

# **STATISTICS OF INLAND WATER TRANSPORT 2017-18**



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

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Ministry of Shipping  
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IDA Building, Jamnagar House  
New Delhi**

गोपाल कृष्ण  
GOPAL KRISHNA



सचिव  
SECRETARY  
भारत सरकार  
GOVERNMENT OF INDIA  
पोत परिवहन मंत्रालय  
MINISTRY OF SHIPPING

## PREFACE

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 2017-18**” is the **25<sup>th</sup>** issue in the series.

The present volume gives an overview of the current status of Inland Water Transport (IWT). It consists of 7 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 sector companies, plan outlays/expenditure for IWT sector, accidents related to inland waterways and Inland Waterways in selected 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.

New Delhi  
January 28, 2019

  
Gopal Krishna



**SAGARMALA**  
PORT-LED PROSPERITY

परिवहन भवन, 1, संसद मार्ग, नई दिल्ली-110001, भारत  
टेलि.: +91 11 23714938, फ़ैक्स : +91 11 23716656, ई-मेल : secyship@nic.in

Transport Bhawan, 1, Parliament Street, New Delhi-110001, INDIA  
Tel. : +91 11 23714938, Fax : +91 11 23716656, E-mail : secyship@nic.in

## **Officers & Staff involved in this Publication**

\*\*\*\*\*

**Shri Sunil Kumar Singh**  
Adviser (Statistics)

**Smt. Priyanka Kulshreshtha**  
Director (Shipping)

**Shri Santosh Kumar Gupta**  
Deputy Director (Shipping)

**Smt. Rashmi Gupta**  
Junior Investigator

**Shri Rahul Sharma**  
Junior Statistical Officer

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# **Inland Water Transport: An Overview**

## **INTRODUCTION**

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

## **POLICY INITIATIVES AND MILESTONES**

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

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

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

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

#### **INLAND WATERWAYS AUTHORITY OF INDIA (IWAI)**

5. The Inland Waterways Authority of India (IWAI), set up on 27<sup>th</sup> October 1986 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:

- a) Carry out surveys and investigations for the development, maintenance and better utilization of the National Waterways (NWs) and the appurtenant land for shipping and navigation by:
  - Providing infrastructural facilities, conservancy & river training works,
  - Controlling activities of dumping / removal of bed material,
  - Removing / altering any obstruction / impediment,
  - Regulating traffic and structure across / under NWs,
  - Disseminating navigational meteorological information,

- Coordinating with other modes of transport, providing pilotage and
- Entering into joint ventures concerning inland shipping by equity participation.

b) The Authority may also:

- Advises Central Government on IWT matters,
- Study the transport requirement in relation to other modes,
- Conduct Hydrographic Surveys & publish river charts,
- Assist State Governments for development of IWT,
- Develop & provide consultancy services,
- Conduct research for craft design, mechanization of country crafts, techniques of towage, landing & terminal facilities, port installations & survey techniques,
- Classification of Inland Waterways,
- Technical training of IWT personnel within & outside country.

c) The Authority will exercise the above functions with the prior approval of the Central Government.



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

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

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

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

The advent of railways and extension of its network marked a turning point for water-transport in India. To start with, construction of main railway lines gave a spurt to river traffic as the two modes supplemented each other, with waterways providing feeder service to railways. This 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. Details of State-wise navigable waterways in India during 2017-18 are given in Table 1.1 (Section 1). The details of infrastructure facilities available on state waterways as on 31.03.2018 are given in Table 1.3 (Section 1). Table 1 below gives Total and Navigable length of Waterways reported across States/UTs. It is observed that the maximum length of waterways is in the State of Uttar Pradesh with 6444 kms followed by West Bengal with 4741 kms & Assam with 4267 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 Tamil Nadu the ratio of navigable length to total length is a mere 6.09%. Other States with good inland water transport prospects are Goa, Maharashtra and Kerala where waterways navigable length is 90.88%, 73.22% and 55.36% respectively of the total length of rivers/canals/lakes reported by these states. Twelve states have reported river length as well as navigable length for 171 rivers. Out of these 119 rivers have total length of 21818 Km of which 42.6% is navigable length.

<b>Table 1 : Total and Navigable Length of Waterways in different States –2017-18 (In kms)</b>				
<b>S. No.</b>	<b>State</b>	<b>Total Length of the Rivers/ Canals/ Lakes in State (Km.)</b>	<b>Navigable Length (Km.)</b>	<b>Percentage of Navigable Length to Total Length</b>
1	Andhra Pradesh* *	3762	1160	30.83
2	Assam	4267	1938	45.42
3	Bihar **	3763	1391	36.97
4	Goa	274	249	90.88
5	Gujarat *	...	...	...
6	Karnataka	2902	1215	41.87
7	Kerala	3553.46	1967.25	55.36
8	Maharashtra	631	462	73.22
9	Orissa	1378	1555	-
10	Nagaland	-	276	-
11	Mizoram	790	155	19.62
12	Tamil Nadu	197	26	6.09
13	Uttar Pradesh **	6444	425	6.59
14	West Bengal	4741	4593	96.88
	<b>Total</b>	<b>32702.46</b>	<b>15412.25</b>	<b>47.13</b>

**Source :** Govt. of States & U.T.'s  
**Note :**  
\* Nil data reported for the year 2017-18  
\*\* Pertains to 2016-17 as data was not received from these states/U.T.'s for 2017-18

## **CARGO MOVEMENT ON MAJOR WATERWAYS**

7. Table 2 provides a snap view of cargo moved on the three national waterways, waterways of Goa, Maharashtra & Gujarat which carry most of the cargo traffic on India's Inland Waterways. Cargo moved on three national waterways along with their details is given in Table 2.1 & Table 2.2 (section 2). The total cargo movement on India's waterways comprising the three national waterways and waterways in the State of Goa, Maharashtra & Gujarat was 690.94 Lakh tonnes in 2017-18 as against 587.87 lakhs tonnes in 2016-17, reflecting an increase of 17.53 %. In terms of

tonnage, Goa, Maharashtra & Gujarat accounted for 16.1 %, 54.9 % and 16.7 % respectively of the total cargo volume in 2017-18 with balance 12.3 % 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 7.7 % in 2017-18 over 2016-17. On an average, cargo carried on Indian Waterways is 62 Kms (Tonne kms/ Cargo moved). Goa, Maharashtra & Gujarat waterways, though accounted 87.7% of the total cargo movement on inland waterways across India, in terms of tonne Kilometer their share was 33.4% only. In case of Goa and Maharashtra, high volume of cargo movement was carried over relatively short average distances of about 50 Kms and 18.1 Kms respectively leading to their intensive use. However, in the three National Waterways, although the volume of cargo traffic was relatively much small (12.3%), the average distance is 333.31 Kms. In case of National Waterway I (Ganga- Bhagirathi-Hooghly) the average distance over which cargo moved was relatively much longer at 506.89 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 19.39 Kms and 18.96 Kms respectively in 2017-18.

S. No.	Details of Waterway	Cargo Moved ( lakh tonnes)			Tonne Kms (in lakh )		
		2015-16	2016-17	2017-18	2015-16	2016-17	2017-18
1	<b>National Waterway No. I</b>	62.37 (14.3)	45.05 (7.7)	54.79 (7.9)	26995 (78.0)	24598 (62.2)	27773 (65.3)
2	<b>National Waterway No. II</b>	25.84 (5.9)	25.91 (4.4)	26.01 (3.8)	505 (1.5)	503 (1.3)	504.36 (1.2)
3	<b>National Waterway No. III</b>	10.61 (2.4)	10.33 (1.8)	4.28 (0.6)	105 (0.3)	109 (0.3)	81.14 (0.2)
	<b>Sub Total NWs</b>	98.82 (22.6)	81.29 (13.8)	85.08 (12.3)	27605 (79.8)	25210 (63.8)	28358.5 (66.6)
4	<b>Goa Waterways</b>	49.75 (11.4)	157.68 (26.8)	111.62 (16.1)	1987 (5.7)	7884 (19.9)	5581.06 (13.1)
5	<b>Maharashtra Waterways</b>	288.49 (66.0)	348.90 (59.4)	379.04 (54.9)	5005 (14.5)	6428 (16.3)	6882 (16.2)
6	<b>Gujarat Waterways (from October 2017)</b>	-	-	115.2 (16.7)	-	-	1728 (4.1)
	<b>Grand Total</b>	<b>437.06</b> <b>(100.0)</b>	<b>587.87</b> <b>(100.0)</b>	<b>690.94</b> <b>(100.0)</b>	<b>34597</b> <b>(100.0)</b>	<b>39522</b> <b>(100.0)</b>	<b>42549.56</b> <b>(100.0)</b>
<p><b>Source :</b> (i) Inland Waterways Authority of India for National Waterways &amp; Gujarat 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><b>Note :</b>  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 &amp; 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, the following five waterways had been declared as National Waterways till the enactment of National Waterways Act, 2016 (effective from 12.4.2016):

- (a) Allahabad-Haldia stretch (1620 kms) of Ganga-Bhagirathi-Hooghly river system was declared National Waterway- 1 in 1982 and effective in October, 1986.
- (b) Sadiya-Dhubri stretch (891 kms) of the Brahmaputra river was declared National Waterways- 2 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- 3 in February, 1993.(Total 205 kms)
- (d) Kakinada- Pondicherry canals along with Godavari and Krishna rivers (1078 km) –as NW-4 in 2008 and
- (e) East Coast Canal integrated with Brahmani river and Mahanadi delta rivers (588 km) as NW-5 in 2008.

9. 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. Details of infrastructure facilities available on these three National Waterways is given in Table 1.2 (Section 1) Details of developmental activities in respect of NW-4 & NW-5 are placed in the later part of this report.

10. A major boost to IWT Sector has been provided by the Government through enactment of the National Waterways Act, 2016 (No. 17 of 2016) dated 26<sup>th</sup> March 2016 which came into force w.e.f. 12<sup>th</sup> April 2016. This Act repealed previous five nos. National Waterway Acts of existing five National Waterways No. 1,2,3,4 & 5 and further included new 106 Inland Waterways thus totalling 111 nos. waterways declared as National Waterways which cover a total length of 20,162.5 kms spread across 24 States in the country. National Waterways of India are well in line to become the lifeline of the country. Inland Water Transport (IWT) has a potential to supplement the overburdened Railways and congested Roadways. In addition to cargo movement, National Waterways may provide a convenient function in related activities such as carriage of vehicles (in Roll-on-Roll-off mode of cross-ferry) and Tourism including stay and entertainment. The details of 111 National Waterways are placed at **Annex-I**.
11. The Infrastructure facilities provided by IWAI in the existing National Waterway No.1 (Ganga, Bhagirathi-Hooghly river system), NW-2 (river Brahmaputra) & NW-3 (West Coast Canal, Champakara Canal & Udyogmandal Canal in Kerala) are detailed at **Annex-II**.

### **DEVELOPMENT OF 106 NEW NATIONAL WATERWAYS**

12. National Waterways Act, 2016 (No. 17 of 2016) was published in the Gazette of India, Extraordinary, part II, and Section I dated 26th March, 2016 (which came into effect from 12<sup>th</sup> April, 2016) along with the list of 106 new National Waterways in addition to existing 5 National Waterways (NWs) No. 1,2,3,4 & 5, thus totaling 111 NWs in the country. A list of all the NWs with their approx. length is given in Annex-1. Efforts initiated towards undertaking the developmental activities for providing safe fairway channel and creating infrastructures, in phased manner in the identified new National Waterways during 2016-17.

### **13 Status of 106 new National Waterways**

- I. Feasibility Studies (FSs) were initiated on 106 National Waterways (NWs), out of which, studies on 103 NWs have been completed and reports available. Based on the findings of FSs, 36 NWs have so far been found feasible for development. Accordingly, second stage studies for preparation of Detailed Project Reports (DPRs) for 36 NWs have been taken up and DPRs for 30 NWs are available. Based on the DPRs, development works have been initiated on 10 most viable NWs, in addition to existing 5 NWs.

**II.** 10 waterways which are considered the most viable and where development activities have been initiated in Phase I are:

1. River Barak (NW-16),
2. River Gandak (NW-37),
3. Sunderbans (Protocol Route) Waterways (NW -97),
4. Cumberjua River (NW-27),
5. Mandovi River (NW-68),
6. Zuari River (NW-111),
7. Alappuzha – Kottayam –Athirampuzha Canal (NW -9) and
8. Rupnarayan River (West Bengal) (NW -86)
9. River Ghagra (NW-40) and
10. River Koshi (NW-58)

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

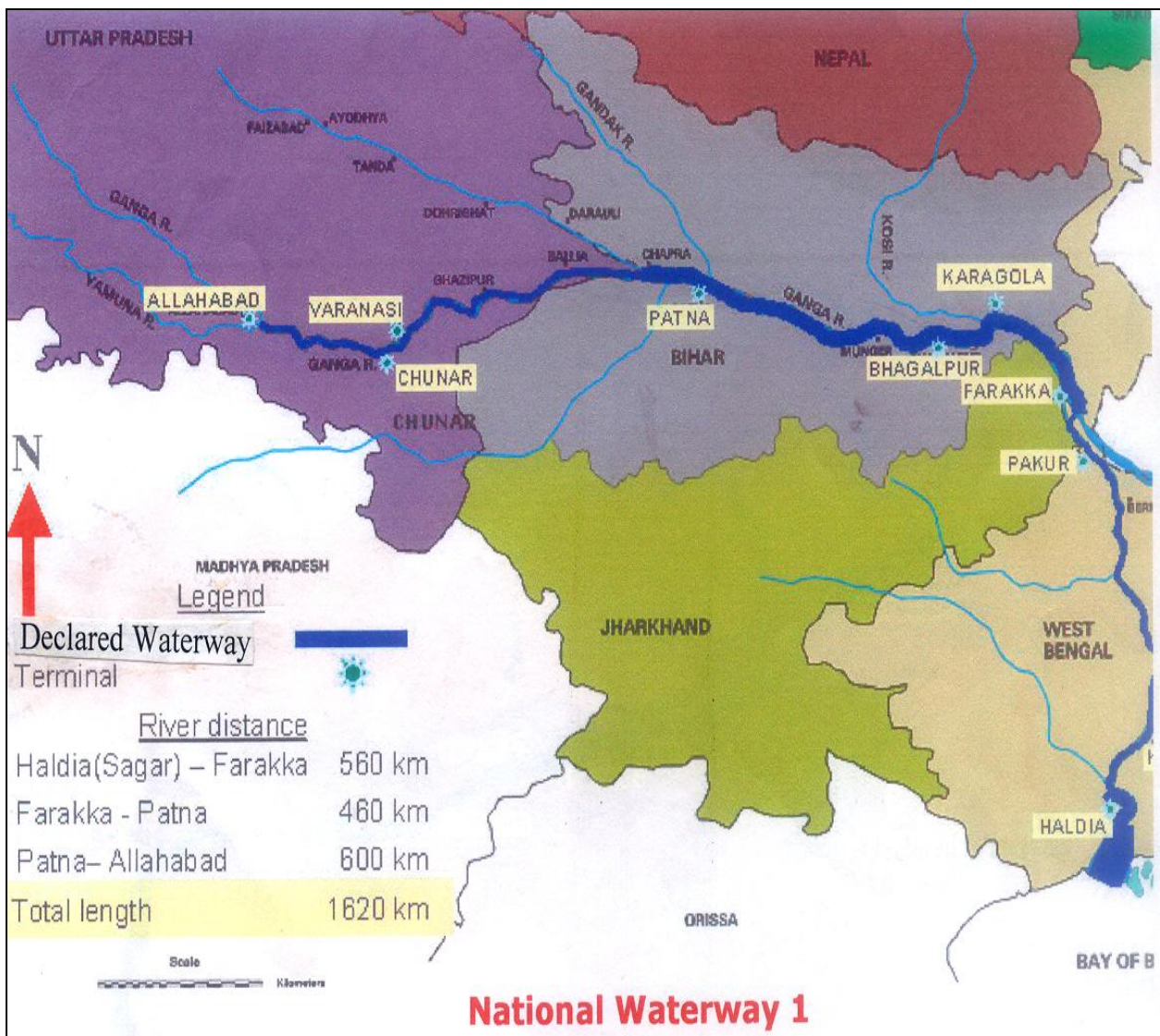
**14.** The Ganga - Bhagirathi - Hooghly river system between Haldia (Sagar) and Allahabad (1620 km) was declared as National Waterway-1 (NW-1) in 1986. Since then IWAI is carrying out various developmental works on the waterway for improvement of its navigability and also development and maintenance of other infrastructure such as navigation aids and terminal facilities as laid down in the IWAI Act, 1985 (82 of 1985). During 2017-18, the important works carried out for development and maintenance of fairway, navigational aids and terminal facilities on NW-1 for maintenance of the following Least Available Depth (LAD):

(a)	Haldia – Farakka stretch	(560 km)	–	2.8 m to 3.0 m
(b)	Farakka – Barh stretch	(400 km)	–	2.1 m to 2.5 m
(c)	Barh – Ghazipur stretch	(290 km)	–	1.6 m to 2.0 m
(d)	Ghazipur – Chunar/Allahabad	(370 km)	–	1.2 m to 1.5 m

**15.** The volume of freight movement on National Waterways-I was 54.79 lakh tonnes in 2017-18 as against 45.05 lakh tonnes in 2016-17 reflecting an increase of 21.62 %. The increase in traffic has been due to steady increase in Indo – Bangladesh protocol route traffic on account of increase in flyash consumption by cement plants in Bangladesh and general increase in traffic on NW-1.

The volume of cargo movement by VIVADA IWL vessels decreased to 2.68 lakh tonnes in 2017-18 from 2.84 lakh tonnes in 2016-17, the volume of cargo moved by other private operators increased slightly to 32.49 lakh tonnes on NW-I in 2017-18 as against 29.56 lakh tonnes in 2016-17. However, no operations were reported to be carried out by CIWTC during 2017-18.

16. The composition of cargo movement on National Waterway I over the years is shown in Table 3. Building materials accounted for 65.1% of total cargo movement along the NW-I during 2017-18, followed by Mix commodities (30.9 %) and Coal (2.9 %). These three items together accounted for about 99 % of the total cargo moved on NWI during 2017-18.



<b>Table 3 : Composition of Cargo Moved on National Waterway- I (In Tonnes)</b>						
<b>Name of the Commodity</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Building Material	1727685 (63.6)	1997301 (59.6)	2044784 (40.5)	2393416 (38.4)	2704742 (60.0)	3568909 (65.1)
Fertilizers	52000 (1.9)	36800 (1.1)	132299 (2.6)	124000 (2.0)	726260 (16.1)	0 (0.0)
Food items	345179 (12.7)	394935 (11.8)	527048 (10.4)	499024 (8.0)	137730 (3.1)	38340 (0.7)
Miscellaneous	13842 (0.5)	11476 (0.3)	17690 (0.4)	8010 (0.1)	59478 (1.3)	2816 (0.1)
Mix	21800 (0.8)	8250 (0.2)	65312 (1.3)	0 (0.0)	0 (0.0)	1694196 (30.9)
Ore/Minerals	229000 (8.4)	112000 (3.3)	242000 (4.8)	31000 (0.5)	16761 (0.4)	0 (0.0)
POL/POL products	247341 (9.1)	212063 (6.3)	250418 (5.0)	273684 (4.4)	162520 (3.6)	0 (0.0)
Coal	79590 (2.9)	561456 (16.8)	1736492 (34.4)	2843001 (45.6)	668740 (14.8)	160262 (2.9)
Iron steel	-	14857 (0.4)	34166 (0.7)	64989 (1.0)	29146 (0.6)	14839 (0.3)
<b>Total NW I</b>	<b>2716437</b> <b>(100.0)</b>	<b>3349138</b> <b>(100.0)</b>	<b>5050209</b> <b>(100.0)</b>	<b>6237124</b> <b>(100.0)</b>	<b>4505377</b> <b>(100.0)</b>	<b>5479362</b> <b>(100.0)</b>

**Source:** Inland Waterways Authority of India for National Waterways.  
**Note:** Figure within brackets indicates percentage to the total  
**Neg.** – negligible

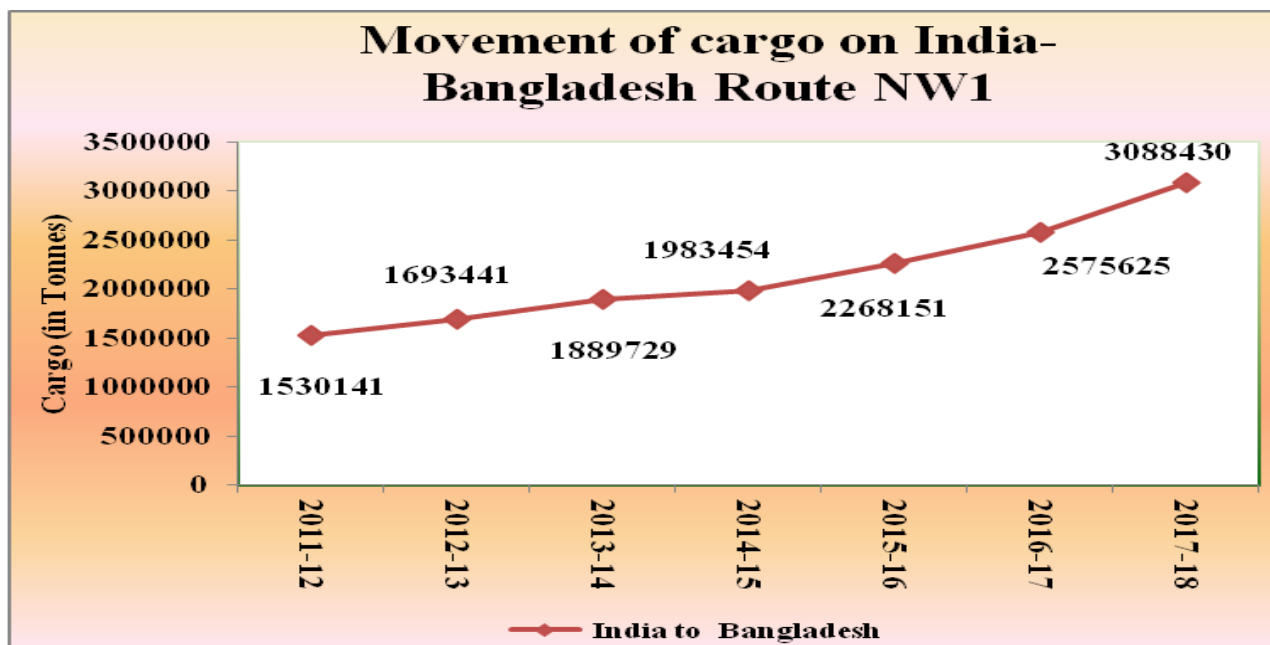
### **Cargo carried on Indo -Bangladesh Waterway Route**

#### **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.



17. Movement of cargo along India Bangladesh route of National Waterways I by Indian registered vessels have shown growth of 19.9% in year 2017-18 over that in 2016-17. The cargo moved over this route has increased to 3088430 tonnes in 2017-18 against 2575625 tonnes in 2016-17. The graph below depicts trend in cargo movement on India-Bangladesh route (National Waterway-I) during the years 2011-12 to 2017-18.



18. The table 4 shows the cargo and the main commodities carried on India-Bangladesh route on National Waterway-I during the years 2012-13 to 2017-18.

Route	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	Commodities
India to Bangladesh	1693441	1889729	1983454	2268151	2575625	3088430	Flyash, Salt in bulk, Rice, Wheat POL, Coal, Slag Gypsum, HSD, Edible Oil, Iron Ingots, Cement, Bone crushed, Cement Clinker, Dolomite Powder
<b>Total</b>	<b>1693441</b>	<b>1889729</b>	<b>1983454</b>	<b>2268151</b>	<b>2575625</b>	<b>3088430</b>	

**Source:** Inland Waterways Authority of India  
 \*Data pertains to cargo carried on Indian registered vessels only.

## **Jal Marg Vikas Project:**

**19.** A Project on river Ganga called Jal Marg Vikas Project (JMVP) has been commissioned at an estimated cost of Rs.5,369 crores with the technical assistance and financial support of the World Bank (USD 375 million). The Project is scheduled to be completed by March, 2023. The objective of JMVP is to improve navigability of National Waterway-1 (NW-1) on Haldia-Varanasi stretch of Ganga-Bhagirathi-Hooghly River System by fairway development to provide an assured depth of 2.2 to 3.0 meters and a bottom channel width of 45 meters for at least 330 days in a year to make it navigable for vessels of up to 2000 Dead Weight Tonnage (DWT) and to provide civil, structural, logistics and communications interventions required for this Project.

**20.** The Cabinet Committee on Economic Affairs (CCEA) approved JMVP implementation on 03.01.2018. The Loan Agreement and Project Agreement for USD 375.00 million was signed on 02.02.2018 and both these Agreements have become effective from 23.03.2018.

**21.** Projects worth Rs.1,800 crores (approx.) have been started on ground in a time period of three years after statutory clearances. The total expenditure as on 30.11.2018 on the Project is Rs.1037.02 crore.

The various components of the Project and status of their implementation (as on 30.11.2018) are as under:-

S.NO.	Component of the Project	Status of implementation	
1.	Fairway Development	March, 2023	Contract for provision of least assured depth on the stretch between Farakka and Kahalgaon (146 kms) was signed with M/s Adani Ports & SEZ ltd. on 09.04.2018 and the work commenced. Tenders for provision of lad of 3 m and bottom channel width of 45 m on the Sultanganj-Mahendrapur stretch (74 kms) and on the Mahendrapur – Barh stretch (71 kms) through performance based assured dredging were opened on 24.09.18 and the evaluation process is in progress.  The tender process for award of contract for lad on the remaining stretches is in progress.
2.	Construction of Phase-I of multimodal terminal at Varanasi.	December, 2018	<ul style="list-style-type: none"><li>• Estimated cost for Phase-I (A): Rs. 196.84 cr.</li><li>• Contractor: M/s Afcons Infrastructure</li></ul>

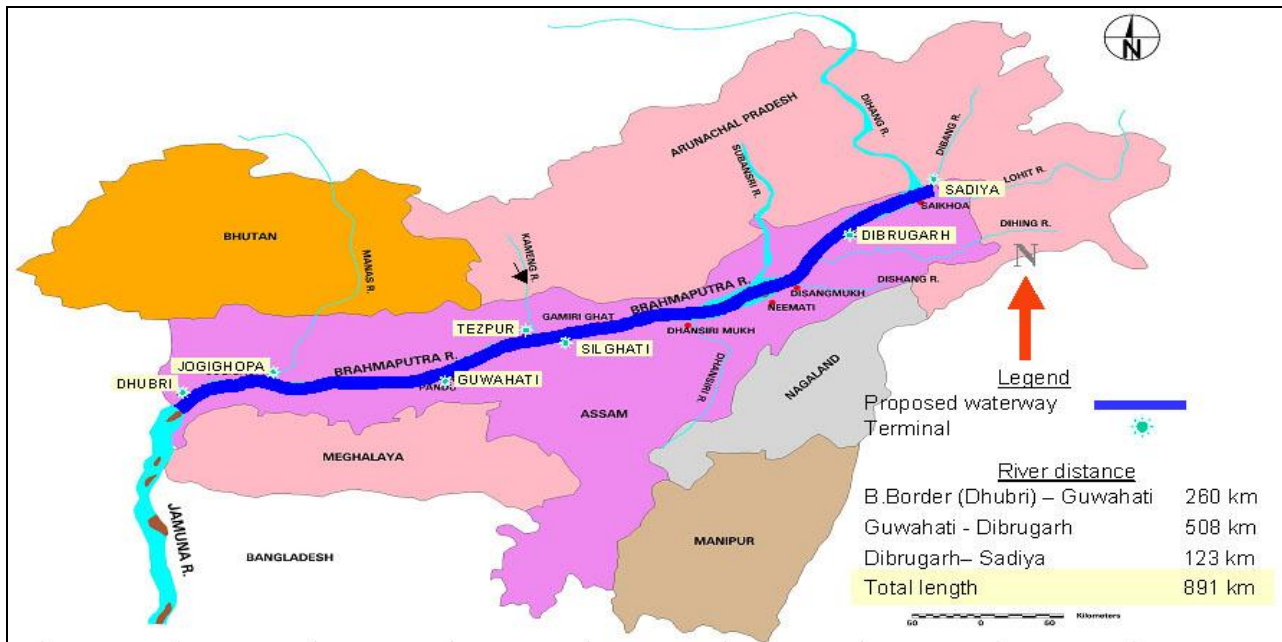
			<p>ltd.</p> <ul style="list-style-type: none"> <li>• Date of award: 13.05.2016.</li> <li>• Cost at which awarded: Rs.169.70 crore.</li> <li>• Terminal capacity: 1.26 MTPA</li> <li>• Hon'ble Minister for Shipping, Road Transport and Highways laid the foundation stone on 12.08. 2016.</li> <li>• Targeted completion date of the project: December, 2018.</li> <li>• Physical progress: 86.93%.</li> <li>• Financial progress: Rs.148.01 cr.</li> <li>• Hon'ble Prime Minister inaugurated the terminal on 12.11.2018</li> </ul>
3.	Construction of Phase-I of the multimodal terminal at Sahibganj.	May, 2019	<ul style="list-style-type: none"> <li>• Estimated cost at which appraised: Rs. 292.10 crore for Phase-I (excluding external/approach road and road over-bridge).</li> <li>• Contractor: M/s Larsen &amp; Toubro ltd.</li> <li>• Date of award: 27.10.2016.</li> <li>• Cost at which awarded: Rs.280.90 crore.</li> <li>• Terminal capacity: 2.24 MPTA</li> <li>• Start date of the project: November, 2016.</li> <li>• Targeted completion date of the project: May, 2019.</li> <li>• Physical progress: 54.81%</li> <li>• Financial progress: Rs.143.33 cr.</li> <li>• Laying of the foundation stone: Hon'ble Prime Minister on 06.04.2017.</li> </ul>
4.	Construction of multi-modal terminal at Haldia.	December, 2019	<ul style="list-style-type: none"> <li>• Estimated cost at which appraised: Rs.495 crores for phase-I.</li> <li>• Contractor: M/s ITD Cementation India Ltd.</li> <li>• Date of award of work contract: 30.06.2017.</li> <li>• Cost at which awarded: Rs.517.36 crore.</li> <li>• Terminal capacity: 3.18 MPTA</li> <li>• Start date of the project: July, 2017.</li> <li>• Targeted completion date of the project: December, 2019.</li> <li>• Physical progress: 22.43%</li> <li>• Financial progress: Rs.75.24 crores.</li> </ul>

5.	Construction of intermodal terminal at Kalughat.	August, 2020	Tender process for award of work is in progress.
6.	Construction of intermodal terminal at Ghazipur.	August, 2020	Tender process for award of work is in progress.
7.	Construction of new navigational lock at Farakka.	June, 2019	<ul style="list-style-type: none"> <li>• Estimated cost at which appraised: Rs.380 crore.</li> <li>• Contractor: M/s Larsen &amp; Toubro ltd.</li> <li>• Date of award: 24.11.2016</li> <li>• Cost at which awarded: Rs.359.19 crore.</li> <li>• Date of commencement of work: December, 2016.</li> <li>• Target date for completion of the project: June, 2019.</li> <li>• Physical progress: 27.97%.</li> <li>• Financial progress: Rs.83.42 cr.</li> </ul>
8.	Integrated Vessel Repair & Maintenance Complexes	December, 2020	The locations of the complexes are at Gaighat (Patna) and Sahibganj. Draft project reports are under finalization.
9.	Construction of Ro-Ro crossings.	December, 2020	DPRs are under finalization.
10.	Vessel procurement	March, 2020	The process for procurement of two self-propelled cutter suction dredgers is underway.
11	Land Acquisition and R&R/RAP	March, 2019	<p><b>1. MMT HALDIA:</b> 61 acres of land in the haldia dock complex have been taken on 30-year lease from the Kolkata Port Trust on payment of Rs.40.22 cr. as one-time premium.</p> <p><b>2. MMT VARANASI:</b> 5.586 ha of land for phase-I (A) of the terminal was acquired.</p> <p>Acquisition process for 1.415 ha. of land for road connectivity has been completed.</p> <p><b>3. Navigation lock at Farakka:</b> 14.86 ha of land transferred from Farakka Barrage project to IWAI, Ministry of Shipping. Rs.2.36 cr. Paid to FBP.</p> <p><b>4. MMT, SAHIBGANJ:</b> 183.13 acres of land has been acquired for the terminal and</p>

			<p>mutation completed. The entire land of 9.24 acres required for road connectivity has also been acquired. SIA study has also been completed. Rs.93.52 crores paid towards land compensation.</p> <p>R&amp;R implementation is in progress for 485 project affected families, out of which R&amp;R package transferred to 417 families. Land for the two resettlement colonies at Samadnala and Faltanganj has been acquired. Setting up of the resettlement colonies are in progress. Rs. 67.63 crores released towards R&amp;R package.</p> <p><b>5. IMT KALUGHAT:</b> Acquisition of 5.159 ha. Of land for the terminal is in progress.</p> <p><b>6. IMT GHAZIPUR:</b> Out of the 8.917 ha of land required for the terminal, 5.103 ha has been acquired and acquisition of 3.813 ha of land is in progress</p> <p><b>7. RO-RO TERMINALS:</b> locations with requirement of land for the Ro-Ro terminals have been identified.</p>
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**National Waterways No. II (The Brahmaputra)**

22. National Waterway-2 comprises of 891 Kms from Dhubri to Sadiya in the state of Assam. A navigable fairway of minimum 45 m width and 2.5 m Least Available Depth (LAD) was maintained in Dhubri-Pandu (255 km) and Pandu-Neamati (374 km) stretch. In Neamati-Dibrugarh stretch, 2.0 m LAD was maintained for 350 days. In Dibrugarh-Sadiya (Oriumghat) stretch, LAD of 1.5 m was maintained for 365 days.



Apart from the channel maintenance, the projects for construction of Ro-Ro terminals at Dhubri & Hatsingimari is being implemented. The floating terminals provided at 11 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. DGPS station established at Dhubri, Jogighopa, Vishwanath Ghat and Dibrugarh is providing DGPS connectivity in entire NW- 2 and some portion of Protocol routes in Bangladesh.

23. The total cargo traffic on NW II was 26.01 lakh tonnes during 2017-18 as against 25.91 lakh tonnes during 2016-17 showing an increase of 0.38%. Commodity-wise composition of cargo movement over the years on this waterway is given below:

Commodity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Building Material	-	-	-	-	-	-
Food items	-	-	-	-	-	-
Miscellaneous	2426805 (100.0)	2475349 (100.0)	2491720 (100.0)	2584306 (100.0)	2590754 (100.0)	2601227 (100.0)
Mix	-	-	-	-	-	-
Ore/Minerals	-	-	-	-	-	-
POL/POL Products	-	-	-	-	-	-
<b>Total NW II</b>	<b>2426805</b> <b>(100.0)</b>	<b>2475349</b> <b>(100.0)</b>	<b>2491720</b> <b>(100.0)</b>	<b>2584306</b> <b>(100.0)</b>	<b>2590754</b> <b>(100.0)</b>	<b>2601227</b> <b>(100.0)</b>

**Source:** Inland Waterways Authority of India for National Waterways.  
**Note:** Figure within bracket indicates percentage to the total  
**Neg.** – negligible

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

24. The National Waterway No.3 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. The NW-3 which comprised of the West Coast Canal between Kottappuram & Kollam (168 km), Udyogmandal canal (23 km) and Champakkara canal (14 km) [total 205 km] was extended by another 165 km towards North from Kottapuram till Kozhikode during April, 2016. Detailed Project Report (DPR) for the development of the extended stretch has been prepared.

25. The total volume of cargo moved on National Waterway III has been fluctuating over the past few years. The volume of cargo moved decreased to 4.28 lakh tonnes in 2017-18 compared to 10.33 lakh tonnes in 2016-17 recording a fall of 58.57%. The decrease is due to the suspension of Ro-Ro traffic between Willington and Bolghaty terminals feeding containers to International Container Transshipment Terminal (ICTT) Vallarpadam, due to contractual problems. The cargo composition of freight traffic shows that Chemicals (75.6%), Fertilisers (13.6%) and Mix items (10%), were the major commodities moved through NW-III during 2017-18. These commodities are primarily raw materials of Fertilizers and Chemicals Travancore Ltd (FACT) from Cochin port to FACT factory jetty on NW-3 traversing a distance of about 20 km.

Commodity	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Chemicals	89074 (7.2)	124782 (11.7)	96773 (11.5)	155567 (14.7)	195809 (19.0)	323501 (75.6)
Fertilisers	306034 (24.8)	262974 (24.7)	231951 (27.5)	216648 (20.4)	224903 (21.8)	57998 (13.6)
Food items	141000 (11.4)	18000 (1.7)	-	-	-	-
Mix	538670 (43.6)	606760 (56.9)	512490 (60.7)	686350 (64.7)	608670 (58.9)	42860 (10.0)
Ore/Minerals	72163 (5.8)	28542 (2.7)	262 (neg)	-	-	-
POL/POL products	89462 (7.2)	24948 (2.3)	2221 (0.3)	2477 (0.2)	3457 (0.3)	3630 (0.8)
<b>Total NW III</b>	<b>1236403 (100.0)</b>	<b>1066006 (100.0)</b>	<b>843697 (100.0)</b>	<b>1061042 (100.0)</b>	<b>1032839 (100.0)</b>	<b>427989 (100.0)</b>

**Source:** Inland Waterways Authority of India for National Waterways.  
**Note:** Figure within brackets indicate percentage to the total

26. The total cargo moved through all the three National Waterways (NW) increased by 4.66% from 81.29 lakh tonnes during 2016-17 to 85.08 lakh tonnes during 2017-18. In 2017-18, 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 64.4%, 30.6%, and 5% respectively of the total cargo moved on national waterways. In terms of tonne kilometers, the share of NW I, NW II and NW III is 97.9%, 1.8% and 0.3% of the total tonne kilometers moved. The highest share of NW I in tonne kilometers reflect long average distance traversed by cargo of 506.89 kms compared with an average distance of 19.39 kms for NW II and average distance of 18.95 kms for NW III in the year 2017-18. Table 7 gives cargo movement of National Waterways in Tonnage and Tonne Kilometers.

Sl. No	Details of Waterway	Cargo Moved ( lakh Tonnes)				Tonne Kms (in lakh )			
		2014-15	2015-16	2016-17	2017-18	2014-15	2015-16	2016-17	2017-18
1	<b>National Waterway No. I</b>	50.50 (60.2)	62.37 (63.1)	45.05 (55.4)	54.79 (64.4)	22636 (97.4)	26995 (97.8)	24598 (97.6)	27773 (97.9)
2	<b>National Waterway No. II</b>	24.92 (29.7)	25.84 (26.2)	25.91 (31.9)	26.01 (30.6)	508 (2.2)	505 (1.8)	503 (2.0)	504.36 (1.8)
3	<b>National Waterway No. III</b>	8.44 (10.1)	10.61 (10.7)	10.33 (12.7)	4.28 (5.0)	92 (0.4)	105 (0.4)	109 (0.4)	81.14 (0.3)
	<b>Total NWs</b>	<b>83.86 (100.0)</b>	<b>98.82 (100.0)</b>	<b>81.29 (100.0)</b>	<b>85.08 (100.0)</b>	<b>23236 (100.0)</b>	<b>27605 (100.0)</b>	<b>25210 (100.0)</b>	<b>28358.50 (100.0)</b>
<p><b>Source:</b> 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 &amp; NW-II through Bangladesh.</p> <p><b>Note :</b> Figure within brackets indicate percentage to the total</p>									

27. The details of the commodity composition of the cargo moved on the National Waterways I, II and III taken together are given in Table 8. It may be seen that the cargo movement of building material, chemicals and mix items has shown significant increase while fertilizers, POL/POL



Products & Coal have shown sharp decrease in volume terms on the National Waterways in 2017-2018. The highest percentage of cargo moved in 2017-2018 was building material (41.9%) followed by miscellaneous (30.6%) & mix items (20.4%)

<b>Table 8: Composition of Cargo Moved on national waterways ( In tonnes)</b>						
<b>Commodity</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>
Building Material	1727685 (27.1)	1997301 (29)	2044784 (24.4)	2393416 (24.2)	2704742 (33.3)	3568909 (41.9)
Chemicals	89074 (1.4)	124782 (1.8)	96773 (1.2)	155567 (1.6)	195809 (2.4)	323501 (3.8)
Fertilisers	358034 (5.6)	299774 (4.4)	364250 (4.3)	340648 (3.4)	951163 (11.7)	57998 (0.7)
Food items	486179 (7.6)	412935 (6.0)	527048 (6.3)	499024 (5.0)	137730 (1.7)	38340 (0.5)
Miscellaneous	2440647 (38.3)	2486825 (36.1)	2509410 (29.9)	2592316 (26.2)	2650232 (32.6)	2604043 (30.6)
Mix	560470 (8.8)	615010 (8.9)	577802 (6.9)	686350 (6.9)	608670 (7.5)	4338283 (20.4)
Ore/Minerals	301163 (4.7)	140542 (2.0)	242262 (2.9)	31000 (0.3)	16761 (0.2)	0 (0)
POL/POL Products	336803 (5.3)	237011 (3.4)	252639 (3.0)	276161 (2.8)	165977 (2.0)	3630 (.04)
Coal	79590 (1.2)	561456 (8.1)	1736492 (20.7)	2843001 (28.8)	668740 (8.2)	160262 (1.9)
Iron & Steel	-	14857 (0.2)	34166 (0.4)	64989 (0.7)	29146 (0.4)	14839 (0.2)
<b>Total</b>	<b>6379645</b> <b>(100.0)</b>	<b>6890493</b> <b>(100.0)</b>	<b>8385626</b> <b>(100.0)</b>	<b>9882472</b> <b>(100.0)</b>	<b>8128970</b> <b>(100.0)</b>	<b>8508578</b> <b>(100.0)</b>
<b>Source:</b> Inland Waterways Authority of India						
<b>Note :</b> Figure within brackets indicate percentage to the total						

28. There are 6 National Waterways in Goa out of which cargo traffic is transported on 2 waterways River Mandovi (NW-68) and River Zuari (NW-111). Traffic trend on Goa waterways has been driven by iron ore exports from Mormugao port. This iron ore is mined in the hinterland locations and is then transported on waterways to transshipment point located at a distance of 40 -50 km. It can be observed that traffic increased from FY 2014-15 to FY 2016-17 from 7.94 lakh tonnes in 2014-15 to 157.68 lakh tonnes in 2016-17 on account of lifting of iron ore mining ban by Supreme Court. While the exports declined to 111.62 lakh tonnes in year FY 2017-18 due to cancellation of iron ore mining permits by Supreme Court.

29. Maharashtra has 13 declared National waterways. Among them, movement takes place primarily on NW-10 (Amba river) and NW-85 (Kundalika river). The commodities transported on

these waterways are predominantly coal and iron ore (~ 95%) imported by the steel companies in the hinterland.

**30.** Traffic on Gujarat waterways is primarily EXIM and coastal cargo of Magdalla port, which is located upstream of River Tapi (NW-100). The average lead distance of traffic on this waterway is approximately 15 km (distance between the Magdalla river port and the mouth of the river). Cargo movement on Gujarat waterways was included as a part of National Waterways in October 2018 and hence historical traffic was not recorded under traffic on National waterways. Key export commodities transported on these waterways are steel, machinery and slag while key import commodities on these waterways are coal, iron ore and cement.

#### **NATIONAL WATERWAYS 4 & 5**

**31.** These waterways were declared as National Waterways in November 2008. Thereafter, Detailed Project Reports (DPR) for development of both NWs was prepared. Subsequently, on the advice of Planning Commission, development of commercially viable stretches through PPP mode was explored by appointing a transaction adviser (consultant) with the financial assistance of Department of Economic Affairs (DEA) and Asian Development Bank (ADB). However, both the waterways were not found to be viable for development in PPP Mode. Hence, it was decided to develop both the waterways through Gross Budgetary Support (GBS) and/or external aid through multilateral resources like ADB or World Bank.

#### **NATIONAL WATERWAY 4**

The Kakinada-Puducherry stretch of canals and the Kaluvelly tank, Bhadrachalam-Rajahmundry stretch of river Godavari and Wazirabad- Vijayawada stretch of river Krishna with a total length of 1,078 kms was declared National Waterway-4 (NW-4) in 2008. The stretch was further extended upto Nashik in Godavari and upto Galagali in river Krishna in the states of Andhra Pradesh, Karnataka, Maharashtra, Tamil Nadu and Union territory of Puducherry, by National Waterways Act (NWs), 2016, and the present total length is 2890 kms. NW-4 is planned to be developed in three phases:-

- Phase-I: - Vijayawada-Muktyala stretch of Krishna River.
- Phase-II: - Kakinada to Vijayawada and Rajahmundry to Polavaram.
- Phase-III :- Remaining stretches of NW-4 on completion of Phase-I and Phase-II

Development work of Phase-I of NW-4 from Vijayawada to Muktyala stretch (river Krishna) at a cost of Rs. 96.00 cr. has commenced. Ro-Ro Services between Ibrahimpatnam & Lingayapalam, for transportation of construction materials on NW-4 (river Krishna) has commenced.

## **NATIONAL WATERWAY-5**

### **(Brahmani–Kharsua–Kani river & Mahanadi Delta river system)**

32. The Phase-wise break-up for the development of NW-5 are given below:-

i) Paradip /Dhamra to Pankapal (via Kani River)	-	212 km
ii) Pankapal to Talcher (River Brahmani)	-	120 km
iii) East Coast Canal (Charbatia to Geonkhali) & Matai River (Charbatia to Dhamra)	-	<u>256 km</u>
<b>Total</b>	<b>-</b>	<b><u>588 km</u></b>

33. To start the development works in National Waterways-5, a Memorandum of Understanding (MoU) has been signed by Inland Waterways Authority of India (IWAI) a statutory body under the Ministry of Shipping, Govt. of India with Govt. of Odisha, Paradip Port Trust (PPT) and Dhamra Port Company Limited (DPCL) on 30.6.2014 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 from Paradip / Dhamra to Pankapal. The 120 km stretch between Pankapal and Talcher will be taken up in the Phase - II.

34. The stretch between Pankapal to Dhamra and Paradip in NW-5 has been taken up for development under Phase-I, for which the proposal has been submitted for obtaining the environmental clearance including CRZ and Wild Life Clearance. The DPR of NW-5 completed in 2010, which was further upgraded for the stretch Pankapal to Dhamra and Paradip (Ph.-I) in 2016.

Further, DPR for Construction of new Weir cum Barrages & Rubber Dam with Navigational Locks, Check Dams and raising/construction of Embankments along with Drainage Sluices etc. on Brahmani River System of NW-5 in Odisha has been taken up. Detailed Engineering Report (DER) including Detailed Engineering Design and Drawing (DED & D) for the existing bridges which need modification / re-construction on NW-5 has also been taken up.

### **35. NATIONAL INLAND NAVIGATION INSTITUTE (NINI)**

- i. National Inland Navigation Institute (NINI) was constructed by IWAI at Patna and has been functional from February, 2004. Induction courses for deck and engine ratings, preparatory courses for Serang and engine drivers, basic and advanced dredging courses, refresher courses for hydrographic surveyors, courses for repair and maintenance of vessels, etc. are conducted in NINI regularly. So far, a total **8349** candidates have been trained at NINI till **31<sup>st</sup> March, 2018**.
- ii. The administration and management of the Institute is done by IWAI Patna from 1<sup>st</sup> of December, 2018.
- iii. NINI has got upgraded to ISO 9001:2015 certifications from American Bureau of Shipping Classification Society on 23<sup>rd</sup> July, 2018.
- iv. Placement of NINI cadets as apprentice in IWAI is discontinued for more than 2 years. Now placement is done only through private operator in Inland Vessels (IV) sector.
- v. Inland Vessels (IV) Maneuvering Simulator is installed & fully functional presently. Same is being used to impart training to the candidates of Inland Vessel sector.
- vi. NINI has fully operational Marine Simulation Centre which conducts the following courses:

#### **DG Approved courses (Foreign Going)**

- Radar Observer Simulator Course (ROSC)
- Automatic Radar Plotting Aid (ARPA)
- Ship Maneuvering Simulator (SMS)
- Electronic Chart Display & Information System (ECDIS)

#### **Non DG Approved Professional courses**

- Bridge team Management (BTM)
- Bridge Recourse Management (BRM)
- Large Ship handling Simulator (LSHS)
- Risk Management
- Enclosed space entry

- vii. Following DG approved basic safety courses are also being conducted at NINI:

- Personal Safety and Social Responsibility (PSSR)

- Personal Survival Technique (PST)
- Fire Prevention and Fire-Fighting (FPPF)
- Elementary First Aid (EFA),

NINI also conducts competency course for NWKO (Navigation Watch Keeping Officer) for Near Coastal Vessels (NCV).

viii. NINI also assisted Government of Bihar in drafting and adoption of the Bihar Model Boat Rules, 2011. Training Modules have been developed for the following courses, which are being conducted at NINI for Bihar State Disaster Management Authority (BSDMA), Govt. of Bihar:

- Training for Master Trainers for Safe Boat Operation (Boat Man & Boat Owners).
- Training for Boat Surveyors and Registering Officers
- Training of Trainers for Safe Swimming Program.

Training module also developed and training conducted for IWT Assam personals of Govt. of Assam.

## IWT ACTIVITIES – STATE GOVERNMENT

36. The number of vessels deployed and volume of cargo carried on Inland Waterways across the reporting States & UTs is given in Table 9. Details of State-wise inland water transport activities are given in table 3.1 & 3.2 (section 3).

State/UT	Number of Vessels				Volume of Cargo Carried ( thousand tonnes)			
	2014-15	2015-16	2016-17	2017-18	2014-15	2015-16	2016-17	2017-18
<b>Assam</b>	182	182	187	191	178.73	178.73	3871.07	706066.16
<b>Bihar</b>	138	138	138	138*	2.40	2.40	2.40	2.40*
<b>Goa</b>	225	159	311	266	190.01	429966.0	116600.8	71902.10
<b>Karnataka</b>	66	66	66	66	50.50	50.5	29.98	93.27
<b>Kerala</b>	13819	13819	5556	7656	2912.06	2912.06	326.64	447.98
<b>Maharashtra</b>	743	678	384	1166	27357	28849	34890	37904.70
<b>Orissa</b>	409	199	557	635	...	...	...	...
<b>West Bengal</b>	2032	2106	2155	2216	14728	16730	22654	36719
<b>Tamil Nadu</b>	2	2	2	2	...	...	...	...
<b>TOTAL (reporting states)</b>	<b>17616</b>	<b>17349</b>	<b>9356</b>	<b>12336</b>	<b>45418.70</b>	<b>478688.7</b>	<b>178374.9</b>	<b>853135.61</b>

Source: Govt. of States & U.T.'s

\*Pertains to 2016-17 as data for 2017-18 is not provided by the state

... Not Available,

The total number of vessels in the States during 2017-18 was 12336 which is higher as compared to 9356 vessels in the year 2016-17. Kerala has reported the highest number of vessels 7656 followed by West Bengal (2216), Maharashtra (1166), Orissa (635) and Goa (266). However, the volume of cargo handled through these vessels in the year 2017-18 was 853135.61 thousand tonnes. Assam has reported the highest cargo handled through waterways which was 706066.16 thousand tonnes followed by Goa 71902.10 thousand tonnes.

#### **PERFORMANCE OF COMPANIES ENGAGED IN IWT**

**37.** The data received from 49 IWT companies shows that amongst the private companies the maximum number of powered vessels was held by West Bengal Surface Transport Corporation (56) followed by Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata (34), Sesa Sterlite Ltd, Goa (32) and Eastern Navigation Pvt. Ltd, Kolkata (30). The Maximum cargo of 4638.64 thousand tonnes was carried by Vedanta Ltd. (Sesa Sterlite Ltd, Goa) followed by Indo Energy International Ltd. (1041.96 thousand tonnes), VIVADA Inland Waterways Ltd, Kolkata (695.26 thousand tonnes), D. V. Salgaocar, Goa (612 thousand tonnes) and S. V. Salgaocar, Goa (597.60 thousand tonnes)

**38.** Cargo moved by top 15 private companies in decreasing order of cargo moved along with the number of powered vessels employed in 2017-18 is given below in Table 10. Detailed performance of companies engaged in inland water transport activities is given in Table 4.1 & 4.2 (section 4).

<b>Name of the Company</b>	<b>No. of Powered Vessels</b>	<b>Cargo moved ('000 tonnes)</b>
1. Vedanta Limited	32	4638.64
2. Indo Energy International Ltd.	11	1041.96
3. VIVADA Inland Waterways Ltd, Kolkata	16	695.26
4. D. V. Salgaocar, Goa	3	612.00
5. S. V. Salgaocar, Goa	3	597.60
6. Eastern Navigation Pvt. Ltd, Kolkata	30	556.34
7. Jindal ITF Ltd.	28	425.27
8. V.M. Salgaocar Sales International	2	386.40
9. Kerala Shipping & Inland Navigation Co. Ltd.	3	200.66
10. Infrastructure Logistics Pvt. Ltd.	4	199.52
11. Maharshi Shipping	5	184.56
12. Sesa Resources Ltd Goa	2	183.96
13. Lots Shipping Ltd.	4	175.27
14. Timblo Pvt. Ltd.	5	151.20
15. Sohom Shipping Private Ltd.	4	124.21

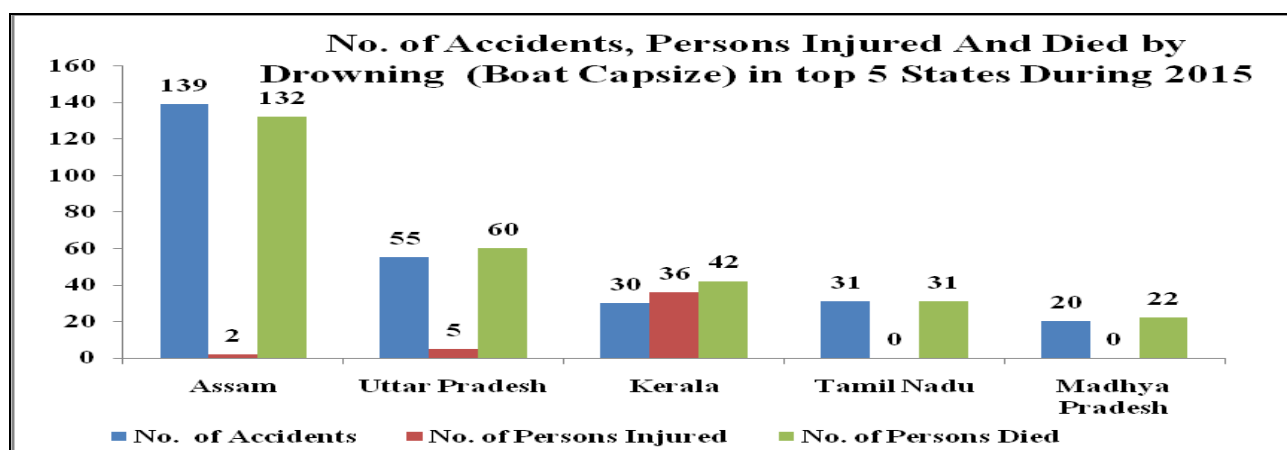
**Source:** Private Companies/ Undertakings engaged in inland water transport activities

## FINANCIAL OUTLAY & EXPENDITURE FOR IWAI

39. The Budget Estimate (B.E.) during 2016-17 was Rs. 325 crore. The expenditure during the same year was Rs. 542.04 crore, which includes expenditure from the fund raised from Extra Budgetary Resources (EBRs) of Rs. 340 crore. The Budget Estimate (B.E.) during 2017-18 was Rs. 195 crore. The expenditure during the same year was Rs. 636.59 crore, which includes expenditure from the funds raised from Extra Budgetary Resources (EBRs) of Rs.660 crore. Detailed financial outlay & expenditure for IWAI is given in Table 5.1 (section 5).

## INLAND WATERWAYS TRANSPORT ACCIDENTS

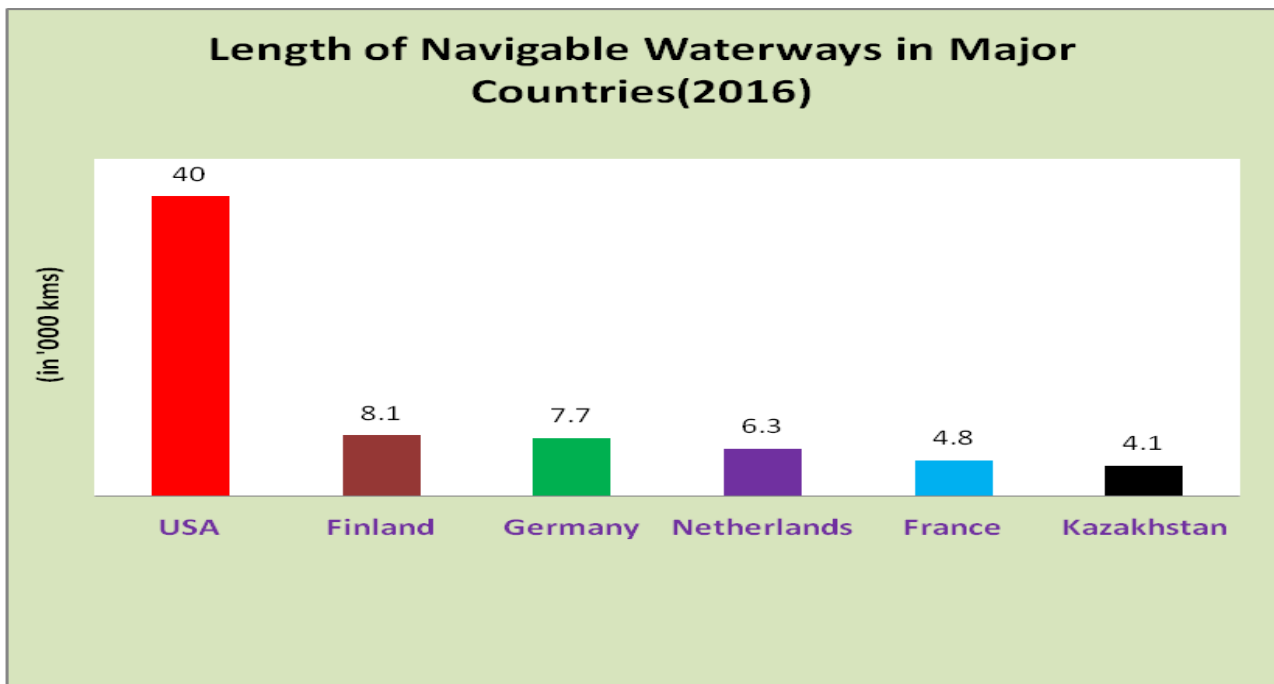
40. The total number of accidents on inland waterways during the year 2015 was 315 out of which 139 were reported in Assam followed by Uttar Pradesh and Tamil Nadu with 55 and 31 accidents respectively. The number of deaths during the year due to boat mishaps was highest in Assam at 132 followed by Uttar Pradesh and Kerala with 60 and 42 respectively. A striking feature observed in all the States (Table 6.1, Section 6) 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 given below.



**Source:** Accidental Deaths & Suicides in India- 2015,  
National Crime Records Bureau, M/o Home Affairs, Govt. of India

## INLAND WATERWAYS IN SELECTED COUNTRIES

41. The maximum length of Navigable Inland Waterways in Europe and North America belongs to USA with 40000 Kms followed by Finland with 8,136 Kms, Germany with 7,675 Kms., Netherlands with 6,256 Kms, France with 4,773 Kms. and Kazakhstan with 4,151 Kms. in the year 2016 (table 7.1, section 7). However, the maximum quantity of Goods carried was in Netherlands at 262 million tonnes followed by Germany at 221 million tonnes, and Belgium at 192 million tonnes (table 7.4, section 7). Details of inland waterways in these selected countries are given in section 7.



**Source:** Annual Bulletin of Transport Statistics for Europe & North America, 2018 (UN Publication).



**SECTION – 1**

**NAVIGABLE WATERWAYS  
AND INFRASTRUCTURE**

Table No. 1.1

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2017-18	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
<b>1</b>	<b>ANDHRA PRADESH ***</b>		
	(i) Godavari	1530	171
	(ii) Krishna	1400	157
	(iii) Others **	832	832
	<b>Total</b>	<b>3762</b>	<b>1160</b>
<b>2.</b>	<b>ASSAM</b>		
	(i) Brahmaputra	2800	891
	(ii) Barak	900	121
	(iii) Subansiri		111
	(iv) Dhansiri	135	110
	(v) Dehing	120	114
	(vi) Aai	85	71
	(vii) Beki	85	73
	(viii) Doyang		61
	(ix) Puthimari	...	72
	(x) Gangadhar		62
	(xi) Kopili	50	46
	(xii) Dikhow	92	63
	(xiii) Jinjiram		43
	(xiv) Lohit		100
	<b>Total</b>	<b>4267</b>	<b>1938</b>
<b>3.</b>	<b>BIHAR ***</b>		
	(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
	<b>Total</b>	<b>3763</b>	<b>1391</b>

Table No. 1.1 (Contd...)

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2017-18	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
4	<b>GOA</b>		
	(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
	<b>Total</b>	<b>274</b>	<b>249</b>
5	<b>GUJARAT *</b>		
	<b>Total</b>		
6	<b>KARNATAKA</b>		
	(i) Sharavathi	80	27
	(ii) Tungabhadra	375	375
	(iii) Malaprabha	270	230
	(iv) Ghataprabha	160	160
	(v) Krishna	325	125
	(vi) Cauvery	270	34
	(vii) Kabini	117	30
	(viii) Gurupura	80	20
	(ix) Gangolli	48	20
	(x) Bheema	860	125
	(xi) Udyavara	37	14
	(xii) Netravathi	96	26
	(xiii) Kali	184	29
	<b>Total</b>	<b>2902</b>	<b>1215</b>
7	<b>KERALA \$\$</b>		
	(i) Kallada	...	...
	(ii) Ithikkara	...	...
	(iii) Muvattupuzha	...	...
	(iv) Menachil	...	...
	(v) Kariyar	...	...
	(vi) Manimala	...	...
	(vii) Kodoor	...	...
	(viii) Periyar	...	...
	(ix) Kodungallur	...	...
	(x) Ponnai Kochi	...	...
	(xi) Chalakudy Kundoor	...	...
	(xii) Chaliyar	...	...
	(xiii) Kadalundi	...	...
	(xiv) Bharathapuzha	...	...
	(xv) Tirurpuzha	...	...
	(xvi) Poorapuzha	...	...
	(xvii) Keeranallur	...	...
	(xviii) Kanjiramukku	...	...

Table No. 1.1 (Contd...)

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2017-18	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
(xix)	Vadakkumpad	...	...
(xx)	Kallai	...	...
(xxi)	Korappuzha	...	...
(xxii)	Perumbra	...	...
(xxiii)	Ramapuram	...	...
(xxiv)	Kuppam	...	...
(xxv)	Valapattanam	...	...
(xxvi)	Anjarakandy	...	...
(xxvii)	Thalassery	...	...
(xxviii)	Mahe	...	...
(xxix)	Kuttiyadi	...	...
(xxx)	Kavvayi	...	...
(xxxi)	Kariyankode	...	...
(xxxii)	Nileswaram	...	...
(xxxiii)	Chittari	...	...
(xxxiv)	Chandragiri	...	...
(xxxv)	Mogzhal	...	...
(xxxvi)	Shiriyi	...	...
(xxxvii)	Uppala	...	...
(xxxviii)	Manjeswaram	...	...
(xxxix)	Total of Rivers	2375.19	942.91
(xxxx)	Others **	1158.27	1024.34
	<b>Total</b>	<b>3533.46</b>	<b>1967.25</b>
<b>8</b>	<b>MAHARASHTRA</b>		
(i)	Dande River	2	1
(ii)	Pangere River	2	1
(iii)	Girye River	3	1
(iv)	Kajali River	35	5
(v)	Kalbadevi River	10	2
(vi)	Are River	6	1
(vii)	Jog River	10	5
(viii)	Kelshi River	10	3
(ix)	Savitri River(Bankot to Mahad)	45	40
(x)	Kal River	6	4
(xi)	Vaitarna River	24	9
(xii)	Ulhas River	32.5	28
(xiii)	Mahim River(Bay)	1.5	1
(xiv)	Amba River	23	20
(xv)	Patalganga River/Creek (Aware to Kharpada)	11	6.5
(xvi)	Kundalika River	16	16
(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 Rajapur)	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(Malvan)	23	13
(xxvii)	Others	129	105
	<b>Total</b>	<b>631</b>	<b>462</b>

Table No. 1.1 (Contd...)

## Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2017-18	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
<b>9</b>	<b>ORISSA</b>		
(i)	Mahanadi	493	199
(ii)	Brahmani	541	277
(iii)	Baitarani	344	32
(iv)	Subarnarekha	...	50
(v)	Budha Balanga	...	35
(vi)	Dhamara	...	20
(vii)	Salandi	...	17
(viii)	Panchputra	...	21
(ix)	Parnei	...	45
(x)	Hatel	...	30
(xi)	Bansagadal	...	32
(xii)	Hansua	...	37
(xiii)	Tirkota	...	18
(xiv)	Jambo	...	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)	Prachi	...	15
(xxiv)	Kadha	...	30
(xxv)	Kusavadra	...	25
(xxvi)	Daya	...	9
(xxvii)	Rajua	...	7
(xxviii)	Makara	...	11
(xxix)	Others **	...	367
	<b>Total \$</b>	<b>1378</b>	<b>1555</b>
<b>10</b>	<b>TAMIL NADU</b>		
(i)	Anantha Victoria Marthandavarna	27	12
(ii)	North Buckingham Canal	58	... @@
(iii)	Central Buckingham Canal	7	... @@
(iv)	South Buckingham Canal	105	... @@
(v)	Mullai Periyar Lake	..	14
	<b>Total</b>	<b>197</b>	<b>26</b>
<b>11</b>	<b>UTTAR PRADESH ***</b>		
(i)	Gomti	960	...
(ii)	Rapti	778	...
(iii)	Ghaghra	1116	...
(iv)	Ganga	2345	425
(v)	Sai	760	...
(vi)	Tons	485	...
	<b>Total</b>	<b>6444</b>	<b>425</b>
<b>12</b>	<b>WEST BENGAL</b>		
(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	2017-18	
		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
	<b>Total</b>	<b>4741</b>	<b>4593</b>
<b>13 NAGALAND</b>			
(i)	Tizu/Zungki	-	42
(ii)	Dhansiri/Chathe	-	110
(iii)	Dikhu	-	63
(iv)	Doyang	-	61
	<b>Total</b>	<b>0</b>	<b>276</b>
<b>14 MIZORAM</b>			
(i)	R. Tlawng (Dhaleswari)	238	81
(ii)	R. Kolodyne (Chimtuipui)	196	22
(iii)	Khawthlang Tuipui	134	17
(iv)	R. Tuichawrg	167	19
(v)	Tul River	55	16
(vi)	Others	...	...
		<b>790</b>	<b>155</b>

Source: IWT Directorate of states &amp; IWAI.

\* Data is reported nil for the year 2017-18

\*\* Including Canals.

\*\*\* Information for 2018 has not received. Last Year data has been Repeated.

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

... : Not available

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

@ @ Out of 170.1 km, 132 km length of canal has now silted up. Navigation could be possible only after renovation.

\$ \$ Total length &amp; Navigable length for each river is not provided only sum total of all rivers is available.

**Table No. 1.2**

**Infrastructure Facilities Available on National Waterways (As on 31-3-2018)**

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	Three(Floating)	...	One godown of size 12x30m and open storage area	Being used for loading of fly ash to Bangladesh and also embark/disembark of tourists and logistic support.
ii) Budge Budge - Kolkata	1500	One(Floating)	...	...	Being used for loading of fly ash to Bangladesh and also embark/disembark of tourists and logistic support.
(iii) a) BISN/G.R. Jetty-1,Kolkata	1500	Two(Floating)	One Crane Pontoon	Open storage- 25000 sqm.	Being used for loading of fly ash to Bangladesh and also embark/disembark of tourists and logistic support.
(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 for handling of General cargo. This jetty is also used for loading of fly ash to Bangladesh and embark/disembark of tourists and logistics support
(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) Metihari/Swaroopganj	600	One(Floating) Pontoon	-	-	Being used for embark/disembark tourists & logistics support.
(vii) Kalna/Katwa	600	One(Floating)	...	...	Being used for embark/disembark tourists & logistics support.
(viii) Hazardwari	600	One (floating)	...	...	Being used for embark/disembark tourists & logistics support.
(ix) Pakur (Putimari)	1500	One(fixed)	...	...	Owned by Farakka Barrage project(FBP)
(x) Farakka					
(a) Owned by Farakka Barrage Project	1500	One(fixed)	...	...	May use for embark/disembark, loading/unloading and logistics support.
(b) Owned by Jindal ITF	2500 (two vessels at a time)	Jetty with conveyor	...	...	Being used for unloading NTPC coal at Farakka Super Thermal Power Station
(c) IWA's Floating jetties	600	One(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. One RIS station is operational.
(xii) Sahibganj	600	One(Floating)	...	Land area 182.70 acres	a) Being used for loading of stone chips and embark/disembark and logistics support. b) Construction of permanent IWT multi model terminal is in progress under Jal Marg Vikas Project.

**Table No. 1.2 (Contd...)**
**Infrastructure Facilities Available on National Waterways (As on 31-3-2018)**

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. DGPS station and RIS 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. RIS station under construction.
<b>3. Barh-Ghazipur : (290 km),Depth - 1.6 to 2.0</b>					
(xvi) Semaria	600	One(floating)	...		Being used for embark/disembark of tourists and logistic support.
(xvii) a) Patna	600	Fixed RCC ( Low & High) Jetties of 46.6m & 70m berth respectively	2 Shore cranes 1 Container crane	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 mechanical handling of general cargo. Bunkering facility is also available at jetty. DGPS station is operational.RIS station under progress.
(xvii) b) Patna	600	One (Floating)	Crane Pontoon	...	Being used for stationing of IWT vessels, embark/disembark of tourists and logistic support during lean period.
(xviii) Buxar	600	One (Floating)	...	...	Being used for embark/disembark and logistic support.
<b>4. Ghazipur-Allahabad : (370 km) ,Depth -1.2 to 1.5</b>					
<b>* In Chunar- Allahabad stretch (198 km) no RC works was undertaken. Except day channel marking.</b>					
(xviii) Ghazipur/ Rajghat	300	One(floating)	...	...	Being used for embark/disembark and logistic support.
(xix) Varanasi/Ramnagar	300	One(floating)	...	Land area 5.586 +11.5 hectare.Open storage- 3000 sqm.	Being used for embark/disembark and logistics support. Construction of permanent IWT multimodel terminal is in progress under Jal Marg Vikas Project.
(xx) Allahabad	300	One (floating)	...	Total Land area- 8.759 hectare . Open storage -3000 sqm.	Being used for embark/disembark and logistics support. Construction of permanent IWT multimodel terminal is in progress under Jal Marg Vikas Project.

Note :

- 1) Floating jetty (berth) with gangway facility can be shifted and provided at any location along the national waterway on need basis.
- 2) 24 hours navigation aids being provided in Haldia-Ballia sector (1140 km) only. Day channel marking being provided in entire of NW-1.
- 3) RIS stations between Haldia-Farakka has been commissioned and construction of RIS station between Farakka-Patna is completed and will be operational shortly. Further the construction of Phase-III, RIS stations between Patna-Varanasi is in progress.
- 4) DGPS stations at Swaroopganj, Bhagalpur and Patna have been commissioned and operational. Further, DGPS Station at Varanasi has been commissioned.
- 5) River notices are issued on fortnightly basis during lean season and monthly basis during flood season.



**Table No. 1.2 (Contd...)****Infrastructure Facilities Available on National Waterways (As on 31-3-2018)**

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) Hatsingmari	600	One(floating)	Crane pontoon		Ro-Ro Jetty is operational
(b) Dhubri	600	One(Rcc Ro Ro Jetty)	Crane prontoon	-	(i) Storage facility is developed (ii) DGPS station is commissioned
(c) Jogighopa	600	One(floating)	Pontoon	Open storage facility available	(i) DGPS station is commissioned
(d) 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, three crane pontoon and one pontoon	(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**

(e) Tezpur	600	One(floating)	Pontoon Pontoon	- Open storage facility available	
(f) Silghat	600	One(floating)	Pontoon	Open storage facility available	DGPS station is commissioned.
(g) Biswanath	600	One(floating)	Pontoon		
(h) Neamati	600	One (floating)	Pontoon	-	

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

(i) Bogibeel	600	One (floating)	Pontoon	-	
(j) Sengajan/Panbari	600	One (floating)		-	

**4. Dibrugarh-Sadiya (Oriumghat) : (139 km),Depth - 1.5**

(k) Oakland/ Dibrugarh	600	One(floating)	Pontoon	-	DGPS station is commissioned.
(l) Oriumghat	600	One (floating)	Pontoon	-	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,Biswanath and Dibrugarh.

**Table No. 1.2 (Contd...)**

**Infrastructure Facilities Available on National Waterways (As on 31-3-2018)**

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
<b>National Waterways No. 3</b>					
<b>1. Kochi-Kottapuram : (30 km), Depth-2.0</b>					
(a) Kottapuram	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 800 Sq.M	Approach road is available. Alternate road is also available through NHAI Land.
<b>2. Udyogmandal Canal : (23 km),Depth -2.0</b>					
(b) Aluva	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 1500 Sq.M	Approach road is available.
<b>3. Champakara Canal : (14 km), Depth - 2.0</b>					
(c) Ernakulam GC (Maradu)	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 2000 Sq.M	Approach road is available. Acquisition of land for an alternate road is also under consideration for 10m width.
(d) Kakkanad (CEPZ)	350.0	10m temporary Jetty			Approach road is available.
<b>4. Kochi - Kollam : (138 km) , Depth - 2.0</b>					
(e) Vaikkom	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 1200 Sq.M	Approach road is available.
(f) Chertala (Thanneermukkom)	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 1800 Sq.M	Approach road is available.
(g) Alapuzha	350.0	One 30m (RCC Jetty)	Terminal is under construction through CPWD and same is expected to be completed by Jun 2018	Office Space 200 Sq.M, Covered storage 300 Sq.M and open storage 2500 Sq.M	Approach road is available.
(h)Trikunnapuzha	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 800 Sq.M	Approach road is available.
(I)Kayamkulam	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 300 Sq.M and open storage 1600 Sq.M	Approach road is available. Alternate road is also under construction by CPWD.
(j) Chavara	350.0	Nil		Land only	Approach road is available.

**Table No. 1.2 (Contd...)****Infrastructure Facilities Available on National Waterways (As on 31-3-2018)**

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
(k) Kollam	350.0	One 30m (RCC Jetty)	One 18 T Capacity Mobile Hydraulic Crane & One 3 T Fork lift	Office Space 100 Sq.M, Covered storage 280 Sq.M and open storage 3500 Sq.M	Approach road is available.
<b>5. CPT Area : Depth -2.0</b>					
(l) Willingdon island	16 TEU	One berth for container vessels	Container terminal	3000 sqm	Approach road is available.
(m) Bolgatty island	16 TEU	One berth for container vessels	Container terminal	-	Approach road is available.

Source: IWT Directorate of states & IWAI.

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 31-3-2018)

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	<b>ANDHRA PRADESH****</b>								
	<b>Godavari River</b>								
	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	--	--	--	--		
	<b>Krishna River</b>								
	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	<b>BIHAR ***</b>								
	<b>Ganga River</b>	2 metres	(I) (a) Sahebganj- Manihari	134'x31'	2 Nos.	Nil	Nil	-	
				80'x15'x7'	1 Nos.	Nil	Nil	-	
				55'x13'3"x4'8"	1 Nos.	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"	1 Nos.	Shore crane- 2 Pontoon crane-2 Container crane-1	Godown	-	
				58'3"x16'4"x5'8"	1 Nos.				
				47'2"x12'6"x5'8"	1 Nos.				
				59'5"x15'6"x5'6"	1 Nos.				
			(V) Buxar-Ujjiyarghat	-	2 Nos.	-	-	At IWAI terminal	
3	<b>GOA</b>								
	<b>Panaji Port (River Mandovi)</b>	3.30 metres	Panaji	75 Mtrs Length	1 Nos.	-	-	Ports jetty being used by vessels calling in the Ports	

Table No. 1.3 (Contd...)

## Infrastructure Facilities Available on State Waterways (As on 31.3.2018)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	Cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9
<b>4</b>	<b>ORISSA</b>							
	<b>Balugaon Sector</b>							
	Balugaon-Krishnaprasad	Varies between 2 to 10 meters	Lake Chilka	30 ft and above	2	-	NA	Passenger jetty & waiting hall are available at Balugaon & Krishna Prasad garh.
	Balugaon-Kalijai	Varies between 2 to 10 meters	Lake Chilka	40 ft and above	2	-	-do-	Passenger Jetty & waiting hall are available at Balugaon & Kalijai.
	Balugaon-Nuapada	Varies between 2 to 4 meters	Lake Chilka	30 ft	2	-	-do-	Passenger Jetty & waiting hall is available at Balugaon.
	Balugaon-Satapada	Varies between 2 to 4 meters	Lake Chilka	30 ft	2	-	-do-	Passenger waiting hall & Jetty are available at Balugaon & Satapada.
	<b>Astarang Sector</b>							
	Nuagarh-Sribantpur	Varies between 2 to 10 meters	River Devi	26 ft	3	-	-do-	Passenger waiting hall & Jetty are available at Balugaon & Nuagarh.
	<b>Chandabali Sector</b>							
	Chandabali-Rajnagar	Varies between 7 to 10 metres	River Baitarani/ Brahmani	52 ft	13	-	-do-	Jetty & waiting hall are available at Chandabali, Nalitapatia, Chardia & Raj Nagar. Jetty & waiting hall are available at Chandabali, Nalitapatia & Raj Nagar.
	Chandabali-Taluca	Varies between 7 to 20 metres	Baitarani/Kharastrota/ Brahmani	50 ft	10	-	-do-	Jetty & waiting hall are available at Chandabali, Dhamara, Nalitapatia & Chardia.
	Chandabali-Aradi	Varies between 7 to 18 meters	Brahmani	35'	3	-	-do-	Jetty and waiting hall are available at Chandabali & Aradi.
<b>5</b>	<b>TAMILNADU</b>							
	<b>Periyar Lake in Kerala ( Under lease in T.N. )</b>	41.46	Thekkady	Vessel 1 (kannagi) Length-8.5m Breadth-3m Depth-1.4m 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	-	-	-	-

Table No. 1.3 (Contd...)

## Infrastructure Facilities Available on State Waterways (As on 31.3.2018)

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
6	MIZORAM	-	-	-	-	-	-	-
7	Kerala							
	...	1.2	Irrigation Division, Kollam	50 T	-	...	...	
	...	7.5	Irrigation Division, Kottayam	....	1	Barrage 250/metric ton	43800/sq/feet godown	Waterway Authority of India
	...	...	Irrigation Division, Thrissur	....				
	...	2	Irrigation Division, Malappuram	....				
	...	...	Irrigation Division, Kozhikode	....				
	...	...	Inland Navigation Division, Kollam	....				
	...	2	Inland Navigation Division, Kannur	....				
	...	5.5	KSINC, Kochi	....				
	...	...	S W T, dept., Allappuzha	....				

Source : State Govts.

\*\*\* Information for 2017-2018 has not received. Last Year data has been repeated.

**SECTION – 2**

**CARGO MOVED ON  
VARIOUS WATERWAYS**

**Table No. 2.1****Cargo Movement on National Waterways,**

Sl. No.	Details of Waterway	Distance (Kms)	Cargo Moved (lakh Tonnes)				Tonne Kms (in lakh)			
			2014-15	2015-16	2016-17	2017-18	2014-15	2015-16	2016-17	2017-18
1	2	3	4	5	6	7	8	9	10	11
1	National Waterway No. I (Allahabad-Haldia stretch of Ganga – Bhagirathi – Hooghly river system)	1620.00	50.50	62.37	45.05	54.79	22636.00	26995.00	24598.00	27773.00
2	National Waterway No. II (Sadiya-Dhubri stretch of Brahmaputra River system)	891.00	24.92	25.84	25.91	26.01	508.00	505.00	503.00	504.36
3	National Waterway No. III (Kollam-Kottapuram stretch of West Coast Canal along with Champakara Canal and Udyogmandal Canal)	205.00	8.44	10.61	10.33	4.28	92.00	105.00	109.00	81.14
	Sub Total NWs	2716.00	83.86	98.82	81.29	85.08	23236.00	27605.00	25210.00	28358.50
4	Goa Waterways	202.00	7.94	49.75	157.68	111.62	340.00	1987.00	7884.00	5581.06
5	Maharashtra Waterways	453.00	273.57	288.49	348.90	379.04	4892.00	5005.00	6428.00	6882.00
6	Gujarat Waterways (from Oct 2017)					115.20				1728
	<b>Grand Total</b>	<b>3371</b>	<b>365.37</b>	<b>437.06</b>	<b>587.87</b>	<b>690.94</b>	<b>28468</b>	<b>34597</b>	<b>39522</b>	<b>42549.56</b>

Source: Inland Waterways Authority of India for National Waterways

Data for Goa Waterways include the data received from Ports department, Govt of Goa and the data from the Mormugao Port Trust (MPT).

Data for Maharashtra Waterways received from Maharashtra Maritime Board (M.M.B)



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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>A.</b>	<b>CIWTC</b>						
1	(I)Saugar-Diamond Harbour/Haldia /Kolkatta/ Kolkatta Internal	144/80	...	...	...	...	Pulses,Logs,Salt,Iron Ore,Steel, Fly Ash,Aluminium block, Fertilizer, Container, ODC,Sand Clips
2	Haldir-Internal	2.00	...	...	...	...	Sand, Clips
3	Kolkata- Ichamati River at Basirhat	2.00	...	...	...	...	Sand, Clips
	<b>Sub Total (A)</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>B.</b>	<b>VIVADA IWL</b>						
1	Haldia-Sagar	35	4410	2098	2697	331	FO/HF HSD
2	Haldia-Budge-Budge	78/84	71309	59793	57141	51960	FO, HF HSD, Lube
3	Haldia-NSD	106	...	46615	47570	63130	HF HSD, Lube Oil, FO
4	Haldia-Diamond Harbour	29	535	1565	4070	758	FO, HF HSD
5	Budge-Budge-NSD	21/19	1533	2183	40	1319	HF HSD
6	Halida- J'Ham	10	20637	17419	12565	16544	FO, HF HSD
7	Budge-Budge-KPD	21	758	2824	865	0	FO, HSD
8	Haldia-Namkhana	46	1625	2626	2870	2940	HF, HSD
9	Budge-Budge-Pujali	5	...	0	...	0	LDO
10	Haldia-Haldia Oil Barge	3	66420	84196	81164	74822	FO, HF HSD
11	Haldia-Haldia Oil Jetty	3	40838	50525	57563	53195	FO, HF HSD
12	Surninam-KPD	2	0	0	356	300	FO
13	Surninam-NSD	1	206	1461	156	0	HSD, HF
14	Haldia-HOB	3	...	...	...	0	
15	Haldia-KPD	105	42122	...	16522	0	
16	Haldia- Noorpur	43	24	0	0	0	
17	Haldia-Ramnagar	101	...	2379	896	2458	LUBE
18	Budge Budge - Kolkatta	21	...	...	0	0	HF, HSD
	<b>Sub Total (B)</b>		<b>250418</b>	<b>273684</b>	<b>284475</b>	<b>267757</b>	

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>C. OTHER PRIVATE OPERATORS</b>							
<b>1 TIRUPATI VESSEL (P) LTD.</b>							
1	Budge- Budge(Kol)- Khulna	497	69648	60498	42012	27661	Flyash
2	Budge- Budge Narayanganj	884	313023	277590	275025	251660	Flyash
3	Budge- Budge- Mongla	484	970	...	...	0	Flyash
4	IWAI Haldia Jetty-Khulna	426		30781	36692	40663	Flyash
5	IWAI Haldia Jetty-Narayanganj	826		17538	26408	42586	Flyash
<b>2 RELIANCE EXPORT CORPORATION</b>							
1	T.T.Shed-Narayanganj	910	...	...	...	0	Flyash
2	Budge- Budge Narayanganj	884	...	...	...	0	Flyash
3	IWAI BISN Jetty-Narayanganj	909	1401	...	...	0	Flyash
<b>3 Maitrayee Shipping &amp; Logistics</b>							
1	IWAI BISN Jetty-Narayanganj	909	21899	20102	10010	7050	Flyash
2	IWAI BISN Jetty-Khulna	522	660	...	...	0	Flyash
3	T.T.Shed-Narayanganj	910	2464	8234	7897	37170	Flyash
4	T.T.Shed-Mongla	510	...	...	...	0	Flyash
5	Budge Budge- Narayanganj	884	14933	28140	31196	35427	Flyash
6	Budge Budge- Khulna	497	...	...	...	0	Flyash
7	Sri Ram Jetty - Narayanganj	905	665	2145	2839	715	Flyash
8	Budge Budge - Karimganj	1332	...	715	...	0	Flyash
9	IWAI BISN Jetty - Karimganj	1357	1185	1858	...	0	Flyash
10	Karimganj-T. T. Shed	1358		53	...	0	Iron Fabricated
11	Gr Jetty II - Narayanganj	909				2987	Flyash
<b>4 P K Shipping</b>							
1	Orient Jute Mill- Ashuganj	1015	1931	8024	...	0	Rice
2	Budge- Budge Narayanganj	884	6003	...	...	0	Flyash
3	Narayanganj- T.T.Shed	910	...	...	...	0	Cement
4	K.P.Dock-Narayanganj	910	1979	1030	...	0	Prime mild steel billets, Steel Coils & Plates
5	Haldia H.D.C.-Karimganj	1274	...	...	...	0	Coal
6	KP Dock- Ashuganj	1038			3339	0	Steel Materials / GC Sheet, Rice

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
7	Kolkatta-Karimganj	1358	...	...	...	0	ODC Kargo
8	Diamond Harbour-Ashuganj	962	4848	...	...	0	Food Grain (Rice)
9	Sri Ram Jetty-Narayanganj	905	6575	...	...	0	Flyash
10	K.P.Dock-Khulna	523	...	495	...	0	Dolomite Powder, Steel Sheet
11	T.T.Shed - Narayanganj	910	36236	...	...	0	Flyash
12	IWAI BISN Jetty - Narayanganj	909	1110	...	...	0	Flyash
13	K.P.Dock-Mongla	510	3526	...	...	0	Steel Plate,Prime Hot Rolled Non Alloy Steel Coils & Plates, Prime Quality Hot Roll Steel
14	G.R. Jetty-II-Khulna	1357	...	695	...	0	Project Cargo
<b>5</b>	<b>SOHAM COMMERCIAL</b>						
1	Sri Ram Jetty-Narayanganj	905	729	..	...	945	Flyash
2	Kolkatta(Sri Ram Jetty)-Narayanganj	905	...	...	...	0	Flyash
3	T.T.Shed-Narayanganj	910	122966	97014	97668	57852.02	Flyash, Stone Chips
4	T.T.Shed-Khulna	523	...	...	...	8545.53	Stone Chips
5	Khulna - FSEZ Jetty(Falta), Kolkatta, India	472	...	...	...	0	Jute Carpet, Baking Cloth
6	KPD - Narayanganj	910	...	...	...	0	Steel Coil
7	IWAI BISN Jetty - Narayanganj	909	2435	3362	...	0	Flyash
8	IWAI BISN Jetty - Khulna	522	890	...	...	0	Flyash
<b>6</b>	<b>RENAISSANCE IMPEX Pvt Ltd</b>						
1	IWAI BISN Jetty-Narayanganj	909	16637	5136	5925	4888	Flyash
2	IWAI BISN Jetty-Karimganj Assam	1357	...	...	...	0	Flyash, HDPE Bags, Coal
3	Sri Ram Jetty-Narayanganj	905	...	...	...	0	Flyash
4	Karimganj Assam-IWAI BISN Jetty	1357	...	...	...	0	Coal
5	IWAI Haldia Jetty- Narayanganj	826	3537	6523	...	0	Flyash
6	Shri Ram Jetty- Mongla	505	...	...	...	0	Flyash
7	TT Shed-Narayanganj	910	21955	12050	10839	4958	Flyash
8	Budge Budge Naryanganj	884	8827	6066	9140	2150	Flyash
9	Budge Budge Karimganj	1332	...	...	...	0	Flyash
10	KPD - Mongla	510	339	...	...	0	Prime Hot Roll Non Alloy Steel Coils
11	TT Shed-Khulna	523	879	...	...	0	Flyash
12	GR Jetty II- Narayanganj	909	...	...	1880	0	Flyash
13	IWAI Haldia Jetty- Khulna	439	...	...	...	755	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>7</b>	<b>Rivering Shipping &amp; Logistics</b>						
1	IWAI Haldia Jetty-Khulna	439	5088	2520	796	0	Flyash
2	Budge- Budge (Kol)- Khulna	497	...	4102	5199	6309	Flyash
3	Budge Budge Narayanganj	884	18277	19121	14554	18912	Flyash
4	TT Shed-Narayanganj	910	16729	46354	42034	45438	Flyash
5	K P Dock- Khulna	523	...	...	...	0	Wheat
6	Sri Ram Jetty-Khulna	518	...	793	...	1486	Flyash
7	Sri Ram Jetty-Narayanganj	905	10609	5777	5608	10764	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	11968	13033	9069	10687	Flyash
9	K P Dock- Mongla	510	...	...	...	0	Maize
10	NSD - Mongla	508	...	...	...	0	Maize
11	IWAI BISN Jetty-Khulna	522	...	3470	2970	1892	Flyash
12	IWAI BISN Jetty-Narayanganj	909	...	...	2901	1964	
13	GR Jetty II- Khulna	522	...	...	1045	0	
14	HDC Fly Ash Jetty Haldia-Narayanganj	826	...	...	9924	5775	
15	T.T.Shed-Khulna	523	...	1026	1100	805	Flyash
16	Kolaghat-GR Jetty II	97	...	...	192	0	Cement
17	GR Jetty II- Narayanganj	909	...	...	...	2887	Flyash
18	GR Jetty II - Mongla	509	...	...	...	1596.44	Rice, De Oiled Rice Bran Extraction
<b>8</b>	<b>GLOBAL SHIPPING &amp; Forwarding</b>						
1	Budge Budge-Narayanganj	884	...	820	1429	1380	Flyash
2	Budge Budge-Khulna	497	703	815	3059	14113	Flyash
3	IWAI BISN Jetty-Khulna	522	1654	1571	5155	3746	Flyash
4	IWAI BISN Jetty-Narayanganj	909	7751	...	1458	0	Flyash
5	T.T.Shed-Khulna	523	...	...	...	3164	Flyash
6	IWAI Haldia Jetty - Khulna	439	4397	6930	...	2492	Flyash
7	T.T.Shed-Narayanganj	910	4525	1930	750	708	Flyash
8	IWAI Haldia Jetty - Narayanganj	826	1404	5338	...	0	Flyash
9	Sri Ram Jetty-Narayanganj	905	1782	...	...	0	Flyash
10	HDC Fly Ash Jetty Haldia-Khulna	439	...	...	14338	4045	Flyash
11	HDC Fly Ash Jetty Haldia-Narayanganj	826	...	...	1500	2655	Flyash
12	Sri Ram Jetty-Narayanganj	905	...	...	2349	0	
13	Sri Ram Jetty-Khulna	518	...	...	3114	0	
<b>9</b>	<b>COASTAL CONNEXIONS</b>						
1	Budge Budge-Narayanganj	884	...	...	7989	0	Flyash
2	Budge Budge-Karimganj	1332	...	...	...	0	Flyash
3	Budge Budge-Khulna	497	2504	831	9058	17470	Flyash
4	IWAI BISN Jetty-Narayanganj	909	1698	...	...	0	Flyash
5	BISN Jetty-Narayanganj	1357	...	...	...	0	Flyash
6	IWAI BISN Jetty-Karimganj	1357	...	...	...	0	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
7	BISN Jetty-Karimganj	1357	...	...	...	0	Coal
8	IWAI BISN Jetty-Khulna	532	2938	16074	7330	6973	Flyash
9	IWAI Haldia Jetty-Khulna	439	6204	5646	3608	8491	Flyash
10	IWAI Haldia Jetty-Narayanganj	826	3397	1055	2625	0	Flyash
11	Karimganj( Badarpur, Assam) - Narayanganj	478	...	...	...	0	Cement Clinker
12	GR Jetty II - Khulna	522	...	...	...	945	Flyash
<b>10</b>	<b>KANISHKA SHIPPING LINES</b>						
1	Budge Budge-Narayanganj	884	36730	23420	23023	46519	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	134227	142072	180532	224781	Flyash
3	Sri Ram Jetty-Khulna	518	848	2039	1996	0	Flyash
4	T.T.Shed-Narayanganj	910	20551	25944	54542	17342	Flyash
5	Sri Ram Jetty-Narayanganj	905	21158	16848	6107	9252	Flyash
6	IWAI BISN Jetty-Khulna	522	...	...	10384	24630	Flyash
7	IWAI BISN Jetty-Narayanganj	895/909	7486	9216	13876	6443	Flyash
8	T.T. Shed - Mongla	510	...	...	...	0	Flyash
9	IWAI Haldia Jetty-Khulna	439	1606	...	14354	34537	Flyash
10	IWAI Haldia Jetty-Mongla	426	1570	848	1608	0	Flyash
11	Diamond Harbour - Ashuganj	962	5314	...	...	0	Foodgrain( Rice)
12	HDC Fly Ash Jetty-Narayanganj	826	...	11699	6289	32572	Flyash
13	T. T.Shed-Khulna	523	...	1032	14534	24829	Flyash
14	KPD-Mongla	510	...	1028	642	0	Machinery, Steel Cargo
15	Budge Budge-Khulna	497	...	...	9360	47485	Flyash
16	GR Jetty 2- Narayanganj	909	...	...	3570	60128	Flyash
17	HDC Fly Ash Jetty-Khulna	439	...	...	1791	0	
18	Budge Budge - Mongla	484	...	...	...	1125	Flyash
19	GR Jetty II- khulna	522	...	...	...	6617	Flyash
20	GR Jetty II - Narayanganj	909	...	...	...	1500	Rice Brown
21	HDC - Ashuganj	954	...	...	...	556.97	Steel Pipe
22	KPD- Narayanganj	910	...	...	...	1482.42	Wire Rod Coil
<b>11</b>	<b>Eastern Navigation Pvt Ltd., Kolkatta</b>						
1	Kolkatta-Zamania	1065	...	...	...	0	ODC Cargo
2	Kolkatta-Silghatghat	1748	...	...	...	0	ODC Cargo
3	Haldia-Silghatghat	1664	...	...	...	0	ODC Cargo
4	T.T. Shed - Pandu	1573	150	...	...	0	Control & Protection Equipments for HVDC
5	Kolkata-Jogiqopa, Assam	1432	...	...	310	0	Converter Transformer
6	Rajmahal to Atthmalgola	303	...	...	...	360	Steam Turbine of complete Generator Stator
7	Atthmalgola to Baktiyarpur	30	...	...	...	150	Crawler crane
8	Mahenderpur to Munger	27	...	...	...	75	Crawler crane
<b>12</b>	<b>A.K.Navigation</b>						
1	T.T.Shed-Narayanganj	910	5798	21553	25322	0	Flyash
2	T.T.Shed-Khulna	523	...	...	...	0	Wheat

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>13</b>	<b>Desha International</b>						
1	Budge Budge-Narayanganj	884	113396	108031	98890	152726	Flyash
2	IWAI Haldia Jetty-Khulna	439	11216	21998	22156	5085	Flyash
3	IWAI Haldia Jetty-Mongla	426	2826	6375		2218	Flyash
4	Budge Budge-Khulna	497	23330	14909	36121	36171	Flyash
5	IWAI BISN Jetty-Narayanganj	909	20946	21148	30420	25035	Flyash
6	IWAI BISN Jetty-Karimganj	1357	748	...		0	Flyash
7	BISN Jetty-Karimganj(Badarpur)	1357	...	...		0	Coal
8	Sri Ram Jetty-Mongla	505	...	...		0	Flyash
9	Sri Ram Jetty-Khulna	518	11211	10479	10800	15272	Flyash
10	Sri Ram Jetty-Narayanganj	905	58943	35915	41543	58864	Flyash
11	T.T.Shed-Mongla	510	6302	...	760	359	Wheat,Soyabean Extraction, Maize
12	T.T.Shed-Khulna	523	2389	2714	4665	21525	Flyash
13	T.T.Shed-Narayanganj	910	65312	121599	130564	206367	Flyash
14	K.P.Dock-Mongla	510	...	2006		4058.98	Rice, Steel Plates
15	K.P.Dock-Khulna	523	...	...		548.2	Steel Plates
16	IWAI Haldia Jetty-Narayanganj	826	235687	255415	411400	510991	Flyash
17	IWAI BISN Jetty-Khulna	532/522	8570	2651	705	1799	Flyash
18	Budge Budge- Mongla	484	...	...	...	690	Flyash
19	IWAI BISN Jetty (kol)- Mongla	509	...	1410	...	0	Flyash
20	K.P.Dock-Narayanganj	910	1056	...	...	4150.98	Soyabean Extraction, Steel Plates Sponge iron
21	NSD - Narayanganj	908	...	...	...	0	Soyabean Extraction, Maize
22	NSD- Mongla	508	...	...	...	0	Maize
23	Gr. Jetty II - Mongla	509	973	...	...	20960.07	Rice, Soyabean Extraction, Stone Chips, Railway Track, Steel Plates, De Oiled Rice Bran Extraction
24	IWAI Haldia Jetty-Karimganj	1274	...	779	...	0	Flyash
25	HDC-Mongla	426	...	1168	3674	1984.73	Steel Coils
26	HDC Fly Ash Jetty-Narayanganj	826	...	17751	37458	109221	Flyash
27	GR Jetty II- Narayanganj	909	...	...	7289	27277	Flyash
28	GR Jetty II- Khulna	522	...	...	630	5411	Flyash, Stone Chips
29	HDC Fly Ash Jetty-Khulna	439	...	...	4695	10700	Flyash
30	KPD - Narayanganj	910	...	...	...	2300	Rapseed Extraction
31	IWAI Haldia Jetty - Ashugani	945	...	...	...	220.56	Edible Oil
32	HDC - Narayanganj	826	...	...	...	6115.92	Steel Coils
<b>14</b>	<b>Reliance Enterprise</b>						
1	Budge Budge-Narayanganj	884	694	...	2132	0	Flyash
2	Budge Budge-Khulna	497	...	...	...	0	Flyash
3	Sri Ram Jetty-Khulna	518	...	...	...	0	Flyash
4	IWAI BISN Jetty-Narayanganj	909	2731	...	...	0	Flyash
5	T.T.Shed-Narayanganj	910	51391	41934	18431	0	Flyash
7	IWAI Haldia Jetty-Narayanganj	826	...	...	851	0	Flyash
8	IWAI Haldia Jetty-Khulna	439	...	...	...	0	Flyash
9	Sri Ram Jetty-Narayanganj	905	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>15</b>	<b>Saha Oversees Corporation</b>						
1	Budge Budge-Narayanganj	884	...	...	...	0	Flyash
2	Sri Ram Jetty-Khulna	518	...	...	...	0	Flyash
3	T.T.Shed-Narayanganj	910	...	...	...	0	Flyash
<b>16</b>	<b>C. Day &amp; Brothers</b>						
1	Budge Budge-Narayanganj	884	18863	19594	24651	36724	Flyash
2	Budge Budge-Khulna	497	7043	2174	3512	5647	Flyash
3	Sri Ram Jetty-Khulna	518	798	...	...	0	Flyash
4	Sri Ram Jetty-Narayanganj	905	5216	...	1887	2216	Flyash
5	IWAI Haldia Jetty-Mongla	426	654	...	...	0	Flyash
6	IWAI Haldia Jetty-Khulna	439	3593	11207	2244	3317	Flyash
7	IWAI BISN Jetty-Narayanganj	909	14847	7229	5560	2514	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	24591	23246	2664	1436	Flyash
9	T.T.Shed-Khulna	523	812	...	...	0	Flyash
10	T.T.Shed-Narayanganj	910	1708	17172	5707	620	flyash, Ironfines
11	IWAI BISN Jetty - Khulna	522	5216	1683	1921	0	Flyash
12	HDC Fly Ash Jetty-Narayanganj	826	...	3385	682	0	Flyash
13	HDC Fly Ash Jetty-Khulna	...	...	...	650	1428	Flyash
14	GR Jetty II- Narayanganj	...	...	...	2322	3378	Flyash
<b>17</b>	<b>Fortune Cargo (India Pvt Ltd)</b>						
1	Budge Budge-Narayanganj	894/884	11734	15934	23503	27197	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	8218	9579	2063	0	Flyash
3	T.T.Shed-Narayanganj	910	907	872	1652	1758	Flyash
4	IWAI BISN Jetty-Khulna	522	...	...	...	1045	Flyash
5	IWAI BISN Jetty-Narayanganj	909	13687	9737	13149	1380	Flyash
6	T.T.Shed-Khulna	523	602	...	...	0	Flyash
7	Sri Ram Jetty - Narayanganj	905	650	...	670	0	Flyash
8	Sri Ram Jetty - Khulna	518	...	933	...	0	Flyash
9	IWAI Haldia Jetty-Khulna	439	...	1090	...	0	Flyash
10	Budge Budge-Khulna	497	...	...	624	6704	Flyash
<b>18</b>	<b>Sea Water Transport Co. Pvt Ltd</b>						
1	T.T.Shed-Khulna	523	...	...	...	0	Wheat
2	K.P. Dock-Mongla	510	2947	...	...	0	Steel Coils, Steel Plates, Steel items
3	IWAI Haldia Jetty-Mongla	426	...	...	...	0	Flyash
4	IWAI BISN Jetty-Khulna	522	...	...	...	0	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>19</b>	<b>Krishna Shipping &amp; Logistics</b>						
1	Budge Budge- Narayanganj	884	...		...	0	Flyash
2	Budge Budge- Karimganj	1332	...		...	0	Flyash
3	TT Shed- Narayanganj	910	...		...	0	Flyash
4	Kolkatta- Pandu	1432	...		...	0	ODC Cargo
5	G.R. Jetty-II-Ashuganj	1037		4285	1364	0	Steel Bridge Girder
<b>20</b>	<b>Neli</b>						
1	Budge Budge-Narayanganj	884	3798	8745	12409	1200	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	1964	...	...	1720	Flyash
3	IWAI BISN Jetty-Narayanganj	909	15678	9415	9262	9394	Flyash
4	T.T. Shed - Narayanganj	910	27632	11978	11607	14876	Flyash
5	T.T. Shed - Khulna	523	1819	...	...	980	Flyash
6	Budge Budge-Khulna	497	...	...	...	0	Flyash
7	Sri Ram Jetty- Mongla	505	...	...	...	0	Flyash
8	Sri Ram Jetty- Khulna	518	...	...	...	0	Flyash
9	Budge Budge- Karimganj	1332	...	...	...	0	Flyash
10	Kolkatta- Narayanganj	894	...	...	...	0	Flyash
11	IWAI BISN Jetty-Karimganj	1357	...	...	...	0	Flyash
12	T.T. Shed-Mongla	510	...	2120	855	0	Flyash
13	GR Jetty II- Narayanganj	909	...	...	2370	0	Flyash
14	Sri Ram Jetty- Narayanganj	905	...	...	866	0	Flyash
<b>21</b>	<b>Ajbela Navigation</b>						
1	Sri Ram Jetty-Khulna	518	...	1608	...	0	Flyash
2	Sri Ram Jetty-Narayanganj	905	9835	6328	3852	1712	Flyash
3	K.P.Dock-Khulna	523	...	...	...	0	Wheat
4	T.T.Shed-Narayanganj	910	8676	33313	29804	45141	Flyash
5	T.T.Shed-Mongla	510	1293	...	840	0	Maize
6	T.T.Shed-Khulna	523	...	895	901	3867	Flyash
7	HDC Fly Ash Jetty-Narayanganj	826	...	...	14324	13565	Flyash
8	Budge Budge-Narayanganj	884	10415	35311	21604	5727	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
9	Budge Budge-Khulna	497	...	690	3579	0	Flyash
10	IWAI Haldia Jetty-Mongla	426	...	...	...	0	Flyash
11	IWAI Haldia Jetty-Khulna	439	...	...	1680	0	Flyash
12	IWAI Haldia Jetty-Narayanganj	836/826	18566	35877	19814	8472	Flyash
13	IWAI BISN Jetty - Narayanganj	909	730	2032	4708	737	Flyash
14	IWAI Haldia Jetty-Karimganj	1274	...	678	...	0	Flyash
15	GR Jetty II - Narayanganj	909	...	...	...	5734	Flyash
16	GR Jetty II - Mongla	509	...	...	...	1017.71	Rice
<b>22</b>	<b>Reach Asia</b>						
1	Kolkatta-Jogighopa, Assam	1392	...	...	...	0	ODC Cargo
<b>23</b>	<b>Neticon</b>						
1	KP Dock- Khulna	510	...	...	...	0	Wheat
<b>24</b>	<b>Duttson</b>						
1	T.T.Shed-Narayanganj	910	3815	756	...	7222	Flyash
2	IWAI BISN Jetty-Narayanganj	909	3695	2216	9239	878	Flyash
3	Budge Budge-Narayanganj	884	5131	2253	5419	9891	Flyash
4	IWAI Haldia Jetty - Mongla	426	...	...	621	0	Flyash
5	IWAI Haldia Jetty - Narayanganj	826	5760	11340	13452	18257	Flyash
6	IWAI Haldia Jetty - Khulna	439	644	...	...	0	Flyash
7	IWAI BISN Jetty-Khulna	522	1281	...	...	0	Flyash
8	IWAI BISN Jetty-Karimganj	1357	1680	...	...	0	Flyash, Spare parts
9	Budge Budge-Karimganj	1332	...	...	...	0	Flyash
10	Karimganj( Badarpur) - Narayanganj	478	...	...	...	0	Cement Clinker
11	Sri Ram Jetty - Narayanganj	905	686	795	484	8934	Flyash
12	IWAI Haldia Jetty-Karimganj	1274	...	640	...	0	Flyash
13	Budge Budge-Khulna	497	...	...	730	0	Flyash
14	GR Jetty II- Narayanganj	909	...	...	3740	7178	Flyash
15	HDC Fly Ash Jetty-Narayanganj	826	...	...	564	2975	Flyash
16	T.T.Shed-Khulna	523	...	...	...	1420	Flyash
17	Sri Ram Jetty - Khulna	518	...	...	...	1688	Flyash
18	KPD- Mongla	510	...	...	...	2292	Rice
<b>25</b>	<b>Seaways Shipping &amp; Logistics Ltd.</b>						
1	KP Dock - Mongla	510	1375	...	...	0	Steel Plates, Steel coils, Steel items
<b>26</b>	<b>J.D.Shipping</b>						
1	Budge Budge-Narayanganj	884	1782	18464	35160	29310	Flyash
2	Sri Ram Jetty( Kol) - Narayanganj	905	1828	8387	8119	802	Flyash
3	Sri Ram Jetty( Kol) - Khulna	518	...	...	...	0	Flyash
4	Sri Ram Jetty( Kol) - Mongla	505	...	...	...	0	Flyash
5	IWAI Haldia Jetty - Narayanganj	826	1966	4464	2268	2348	Flyash
6	KP Dock - Mongla	510	1997	...	...	0	Steel plate, Steel items
7	KP Dock - Narayanganj	910	...	...	...	0	Machinery
8	KP Dock - Khulna	523	1000	...	...	0	Steel plate
9	T.T. Shed - Narayanganj	910	2351	5485	23342	17155	Flyash
10	IWAI BISN Jetty - Narayanganj	909	2738	1984	12854	9700	Flyash
11	HDC Fly Ash Jetty-Narayanganj	826	...	3378	6160	0	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
12	Karimganj - Ashuganj	320				210	Lime Stone
13	G.R. Jetty II - Narayanganj	909				5093	Flyash
<b>27</b>	<b>Ganga Water Transport</b>						
1	K.P.Dock-Mongla	510	...	...	...	0	Wheat
2	K.P.Dock-Narayanganj	910	...	...	...	0	Non Alloyed Hot Rolled Steel Coil
3	Budge Budge - Khulna	497	...	...	...	0	Flyash
<b>28</b>	<b>Bertling Logistic India Pvt.Ltd.</b>						
1	Haldia-Balia	1028	...	...	...	0	ODC Cargo
2	Kolkata - Balia	923	675	...	...	0	ODC Cargo
<b>29</b>	<b>Venketesh Logistics</b>						
1	Haldia-Bhaktiyarpur	885	...	...	...	0	ODC Cargo
<b>30</b>	<b>All Cargo Logistics Ltd.</b>						
1	Haldia-Zamania	1170	...	...	...	0	ODC Cargo
2	Haldia - Biswanath Chareli, Assam(NW2)	1730/1694	620	...	...	0	ODC Cargo
3	T.T. Shed - Biswanath Charlie	1778	1000	870	...	0	ODC Cargo
4	Haldia-Jogigopa	1348	642	...	...	0	ODC Cargo
5	Kolkata - Jogigopa	1432	1060	...	361	0	ODC Cargo
6	T.T. Shed - Jogigopa	1432	350	250	...	310	ODC Cargo
7	T.T. Shed - Pandu	1573	...	560	...	0	ODC Cargo
8	T.T. Shed - Silghat	1721	...	500	...	0	ODC Cargo
9	NSD, Kolkata-Pandu	1573	...	0	...	0	ODC Cargo
10	Haldia-Bhaktiyarpur	885	...	...	361	0	ODC Cargo
11	Kolkatta- Bhaktiyarpur	780	...	...	750	0	ODC Cargo
12	T.T. Shed - Silchar	1438	...	...	...	350	ODC Cargo
<b>31</b>	<b>Prism Logistics Pvt.Ltd.</b>						
1	Haldia-Allahabad	1512	...	...	...	0	ODC Cargo
<b>32</b>	<b>Safehand Logistics</b>						
1	IWAI BISN Jetty - Karimganj (Badarpur)	1357	...	...	...	0	Flyash
2	Budge Budge - Narayanganj	884	2988	5675	1512	4095	Flyash
3	IWAI Haldia Jetty - Narayanganj	826	1752	18292	3094	2502	Flyash
4	IWAI Haldia Jetty -Khulna	439	640	...	...	0	Flyash
5	IWAI BISN Jetty - Narayanganj	909	...	516	750	2819	Flyash
6	Sri Ram Jetty-Narayanganj	905	...	845	...	0	Flyash
7	T. T. Shed-Narayanganj	910	...	6266	...	0	Flyash
8	IWAI Haldia Jetty -Karimganj	1274	...	606	...	0	Flyash
9	KPD-Khulna	523	...	786	...	0	Steel Plates
10	Budge Budge - khulna	497	...	...	650	0	Flyash
<b>33</b>	<b>Shun Shing India Private Ltd.</b>						
1	Budge Budge - Narayanganj	884	72316	42578	34187	38929	Flyash
2	Budge Budge - khulna	497	19478	60144	58537	37676	Flyash
3	IWAI BISN Jetty- Narayanganj	909	3042	1311	2122	1136	Flyash
4	IWAI BISN Jetty- Khulna	522	2036	...	3909	868	Flyash
5	Sri Ram Jetty - Khulna	518	745	9110	...	1681	Flyash
6	T.T.Shed-Khulna	523	...	690	...	3909	Flyash
7	GR Jetty II- Khulna	522	...	...	2000	4886	Flyash
8	GR Jetty II- Narayanganj	909	...	...	4358	6496	Flyash
9	Sri Ram Jetty-Narayanganj	905	...	...	2006	645	Flyash
10	T. T. Shed-Narayanganj	910	...	...	4859	6531	Flyash
<b>34</b>	<b>Jindal ITF Ltd.</b>						
1	Sagar - Farakka	540	506492	716116	370740	160262	Coal

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>35</b>	<b>AFS Logistics Pvt. Ltd.</b>						
1	AWAI Haldia Jetty - Fatuha	910	1200			0	Fertilizers
2	Fatuha - Kolkatta	805	1099			0	Fertilizers
<b>36</b>	<b>Lee &amp; Muirhead Pvt. Ltd.</b>						
1	Haldia - Sirsa	1471	343			0	ODC Cargo
<b>37</b>	<b>Boxco India Pvt. Ltd.</b>						
1	Haldia - Geonkhali	43	...			0	ODC Cargo
2	KPD - Jogigopha	1432				809.6	ODC Cargo
<b>38</b>	<b>K K Shipping</b>						
1	T.T. Shed - Narayanganj	910	9756	62283	39745	8472	Flyash
2	Budge Budge - Narayanganj	884		1164		0	Flyash
3	IWAI Haldia Jetty - Narayanganj	826		6557	9325	0	Flyash
4	IWAI BISN Jetty - Narayanganj	909		6068	10627	4560	Flyash
5	Sri Ram Jetty-Narayanganj	905		2621	661	0	Flyash
6	IWAI BISN Jetty- Khulna	522		7316		0	Flyash
7	T.T.Shed-Khulna	523	...	2010		830	Flyash
8	IWAI BISN Jetty- Mongla	509		992		0	Flyash
9	T.T.Shed-Mongla	510		1281	855	0	Flyash
10	IWAI Haldia Jetty - Mongla	426			686	0	
11	Budge Budge - Khulna	497				960	Flyash
12	IWAI Haldia Jetty - Khulna	439				1140	Flyash
<b>39</b>	<b>Tetron Marchandise</b>						
1	IWAI BISN Jetty- Khulna	522		5778	5512	4740	Flyash
2	Budge Budge - Khulna	497		1462	3061	10049	Flyash
3	IWAI BISN Jetty - Narayanganj	909			802	0	
4	G.R. Jetty II - Narayanganj	909				2005	Flyash
5	G.R. Jetty II - Khulna	522				7772	Flyash
<b>40</b>	<b>Transcoast Trading Pvt. Ltd.</b>						
1	Budge Budge - Narayanganj	884		25354	9721	2948	Flyash
2	IWAI Haldia Jetty - Narayanganj	826		2130	546	4442	Flyash
3	IWAI BISN Jetty - Narayanganj	909		13491	31736	20165	Flyash
4	T.T.Shed-Narayanganj	910	...	10539	15300	12037	Flyash
5	G. R. Jetty-II-Mongla	509		264		0	Project Cargo
6	G. R. Jetty-II-Mongla	509		84		0	Steel Items
7	KPD-Mongla	510		782		20399.13	Steel Bar, Rice
8	G. R. Jetty-II-Narayanganj	909			8055	8716	Flyash
9	Khulna-NSD Kolkatta	521			626	0	Strand Jack with Accessories
10	KPD Kolkatta-Ashuganj	1038			2367	0	Rice, TMT Bars, & Steel Sheets, Iron Pipe & Plates
11	KPD Kolkatta-Mongla	510			2107	0	Parallel Flange Universal Beams & ISMC Channel & Equal Angles, Steel Iron Pipe
12	KPD Kolkatta-Narayanganj	910			3267	0	Steel Iron Plates
13	NSD Kolkatta-Mongla	508			526	2093.76	Rice,
14	Sri Ram Jetty-Narayanganj	905			1056	0	Flyash
15	HDC - Narayanganj	826				761	Contaners (Denim fabrics)
16	HDC - Mongla	426				848.77	HR Plate
<b>41</b>	<b>Hindustan Natural Glass &amp; Industries Ltd.</b>						
1	Rajmahal-Kolkatta	443				0	Slica Sand, Cement
<b>42</b>	<b>M/s. Spring Professional Services Pvt. Ltd.</b>						
1	Haldia-Patna	920		1410	352	0	Cement
2	Varanasi-GR Jetty 2	1171			12	0	Cars
3	Gayaspur to bhagalpur	210				210	Cement
4	Sahibganj to Manihari	8				47800	Stone Chips
<b>43</b>	<b>M/s. Srimaa Import &amp; Export Pvt. Ltd.</b>						
1	HDC Haldia-Mongla	426			2074	0	Steel Coils and Plates
2	HDC Haldia-Narayanganj	826			1558	0	Steel coils
3	HDC Haldia-Pangaon	842			805	0	20 teu container (35 no)
4	KPD Kolkatta- Mawa via Narayanganj	910			2500	0	Stone / Pebbles
5	KPD Kolkatta- Mongla	510			1949	0	Steel Plates
6	KPD Kolkatta- Narayanganj	910			2131	0	Pakur Crushed Stone / Pebbles
<b>44</b>	<b>Mags Impex Pvt. Ltd.</b>						
1	T.T.Shed-Narayanganj	910			715	0	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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>45</b>	<b>H.P Shipping Lines.</b>						
	T.T. Shed - Narayanganj	910	...	...		33297	Flyash Flyash
<b>46</b>	<b>Pioneer Shipping Lines</b>						
1	T.T. Shed - Narayanganj	910	...	...	...	1998	Flyash
2	IWAI BISN Jetty- Narayanganj	909	...	...	...	1426	Flyash
3	Budge Budge- Narayanganj	884	...	...	...	717	Flyash
4	G.R.Jetty 2- Narayanganj	909	...	...	...	2107	Flyash
<b>47</b>	<b>Rain Maker</b>						
1	IWAI Haldia Jetty- Narayanganj	826	...	...	...	8837	Flyash
2	Budge Budge- Narayanganj	884	...	...	...	3087	Flyash
3	G.R.Jetty 2- Narayanganj	909	...	...	...	4264	Flyash
4	IWAI BISN Jetty- Narayanganj	909	...	...	...	696	Flyash
<b>48</b>	<b>M/s Rajesh Kumar</b>						
1	Sahebganj To Manihari	8				237300	Stone Chips
	<b>Sub Total ( C )</b>	-	<b>2512791</b>	<b>3001210</b>	<b>2955773</b>	<b>3534587</b>	
<b>D</b>	<b>IWAI Vessels</b>						
1	Rajmahal -Patna		...	1346	78349		Cement
2	Samdhaghatj-Manihari		...	...	...		Stone chips
3	Samdaghat-Patna		...	...	...		Stonechips
4	Kolaghat-Bhagalpur (Dalmia Bharti Cement)	672				240	Cement
5	Kahalgaon-Kolaghat (Dalmia Bharati Cement)	647				300	Bagged Flyash
	<b>Other vessels in Patna region</b>		...	...	162520		
6	Rajmahal to Bhagalpur	128				240	
7	Fathua to Bhagalpur	230				200	
8	Kahalgaon to Rajmahal	103				300	
	<b>Sub Total (D)</b>	-	<b>0</b>	<b>1346</b>	<b>240869</b>	<b>1280</b>	
<b>E</b>	<b>KOPT</b>						
1	Sagar- KPD	146	2106300	2744017	726260	987738	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	...	...	...	0	Iron Ore, Iron & Steel ,Other/Misc.
4	Diamond Harbour - KPD	78	180700	216868	298000	678000	Pulses, Other Coke/Coal
5	Sagar-Kolkatta	146	...	...	...	0	Iron Ore,Pulses,Sugar,Timber,Coking Coal,Rock Phosphate,Rice & Wheat,Fertiliser,Manganese Ore,Pet Cock
6	Kolkatta-Diamond Harbour		...	...	...		
7	Diamond Harbour-Kolkatta	78	...	...	...		Iron Ore, Sugar, Pet Cock, Pulses, Cokjing, Fertilizer, Limestone,Cooking oil
8	KPD- Sagar	146				4000	Iron & Steel, Rice, Wheat
9	KPD-Diamond Harbour	78				6000	Rice & Wheat
	<b>Sub Total (E)</b>		<b>2287000</b>	<b>2960885</b>	<b>1024260</b>	<b>1675738</b>	
	<b>Total (NW-I) (A+B+C+D+ E)</b>		<b>5050209</b>	<b>6237124</b>	<b>4505377</b>	<b>5479362</b>	

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

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
A	Organised Cargo		3821.90	2530.00	1060.00	2232.80	
B	IWTD Assam		1981935	1981935	1981935	2598994	Transformers of power grid, Transmission equipments ,Goods, Passengers,Bicycle, bikes, live stock
C	Unorganised Sector		505964	599841	607759		
<b>Sub Total (A+B+C)</b>			<b>2491720.46</b>	<b>2584306</b>	<b>2590754</b>	<b>2601226.80</b>	
<b>Total (NW-II)(A+B+C)</b>			<b>2491720.46</b>	<b>2584306</b>	<b>2590754</b>	<b>2601226.8</b>	

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>A.</b>	<b>CHAMPAKARA CANAL</b>						
1	<b>KSINC</b>						
	Cochin Port-FACT-CD	21.5	71062.00	204207.00	217257.00		Raw Sulphur, Rock Phosphate & Phosphoric Acid etc..
	Q10 Berth-CPT-Fact, CD	21	39701.00	...	...	177044.00	Sulpher,Rock Phosphate,Phosphoric Acid
	BPCL Irumbanam-Ship Bunkring	16	...	...			Furnace Oil
2	<b>LOTS Shipping &amp; Trading</b>						
	Cochin Port-FACT-CD	21.5	39135.00	91383.00	76153.00		Raw Sulphur, Rock Phosphate & Phosphoric Acid & Stone aggregates
	Q10 Berth-CPT-Fact, CD	21	76325.00	...	...	49242.00	Phopharic Acid,Sulphur,Rock Phosphate
	BPCL Irumbanam-Fact, PD (dist.in Ch. Canal)	16.5	...	...	...		Furnace Oil
	Bolgatty to W. Island	3.7		686350.00	608670.00		Various commodities in containers
3	<b>Kerala Backwater Navigation</b>						
	Cochin Port -FACT CD	21.5/27	30624.00				Rock Phosphate, Sulphur, LAG
	FACT,PD- FACT, CD	21	6528.00	18208.00	31264.00	36864.00	LAG
	FACT , Ammonia jetty- FACT, CD	27	36288.00	36369.00	16704.00		LAG
	FACT , Ammonia jetty- FACT, PD	20		3840.00	4416.00		LAG
	FACT , Ammonia jetty- FACT, PD( via mattancherry channel)	22				12762.00	
	<b>Sub Total</b>		<b>299663</b>	<b>1040357</b>	<b>954464</b>	<b>275912</b>	
<b>B.</b>	<b>UDYOGMANDAL CANAL</b>						
1	<b>LOTS Shipping &amp; Trading*</b>						
	Cochin Port FACT-UD	20	460		41926		Zibframe, Sulphur, Furnance oil, Zinc
	BPCL Irumbanam- FACT PD	11	...				Furnace Oil
	Q10 CPT-Fact, UD	20	9532		0	57998	Phospharic Acid, Sulphur
	Q6 Berth CPT-Binani Zinc Ltd.	22	...				Zinc.
	Q5 Berth CPT-Binani Zinc Ltd.	22	262				Zinc.

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
	South Coal Berth-Q10 Berth CPT	6	...				Furnace Oil
	South Coal Berth-Quater Roads	3/2	...				Furnace Oil
	SCB-ICTT	4	...				Furnace Oil
	Willinbgdon island- Bolgaty-Bolgaty Williangdon Island	3.7	508850			...	42860 various commodities in container
2	<b>KSINC*</b>						
	Cochin Port-FACT UD	21	3144			...	Rock Phosphate , Sulphur, Phosphoric Acid
	Q10 Berth, CPT-Fact UD	20	7285			...	23612 Phosphoric Acid, sulphur
3	<b>Kerala Back Water Navigation</b>						
	Fact ,PD - FACT, CD	14.5	8640	18208	31264		Sulphur. Phosphoric Acid
	Fact ,CD - FACT, PD	14.5	...				Lag
	Ammonia jetty (w. Island) - FACT, PD	20			1728	23977	Lag
4	<b>Logos Agencies</b>						
	Aluva Terminal-Sea	23.5	2221	2477	694		Liquid Effluent
5	<b>Amrok Industrial &amp; Investments</b>						
	Aluva Terminal-Sea	23.5	...				Furnance oil Furnance oil
6	<b>Cochin Bunkers</b>						
	BPCL, Irumbanam - Fact PD	27.5	...				Liquid effluent
	IOC( BPT berth) - Fact PD	17	...				Liquid effluent
7	<b>Tisha Navigation Inc.</b>						
	Aluva Terminal - Sea				2091		Liquid effluent
	Bolgatty Terminal - Sea	6			672	2654	Liquid Effluent
	Kakanadu Terminal -Sea	21				976	Liquid Effluent
	<b>Sub Total</b>		<b>540394</b>	<b>20685</b>	<b>78375</b>	<b>152077</b>	

**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)	2014-15	2015-16	2016-17	2017-18	Cargo generally moved
1	2	3	4	5	6	7	8
<b>C.</b>	<b>THE WEST COASTAL CANAL</b>						
1	<b>KSINC Ltd*.</b> Fine Arts Jetty- Vypeen ErnaKulum terminal-Cochin port	4 5	...				Potable water POL(Bunkering to Ship)
2	<b>Travancore Cements Ltd.</b> Vaikom- Chitramangalam	20	3640	0			Lime shell with clay & other impurities
<b>Sub Total</b>			<b>3640</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Total (NW-III) (A+B+C)</b>			<b>843697</b>	<b>1061042</b>	<b>1032839</b>	<b>427989</b>	
<b>Total Cargo Moved on National Waterways (NW-I+NW-II+NW-III)</b>							
<b>GRAND TOTAL (NW-I+NW-II+NW-III)</b>			<b>8385626</b>	<b>9882472</b>	<b>8128970</b>	<b>8508578</b>	

Source : Inland Waterways Authority of India



**SECTION – 3**

**IWT ACTIVITIES –  
STATE-WISE**

Table No. 3.1

## Number of IWT Vessels With Valid Certificate of Survey...By Type (As on 31st March)

Sl. No.	State/UT	Year	Self Propelled				Total (Col.3 to Col.6)	Non-Self Propelled					Total (Col.8 to Col.12)	Grand Total
			Cargo	Passenger	Cargo cum Passenger	Tugs & Pushers		Dumb Barges	Dumb Tankers	Dumb Flat	Boats	Others		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Andhra Pradesh ***	2016	...	...	...	...	...	...	...	...	...	...	...	
		2017	...	...	...	...	...	...	...	...	...	...	...	
		2018	...	...	...	...	...	...	...	...	...	...	...	
2	Assam	2016#	15	114	23	6	158	15	...	9	...	24	182	
		2017	0	14	94	6	114	13	...	60	..	73	187	
		2018	0	18	94	6	118	13	...	60	..	73	191	
3	Bihar ***	2016	1	19*	74*	6	100	5	...	9	24	38	138	
		2017	1	19*	74*	6	100	5	...	9	24	38	138	
		2018	1	19*	74*	6	100	5	...	9	24	38	138	
4	Goa	2015	81@	38	...	2	121	2	...	...	36	38	159	
		2016	184	126	...	...	310	1	...	...	...	1	311	
		2018	133	116	...	16	265	1	...	...	...	1	266	
5	Karnataka	2016	...	...	...	...	...	...	...	...	...	...	...	
		2017	...	61	5	...	66	...	...	...	...	...	66	
		2018	...	61	5	...	66	...	...	...	...	...	66	
6	Kerala	2016#	111	287	42	2	442	...	3	...	4283	9091	13377	13819
		2017	7	59	...	...	66	...	...	...	5430	60	5490	5556
		2018	806	967	...	...	1773	26	3	2	770	5082	5883	7656
7	Maharashtra	2016	152	384	...	98	634	44	...	...	...	44	678	
		2017	158	165	0	39	362	22	...	...	...	22	384	
		2018	235	750	0	115	1100	66	...	...	...	66	1166	
8	Orissa **	2016	...	199	...	...	199	...	...	...	...	0	199	
		2017	...	557	...	...	557	...	...	...	...	0	557	
		2018	...	...	635	...	635	...	...	...	...	0	635	
9	West Bengal	2016	62	251	3	26	342	11	3	3	1722	25	1764	2106
		2017	62	262	3	25	352	10	3	3	1752	35	1803	2155
		2018	74	286	4	32	396	4	3	3	1768	42	1820	2216
10	Tamil Nadu	2016#	...	...	...	...	0	...	...	...	2	...	2	2
		2017	...	...	...	...	0	...	...	...	2	...	2	2
		2018	...	...	...	...	0	...	...	...	2	...	2	2
11	MIZORAM	2016	...	...	...	...	0	...	...	...	...	0	0	
		2017	...	...	...	...	0	...	...	...	...	0	0	
		2018	...	...	...	...	0	...	...	...	...	0	0	
12	Nagaland ##	2018	...	...	...	...	0	...	...	...	...	0	0	

Source : Govt. of States &amp; Union Territories

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

\*\* :For the year 2017-18 separate values are not provided for Passenger &amp; Cargo-cum-passenger category (col. 4 &amp; 5) only sum of both categories is provided .

@ vessel count reduced due to mining ban

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

## Reported nil data for the year 2017-18

\*\*\*Information for the year 2017-18 has not been received. Last year information has been repeated.

Table No. 3.2

**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	Andhra Pradesh ***	2015	...	...	...	...
		2016	...	...	...	...
		2017	...	...	...	...
		2018	...	...	...	...
2	Assam	2015	56	56	178.73@	16461.48
		2016#	56	56	178.73@	16461.48
		2017	13	94	3871.07	9187.14
		2018	13	98	706066.16	9044.43
3	Bihar ***	2015	1	83	2.40	578.00
		2016	1	83	2.40	578.00
		2017	1	83	2.40	578.00
		2018	1	83	2.40	578.00
4	Goa	2015	140	38	190.01	1448.00
		2016	81	38	429966.00	1440.00
		2017	106	115	116600.76	...
		2018	149	...	71902.10	...
5	Karnataka	2015	66	66	50.50 **	2003.71**
		2016#	66	66	50.50 **	2003.71**
		2017	66	66	29.98	1747.77
		2018	66	66	93.27	1720.86
6	Kerala	2015	28	185	2912.06	13750.50
		2016#	28	185	2912.06	13750.50
		2017	7	55	326.64	2994.72
		2018	17	87	447.98	22825.66
7	Maharashtra	2015	...	...	27357.00	17834.00
		2016	...	...	28849.00	18074.00
		2017	...	...	34890.00	18281.73
		2018	...	...	37904.70	19095.00
8	Orissa	2015	...	8	...	142.00
		2016	...	9	...	164.00
		2017	...	9	...	157.00
		2018	...	9	...	132.00
9	West Bengal	2015	53	263	14728.00	653604.00
		2016	88	251	16730.00	66492.00
		2017	90	262	22654.00	74468.00
		2018	110	286	36719.00	82897.00
10	MIZORAM	2015	48	48	1000.00	10000.00
		2016	...	...	...	...
		2017	...	...	...	...
		2018	...	...	...	...
11	Tamil Nadu	2015	...	...	...	...
		2016	...	...	...	...
		2017 *	...	...	...	...
		2018 *	...	...	...	...
12	Nagaland ##	2018	...	...	...	...

Source : Govt. of States &amp; Union Territories

... : Not Available

\* : The two boats operated in Mullai Periyar Lake are used for departmental purpose only.

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

\*\*\*Information for the year 2018 has not been received. Hence last year data has been repeated.

#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.

## Reported nil data for the year 2017-18

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

**SECTION – 4**

**IWT ACTIVITIES – PRIVATE  
COMPANIES/UNDERTAKINGS**

**Table No. 4.1 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 thousand Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
1	<b>S.V.Salgaocar, Goa</b>					
	2016	3	...	0	...	...
	2017	3	...	684.00	...	...
	2018	3	...	597.60	...	...
2	<b>D.V.Salgaocar, Goa</b>					
	2016	3	...	0	...	...
	2017	3	...	681.60	...	...
	2018	3	...	612.00	...	...
3	<b>V.M.Salgaocar Sales International</b>					
	2016	2	...	0	...	...
	2017	2	...	453.60	...	...
	2018	2	...	386.40	...	...
4	<b>Sesa Resource Ltd Goa *</b>					
	2016	2	...	2139	...	...
	2017	2	...	2139	...	...
	2018	2	...	2139	...	...
5	<b>Vedanta Ltd. #</b>					
	2016	31	1	42235	88	...
	2017	31	1	42235	88	...
	2018	32	1	42294	88	...
6	<b>Goa Ore Carriers</b>					
	2017	1	...	124.46	...	...
	2018	1	...	55.80	...	...
7	<b>C.I.W.T.C., Kolkata</b>					
	2016	...	...	...	...	...
	2017	...	...	...	...	...
	2018	...	...	...	...	...
8	<b>Indo-Swiss Trading Co. Kolkata.</b>					
	2016	-	2	118	270	...
	2017	-	2	118	270	...
	2018	-	2	118	270	...
9	<b>Vivada Inland Waterways Ltd. Kolkata</b>					
	2016	9	5	582.80	116128	...
	2017	9	5	595.26	110776	...
	2018	10	6	695.26	180975	...

**Table No. 4.1  
(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 thousand Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
10	<b>West Bengal Surface Transport Corporation Ltd</b>					
	2016	2	28	...	11139421	...
	2017	4	32	...	31059670	...
	2018	5	47	...	38069650	...
11	<b>Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata</b>					
	2016	...	34	...	8130429	...
	2017	...	34	...	21230567	...
	2018	...	34	...	27250167	...
12	<b>West Bengal Tourism Development Corporation limited, Kolkata</b>					
	2016	...	3	...	11139	...
	2017	...	3	...	12940	...
	2018	...	3	...	15940	...
13	<b>Eastern Navigation (P) Ltd., Kolkata</b>					
	2016	10	1	79.28	...	...
	2017	21	2	256.34	...	...
	2018	28	2	556.34	...	...
14	<b>Pradeep Boating Company, Kolkata***</b>					
	2016	2	...	...	...	...
	2017	2	...	...	...	...
	2018	2	...	...	...	...
15	<b>Ghatal Steam Navigation (P) Ltd., Kolkata</b>					
	2016	...	3	...	228192	...
	2017	...	3	...	115508	...
	2018	...	3	...	135508	...
16	<b>Diamond Harbour Municipality, Kolkata</b>					
	2016	...	10	...	116720	...
	2017	...	3	...	118729	...
	2018	...	3	...	128729	...
17	<b>Bengal Heritage River</b>					
	2017	...	3	...	15840	...
	2018	...	3	...	18840	...
18	<b>Chandan Nagar Municipality, Kolkata</b>					
	2016	...	5	...	118251	...
	2017	...	5	...	17608	...
	2018	...	5	...	21608	...

**Table No. 4.1  
(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 thousand Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
19	<b>Jain Navigation ***</b>					
	2016	2	...	9.86	...	...
	2017	2	...	9.86	...	...
	2018	2	...	9.86	...	...
20	<b>K.S.Singhi ***</b>					
	2016	1	...	4.15	...	...
	2017	1	...	4.15	...	...
	2018	1	...	4.15	...	...
21	<b>Jindal ITF Ltd.</b>					
	2016	26	...	52.45	...	...
	2017	28	...	325.27	...	...
	2018	28	...	425.27	...	...
22	<b>Sohom Shipping Pvt.Ltd.</b>					
	2016	4	...	42.10	...	...
	2017	3	...	84.21	...	...
	2018	4	...	124.21	...	...
23	<b>Kothari Overseas Private Limited ***</b>					
	2016	1	...	1893	...	...
	2017	1	...	1893	...	...
	2018	1	...	1893	...	...
24	<b>Assam Bengal Steam Navigation</b>					
	2017	2	...	...	12540	...
	2018	2	...	...	16540	...
25	<b>Maharshi Shipping Co.</b>					
	2017	3	...	84.56	...	...
	2018	5	...	184.56	...	...
26	<b>Pioneer Shipping Lines **</b>					
	2018	-	-	-	-	-
27	<b>Ganges Water Transport Co. Pvt. Ltd. **</b>					
	2018	2	...	2860.11	...	...

**Table No. 4.1  
(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 thousand Tonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
28	<b>Krishna Shipping &amp; Logistics Ltd. **</b> 2018	...	...	1862.06	...	2
29	<b>JSW Salav Steel Ltd. **</b> 2018	...	...	...	...	...
30	<b>Finolex Industries Ltd. **</b> 2018	(a)	...	9.52	6	...
31	<b>Lots Shipping Ltd. **</b> 2018	4	...	1193.47	-	1
32	<b>Jsw Jaigarh Port Ltd. **</b> 2018	2	...	10530	-	-
33	<b>Ambuja Cements Ltd.**</b> 2018	...	...	...	...	...
34	<b>Global Shipping &amp; Forwarding**</b> 2018	9	...	38355	...	...
35	<b>Infrastructure Logistics Pvt. Ltd.**</b> 2018	4	...	199515	...	...
36	<b>Kerala Shipping &amp; Inland Navigation Co. Ltd.**</b> 2018	3	...	1	-	-
37	<b>Timblo Pvt. Ltd.**</b> 2018 (b)	4	1	6099 + (60 kilo ltrs.)	14	-
38	<b>Backwater Navigation Co. **</b> 2018	1	...	425	-	-
39	<b>Indo Energy International Ltd.**</b> 2018	11	-	11844	-	-
40	<b>Port Dighi **</b> 2018	-	-	-	-	-
41	<b>Dalmia Cement **</b> 2018	-	-	-	-	-
42	<b>K.K. Shipping **</b> 2018	-	-	-	-	-



**Table No. 4.1  
(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)
		Type of vessel		Carrying capacity		
		Cargo (No.)	Passenger (No.)	Cargo(in thousand)	Passenger(in No.)	
1	2	3	4	5	6	7
43	<b>Tisha Navigation Inc. **</b> 2018	-	-	-	-	-
44	<b>Horizon Tourism Projects P. Ltd. **</b> 2018	-	1	-	46	-
45	<b>Haldia Nirman Projects P. Ltd. **</b> 2018	3	-	1998	...	-
46	<b>Redi Port **</b> 2018	-	-	-	-	-
47	<b>Angre Port Pvt. Ltd. **</b> 2018	-	-	-	-	-
48	<b>Kundu Shipping **</b> 2018	...	...	...	...	...
49	<b>M/S Neli **</b> 2018	1	...	1550	...	....

Source : Public & Private IWT operators/companies

... : Not Available

- : Nil Information

(a) : One Pilot boat in self propelled category

(b) : Excludes 60 kilo litre HFHSD in column (5)

\* : Formerly SESA Goa Ltd.

\*\* : Added in 2017-18 for the first time as per updated list of companies involved in IWT operations provided by Inland Water Authority of India (IWAI)

\*\*\*The information for the year 2017-18 has not been received from the company, hence previous year information has been repeated.

# Formerly known as Sesa Sterlite Ltd.

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

Table No. 4.2

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

Sl.No.	Company/Undertaking and Year	Type of Vessels	No. of Powered Vessels Employed	Distance Travelled (Kms)	Freight Collected (Rs.in Lakh)	Cargo Carried		Passenger Carried	
						Cargo (in Tonnes)	TKms (in millions)	Passenger (in No.)	PKms
1	2	3	4	5	6	7	8	9	10
1	<b>S. V. Salgaocar, Goa</b>								
	2016	Cargo	3	-	-	-		...	...
	2017	Cargo	3	19950	574.56	684000	13645.80	...	...
	2018	Cargo	3	17430	450.57	597600	10416.17	...	...
2	<b>D. V. Salgaocar, Goa</b>								
	2016	Cargo	3	-	-	-		...	...
	2017	Cargo	3	19880	572.54	681600	13550.21	...	...
	2018	Cargo	3	17850	313.85	612000	10924.20	...	...
3	<b>V.M.Salgaocar Sales International</b>								
	2016	Cargo	2	-	-	-		...	...
	2017	Cargo	2	13230	381.02	453600	6001.13	...	...
	2018	Cargo	2	11270.00	124.54	386400	4354.73	...	...
4	<b>Sesa Resources Ltd Goa *</b>								
	2016	Cargo	2	30212	(c)	235905	7127.16	...	...
	2017	Cargo	2	22966	(c)	417907	9597.65	...	...
	2018	Cargo	2	11736	(c)	183955	2158.90	...	...
5	<b>Vedanta Ltd. #</b>								
	2016	Cargo/Pass/Oil Tankers	32	307580	(c)	3018780	928516.35	...	...
	2017	Cargo/Passenger	32	299844	(c)	6554273	1965259.43	...	...
	2018	Cargo/Passenger	32	184892	(c)	4638637	857646.87	...	...
6	<b>Goa Ore Carriers</b>								
	2017	Cargo	1	6210	105.79	124462	772.91	...	...
	2018	Cargo	1	2790	50.22	55800	155.68	...	...
7	<b>C.I.W.T.C., Kolkata</b>								
	2016	...	...	...	...	...		...	...
	2017	...	...	...	...	...		...	...
	2018	...	...	...	...	...		...	...
8	<b>Indo-Swiss Trading Co.Pvt. Ltd., Kolkata</b>								
	2016	Pass.	2	15610	53.29	...		231221	...
	2017	Pass.	2	15500	143.00	...		121038	...
	2018	Pass.	3	15615	153.00	...		141038	...
9	<b>VIVADA Inland Waterways Ltd., Kolkata</b>								
	2016	Cargo/Tug/Pass/LCT	14	...	4458.42	582800		116128	...
	2017	Cargo/Tug/Pass/LCT	14	...	824.38	595262		110776	...
	2018	Cargo/Tug/Pass/LCT	16	...	904.38	695262		180975	...

Table No. 4.2 (Contd...)

o/Passenger Carried And Freight Collected - By Responding Private Companies/ Public Undertakings  
(Year Ending 31st March)

Sl.No.	Company/Undertaking and Year	Type of Vessels	No. of Powered Vessels Employed	Distance Travelled (Kms)	Freight Collected (Rs.in Lakh)	Cargo Carried		Passenger Carried	
						Cargo (in Tonnes)	TKms (in millions)	Passenger (in No.)	PKms
1	2	3	4	5	6	7	8	9	10
10	<b>W. Bengal Surface Transport Corporation Ltd., Kolkata</b>								
	2016	Pass./LCT	30	...	423.70	228922(b)	...	11139421	...
	2017	Pass./LCT	36	...	582.56	33581(b)	...	31059670	...
	2018	Pass./LCT	56	...	782.56	35581(b)	...	38069650	...
11	<b>Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata</b>								
	2016	Pass.	34	...	341.82	...	...	8130429	...
	2017	Pass.	34	...	383.72	...	...	21230567	...
	2018	Pass.	34	...	483.72	...	...	27250167	...
12	<b>West Bengal Tourism Development Corpn. Ltd., Kolkata</b>								
	2016	Pass.	3	...	152.28	...	...	11139	...
	2017	Pass.	3	...	88.27	...	...	12940	...
	2018	Pass.	3	...	98.27	...	...	15940	...
13	<b>Eastern Navigation (P) Ltd., W. Bengal, Kolkata</b>								
	2016	Cargo/Tug/Pass.	11	...	229.00	79280	...	...	...
	2017	Cargo/Tug/Pass.	23	...	315.25	256340	...	...	...
	2018	Cargo/Tug/Pass.	30	...	418.25	556340	...	...	...
14	<b>Pradeep Boating Company, W. Bengal, Kolkata***</b>								
	2016	Tugs	2	...	6.20	780	...	...	...
	2017	Tugs	2	...	6.20	780	...	...	...
	2018	Tugs	2	...	6.20	780	...	...	...
15	<b>Ghatal steam Navigation (P) Ltd. Kolkata</b>								
	2016	Pass.	3	...	48.39	...	...	228192	...
	2017	Pass.	3	...	141.29	...	...	115508	...
	2018	Pass.	3	...	149.29	...	...	135508	...
16	<b>Diamond Harbour Municipality, Kolkata</b>								
	2016	Pass.	10	...	142.56	...	...	116720	...
	2017	Pass.	3	...	133.56	...	...	118729	...
	2018	Pass.	3	...	153.56	...	...	128729	...
17	<b>Maharshi Shipping Co.</b>								
	2017	Cargo	3	...	59.36	84560	...	...	...
	2018	Cargo	5	...	154.36	184560	...	...	...
18	<b>Assam Bengal Steam Navigation</b>								
	2017	Tugs	2	...	15.13	...	...	12540	...
	2018	Tugs	2	...	19.13	...	...	16540	...
19	<b>Bengal Heritage River</b>								
	2017	Tugs	3	...	18.45	...	...	15840	...
	2018	Tugs	3	...	28.45	...	...	18840	...

Table No. 4.2 (Contd...)

p/Passenger Carried And Freight Collected - By Responding Private Companies/ Public Undertakings  
(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
20	<b>Chandan Nagar Municipality, Kolkata</b>								
	2016	Pass.	5	...	116.21	...	...	118251	...
	2017	Pass.	5	...	6.45	...	...	17608	...
	2018	Pass.	5	...	7.45	...	...	21608	...
21	<b>Jain Navigation ***</b>								
	2016	Tugs/Pass	2	...	28.20	9860	...	....	....
	2017	Tugs/Pass	2	...	28.20	9860	...	....	....
	2018	Tugs/Pass	2	...	28.20	9860	...	....	....
22	<b>K.S.Singhi***</b>								
	2016	Tugs	1	...	11.15	4150	...	....	....
	2017	Tugs	1	...	11.15	4150	...	....	....
	2018	Tugs	1	...	11.15	4150	...	....	....
23	<b>Jindal ITF Ltd.</b>								
	2016	Cargo	26	...	145.20	52450	...	....	....
	2017	Cargo	28	...	365.23	325270	...	....	....
	2018	Cargo	28	...	465.23	425270	...	....	....
24	<b>Soham Shipping Pvt.Ltd.</b>								
	2016	Cargo	4	...	154.72	42100	...	....	....
	2017	Cargo	3	...	59.72	84210	...	....	....
	2018	Cargo	4	...	129.72	124210	...	....	....
25	<b>Kothari Overseas Private Limited ***</b>								
	2016	Cargo	1	...	...	...	...	...	...
	2017	Cargo	1	...	...	...	...	...	...
	2018	Cargo	1	...	...	...	...	...	...
26	<b>Pioneer Shipping Lines **</b>								
	2018	-	-	-	-	-	-	-	-
27	<b>Ganges Water Transport Co. Pvt. Ltd. **</b>								
	2018	Cargo	2	5699.00	342.26	116995	666.75	...	...
28	<b>Krishna Shipping &amp; Logistics</b>								
	2018		...	...	...	...	...	...	...

Table No. 4.2 (Contd...)

Cargo/Passenger Carried And Freight Collected - By Responding Private Companies/ Public Undertakings  
(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
29	JSW Salav Steel Ltd. ** 2018	...	...	...	...	...	...	...	...
30	Finolex Industries Ltd. ** 2018	...	-	-	-	-	-	-	-
31	Lots Shipping Ltd. ** 2018 (a)	Cargo	4	18895	77	175267 + (2975 TEU)	3311.67	-	-
32	Jsw Jaigarh Port Ltd. ** 2018	Cargo	2	48256	-	73400	3541.99	-	-
33	Ambuja Cements Ltd.** 2018	...	...	...	...	...	...	...	...
34	Global Shipping & Forwarding** 2018	...	...	...	...	...	...	...	...
35	Infrastructure Logistics Pvt. Ltd.** 2018	Cargo	4	7400	(d)	199515	1476.41	...	...
36	Kerala Shipping & Inland Navigation Co. Ltd.** 2018	Cargo	3	27132	357.68	200658	5444.25	...	...
37	Timblo Pvt. Ltd.** 2018	Cargo/Passenger	5	3467	111.20	151200+ (960 Kilo Ltrs.)	524.19	...	...
38	Backwater Navigation Co. ** 2018	Cargo	1	17072	260.74	74496	1271.80	...	...
39	Indo Energy International Ltd.** 2018	Cargo	11	58900	...	1041963	61371.62	-	-
40	Port Dighi ** 2018	Cargo	-	-	-	-	-	-	-
41	Dalmia Cement ** 2018	Cargo	4	260	2.50	786	0.20	...	...
42	K.K. Shipping ** 2018	...	-	-	-	-	-	-	-

Table No. 4.2 (Contd...)

Cargo/Passenger Carried And Freight Collected - By Responding Private Companies/ Public Undertakings  
(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
43	Tisha Navigation Inc. ** 2018	-	-	-	-	-	-	-	-
44	Horizon Tourism Projects P. Ltd. ** 2018	Passenger	4	776	675	-	-	1002	...
45	Haldia Nirman Projects P. Ltd. ** 2018	Cargo	3	...	...	75000	...	-	...
46	Redi Port ** 2018	-	-	-	-	-	-	-	-
47	Angre Port Pvt. Ltd. 2018	-	-	-	-	-	-	-	-
48	Kundu Shipping ** 2018	...	...	...	...	...	...	...	...
49	M/S Neli ** 2018	...	...	...	...	...	...	...	...

Source : Public &amp; Private IWT operators/companies

(a) : Excluding 2975 TEU's in column (7) (b) : data relates to no of vehicles on L.C.T.

(c):Rs. Nil Company Owned barges hired to third party

(d): Cargo sold on FOB Basis

\* : Formerly SESA Goa Ltd.

\*\* : Added in 2017-18 for the first time as per updated list of companies involved in IWT operations provided by Inland Water Authority of India (IWAI)

\*\*\*The information for the year 2017- 2018 has not been received from the company, hence previous year information has been repeated.

# Formerly known as Sesa Sterlite Ltd.

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

**SECTION – 5**

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

**Table No. 5.1**

**PLAN WISE FINANCIAL PERFORMANCE FROM 10th FIVE YEAR PLAN TO 11th FIVE YEAR PLAN AND PART OF 12th FIVE YEAR PLAN**

Sl. No.	Budget head/ Waterways	10th Five Year Plan			11th Five Year Plan			Financial Year			Financial Year			Financial Year			Financial Year			Financial Year		
		(2002-07)			(2007-12)			(2013-14)			(2014-15)			(2015-16)			(2016-17)			(2017-18)		
		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.	B.E	R.E	Exp.
<b>I</b>	<b>Grants to IWAI</b>																					
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	50.58	50.58	112.94*	54.77	54.77	54.77
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	10.38	10.38	8.33	28.83	29.10	29.09
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	189.04	142.04	346.10*	18.4	54.79	85.23
	<b>Sub Total - I (Grants to IWAI)</b>	<b>247.06</b>	<b>225.57</b>	<b>184.71</b>	<b>343.17</b>	<b>350.63</b>	<b>343.34</b>	<b>118.80</b>	<b>90.00</b>	<b>85.33</b>	<b>181.10</b>	<b>78.22</b>	<b>78.03</b>	<b>205.00</b>	<b>216.72</b>	<b>209.86</b>	<b>250.00</b>	<b>203.00</b>	<b>467.37*</b>	<b>102.00</b>	<b>138.66</b>	<b>169.09</b>
4	Jal Marg Vikas Project (JMVP)																				75.00	348.53
	<b>Sub Total - II (Grants to IWAI including JMVP)</b>	<b>247.06</b>	<b>225.57</b>	<b>184.71</b>	<b>343.17</b>	<b>350.63</b>	<b>343.34</b>	<b>118.80</b>	<b>90.00</b>	<b>85.33</b>	<b>181.10</b>	<b>78.22</b>	<b>78.03</b>	<b>205.00</b>	<b>216.72</b>	<b>209.86</b>	<b>250.00</b>	<b>203.00</b>	<b>467.37*</b>	<b>102.00</b>	<b>213.66</b>	<b>* 517.62</b>
<b>II</b>	<b>North Eastern Area</b>																					
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	74.67	93.00	109.15	118.97
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	0.00	0.00	0.00
6	Proposed NW-16 (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	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	0.00	0.00	0.00
	<b>Sub total - II (NER)</b>	<b>237.58</b>	<b>181.70</b>	<b>132.81</b>	<b>336.83</b>	<b>258.20</b>	<b>208.69</b>	<b>80.20</b>	<b>53.00</b>	<b>49.86</b>	<b>84.90</b>	<b>40.00</b>	<b>38.41</b>	<b>90.08</b>	<b>77.80</b>	<b>79.39</b>	<b>75.00</b>	<b>93.30</b>	<b>74.67</b>	<b>93.00</b>	<b>109.15</b>	<b>118.97</b>
<b>III</b>	<b>Interest Subsidy to Bank, Loan to IWT Enterpreneur for Inland Vessel Subsidy Scheme</b>	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	0.00	0.00	0.00
<b>IV</b>	<b>Tech Studies &amp; R&amp;D</b>	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	0.00	0.00	0.00
<b>V</b>	<b>Central Plan Scheme/ CSS</b>	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	0.00	0.00	0.00
	<b>Grand Total</b>	<b>559.14</b>	<b>496.27</b>	<b>384.84</b>	<b>693.00</b>	<b>620.83</b>	<b>560.48</b>	<b>200.00</b>	<b>144.00</b>	<b>136.19</b>	<b>267.00</b>	<b>118.99</b>	<b>117.21</b>	<b>296.08</b>	<b>295.52</b>	<b>290.24</b>	<b>325.00</b>	<b>296.30</b>	<b>542.04</b>	<b>195.00</b>	<b>322.81</b>	<b>636.59</b>

Source : Inland Waterways Authority of India (IWAI)

**Note:**

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.

\* The above expenditure during 2016-17 and 2017-18 includes expenditure from the fund raised from extra Budgetary resources (EBRs) for Rs. 340 crore and Rs.660 crore respectively

\*\* The expenditure on Jal Marg Vikas Project (JMVP) included in Grants to IWAI (i-3) upto 2016-17 since separate Budget Head was created in F. Y. 2017-18

\*\*\* Budget and expenditure on account of (II.6) for proposed NW-16 (Barak) is included in (II.4) NW-2



**SECTION – 6**

**INLAND WATERWAYS  
TRANSPORT ACCIDENTS**

**Table No. 6.1** 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
<b>STATES</b>										
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
<b>Total( States)</b>		315	23	20	0	43	267	85	0	352
<b>UNION TERRITORIES</b>										
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
<b>Total ( UTs)</b>		0	0	0	0	0	0	0	0	0
<b>Total States/UTs</b>		315	23	20	0	43	267	85	0	352

Source : Accidental Deaths & Suicides in India - 2015  
National Crime Records Bureau, M/o Home Affairs, Govt. of India

Note (1): The data includes boats plying in all water bodies.

Note (2): Above information pertains to 2015-16.

**SECTION – 7**

**INLAND WATERWAYS IN  
SELECT COUNTRIES**

**Table No. 7.1****Length of Navigable Inland Waterways in Europe and USA in 2014 , 2015 & 2016****(In Kms.)**

Sl. No.	Country	Canals			Rivers and Lakes			Total		
		2014	2015	2016	2014	2015	2016	2014	2015	2016
1	2	3	4	5	6	7	8	9	10	11
1	Austria	-	-	-	351	351		351	351	351
2	Bulgaria	-	-	-	470	470	470	470	470	470
3	Belarus	250	250	250	712	733	730	962	983	980
4	Croatia	-	-	-	1017	1017	1017	1017	1017	1017
5	Czechia	39	39	39	648	682	682	687	721	721
6	Estonia	-	-	-	-	-	-	0	0	0
7	Finland	125	125	125	7927	8002	8011	8052	8127	8136
8	France	2775	3136	2798	1943	1686	1975	4718	4822	4773
9	Germany	2000	2027	2027	5675	5648	5648	7675	7675	7675
10	Hungary	173	173	173	1691	1691	1691	1864	1864	1864
11	Italy	950	950	950	612	612	612	1562	1562	1562
12	Kazakhstan	772	772	772	3379	3379	3379	4151	4151	4151
13	Lithuania	1	1	1	451	445	484	452	446	485
14	Netherlands	3510	3510	3497	2741	2751	2759	6251	6261	6256
15	Poland	336	336	336	3319	3319	3319	3655	3655	3655
16	Republic of Moldova:	-	-	-	42	42	-	42	42	0
17	Romania	132	132	-	1647	1647	-	1779	1779	0
18	Russian Federation	-	-	-	101668	101662	-	101668	101662	0
19	Serbia	522	522	-	1071	1071	-	1593	1593	0
20	Slovakia	39	39	39	134	134	134	173	173	173
21	Ukraine	1105	1055	1061	508	508	508	1613	1563	1569
22	United Kingdom	159	159	159	891	891	891	1050	1050	1050
23	United States	-	-	-	-	-	-	40000	40000	40000

Source: 2018 Inland Transport Statistics for Europe &amp; North America by UNECE (UN Publication).

**Table No. 7.2****Length of Navigable Waterways By Permissible carrying Capacity of Vessels - 2016**

(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
<b>1</b>	<b>Austria</b>	<b>351</b>							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>2</b>	<b>Bulgaria</b>	<b>470</b>							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	470	...	...	...	...	...	...	...
<b>3</b>	<b>Belarus</b>	<b>980</b>							
	Canals	250	...	...	...	...	...	...	...
	Rivers & Lakes	730	...	...	...	...	...	...	...
<b>4</b>	<b>Croatia</b>	<b>1017</b>							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	1017	...	...	...	...	...	...	...
<b>5</b>	<b>Czechia</b>	<b>721</b>							
	Canals	39	...	...	...	...	...	...	...
	Rivers & Lakes	682	...	...	...	...	...	...	...
<b>6</b>	<b>Estonia</b>	<b>...</b>							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>7</b>	<b>Finland</b>	<b>8136</b>							
	Canals	125	...	...	...	...	...	...	...
	Rivers & Lakes	8011	...	...	...	...	...	...	...
<b>8</b>	<b>France</b>	<b>4773</b>							
	Canals	2798	...	...	...	...	...	...	...
	Rivers & Lakes	1975	...	...	...	...	...	...	...
<b>9</b>	<b>Germany</b>	<b>7675</b>							
	Canals	2027	...	...	...	...	...	...	...
	Rivers & Lakes	5648	...	...	...	...	...	...	...
<b>10</b>	<b>Hungary</b>	<b>1864</b>							
	Canals	173	...	...	...	...	...	...	...
	Rivers & Lakes	1691	...	...	...	...	...	...	...

**Table No. 7.2 (Contd...)**

**Length of Navigable Waterways By Permissible carrying Capacity of Vessels - 2016**

(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
<b>11</b>	<b>Italy</b>	<b>1562</b>							
	Canals	950	...	...	...	...	...	...	...
	Rivers & Lakes	612	...	...	...	...	...	...	...
<b>12</b>	<b>Kazakhstan</b>	<b>4151</b>							
	Canals	772	...	...	...	...	...	...	...
	Rivers & Lakes	3379	...	...	...	...	...	...	...
<b>13</b>	<b>Lithuania</b>	<b>485</b>							
	Canals	1	...	...	...	...	...	...	...
	Rivers & Lakes	484	...	...	...	...	...	...	...
<b>14</b>	<b>Netherlands</b>	<b>6256</b>							
	Canals	3497	...	...	...	...	...	...	...
	Rivers & Lakes	2759	...	...	...	...	...	...	...
<b>15</b>	<b>Poland</b>	<b>3655</b>							
	Canals	336	...	...	...	...	...	...	...
	Rivers & Lakes	3319	...	...	...	...	...	...	...
<b>16</b>	<b>Republic of Moldova</b>	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>17</b>	<b>Romania</b>	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>18</b>	<b>Russian Federation</b>	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>19</b>	<b>Serbia</b>	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
<b>20</b>	<b>Slovakia</b>	<b>172</b>							
	Canals	39	...	...	...	...	...	...	...
	Rivers & Lakes	134	...	...	...	...	...	...	...
<b>21</b>	<b>Ukraine</b>	<b>1569</b>							
	Canals	1061	...	...	...	...	...	...	...
	Rivers & Lakes	508	...	...	...	...	...	...	...
<b>22</b>	<b>United Kingdom</b>	<b>1050</b>							
	Canals	159	...	...	...	...	...	...	...
	Rivers & Lakes	891	...	...	...	...	...	...	...
<b>23</b>	<b>United States</b>	<b>40000</b>							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...

Source: 2018 Inland Transport Statistics for Europe & North America by UNECE (UN Publication).

**Table No. 7.3****Inland Waterways vessels in Service at the end of 2016**

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	Belarus	...	...	...	...	...	...	...
3	Bulgaria	29	44	21	110	187	35	34
4	Croatia	23	28	16	114	92	36	12
5	Czechia	30	31	13	103	52	74	21
6	Estonia	...	...	...	...	...	...	...
7	Finland	194	16	...	33	7	33	...
8	France	744	633	323	344	464	-	-
9	Germany	1176	1784	873	827	778	416	167
10	Hungary	68	...	...	250	...	58	...
11	Italy	67	...	...	81	...	17	...
12	Kazakhstan	9	...	...	69	...	74	...
13	Lithuania	35	12	9	50	8	18	5
13	Netherlands	5136	8688	...	1371	2923	820	...
14	Poland	91	68	32	516	236	214	56
15	Republic of Moldova	...	...	...	...	...	...	...
16	Romania	...	...	...	...	...	...	...
17	Russian Fedration	...	...	...	...	...	...	...
18	Serbia	...	...	...	...	...	...	...
19	Slovakia	10	10	5	101	165	33	27
20	Switzerland	12	22	...	3	6	10	...
21	Ukraine	1312	...	...	...	...	...	...
22	United Kingdom	158	40	...	287	98	...	...

Source: 2018 Inland Transport Statistics for Europe & North America by UNECE (UN Publication).

**Table No. 7.4****Goods Transport by Type of Transport on National Territory - 2016**

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	609	1976	4300	2187	9072	52	319	826	766	1963
2	Belarus	2144	-	-	-	2144	21	-	-	-	21
3	Belgium	46821	56996	77664	11454	192935	4194	1959	3269	909	10331
4	Bulgaria	1222	1459	1312	13474	17467	19	71	197	5191	5478
5	Croatia	96	200	381	5732	6409	22	11	12	791	836
6	Czechia	682	92	52	-	826	-	-	-	-	36
7	Finland	412	-	-	-	412	103	-	-	-	103
8	France	27400	14780	10580	11460	64220	4170	1500	1170	1303	8143
9	Germany	54192	49172	102561	14423	220348	10892	12800	21205	9450	54347
10	Hungary	200	3391	1635	2999	8225	5	584	250	1137	1976
11	Italy	-	-	-	-	-	-	-	-	-	-
12	Kazakhstan	1189	-	-	-	1189	21	-	-	-	21
13	Lithuania	52	-	-	-	52	-	-	-	-	0
14	Luxembourg	...	...	...	...	...	...	...	...	...	...
15	Netherlands	11513	132468	66745	51191	261917	13460	18176	8946	8817	49399
16	Poland	2965	781	71	5	3822	74	27	4	0	105
17	Republic of Moldova	-	-	-	-	-	-	-	-	-	-
18	Romania	-	-	-	-	-	-	-	-	-	-
19	Russian Federati	-	-	-	-	-	-	-	-	-	-
20	Serbia	-	-	-	-	-	-	-	-	-	-
21	Slovakia	36	1764	115	4844	6759	2	54	14	833	903
22	Switzerland	-	1034	4863	-	5897	29	-	-	-	29
23	Ukraine	-	-	-	-	2244	-	-	-	-	227
24	United Kingdom	3394	-	-	-	3394	108	-	-	-	108

Source: 2018 Inland Transport Statistics for Europe & North America by UNECE (UN Publication).

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



# **ANNEXURES**

**Annexure-I**

**List of 111 National Waterways**

(Government of India has declared 111 waterways as National Waterways through National Waterways Act, 2016 enacted on 12.04.2016).

<b>Sl. No.</b>	<b>National Waterway No.</b>	<b>Length (km)</b>	<b>Details of Waterways</b>	<b>STATES</b>
1	National Waterway 1	1620	Ganga-Bhagirathi-Hooghly River System (Haldia - Allahabad)	Uttar Pradesh, Bihar, Jharkhand & West Bengal
2	National Waterway 2	891	Brahmaputra River (Dhubri - Sadiya)	Assam
3	National Waterway 3	205	West Coast Canal (Kottapuram - Kollam), Champakara and Udyogmandal Canals	Kerala
		170	West Coast Canal (Kottapuram - Kozhikode)	
4	National Waterway 4	50	Kakinada Canal (Kakinada to Rajahmundry)	Andhra Pradesh, Telangana, Chhattisgarh, Karnataka, Tamil Nadu, Pondichery and Maharashtra
		171	Godavari river (Bhadrachalam to Rajahmundry)	
		139	Eluru Canal (Rajahmundry to Vijayawada)	
		157	Krishna river (Wazirabad to Vijayawada)	
		113	Commamur Canal (Vijayawada to Peddaganjam)	
		316	North Buckingham Canal (Peddaganjam to Central Station of Chennai)	
		110	South Buckingham canal (Central Station of Chennai to Marakanam)	
		22	Marakanam to Puducherry through Kaluvelly tank	
		1202	River Godavari (Bhadrachalam - Nashik)	
636	River Krishna (Wazirabad - Galagali)			
5	National Waterway 5	256	East Coast Canal and Matai river	Odisha and West Bengal

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
		265	Brahmani-Kharsua-Dhamra rivers	
		67	Mahanadi delta rivers (Consisting of Hansua river, Nunanala, Gobrinala, Kharnasi river and Mahanadi river)	
6	National Waterway 6	68	Aai River	Assam
7	National Waterway 7	90	Ajoy (Ajay) River	West Bengal
8	National Waterway 8	29	Alappuzha- Changanassery Canal	Kerala
9	National Waterway 9	40	Alappuzha- Kottayam – Athirampuzha Canal	Kerala Alternate route: 11.5km
10	National Waterway 10	45	Amba River	Maharashtra
11	National Waterway 11	99	Arunawati - Aran River System	Maharashtra
12	National Waterway 12	5.5	Asi River	Uttar Pradesh
13	National Waterway 13	11	Avm Canal	Kerala & Tamil Nadu
14	National Waterway 14	48	Baitarni River	Odisha
15	National Waterway 15	135	Bakreswar - Mayurakshi River System	West Bengal
16	National Waterway 16	121	Barak River	Assam
17	National Waterway 17	189	Beas River	Himachal Pradesh & Punjab
18	National Waterway 18	69	Beki River	Assam
19	National Waterway 19	67	Betwa River	Uttar Pradesh
20	National Waterway 20	95	Bhavani River	Tamil Nadu
21	National Waterway 21	139	Bheema River	Karnataka & Telangana
22	National Waterway 22	156	Birupa-Badi Genguti-Brahmani River System	Odisha
23	National Waterway 23	56	Budha Balanga	Odisha
24	National Waterway 24	61	Chambal River	Uttar Pradesh
25	National Waterway 25	33	Chapora River	Goa
26	National Waterway 26	51	Chenab River	Jammu & Kashmir
27	National Waterway 27	17	Cumberjua River	Goa
28	National Waterway 28	45	Dabhol Creek -Vashishti River System	Maharashtra
29	National Waterway 29	132	Damodar River	West Bengal
30	National Waterway 30	109	Dehing River	Assam

<b>Sl. No.</b>	<b>National Waterway No.</b>	<b>Length (km)</b>	<b>Details of Waterways</b>	<b>STATES</b>
31	National Waterway 31	114	Dhansiri / Chathe	Assam
32	National Waterway 32	63	Dikhu River	Assam
33	National Waterway 33	61	Doyans River	Assam
34	National Waterway 34	137	Dvc Canal	West Bengal
35	National Waterway 35	108	Dwarekeswar River	West Bengal
36	National Waterway 36	119	Dwarka River	West Bengal
37	National Waterway 37	296	Gandak River	Bihar & Uttar Pradesh
38	National Waterway 38	62	Gangadhar River	Assam & West Bengal
39	National Waterway 39	49	Ganol River	Meghalaya
40	National Waterway 40	354	Ghaghra River	Bihar & Uttar Pradesh
41	National Waterway 41	112	Ghataprabha River	Karnataka
42	National Waterway 42	514	Gomti River	Uttar Pradesh
43	National Waterway 43	10	Gurupur River	Karnataka
44	National Waterway 44	63	Ichamati River	West Bengal
45	National Waterway 45	650	Indira Gandhi Canal	Punjab , Haryana & Rajasthan
46	National Waterway 46	35	Indus River	Jammu & Kashmir
47	National Waterway 47	131	Jalangi River	West Bengal
48	National Waterway 48	590	Jawai-Luni-Rann Of Kutch River System	Gujarat & Rajasthan
49	National Waterway 49	110	Jhelum River	Jammu & Kashmir
50	National Waterway 50	43	Jinjiram River	Assam & Meghalaya
51	National Waterway 51	23	Kabini River	Karnataka
52	National Waterway 52	53	Kali River	Karnataka
53	National Waterway 53	145	Kalyan-Thane-Mumbai Waterway, Vasai Creek And Ulhas River System	Maharashtra
54	National Waterway 54	86	Karamnasa River	Bihar & Uttar Pradesh
55	National Waterway 55	311	Kaveri - Kollidam River System	Tamil Nadu
56	National Waterway 56	22	Kherkai River	Jharkhand
57	National Waterway 57	50	Kopili River	Assam
58	National Waterway 58	236	Kosi River	Bihar
59	National Waterway 59	19	Kottayam-Vaikom Canal	Kerala
60	National Waterway 60	80	Kumari River	West Bengal

<b>Sl. No.</b>	<b>National Waterway No.</b>	<b>Length (km)</b>	<b>Details of Waterways</b>	<b>STATES</b>
61	National Waterway 61	28	Kynshi River	Meghalaya
62	National Waterway 62	86	Lohit River	Assam & Arunachal Pradesh
63	National Waterway 63	336	Luni River	Rajasthan
64	National Waterway 64	426	Mahanadi River	Odisha
65	National Waterway 65	80	Mahananda River	West Bengal
66	National Waterway 66	247	Mahi River	Gujarat
67	National Waterway 67	94	Malaprabha River	Karnataka
68	National Waterway 68	41	Mandovi River	Goa
69	National Waterway 69	5	Manimutharu River	Tamil Nadu
70	National Waterway 70	245	Manjara River	Maharashtra & Telangana
71	National Waterway 71	27	Mapusa / Moide River	Goa
72	National Waterway 72	59	Nag River	Maharashtra
73	National Waterway 73	226	Narmada River	Maharashtra & Gujarat
74	National Waterway 74	79	Netravathi River	Karnataka
75	National Waterway 75	142	Palar River	Tamil Nadu
76	National Waterway 76	23	Panchagangavali (Panchagangoli) River	Karnataka
77	National Waterway 77	20	Pazhyar River	Tamil Nadu
78	National Waterway 78	262	Penganaga - Wardha River System	Maharashtra & Telangana
79	National Waterway 79	28	Pennar River	Andhra Pradesh
80	National Waterway 80	126	Ponniyar River	Tamil Nadu
81	National Waterway 81	35	Punpun River	Bihar
82	National Waterway 82	58	Puthimari River	Assam
83	National Waterway 83	31	Rajpuri Creek	Maharashtra
84	National Waterway 84	44	Ravi River	Jammu & Kashmir, Himachal Pradesh & Punjab
85	National Waterway 85	31	Revadanda Creek - Kundalika River System	Maharashtra
86	National Waterway 86	72	Rupnarayan River	West Bengal
87	National Waterway 87	210	Sabarmati River	Gujarat
88	National Waterway 88	14	Sal River	Goa
89	National Waterway 89	45	Savitri River (Bankot Creek)	Maharashtra
90	National Waterway 90	29	Sharavati River	Karnataka
91	National Waterway 91	52	Shastri River - Jaigad Creek	Maharashtra

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
			System	
92	National Waterway 92	26	Silabati River	West Bengal
93	National Waterway 93	63	Simsang River	Meghalaya
94	National Waterway 94	141	Sone River	Bihar
95	National Waterway 95	106	Subansiri River	Assam
96	National Waterway 96	311	Subarnrekha River	Jharkhand, West Bengal & Odisha
97	National Waterway 97	172	Sunderbans Waterway	West Bengal
		56	Bidya River	West Bengal
		15	Chhota Kalagachi (Chhoto Kalergachi) River	West Bengal
		7	Gomar River	West Bengal
		16	Haribhanga River	West Bengal
		37	Hogla (Hogal)-Pathankhali River	West Bengal
		9	Kalindi (Kalandi) River	West Bengal
		22	Katakhalai River	West Bengal
		99	Matla River	West Bengal
		28	Muri Ganga (Baratala) River	West Bengal
		53	Raimangal River	West Bengal
		14	Sahibkhali (Sahebkhali) River	West Bengal
		37	Saptamukhi River	West Bengal
64	Thakurran River	West Bengal		
98	National Waterway 98	377	Sutlej River	Himachal Pradesh & Punjab
99	National Waterway 99	62	Tamaraparani River	Tamil Nadu
100	National Waterway 100	436	Tapi River	Maharashtra & Gujarat
101	National Waterway 101	42	Tizu - Zungki Rivers	Nagaland
102	National Waterway 102	87	Tlwang (Dhaleswari River)	Assam & Mizoram
103	National Waterway 103	73	Tons River	Uttar Pradesh
104	National Waterway 104	232	Tungabhadra River	Karnataka, Telangana & Andhra Pradesh
105	National Waterway 105	15	Udayavara River	Karnataka
106	National Waterway 106	20	Umngot (Dawki) River	Meghalaya
107	National Waterway 107	46	Vaigai River	Tamil Nadu
108	National Waterway 108	53	Varuna River	Uttar Pradesh
109	National Waterway 109	166	Wainganga - Pranahita River	Maharashtra

<b>Sl. No.</b>	<b>National Waterway No.</b>	<b>Length (km)</b>	<b>Details of Waterways</b>	<b>STATES</b>
			System	&Telangana
110	National Waterway 110	1080	Yamuna River	Delhi, Haryana & Uttar Pradesh
111	National Waterway 111	50	Zuari River	Goa
		20162.5		

## Annexure-II

### **PART 'B'- INFRASTRUCTURE FACILITIES ON NATIONAL WATERWAYS 1, 2 & 3**

#### **1. National Waterway – 1: River Ganga-Bhagirathi-Hooghly river system from Haldia to Allahabad, 1620 km:**

##### **A. Fairway:**

- Existing: 2.5 to 3.0 m Least Available Depth (LAD) in Haldia – Farakka (560 km), 2.5 m in Farakka- Barh (396 km) & 2 m in Barh – Ghazipur (294 km), 1.5 m in Ghazipur-Varanasi (133 km) and 1.2 m in Varanasi - Allahabad (237 km), Departmental dredgers (11), Survey vessels (12)
- A World Bank assisted project (called Jal Marg Vikas- JMVP) is under implementation which is aimed to improve navigation infrastructure in Haldia-Varanasi (1390 km) of NW- 1.
- Planned/ under implementation: 3 m LAD in Haldia- Farakka (560 Km), 2.5 m in Farakka - Patna (460 km), 2 m in Patna – Varanasi (363 km), 1.5 m LAD in Varanasi - Allahabad (237 km)

##### **B. Terminals**

###### **(i) Fixed**

- Existing: GR Jetty (Kolkata), Pakur, Farakka and Patna (Low level and high level), Varanasi
- Planned/ under implementation: Under JMVP, Multimodal Terminals at Sahibganj & Halida, 5 pairs of Ro-Ro terminals and intermodal terminals at Kalughat (Saran, Bihar) and Ghazipur (UP).

###### **(ii) Floating (20 nos.)**

- Existing: Haldia- 1, Haldia- 2, Kolkata (BISN, Botanical Garden), Shantipur, Swaroopganj, Katwa, Hazardwari, Downstream Farakka, Upstream Farakka, Rajmahal, Sahibganj, Bateshwarsthan, Bhagalpur, Munger, Semaria, Buxar, Ghazipur, Varanasi & Allahabad.



### C. Navigational aids

- Existing:
  - Day navigation aids in entire waterway;
  - 24 hrs Navigational aids between Diamond harbor and Ballia (1030 km);
  - DGPS station setup at Swaroopganj, Bhagalpur and Patna providing DGPS connectivity between Sagar and Buxar (1195 km)
  - River Information System (RIS) between Haldia-Farakka (Ph-I) and Farakka-Patna (Ph-II) completed and in operation.
- Planned:
  - Night navigation facility can be extended beyond Ballia on demand
  - DGPS station at Varanasi
  - The 3<sup>rd</sup> Phase of RIS between Patna-Varanasi is in progress and will be commissioned shortly.

## 2. INFRASTRUCTURE FACILITIES ON NATIONAL WATERWAY -2

### National Waterway – 2: River Brahmaputra from Dhubri to Sadiya, 891 km:

**A. Fairway:** 2.5 m LAD in Dhubri-Neamati (630 km) 2.0 m LAD in Neamati - Dibrugarh (138 km), 1.5 m in Dibrugarh – Sadiya (123 km), Departmental dredgers (4) and survey launches (6)

#### **B. Terminals:**

##### **(i) Fixed**

- Existing:
1. Low and high level jetties at Pandu with BG link
  2. IWT cum Ro – Ro terminal at Dhubri (Assam)

##### **(ii) Floating**

- Existing (11 nos.):  
Hatsingimari, Jogighopa, Pandu, Tezpur, Silghat, Vishwanathghat, Neamati, Bogibeel, Sengajan, Dibrugarh and Oriumghat
- Planned/ under implementation: Floating terminals can be provided at any location on demand.

### C. Navigational aids

- Existing: Day navigation aids in entire waterway,
- 24 hrs Navigational aids between Dhubri and Silghat (440 km)

### **3. INFRASTRUCTURE FACILITIES ON NATIONAL WATERWAY NO.3**

**National Waterway-3:** West Coast Canal from Kottapuram to Kollam along with Champakara & Udyogmandal canal was declared as NW-3, having total length of 205 km. IWAI is implementing the waterway developmental activities such as, development of fairway channel, construction of cargo terminals and provision of 24 hours navigation aids in entire stretch of NW-3.

#### **A. Fairway**

- **Existing:** NW-3 is provided with channel of 2.00m LAD and 32/38m bottom width except 2.20 km sections spread over 2 locations, where LAD of 2.00m has been achieved for single lane navigation channel. The channel dredging for 1.50 km requiring 0.75 lakh Cu.m dredging including widening near Chavara is under progress through a contract with scheduled completion in May, 2019.
- IWAI have owned 1 no. Cutter Suction Dredger (CSD) and 1 no. Amphibian dredger along with one Survey Launch in NW-3. In addition, one no CSD and one backhoe dredger are also deployed for dredging/ widening work near Chavara by the Contractor.
- Departmental dredger CSD Champakara is mobilized to AshtamudiKayal for maintenance dredging.
- **Planned / under implementation:**
  - (i) Dredging / widening of narrow section of waterway (1.50 Km) along with the bank protection (0.75 Km) is now in progress through a contract agency.
  - (ii) Construction of navigation lock at Trikkunnapuzha at a cost of Rs.38 crore has been sanctioned and work entrusted to irrigation department, Govt. of Kerala with the target of completion of 18 months.
  - (iii) Maintenance dredging at Kayamkulam for 45,000 cu.m is awarded to a contract agency and work will start by December, 2018.

#### **B. Terminals**

- **Existing:** IWAI has already constructed 8 no. permanent terminals on NW.3 viz., Kottapuram, Aluva, Maradu, Vaikkom, Thanneermukkom, Trikkunnapuzha, Kayamkulam and Kollam. In addition, there are 2 nos. terminals viz., Bolghatty & Willingdon island has also been developed in Cochin Port Trust limit for container traffic through Ro-Ro / Lo-Lo service.
- 8 nos. of Cranes and 8 nos. of Forklifts are available for cargo handling at terminals.
- **Planned/ under implementation:** One more terminal is under construction at Alappuzha through CPWD & same will be ready after completion of residual works.

#### **C. Navigational aids**

- **Existing:** 24 hours navigational aid in entire stretch of NW-3 is provided for round the clock navigation. In addition, permanent Beacon post with lights also provided safe navigation in NW-3.

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# **APPENDICES**

## DEFINITIONS OF TERMS USED

(For Section-7)

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

<b><u>Navigable Inland Waterways</u></b>	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.
<b><u>Inland Water Transport (IWT) Craft</u></b>	Craft having a minimum carrying capacity of 20 tonnes designed for the carriage of goods by inland waterways.
<b><u>Dumb Barge</u></b>	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.
<b><u>Dumb Tanker</u></b>	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.
<b><u>Self-Propelled Barge</u></b>	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.
<b><u>Self Propelled Tanker</u></b>	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.

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