

**STATISTICS OF INLAND
WATER TRANSPORT
2015-16**



सत्यमेव जयते

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

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P R E F A C E

Transport Research Wing (TRW) in the Ministry of Shipping is the nodal agency for providing information/data on various facets of Shipping and Inland Water Transport. The present issue “**Statistics of Inland Water Transport 2015-16**” is the 23rd issue in the series.

The present volume gives 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 across States/UTs, IWT activities undertaken by private and public sector companies, plan outlays/expenditure for IWT sector, accidents related to Inland Waterways and Inland Waterways in select countries.

Though the information contained in the volume is obtained from a large number of source agencies spread across both public and private sector, with the cooperation of the various stakeholders, we have been successful in reducing the time lag in bringing out collated data to less than a year. We hope to receive their continued cooperation in future also.

I take this opportunity 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.

(Rajive Kumar)

March 2017



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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 31st 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 19th 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 complementarity 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, Report of the National Transport Policy Committee, Government of India, Planning Commission, May 1980

NAVIGABLE WATERWAYS & INFRASTRUCTURE

6. Length of waterways along with 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 Assam with

5290 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 96.88% in the State of West Bengal; by contrast, in case of Gujarat the ratio of navigable length to total length is a mere 15.62%. Other States with good inland water transport prospects are Goa, Maharashtra and Bihar where waterways navigable length is 90.88, 73.22 and 62.40% respectively of the total length of rivers/lands/lakes reported by these states. Fourteen states have reported river length as well as navigable length for 131 rivers. These 131 rivers have total length of 27962 Km of which 45.57% is navigable length.

S. No.	State	Total Length of the Rivers/ Canals/ Lakes in State (Km.)	Navigable Length (Km.)	Percentage of Navigable Length to Total Length
1	Andhra Pradesh	3579	804	22.46
2	Assam	5290	1682	31.80
3	Bihar	2229	1391	62.40
4	Goa	274	249	90.88
5	Gujarat	653	102	15.62
6	Karnataka	2862	1215	42.45
7	Kerala	2779	845.2	30.41
8	Maharashtra	631	462	73.22
9	Orissa	1378	508	36.87
10	Nagaland**	937	375	40.02
11	Mizoram	790	155	19.62
12	Tamil Nadu	27	12	44.44
13	Uttar Pradesh**	2345	425 @	18.12
14	West Bengal	4741	4593	96.88

** Pertains to 2007-08,
 @ Navigable length Pertains to NW I for Allahabad-Buxar stretch in Uttar Pradesh.
 * The information for each State has been compiled for only those rivers for which both Total length & Navigable length have been reported by the State.

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 was 437.06 Lakhs tonnes in 2015-16 as against 365.37 lakhs tonnes in 2014-15, reflecting an increase of 19.6 %. In terms of tonnage, Goa and Maharashtra accounted for 11.4 % and 66.0 % respectively of the total cargo volume in 2015-16 with balance 22.6 % being accounted by the 3 National Waterways. In terms of tonne km (movement of one tonne of cargo over a distance of one km) there was an increase of 21.2 % in

2015-16 over 2014-15. On an average, cargo carried on Indian Waterways is 79 Kms. Maharashtra and Goa waterways, though accounted 77.4% of the total cargo movement on inland waterways across India in terms of tone Kilometer and their share was 20.3% only. In case of Goa and Maharashtra, high volume of cargo movement was carried over relatively short average distances of about 39.9 Kms and 17.3 Kms respectively leading to their intensive use. However, in the three National Waterways, although the volume of cargo traffic was relatively much small is 22.6%, the average distance is 278.4 Kms. 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 of 19.5 Kms and 9.90 Kms respectively in 2015-16. In case of National Waterway I (Ganga- Bhagirathi-Hooghly) the average distance over which cargo moved was relatively much longer at 431.3 Kms.

S. No.	Details of Waterway	Cargo Moved (lakh tonnes)			Tonne Kms (in lakh)		
		2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
1	National Waterway No. I	33.49 (10.4)	50.50 (13.8)	62.37 (14.3)	18512 (76.5)	22636 (79.5)	26902 (77.9)
2	National Waterway No. II	24.75 (7.7)	24.92 (6.8)	25.84 (5.9)	594 (2.5)	508 (1.8)	505 (1.5)
3	National Waterway No. III	10.66 (3.3)	8.44 (2.3)	10.61 (2.4)	116 (0.5)	92 (0.3)	105 (0.3)
	Sub Total NWs	68.90 (21.4)	83.86 (22.9)	98.82 (22.6)	19222 (79.5)	23236 (81.6)	27512 (79.7)
4	Goa Waterways	5.99 (1.8)	7.94 (2.2)	49.75 (11.4)	270 (1.1)	340 (1.2)	1987 (5.8)
5	Maharashtra Waterways	247.74 (76.8)	273.57 (74.9)	288.49 (66.0)	4691 (19.4)	4892 (17.2)	5005 (14.5)
	Grand Total	322.63 (100.0)	365.37 (100.0)	437.06 (100.0)	24183 (100.0)	28468 (100.0)	34504 (100.0)
<p>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 data received from the Mormugao Port Trust (MPT). (iii) Maharashtra Maritime Board for Maharashtra Waterways.</p> <p>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. Figure within brackets indicates percentage to the total.</p>							

NATIONAL WATERWAYS (NW)

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 x 1.2m);
- 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. To promote Inland Water Transport (IWT) in the country, earlier five waterways had been declared as National Waterways so far 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.(Total 205 kms)
 - (d) Kakinada- Pondicherry canals along with Godavari and Krishna rivers (1078 km) –as NW-4.
 - (e) East Coast Canal integrated with Brahmani river and Mahanadi delta rivers (588 km) as NW-5.

Out of these five NWs, first three waterways have already been developed substantially with fairway of required depth & width, navigational aids & terminal facilities for loading/unloading of cargo & ingress/ egress of the passengers and cargo & passenger vessels are moving on these NWs.

Development of 106 new National Waterways

9. With the enforcement of “**National Waterways Act, 2016**” from 12th April, 2016, 106 Inland Waterways have been declared as National Waterways. After declaration of 106 New National Waterways, pre-feasibility studies and techno economic studies are being carried out which inter- alia cover the potential of navigability, cargo availability, cost of development etc. To undertake the development on 106 New National Waterways, IWAI has categorized those under 3 categories as under:

(a) Category – I: Eight Waterways which are considered to be viable and can be taken up for development in Phase-I. Studies for EIA / EMP and CRZ clearances for the projects are under progress. Status is as follows :

Detailed Project Report (DPR) study for 8 waterways is available. Based on these DPRs, tender for development of river Barak (NW-16) was invited and is being finalized. Tender document preparation for the development of rivers Ghagra (NW – 40), Gandak (NW-37) and Kosi (NW-58) are in progress. A Memorandum of Understanding (MOU) has been signed with Mormugoa Port Trust (MPT) for development of rivers Mandovi (NW-68), Zuari (NW-111) and Cumberjua canal (NW-27) in Goa.

Out of the remaining 24 New National Waterways, feasibility reports for 21 waterways have been received and DPR studies awarded. The feasibility reports for remaining 3 waterways are being reviewed.

(b) Category – II: Those waterways which are in the coastal regions and have some tidal stretches are being considered for development in this category. The number of such coastal rivers and canals is 46. Two stage DPR studies (stage I feasibility study & based on viability stage II DPR study) for all the waterways have already been awarded and reports received.

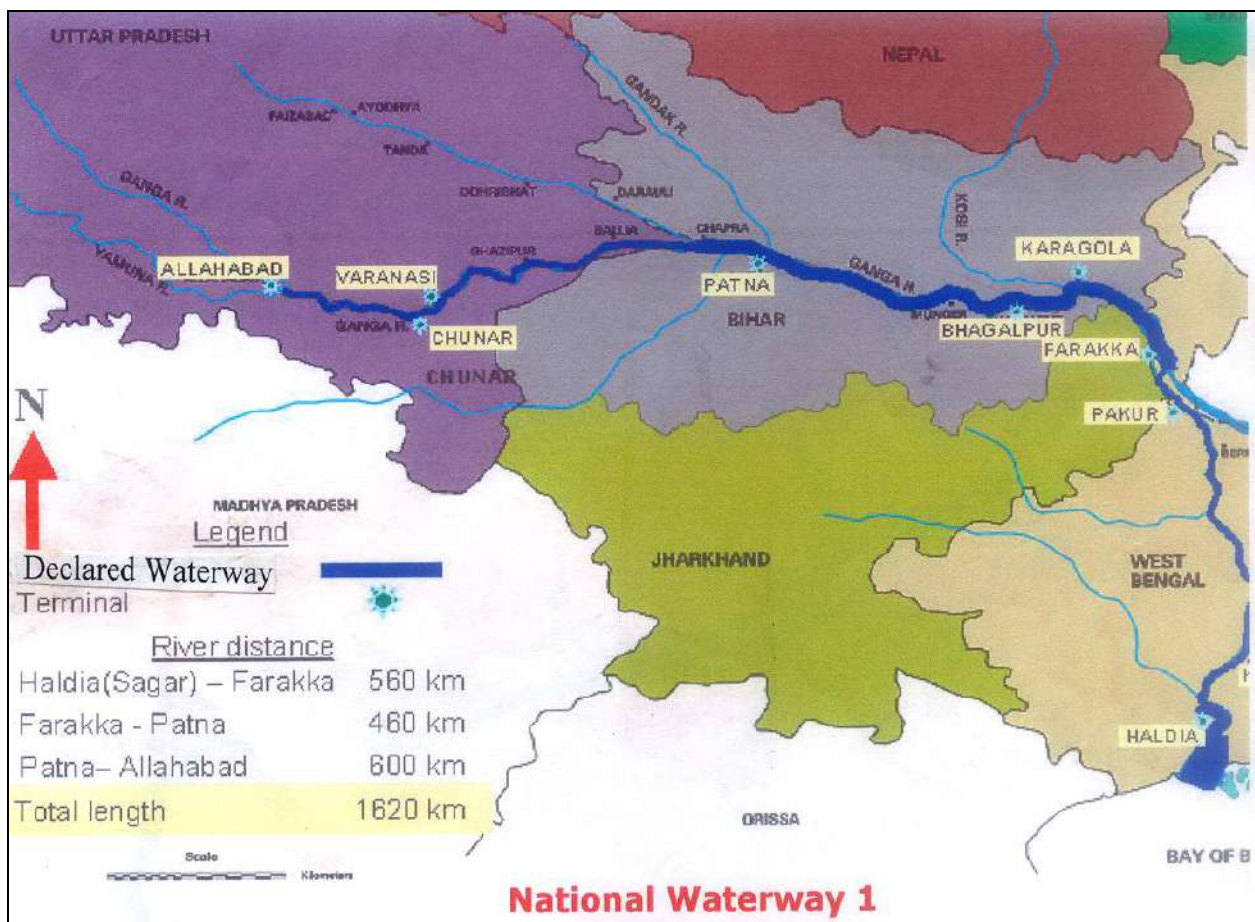
Based on the outcome of Stage I feasibility reports, preparation of DPRs for 24 NWs have been initiated.

(c) Category – III: The remaining 52 waterways which are in remote, inaccessible & hilly regions have been grouped in this category and initially only feasibility studies for all these waterways have been awarded. Field survey in 43 NWs have been completed and is in progress in 5 NWs. Security clearance is awaited for 5 NWs. Draft feasibility study reports of 37 NWs have been received. Based on the outcome of feasibility studies, further studies like TEF/DPR will be taken up subsequently.

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

10. 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 was 62.37 lakh tonnes in 2015-16 as against 50.50 lakh tonnes in 2014-15 reflecting an increase of 23.5 %. The volume of cargo movement by VIVADA IWL vessels increased to 2.7 lakh tonnes in 2015-16 from 2.5 lakh tonnes in 2014-15, the volume of cargo moved by other private operators increased considerably during 2015-16 as compared to 2014-15. Other private operators moved 30.01 lakh tonnes of cargo on NW-I in 2015-16 as against 25.13 lakh tonnes cargo on NW-I in 2014-15. However, no operation were reported to be carried out by CIWTC during 2015-16.



11. The composition of cargo movement on National Waterway I over the years is shown in Table 3 below. Coal accounted for 45.6% of total cargo movement along the NW-I during 2015-16, followed by Building material (38.4%) and Food items (8.0%). These three items together accounted for about 92% of the total cargo moved on NWI during 2015-16.

Table 3 : Composition of Cargo Moved on National Waterway- I (In Tonnes)					
Name of the Commodity	2011-12	2012-13	2013-14	2014-15	2015-16
Building Material	1529401 (46.2)	1727685 (63.6)	1997301 (59.6)	2044784 (40.5)	2393416 (38.4)
Fertilizers	-	52000 (1.9)	36800 (1.1)	132299 (2.6)	124000 (2.0)
Food items	15000 (0.5)	345179 (12.7)	394935 (11.8)	527048 (10.4)	499024 (8.0)
Miscellaneous	22509 (0.7)	13842 (0.5)	11476 (0.3)	17690 (0.4)	8010 (0.1)
Mix	1459428 (44.1)	21800 (0.8)	8250 (0.2)	65312 (1.3)	0 (0.0)
Ore/Minerals	550 (neg.)	229000 (8.4)	112000 (3.3)	242000 (4.8)	31000 (0.5)
POL/POL products	281954 (8.5)	247341 (9.1)	212063 (6.3)	250418 (5.0)	273684 (4.4)
Coal	1205 (neg.)	79590 (2.9)	561456 (16.8)	1736492 (34.4)	2843001 (45.6)
Iron steel	-	-	14857 (0.4)	34166 (0.7)	64989 (1.0)
Total NW I	3310047 (100.0)	2716437 (100.0)	3349138 (100.0)	5050209 (100.0)	6237124 (100.0)
Note: Figure within brackets indicates percentage to the total Neg. - negligible					

Jal Marg Vikas Project:

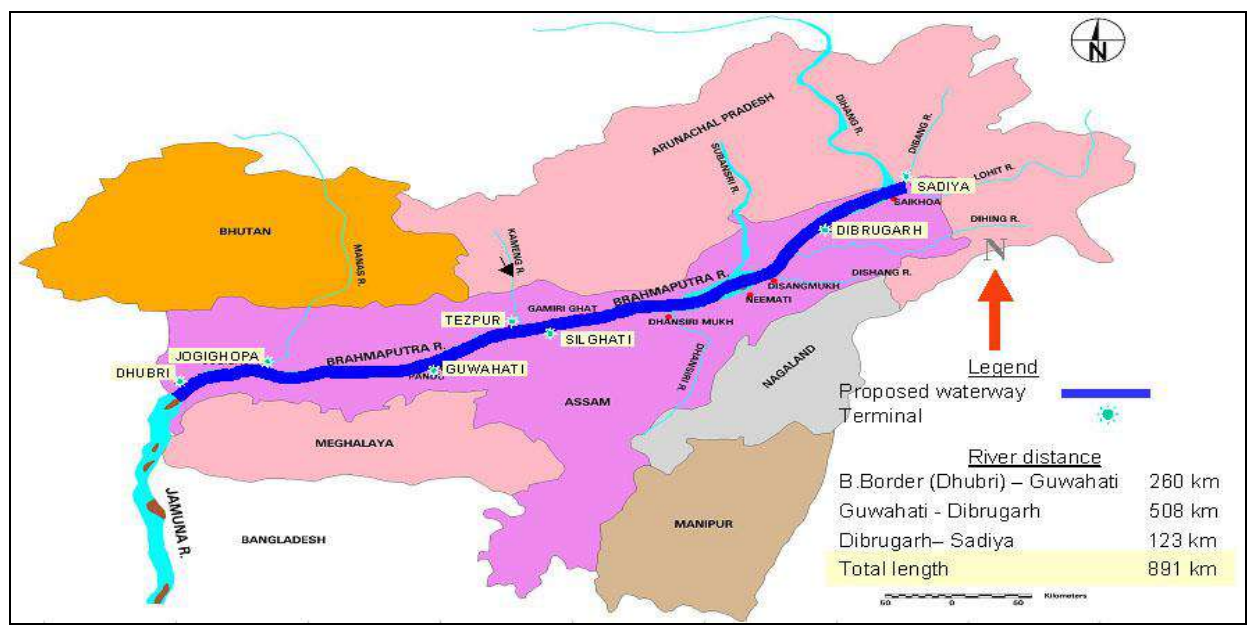
12. The 'Jal Marg Vikas' (National Waterway-I: River Ganga) Project envisages to develop a fairway with upto 3 meters depth between Varanasi and Haldia (Phase-1) covering a distance of 1380 kms at an estimated cost of Rs. 5369 crore. The funding model for the project is: IBRD loan- Rs. 2,512.00 Crore (US\$ 375.00 million); Government of India counterpart funds- Rs. 2,556.00 crores (US\$380.00 million); and private sector participation- Rs. 301.00 crores (US\$ 45 million). The project being implemented by the IWAI is to be completed in six years, with technical and investment support of World Bank. This would enable commercial navigation of at least 1500-2000 ton vessels. This project includes construction of multi-modal terminals, jetties, river information system, channel marking, navigational lock, river training and conservancy works. The project proposal is under appraisal by the Public Investment Board. The

loan negotiation and sanction is expected in January/February 2017. The IBRD loan requirement has been appraised and recommended by the Screening Committee of Department of Economic Affairs on 27.09.2016.

In the meantime, advance preparation for priority sub-projects i.e., construction of multi-modal terminals at Varanasi, Haldia, Sahibganj and navigational lock at Farakka and performance based dredging contract are already under implementation to meet the time lines fixed in the review meeting taken by the Hon'ble Prime Minister and the 30% minimum procurement for loan approval by the World Bank.

National Waterways No. II (The Brahmaputra)

13. National Waterway II comprises of Dhubri to Sadiya of 891 Km in the state of Assam. The depth of 2.5 m, 2.0 m and 1.5 m are being maintained between from Dhubri to Neamati (630 km), Neamati- Dibrugarh (138 km) and Dibrugarh- Sadiya (123 km). Apart from the channel maintenance the projects for construction of Ro-Ro terminals at Dhubri and Hatsingimari is being implemented. The floating terminals provided at 10 locations can also be shifted to any other place based on demand. Night navigation facilities provided between Dhubri and Silghat can be extended in a short period of time depending upon demand. Setting up of one more DGPS station is under progress at Dhubri which will extend the coverage of DGPS signals upto Chilmari (including no man's land) in the Protocol route in Bangladesh. A ship repairing facilities at Guwahati on NW-2 is under implementation.



14. The total cargo traffic on NW II was 25.84 lakh tonnes during 2015-16 as against 24.92 lakh tonnes during 2014-15 reflected an increase of 0.92 lakh tonnes. Commodity-wise

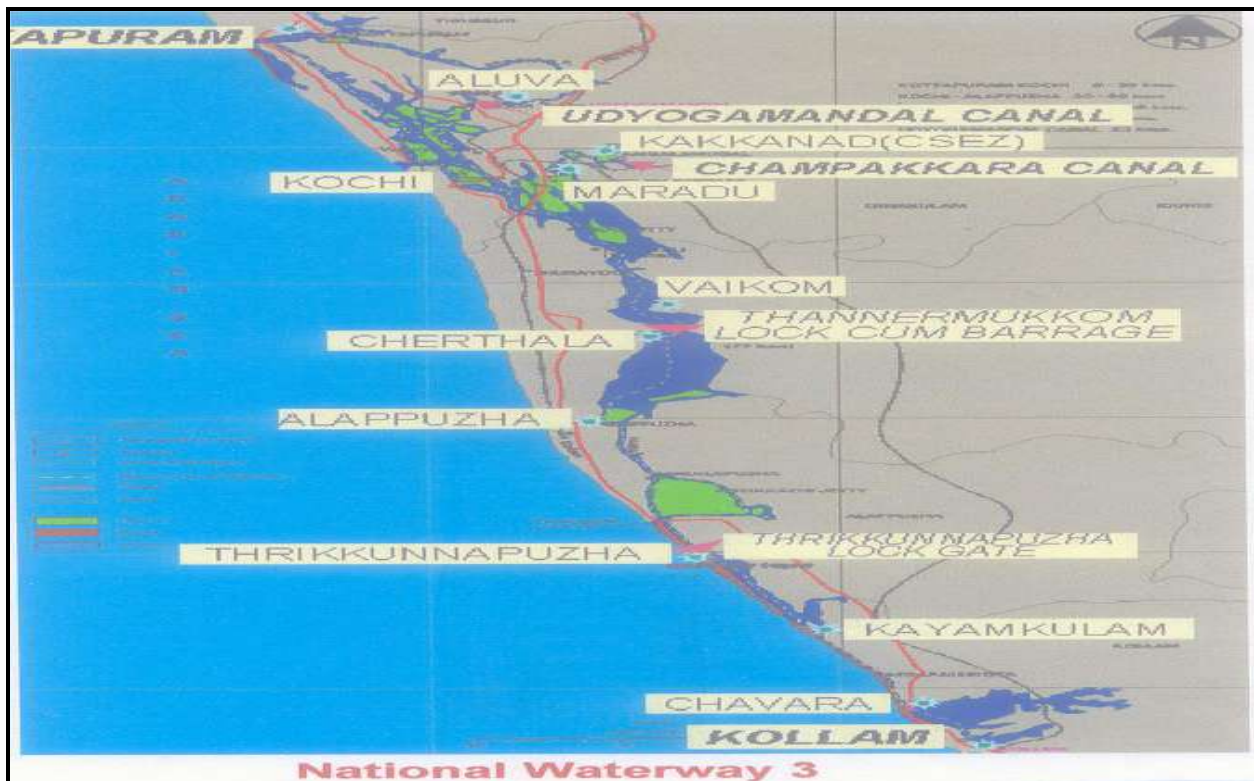
composition of cargo movement over the years indicates that the cargo moved on this waterway is of miscellaneous nature.

Table 4 : Composition of Cargo Moved on National Waterway - II (In Tonnes)					
Commodity	2011-12	2012-13	2013-14	2014-15	2015-16*
Building Material	-	-	-	-	-
Food items	-	-	-	-	-
Miscellaneous	2406448 (100.0)	2426805 (100.0)	2475349 (100.0)	2491720 (100.0)	2584306 (100.0)
Mix	-	-	-	-	-
Ore/Minerals	-	-	-	-	-
POL/POL Products	-	-	-	-	-
Total NW II	2406448 (100.0)	2426805 (100.0)	2475349 (100.0)	2491720 (100.0)	2584306 (100.0)

Note: *Provisional data has been considered in absence of cargo data received from IWTD, Government of Assam for National Waterways-II for the year 2015-16.
Figure within bracket indicates percentage to the total
Neg. – negligible

The National Waterway No. III (West Coast Canal)

15. 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.



16. The total volume of cargo moved on National Waterway III has been fluctuating over the past few years. The volume of cargo moved is increased to 10.61 lakh tonnes in 2015-16 compared to 8.44 lakh tonnes in 2014-15 recording a growth of 25.7%. The cargo composition of freight traffic shows that Mix items (64.7%), Fertilisers (20.4%) and chemicals (14.7%) were the major commodities moved through NW-III during 2015-16.

Table 5 : Composition of Cargo Moved on National Waterway - III (In Tonnes)					
Commodity	2011-12	2012-13	2013-14	2014-15	2015-16
Chemicals	61005 (4.5)	89074 (7.2)	124782 (11.7)	96773 (11.5)	155567 (14.7)
Fertilisers	308807 (23.0)	306034 (24.8)	262974 (24.7)	231951 (27.5)	216648 (20.4)
Food items	131720 (9.8)	141000 (11.4)	18000 (1.7)	-	-
Mix	687946 (51.2)	538670 (43.6)	606760 (56.9)	512490 (60.7)	686350 (64.7)
Ore/Minerals	15063 (1.1)	72163 (5.8)	28542 (2.7)	262 (neg)	-
POL/POL products	139229 (10.4)	89462 (7.2)	24948 (2.3)	2221 (0.3)	2477 (0.2)
Total NW III	1343770 (100.0)	1236403 (100.0)	1066006 (100.0)	843697 (100.0)	1061042 (100.0)
Note: Figure within brackets indicate percentage to the total					

17. The total cargo moved through all the three National Waterways (NW) increased by 17.8% to 98.82 lakh tonnes during 2015-16 from 83.86 lakh tonnes during 2014-15. In 2015-16, 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 63.1%, 26.2%, and 10.7% respectively of the total cargo moved in national waterways. In terms of tonne kilometers, the share of NW I, NW II and NW III is 97.8%, 1.8% and 0.4% of the total tonne kilometers moved. The highest share of NW I in tonne kilometers reflect long average distance traversed by cargo of 431 kms compared with an average distance of 20 kms for NW II and average distance of 10 kms for NW III in the year 2015-16. Table 6 gives cargo movement of National Waterways in Tonnage and Tonne Kilometers.

Sl. No	Details of Waterway	Cargo Moved (lakh Tonnes)				Tonne Kms (in lakh)			
		2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
1	National Waterway No. I	27.16 (42.6)	33.49 (48.6)	50.50 (60.2)	62.37 (63.1)	15119 (95.5)	18512 (96.3)	22636 (97.4)	26902 (97.8)
2	National Waterway No. II	24.27 (38.0)	24.75 (35.9)	24.92 (29.7)	25.84 (26.2)	580 (3.7)	594 (3.1)	508 (2.2)	505 (1.8)
3	National Waterway No. III	12.36 (19.4)	10.66 (15.5)	8.44 (10.1)	10.61 (10.7)	139 (0.9)	116 (0.6)	92 (0.4)	105 (0.4)
	Total NWs	63.79 (100.0)	68.90 (100.0)	83.86 (100.0)	98.82 (100.0)	15838 (100.0)	19222 (100.0)	23236 (100.0)	27512 (100.0)

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 brackets indicate percentage to the total

18. The details of the commodity composition of the cargo moved on the National Waterways I, II and III taken together are given in Table 7. It may be seen there from that the cargo movement of coal and building material has shown significant increase while food items & ore/minerals have shown sharp decrease in volume terms on the National Waterways in 2015-2016. The highest percentage of cargo moved in 2015-16 was coal (28.8%) followed by miscellaneous items (26.2%), building materials (24.2%) and mix items (6.9).

Commodity	2011-12	2012-13	2013-14	2014-15	2015-16
Building Material	1529401 (21.7)	1727685 (27.1)	1997301 (29)	2044784 (24.4)	2393416 (24.2)
Chemicals	61005 (0.9)	89074 (1.4)	124782 (1.8)	96773 (1.2)	155567 (1.6)
Fertilisers	308807 (4.4)	358034 (5.6)	299774 (4.4)	364250 (4.3)	340648 (3.4)
Food items	146720 (2.1)	486179 (7.6)	412935 (6.0)	527048 (6.3)	499024 (5.0)
Miscellaneous	2428957 (34.4)	2440647 (38.3)	2486825 (36.1)	2509410 (29.9)	2592316 (26.2)
Mix	2147374 (30.4)	560470 (8.8)	615010 (8.9)	577802 (6.9)	686350 (6.9)
Ore/Minerals	15613 (0.2)	301163 (4.7)	140542 (2.0)	242262 (2.9)	31000 (0.3)
POL/POL Products	421183 (6.0)	336803 (5.3)	237011 (3.4)	252639 (3.0)	276161 (2.8)
Coal	1205 (0.0)	79590 (1.2)	561456 (8.1)	1736492 (20.7)	2843001 (28.8)
Iron & Steel	-	-	14857 (0.2)	34166 (0.4)	64989 (0.7)
Total	7060265 (100.0)	6379645 (100.0)	6890493 (100.0)	8385626 (100.0)	9882472 (100.0)

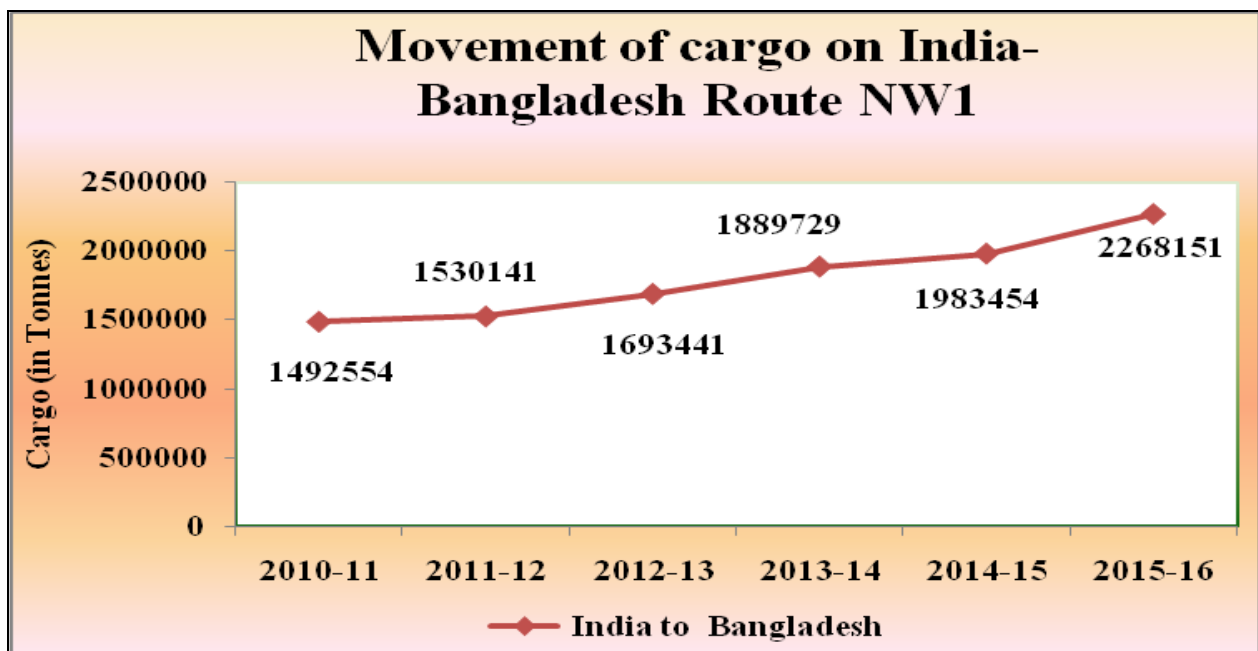
Note : Figure within brackets indicate percentage to the total

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

19. Movement of cargo along India Bangladesh route of National Waterways I by Indian registered vessels have shown growth of 14.4% in year 2015-16 over that in 2014-15. The cargo moved over this route has increased to 2268151 tonnes in 2015-16 against 1983454 tonnes in 2014-15. The graph inserted below depicts trend in cargo movement on India-Bangladesh route National Waterway-I during the years 2010-11 to 2015-16.



20. The table 8 shows the cargo and the main commodities carried on India-Bangladesh route on National Waterway-I during the years 2011-12 to 2015-16.

Table 8: Movement of Cargo (in Tonnes) on India- Bangladesh route of NW I*(Tonnes)						
Route	2011-12	2012-13	2013-14	2014-15	2015-16	Commodities
India to Bangladesh	1530141	1693441	1889729	1983454	2268151	Flyash, Salt in bulk, Rice, Wheat POL, Coal, Slag Gypsum, HSD, Edible Oil, Iron Ingots, Cement, Bone crushed, Cement Clinker, Dolomite Powder
Total	1530141	1693441	1889729	1983454	2268151	
*Data pertains to cargo carried on Indian registered vessels only.						

NATIONAL WATERWAYS 4 & 5

21. Two remaining water ways which had been declared by the Government as National Waterways are:

- (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, 1078 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, 588 km) Gazette notifications for both these waterways were published on 25.11.2008.

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

22. The stretches of the waterway (1078 kms) which has been declared as National Waterways (NW) are as follows:

- (i) Godavari river from Bhadrachalam to Rajahmundry - 171 km.
- (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 Pedaganjam lock - 113 km.
- (vi) North Buckingham canal from Pedaganjam lock to Chennai- 316 km.

(vii) South Buckingham canal from Chennai to Mercanum	-	110 km
(viii) Kaluvelli tank from Mercanum to Puducherry	-	22km.
Total =		1078 Kms

23. The waterway is located in the States of Andhra Pradesh (810Km), Andhra Pradesh & Telangana Boarder (78 Km), Tamil Nadu (188 km) and Union Territory of Puducherry (2 Km). Out of 1078 km, 39 km stretch within Chennai city (from Ennore to Shollinganalur) has been excluded 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, 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, Chennai and upcoming new ports at Dugarajapatnam and other minor ports in east coast for facilitating the import/export of cargo from/to hinterland. The waterway in consultation with the State Government is proposed to be developed as class-III waterways against class II as originally envisages for facilitating the movement of economic size of cargo vessels in the entire stretch of the waterway. Different studies are being taken up for finalizing the project proposal and execution of the development activities in phases.

24. In addition to the movement of cargo, the waterway system shall be developed for facilitating passenger & tourist movement through cruise vessels. Besides, the development shall provide a host of 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.

25. An MoU has been signed with Government of Andhra Pradesh on 14.04.2016 for the development of NW-4 in Andhra Pradesh in phases. Muktiyala to Vijayawada stretch of river Krishna, Vijayawada to Kakinada stretch of canal system and Rajahmundry to Bhadrachalam stretch of river Godavari are being planned to be developed in the first phase through a SPV being formed with IWAI and Government of Andhra Pradesh as the equity shareholders. An Agreement for formation of SPV for the development of National Waterway in Andhra Pradesh was signed between IWAI and Government of Andhra Pradesh on 19.08.2016. Modalities for forming SPV with Govt. of Andhra Pradesh are being initiated for development of National Waterway-4 in Andhra Pradesh region in phases.

26. The stretch between Muktyala to Vijayawada of NW – 4 is being planned for immediate operation for which dredging works to remove shallow patches has been awarded. The work is expected to commence from January, 2017. Preparatory works viz. land delineation surveys, categorization of cross structures are also underway in Vijayawada – Kakinada stretch of NW – 4 to develop them through a Special Purpose Vehicle (SPV).

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

27. The stretch-wise break-up of NW-5 is as given below:-

i) Rivers Brahmani- Kharsua- Dhamra (Talcher- Dhamra)	-	265 km
ii) Matai river (Charbatia- Dhamra)	-	39 km
iii) Mahanadi delta rivers (Mangalgadi- Paradeep)	-	67 km
iv) East Coast Canal (Geonkhali- Charbatia)	-	<u>217 km</u>
	Total	= 588 km

28. To start the development works in National Waterways-5, a MoU (Memorandum of Understanding) has been signed by Inland Waterways Authority of India (IWAI) a statutory organization under Ministry of Shipping with Government of Odisha, Paradip Port Trust (PPT) and Dhamra Port Company Limited (DPCL) on 30.06.2014 for developing the commercially viable stretch of 332 km under two phases. During Phase-1, it is proposed to take up the development of 212 km stretches of Pankapal / Jakodia to Paradip and Dhamra. The 120 km stretch between Talcher and Pankapal / Jakodia and East Coast Canal stretch (Dhamra – Charbatia – Geonkhali) will be taken up in the 2nd Phase.

29. The work for carrying out the dredging operation in the non-tidal stretch between Erada to Padanipal is underway. Lease agreement has been signed for 6.79 acres of land for setting up of the temporary terminal facility at Erada. Scheme for developing the terminal with floating pontoon equipped with suitable cranes alongwith associated civil engineering work i.e. construction of pontoon with gangway was already awarded. Tender for procurement of cranes is also under process. MoU between IWAI and Paradip Port Trust (PPT) was signed on 28.09.2016 for development of phase – I from Dhamra / Paradip to Pankopal.

The main components of the project are:-

- Fairway i.e. development of navigation channel for facilitating the movement of Cargo Vessels of above 1500 tonnes capacity with required depth & width through dredging,

river training, bank protection, construction of barrages with navigational locks and other control structures i.e. check dams etc.

- Navigational aids
- Terminal facilities at 4 locations Talcher, Pankopal, Paradip & Dhamra for facilitating the loading & unloading of cargo.
- Cargo Vessels of suitable capacity & types

30. In order to provide the desired fairway with the construction of a series of barrages along with suitable navigation locks and check dams various studies are being undertaken for formulating the project proposal and mode of execution. Action has also been initiated for providing multi modal terminal facilities at Talcher, Pankopal, Dhamra & Paradip. The state-of-art navigational aid shall also be provided for safe movement of the vessels.

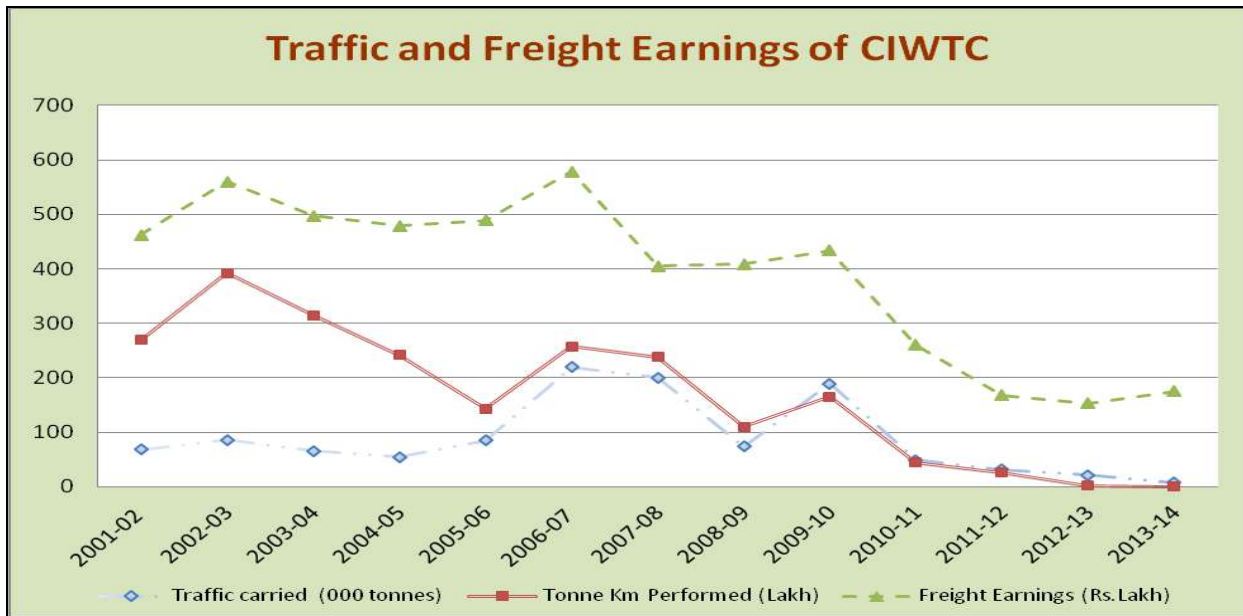
31. Simultaneously, the basic development activities such as dredging, widening & temporary terminal facilities are being executed for operation of cargo vessels initially on trial and subsequently on regular basis. A fresh study is also in progress for finding the feasibility of the individual components of the inland navigation system through PPP mode.

CENTRAL INLAND WATER TRANSPORT CORPORATION (CIWTC LTD)

32. 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 was 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.

33. River services Division (RSD) is the division of CIWTC Ltd., which 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).

34. Following graphs gives a picture of long term trend in traffic and earning of CITWC up to 2013-14.



IWT ACTIVITIES – STATE GOVERNMENT

35. The number of vessels deployed and volume of cargo carried on Inland Waterways across the reporting States & UTs is given in Table 9.

State/UT	Number of Vessels				Volume of Cargo Carried (thousand tonnes)			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
Andhra Pradesh	...	...	...	...	...	...	...	...
Assam*	22	182	182	182	71.79	338.53	178.73	178.73
Bihar	138	138	138	138	2.40	2.40	2.40	2.40
Goa	313	159	225	159	3275.82	284.17	190.01	429966.0
Karnataka*	66	66	66	66	78.40	58.72	50.50	50.5
Kerala*	13821	13689	13819	13819	5555.21	2831.87	2912.06	2912.06
Maharashtra	577	588	743	678	24196	24774	27357	28849
Orissa	342	...	409	199	...	...	...	...
West Bengal	2623	2042	2032	2106	10347	11452	14728	16730
TOTAL (reporting states)	17902	16864	17614	17347	43526.62	39741.69	45418.70	478688.7

... Not Available,

*Data pertains to year 2015.

PERFORMANCE OF COMPANIES ENGAGED IN IWT

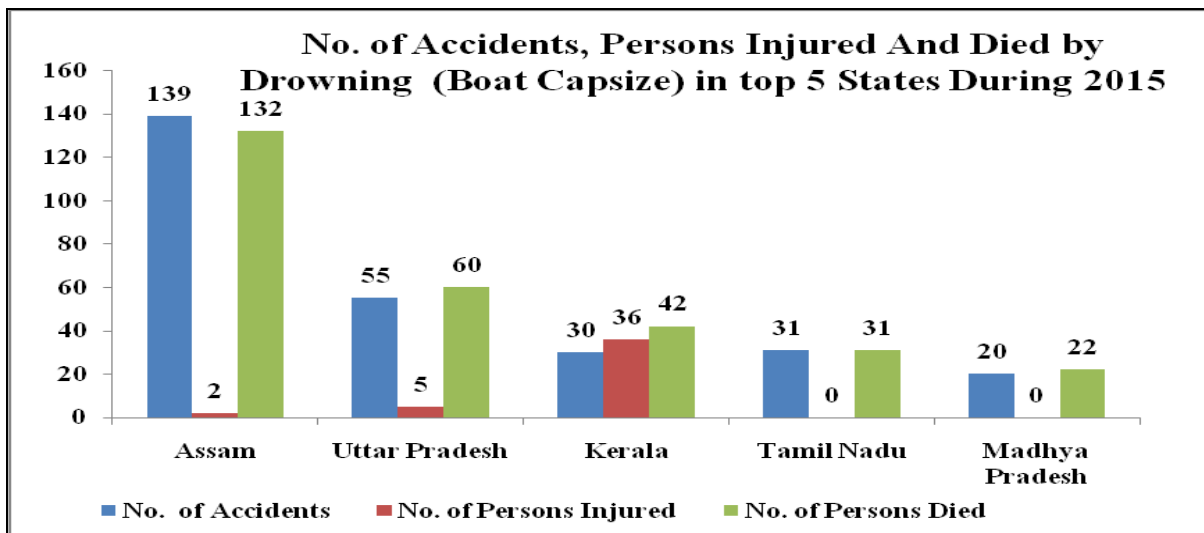
36. The data received from 26 IWT companies shows that amongst the private companies the maximum number of powered vessels was held by Sesa Sterlite Ltd, Goa followed by West Bengal Surface Transport Corporation and Jindal ITF Ltd. The Maximum cargo of 3018.78 thousand tonnes was carried by Sesa Sterlite Ltd, Goa.

37. Cargo moved by top 10 private companies in decreasing order of cargo moved along with the number of powered vessels employed in 2015-16 is given below in Table 10.

Name of the Company	No. of Vessels	Cargo moved ('000 tonnes)
1. Sesa Sterlite Ltd. Goa.	32	3018.78
2. VIVADA Inland Waterways Ltd, Kolkata	14	582.80
3. Sesa Resources Ltd Goa	2	235.91
4. West Bengal Surface Transport Corporation	30	228.92
5. Eastern Navigation Pvt. Ltd, Kolkata	11	79.28
6. Jindal ITF Ltd.	26	52.45
7. Soham Shipping Private Ltd.	4	42.10
8. Jain Navigation	2	9.86
9. K.S. Singhi	1	4.15
10. Pradeep Boating Co. , Kolkata	1	0.78

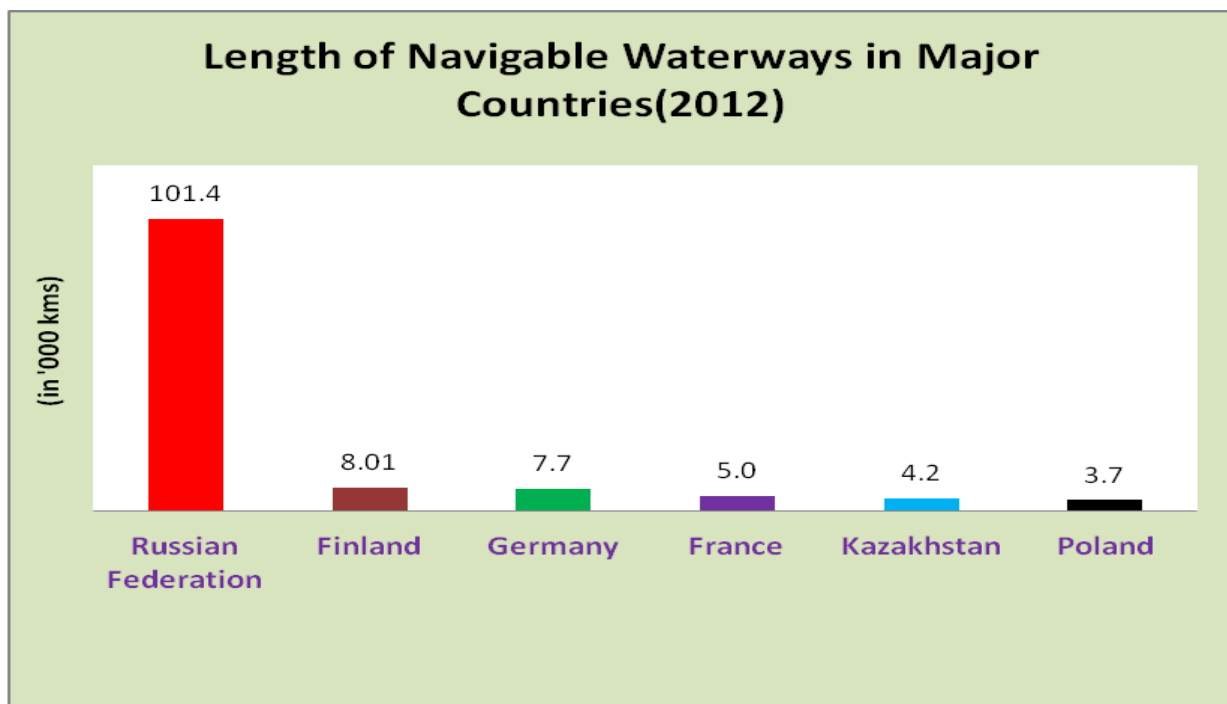
INLAND WATERWAYS TRANSPORT ACCIDENTS

38. The total number of accidents on inland waterways during the year 2015 was 315 out of which 139 were reported in Assam followed by Uttar Pradesh and Tamil Nadu with 55 and 31 accidents respectively. The number of deaths during the year due to boat mishaps was highest in Assam at 132 followed by Uttar Pradesh and Kerala with 60 and 42 respectively. A striking feature observed in all the States (Table No. 7.1) is that the number of persons died due to boat mishaps is more than the number of persons injured on waterways unlike in the road accidents. Number of Accidents, persons injured and persons died by drowning (boat capsized) during 2015 is presented in the graph.



INLAND WATERWAYS IN SELECT COUNTRIES

39. The maximum length of Navigable Inland Waterways in European and North America belongs to Russian Federation with 101,381 Kms followed by Finland with 8,014 Kms, Germany with 7,675 Kms., France with 4,996 Kms., Kazakhstan with 4,151 Kms and Poland with 3,659 Kms. in the year 2012. However, the maximum quantity of Goods carried was in Germany at 223 million tonnes, followed by Russian Federation at 138 million tonnes and France at 66 million tonnes.



Source: Annual Bulletin of Transport Statistics for Europe & North America, 2015 (UN Publication).

SECTION – 1

**NAVIGABLE WATERWAYS
AND INFRASTRUCTURE**

Table No. 1.1

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2015-16	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
1	ANDHRA PRADESH		
(i)	Godavari	1530	171
(ii)	Krishna	1400	157
(iii)	Others **	649	476
	Total	3579	804
2.	ASSAM^		
(i)	Brahmaputra	2800	891
(ii)	Borak	900	121
(iii)	Subansiri	468	111
(iv)	Dhansiri	135	25
(v)	Manash	375	104
(vi)	Aie	...	64
(vii)	Beki	85	55
(viii)	Jiabhoroli	90	60
(ix)	Puthimari	...	64
(x)	Disang	25	25
(xi)	Kopili	50	50
(xii)	Dikhow	92	40
(xiii)	Katakhal/Dhaleswari	150	120
(xiv)	Sonai	...	48
(xv)	Mahura	...	32
(xvi)	Buridihing	120	80
(xvii)	Chiri	...	42
(xviii)	Jiri	...	64
	Total	5290	1996
3.	BIHAR		
(i)	Ganga	510	510
(ii)	Gandak	300	300
(iii)	Koshi	233	160
(iv)	Ghaghra	100	100
(v)	Sone	226	31
(vi)	Mahananda	140	...
(vii)	Burhi Gandak	400	...
(viii)	Punpun	200	...
(ix)	Phalgu Harihar	300	...
(x)	Kiul	100	...
(xi)	Kari Koshi	150	...
(xii)	Chandan	100	...
(xiii)	Karamnasha	144	...
(xiv)	Others	860	290
	Total	3763	1391

Table No. 1.1 (Contd...)

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2015-16	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
4	GOA		
(i)	Mandovi	78	66
(ii)	Zuari	68	68
(iii)	Mapusa	27	27
(iv)	Chapora	34	32
(v)	Tiracol	29	23
(vi)	Sal	20	15
(vii)	Others	18	18
	Total	274	249
5	GUJARAT *		
(i)	Narmada	161	50
(ii)	Tapti	140	15
(iii)	Ambica	136	20
(iv)	Auranga	75	4
(v)	Purna	141	13
	Total	653	102
6	KARNATAKA ^		
(i)	Sharavathi	80	27
(ii)	Tungabhadra	375	375
(iii)	Malaprabha	230	230
(iv)	Ghataprabha	160	160
(v)	Krishna	325	125
(vi)	Cauvery	270	34
(vii)	Kabini	117	30
(viii)	Gurupur	80	20
(ix)	Gangolli	48	20
(x)	Bheema	860	125
(xi)	Udyavara	37	14
(xii)	Netravathi	96	26
(xiii)	Kali	184	29
	Total	2862	1215
7	KERALA ^		
(i)	Manjeswar	16	3.2
(ii)	Uppala	50	...
(iii)	Shiriyā	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)	Kuppam	82	24
(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

Table No. 1.1 (Contd...)

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2015-16	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
(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
(xxxii)	Manimala	90	54.4
(xxxiii)	Pamba	176	73.6
(xxxiv)	Achan coil	128	32
(xxxv)	Pallickal	42	2
(xxxvi)	Kallada	121	40
(xxxvii)	Ithikkara	56	16
(xxxviii)	Ayroom	17	1
(xxxix)	Vamanapuram	88	11.2
(xL)	Mamom	27	1
(xLi)	Karamana	68	...
	Neyyar	56	...
	Total	3092	845.2
8	MAHARASHTRA		
(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
(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 River(Kalaval Creek)	13	7
(xxv)	Terekhol River/Creek(Terekhol to Banda)	28	28
(xxvi)	Karli River(Malva)	23	13
(xxvii)	Others	129	105
	Total	631	462

Table No. 1.1 (Contd...)

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2015-16	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
9	ORISSA		
(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 **	...	367
	Total \$	1378	1555
10	TAMIL NADU^		
(i)	Anantha Victoria Marthandavarna	27	12
(ii)	North Buckingham Canal	58	...
(iii)	Central Buckingham Canal	7	...
(iv)	South Buckingham Canal	105	...
	Total	197	12
11	UTTAR PRADESH***		
(i)	Gomti	960	...
(ii)	Rapti	778	...
(iii)	Ghaghra	1116	...
(iv)	Ganga	2345	425 #
(v)	Sai	760	...
(vi)	Tons	485	...
	Total	6444	
12	WEST BENGAL		
(i)	Hooghly	580	580
(ii)	Mahananda	206	58
(iii)	Ajoy	174	174
(iv)	Jalangi	232	232

Table No. 1.1 (Contd...)

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2015-16	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
(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
	Total	4741	4593
13	NAGALAND***		
(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
	Total	937	375
14	MIZORAM		
(i)	R. Tlawng (Dhaleswari)	238	81
(ii)	R. Kolodyne (Chhimituipui)	196	22
(iii)	Khawthlang Tuipui	134	17
(iv)	R. Tuichawrg	167	19
(v)	Tul River	55	16
(vi)	Others	...	...
		790	155

* Relates to 2012-13

** Including Canals.

*** Relates to 2007-08

^The information for the year 2016 from the States of Assam, Karnataka, Kerala and Tamil Nadu has not been received. Hence last year data has been repeated.

@ 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 & IWAI.

Table No. 1.2
Infrastructure Facilities Available on National Waterways (As on 31-3-2016)

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

National Waterway No.1
1. Haldia - Farakka : (560 Km) ,Depth - 2.8 to 3.0

(i) Haldia	1500	Two(Floating)	...	One godown of size 12x30m and open storage (1630 sq.m.)	Being used for loading of fly ash, embark/disembark of tourists and logistic support. About 1.5 lakh tons fly ash loaded in 2015-16.
ii) Budge Budge - kolkata	1500	One(Floating)	Crane Pontoon	...	A new floating Jetty has been developed and being used for transportation of food grains by FCI from Kolkata to Northeast region through Indo- Bangladesh protocol route.
(iii) a) BISN/G.R. Jetty-1,Kolkata	1500	One(Floating)	...	Open storage- 15 sqm.	Being used for loading of fly ash, embark/disembark of tourists and logistic support. About 1.5 lakh tons fly ash loaded in 2015-16.
(iii) b) G.R. Jetty-2,Kolkata	3000	Fixed RCC Jetty 70 m berth	...	Transit shed of size 25m x 46m and open storage (4000 sqm)	A permanent RCC jetty has been constructed and operational since November ,2013.
(iv) Botanical garden, Kolkata	1500	One(Floating)	...	...	Being used for embark/disembark tourists & logistics support.
(v) Shantipur	600	One(Floating)	...	...	Being used for embark/disembark tourists & logistics support.
(vi) Swaroopganj	600	One(Floating)	-	-	Being used for embark/disembark tourists & logistics support. One DGPS station is operational.
(vii) Katwa	600	One(Floating)	...	...	Being used for embark/disembark & logistics support.
(viii) Hazardwari	600	One (floating)	...	...	Being used for embark/disembark & logistics support.
(ix) Pakur (Putimari)		One(fixed)	...	...	May be used for loading/unloading and logistics support.
(x) Farakka	1500	One(fixed)	...	...	May be used for loading/unloading and logistics support.
(a) Owned by Farakka Barrage Project	2500	One(fixed)	...	...	May be used for loading/unloading and logistics support.
(b) Owned by Jindal ITF	(two vessels at a time)	Jetty with conveyor	Two EoT	...	Being used for unloading NTPC coal.
(c) IWA's Floating jetties	600	Two(Floating)	...	...	Being used for embark/disembark of tourists & logistics support.

2. Farakka - Barh : (400 km), Depth- 2.1 to 2.5

(xi)Rajmahal (Manglaghat)	600	One(Floating)	...	-	Being used for embark/disembark of tourists and logistics support.
(xii) Sahibganj (Samudarghat)	600	One(Floating)	...	-	Being used for loading of stone chips and embark/disembark facility. Construction of permanent IWT multi model terminal is planned.

Table No. 1.2 (Contd...)

Infrastructure Facilities Available on National Waterways (As on 31-3-2016)

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
(xiii) Bateshwarsthan	600	One (Floating)	...	-	Being used for embark/disembark of tourists and logistic support.
(xiv) Bhagalpur	600	One(floating)	...	Total land area 3.86 acres. Open storage - 1000 sqm.	Being used for stationing of IWT vessels, embark/disembark of tourists and logistic support. One DGPS station is operational .
(xv) Munger	600	One (Floating)	...	Total land area 3.40 acres. Open storage - 1000 sqm.	Being used for embark/disembark of tourists and logistic support.
3. Barh-Ghazipur : (290 km),Depth - 1.6 to 2.0					
(xvi) Semaria	600	One(floating)	...		Being used for embark/disembark of tourists.
(xvii) a) Patna	600	Fixed RCC (Low & High) Jetties of 50m & 70m berth respectively	2 Shore cranes 1 Container crane	Open storage and Transit Shed of size 45 x 15m and sufficient storage space.	Low and high level permanent Jetties are operational since 2008 & 2012 respectively and capable for handling of containers & general cargo. Besides bunkering facility is also available. One DGPS station is operational.
(xvii) b) Patna	600	One (Floating)	Crane Pontoon	...	Being used for embark/disembark of tourists and logistic support during leanest period.
(xviii) Buxar	600	One (Floating)	...	...	Being used for embark/disembark of tourists and logistic support.
4. Ghazipur-Allahabad : (370 km) ,Depth -1.2 to 1.5					
* In Chunar- Allahabad stretch (198 km) no RC works was undertaken.					
(xviii) Ghazipur/ Rajghat	300	One(floating)	...	...	Being used for embark/disembark of tourists and logistic support.
(xix) Varanasi	300	One(floating)	...	Total land area 5.586 hectare .Open storage- 3000 sqm.	Being used for embark/disembark and logistic support. Construction of permanent IWT multimodal terminal is planned.
(xx) Allahabad	300	One (floating)	...	Total Land area- 8.759 hectare . Open storage -3000 sqm.	Being used for embark/disembark of tourists and logistic support.

Note :

- 1) Floating terminals with pontoon/crane can be shifted and provided at any location along waterway on need basis.
- 2) A jetty with conveyor facility has been developed by M/s Jindal ITF Ltd. At NTPC Farakka under the tripartite MoU signed between NTPC, Jindal and IWAI for transportation of 3 MMTPA imported coal and being used for unloading of the coal.
- 3) A floating jetty has been developed by IWAI at Budge Budge, Kolkatta and being used for transportation of food grains by FCI from Kolkatta to north east region through Indo- Bangladesh Protocol route.
- 4) DGPS stations at Swaroopganj, Bhagalpur and Patna have been commissioned. Construction of another DGPS Station at Varanasi is underway.
- 5) River notices are issued on fortnightly basis during lean season and monthly basis during flood season.
- 6) 24 hours navigation aids being provided in Tribeni-Varanasi sector (1187 km) only. Day channel marking being provided in Tribeni- Allahabad sector (1424 km).

Table No. 1.2 (Contd...)

Infrastructure Facilities Available on National Waterways (As on 31-3-2016)

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

National Waterways No. 2

1. Bangladesh Border-Pandu: (255 km), Depth - 2.5

(a) Dhubri	600	One(floating)	Crane prontoon	-	(i) Storage facility is being developed (ii) DGPS station is commissioned (iii) Construction of an RCC Ro- Ro terminal in progress.
(b) Jogighopa	600	One(floating)	Crane pontoon	Open storage facility available	(i) DGPS station is commissioned
(c) Pandu	600	One(low level RCC jetty) + One High level RCC jetty	One Container crane of 75 T capacity, two tyre mounted crane of 20 T capacity	(i)2 transit sheds of 75 x 21 m each (ii) open storage facility also available	(i) BG siding is completed. (ii) Approach road is available

2. Pandu-Neamati : (374 km), Depth - 2.5

(d) Tezpur	600	One(floating)	Crane prontoon	- Open storage facility available	DGPS station is commissioned.
(e) Silghat	600	One(floating)	-		
(f) Neamati	600	One (floating)	Crane prontoon	-	

3. Neamati-Dibrugarh : (123 km), Depth- 1.5

(g) Bogibeel	600	One (floating)	-	-	
(i) Sengajan/Panbari	600	One (floating)	Crane prontoon	-	

4. Dibrugarh-Sadiya (Oriumghat) : (139 km),Depth - 2.0

(j) Oakland/ Dibrugarh	600	One(floating)	-	-	DGPS station is commissioned.
(k) Oriumghat	600	One (floating)	-	-	1.77 hectare land acquired for development of terminal.

Note:

- 1) Floating pontoons can be provided at any location along waterway on demand.
- 2) Night navigation facilities are available between Bangladesh Border and Silghat (440km).
- 3) River notices issued on regular monthly/fortnightly basis.
- 4) Different Global Positioning System(DGPS) Stations to cover entire waterway are provided at Dhubri, Jogighopa,Silighat and Dibrugarh.

Table No. 1.2 (Contd...)**Infrastructure Facilities Available on National Waterways (As on 31-3-2016)**

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

National Waterways No. 3**1. Kochi-Kottapuram : (30 km), Depth-2.0**

(a) Kottapuram	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	Terminal has a road connectivity.
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2. Udyogmandal Canal : (23 km), Depth -2.0

(b) Aluva	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	Terminal has a road connectivity.
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3. Champakara Canal : (14 km), Depth - 2.0

(c) Ernakulam GC (Maradu)	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	(i) Terminal has a road connectivity.
(d) Kakkanad (CSEZ)					(ii) Only Land for terminal acquired.

4. Kochi - Chavara : (107 km) , Depth - 2.0

(e) Vaikkom	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	Terminal has road connectivity.
(f) Chertala (Thanneermukkom)	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	(i) Terminal has road connectivity.
(g) Alapuzha					(ii) Construction of Terminal is nearing completion.
(h) Trikunnapuzha	350.0	One fixed	One 18 T crane & 3 T Fork lift	400 Sqm Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	Terminal has road connectivity.
(l) Kayamkulam	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	(i) Terminal has road connectivity.
(j) Chavara					(ii) Only land for terminal acquired.

Table No. 1.2 (Contd...)**Infrastructure Facilities Available on National Waterways (As on 31-3-2016)**

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
5. Chavara- Kollam : (31 Km), Depth -2.0					
(k) Kollam	350.0	One fixed	One 18 T crane & 3 T Fork lift	Covered storage (20m x 20m) and open storage (approx. 1500-2000 Sqm)	Terminal has road connectivity.
6. CPT Area : Depth -2.2					
(l) Willingdon island	12 TEU	One berth for container vessels	5 T Crane through agency	5000 sqm open storgae	These terminals have been constructed for container movement to ICTT, Vallarpadam. Operation commenced w.e.f. 23.02.2011.
(m) Bolgatty island	16 TEU	One berth for container vessels	40 T Crane through agency	8000 sqm open storgae	

Note :-

- 1) Channel marks for 24 hrs navigation provided on the entire waterway.
- 2) River notices issued on regular fortnightly basis.
- 3) Depth is in meters and about 330 days in a year.

Table No. 1.3

Infrastructure Facilities Available on State Waterways (As on 31-3-2016)

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
	Godavari River							
	Kakinada Canal	2.98/1.98	Z-Medaoadu to Kovvur	--	--	--	--	
	Samarlakota Canal	2.17/1.95	Dowlaiswaram- Kakinada	--	--	--	--	
	G.E. Banak Canal	2.86/2.13	Vemagiri- Tallarevu	--	--	--	--	
	Amalapuram Canal	2.225/1.890	Bobbarlanka-Challapalli Lock	--	--	--	--	
	Krishna River							
	Eluru Canal	--	--	--	--	--	--	
	Ryves Canal	--	--	--	--	--	--	
	Polraj Canal	--	--	--	--	--	--	Through the canals noted in Col.(1) are designed for Navigation Canal long back i.e. 100 to 150 years. At present no Inland Water Facility is being utilized.
	Campbell Canal	--	--	--	--	--	--	
	Bantumilli Canal	--	--	--	--	--	--	
	Bandar Canal	--	--	--	--	--	--	
	K.E.B. Canal	--	--	--	--	--	--	
2	BIHAR	2 metres	(I) (a) Sahebganj- Manihari	134'x31' 80'x15'x7' 55'x13'3"x4'8"	2 Nos. 1 Nos. 1 Nos.	Nil Nil Nil	Nil Nil Nil	- - -
			(II) Kahalgaon-Tintanga	60'x16'x6'	2 Nos.	Nil	Nil	-
			(III) Sultanganj - Agwani	70'x18'x6'	2 Nos.	Nil	Nil	-
			(IV) (a) Munghyr- Raighat	56'3"x14'2"x5'9" 58'3"x16'4"x5'8" 47'2"x12'6"x5'8" 59'5"x15'6"x5'6"	1 Nos. 1 Nos. 1 Nos. 1 Nos.	Shore crane- 2 Pontoon crane-2 Container crane-1	Godown	-
			(V) Buxar-Ujirghat	-	-	-	-	At IWAI terminal
3	GOA							
	Panaji Port (River Mandovi)	3.30 metres	Panaji	75 Mtrs Length	1	-	-	Ports jetty being used by vessels calling in the Ports

Table No. 1.3 (Contd...)

Infrastructure Facilities Available on State Waterways (As on 31.3.2016)

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
4	ORISSA							
	Balugaon Sector							
	Balugaon-K.Prasad	Varies between 2 to 10 meters	Lake Chilka	30 ft and above	2	-	NA	Passenger waiting hall & Jetty are available at Balugaon & Krishna Prasadgarh.
	Balugaon-Kalijai	Varies between 2 to 10 meters	Lake Chilka	40 ft and above	2	-	-do-	Passenger waiting hall & landing facilities are available in Kalijai.
	Balugaon-Nuapada	Varies between 2 to 4 meters	Lake Chilka	30 ft	2	-	-do-	No Jetty and waiting hall is available at Nuapada.
	Balugaon-Satapada	Varies between 2 to 4 meters	Lake Chilka	30 ft	2	-	-do-	Passenger waiting hall & Jetty are available at Satapada.
	Astarang Sector							
	Nuagarh-Sribantpur	Varies between 2 to 10 meters	River Devi	26 ft	3	-	-do-	Jetty & Waiting hall is available for the services of passenger at Nuagarh.
	Chandabali Sector							
	Chandbali-Rajnagar	Varies between 7 to 10 metres	River Baitarani/ Brahmani	52 ft	13	-	-do-	Jetty & waiting hall are available at Chandbali, Nalitapatia, Chardia & Raj Nagar.
	Chandbali-Talucha	Varies between 7 to 20 metres	Baitarani/Kharastrota/ Brahmani	50 ft	10	-	-do-	Jetty & waiting hall are available at Chandbali, Nalitapatia, Chardia & Raj Nagar.
	Chandbali-Aradi	Varies between 7 to 18 meters	Brahmani	35'	3	-	-do-	Both Jetty and waiting hall is available at Aradi.
5	TAMILNADU*	41.46	Thekkady	Vessel 1 (kannagi) Length-8.5m Breadth-3m Depth-1.4m	-	-	-	-
	Periyar Lake in Kerala (Under lease in T.N.)			Vessel 2(Jairatna) Length-11.5m Breadth-2.4m Depth-1.6m	-	-	-	-
	Anantha Victoria Marthandavarma Canal (AVM)	4 m (Average)	Kanyakumari District of Tamil Nadu	3.5 m	-	-	-	-
6	MIZORAM							
	1. R. Tlawng	3.0	(a) Hortoki	15	1	20 T	Available	
			(b) Bairabi	10	2	15 T	Available	

*The information of Tamil Nadu for the year 2016 has not been received. Hence last year data has been repeated.

Source : State Govts.

SECTION – 2

**CARGO MOVED ON
VARIOUS WATERWAYS**

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

Sl.No.	Details of Waterway	Distance (Kms)	Cargo Moved (lakh Tonnes)			Tonne Kms (in lakh)		
			2013-14	2014-15	2015-16	2013-14	2014-15	2015-16
1	National Waterway No. I (Allahabad-Haldia stretch of Ganga – Bhagirathi – Hooghly river system)	1620	33.49	50.50	62.37	18512	22636	26902
2	National Waterway No. II* (Sadiya-Dhubri stretch of Brahmaputra River system)	891	24.75	24.92	25.84	594	508	505
3	National Waterway No. III (Kollam-Kottapuram stretch of West Coast Canal along with Champakara Canal and Udyogmandal Canal)	205	10.66	8.44	10.61	116	92	105
	Sub Total NWS	2716	68.9	83.86	98.82	19222	23236	27512
4	Goa Waterways	202	5.99	7.94	49.75	270	340	1987
5	Maharashtra Waterways	453	247.74	273.57	288.49	4691	4892	5005
	Grand Total	3371	322.63	365.37	437.06	24183	28468	34504

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 data from the Mormugao Port Trust (MPT).

*Provisional data has been considered in absence of cargo data received from IWTD, Government of Assam for National Waterways-II for the year 2015-16.

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
A. CIWTC(^)							
1	(I)Saugar-Diamond Harbour/Haldia /Kolkatta/ Kolkatta Internal	144/80	19650	...	...	...	Pulses,Logs,Salt,Iron Ore,Steel, Fly Ash,Aluminium block, Fertilizer, Container, ODC,Sand Clips
2	Haldir-Internal	2.00	1650	...	...	...	Sand, Clips
3	Kolkata- Ichamati River at Basirhat	2.00	...	8250	...	...	Sand, Clips
Sub Total (A)			21300	8250	0	0	
B. VIVADA IWL							
1	Haldia-Sagar	35	...	...	4410	2098	HSD/FO/LDO
2	Haldia-Budge-Budge	78/84	95072	66607	71309	59793	FO, LDO, HSD, Lube
3	Haldia-NSD	106	52969	54595	...	46615	LO,HSD, Lube Oil, FO
4	Haldia-Diamond Harbour	29	...	...	535	1565	FO, HSD
5	Budge-Budge-NSD	21/19	2656	...	1533	2183	MSD, HF
6	Halida- J'Ham	10	...	...	20637	17419	FO, HSD
7	Budge-Budge-KPD	21	916	...	758	2824	FO, HSD
8	Haldia-Namkhana	46	3923	305	1625	2626	HF, HSD
9	Budge-Budge-Pujali	5	...	434	...	0	LDO
10	Haldia-Haldia Oil Barge	3	...	16948	66420	84196	FO, HSD
11	Haldia-Haldia Oil Jetty	3	66057	70724	40838	50525	FO, HSD
12	Surninam-KPD	2	1031	140	0	0	FO
13	Surninam-NSD	1	...	...	206	1461	HSD, HF
14	Haldia-HOB	3	24717	...	...	...
15	Haldia-KPD	105	...	...	42122	...	
16	Haldia- Noorpur	43	...	...	24	0	
17	Haldia-Ramnagar					2379	LUBE
18	Budge Budge - Kolkatta	21	...	2310	...		HF, HSD
Sub Total (B)			247341	212063	250418	273684	

^ : Data for the year 2012-13 & 2013-14 is taken from monthly returns.

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
C. OTHER PRIVATE OPERATORS							
1	TIRUPATI VESSEL(P)LTD.						
1	Budge- Budge(Kol)- Khulna	497	99534	104484	69648	60498	Flyash
2	Budge- Budge Narayanganj	884	285858	308004	313023	277590	Flyash
3	Budge- Budge- Mongla	484	...	...	970	...	Flyash
4	IWAI Haldia Jetty-Khulna	426				30781	Flyash
5	IWAI Haldia Jetty-Narayanganj					17538	Flyash
2	RELIANCE EXPORT CORPORATION						
1	T.T.Shed-Narayanganj	910	7153	...	...	...	Flyash
2	Budge- Budge Narayanganj	884	-	2646	...	...	Flyash
3	IWAI BISN Jetty-Narayanganj	909	-	1374	1401	...	Flyash
3	Maitrayee Shipping & Logistics						
1	IWAI BISN Jetty-Narayanganj	909	4955	7494	21899	20102	Flyash
2	IWAI BISN Jetty-Khulna	522	699	636	660	...	Flyash
3	T.T.Shed-Narayanganj	910	25233	11184	2464	8234	Flyash
4	T.T.Shed-Mongla	510	2180	...	...	...	Flyash
5	Budge Budge- Naryanganj	884	44984	33923	14933	28140	Flyash
6	Budge Budge- Khulna	497	2525	...	...	...	Flyash
7	Sri Ram Jetty - Narayanganj	905	-	2790	665	2145	Flyash
8	Budge Budge - Karimganj	1332	-	642	...	715	Flyash
9	IWAI BISN Jetty - Karimganj	1357	-	-	1185	1858	Flyash
10	Karimganj-T. T. Shed	1358				53	Iron Fabricated
4	P K Shipping						
1	Orient Jute Mill- Ashuganj	1015	...	...	1931	8024	Rice
2	Budge- Budge Narayanganj	884	101227	20130	6003	...	Flyash
3	Narayanganj- T.T.Shed	910	500	...	...	...	Cement
4	K.P.Dock-Narayanganj	910	787	3836	1979	1030	Prime mild steel billets, Steel Coils & Plates
5	Haldia H.D.C.-Karimganj	1274	2225	...	...	...	Coal

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
6	Kolkatta-Karimganj	1358	1554	...	...	...	ODC Kargo
7	Diamond Harbour-Ashuganj	962	...	...	4848	...	Food Grain (Rice)
8	Sri Ram Jetty-Narayanganj	905	-	24073	6575	...	Flyash
9	K.P.Dock-Khulna	523	-	1622	...	495	Dolomite Powder, Steel Sheet
10	T.T.Shed - Narayanganj	910	-	...	36236	...	Flyash
11	IWAI BISN Jetty - Narayangunj	909	-	...	1110	...	Flyash
12	K.P.Dock-Mongla	510	...	...	3526	...	Steel Plate,Prime Hot Rolled Non Alloy Steel Coils & Plates, Prime Quality Hot Roll Steel
13	G.R. Jetty-II-Khulna	1357				695	Project Cargo
5	SOHAM COMMERCIAL						
1	Sri Ram Jetty-Narayanganj	905	...	...	729	..	Flyash
2	Kolkatta(Sri Ram Jetty)-Narayanganj	905	761	...	...	...	Flyash
3	T.T.Shed-Narayanganj	910	50139	81267	122966	97014	Flyash
4	T.T.Shed-Khulna	523	-	745	...	...	Flyash
5	Khulna - FSEZ Jetty(Falta), Kolkatta, India	472	-	291	...	...	Jute Carpet, Baking Cloth
6	KPD - Narayanganj	910	-	1329	...	...	Steel Coil
7	IWAI BISN Jetty - Narayanganj	909	...	...	2435	3362	Flyash
8	IWAI BISN Jetty - Khulna	522	...	...	890	...	Flyash
6	RENAISSANCE IMPEX Pvt Ltd						
1	IWAI BISN Jetty-Narayanganj	909	16137	44463	16637	5136	Flyash
2	IWAI BISN Jetty-Karimganj Assam	1357	1950	...	...	...	Flyash, HDPE Bags, Coal
3	Sri Ram Jetty-Narayanganj	905	21657	992	...	...	Flyash
4	Karimganj Assam-IWAI BISN Jetty	1357	900	...	...	...	Coal
5	IWAI Haldia Jetty- Narayanganj	826	4767	2805	3537	6523	Flyash
6	Shri Ram Jetty- Mongla	505	998	...	...	...	Flyash
7	TT Shed-Narayanganj	910	22759	12469	21955	12050	Flyash
8	Budge Budge Naryanganj	884	18549	52074	8827	6066	Flyash
9	Budge Budge Karimganj	1332	558	...	...	...	Flyash
10	KPD - Mongla	510	-	1184	339	...	Prime Hot Roll Non Alloy Steel Coils
11	TT Shed-Khulna	523	...	...	879	...	Flyash

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
7	Rivering Shipping & Logistics						
1	IWAI Haldia Jetty-Khulna	439	1450	...	5088	2520	Flyash
2	Budge- Budge (Kol)- Khulna	497	6039	2666	...	4102	Flyash
3	Budge Budge Naryanganj	884	17223	26210	18277	19121	Flyash
4	TT Shed-Narayanganj	910	7274	5812	16729	46354	Flyash
5	K P Dock- Khulna	523	1997	...	...	...	Wheat
6	Sri Ram Jetty-Khulna	518	2574	...	...	793	Flyash
7	Sri Ram Jetty-Narayanganj	905	8091	10484	10609	5777	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	...	10852	11968	13033	Flyash
9	K P Dock- Mongla	510	-	1157	...	...	Maize
10	NSD - Mongla	508	-	850	...	...	Maize
11	IWAI BISN Jetty-Khulna	522				3470	Flyash
12	T.T.Shed-Khulna	523				1026	Flyash
8	GLOBAL SHIPPING & Forwarding						
1	Budge Budge-Narayanganj	884	3266	1466	...	820	Flyash
2	Budge Budge-Khulna	497	4646	5494	703	815	Flyash
3	IWAI BISN Jetty-Khulna	522	2938	813	1654	1571	Flyash
4	IWAI BISN Jetty-Narayanganj	909	810	...	7751	...	Flyash
5	T.T.Shed-Khulna	523	-	570	...	...	Flyash
6	IWAI Haldia Jetty - Khulna	439	-	2193	4397	6930	Flyash
7	T.T.Shed-Narayanganj	910	-	1688	4525	1930	Flyash
8	IWAI Haldia Jetty - Narayanganj	826	-	-	1404	5338	Flyash
9	Sri Ram Jetty-Narayanganj	905			1782	...	Flyash
9	COASTAL CONNEXIONS						
1	Budge Budge-Narayanganj	884	10643	...	...	...	Flyash
2	Budge Budge-Karimganj	1332	1331	400	...	...	Flyash
3	Budge Budge-Khulna	497	2277	3698	2504	831	Flyash
4	IWAI BISN Jetty-Narayanganj	909	3693	5443	1698	...	Flyash
5	BISN Jetty-Narayanganj	1357	1030	...	...	...	Flyash
6	IWAI BISN Jetty-Karimganj	1357	2170	...	...	...	Flyash

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
7	BISN Jetty-Karimganj	1357	415	...	...	...	Coal
8	IWAI BISN Jetty-Khulna	532	...	...	2938	16074	Flyash
9	IWAI Haldia Jetty-Khulna	439	2268	3372	6204	5646	Flyash
10	IWAI Haldia Jetty-Narayanganj	826	4725	2078	3397	1055	Flyash
11	Karimganj(Badarpur, Assam) - Narayanganj	478	-	455	...	...	Cement Clinker
10	KANISHKA SHIPPING LINES						
1	Budge Budge-Narayanganj	884	69689	63636	36730	23420	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	116523	99999	134227	142072	Flyash
3	Sri Ram Jetty-Khulna	518	1078	...	848	2039	Flyash
4	T.T.Shed-Narayanganj	910	2406	15294	20551	25944	Flyash
5	Sri Ram Jetty-Narayanganj	905	750	1277	21158	16848	Flyash
6	IWAI BISN Jetty-Khulna	522	520	...	...	...	Flyash
7	IWAI BISN Jetty-Narayanganj	895/909	...	2850	7486	9216	Flyash
8	T.T. Shed - Mongla	510	-	2113	...	...	Flyash
9	IWAI Haldia Jetty-Khulna	439	-	-	1606	...	Flyash
10	IWAI Haldia Jetty-Mongla	426	-	-	1570	848	Flyash
11	Diamond Harbour - Ashuganj	962	-	-	5314	...	Foodgrain(Rice)
12	HDC Fly Ash Jetty-Narayanganj	826	...	...	...	11699	Flyash
13	T. T.Shed-Khulna	523	...	...	...	1032	Flyash
14	KPD-Mongla	510	...	...	...	1028	Machinery
11	Eastern Navigation Pvt Ltd., Kolkatta						
1	Kolkatta-Zamania	1065	380	...	...	...	ODC Cargo
2	Kolkatta-Silghatghat	1748	165	...	...	...	ODC Cargo
3	Haldia-Silghatghat	1664	96	...	...	...	ODC Cargo
4	T.T. Shed - Pandu	1573	...	...	150	...	Control & Protection Equipments for HVDC
12	A.K.Navigation						
1	T.T.Shed-Narayanganj	910	1625	...	5798	21553	Flyash
2	T.T.Shed-Khulna	523	3080	...	...	...	Wheat

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
13	Desha International						
1	Budge Budge-Narayanganj	884	163487	201933	113396	108031	Flyash
2	IWAI Haldia Jetty-Khulna	439	17075	9936	11216	21998	Flyash
3	IWAI Haldia Jetty-Mongla	426	2908	3548	2826	6375	Flyash
4	Budge Budge-Khulna	497	2626	4759	23330	14909	Flyash
5	IWAI BISN Jetty-Narayanganj	909	5445	1216	20946	21148	Flyash
6	IWAI BISN Jetty-Karimganj	1357	1285	...	748	...	Flyash
7	BISN Jetty-Karimganj(Badarpur)	1357	550	...	...	...	Coal
8	Sri Ram Jetty-Mongla	505	1306	...	...	...	Flyash
9	Sri Ram Jetty-Khulna	518	7719	5568	11211	10479	Flyash
10	Sri Ram Jetty-Narayanganj	905	34963	84687	58943	35915	Flyash
11	T.T.Shed-Mongla	510	2836	531	6302	...	Wheat,Soyabean Extraction, Maize
12	T.T.Shed-Khulna	523	2400	...	2389	2714	Maize
13	T.T.Shed-Narayanganj	910	24444	44291	65312	121599	Flyash, Maize
14	K.P.Dock-Mongla	510	22614	2658	...	2006	Wheat, Maize
15	K.P.Dock-Khulna	523	30083	...	...	...	Wheat
16	IWAI Haldia Jetty-Narayanganj	826	183804	244897	235687	255415	Flyash
17	IWAI BISN Jetty-Khulna	532/522	...	606	8570	2651	Flyash
18	Budge Budge- Mongla	484	-	1438	...	...	Flyash
19	IWAI BISN Jetty (kol)- Mongla	509	-	1407	...	1410	Flyash
20	K.P.Dock-Narayanganj	910	-	1450	1056	...	Maize, Steel coils
21	NSD - Narayanganj	908	-	2942	...	...	Soyabean Extraction, Maize
22	NSD- Mongla	508	-	1347	...	...	Maize
23	Gr. Jetty II - Mongla	509	-	-	973	...	Rice
24	IWAI Haldia Jetty-Karimganj	1274				779	Flyash
25	HDC-Mongla	426				1168	Steel Plates
26	HDC Fly Ash Jetty-Narayanganj	826				17751	Flyash
14	Reliance Enterprise						
1	Budge Budge-Narayanganj	884	2277	12367	694	...	Flyash
2	Budge Budge-Khulna	497	698	...	...	...	Flyash
3	Sri Ram Jetty-Khulna	518	612	...	...	...	Flyash
4	IWAI BISN Jetty-Narayanganj	909	2994	699	2731	...	Flyash
5	T.T.Shed-Narayanganj	910	8983	12425	51391	41934	Flyash
7	IWAI Haldia Jetty-Narayanganj	826	-	1358	...	...	Flyash
8	IWAI Haldia Jetty-Khulna	439	-	2131	...	...	Flyash
9	Sri Ram Jetty-Narayanganj	905	-	4779	3300	...	Flyash

Table No. 2.2
(Contd...)

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
15	Saha Oversees Corporation						
1	Budge Budge-Narayanganj	884	5138	...	...		Flyash
2	Sri Ram Jetty-Khulna	518	1855	...	...		Flyash
3	T.T.Shed-Narayanganj	910	8721	...	...		Flyash
16	C. Day & Brothers						
1	Budge Budge-Narayanganj	884	23597	52610	18863	19594	Flyash
2	Budge Budge-Khulna	497	586	600	7043	2174	Flyash
3	Sri Ram Jetty-Khulna	518	758	...	798	...	Flyash
4	Sri Ram Jetty-Narayanganj	905	1362	5782	5216	...	Flyash
5	IWAI Haldia Jetty-Mongla	426	...	...	654	...	Flyash
6	IWAI Haldia Jetty-Khulna	439	950	4919	3593	11207	Flyash
7	IWAI BISN Jetty-Narayanganj	909	930	...	14847	7229	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	4723	5886	24591	23246	Flyash
9	T.T.Shed-Khulna	523	...	...	812	...	Flyash
10	T.T.Shed-Narayanganj	910	13652	4736	1708	17172	flyash, Ironfines
11	IWAI BISN Jetty - Khulna	522	-	905	5216	1683	Flyash
12	HDC Fly Ash Jetty-Narayanganj	826				3385	Flyash
17	Fortune Cargo (India Pvt Ltd)						
1	Budge Budge-Narayanganj	894/884	16185	29765	11734	15934	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	692	780	8218	9579	Flyash
3	T.T.Shed-Narayanganj	910	5129	2167	907	872	Flyash
4	IWAI BISN Jetty-Khulna	522	755	633	...	...
5	IWAI BISN Jetty-Narayanganj	909	1112	...	13687	9737	Flyash
6	T.T.Shed-Khulna	523	...	...	602	...	Flyash
7	Sri Ram Jetty - Narayanganj	905	...	...	650	...	Flyash
8	Sri Ram Jetty - Khulna	518				933	Flyash
9	IWAI Haldia Jetty-Khulna	439				1090	Flyash
18	Sea Water Transport Co. Pvt Ltd						
1	T.T.Shed-Khulna	523	2239	...	...		Wheat
2	K.P. Dock-Mongla	510	...	...	2947		Steel Coils, Steel Plates, Steel items

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
3	IWAI Haldia Jetty-Mongla	426	...	1140	...		Flyash
4	IWAI BISN Jetty-Khulna	522	...	1080	...		Flyash
19	Krishna Shipping & Logistics						
1	Budge Budge- Narayanganj	884	5288	...	...		Flyash
2	Budge Budge- Karimganj	1332	590	...	...		Flyash
3	TT Shed- Narayanganj	910	5667	...	...		Flyash
4	Kolkatta- Pandu	1432	485	...	...		ODC Cargo
5	G.R. Jetty-II-Ashuganj	1037				4285	Steel Bridge Girder
20	Neli						
1	Budge Budge-Narayanganj	884	4128	19337	3798	8745	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	768	...	1964	...	Flyash
3	IWAI BISN Jetty-Narayanganj	909	2468	6147	15678	9415	Flyash
4	T.T. Shed - Narayanganj	910	-	834	27632	11978	Flyash
5	T.T. Shed - Khulna	523	...	...	1819	...	Flyash
6	Budge Budge-Khulna	497	1640	...	...	...	Flyash
7	Sri Ram Jetty- Mongla	505	648	...	...	...	Flyash
8	Sri Ram Jetty- Khulna	518	602	...	...	...	Flyash
9	Budge Budge- Karimganj	1332	494	...	...	...	Flyash
10	Kolkatta- Narayanganj	894	...	...	...	...	Flyash
11	IWAI BISN Jetty-Karimganj	1357	580	...	...	...	Flyash
12	T.T. Shed-Mongla	510				2120	Flyash
21	Ajbela Navigation						
1	Sri Ram Jetty-Khulna	518	1850	...	...	1608	Flyash
2	Sri Ram Jetty-Narayanganj	905	8841	15712	9835	6328	Flyash
3	K.P.Dock-Khulna	523	6714	...	...	...	Wheat
4	T.T.Shed-Narayanganj	910	4226	5752	8676	33313	Flyash
5	T.T.Shed-Mongla	510	...	...	1293	...	Maize
6	T.T.Shed-Khulna	523	1497	...	...	895	Wheat

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
7	Budge Budge-Narayanganj	884	19712	11268	10415	35311	Flyash
8	Budge Budge-Khulna	497	591	...	...	690	Flyash
9	IWAI Haldia Jetty-Mongla	426	1250	...	...	...	Flyash
10	IWAI Haldia Jetty-Khulna	439	2726	...	...	...	Flyash
11	IWAI Haldia Jetty-Narayanganj	836/826	...	3456	18566	35877	Flyash
12	IWAI BISN Jetty - Narayanganj	909	-	703	730	2032	Flyash
13	IWAI Haldia Jetty-Karimganj	1274				678	Flyash
22	Reach Asia						
1	Kolkatta-Jogighopa, Assam	1392	372	...	...		ODC Cargo
23	Neticon						
1	KP Dock- Khulna	510	2600	...	...		Wheat
24	Duttson						
1	T.T.Shed-Narayanganj	910	3847	...	3815	756	Flyash
2	IWAI BISN Jetty-Narayanganj	909	738	7917	3695	2216	Flyash
3	Budge Budge-Narayanganj	884	2181	9659	5131	2253	Flyash
4	IWAI Haldia Jetty - Mongla	426	-	740	...	...	Flyash
5	IWAI Haldia Jetty - Narayanganj	826	-	10942	5760	11340	Flyash
6	IWAI Haldia Jetty - Khulna	439	-	3721	644	...	Flyash
7	IWAI BISN Jetty-Khulna	522	-	2010	1281	...	Flyash
8	IWAI BISN Jetty-Karimganj	1357	-	2337	1680	...	Flyash, Spare parts
9	Budge Budge-Karimganj	1332	-	507	...	...	Flyash
10	Karimganj(Badarpur) - Narayanganj	478	-	1200	...	...	Cement Clinker
11	Sri Ram Jetty - Narayanganj	905	-	-	686	795	Flyash
12	IWAI Haldia Jetty-Karimganj	1274				640	Flyash
25	Seaways Shipping & Logistics Ltd.						
1	KP Dock - Mongla	510	...	...	1375		Steel Plates, Steel coils, Steel items
26	J.D.Shipping						
1	Budge Budge-Narayanganj	884	2854	6550	1782	18464	Flyash
2	Sri Ram Jetty(Kol) - Narayanganj	905	-	3828	1828	8387	Flyash
3	Sri Ram Jetty(Kol) - Khulna	518	-	512	...	...	Flyash
4	Sri Ram Jetty(Kol) - Mongla	505	-	642	...	...	Flyash
5	IWAI Haldia Jetty - Narayanganj	826	-	996	1966	4464	Flyash
6	KP Dock - Mongla	510	-	931	1997	...	Steel plate, Steel items
7	KP Dock - Narayanganj	910	-	2221	...	...	Machinery
8	KP Dock - Khulna	523	-	-	1000	...	Steel plate
9	T.T. Shed - Narayanganj	910	-	-	2351	5485	Flyash
10	IWAI BISN Jetty - Narayanganj	909	-	-	2738	1984	Flyash
11	HDC Fly Ash Jetty-Narayanganj	826				3378	Flyash

**Table No. 2.2
(Contd...)**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
27	Ganga Water Transport						
1	K.P.Dock-Mongla	510	2700	...	...		Wheat
2	K.P.Dock-Narayanganj	910	510	2733	...		Non Alloyed Hot Rolled Steel Coil
3	Budge Budge - Khulna	497	...	683	...		Flyash
28	Bertling Logistic India Pvt.Ltd.						
1	Haldia-Balia	1028	337	...	...		ODC Cargo
	Kolkata - Balia	923	...	...	675		ODC Cargo
29	Venketesh Logistics						
1	Haldia-Bhaktiyarpur	885	310	...	...		ODC Cargo
30	All Cargo Logistics Ltd.						
1	Haldia-Zamania	1170	1150	...	...	...	ODC Cargo
2	Haldia - Biswanath Chareli, Assam(NW2)	1730/1694	-	2223	620	...	ODC Cargo
3	T.T. Shed - Biswanath Charlie	1778	...	...	1000	870	ODC Cargo
4	Haldia-Jogigopa	1348	...	...	642	...	ODC Cargo
5	Kolkata - Jogigopa	1432	...	...	1060	...	ODC Cargo
6	T.T. Shed - Jogigopa	1432	...	...	350	250	ODC Cargo
7	T.T. Shed - Pandu	1573				560	ODC Cargo
8	T.T. Shed - Silghat	1721				500	ODC Cargo
9	NSD, Kolkata-Pandu	1573				0	ODC Cargo
31	Prism Logistics Pvt.Ltd.						
1	Haldia-Allahabad	1512	762	599	...		ODC Cargo
32	Safehand Logistics						
1	IWAI BISN Jetty - Karimganj (Badarpur)	1357	-	1150	...	...	Flyash
2	Budge Budge - Narayanganj	884	-	1753	2988	5675	Flyash
3	IWAI Haldia Jetty - Narayanganj	826	-	582	1752	18292	Flyash
4	IWAI Haldia Jetty -Khulna	439	...	...	640	...	Flyash
5	IWAI BISN Jetty - Narayanganj	909				516	Flyash
6	Sri Ram Jetty-Narayanganj	905				845	Flyash
7	T. T. Shed-Narayanganj	910				6266	Flyash
8	IWAI Haldia Jetty -Karimganj	1274				606	Flyash
9	KPD-Khulna	523				786	Steel Plates
33	Shun Shing India Private Ltd.						
1	Budge Budge - Narayanganj	884	-	15604	72316	42578	Flyash
2	Budge Budge - khulna	497	...	...	19478	60144	Flyash
3	IWAI BISN Jetty- Narayanganj	909	...	...	3042	1311	Flyash
4	IWAI BISN Jetty- Khulna	522	...	...	2036	...	Flyash
5	Sri Ram Jetty - Khulna	518	...	...	745	9110	Flyash
6	T.T.Shed-Khulna	523				690	Flyash
34	Jindal ITF Ltd.						
1	Sagar - Farakka	540	-	197456	506492	716116	Coal

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
35	AFS Logistics Pvt. Ltd.						
1	AWAI Haldia Jetty - Fatuha	910	-	1400	1200		Fertilizers
2	Fatuha - Kolkatta	805	-	1400	1099		Fertilizers
36	Lee & Muirhead Pvt. Ltd.						
1	Haldia - Sirsa	1471	-	343	343		ODC Cargo
37	Boxco India Pvt. Ltd.						
1	Haldia - Geonkhali	43	-	642	...		ODC Cargo
38	K K Shipping						
1	T.T. Shed - Narayanganj	910	...	...	9756	62283	Flyash
2	Budge Budge - Narayanganj	884	-			1164	Flyash
3	IWAI Haldia Jetty - Narayanganj	826	-			6557	Flyash
4	IWAI BISN Jetty - Narayanganj	909				6068	Flyash
5	Sri Ram Jetty-Narayanganj	905				2621	Flyash
6	IWAI BISN Jetty- Khulna	522	...	...		7316	Flyash
7	T.T.Shed-Khulna	523		...	...	2010	Flyash
8	IWAI BISN Jetty- Mongla	509				992	Flyash
9	T.T.Shed-Mongla	510				1281	Flyash
39	Tetron Marchandise						
1	IWAI BISN Jetty- Khulna	522	...	...		5778	Flyash
2	Budge Budge - Khulna	497	-			1462	Flyash
40	Transcoast Trading Pvt. Ltd.						
1	Budge Budge - Narayanganj	884	-			25354	Flyash
2	IWAI Haldia Jetty - Narayanganj	826	-			2130	Flyash
3	IWAI BISN Jetty - Narayanganj	909				13491	Flyash
4	T.T.Shed-Narayanganj	910		...	...	10539	Flyash
5	G. R. Jetty-II-Mongla	509				264	Project Cargo
6	G. R. Jetty-II-Mongla	509				84	Steel Items
7	KPD-Mongla	510				782	Steel Items
41	Hindustan Natural Glass & Industries Ltd.						
1	Rajmahal-Kolkata	443				1410	Slica Sand, Cement
	Sub Total (C)	-	1696380	2093793	2512791	3001210	
D	IWAI Vessels						
2	Rajmahal -Patna		300	...	...	1346	Cement
6	Samdhaghatj-Manihari		15216	8832	...	...	Stone chips
8	Samdaghat-Patna		900	1200	...	...	Stonechips
	Sub Total (D)	-	16416	10032	0	1346	

**Table No.
2.2**

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
E	KOPT						
1	Sagar- KPD	146	...	...	2106300	2744017	Iron Ore,Iron & Steel,Log, Pulses, sulphur,Lime stone, Machinery, Manganese Ore, Petroleum Coke, Rice & Wheat, Other Coke/Coal,Coking Coal, Pet Coke, Fertilizer, Sugar,Rock Phosphate, Timber, Other/Misc.
2	Kolkatta-Sagar	146	115000	85000	...	...	Iron Ore, Iron & Steel ,Other/Misc.
4	Diamond Harbour - KPD	78	...	...	180700	216868	Pulses, Other Coke/Coal
5	Sagar-Kolkatta						Iron Ore,Pulses,Sugar,Timber,Coking Coal,Rock Phosphate,Rice & Wheat,Fertiliser,Manganese Ore,Pet Cock
6	Kolkatta-Diamond Harbour	146	496000 2000	764000	...	...
7	Diamond Harbour-Kolkatta	78	122000	176000	...	...	Iron Ore, Sugar, Pet Cock, Pulses, Cokjing, Fertilizer, Limestone,Cooking oil
Sub Total (E)			735000	1025000	2287000	2960885	
Total (NW-I) (A+B+C+D+ E)			2716437	3349138	5050209	6237124	

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

Sl. No.	River/Stretch	Approximate Distance (Kms)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
A	Organised Cargo		396	...	3821.90	2530.00	
B	IWTD Assam*		1965239	1981935	1981935	1981935	Transformers of power grid, Transmission equipments ,Goods, Passengers,Bicycle, bikes, live stock
C	Unorganised Sector		461170	493414	505964	599841	
Sub Total (A+B+C)			2426805	2475349	2491720	2584306	
Total (NW-II)(A+B+C)			2426805	2475349	2491720	2584306	

*: Provisional data has been considered for 2015-16 in absence of cargo data received from IWTD, Govt. of Assam.

**Table No.
2.2**

**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)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
A.	CHAMPAKARA CANAL						
1	KSINC						
	Cochin Port-FACT-CD	21.5	3444	124954	71062.00	204207.00	Raw Sulphur, Rock Phosphate & Phosphoric Acid etc..
	Q10 Berth-CPT-Fact, CD	21	157186	...	39701.00	...	Sulphur, Rock Phosphate, Phosphoric Acid
2	LOTS Shipping & Trading	16	...	...	...	...	Furnace Oil
	Cochin Port-FACT-CD	21.5	...	158509	39135.00	91383.00	Raw Sulphur, Rock Phosphate & Phosphoric Acid & Stone aggregates
	Q10 Berth-CPT-Fact, CD	21	184393	...	76325.00	...	Phosphoric Acid, Sulphur, Rock Phosphate
	BPCL Irumbanam-Fact, PD (dist.in Ch. Canal)	16.5	23835	...	...	...	Furnace Oil
	Bolgatty to W. Island	3.7				686350.00	Various commodities in containers
3	Kerala Backwater Navigation						
	Cochin Port -FACT CD	21.5/27	...	23786	30624.00		Rock Phosphate, Sulphur, LAG
	FACT, PD- FACT, CD	21	...	...	6528.00	18208.00	LAG
	FACT , Ammonia jetty- FACT, CD	27	...	...	36288.00	36369.00	LAG
	FACT , Ammonia jetty- FACT, PD	20				3840.00	LAG
	Sub Total		368858	307249	299663	1040357	
B.	UDYOGMANDAL CANAL						
1	LOTS Shipping & Trading*						
	Cochin Port FACT-UD	20	...	50774	460		Zibframe, Sulphur, Furnance oil, Zinc
	BPCL Irumbanam- FACT PD	11	23835	...	...		Furnace Oil
	Q10 CPT-Fact, UD	20	46543	...	9532		Phosphoric Acid, Sulphur
	Q6 Berth CPT-Binani Zinc Ltd.	22	72163	...	...		Zinc.
	Q5 Berth CPT-Binani Zinc Ltd.	22	...	28542	262		Zinc.

**Table No.
2.2**

**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)	2012-13	2013-14	2014-15	2016-17	Cargo generally moved
1	2	3	4	5	6	7	8
	South Coal Berth-Q10 Berth CPT	6	36732	...	...		Furnace Oil
	South Coal Berth-Quater Roads	3/2	110	...	...		Furnace Oil
	SCB-ICTT	4	2150	...	...		Furnace Oil
	Willinbgdon island- Bolgaty-Bolgaty Williangdon Island	3.7	523480	598190	508850		commodities in container
2	KSINC*						
	Cochin Port-FACT UD	21	...	23779	3144		Rock Phosphate , Sulphur, Phosphoric Acid
	Q10 Berth, CPT-Fact UD	20	3542	...	7285		Phosphoric Acid,
3	Kerala Back Water Navigation						
	Fact ,PD - FACT, CD	14.5	...	...	8640	18208	Sulphur. Phosphoric Acid
	Fact ,CD - FACT, PD	14.5	...	5954	...		Lag
4	Logos Agencies						
	Aluva Terminal-Sea	23.5	2726	2491	2221	2477	Liquid Effluent
5	Amrok Industrial & Investments						
	Aluva Terminal-Sea	23.5	74	...	...		Liquid Effluent
6	Cochin Bunkers						
	BPCL, Irumbanam - Fact PD	27.5	...	7113	...		Furnance oil
	IOC(BPT berth) - Fact PD	17	...	15344	...		Furnance oil
	Sub Total		711355	732187	540394	20685	

**Table No. 2.2
(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)	2012-13	2013-14	2014-15	2015-16	Cargo generally moved
1	2	3	4	5	6	7	8
C. THE WEST COASTAL CANAL							
1	KSINC Ltd*. Fine Arts Jetty- Vypeen ErnaKulum terminal-Cochin port	4 5	141000	18000	...		Potable water POL(Bunkering to Ship)
2	Travancore Cements Ltd. Vaikom- Chitramangalam	20	15190	8570	3640		0 Lime shell with clay & other impurities
Sub Total			156190	26570	3640	0	
Total (NW-III) (A+B+C)			1236403	1066006	843697	1061042	
Total Cargo Moved on National Waterways (NW-I+NW-II+NW-III)							
GRAND TOTAL (NW-I+NW-II+NW-III)			6379645	6890493	8385626	9882472	

Source : Inland Waterways Authority of India / CIWTC

... : 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
2010-11	49	44	260
2011-12	31	26	168
2012-13	21	2	153
2013-14	8	0.15	175
2014-15 *	-	-	-
2015-16 *	-	-	-

Source : CIWTC, 2015-16

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

* CIWTC has not carried out any operations in 2014-15 and 2015-16.

Table No. 3.2

Cargo Carried And Freight Earned by CIWTC-Commodity-wise

Sl. No.	Commodity	2012-13		2013-14		2014-15 **		2015-16 **	
		Tonnes Carried	Freight Earned (Rs. Lakh)	Tonnes Carried	Freight Earned (Rs. Lakh)	Tonnes Carried	Freight Earned (Rs. Lakh)	Tonnes Carried	Freight Earned (Rs. Lakh)
1	2	3	4	5	6	7	8	9	10
1	Fly Ash	-	-	-	-	-	-	-	-
2	Pol	-	-	-	-	-	-	-	-
3	Cut Bamboo	-	-	-	-	-	-	-	-
4	Sand Clips	19800	4.32	8250	1.80	-	-	-	-
5	Slag	-	-	-	-	-	-	-	-
6	Waste Oil	-	-	-	-	-	-	-	-
7	Aluminium Block	-	-	-	-	-	-	-	-
8	Boulder	-	-	-	-	-	-	-	-
9	Cement/W.Cement	-	-	-	-	-	-	-	-
10	Cement Clinkers	-	-	-	-	-	-	-	-
11	Peas	1500	3.00	-	-	-	-	-	-
12	Pet Cake/Personal Effect	-	-	-	-	-	-	-	-
13	ODC	-	10.98	-	-	-	-	-	-
14	Stone Clips	-	-	-	-	-	-	-	-
15	Misc.	-	-	-	-	-	-	-	-
SUB TOTAL		21300	18.30*	8250	1.80	-	-	-	-

* this relates to commodity-wise earnings

** CIWTC has not carried out any operations in 2014-15 and 2015-16.

The Non Commodity Earnings are as under :

Activity							
Vessel hire, Godown	-	135.42	-	172.83	-	-	-
Rent, Storage ,Towage etc.	-	-	-	-	-	-	-
SUB TOTAL	-	135.42	-	172.83	-	-	-
GRAND TOTAL	21300	153.72	8250	174.63	-	-	-

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 - 2012-13 to 2015-16

Sl. No.	Route	Distance (in Kms)	Commodity	Tonnes Carried				Freight Earned(Rs.in Lakh)				Tonne/Kms(in Lakh) Performed			
				2012-13	2013-14	2014-15 **	2015-16**	2012-13	2013-14	2014-15 **	2015-16**	2012-13	2013-14	2014-15 **	2015-16**
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Haldia-Budge-Budge		Waste Oil Pol	-	-	-	-	-	-	-	-	-	-	-	-
	Haldia-Budge-2		TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
2	Haldia-Ghormalsland	415 1060	Boulders	-	-	-	-	-	-	-	-	-	-	-	-
			TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
3	Haldia-Internal	02	Sand Clips	1650	-	-	-	0.36	-	-	-	0.03	-	-	-
			TOTAL	1650	-	-	-	0.36	-	-	-	0.03	-	-	-
4	Patna-Kolkata	530	Stone Chips	-	-	-	-	-	-	-	-	-	-	-	-
			TOTAL	-	-	-	-	-	-	-	-	-	-	-	-
5	Haldia-Jamuraia (UP)	1096	ODC					10.98	-	-	-	-	-	-	-
			TOTAL					10.98	-	-	-	-	-	-	-
6	Lighterage	44-144	Peas	1500	-	-	-	3.00	-	-	-	1.20	-	-	-
	Operation at Saugar		Logs	-	-	-	-	-	-	-	-	-	-	-	-
	/Haldia Diamond		Containers	-	-	-	-	-	-	-	-	-	-	-	-
	Harbour-Kolkata		Fertilizer	-	-	-	-	-	-	-	-	-	-	-	-
	Kolkata-Internal		ODC	-	-	-	-	-	-	-	-	-	-	-	-
			Sand- Clips	18150	8250	-	-	3.96	1.80	-	-	0.33	0.15	-	-
			A.Block	-	-	-	-	-	-	-	-	-	-	-	-
			TOTAL	19650	8250	-	-	6.96	1.80	-	-	1.53	0.15	-	-
7	Misc.														
	Tug Hire and Godown							135.42	172.83	-	-	-	-	-	-
	Rent							-	-	-	-	-	-	-	-
			Grand Total	21300	8250	-	-	153.72	174.63	-	-	1.56	0.15	-	-

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

**CIWTC has not carried out any operations in 2014-15 and 2015-16.

Table No. 3.4

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

(Rs. lakhs)

Sl.No.	Item	2013	2014	2015	2016
1	2	3	4	5	6
A.	INCOME	1874.31	15916.18	1169.28	357.72
(i)	Earnings (Operational)	153.73	185.95	93.43	71.29
(ii)	Earnings (Others)	1720.58	15730.23	1075.85	286.43
B	EXPENDITURE	4266.89	6371.38	282.43	650.81
(i)	Materials & Stores Consumed	62.25	22.77	23.44	41.89
(ii)	Decrease/Increase in Work in Progress	-2.56	-	-	-
(iii)	Employees Remuneration & Benefits	861.66	856.79	834.03	744.02
(iv)	Repairs & Maintenance	3.70	3.73	2.82	0.65
(v)	Power & Fuel	32.09	89.34	32.58	4.77
(vi)	Other Expenses	264.06	217.61	205.84	252.52
(vii)	Interest	253.75	732.15	-	153.95
(viii)	Depreciation	313.87	296.10	243.74	84.40
(ix)	Provisions	2478.07	4152.89	-1060.02	-631.39
C	Profit/Loss (A-B)	-2392.58	9544.80	886.85	-293.09

Source : CIWTC

* Revised Figures # Unaudited

Note: Provision includes -:

- i) For doubtful debts
- ii) Gratuity Liability and
- iii) Leave pay liability as per actuarial valuation

Table No. 3.5**Source-wise Earning of CIWTC**

(Rs. in lakhs)

Sl.No.	Name of Service	Year			
		2012-13	2013-14 *	2014-15 *	2015-16 #
1	2	3	4	5	6
A.Earnings (Operational)					
Transportation & Allied					
Activities:					
	Freight	16.05	-	-	-
	Dredging	-	-	-	-
	Ferries & Charter	137.68	184.73	92.81	71.29
	Sales pending finalisation		1.22	0.62	
	TOTAL (A)	153.73	185.95	93.43	71.29
B.Earnings (Others)					
	Investment/one time grant	-	-	-	-
	Interest on Short Term Deposit	851.73	235.00	283.38	241.25
	Interest on:				
	Mobilisation Amount	-	-	-	-
	Sunderban Conservancy Amount	-	-	-	-
	Port Maintenance	-	-	-	-
	Sale of Scrap	-	-	-	-
	Rent	2.79	1.85	1.85	1.85
	Surplus on sale of assets				
	Retired from Operation	-	-	-	-
	Miscellaneous Receipts	4.40	3.59	0.27	1.44
	Govt. Grant (Salary & Wages)	861.66	856.79	790.35	41.89
	Govt. Grant (Income tax dues)	-	-	-	-
	Profit on exchange		14633.00	-	-
	TOTAL B	1720.58	15730.23	1075.85	286.43
	TOTAL (A+B)	1874.31	15916.18	1169.28	357.72

Unaudited

* Revised Figures

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

	Item	2012-13	2013-14*	2014-15*	2015-16#
1	2	3	4	5	5
A. LIABILITIES					
	(a) Paid up capital	13048.48	13048.48	13048.48	13048.48
	(b) Reserves & Surplus(Capital Reserve)	10909.93	-	-	-
	(c) Accumulated Loss after adjustment of Reserve and surplus (As per Companies' Act as amended in 2013)	-30951.91	-10497.17	-10078.45	-10372.07
	(d) Borrowings				
	i) From Govt. of India	-	-	-	-
	ii) From Others	-	-	-	-
	(e) Trade dues and other current liabilities (including provisions) and interest accrued thereon	15738.66	5616.84	9629.56	4040.18
	TOTAL (A)	8745.16	8168.15	12599.59	6716.59
B. ASSETS					
	(f) Gross Asset	11012.02	11012.02	6393.39	2174.32
	(g) Less Depreciation	8049.29	8338.97	4990.45	1941.00
	(h) Less Provision	-	-	-	-
	(i) Net Fixed Assets (f-g-h)	2962.73	2673.05	1402.94	233.32
	(j) Capital work in progress	40.42	40.42	40.44	40.44
	(k) Investment	-	-	-	-
	(l) Current Assets, Loans and Advances	5742.01	5454.68	11156.21	6442.83
	(m) Miscellaneous expenses and losses not written off	-	-	-	-
	TOTAL (B)	8745.16	8168.15	12599.59	6716.59
C. Working Capital (l-e)					
	(o) Additional provision for Gratuity	594.73	612.17	603.34	17.04
	(p) Total Working Capital	-9401.92	450.01	923.31	2385.61
	Capital employed (i+p)	-6439.19	3123.06	2326.25	2618.93
	Net worth (a+(c+m)) for F.Y.2015-16	-17903.43	2551.31	2970.03	2676.41

Source: CIWTC

Unaudited

* Revised

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					Grand Total		
			Cargo	Passenger	Cargo cum Passenger	Tugs & Pushers	Total (Col.3 to Col.6)	Dumb Barges	Dumb Tankers	Dumb Flat	Boats	Others		Total (Col.8 to Col.12)	
1	2		3	4	5	6	7	8	9	10	11	12	13	14	
1	Andhra Pradesh	2013
		2014
		2015
		2016
2	Assam	2013	1	1	...	4	6	7	...	9	...	..	16	22
		2014	15	114	23	6	158	15	...	9	...	..	24	182
		2015	15	114	23	6	158	15	...	9	...	..	24	182
		2016#	15	114	23	6	158	15	...	9	...	..	24	182
3	Bihar	2013	1	19*	74*	6	100	5	...	...	9	24	38	138
		2014	1	19*	74*	6	100	5	...	...	9	24	38	138
		2015	1	19*	74*	6	100	5	...	...	9	24	38	138
		2016	1	19*	74*	6	100	5	...	...	9	24	38	138
4	Goa	2013	264	45	...	2	311	2	...	...	...	...	2	313
		2014	81@	38	...	2	121	2	...	...	...	36	38	159
		2015	114	81	...	8	203	3	...	...	...	19	22	225
		2016	81@	38	...	2	121	2	...	...	...	36	38	159
5	Karnataka	2013	...	61	5	...	66	...	...	...	..	...	0	66
		2014	...	61	5	...	66	...	...	...	..	...	0	66
		2015	...	61	5	...	66	...	...	...	..	...	0	66
		2016#	...	61	5	...	66	...	...	...	..	...	0	66
6	Kerala	2013	153	200	69	10	432	...	...	...	4665	8724	13389	13821
		2014	134	143	55	5	337	...	...	...	4413	8939	13352	13689
		2015	111	287	42	2	442	...	3	...	4283	9091	13377	13819	
		2016#	111	287	42	2	442	...	3	...	4283	9091	13377	13819	
7	Maharashtra	2013	...	201	...	376	577	...	...	...	...	...	0	577
		2014	...	250	...	338	588	...	...	...	...	...	0	588
		2015	100	501	...	122	723	20	...	...	...	...	20	743
		2016	152	384	...	98	634	44	...	...	...	...	44	678
8	Orissa	2013	...	342	...	...	342	...	...	...	...	...	0	342
		2014	...	...	...	...	0	...	...	...	...	...	0	0
		2015	...	409	...	...	409	...	...	...	...	...	0	409
		2016	...	199	...	...	199	...	...	...	...	...	0	199
9	West Bengal	2013	94	227	6	69(A)	396	690	...	...	1537	...	2227	2623
		2014	57	219	3	29	308	51	3	3	1646	31	1734	2042	
		2015	53	236	3	21	313	11	3	3	1676	26	1719	2032	
		2016	62	251	3	26	342	11	3	3	1722	25	1764	2106	
10	Tamil Nadu	2013	...	...	...	...	0	...	...	...	2	...	2	2
		2014	...	...	...	...	0	...	...	...	...	...	0	0
		2015	...	...	...	...	0	...	...	...	2	...	2	2
		2016#	...	...	...	...	0	...	...	...	2	...	2	2
11	MIZORAM	2013	...	...	...	...	0	...	...	...	...	...	0	0
		2014	...	...	...	...	0	...	...	...	...	...	0	0
		2015	...	...	...	...	0	...	...	...	...	...	0	0
		2016	...	...	...	...	0	...	...	...	...	...	0	0

(A) Includes 29 other vessels for 2013 .

... Not available/Nil

\$: From 2011-12 onwards, unlicensed vessels and country boats have been excluded

* Vessels are with various agencies in Bihar, and probably they are not certified registered as Bihar does not have IV rule as yet

@ vessel count reduced due to mining ban

#The information for the year 2016 from the States of Assam, Karnataka, Kerala and Tamil Nadu has not been received. Hence last year data has been repeated.

Table No. 4.2

Number of Passengers and Cargo Carried By Inland Water Vessels

(Year Ending 31st March)

Sl. No.	State/UT/Year	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	7
1		2013	...	...	...	...
	Andhra Pradesh	2014	...	...	...	...
		2015	...	...	...	...
		2016	...	...	...	...
2		2013	56	56	71.79@	7656.00
	Assam	2014	56	56	338.53@	7043.84
		2015	56	56	178.73@	16461.48
		2016#	56	56	178.73@	16461.48
3		2013	1	83	2.40	578.00*
	Bihar	2014	1	83	2.40	578.00
		2015	1	83	2.40	578.00
		2016	1	83	2.40	578.00
4		2013	264	45	3275.82	14076.00
	Goa(a)	2014	81	38	284.17	1450.00
		2015	140	38	190.01	1448.00
		2016	81	38	429966.00	1440.00
5		2013	66	66	78.40**	1884.56**
	Karnataka	2014	66	66	58.72**	2089.96**
		2015	66	66	50.5 **	2003.71**
		2016#	66	66	50.5 **	2003.71**
6		2013	66	632	5555.21	24752.82
	Kerala	2014	38	180	2831.87	15323.71
		2015	28	185	2912.06	13750.50
		2016#	28	185	2912.06	13750.50
7		2013	...	...	24196.00	17608.00
	Maharashtra	2014	...	...	24774.00	17802.00
		2015	...	...	27357.00	17834.00
		2016	...	...	28849.00	18074.00
8		2013	...	10	...	124.00
	Orissa	2014	...	...	...	...
		2015	...	8	...	142.00
		2016	...	9	...	164.00
9		2013	76	227	10347.00(b)	42976.00
	West Bengal	2014	57	219	11452.00	43619.00
		2015	53	263	14728.00	653604.00
		2016	88	251	16730.00	66492.00
10		2013	...	...	...	...
	MIZORAM	2014	...	...	...	...
		2015	48	48	1000.00	10000.00
		2016	...	...	...	...

(a) Excludes traffic reported by Mormugao Port for Iron Ore movement which is 29.00 million tonnes in 2011-12 & 7.40 million tonnes in 2012-13 & 0.31 million tonnes in 2013-14.

(b) No. of vehicles carried LCT 39618, 40807 and 39952 for the year 2010-11, 2011-12 & 2012-13 respectively.

578* based upon passengers travelling on unregistered vessels plying in various rivers.

... : Not Available

** : The traffic of passengers & cargo is only operation of Ferry Service across the river in rural area.

@ Cargo includes LMV's, Bicycles, Motor Cycles and Animals etc.

\$ No iron ore export due to mining ban.

#The information for the year 2016 from the States of Assam, Karnataka and Kerala has not been received. Hence last year data has been repeated.

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	S.V.Salgaocar, Goa					
	2013	3	...	-	...	...
	2014	3	...	...	...	...
	2015					
	2016	3	...	0	N.A.	...
2	D.V.Salgaocar, Goa					
	2013	3	...	-	...	...
	2014	3	...	...	...	...
	2015	3	...	...	...	...
	2016	3	...	0	N.A.	...
3	V.M.Salgaocar Sales International					
	2013	2	...	-	...	...
	2014	2	...	...	...	...
	2015	2	...	...	...	...
	2016	2	...	0	N.A.	...
4	Sesa Resource Ltd Goa					
	2013	3	...	3237	...	...
	2014	3	...	3237	...	...
	2015	3	...	3237	...	...
	2016	2	...	2139	...	...
5	*Sesa Sterlite Ltd, Goa					
	2013	35(a)	...	44255	...	...
	2014	32(a)	...	41714	...	...
	2015	34(a)	...	44106	...	...
	2016	32(a)	...	42235	...	...
6	Sociedade De Fomento Ind. Ltd. Goa^					
	2013	2	...	2434	...	...
	2014	2	...	2434	...	...
	2015	2	...	2434	...	...
	2016	2	...	2434	...	...
7	CIWTC, Kolkata.					
	2013	8 (b)	...	3909	...	16
	2014	7(b)	...	3690	...	10
	2015	1(b)	...	470	...	-
	2016	...	...	...	...	-
8	Indo-Swiss Trading Co. Kolkata.					
	2013		2	118	270	...
	2014		2	118	270	...
	2015		2	118	270	...
	2016		2	118	270	...
9	Vivada Inland Waterways Ltd. Kolkata					
	2013	10	4	...	...	...
	2014	9	5	...	...	...
	2015	9	5	...	...	...
	2016	9	5	...	...	...

**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	West Bengal Surface Transport Corporation Ltd					
	2013	3	20	...	...	...
	2014	2	24	...	...	...
	2015	2	24	...	...	...
	2016	2	28	...	...	...
11	Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata					
	2013	...	34	...	...	...
	2014	...	34	...	...	...
	2015	...	34	...	...	...
	2016	...	34	...	...	...
12	West Bengal Tourism Development Corporation limited, Kolkata					
	2013		3	...	...	...
	2014	...	3	...	...	...
	2015		3	...	...	...
	2016		3	...	...	...
13	Eastern Navigation (P) Ltd., Kolkata					
	2013	8	3	...	...	...
	2014	10	1	...	...	...
	2015	10	1	...	...	...
	2016	10	1	...	...	...
14	Pradeep Boating Company, Kolkata^					
	2013	2	....	...	...	...
	2014	2	....	...	...	...
	2015	2	....	...	...	...
	2016	2	....	...	...	...
15	Costa River Transport Pvt Ltd., Goa^					
	2013	3	...	5122	...	...
	2014	3	...	5122	...	...
	2015 #	3	...	5122	...	...
	2016	3	...	5122	...	...
16	Ghatal Steam Navigation (P) Ltd., Kolkata					
	2013	...	3	...	...	...
	2014	...	3	...	...	...
	2015	...	3	...	...	...
	2016	...	3	...	...	...
17	Diamond Harbour Municipality, Kolkata					
	2013	...	10	...	...	...
	2014	...	10	...	...	...
	2015	...	10	...	...	...
	2016	...	10	...	...	...

**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 (Tonnes)	(in Passenger(in No.))	
1	2	3	4	5	6	7
18	Chandan Nagar Municipality, Kolkata					
	2013	...	5	...	...	...
	2014	...	5	...	...	...
	2015	...	5	...	...	...
	2016	...	5	...	...	...
19	Jain Navigation					
	2013	2	...	...	...	...
	2014	2	...	...	...	...
	2015	2	...	...	...	...
	2016	2	...	...	...	...
20	K.S.Singhi					
	2013	...	...	...	...	...
	2014	1	...	...	...	...
	2015	1	...	...	...	...
	2016	1	...	...	...	...
21	Jindal ITF Ltd.					
	2013	2	...	...	...	...
	2014	18	...	...	...	...
	2015	18	...	...	...	...
	2016	26	...	...	...	...
22	Soham Shipping Pvt.Ltd.					
	2013	4	...	...	...	...
	2014	4	...	...	...	...
	2015	4	...	...	...	...
	2016	4	...	...	...	...
23	Rashmi Ore Carriers Pvt. Ltd.^					
	2013	1	...	1314	...	...
	2014	1	...	1314	...	...
	2015	...	...	1314	...	...
	2016	...	...	1314	...	...
24	Kothari Overseas Private Limited					
	2013	1	...	1893	...	...
	2014	...	...	1893	...	...
	2015	1	...	1893	...	...
	2016	1	...	1893	...	...
25	Mayur Shipping Private Limied^					
	2013	1	-	1284	...	...
	2014	1	-	1284	...	...
	2015	-	-	1284	...	...
	2016	-	-	1284	...	...
26	Sanghi Brothers (Indore) Pvt Ltd.^					
	2013	5	...	6476	...	...
	2014	5	...	6476	...	...
	2015	5	...	6476	...	...
	2016	5	...	6476	...	...

... Not available.

* Formerly SESA Goa Ltd.

(a) Includes one Passenger Launch & one Oil Tanker

(b) 2 Pusher Tug & 2 Moter Tanker for 2012 & 5 Pusher Tug & 3 Oil Tanker for 2013,4 Pusher Tug & 3 Oil Tanker for 2014.

Relates to the year 2014

^The information for the year 2016 has not been received from the company, hence last year information has been repeated.

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	S. V. Salgaocar, Goa								
	2013 (f)	Cargo	-	-	-	-		...	...
	2014 (f)	Cargo	-	-	-	-		...	...
	2015	Cargo	-	-	-	-		...	...
	2016	Cargo	3	-	-	-		...	...
2	D. V. Salgaocar, Goa								
	2013 (f)	Cargo	-	-	-	-		...	...
	2014(f)	Cargo	-	-	-	-		...	...
	2015	Cargo	-	-	-	-		...	...
	2016	Cargo	3	-	-	-		...	...
3	V.M.Salgaocar Sales International								
	2013 (f)	Cargo	-	-	-	-		...	...
	2014(f)	Cargo	-	-	-	-		...	...
	2015	Cargo	-	-	-	-		...	...
	2016	Cargo	2	-	-	-		...	...
4	Sesa Resources Ltd Goa								
	2013	Cargo	3	18100	(d)	278224	5035.85	...	...
	2014	Cargo	3	14800	(d)	163204	2415.42	...	...
	2015	Cargo	3	21658	(d)	137025	2967.69	...	...
	2016	Cargo	2	30212	(d)	235905	7127.16	...	...
5	Sesa Sterlite Ltd, Goa.								
	2013	Cargo/Pass/Oil Tankers	35	134200	(d)	2582447	346564.39	...	...
	2014	Cargo/Pass/Oil Tankers	32	74300	(d)	1003364	74549.95	...	...
	2015	Cargo/Pass/Oil Tankers	34	127036	(d)	1033779	131327.15	...	...
	2016	Cargo/Pass/Oil Tankers	32	307580	(d)	3018780	928516.35	...	...
6	Sociedade De Fomento Ind. Ltd., Goa^								
	2013	Cargo	2	4510	(a)	71867	324.12	...	...
	2014	Cargo	2	-	(a)	-	-	...	...
	2015*	Cargo	2	-	(a)	-	-	...	...
	2016*	Cargo	2	-	(a)	-	-	...	...
7	C.I.W.T.C., Kolkata.								
	2013	Cargo/Tug/Spocs/DBs	1	160	153.72	21300	3.41	...	...
	2014	Cargo/Tug/Spocs/DBs	-	-	174.63	8250	-	...	...
	2015	Cargo/Tug/Spocs/DBs	1	...	...	...	...	...	...
	2016	...	...	...	...	...	...	...	...
8	Indo-Swiss Trading Co.Pvt. Ltd., Kolkata								
	2013	Pass.	2	15610	110.25	...	...	...	...
	2014	Pass.	2	15300	143.26	...	...	121038	...
	2015	Pass.	2	15610	52.29	...	...	128749	...
	2016	Pass.	2	15610	53.29	...	...	231221	...
9	VIVADA Inland Waterways Ltd., Kolkata								
	2013	Cargo/Tug/Pass/LCT	14	...	3863.78	480740(c)	...	...	...
	2014	Cargo/Tug/Pass/LCT	14	...	4024.38	495620(c)	...	10776	...
	2015	Cargo/Tug/Pass/LCT	14	...	4138.42	512790(c)	...	12776	...
	2016	Cargo/Tug/Pass/LCT	14	...	4458.42	582800(c)	...	116128	...

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	W. Bengal Surface Transport Corporation Ltd., Kolkata								
	2013	Pass./LCT	23	...	408.32	24346(b)	...	...	...
	2014	Pass./LCT	26	...	402.56	27421(b)	...	105967	...
	2015	Pass./LCT	26	...	414.71	27421(b)	...	118329	...
	2016	Pass./LCT	30	...	423.70	228922(b)	...	11139421	...
11	Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata								
	2013	Pass.	34	...	1129.85	...	...	...	...
	2014	Pass.	34	...	1203.72	...	...	123000	...
	2015	Pass.	34	...	1312.72	...	...	128429	...
	2016	Pass.	34	...	341.82	...	...	8130429	...
12	West Bengal Tourism Development Corpn. Ltd., Kolkata								
	2013	Pass.	3	...	158.97	...	...	...	...
	2014	Pass.	3	...	148.27	...	...	10900	...
	2015	Pass.	3	...	152.28	...	...	11139	...
	2016	Pass.	3	...	152.28	...	...	11139	...
13	Eastern Navigation (P) Ltd., W. Bengal, Kolkata								
	2013	Cargo/Tug/Pass.	11	...	175.00	40600	...	...	...
	2014	Cargo/Tug/Pass.	11	...	200.00	56340	...	...	...
	2015	Cargo/Tug/Pass.	11	...	212.00	68420	...	...	...
	2016	Cargo/Tug/Pass.	11	...	229.00	79280	...	...	...
14	Pradeep Boating Company, W. Bengal, Kolkata^								
	2013	Tugs	2	...	7.80	1200	...	...	...
	2014	Tugs	2	...	7.36	900	...	...	...
	2015	Tugs	2	...	6.20	780	...	...	...
	2016	Tugs	2	...	6.20	780	...	...	...
15	Costa River Transport Pvt. Ltd. Goa^								
	2013	Cargo	3	...	75.10	100950	...	...	...
	2014	Cargo	3	-	-	-	-	-	-
	2015 #	Cargo	3	-	-	-	-	-	-
	2016 #	Cargo	3	-	-	-	-	-	-
16	Ghatal steam Navigation (P) Ltd. Kolkata								
	2013	Pass.	3	...	40.36	...	...	...	...
	2014	Pass.	3	...	41.29	...	...	115508	...
	2015	Pass.	3	...	41.29	...	...	122629	...
	2016	Pass.	3	...	48.39	...	...	228192	...
17	Diamond Harbour Municipality, Kolkata								
	2013	Pass.	10	...	110.73	...	...	...	...
	2014	Pass.	10	...	123.56	...	...	10729	...
	2015	Pass.	10	...	142.56	...	...	13912	...
	2016	Pass.	10	...	142.56	...	...	116720	...
18	Chandan Nagar Municipality, Kolkata								
	2013	Pass.	5	...	5.25	...	...	...	...
	2014	Pass.	5	...	5.45	...	...	15608	...
	2015	Pass.	5	...	15.42	...	...	17641	...
	2016	Pass.	5	...	116.21	...	...	118251	...

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
19	Jain Navigation								
	2013	Tugs/Pass	2	...	17.37	5370	...	....	....
	2014	Tugs/Pass	2	...	16.45	7260	...	....	....
	2015	Tugs/Pass	2	...	26.45	7260	...	....	....
	2016	Tugs/Pass	2	...	28.20	9860	...	....	....
20	K.S.Singhi								
	2013	Tugs	1	...	9.21	3290	...	....	....
	2014	Tugs	1	...	10.13	3310	...	....	....
	2015	Tugs	1	...	10.15	3310	...	....	....
	2016	Tugs	1	...	11.15	4150	...	....	....
21	Jindal ITF Ltd.								
	2013	Cargo	2	...	55.33	27000	...	....	....
	2014	Cargo	18	...	65.23	40210	...	....	....
	2015	Cargo	18	...	165.23	58280	...	....	....
	2016	Cargo	26	...	145.20	52450	...	....	....
22	Soham Shipping Pvt.Ltd.								
	2013	Cargo	4	...	58.48	39850	...	....	....
	2014	Cargo	4	...	49.72	25270	...	....	....
	2015	Cargo	4	...	149.72	35270	...	....	....
	2016	Cargo	4	...	154.72	42100	...	....	....
23	Rashmi Ore Carriers Pvt. Ltd.^								
	2013	Cargo	1	3240	104.25	151957	492.34	...	...
	2014	...	...	...	...	...	...	...	...
	2015	...	...	...	...	...	...	...	...
	2016	...	...	...	...	...	...	...	...
24	Kothari Overseas Private Limited								
	2013	Cargo	1	...	8.20	11442	...	....	....
	2014	Cargo	...	...	...	...	...	....	....
	2015	Cargo	1	...	...	...	...	....	....
	2016	Cargo	1	...	...	...	...	....	....
25	Mayur Shipping Pvt. Limited^								
	2013	Cargo	1	2475	84.52	104338	258.24	...	...
	2014	...	...	...	...	...	...	...	...
	2015	...	...	...	...	...	...	...	...
	2016	...	...	...	...	...	...	...	...
26	Sanghi Brothers (Indore) Pvt Ltd^								
	2013	Cargo	5	3900	74.40	30134	117.52	...	...
	2014	Cargo	...	...	...	...	...	...	...
	2015	Cargo	...	...	...	...	...	...	...
	2016	Cargo	...	...	...	...	...	...	...

(a) : transportation for self (b) : data relates to no. of vehicles on L.C.T.
(c) : 257859 no. of vehicles on LCT for year 2012-13 and 26812 no. of vehicles on LCT for the year 2013-14 and 27829 no. of vehicles on LCT for the year 2014-15

(d): Own barges plying for group company

(e): Barges not plied due to ban on mining.

(f): Ships have been baned by the Govt. Therefore cargo has been reported as 'Nil'.

* due to stoppage of iron ore mining by Goa Govt & Hon'ble Supreme Court

** Formerly SESA Goa Ltd.

Relates to the year 2014

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

^The information for the year 2016 has not been received from the company, hence last year information has been repeated.

SECTION – 6

**PLAN-WISE OUTLAY &
EXPENDITURE FOR IWT SECTOR**

Table No. 6.1**PLAN WISE FINANCIAL PERFORMANE FROM 10th FIVE YEAR PLAN TO 11th FIVE YEAR PLAN AND PART OF 12th FIVE YEAR PLAN**

(Rs in Cr.)

Sl. No.	Budget head/ Waterways	10th Five Year Plan			11th Five Year Plan			Financial Year			Financial Year			Financial Year			Financial Year		
		(2002-07)			(2007-12)			(2013-14)			(2014-15)			(2015-16)			(2016-17)		
		B.E	R.E	Exp.	B.E	R.E	Exp.	B.E	R.E	Exp.	B.E	R.E	Exp.	B.E	R.E	Exp.	B.E	R.E	Exp.
I	Grants to IWAI																		
1	National Waterway 1	154.97	155.11	135.62	241.69	235.81	228.95	74.43	65.24	48.63	77.29	64.2	64.01			47.89			45.37
2	National Waterway 3	54.49	46.58	36.10	75.48	107.23	104.82	22.11	17.70	22.50	17.85	10.66	10.66			8.32			5.82
3	Others	37.60	23.88	12.99	26.00	7.59	9.57	22.26	7.06	14.20	85.96	3.36	3.36			153.65			139.33
	Sub Total - I (Grants to IWAI)	247.06	225.57	184.71	343.17	350.63	343.34	118.80	90.00	85.33	181.10	78.22	78.03	205.00	216.72	209.86	250.00	203.00	190.52
II	North Eastern Area																		
4	National Waterway 2	216.28	180.60	132.15	319.29	243.17	202.07	72.00	48.21	47.44	78.10	37.61	36.02	90.08	77.80	79.39	75.00	93.30	54.58
5	Central Plan scheme for NER	17.00	0.00	0.00	16.03	15.03	6.62	3.20	3.20	1.22	3.20	1.07	1.07	0.00	0.00	0.00	0.00	0.00	0.00
6	Proposed NW-6 (Barak)	3.00	0.00	0.00	1.51	0.00	0.00	2.00	0.25	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	Development of Indo- Bangladesh protocol for Channel marking, Dredging & Night Navigation etc.	1.30	1.10	0.66	0.00	0.00	0.00	3.00	1.34	1.20	2.60	1.32	1.32	0.00	0.00	0.00	0.00	0.00	0.00
	Sub total - II (NER)	237.58	181.70	132.81	336.83	258.20	208.69	80.20	53.00	49.86	84.90	40.00	38.41	90.08	77.80	79.39	75.00	93.30	54.58
III	Interest Subsidy to Bank, Loan to IWT Enterprenuer for Inland Vessel Subsidy Scheme	8.50	5.00	5.40	8.00	7.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IV	Tech Studies & R&D	26.00	19.00	9.09	5.00	5.00	4.32	1.00	1.00	1.00	1.00	0.77	0.77	1.00	1.00	0.99	0.00	0.00	0.00
V	Central Plan Scheme/ CSS	40.00	65.00	52.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Grand Total	559.14	496.27	384.84	693.00	620.83	560.48	200.00	144.00	136.19	267.00	118.99	117.21	296.08	295.52	290.24	325.00	296.30	245.10

Centrally Sponsored Scheme for IWT sector was discontinued after 10th Plan

In addition to above, during the year 2013-14 an amount of Rs. 9.00 Crore was allocated in B.E. & R.E. Stage to be released to Government of Bangladesh for maintenance of Protocol routes on Inland Water Transit out of which an amount of Rs. 8.077 Crore was released by Ministry of Shipping directly.

Source: Inland Waterways Authority of India

SECTION – 7

**INLAND WATERWAYS
TRANSPORT ACCIDENTS**

Table No. 7.1 No. of Accidents, Persons Injured And Died by Drowning (Boat Capsize) in States During 2015.

Sl. No.	State/UT	No. of Accidents	Drowning (Boat Capsize)							
			No. of Persons Injured				No. of Persons Died			
			Male	Female	Transgenders	Total	Male	Female	Transgenders	Total
1	2	3	4	5	6	7	8	9	10	11
STATES										
1	Andhra Pradesh	3	0	0	0	0	3	1	0	4
2	Arunachal Pradesh	0	0	0	0	0	0	0	0	0
3	Assam	139	2	0	0	2	98	34	0	132
4	Bihar	5	0	0	0	0	1	15	0	16
5	Chhattisgarh	11	0	0	0	0	11	0	0	11
6	Goa	0	0	0	0	0	0	0	0	0
7	Gujarat	3	0	0	0	0	3	1	0	4
8	Haryana	0	0	0	0	0	0	0	0	0
9	Himachal Pradesh	0	0	0	0	0	0	0	0	0
10	Jammu & Kashmir	0	0	0	0	0	0	0	0	0
11	Jharkhand	0	0	0	0	0	0	0	0	0
12	Karnataka	8	0	0	0	0	8	0	0	8
13	Kerala	30	17	19	0	36	36	6	0	42
14	Madhya Pradesh	20	0	0	0	0	15	7	0	22
15	Maharashtra	1	0	0	0	0	7	0	0	7
16	Manipur	1	0	0	0	0	1	0	0	1
17	Meghalaya	0	0	0	0	0	0	0	0	0
18	Mizoram	0	0	0	0	0	0	0	0	0
19	Nagaland	0	0	0	0	0	0	0	0	0
20	Odisha	7	0	0	0	0	6	4	0	10
21	Punjab	0	0	0	0	0	0	0	0	0
22	Rajasthan	0	0	0	0	0	0	0	0	0
23	Sikkim	0	0	0	0	0	0	0	0	0
24	Tamil Nadu	31	0	0	0	0	25	6	0	31
25	Telangana	0	0	0	0	0	0	0	0	0
26	Tripura	0	0	0	0	0	0	0	0	0
27	Uttar Pradesh	55	4	1	0	5	49	11	0	60
28	Uttarakhand	0	0	0	0	0	0	0	0	0
29	West Bengal	1	0	0	0	0	4	0	0	4
Total (States)		315	23	20	0	43	267	85	0	352
UNION TERRITORIES										
30	A&N Island	0	0	0	0	0	0	0	0	0
31	Chandigarh	0	0	0	0	0	0	0	0	0
32	D&N haveli	0	0	0	0	0	0	0	0	0
33	Daman & Diu	0	0	0	0	0	0	0	0	0
34	Delhi	0	0	0	0	0	0	0	0	0
35	Lakshadweep	0	0	0	0	0	0	0	0	0
36	Pondicherry	0	0	0	0	0	0	0	0	0
Total (UTs)		0	0	0	0	0	0	0	0	0
Total States/UTs		315	23	20	0	43	267	85	0	352

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

Source : Accidental Deaths & Suicides in India - 2015

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

SECTION – 8

**INLAND WATERWAYS IN
SELECT COUNTRIES**

Table No. 8.1**Length of Navigable Inland Waterways in Europe and USA in 2010, 2011 & 2012****(In Kms.)**

Sl. No.	Country	Canals			Rivers and Lakes			Total		
		2010	2011	2012	2010	2011	2012	2010	2011	2012
1	2	3	4	5	6	7	8	9	10	11
1	Austria	–	–	–	351	351	351	351	351	351
2	Bulgaria	–	–	–	470	470	470	470	470	470
3	Canada	–	–	–	–	–	–	5487	–	–
4	Croatia	–	–	–	805	1017	1017	805	1017	1017
5	Czech. Republic	39	39	39	637	637	637	676	676	676
6	Estonia	–	–	–	335	335	335	335	335	335
7	Finland	125	125	125	7881	7888	7889	8006	8013	8014
8	France	3539	3435	3332	1571	1584	1664	5110	5019	4996
9	Germany	2163	2163	2000	5565	5565	5675	7728	7728	7675
10	Hungary	173	–	173	1691	–	1691	1864	–	1864
11	Italy	950	950	–	612	612	–	1562	1562	–
12	Kazakhstan	–	–	–	–	–	–	4063	4094	4151
13	Kyrgyzstan	–	–	–	–	–	–	420	420	420
14	Lithuania	1	1	–	447	451	–	448	452	–
15	Netherlands	4707	4708	–	1397	1396	–	6104	6104	–
16	Poland	344	344	344	3315	3315	3315	3659	3659	3659
17	Republic of Moldova	–	–	–	42	–	42	42	–	42
18	Romania	132	132	132	1647	1647	1647	1779	1779	1779
19	Russian Federation	–	–	–	–	–	–	101371	101334	101381
20	Serbia	342	–	–	1077	–	–	1419	–	–
21	Slovakia	39	39	39	134	134	134	173	173	173
22	Ukraine	1170	1130	1111	1015	1015	1015	2185	2145	2126
23	United Kingdom	159	159	159	891	891	891	1050	1050	1050
24	United States of America	–	–	–	–	–	–	19300	19300	–

Source: Annual Bulletin of Transport Statistics for Europe & North America, 2015 (UN Publication).

Table No. 8.2**Length of Navigable Waterways By Permissible
carring Capacity of Vessels - 2012****(in kms)**

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
1	Austria								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	351	...	...	...	...	...	...	...
2	Bulgaria								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	470	...	...	...	...	...	...	...
3	Canada								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
4	Croatia								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	1018	...	226	215	289	150	...	138
5	Czech Republic								
	Canals	39	...	...	...	...	...	...	...
	Rivers & Lakes	637	...	...	...	...	...	...	...
6	Estonia								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	335	...	...	...	...	...	...	...
7	Finland								
	Canals	125	9	...	...	16	...	100	...
	Rivers & Lakes	7889	4179	...	...	2909	...	801	...
8	France								
	Canals	3332	132	2393	...	126	118	46	517
	Rivers & Lakes	1664	30	349	85	...	...	573	627
9	Germany								
	Canals	2001	79	158	96	107	651	...	910
	Rivers & Lakes	5676	933	246	156	126	1130	1002	2083
10	Hungary								
	Canals	173	...	52	121	...	...	...	...
	Rivers & Lakes	1691	...	73	408	330	499	...	381

**Table No. 8.2
(Contd...)****Length of Navigable Waterways By Permissible Carrying
Capacity of Vessels - 2012**

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
11	Italy								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
12	Kazakhstan*								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
13	Kyrgyzstan*								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
14	Lithuania								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
15	Netherlands								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
16	Poland								
	Canals	344	...	176	106	47	...	...	15
	Rivers & Lakes	3315	908	893	965	350	38	55	106
17	Republic of Moldova								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	42	40	...	...	2	...	...	...
18	Romania								
	Canals	132	...	...	...	...	...	...	...
	Rivers & Lakes	1647	...	...	...	...	...	...	...
19	Russian Fedration								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
20	Serbia								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
21	Slovakia								
	Canals	39	...	...	...	...	...	...	39
	Rivers & Lakes	134	...	...	...	...	...	...	134
23	Ukraine								
	Canals	1111	...	...	...	...	...	...	...
	Rivers & Lakes	1015	...	...	...	...	...	...	...
24	United Kingdom								
	Canals	159	...	...	...	...	...	...	...
	Rivers & Lakes	891	...	...	...	...	...	...	...
22	United States								
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	-	...	...	...	...	...	...	...

Source : Annual Bulletin of Transport Statistics for Europe & North America-2015.

Table No. 8.3**Inland Waterways vessels in Service at the end of 2012**

Sl. No.	Country	Self Propelled Vessels			Dumb & Pushed Vessels		Tugs and Pushers	
		Nos.	Carrying Capacity (1000 Tonnes)	Power (1000 KW)	Nos.	Carrying Capacity (1000 Tonnes)	Nos.	Power (1000 KW)
1	2	3	4	5	6	7	8	9
1	Belgium	...	...	...	...	...	...	...
2	Bulgaria	27	36	21	141	237	35	34
3	Croatia	12	9	7	122	88	41	14
4	Czec.Republic	40	40	17	136	64	84	25
5	Estonia	8	2	1	3	1	2	0
6	Finland	152	16	32	34	6	30	8
7	France	905	695	335	420	525	-	-
8	Germany	1292	1858	846	982	951	412	135
9	Hungary	72	...	...	285	...	72	...
10	Kazakhstan(a)	12	...	...	59	...	56	16
11	Kyrgyzstan(a)	5	...	...	5	4	2	...
12	Lithuania	...	...	...	...	...	...	...
13	Poland	71	52	24	477	223	209	54
14	Republic of Moldova	...	...	...	9	2	8	1
15	Romania	103	110	...	1131	1470	227	...
16	Russian Fedration	1574	2487	1254	5319	7430	4744	1548
17	Serbia	...	...	...	...	...	...	...
18	Slovakia	20	23	12	146	226	39	38
19	Switzerland	15	29	...	6	12	7	...
20	Ukraine	...	...	...	...	...	...	...
21	United Kingdom	158	40	...	287	98	92	...

Source:Annual Bulletin of Transport Statistics for Euorpe and North America, 2015

Table No. 8.4**Goods Transport by Type of Transport on National Territory - 2012**

Sl. No.	Country	Goods carried ('000 Tonnes)					Tonne Kms. of Goods carried(Million)*				
		National	International		Transit	Total	National	International		Transit	Total
			Loaded	Unloaded				Loaded	Unloaded		
1	2	3	4	5	6	7	8	9	10	11	12
1	Austria	1240	1624	5439	2411	10714	101	213	1034	844	2192
2	Belarus	-	-	-	-	-	-	-	-	-	134
3	Belgium	-	-	-	-	-	-	-	-	-	10420
4	Bulgaria	1407	805	1682	12483	16377	39	71	313	4927	5350
5	Canada	-	-	-	-	-	-	-	-	-	-
6	Croatia	50	256	340	5288	5934	11	13	18	730	772
7	Czech-Republic	410	264	164	-	838	16	14	8	-	38
8	Finland	471	-	-	-	471	124	-	-	-	124
9	France	29431	16241	12438	7423	65533	4863	1579	1296	884	8622
10	Germany	54569	48248	100041	20313	223171	10912	12688	22228	12660	58488
11	Hungary	32	3814	1265	3024	8135	3	627	206	1146	1982
12	Kazakhstan	1236	-	55	-	1291	29	-	33	-	62
13	Kyrgyzstan	12	-	-	-	12	2	-	-	-	2
14	Lithuania	-	-	-	-	-	2	-	-	-	2
15	Luxemburg	-	-	-	-	-	-	-	-	-	292
16	Netherlands	-	-	-	-	-	-	-	-	-	46631
17	Poland	1644	642	177	5	2468	-	-	-	-	815
18	Republic of Moldova	-	-	-	-	144	0	0	0	-	0
19	Romania	13292	2957	6466	5222	27937	3084	1888	4547	3000	12519
20	Russian Federation	111003	24636	1446	403	137488	40326	32768	2288	892	76274
21	Serbia	1501	266	195	36	1998	145	249	166	45	605
22	Slovakia	39	2756	168	5280	8243	2	63	13	908	986
23	Switzerland	-	1011	6200	-	7211	49	-	-	-	49
24	Ukraine	3066	1229	-	-	4295	312	1437	-	-	1749
25	United States of America	-	-	-	-	-	-	-	-	-	280972

Source: Annual Bulletin of Transport Statistics for Europe and North America 2015

* : Kilometers within the territory of the reporting country.

APPENDICES

DEFINITIONS OF TERMS USED

(For Section-8)

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

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

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.

Pushed Barge

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).

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 Ammonia 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.
