b>Sub Total</b>	-	<b>210819</b>	<b>254554</b>	<b>189957</b>	
<b>B. UDYOGMANDAL CANAL</b>						
1	<b>LOTS Shipping &amp; Trading*</b>					
	Cochin Port FACT-UD	20	71983	162059	163860	Zibframe, Sulphur, Furnance oil
	Cochin-Port-Vallarapadam	20	...	...	19791	Stone aggregate
	Cochin Port-Binani Zinc Ltd.	20	52783	...	...	furnance oil, Zinc, Sulphur
	BPCL/IOC FACT PD	20	...	...	14684	Stone aggregate, Furnance oil
	Alwa MULAVUKADUD	10	...	...	6751	Aggregate
2	<b>KSINC*</b>					
	Cochin Port-FACT UD	20	...	...	10169	Rock Phosphate , Sulphur
3	<b>Kerla Back wtare Navigation</b>					
	Fact Willingdon Island Fact UD	20	...	...	22558	Sulphur.
	<b>Sub Total</b>		<b>124766</b>	<b>181850</b>	<b>218022</b>	
<b>C. THE WEST COASTAL CANAL</b>						
1	<b>KSINC Ltd*.</b>					
	Fine Arts Jetty- Vypeen	4	287930	247630	176600	POL, Coal
	ErnaKulum terminal-Cochin port	5	20412	43830	34376	Potable water
	Ernakulum Vypeen Island	4	...	...	22800	POL
	Cochin port Ships	5	...	...	6768	Potable water
2	<b>Travancore Cements Ltd.</b>					
	Vaikom- Chitramangalam	20	29200	38350	18650	POL
3	<b>Lots Shipping &amp; Trading Company</b>					
	Fact engg works Cochin shipyard	6	...	...	24	Lime shell with clay& othe rimpurities
	<b>Sub Total</b>		<b>337542</b>	<b>329810</b>	<b>259218</b>	Tank
	<b>Total (NW-III)</b>		<b>673127</b>	<b>766214</b>	<b>667197</b>	
	<b>GRAND TOTAL (NW-I+NW-II+NW-III)</b>		<b>3491135</b>	<b>2351821</b>	<b>2687650</b>	

Source : Inland Waterways Authority of India.

... : Not available.

**SECTION – 3**

**COMMODITY-WISE, ROUTE-WISE  
CARGO CARRIED, FREIGHT EARNED,  
INCOME & EXPENDITURE OF CIWTC**

**Table No. 3.1****Traffic and Freight Earnings of Central Inland Water****Transport Corporation (CIWTC)**

Period	Traffic carried (000 tonnes)	Tonne Km Performed (Lakh)	Total Earnings (Rs.Lakh)
1	2	3	4
1981-82	75	780	163
1982-83	122	813	135
1983-84	201	928	210
1984-85	255	1184	372
1985-86	304	1621	501
1986-87	321	1566	581
1987-88	288	1434	452
1988-89	304	1415	485
1989-90	410	1163	566
1990-91	385	1197	581
1991-92	289	639	427
1992-93	312	1111	640
1993-94	242	1033	552
1994-95	331	968	781
1995-96	325	994	837
1996-97	188	677	718
1997-98	243	524	802
1998-99	141	311	815
1999-00	251	525	1202
2000-01	106	283	641
2001-02	68	269	462
2002-03	86	392	560
2003-04	66	315	497
2004-05	54	242	479
2005-06	85	143	489
2006-07	220	257	578
2007-08	200	238	405
2008-09	74	110	409
2009-10	189	165	434

Source : CIWTC

Note : Total freight earned includes towing /hire/detention charges/  
additional freight/godown rent/misc. charges etc. as detailed in Table 3.3.

**Table No. 3.2****Cargo Carried And Freight Earned by CIWTC-Commodity-wise**

Sl. No.	Commodity	2007-08		2008-09		2009-10	
		Tonnes Carried	Freight Earned (Rs. Lakh)	Tonnes Carried	Freight Earned (Rs. Lakh)	Tonnes Carried	Freight Earned (Rs. Lakh)
1	2	7	8	7	8	7	8
1	Fly Ash	1500	1.65	3747	24.02	2043	17.00
2	Pol	1975	4.89	-	-	1100	2.35
3	Cut Bamboo	-	-	-	-	550	3.02
4	Iron Ore	1781	320	-	-	-	-
5	Slag	-	-	-	-	545	2.86
6	Waste Oil	-	-	-	-	2200	5.24
7	Aluminium Block	-	-	800.00	1.22	-	-
8	Boulder	-	-	-	-	41841	9.89
9	Cement/W.Cement	1500	2.91	-	-	-	-
10	Cement Clinkers	2307	4.91	-	-	-	-
11	Peas	-	-	30100.00	36.18	-	-
12	Pet Cake/Personal Effect	-	-	-	-	-	-
13	E.Oil	500	4.63	550	5.10	-	-
14	Misc.	190523	231.08	38873	59.47	140766	158.28
<b>SUB TOTAL</b>		<b>200086</b>	<b>253.27*</b>	<b>74070</b>	<b>125.99*</b>	<b>189045</b>	<b>198.64*</b>

\* this relates to commodity-wise earnings

The Non Commodity Earnings are as under :

**Activity**

Vessel hire, Godown	-	152.07	-	283.51	-	235.99
Rent, Storage ,Towage etc.	-	-	-	-	-	-
<b>SUB TOTAL</b>	<b>-</b>	<b>152.07</b>	<b>-</b>	<b>283.51</b>	<b>-</b>	<b>244.39</b>

<b>GRAND TOTAL</b>	<b>200086</b>	<b>405.34</b>	<b>74070</b>	<b>409.50</b>	<b>189045</b>	<b>434.63</b>
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Note :The figures are compiled on the basis of the monthly data received from CIWTC.

Table No 3.3

## Commodity-wise, Route-wise Cargo Carried, Freight Earned and Tonne Kms. Performed by CIWTC - 2007-08 to 2009-10

Sl. No.	Route	Distance (in Kms)	Commodity	Tonnes Carried			Freight Earned(Rs.in Lakh)			Tonne/Kms(in Lakh) Performed			
				2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	
1	2	3	4	6	7	7	8	9	10	11	12	13	
1	Kolkata - Bangladesh	446 - 780	Fly Ash	1500	2100	-	1.65	10.17	-	11.70	9.37	-	
			Salt	-	-	-	-	-	-	-	-	-	
			Slag	-	3000	545	-	13.8	2.86	-	13.38	4.25	
			Accessories	-	-	-	-	-	-	-	-	-	
			<b>TOTAL</b>	<b>1500</b>	<b>5100</b>	<b>545</b>	<b>1.65</b>	<b>23.97</b>	<b>2.86</b>	<b>11.70</b>	<b>22.75</b>	<b>4.25</b>	
2	Bangladesh - Kolkata	446 - 780	Jute	-	-	-	-	-	-	-	-	-	
			Machinery	-	-	-	-	-	-	-	-	-	
			Towage Charges	-	-	-	-	-	-	-	-	-	
			<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Kolkata-Bangladesh-Kolkata</b>				<b>TOTAL</b>	<b>1500</b>	<b>5100</b>	<b>545</b>	<b>1.65</b>	<b>23.97</b>	<b>2.86</b>	<b>11.70</b>	<b>22.75</b>	<b>4.25</b>
3	Haldia-Budge-Budge		Waste Oil	2200	-	-	2.91	-	5.24	10.95	-	-	
			Pol	1100	-	-	4.89	-	2.35	12.84	-	1.64	
												0.82	
			<b>TOTAL</b>	<b>3300</b>	<b>-</b>	<b>-</b>	<b>7.80</b>	<b>-</b>	<b>7.59</b>	<b>23.79</b>	<b>-</b>	<b>2.46</b>	
4	Karimganj	1218-1248	Edible Oil	500	550	-	4.63	5.1	-	6.09	6.7	-	
			Fly Ash	-	1647	2043	-	13.85	17	-	20.55	25.33	
			<b>TOTAL</b>	<b>500</b>	<b>2197</b>	<b>2043</b>	<b>4.63</b>	<b>18.95</b>	<b>17</b>	<b>6.09</b>	<b>27.25</b>	<b>25.33</b>	
5	Karimganj - Kolkata	1218-1248	Cement clinkers	2307	-	-	4.91	-	-	28.80	-	-	
			Personal Effect	-	-	-	-	-	-	-	-	-	
			<b>TOTAL</b>	<b>2307</b>	<b>-</b>	<b>-</b>	<b>4.91</b>	<b>-</b>	<b>-</b>	<b>28.80</b>	<b>-</b>	<b>-</b>	
			<b>Kolkata-Karimganj-Kolkata</b>	<b>TOTAL</b>	<b>2807</b>	<b>2197</b>	<b>2043</b>	<b>9.54</b>	<b>18.95</b>	<b>17</b>	<b>34.89</b>	<b>27.25</b>	<b>25.33</b>
6	Haldia-Ghormalsland	417-1060	Boulders	-	-	41841	-	-	9.89	-	-	7.03	
			<b>TOTAL</b>	<b>-</b>	<b>-</b>	<b>41841</b>	<b>-</b>	<b>-</b>	<b>9.89</b>	<b>4.74</b>	<b>-</b>	<b>7.03</b>	

Table No 3.3 Contd....

## Commodity-wise, Route-wise Cargo Carried, Freight Earned and Tonne Kms. Performed by CIWTC - 2007-08 to 2009-10

Sl. No.	Route	Distance (in Kms)	Commodity	Tonnes Carried			Freight Earned(Rs.in Lakh)			Tonne/Kms(in Lakh) Performed		
				2007-08	2008-09	2009-10	2007-08	2008-09	2009-10	2007-08	2008-09	2009-10
1	2	3	4	6	7	7	8	9	10	11	12	13
7	Lighterage	44-144	Peas		30100	-		36.18	-		28.48	-
	Operation at Saugar		Iron Ore	1781	-	-	3.20	-	-	1.42	-	-
	/Haldia Diamond		Salt (in bags)	-	-	-	-	-	-	-	-	-
	Harbour-Kolkata		Misc.	190523	35873	140766	231.08	45.67	158.28	166.60	31.57	119.7
			<b>TOTAL</b>	<b>192304</b>	<b>65973</b>	<b>140766</b>	<b>234.28</b>	<b>81.85</b>	<b>158.28</b>	<b>168.02</b>	<b>60.05</b>	<b>119.7</b>
8	Jogihopa-Baobapur		Cut Bamboo	-	800	550	-	1.22	3.02	-	0.02	5.99
	Internal											
			<b>TOTAL</b>	<b>-</b>	<b>800</b>	<b>550</b>	<b>-</b>	<b>1.22</b>	<b>3.02</b>	<b>-</b>	<b>0.02</b>	<b>5.99</b>
9	Misc.											
	Tug Hire and											
	Godown Rent			-	-	-	152.07	283.51	235.99	-	-	-
			<b>Grand Total</b>	<b>200086</b>	<b>74070</b>	<b>189045</b>	<b>405.34</b>	<b>409.5</b>	<b>434.63</b>	<b>238.40</b>	<b>110.07</b>	<b>164.76</b>

Note : The figures are compiled on the basis of the monthly data received from CIWTC.



**Table No. 3.4**

**Income And Expenditure Of C.I.W.T.C.**  
**(For The Year Ending 31st March)**

**(Rs. lakhs)**

Sl.No.	Item	2008	2009	2010
1	2	3	4	
<b>A.</b>	<b>INCOME</b>	1844.78	2111.49	2135.68
(i)	Earnings (Operational)	371.81	220.77	251.82
(ii)	Earnings (Others)	1472.97	1890.72	1883.86
<b>B</b>	<b>EXPENDITURE</b>	1872.19	2031.31	1992.32
(i)	Materials & Stores Consumed	77.91	70.52	75.94
(ii)	Decrease/Increase in Work in Progress	-	60.13	-
	Employees Remuneration & Benefits	777.60	875.92	931.22
(iv)	Repairs & Maintenance	144.16	92.42	92.18
(v)	Power & Fuel	84.16	74.44	72.53
(vi)	Other Expenses	390.09	414.43	573.54
(vii)	Interest	-	-	-
(viii)	Depreciation	369.53	367.52	356.46
(ix)	Provisions	136.84	180.24	-
(x)	Transfer to other Heads of Accounts	-108.10	-104.31	-109.65
<b>C</b>	<b>Profit/Loss (A-B)</b>	-27.41	80.18	143.36

Source : CIWTC

**Table No. 3.5****Source-wise Earning of CIWTC****(Rs. in lakhs)**

Sl.No.	Name of Service			
		2008-09	2008-09	2009-10
1	2	3	4	4
<b>A.Earnings (Operational)</b>				
(i)	<b>Transportation &amp; Allied Activities:</b>			
	Freight	250.63	122.54	188.52
	Dredging	-	-	-
	Ferries & Charter	121.18	98.23	63.3
	Sales pending finalisation	-	-	-
	<b>TOTAL (ii)</b>	<b>371.81</b>	<b>220.77</b>	<b>251.82</b>
	<b>TOTAL A ( i &amp; ii )</b>	<b>371.81</b>	<b>220.77</b>	<b>251.82</b>
<b>B.Earnings (Others)</b>				
	Investment/one time grant	-	-	-
	Short Term Deposit	526.35	879.43	724.41
	Interest on:			
	Mobilisation Amount	-	-	-
	Sunderban	-	-	-
	Conservancy Amount	-	-	-
	Port Maintenance	-	-	-
	Sale of Scrap	-	-	-
	Rent	146.53	154.55	161.44
	Surplus on sale of assets	-	-	-
	Retired from Operation	-	-	-
	Miscellaneous Receipts	800.09*	856.74*	998.01
	Profit on exchange	-	-	-
	<b>TOTAL B</b>	<b>1472.97</b>	<b>1890.72</b>	<b>1883.86</b>
	<b>TOTAL (A+B)</b>	<b>1844.78</b>	<b>2111.49</b>	<b>2135.68</b>

**Table No. 3.6****Financial Position of CIWTC****(Rs. in Lakh)**

SL No.	Item	Year		
		2007-08	2008-09	2009-10
1	2	3	4	4
<b>A.</b>	<b>LIABILITIES</b>			
	(a) Paid up capital	13048.48		13048.48
	(b) Reserves & Surplus(Capital Reserve)	10909.93	10909.93	10909.93
	(c) Borrowings			
	i) From Govt. of India	—	—	—
	ii) From others	—	—	—
	(d) Trade dues and other current liabilities (including provisions) and interest accrued thereon	19520.77	19246.85	19520.77
	<b>TOTAL (A)</b>	<b>43479.18</b>	<b>43205.26</b>	<b>43479.18</b>
<b>B.</b>	<b>ASSETS</b>			
	(e) Gross Asset	11119.71	11119.83	11119.83
	(f) Less Depreciation	6425.35	6792.73	7149.19
	(g) Less Provision	—	—	—
	(h) Net Fixed Assets (e-f-g)	4694.36	4327.10	3970.64
	(i) Capital work in progress	535.89	475.85	475.85
	(j) Investment	—	—	—
	(k) Current Assets, Loans and Advances	11970.62	12632.93	13015.79
	(l) Miscellaneous expences and losses not written off	14298.68	25769.38	26016.90
	<b>TOTAL (B)</b>	<b>31499.55</b>	<b>43205.26</b>	<b>43479.18</b>
<b>C.</b>	<b>WORKING CAPITAL</b>			
	(m) Working Capital ( k-d)	-4429.48	-6613.92	-6504.98
	(n) Additional provision for Gratuity	—	—	—
	(o) Total Working Capital	4404.96	-7058.76	-6504.98
	Capital employed (h+o)	9099.32	-2731.66	-2534.34
	Net worth (a-l)	<b>(-)1250.20</b>	<b>(-)12720.9</b>	<b>(-)12968.42</b>

Source: CIWTC

**SECTION – 4**

**IWT ACTIVITIES -**

**STATE - WISE**

**Table No 4.1** Number of IWT Vessels With Valid Certificate of Survey...By Type (As on 31st March)

Sl. No.	State/ UT/Year	Self Propelled					Non...Self Propelled						
		Cargo	Passenger	Cargo cum Passenger	Tugs and Pushers	Total (Col.3 to6)	Dumb Barges	Dumb Tankers	Dumb Flat	Boats	Others	Total (Col.8 to12)	Grand Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	<b>Andhra Pradesh</b>												
	2007	...	...	...	...	...	...	...	...	...	...	...	...
	2008	...	...	43	...	43	...	...	...	17	51	68	111
	2009	...	...	43	...	43	...	...	...	17	51	68	111
	2010	...	...	43	...	43	...	...	...	17	51	68	111
2	<b>Assam</b>												
	2007	...	128	46	7	181	20	...	42	24	...	86	267
	2008	...	116	44	7	167	18	...	31	24	...	73	240
	2009	...	116	44	7	167	18	...	31	24	...	73	240
	2010	...	...	...	...	...	...	...	...	...	...	...	...
3	<b>Bihar</b>												
	2007	...	13	2	...	15	2	...	...	2	...	4	19
	2008	...	13	2	...	15	4	...	...	2	...	6	21
	2009	...	13	2	...	15	4	...	...	2	...	6	21
	2010	...	13	2	...	15	4	...	...	2	...	6	21
4	<b>Goa</b>												
	2007	273	...	...	...	273	...	...	...	...	...	...	273
	2008	221	...	...	...	221	...	...	...	...	...	...	221
	2009	191	...	...	...	191	...	...	...	...	...	...	191
	2010	193	...	...	...	193	...	...	...	...	...	...	193
5	<b>Karnataka</b>												
	2007	...	35	...	...	35	...	...	...	193	74	267	302
	2008	...	...	33	...	33	...	...	...	16	...	16	49
	2009	...	...	33	...	33	...	...	...	16	...	16	49
	2010	...	...	21	...	21	...	...	...	18	...	18	39
6	<b>Kerala</b>												
	2007	54	182	410	7	653	...	...	...	7094	1313	8407	9060
	2008	75	656	35	15	781	1	...	13	3631	1068	9288	10069
	2009	66	598	33	15	712	1	...	26	7466	1025	8518	9230
	2010	99	589	30	14	732	1	...	25	7766	1232	9024	9756
7	<b>Maharashtra</b>												
	2007	277	235	...	...	512	...	...	...	...	...	...	512
	2008	...	235	...	277	512	...	...	...	...	...	...	512
	2009	...	251	...	411	662	...	...	...	...	...	...	662
	2010	...	258	...	433	691	...	...	...	...	...	...	691
8	<b>Orissa</b>												
	2007	...	180	...	...	180	...	...	...	...	...	...	180
	2008	...	163	...	...	163	...	...	...	...	...	...	163
	2009	...	155	...	...	155	...	...	...	...	...	...	155
	2010	...	260	...	...	260	...	...	...	...	...	...	260
9	<b>West Bengal</b>												
	2007	23	264	5	40(A)	332	557	...	...	1293	...	1850	2182
	2008	23	252	5	51(A)	331	574	...	...	1340	...	1914	2245
	2009	23	256	7	54(A)	340	579	...	...	1402	...	1981	2321
	2010	23	260	5	63	413	611	...	...	1460	...	2071	2484

(A) Includes 24, 27 and 34 other vessels for 2008, 2009 and 2010 respectively. .... Not available.

**Table No 4.2** Number of Passengers and Cargo Carried By Inland Water Vessels (Year Ending 31st March)

Sl. No.	State/UT/Year	Powered Vessels Employed for cargo (Nos.)	Powered Vessels Employed for passengers (Nos.)	Quantity of cargo carried (000' tonnes)	Total No. of passengers carried (000)
1	2	3	4	5	6
1	<b>Andhra Pradesh</b>				
	2007	0	0	0	0
	2008	...	...	...	...
	2009	...	...	...	...
	2010	...	...	...	...
2	<b>Assam</b>				
	2007	53	198	741.56	2439.23
	2008	33	190	846.24	25944.10
	2009	33	190	865.15	26553.15
	2010	...	...	...	...
3	<b>Bihar</b>				
	2007	...	...	...	...
	2008	2	13	...	...
	2009	2	13	...	...
	2010	2	13	...	...
4	<b>Goa(a)</b>				
	2007	273	-	14306.04	...
	2008	221	-	12824.59	...
	2009	191	-	11901.32	...
	2010	193	...	13897.38	...
5	<b>Karnataka</b>				
	2007	-	302	...	10800.00
	2008	49	49	611	1101.31
	2009	49	49	159	1135.93
	2010	39	39	987	1227.86
6	<b>Kerala</b>				
	2007	57	572	5678.73	24192.25
	2008	91	669	8637.14	13110.23
	2009	66	576	5129.01	23469.44
	2010	66	615	5092.08	24508.40
7	<b>Maharashtra</b>				
	2007	...	...	11553.00	14551.00
	2008	...	...	13056.00	15186.00
	2009	...	...	9963.00	16005.00
	2010	...	...	12510.00	16832.00
8	<b>Orissa</b>				
	2007	...	10	...	115
	2008	...	10	...	109
	2009	...	10	...	103
	2010	...	14	...	122
9	<b>West Bengal</b>				
	2007	54	264	2935(b)	54770.00
	2008	50	252	3312(b)	52577.00
	2009	50	256	3644(b)	58044.00
	2010	54	260	17705(b)	62624.00

(a) Excludes traffic reported by Marmugao Port for Iron Ore movement which is 27.40 million tonnes in 2007-08, 33.80 million tonnes in 2008-09 and 40.53 million tonnes in 2009-10.

(b) No. of vehicles carried LCT 37285, 43437 and 39770 for the year 2007-08, 2008-09 and 2009-10 respectively.

**SECTION – 5**

**IWT ACTIVITIES -PRIVATE**

**COMPANIES/UNDERTAKINGS**

Table No 5.1

**IWT Vessels With Valid Certificates of Survey-Owned By Responding Private Companies/Undertakings By Type (As on 31st March)**

Sl. No.	Company/ Undertaking and Year	Self Propelled				Non-Self Propelled (Dumb Barges) (No.)
		Type of vessel		Carrying capacity		
		Cargo (No.)	Passenger (No.)	Cargo(in Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
1	<b>S.V.Salgaocar, Goa</b>					
	2007	3	...	1224	...	...
	2008	4	...	1214	...	...
	2009	4	...	1236	...	...
	2010	4	...	1581	...	...
2	<b>D.V.Salgaocar, Goa</b>					
	2007	3	...	1255	...	...
	2008	4	...	1229	...	...
	2009	4	...	1178	...	...
	2010	3	...	1500	...	...
3	<b>V.M.Salgaocar Sales International</b>					
	2007	2	...	540	...	...
	2008	2	...	823	...	...
	2009	2	...	650	...	...
	2010	2	...	693	...	...
4	<b>Sesa Resource Ltd Goa</b>					
	2007	4	...	7150	...	...
	2008	3	...	5300	...	...
	2009	3	...	5300	...	...
	2010	3	...	5300	...	...
5	<b>Sesa Goa Ltd. Goa</b>					
	2007	17(a)	...	30117(b)	...	...
	2008	16	...	32506	...	...
	2009	16	...	32506	...	...
	2010	17	...	32506	...	...
6	<b>Sociedade De Fomento Ind. Ltd. Goa</b>					
	2007	2	...	2434	...	...
	2008	2	...	2434	...	...
	2009	2	...	2434	...	...
	2010	2	...	2434	...	...
7	<b>CIWTC, Kolkata.</b>					
	2007	39	...	12179	...	62
	2008	12(b)	...	5648	...	26
	2009	8(b)	...	2936	...	24
	2010	10(b)	...	4982	...	22
7	<b>Indo-Swiss Trading Co. Kolkata.</b>					
	2007	-	2 ©	118	270	...
	2008	-	2 ©	118	270	...
	2009	-	2 ©	118	270	...
	2010	-	2 ©	118	270	...
9	<b>Vivada Inland Waterways Ltd. Kolkata.</b>					
	2007	11	2	...	...	...
	2008	11	4	...	...	...
	2009	9	7	...	...	...
	2010	9	7	...	...	...



**Table No 5.1 Contd....****IWT Vessels With Valid Certificates of Survey-Owned By Responding Private Companies/Undertakings By Type (As on 31st March)**

Sl. No.	Company/ Undertaking and Year	Self Propelled				Non-Self Propelled (Dumb Barges) (No.)
		Type of vessel		Carrying capacity		
		Cargo (No.)	Passenger (No.)	Cargo(in Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
10	<b>West Bengal Surface Transport Corporation Ltd.</b>					
	2007	3	20	...	...	...
	2008	3	27	...	...	...
	2009	3	27	...	...	...
	2010	3	20	...	...	...
11	<b>Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata.</b>					
	2007	-	41	...	...	...
	2008		41	...	...	...
	2009		45	...	...	...
	2010		44	...	...	...
12	<b>West Bengal Tourism Development Corporation limited, Kolkata.</b>					
	2007	-	3	...	...	...
	2008		3	...	...	...
	2009		3	...	...	...
	2010		4	...	...	...
13	<b>Eastern Navigation (P) Ltd., Kolkata.</b>					
	2007	3	2	...	...	...
	2008	5	2	...	...	...
	2009	8	1	...	...	...
	2010	9	3	...	...	...
14	<b>Pradeep Boating Company, Kolkata.</b>					
	2007	2	....	...	...	...
	2008	2	....	...	...	...
	2009	2	....	...	...	...
	2010	2	....	...	...	...
15	<b>Government of West Bengal Tourism Department, Kolkata.</b>					
	2007	...	1	...	...	...
	2008	...	1	...	...	...
	2009	...	1	...	...	...
	2010	...	...	...	...	...
16	<b>Hindustan Petroleum Corp. Ltd., Budge Budge, West Bengal.</b>					
	2007	1	...	...	...	...
	2008	1	...	...	...	...
	2009	1	...	...	...	...
	2010	1	...	...	...	...
17	<b>K. S. Singhee</b>					
	2007	2	...	...	...	...
	2008	2	...	...	...	...
	2009	...	...	...	...	...
	2010	1	...	...	...	...
18	<b>Costa River Transport Pvt Ltd., Goa.</b>					
	2007	3	...	5122	...	...
	2008	3	...	5122	...	...
	2009	3	...	5122	...	...
	2010	3	...	5122	...	...

**Table No 5.1 Contd....****IWT Vessels With Valid Certificates of Survey-Owned By Responding Private Companies/Undertakings By Type (As on 31st March)**

Sl. No.	Company/ Undertaking and Year	Self Propelled				Non-Self Propelled (Dumb Barges) (No.)
		Type of vessel		Carrying capacity		
		Cargo (No.)	Passenger (No.)	Cargo(in Tonnes)	Passenger(in No.)	
	2	3	4	5	6	7
19	<b>Ghatal Station Navigation (P) Ltd., Kc</b>					
	2007	...	3	...	...	...
	2008	...	3	...	...	...
	2009	...	3	...	...	...
	2010	...	...	...	...	...
20	<b>Diamond Harbour Municipality, Kolkata.</b>					
	2007	...	6	...	...	...
	2008	...	7	...	...	...
	2009	...	7	...	...	...
	2010	...	...	...	...	...
21	<b>Karya Autota Pvt. Ltd. Kolkata.</b>					
	2007	4	1	...	...	...
	2008	3	1	...	...	...
	2009	...	...	...	...	...
	2010	...	...	...	...	...
22	<b>Chandan Nagar Municipality, Kolkata.</b>					
	2007	...	3	...	...	...
	2008	...	3	...	...	...
	2009	...	5	...	...	...
	2010	...	5	...	...	...
23	<b>Jain Navigation</b>					
	2007	1	2	...	...	...
	2008	2	1	...	...	...
	2009	...	1	...	...	...
	2010	2	...	...	...	...
24	<b>Shree Mangesh Enterprises(Marine) Pvt. Ltd</b>					
	2007	1	...	88470	...	...
	2008	1	...	790	...	...
	2009	1	...	790	...	...
	2010	...	...	...	...	...
25	<b>Sai Waterways Pv t. Ltd</b>					
	2007	2	...	3829	...	...
	2008	2	...	3829	...	...
	2009	2	...	3829	...	...
	2010	2	...	3829	...	...
26	<b>Rashmi Ore Carriers Pv t. Ltd.</b>					
	2007	1	...	1314	...	...
	2008	1	...	1314	...	...
	2009	1	...	1314	...	...
	2010	1	...	1314	...	...
27	<b>Goa Ore Carriers</b>					
	2007	...	...	...	...	...
	2008	3	...	3200	...	...
	2009	3	...	3200	...	...
	2010	...	...	...	...	...
28	<b>M. N. Shipping</b>					
	2007	...	...	...	...	...
	2008	1	...	1177	...	...
	2009	1	...	1177	...	...
	2010	1	...	1177	...	...

**Table No 5.1 Contd....**

**IWT Vessels With Valid Certificates of Survey-Owned By Responding Pri Companies/Undertakings By Type (As on 31st March)**

Sl. No.	Company/ Undertaking and Year	Self Propelled				Non-Self Propelled (Dumb Barges) (No.)
		Type of vessel		Carrying capacity		
		Cargo (No.)	Passenger (No.)	Cargo(in Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
29	<b>Kothari Overseas Private Limited</b>					
	2007	1	...	1277	...	...
	2008	1	...	1893	...	...
	2009	1	...	1893	...	...
	2010	1	...	1893	...	...
30	<b>Mayur Shipping Private Limited</b>					
	2007	1	-	1179	...	...
	2008	1		1179	...	...
	2009	1	-	1179	...	...
	2010	1		1179	...	...
31	<b>Cabral &amp; Co. Pvt. Limited</b>					
	2007	1	-	1073	...	...
	2008	...	...	...	...	...
	2009	...	...	...	...	...
	2010	...	...	...	...	...
32	<b>Vaibhavi Shipping Pvt.Ltd.</b>					
	2007	9		19120	...	...
	2008	9		19050	...	...
	2009	9		19050	...	...
	2010	...	...	...	...	...
33	<b>Vaishnavi Shipping Co. Pvt.Ltd.</b>					
	2007	...	...	...	...	...
	2008	1		1232	...	...
	2009	1		1232	...	...
	2010	1		1232	...	...
34	<b>Vasco Ore Carriers</b>					
	2007	...	...	...	...	...
	2008	1		49327	...	...
	2009	1		53160	...	...
	2010	1		85500	...	...
35	<b>Sanghi Brothers (Indore) Pvt Ltd.</b>					
	2007	...	...	...	...	...
	2008	...	...	...	...	...
	2009	...	...	...	...	...
	2010	5	...	6476	9	...

... Not available.

(a) Includes one one Passenger Launch

(b) Includes 3 oil Tankers & 5 Twin Screw Tugs for the year 2008, 2 oil tanker , 4 Twin Screw Tugs for year 2009 and 5 Pusher Tug and 3 Oil Tanker 2010.

© Passengers vessels can carry cargo also.

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

Table No 5.2

**Cargo/Passenger Carried And Freight Collected -  
By Responding Companies (Year Ending 31st March)**

Sl.No.	Company/Undertaking and Year	Type of Vessels	No. of Powered Vessels Employed	Distance Travelled (Kms)	Freight Collected (Rs.in Lakh)	Cargo Carried		Passenger Carried	
						Cargo (in Tonnes)	TKms (in millions)	Passenger (in No.)	PKms
1	2	3	4	5	6	7	8	9	10
1	<b>S. V. Salgaocar, Goa</b>								
	2007	Cargo	3	35	783.36	1E+06	42.84	...	...
	2008	Cargo	4	35	794.22	1E+06	42.50	...	...
	2009	Cargo	4	35	840.48	1E+06	43.26	...	...
	2010	Cargo	4	35	1059.67	2E+06	55.36	...	...
2	<b>D. V. Salgaocar, Goa</b>								
	2007	Cargo	3	35	803.32	1E+06	43.93	...	...
	2008	Cargo	4	35	803.63	1E+06	43	...	...
	2009	Cargo	4	35	801.31	1E+06	41.24	...	...
	2010	Cargo	4	35	1005.00	2E+06	52.50	...	...
3	<b>V.M.Salgaocar Sales International</b>								
	2007	Cargo	2	35	537.60	840000	29.4	...	...
	2008	Cargo	2	35	538.37	823200	28.81	...	...
	2009	Cargo	2	35	442.27	650400	22.76	...	...
	2010	Cargo	2	35	464.71	693600	24.27	...	...
4	<b>Sesa Resources Ltd Goa</b>								
	2007	Cargo	4	273	-	803583	219.37	...	...
	2008	Cargo	3	273	-	739198	201.8	...	...
	2009	Cargo	3	273	-	797337	217.67	...	...
	2010	Cargo	3	273	-	832042	227.15	...	...
5	<b>Sesa Goa Ltd. Goa.</b>								
	2007	Cargo	15	90	...	4E+06	359.77	...	...
	2008	Cargo	16	100	88.48	485048	48.5	...	...
	2009	Cargo	16	100	123.40	6E+06	620.00	...	...
	2010	Cargo	16	100	420.50	6E+06	612.58	...	...
6	<b>Sociedade De Fomento Ind. Ltd., Goa</b>								
	2007	Cargo	2	110	(a)	444393	48.88	...	...
	2008	Cargo	2	110	(a)	539652	59.36	...	...
	2009	Cargo	2	110	(a)	642995	70.73	...	...
	2010	Cargo	2	110	(a)	547998	60.28	...	...
7	<b>C.I.W.T.C., Kolkata.</b>								
	2007	Cargo/Tug/Spes/DBs	42	8360	578.46	220322	1841.89	...	...
	2008	Cargo/Tug/Spes/DBs	266	7896	405.34	200374	1582.15	...	...
	2009	Cargo/Tug/Spes/DBs	94	7448	409.50	74070	551.67	...	...
	2010	Cargo/Tug/Spes/DBs	292	5617	434.63	189045	1061.86	...	...
8	<b>Indo-Swiss Trading Co.Pvt. Ltd., Kolkata</b>								
	2007	Pass.	2	1	91.70	...	...	2292000	...
	2008	Pass.	2	1	95.66	...	...	239200	...
	2009	Pass.	2	1	95.15	...	...	2378000	...
	2010	Pass.	2	1	95.94	...	...	2298000	...
9	<b>VIVADA Inland Waterways Ltd., Kolkata</b>								
	2007	Cargo/Tug/Pass/LCT	13	...	1776.00	690000	...	14000	...
	2008	Cargo/Tug/Pass/LCT	15	...	2025.00	544000	...	15850	...
	2009	Cargo/Tug/Pass/LCT	16	...	2534.23	362600	...	32020	...
		Cargo/Tug/Pass/LCT	16	...	2757.70	570130©	...	30620	...

Table No 5.2 Contd...

**Cargo/Passenger Carried And Freight Collected -  
By Responding Companies (Year Ending 31st March)**

Sl.No.	Company/Undertaking and Year	Type of Vessels	No. of Powered Vessels Employed	Distance Travelled (Kms)	Freight Collected (Rs.in Lakh)	Cargo Carried		Passenger Carried	
						Cargo (in Tonnes)	TKms (in millions)	Passenger (in No.)	PKms
1	2	3	4	5	6	7	8	9	10
10	<b>W. Bengal Surface Transport Corporation Ltd., Kolkata</b>								
	2007	Pass./LCT	23	...	601.47	9720	...	17000000	...
	2008	Pass./LCT	30	...	615.1	9810(D)	...	6300000	...
	2009	Pass./LCT	30	...	676.41	11770(b)	...	6930000	...
	2010	Pass./LCT	23	...	525.33	13709(b)	...	6810000	...
11	<b>Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata</b>								
	2007	Pass.	41	...	927.48	...	...	24058000	...
	2008	Pass.	41	...	981.30	...	...	23867000	...
	2009	Pass.	45	...	982.42	...	...	23900000	...
	2010	Pass.	44	...	958.40	...	...	20300000	...
12	<b>West Bengal Tourism Development Corpn. Ltd., Kolkata</b>								
	2007	Pass.	3	...	96.08	...	...	9100	...
	2008	Pass.	3	...	110.77	...	...	11250	...
	2009	Pass.	3	...	115.16	...	...	10530	...
	2010	Pass.	4	...	115.68	...	...	12040	...
13	<b>Eastern Navigation (P) Ltd., W. Bengal, Kolkata</b>								
	2007	Cargo/Tug/Pass.	5	...	61.9	10200	...	5800	...
	2008	Cargo/Tug/Pass.	7	...	71.5	...	...	5850	...
	2009	Cargo/Tug/Pass.	9	...	108.30	...	...	...	...
	2010	Cargo/Tug/Pass.	12	...	123.92	...	...	...	...
14	<b>Pradeep Boating Company, W. Bengal, Kolkata</b>								
	2007	Tugs	2	...	5.00	10000	...	...	...
	2008	Tugs	2	...	94.25	23112	...	...	...
	2009	Tugs	2	...	103.55	25425	...	...	...
	2010	Tugs	2	...	18.00	9000	...	...	...
15	<b>Government of W. Bengal Tourism Department, Kolkata</b>								
	2007	Pass.	1	...	...	...	...	...	...
	2008	Pass.	1	...	...	...	...	...	...
	2009	Pass.	1	...	...	...	...	...	...
	2010	Pass.	...	...	...	...	...	...	...
16	<b>Hindustan Petroleum Corpn. Ltd. Budge-Budge, W. Bengal</b>								
	2007	Tug	1	...	33.55	24960	...	...	...
	2008	Tug	1	...	32	19200	...	...	...
	2009	Tug	1	...	33.50	20700	...	...	...
	2010	Tug	1	...	33.75	17280	...	...	...
17	<b>K. S. Singhee</b>								
	2007	...	2	7.2	...	...	...	...	...
	2008	Tug/Others	2	...	7.5	...	...	...	...
	2009	Tug/Others	...	...	...	...	...	...	...
	2010	Tug	1	...	7.00	...	...	...	...
18	<b>Costa River Transport Pvt. Ltd. Goa</b>								
	2007	Cargo	3	130	1411.75	2207582	286.98	...	...
	2008	Cargo	3	130	1411.75	2207582	286.98	...	...
	2009	Cargo	3	130	1541.38	2E+06	304.29	...	...
	2010	Cargo	3	...	451.03	657970	...	...	...
19	<b>Ghatal steam Navigation (P) Ltd. Kolkata</b>								
	2007	Pass.	3	...	22.45	...	...	1994000	...
	2008	Pass.	3	...	22.33	...	...	2545500	...
	2009	Pass.	3	...	2.32	...	...	131500	...
	2010	Pass.	3	...	3016.00	...	...	1439000	...
20	<b>Diamond Harbour Municipality, Kolkata</b>								
	2007	Pass.	6	...	4.23	...	...	244100	...
	2008	Pass.	7	...	1.55	...	...	881170	...
	2009	Pass.	6	...	9.45	...	...	230010	...
	2010	Pass.	7	...	4.23	...	...	545500	...

**Cargo/Passenger Carried And Freight Collected -  
By Responding Companies (Year Ending 31st March)**

Sl.No.	Company/Undertaking and Year	Type of Vessels	No. of Powered Vessels Employed	Distance Travelled (Kms)	Freight Collected (Rs.in Lakh)	Cargo Carried		Passenger Carried	
						Cargo (in Tonnes)	TKms (in millions)	Passenger (in No.)	PKms
1	2	3	4	5	6	7	8	9	10
21	<b>Karya Autota Pvt. Ltd., Kolkata</b>								
	2007	Cargo/Pass.	5	...	33.30	...	...	...	...
	2008	Cargo/Pass.	4	...	7.00	...	...	...	...
	2009	Cargo/Pass.	...	...	...	...	...	...	...
	2010	Cargo/Pass.	...	...	...	...	...	...	...
22	<b>Chandan Nagar Municipality, Kolkata</b>								
	2007	Pass.	3	...	4.07	...	...	1215500	...
	2008	Pass.	3	...	4.71	...	...	1148000	...
	2009	Pass.	5	...	8.51	...	...	81000	...
	2010	Pass.	5	...	10.18	...	...	1021000	...
23	<b>Jain Navigation</b>								
	2007	Tugs/Pass	3	...	7.05	4100	...	...	...
	2008	Tugs/Pass	3	...	25	4100	...	...	...
	2009	Tugs/Pass	1	...	19.00	...	...	...	...
	2010	Tugs/Pass	2	...	67.00	...	...	...	...
24	<b>Shree Mangesh Enterprises(Marine)Pvt. Ltd.</b>								
	2007	Cargo	1	60	77.38	126000	7.56	...	...
	2008	Cargo	1	60	73.25	113856	6.83	...	...
	2009	Cargo	1	60	80.69	122236	7.33	...	...
	2010	Cargo	...	...	...	...	...	...	...
25	<b>Sai Waterways Pvt. Ltd.</b>								
	2007	Cargo	2	60-75	11	215400	14.5	...	...
	2008	Cargo	2	60-75	11	215400	14.5	...	...
	2009	Cargo	2	60-75	1.08	215400	14.53	...	...
	2010	Cargo	2	60-75	1.17	244120	16.48	...	...
26	<b>Rashmi Ore Carriers Pvt. Ltd.</b>								
	2007	Cargo	1	45	115.51	165263	7.43	...	...
	2008	Cargo	1	45	115.08	234896	10.50	...	...
	2009	Cargo	1	45	158.72	208000	9.36	...	...
	2010	Cargo	1	45	174.18	214050	9.63	...	...
27	<b>Goa Ore Carriers</b>								
	2007	...	...	...	...	...	...	...	...
	2008	Cargo	3	45	714	1020000	45.9	...	...
	2009	Cargo	3	45	714	1020000	45.9	...	...
	2010	Cargo	...	...	...	...	...	...	...
28	<b>M.N. SHIPPING</b>								
	2007	...	...	...	...	...	...	...	...
	2008	Cargo	1	60-70	155.52	248034	16.12	...	...
	2009	Cargo	1	60-70	155.52	248.34	16.12	...	...
	2010	Cargo	1	60	189.13	274827	16.49	...	...
29	<b>Kothari Overseas Private Limited</b>								
	2007	Cargo	1	60	111.82	192222	11.53	-	...
	2008	Cargo	1	...	110	170000	...	...	...
	2009	Cargo	1	...	77.00	117300	...	...	...
	2010	Cargo	1	...	96.00	151300	...	...	...
30	<b>Mayur Shipping Pvt. Limited</b>								
	2007	Cargo	1	45	136.88	145227	6.53	...	-
	2008	Cargo	...	...	...	...	...	...	...
	2009	Cargo	1	45	127.36	190919	8.59	...	...
	2010	Cargo	1	45	153.53	190919	8.59	...	...
31	<b>Cabral &amp; Co. Ltd.</b>								
	2007	Cargo	1	50	134.26	208000	10.4	...	...
	2008	...	...	...	...	...	...	...	...
	2009	Cargo	...	...	...	...	...	...	...
	2010	...	...	...	...	...	...	...	...
32	<b>Vaibhavi Shipping Pvt. Ltd.</b>								
	2007	Cargo	9	...	...	2875600	...	...	...
	2008	Cargo	9	80	1050	3500000	280	...	...
	2009	Cargo	9	80	1050	3500000	292.00	...	...
	2010	Cargo	...	...	...	...	...	...	...
33	<b>Vaishnavi Shipping Co. Pvt. Ltd.</b>								
	2007	...	...	...	...	...	...	...	...
	2008	Cargo	1	60-70	149.63	1421657	92.4	...	...
	2009	Cargo	1	60-70	146	229846	14.94	...	...
	2010	Cargo	1	60-70	133.74	196159	11.77	...	...
34	<b>Vasco Ore Carriers</b>								
	2007	...	...	...	...	...	...	...	...
	2008	...	...	...	...	...	...	...	...
	2009	...	...	...	...	...	...	...	...
	2010	...	...	...	...	...	...	...	...
35	<b>Sanghi Brothers (Indore) Pvt Ltd</b>								
	2007	...	...	...	...	...	...	...	...
	2008	...	...	...	...	...	...	...	...
	2009	...	...	...	...	...	...	...	...
	2010	Cargo	5	24	69.9	31500	0.75	...	...

(a) : transportation for self

(B) : data relates to no of vehicles(C) :24023 no vehicles on ICT

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

**SECTION – 6**

**PLAN-WISE OUTLAY & EXPENDITURE**

**FOR IWT SECTOR**

Table No. 6.1

## Inland Water Transport - Plan Outlay and Expenditure - Central Sector (Central and Centrally Sponsored Schemes)

(Rs.in Lakh)

Plan 1	Central Schemes		Centrally Sponsored Schemes		Total	
	Outlay 2	Expenditure 3	Outlay 4	Expenditure 5	Outlay 6	Expenditure 7
<b>First Plan</b>						
(1951-56)	-	33.00	-	-	-	33.00
<b>Second Plan</b>						
(1956-61)	143.32	72.34	-	-	143.32	72.34
<b>Third Plan</b>						
(1961-66)	438.10	126.62	322.00	125.71	760.10	252.33
<b>Annual Plan</b>						
1966-67	164.52	54.09	32.62	27.62	197.14	81.71
1967-68	192.40	299.07	33.65	27.98	226.05	327.05
1968-69	98.86	N.A.	31.00	N.A.	129.86	130.00
<b>Fourth Plan</b>						
(1969-74)	500.00	369.89	400.00	303.91	900.00	673.80
<b>Fifth Plan</b>						
(1974-79)	1392.18	685.82	1100.00	508.86	2492.18	1194.68
<b>Annual Plan</b>						
1979-80	714.30	190.00	242.70	24.00	957.00	214.00
<b>Sixth Plan</b>						
(1980-85)	4117.00	3821.00	383.00	84.00	4500.00	3905.00
<b>Seventh Plan</b>						
(1985-90)	14167.00	12892.00	1333.00	293.00	15500.00	13185.00
<b>Annual Plan</b>						
1990-91	5385.00	1385.00	315.00	58.00	5700.00	1443.00
1991-92(RE)	4748.00	882.00	252.00	150.00	5000.00	1032.00
<b>Eighth Plan</b>						
(1992-97)	23285.00	6241.00	715.00	153.00	24000.00	6394.00
<b>Ninth Plan</b>						
(1997-2002)	38322.00	21670.00	938.00	856.00	29260.00	22526.00
<b>Tenth Plan</b>						
(2002-2007)	88300.00	-	2000.00	-	90300.00	-
2002-03	8690.00	7831.00	300.00	Nil	8990.00	7831.00
2003-04	8868.00	8147.00	1000.00	985.00	9868.00	9132.00
2004-05	12557.00	5796.00*	2000.00	1598.00	14557.00	7394.00*
2005-06	13500.00	6551.00	1500.00	1500.00	15000.00	8051.00
2006-07(P)	13300.00	8839.00	1700.00	1200.00	15000.00	10039.00

(P) : Provisional

\* Amount released by the Ministry of Shipping RT&amp;H upto Dec. 2004

Source : Planning Commission, Government of India and Ministry of Shipping, RT&amp;H, Government of India.



**Table No. 6.2****State Plan Outlay & Expenditure under the Head of Development  
titled "Inland Water Transport"**

(Fig. in Rs. Lakh)

Sl. No.	Name of the State	Plan Outlay (2002-07)	2005-06 (Expd)	2006-07 (Expd)
1	2	3	4	4
1	Andhra Pradesh	100	-	-
2	Arunachal Pradesh	...	...	41.89
2	Assam	1600	262.00	209.57
3	Bihar	...	...	...
4	Goa	800	124.95	112.88
5	Himachal Pradesh	15	10.88	0.86
6	Jammu & Kashmir	1160	197.86	-
7	Karnataka	4797	47.57	-
8	Kerala	7000	487.62	258.46
9	Maharashtra	1000	183.37	257.12
10	Mizoram	47	5.00	32.45
11	Orissa	120	31.51	2.39
12	Tamil Nadu	...	...	...
13	Uttar Pradesh	10	...	...
14	West Bengal	2569	964.63	483.00
15	Lakshadweep	...	2458.09	...
	All States/Uts	19218	4773.48	1398.62

Source : Planning Commission, Government of India.

**SECTION - 7**

**INLAND WATERWAYS'**

**TRANSPORT ACCIDENTS**

**Table No. 7.1****No. of Accidents, Persons Injured And Killed by Drowning  
(Boat Capsize) in States with IWT operations During 2009.**

Sl. No.	State/UT	No. of Accidents	Drowning (Boat Capsize)					
			No. of Persons Injured			No. of Persons Killed		
			Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9
<b>STATES</b>								
1	Andhra Pradesh	11	7	2	9	15	1	16
2	Arunachal Pradesh	0	0	0	0	0	0	0
3	Assam	23	0	0	0	21	4	25
4	Bihar	49	6	1	7	63	57	120
5	Chhattisgarh	36	0	0	0	30	6	36
6	Goa	2	0	0	0	2	1	3
7	Gujarat	15	0	0	0	17	0	17
8	Haryana	33	0	0	0	27	6	33
9	Himachal Pradesh	0	0	0	0	0	0	0
10	Jammu & Kashmir	1	0	0	0	1	0	1
11	Jharkhand	2	0	0	0	1	1	2
12	Karnataka	36	0	0	0	44	7	51
13	Kerala	9	0	0	0	33	26	59
14	Madhya Pradesh	319	4	1	5	230	93	323
15	Maharashtra	4	0	0	0	5	0	5
16	Manipur	0	0	0	0	0	0	0
17	Meghalaya	0	0	0	0	0	0	0
18	Mizoram	14	0	0	0	16	0	16
19	Nagaland	0	0	0	0	0	0	0
20	Orissa	55	0	0	0	52	7	59
21	Punjab	0	0	0	0	0	0	0
22	Rajasthan	1	0	0	0	4	2	6
23	Sikkim	0	0	0	0	0	0	0
24	Tamil Nadu	23	0	0	0	26	2	28
25	Tripura	0	0	0	0	0	0	0
26	Uttar Pradesh	140	10	2	12	105	56	161
27	Uttarakhand	1	0	0	0	1	0	1
28	West Bengal	6	0	0	0	4	2	6
	<b>Total( States)</b>	<b>780</b>	<b>27</b>	<b>6</b>	<b>33</b>	<b>697</b>	<b>271</b>	<b>968</b>
<b>UNION TERRITORIES</b>								
29	A&N Island	2	0	0	0	6	0	6
30	Chandigarh	0	0	0	0	0	0	0
31	D&N haveli	0	0	0	0	0	0	0
32	Daman & Diu	7	0	0	0	6	1	7
33	Delhi	0	0	0	0	0	0	0
34	Lakshadweep	2	0	0	0	1	2	3
35	Pondicherry	0	0	0	0	0	0	0
	<b>Total ( UTs)</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>3</b>	<b>16</b>
	<b>Total States/UTs</b>	<b>791</b>	<b>27</b>	<b>6</b>	<b>33</b>	<b>710</b>	<b>274</b>	<b>984</b>

Note : The data includes boats plying in all water bodies.

Source : Accidental Deaths & Suicides in India - 2009

National Crime Records Bureau, M/o Home Affairs, Govt. of India

**SECTION - 8**

**INLAND WATERWAYS IN  
SELECTED COUNTRIES**

Table No. 8.1

## Length of Navigable Inland Waterways in

## Europe and USA in 2003 &amp; 2004

(In Kms.)

Sl. No.	Country	Canals		Rivers and Lakes		Total	
		2003	2004	2003	2004	2003	2004
1	2	3	4	5	6	7	8
1	Albania						
2	Austria	–	–	351	351	351	351
3	Belgium	875	875	641	641	1516	1516
4	Bulgaria	–	–	470	470	470	470
5	Croatia	–	–	720	804	720	804
6	Czech. Republic	39	39	625	625	664	664
7	Estonia	–	–	320	320	320	320
8	Finland	125	125	7759	7893	7884	8018
9	France	3715	3693	1669	1679	5384	5372
10	Germany	1620	2379	5089	5186	6636	7565
11	Hungary	121	166	1319	1273	1440	1439
12	Kazakhstan	–	–	4032		4032	...
13	Kyrgyzstan	–	–	460	...	460	...
14	Lithuania	1	1	289	289	290	290
15	Poland	331	331	3312	3307	3643	3638
16	Moldova	–	–	42	42	42	42
17	Netherlands	...	3509	...	3086	...	6595
18	Romania	132	132	1647	1647	1779	1779
19	Russian Federation					101679	101679
20	Serbia and Montenegro	...	342	...	1077	...	1419
21	Slovakia	39	39	134	134	173	173
22	United Kingdom	155	155	910	910	1065	1065
23	United States of America	...	...	...	...	42000	...

Source: Annual Bulletin of Transport Statistics for Europe &amp; North America, 2008 (UN Publication).

Table No. 8.2

**Length of Navigable Waterways By  
Permissible Carrying Capacity of Vessels - 2004**

Sl.No.	Country	Total Length (Kms.)	Carrying Capacity of Vessels (in tonnes)						
			upto 249	250-399	400-649	650-999	1000-1499	1500-2999	3000 & Above
1	2	3	4	5	6	7	8	9	10
<b>1</b>	<b>Albania</b>								
	Canals								
	Rivers & Lakes	351							351
<b>2</b>	<b>Austria</b>								
	Canals								
	Rivers & Lakes								
<b>3</b>	<b>Belgium</b>								
	Canals	875		150	245		217	48	200
	Rivers & Lakes	641	-	182	34	-	210	162	53
<b>4</b>	<b>Bulgaria</b>								
	Canals								
	Rivers & Lakes	470							470
<b>5</b>	<b>Croatia</b>								
	Canals								
	Rivers & Lakes	804	-	17	215	286	149	...	138
<b>6</b>	<b>Czech Republic</b>								
	Canals	39							39
	Rivers & Lakes	625							625
<b>7</b>	<b>Estonia</b>								
	Canals								
	Rivers & Lakes	320							320
<b>8</b>	<b>Finland</b>								
	Canals	125	9	...	...	16	...	100	...
	Rivers & Lakes	7893	4183	...	...	2909	...	801	...
<b>9</b>	<b>France</b>								
	Canals	3693	51	2796	-	225	31	13	577
	Rivers & Lakes	1679	13	421	165	-	-	219	861
<b>10</b>	<b>Germany</b>								
	Canals	2379	112	239 ...		35	1403	391	109
	Rivers & Lakes	5186	386	734	90	227	830	1870	1049
<b>11</b>	<b>Hungary</b>								
	Canals	166	-	-	45	-	121	-	-
	Rivers & Lakes	1273	-	78	357	330	126	-	382

**Table No. 8.2**  
**(Concid...)**

**Length of Navigable Waterways By**  
**Permissible Carrying Capacity of Vessels-2004**

Sl.No.	Country	Total Length (Kms.)	Carrying Capacity of Vessels (in tonnes)						
			upto 249	250-399	400-649	650-999	1000-1499	1500-2999	3000 & Above
1	2	3	4	5	6	7	8	9	10
<b>12</b>	<b>Kazakhstan*</b>								
	Canals								
	Rivers & Lakes	4032							4032
<b>13</b>	<b>Kyrgyzstan*</b>								
	Canals								
	Rivers & Lakes	460							460
<b>14</b>	<b>Lithuania</b>								
	Canals	1					1		
	Rivers & Lakes	289				289			
<b>15</b>	<b>Moldova</b>								
	Canals								
	Rivers & Lakes	42	42						
<b>16</b>	<b>Netherlands</b>								
	Canals	3509	1238	352	737	150	344	487	201
	Rivers & Lakes	3086	662	53	306	155	154	758	996
<b>17</b>	<b>Poland</b>								
	Canals	331	...	...	...	...	...	...	331
	Rivers & Lakes	3307	...	...	...	...	...	...	3307
<b>18</b>	<b>Romania</b>								
	Canals	132	...	...	40	...	33	27	32
	Rivers & Lakes	1647	...	...	53	274	819	233	268
<b>19</b>	<b>Serbia and Montenegro</b>								
	Canals	342	21	321	-	-	-	-	-
	Rivers & Lakes	1077	38	-	46	405	-	588	-
<b>20</b>	<b>Slovakia</b>								
	Canals	39	-	-	-	-	-	-	39
	Rivers & Lakes	134	-	-	-	-	-	134	-
<b>21</b>	<b>Ukraine</b>								
	Canals								
	Rivers & Lakes								
<b>22</b>	<b>United Kingdom</b>								
	Canals	155							155
	Rivers & Lakes	910							910

\* ; Relates to 2003

Source : Annual Bulletin of Transport Statistics for Europe & North America-2008.

Table No. 8.3

## Inland Waterways vessels in Service at the end of 2004

Sl. No.	Country	Self Propelled Vessels			D. & P. Vessels		Tugs and Pushers	
		Nos.	Carrying Capacity (Th.Tonne)	Power (Th. KW)	Nos.	Carrying Capacity (Th.Tonnes)	Nos.	Power (Th. KW)
1	2	3	4	5	6	7	8	9
1	Albania	...	...	...	...	...	...	...
2	Austria	...	...	...	...	...	...	...
3	Belgium	1279	1298.00	...	244	453	...	...
4	Bulgaria	10	12.5	10.90	161	245.5	35	33.8
5	Croatia	5	3.00	3.00	121	76.00	59	16.00
6	Czec.Republic	75	66.39	31.76	227	126.33	152	50.80
7	Estonia	1	...	...	3	...	2	...
8	Finland	135	13.00	26.00	32	5.00	31	10.00
9	France	970	511.00	230.00	533	597.00	...	...
10	Germany	...	...	...	...	...	...	...
11	Hungary	135	42.00	62.00	113	...	37	27.00
12	Kazakhstan(a)	2	3.40	...	81	63.10	51	12.30
13	Kyrgyzstan(a)	8	0.60	...	10	...	4	...
14	Lithuania	30	9.90	5.50	27	18.60	19	4.00
15	Poland	93	45.50	22.60	494	237.40	257	68.00
16	Republic of Moldova	...	...	...	15	3.60	10	1.10
17	Romania	...	...	...	1661	2184.60	915	465.11
18	Serbia and Montenegro	72	68.00	25.00	468	510.00	141	77.00
19	Slovakia	27	20.50	13.30	204	301.10	46	46.20
20	Ukraine	...	...	...	...	...	...	...
21	United Kingdom	151	50.00	...	339	117.00	143	...
22	United States of America(a)	4834	1954.80	6036.70	26984.00	40027.90	3393	5363.20

D. & P. Vessels : Dumb & Pushed Vessels

(a): Relates to 2003

Source: Annual Bulletin of Transport Statistics for Europe and North America, 2008



Table No. 8.4

## Goods Transport by Type of Transport on National Territory - 2004

Sl. No.	Country	Goods carried ('000 Tonnes)				Tonne Kms. of Goods carried(Million)*				
		National	International		Transit	National	International		Transit	
			Loaded	Unloaded			Loaded	Unloaded		
1	2	3	4	5	6	7	8	9	10	
1	Albania	...	...	...	...	...	...	...	...	
2	Austria	191	1635	6072	1173	33	1017	6176	1548	
3	Belgium	35747	40712	66631	4146	3057	1528	3717	557	
4	Bulgaria	904	470	3033	...	40	56	602	...	
5	Croatia	493	114	925	...	49	9	121	...	
6	Czech-Republic	621	253	299	-	26	141	195	-	
7	Estonia	...	...	...	...	...	...	...	...	
8	Finland	492	...	...	...	118	...	...	...	
9	France	27500	16088	14394	9343	4163	1625	1526	1106	
10	Germany	55209	51367	105109	24175	11297	13413	23625	15333	
11	Hungary	39	2313	1859	3146	5	385	322	1192	
12	Kazakhstan	...	...	...	...	...	...	...	...	
13	Kyrgyzstan	...	...	...	...	...	...	...	...	
14	Lithuania	...	...	...	...	...	...	...	...	
15	Poland	5010	1832	386	1519	243	465	121	237	
16	Republic of Moldova	120	-	-	-	...	-	-	-	
17	Romania	12183	1500	793	124	2176	1318	714	82	
18	Russian Federation	104000@				71294#				
19	Serbia and Montenegro	2412	464	3429	3289	218	446	3369	5441	
20	Slovakia	106	2287	213	119	5	50	16	20	
21	Ukraine									
22	United Kingdom	2599	-	-	-	152	-	-	-	
23	United States of America	2662045	...	...	...	415819	...	...	...	

Source: Annual Bulletin of Transport Statistics for Europe and North America 2008

\* : Kilometers within the territory of the reporting country.

@:Total Goods Carried during 2003

#: Total Tonne Kms of goods carried during 2003

# **APPENDICES**

**DEFINITIONS OF TERMS USED**

**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 (waterways 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.

**Inland Water Transport (IWT)**

**Craft**

Craft having a minimum carrying capacity of 20 tonnes designed for the carriage of goods by inland waterways.

**Dumb Barge**

IWT craft designed for being towed and not having its own means of mechanical propulsion. The fact that a dumb barge is fitted with an auxiliary engine does not change its nature.

**Dumb Tanker**

Dumb barge intended for the bulk transport of liquids or gases. Tankers for the transport in bulk of powdered products such as cement, flour, plaster, etc. are to be excluded, and to be counted among dumb barges.

**Self-Propelled Barge**

IWT craft having its own means of mechanical propulsion, dumb barges, pushed barges and pushed-towed barges with only an auxiliary engine should be regarded as dumb, pushed or pushed-towed barges as the case may be. The fact that a self propelled barge can be used for towing does not change its nature.

**Self Propelled Tanker**

Self propelled barge intended for the bulk transport of liquids or gases. Tankers for the transport in bulk of powdered products such as cement, flour, plaster etc. are to be excluded and to be counted among self-propelled barges.

**Self Propelled Craft for River-Sea Navigation**

Craft having a Dead Weight capacity of at least 20 tonnes, designed for the transport of goods by river and by Sea and equipped with their own means of propulsion developing at least 37 KW.

**Tug**

Powdered craft developing not less than 37 KW and designed for the towing of dumb barges, pushed towed barges, rafts, but not for the carriage of goods.

**Pusher Craft**

Powdered craft developing not less than 37 KW and designed or fitted for the pushing of pushed or pushed-towed barges but not for the carriage of goods.

**Pusher Tug**

Powdered craft developing not less than 37 KW and designed or fitted for the towing of dumb barges, pushed-towed barges or rafts, and for the pushing pushed and pushed-towed barges but not for the carriage of goods.

**Pushed Barge**

1. IWT craft designed for being pushed and not having its own means of mechanical propulsion. The fact that a pushed barge is fitted with an auxiliary engine does not change its nature.

2. Pushed barge intended for the bulk transport of liquids or gases. Tankers for the transport in bulk of powdered products such as cement, flour, plaster etc. are to be excluded and to be counted among pushed barges.

**Carrying Capacity (also referred to as Dead Weight Capacity)**

Maximum permissible weight of goods, expressed in tones, which a craft may carry according to ship's document.

**Power (KW)**

Mechanical force developed by the motive power installation in craft. This power should be measured in effective kilowatts (power transmitted to the propeller).

## **Appendix – II**

### **ABBREVIATION**

**... Not Available**

**- Nil**

**IWT Inland Water Transport**

**Kms. Kilometers**

**M.T. Metric Tonnes**

**CIWTC Central Inland Water  
Transport Corporation**

**IWAI Inland Waterways  
Authority of India**

**KSINC- Kerala Shipping & Inland  
Navigation Corporation**

**H.P. Horse Power**

**POL Petroleum Oil Lubricant**

**ODC Over Dimensional Cargo**

**LAG Liquified Amonnia Gas**

**FO Furnace Oil**

**LDO Light Diesel Oil**

**GC/G Cargo General Cargo**

**Neg/N Negligible**

**FBP Farakka Barage Project**

**IOC Indian Oil Corporation**

**HSD High Speed Diesel**

**LCT Loaded Carriage Tug**

**FACT Fertilisers and Chemicals  
Travancore Ltd.**