

STATISTICS OF INLAND WATER TRANSPORT 2018-19



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

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सत्यमेव जयते

**Government of India
Ministry of Shipping
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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 2018-19**” is the 26th 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.

Vil M. 24.1.2020.
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January 24, 2020



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Inland Water Transport: An Overview

INTRODUCTION

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

POLICY INITIATIVES AND MILESTONES

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

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

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

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

INLAND WATERWAYS AUTHORITY OF INDIA (IWAI)

5. The Inland Waterways Authority of India (IWAI), set up on 27th 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. It's 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 19th century navigation by power crafts and country boats played a dominant role in development of trade and commerce along river banks and catchment areas of the navigable river and canal system. Bulk of traffic was, however, carried in country boats plying from Delhi and Nepal border to Assam. At its peak in 1876-77 country boat traffic registered at Calcutta were about 180,000 cargo boats, at Hooghly 124,000 cargo boats, and at Patna about 62,000 cargo boats.

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

Source: Chapter 15, Inland Water Transport, Report of the National Transport Policy Committee, Government of India, Planning Commission, May 1980

NAVIGABLE WATERWAYS & INFRASTRUCTURE

6. Length of waterways along with its navigable length is an indicator of inland water potential of a State. Details of State-wise navigable waterways in India during 2018-19 are given in Table 1.1 (Section 1). The details of infrastructure facilities available on state waterways as on 31.03.2019 are given in Table 1.3 (Section 1). Table 1 below gives Total and Navigable length of Waterways reported across States. 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 7.10%. Other States with good inland water transport prospects are Goa, Maharashtra and Kerala where waterways navigable length is 90.88%, 73.14% and 58.27% 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 166 rivers. Out of these 118 rivers have total length of 21477 Km of which 42.7% is navigable length.

Table 1 : Total and Navigable Length of Waterways in different States –2018-19 (In kms)				
S. No.	State	Total Length of the Rivers/ Canals/ Lakes in State (Km.)	Navigable Length (Km.)	Percentage of Navigable Length to Total Length
1	Andhra Pradesh	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	3256.13	1897.49	58.27
8	Maharashtra	631	461.50	73.14
9	Orissa	1378	1555	-
10	Nagaland	-	276	-
11	Mizoram**	790	155	19.62
12	Tamil Nadu	197	14	7.10
13	Uttar Pradesh **	6444	425	6.60
14	West Bengal	4741	4593	96.88
	Total	32405.13	15329.99	47.31

Source : State Governments
Note :
 * Nil data reported for the year **2018-19**
 ** Pertains to 2016-17 as data was not received from these States for 2017-18 & 2018-19

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 & Sunderbans 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 four national waterways and waterways in the State of Goa, Maharashtra, Gujarat & Sunderbans was 673.11 Lakh tonnes in 2018-19 as against 500.88 lakhs tonnes in 2017-18, reflecting an increase of 34.4 %. In terms of tonnage, Goa, Maharashtra, Gujarat & Sunderbans accounted for 5.6 %, 30.3 %, 42.8 and 4.8 % respectively of the total cargo volume in 2018-19 and 16.5% being accounted by the 4 National Waterways.

In terms of tonne km (movement of one tonne of cargo over a distance of one km) there was an increase of 14.8 % in 2018-19 over 2017-18. On an average, cargo carried on Indian Waterways is 70 Kms (Tonne kms/ Cargo moved). Goa, Maharashtra, Gujarat & Sunderbans waterways, though accounted 83.5% of the total cargo movement on inland waterways across India, in terms of tonne Kilometer their share was 37.4% only. In case of Goa and Maharashtra, high volume of cargo movement was carried over relatively short average distances of about 50 Kms and 29.27 Kms respectively leading to their intensive use. However, in the three National Waterways, although the volume of cargo traffic was relatively much small (15.77%), the average distance is 278.66 Kms. In case of National Waterway I (Ganga- Bhagirathi-Hooghly) the average distance over which cargo moved was relatively much longer at 394.66 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 19.53 Kms and 21.02 Kms respectively in 2018-19.

Table 2: Cargo Movement on Waterways							
S. No.	Details of Waterway	Cargo Moved (lakh tonnes)			Tonne Kms (in lakh)		
		2016-17	2017-18	2018-19	2016-17	2017-18	2018-19
1	National Waterway No. I	45.05 (10.8)	54.79 (10.9)	73.49 (10.91)	24598 (64.2)	27773 (67.2)	29003.84 (61.2)
2	National Waterway No. II	25.91 (6.2)	31.62\$ (6.3)	28.72 (4.26)	503 (1.3)	614.69 (1.5)	561.00 (1.2)
3	National Waterway No. III	10.33 (2.5)	4.28 (0.9)	4.20 (0.6)	109 (0.3)	81.14 (0.2)	88.30 (0.18)
4	*National Waterway No. IV	-	-	4.50 (0.7)	-	-	10.00 (0.02)
	Sub Total NWS	81.29 (19.6)	90.69 (18.1)	110.91 (16.5)	25210 (65.8)	28468.83 (68.9)	29663.14 (62.6)
5	Goa Waterways	157.68 (37.9)	111.62 (22.3)	37.72 (5.6)	7884 (20.6)	5581.06 (13.5)	1886.4 (4.0)
6	Maharashtra Waterways@	176.43 (42.5)	183.37 (36.6)	203.98 (30.3)	5214 (13.6)	5520 (13.4)	5972 (12.6)
7	Gujarat Waterways (from October 2017)	-	115.20 (23.0)	288.20 (42.8)	-	1728 (4.2)	4300 (9.0)
8	* Sunderban Waterways	-	-	32.3 (4.8)	-	-	5600 (11.8)
	Grand Total	415.40 (100.0)	500.88 (100.0)	673.11 (100.0)	38308 (100.0)	41297.89 (100.0)	47421.54 (100.0)

Source : (i) Inland Waterways Authority of India for National Waterways , Gujarat Waterways & Sunderban 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.

Note :

1. Cargo handled in Kolkata-Bangladesh-Kolkata route is included in the traffic on National Waterway No. I. The route is a link between NW-I & NW-II through Bangladesh
 2. Figure within brackets indicates percentage to the total.
- * : Included for the first time
@: Revised information for 2016-17 to 2018-19 is provided by Maharashtra Maritime Board.
\$: Revised information has been furnished by IWAI in respect of unorganized sector operated on NW-II during 2017-18.

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 26th March 2016 which came into force w.e.f. 12th April 2016. This Act repealed previous 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. Government declared 111 (including 5 existing and 106 new) National Waterways (NWs) spread over 24 states under the National Waterways Act, 2016, which came into effect from 12 April, 2016 to promote Inland Water Transport (IWT) 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 on the identified new National Waterways from 2016-17.

13 Status of 106 new National Waterways

- I. Based on the outcome of techno-economic feasibility and Detailed Project Reports (DPRs) prepared for 106 new NWs, technical interventions have been planned for safe navigation and shipping on technically viable NWs. As per the DPRs completed so far for the new NWs, 36 NWs have been found to be technically viable and development activities have been initiated on 10 most viable NWs as detailed below.

- 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 2018-19, 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)	–	2.6 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)	–	1.1 m to 1.5 m

15. The volume of freight movement on National Waterways-I was 73.5 lakh tonnes in 2018-19 against 54.8 lakh tonnes in 2017-18 reflecting an increase of 34.1%. 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 increased to 2.98 lakh tonnes in 2018-19 from 2.68 lakh tonnes in 2017-18, the volume of cargo moved by other private operators increased slightly to 39.57 lakh tonnes on NW-I in 2018-19 as against 32.66 lakh tonnes in 2017-18.

16. The composition of cargo movement on National Waterway-1 over the years is shown in Table 3 below. Building material (constituting Fly ash, stone chips etc.) constituted 61% of traffic on NW-1 followed by Mix Commodities (38.8%). These two items together accounted for about 99.8% of the total cargo moved on NW I during 2018-19.

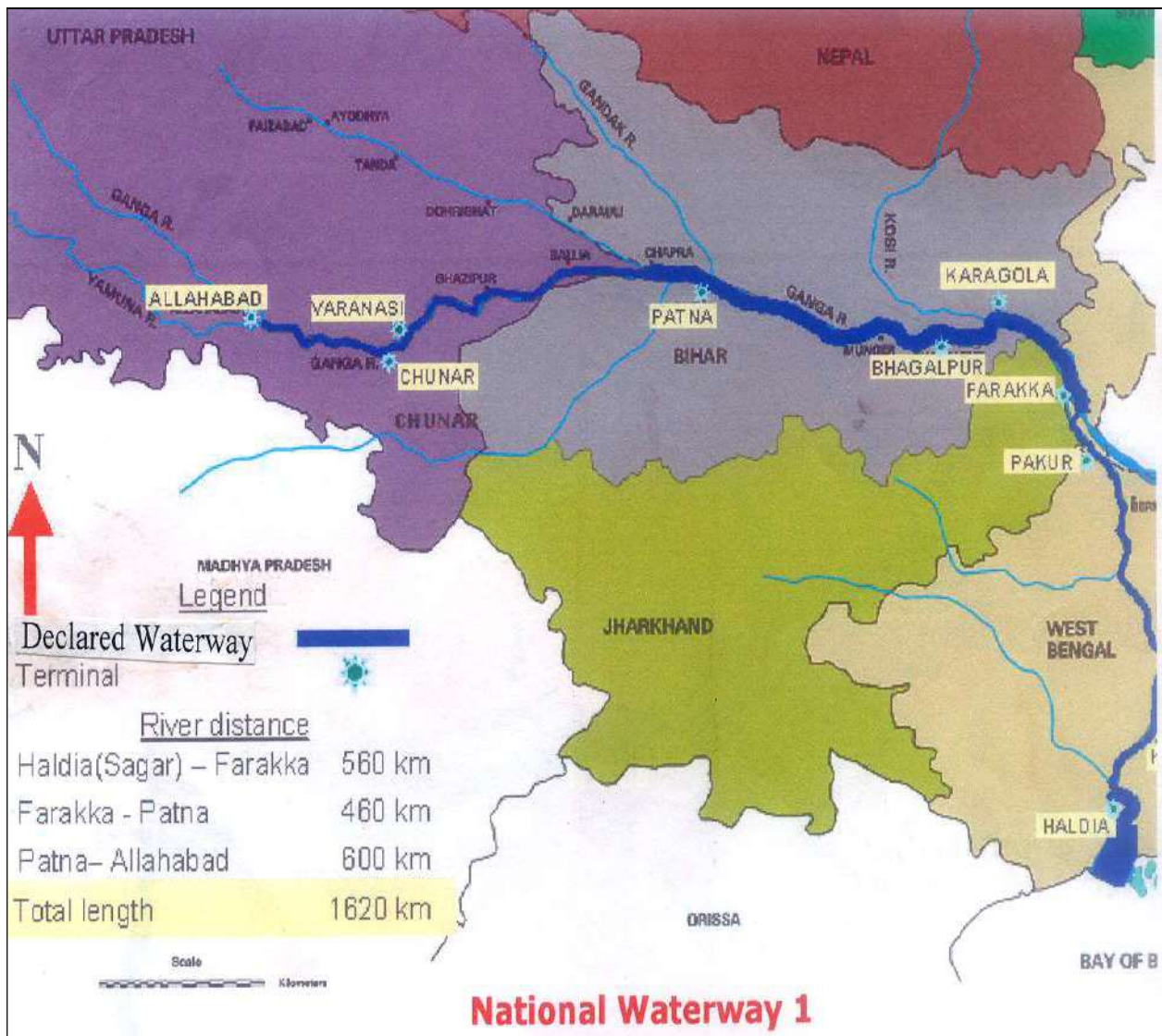


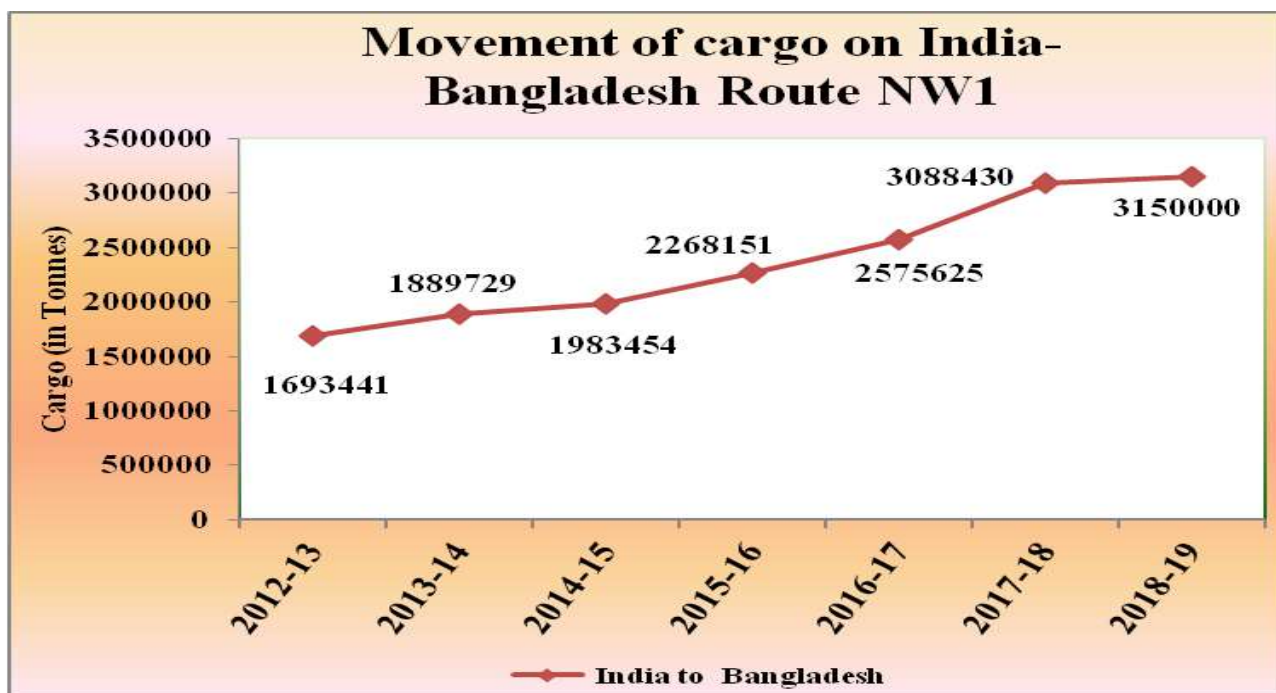
Table 3 : Composition of Cargo Moved on National Waterway- I (In Tonnes)						
Name of the Commodity	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Building Material	1997301 (59.6)	2044784 (40.5)	2393416 (38.4)	2704742 (60.0)	3568909 (65.1)	4478790 (61.0)
Fertilizers	36800 (1.1)	132299 (2.6)	124000 (2.0)	726260 (16.1)	0 (0.0)	0 (0.0)
Food items	394935 (11.8)	527048 (10.4)	499024 (8.0)	137730 (3.1)	38340 (0.7)	260 (Neg.)
Miscellaneous	11476 (0.3)	17690 (0.4)	8010 (0.1)	59478 (1.3)	2816 (0.1)	5323 (0.1)
Mix	8250 (0.2)	65312 (1.3)	0 (0.0)	0 (0.0)	1694196 (30.9)	2854087 (38.8)
Ore/Minerals	112000 (3.3)	242000 (4.8)	31000 (0.5)	16761 (0.4)	0 (0.0)	0 (0.0)
POL/POL products	212063 (6.3)	250418 (5.0)	273684 (4.4)	162520 (3.6)	0 (0.0)	0 (0.0)
Coal	561456 (16.8)	1736492 (34.4)	2843001 (45.6)	668740 (14.8)	160262 (2.9)	924 (Neg.)
Iron steel	14857 (0.4)	34166 (0.7)	64989 (1.0)	29146 (0.6)	14839 (0.3)	9946 (0.1)
Total NW I	3349138 (100.0)	5050209 (100.0)	6237124 (100.0)	4505377 (100.0)	5479362 (100.0)	7349330 (100.0)
Source: Inland Waterways Authority of India for National Waterways.						
Note: Figure within brackets indicates percentage to the total						
Neg. – negligible						
Mix – Food Items, Iron Steel & Building Material(Flyash,FO,HF) etc.						
Miscellaneous – Machinery, Steam Turbine, ODC Cargo, Harbour Crane and Turbine & Generator etc.						

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 2% in year 2018-19 over that in 2017-18. The cargo moved over this route has increased to 3150000 tonnes in 2018-19 against 3088430 tonnes in 2017-18. The graph below depicts trend in cargo movement on India-Bangladesh route (National Waterway-I) during the years 2012-13 to 2018-19.



18. The table 4 shows the cargo and the main commodities carried on India-Bangladesh route on National Waterway-I during the years 2013-14 to 2018-19.

Route	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Commodities
India to Bangladesh	1889729	1983454	2268151	2575625	3088430	3150000	Flyash (97.2%), Stone chips (1.3%),Project Cargo (0.6%),Steel (0.5%) and Other (0.4)
Total	1889729	1983454	2268151	2575625	3088430	3150000	

Source: Inland Waterways Authority of India
 *Note-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.5,369.18 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 1500 - 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 were 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 various components of the Project and status of their implementation (as on 30.10.2019) are as under:-

S.NO.	Component of the Project	Status of implementation	
1.	Fairway Development	March, 2023	<p>A revised Dredging Management Plan (DMP) has been formulated for implementation on NW-1, as per the details given below:</p> <ul style="list-style-type: none">Provision of Least Assured Depth (LAD) of 3m and bottom channel width of 35/45 m on the Farakka-Kahalgaon stretch (146 Kms), Sultanganj-Mahendrapur stretch (74 kms) and Mahendrapur-Barh stretch (71 kms) through Performance Based Assured Dredging contracts. The contracts were awarded to M/s Adani Ports & SEZ Ltd. on 09.04.2018, 12.04.2019 and 12.04.2019 at costs of ₹150.00 crores, 159.30 crores and 182.9 crores respectively. Financial Progress: (1) Farakka-Kahalgaon stretch: ₹40.38 cr. (2) Sultanganj-Mahendrapur stretch:

			<p>₹15.93 cr. (3) Mahendrapur-Barh stretch: ₹18.29 cr.</p> <ul style="list-style-type: none"> On the advice of NTCPWC of IIT, Chennai, a revised dredging strategy has been approved for providing an LAD of 2.5 m and bottom channel width of 30 m on the Barh-Majhaua stretch through Departmental Dredgers on O&M Contracts; and on Majhaua-Ghazipur stretch and Ghazipur-Varanasi stretch through Quantity Based Maintenance Dredging contract. The tender documents for all these three stretches are under approval. The DMP has been revisited and the following approved: (i) Barh-Majhaua stretch on LAD and (ii) Majhaua-Varanasi stretch on Quantity Based Maintenance Contract. New tender documents are being prepared accordingly. Presently, no dredging is planned on the Kahalgaon-Sultanganj stretch (50 km) due to the presence of Dolphin Sanctuary.
2.	Construction of Phase-I multimodal terminal at Varanasi.	of August, 2018	<p><u>Land:(a)For Phase-I(A)-</u> 5.586 hectares already in the possession of IWAI at Ram Nagar, Varanasi.</p> <p><u>(b) For road connectivity:</u></p> <ul style="list-style-type: none"> Connectivity: From the terminal to NH-7. Requirement of land: 1.415 ha. located in the Districts of Varanasi and Chandauli. Of this, 0.823 ha. (0.053 ha Govt land and .770 ha. private land) is located in Varanasi and 0.592 (Trust land) is in Chandauli. Date of filing requisition: 23.04.2015. Registration in favour of IWAI in respect of 0.824 ha. of land has been completed. 0.592 ha of trust land will be transferred to IWAI after the verdict by the Allahabad High Court. In the meantime, IWAI has been permitted to construct the road on this land

			<p>by the High Court, which has since been completed. ₹4.54 crore has already been transferred to IWAI, Patna.</p> <p><u>Civil Construction.</u></p> <ul style="list-style-type: none"> • Date of appraisal by SFC: 09.12.2015. • Estimated cost at which appraised: 196.84 cr. for Phase-I (A). • Contractor: M/s AFCONS Infrastructure Ltd. • Date of award: 13.05.2016. • Cost at which awarded: ₹169.59 crore. • Terminal Capacity: 1.26 MTPA • Hon'ble Minister for Shipping, Road Transport and Highways laid the foundation stone on 12.08. 2016. • Physical progress: All works, except the 6th high mast, completed. • Financial progress: ₹ 177.18 Cr. • Hon'ble Prime Minister inaugurated Terminal on 12.11.2018 in the presence of Hon'ble Chief Minister of Uttar Pradesh, the Hon'ble Union Minister for Road Transport & Highways, Shipping and Water Resources, River Development & Ganga Rejuvenation and the Hon'ble M.P., Chandauli. • Construction of a 650 mtrs. long two-lane road connecting the Multi-Modal Terminal with NH-7 and a 35mtr. long and 5.8 mtr wide Truss Bridge (over the nalah, as part of the external road) connecting with NH-7, was completed and operationalized on 11.01.19. (Work completed)
3.	Construction of Phase-I of the multimodal terminal at Sahibganj.	April, 2019	<p><u>Land</u></p> <ul style="list-style-type: none"> • Estimated requirement of land: 195 acres. • Date of appraisal by SFC: 16.02.2016. • Estimated cost at which appraised: ₹187.00 crore, including

			<p>cost of R&R.</p> <ul style="list-style-type: none"> • Status of acquisition: • 183.13 acres of land for the main terminal and 9.24 acres for road connectivity has been fully acquired. • ₹93.52 crore has already been paid towards land compensation. <p><u>R&R:</u></p> <ul style="list-style-type: none"> • R&R Package is to be implemented by the District Administration, Sahibganj. District Administration has identified 485 families as project affected families (PAFs). • Cost of R&R package already released to the District Administration: ₹ 67.63 crores. • Two Resettlement Colonies, with all required infrastructure and civic amenities, are being developed on 32.28 acres of land in Samdanala and Paltanganj villages for resettlement of 485 PAFs. Land for both the colonies have been acquired; plotting of both the colonies has been completed and plots allotted to 288 families in the joint names of husband and wife. The houses will be constructed by the District Administration, at an approved cost of ₹ 5.93 lakh per house. Construction of 25 houses is completed. The contract for construction of remaining 392 houses was awarded on 12.07.19. • <u>Civil construction:</u> • Date of appraisal by the SFC: 30.06.16. • Estimated cost at which appraised: ₹ 292.10 crore for Phase-I (excluding external/approach road and road over-bridge). • Contractor: M/s Larsen & Toubro Ltd. • Date of award: 27.10.2016. • Cost at which awarded: ₹280.90 crore.
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			<ul style="list-style-type: none"> • Terminal Capacity: 2.24 MPTA • Start date of the project: November, 2016. • Physical progress: All major works, including jetty work, completed. Administrative, workers amenity and security buildings; electrical sub-station; storage shed; pump house; overhead tank; internal roads; underground reservoir; and conveyor systems are in advanced stages of completion. Works for procurement of Barge Lodger and sewerage treatment plant are in progress. • Financial progress: ₹228.34 cr. • The foundation stone was laid by the Hon'ble Prime Minister on 06.04.2017. • The Hon'ble Prime Minister dedicated the Terminal to the nation on 12th September, 2019. <p><u>Rail Connectivity:</u></p> <ul style="list-style-type: none"> • M/s RITES appointed as the Consultant for development of rail connectivity. • Contract signed on 25.07.2018 • The Consultant completed the field survey in August, 2018 and three alternate alignments initially developed, out of which one alignment was found feasible, which was also approved 'in principle' by Eastern Railway Division, Malda on 19.09.2018 • M/o RTH also conveyed 'in principle' approval for the ROB at NH-80, Sahibganj on 29.11.18 • On the observations made by Eastern Railways, M/s RITES resurveyed the site and submitted layout plan along with the cost of the alignment with and without bridge over nallah and the same is under examination. <p>(Land acquisition completed; R&R, Civil Works and rail</p>
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			connectivity study in progress)
4.	Construction of Phase-I of the multi-modal terminal at Haldia.	January 2020	<p><u>Land:</u></p> <ul style="list-style-type: none"> 61 acres of land in the Haldia Dock Complex have been taken on 30-year lease from the Kolkata Port Trust. Registration of land was completed on 23.04.2018. Cost of lease: ₹40.22 cr. including one time premium. Cost of registration of land: ₹3.25 crore. <p>Clearances: MoEF&CC granted formal CRZ clearance on 06.11.2017.</p> <p><u>Civil construction:</u></p> <ul style="list-style-type: none"> Date of appraisal by SFC: 17.08.2016 and 05.10.2016. Estimated cost at which appraised: ₹495 crores for Phase-I. Contractor: M/s ITD Cementation India Ltd. Date of award of work contract: 30.06.2017. Cost at which awarded: ₹517.36 crore. Terminal Capacity: 3.18 MTPA Start date of the project: July, 2017. Completion date of the project: January, 2020 Physical progress: 72.5% Financial progress: ₹ 338.17 crores. <p><u>Rail Connectivity:</u></p> <p>M/s RITES has been appointed as the Consultant for development of rail connectivity to the Terminal. The Consultant completed the field survey in August, 2018 and proposed three alternate alignments, of which one alignment on a 10.166 acres of land, has been accepted as feasible by Haldia Dock Complex (HDC). M/s RITES is preparing the Engineering Scale Plan (ESP) of this alignment. IWAI has already filed a</p>

			<p>requisition for transfer of 10.166 acres of land for rail connectivity with HDC.</p> <p style="text-align: right;">(Work ongoing)</p>
5.	Construction of intermodal terminal at Kalughat.	August 2020	<p><u>Land:</u> Requisition for acquisition of 5.159 ha. of land filed with the District Administration, Saran on 29.12.2016. Mapping/verification of land has been completed and demand of ₹ 17.84 crore for 20 acres of land (which includes some additional land within the river) has been received from the District Administration. Accordingly, this amount has been transferred to IWAI, Patna on 15.10.2019. The Distt. Admn., Saran has allocated the SIA study of the proposed land to the AN Sinha Institute of Social Studies, Patna at a cost of ₹7.57 lakhs which has been released and the study is on-going.</p> <p><u>Tender Process:</u></p> <ul style="list-style-type: none"> • The DPR and tender document sent to the World Bank on 02.01.19 for review/comments. • The Terminal is being planned to handle mostly container traffic.
6.	Construction of intermodal terminal at Ghazipur.	August, 2020	<p><u>Land:</u> Requisition for acquisition of 8.917 ha of land in village Dungarpur filed with the District Administration, Ghazipur on 31.03.2017.</p> <ul style="list-style-type: none"> • District Administration has finalised the purchase price @ ₹ 3.20 crore per hectare and based on the same, IWAI has transferred ₹ 18.56 cr. to IWAI, Patna, out of which ₹14.95 cr. has been disbursed to the land owners. • 4.386 ha of land has already been acquired and registered. Balance 4.531 ha of land is under acquisition. • The Foundation Stone for the Terminal was laid by the Hon'ble Minister for Shipping, Road Transport and Highways on 25th January, 2018. <p><u>Tender Process:</u> NOC received from the World Bank for revised tender documents. Tender process put on hold.</p>

7.	Construction of new navigational lock at Farakka.	June, 2019	<p><u>Land</u></p> <ul style="list-style-type: none"> • Requirement: 14.86 ha. • Location: Farakka Barrage Project, parallel to the existing lock. • Approval for transfer of land: By Cabinet on 06.01.2016. • Cost: ₹ 2.36 crore. • Date of transfer: 02.03.2016 • Crop compensation paid to 76 locally affected persons: ₹4.48 lakhs. • The existing Navigational lock at Farakka (land measuring 7.155 Ha) handed over to IWAI on 06.04.2018 <p><u>Clearances:</u> Ministry of WR, RD& GR and NGRBA cleared the proposal.</p> <p><u>Civil construction work:</u></p> <ul style="list-style-type: none"> • Date of appraisal by the SFC: 29.07.2016. • Estimated cost at which appraised: ₹380 crore. • Contractor: M/s Larsen & Toubro Ltd. • Date of award: 24.11.2016 • Cost at which awarded: ₹359.19 crore. • Date of commencement of work: December, 2016. • Expected date for completion of the project: December, 2020 • Physical progress: 44.30%. • Financial progress: ₹157.7 cr. <p style="text-align: right;">(Work in progress)</p>
8.	Integrated Vessel Repair &	March, 2020	<p><u>Locations:</u></p>

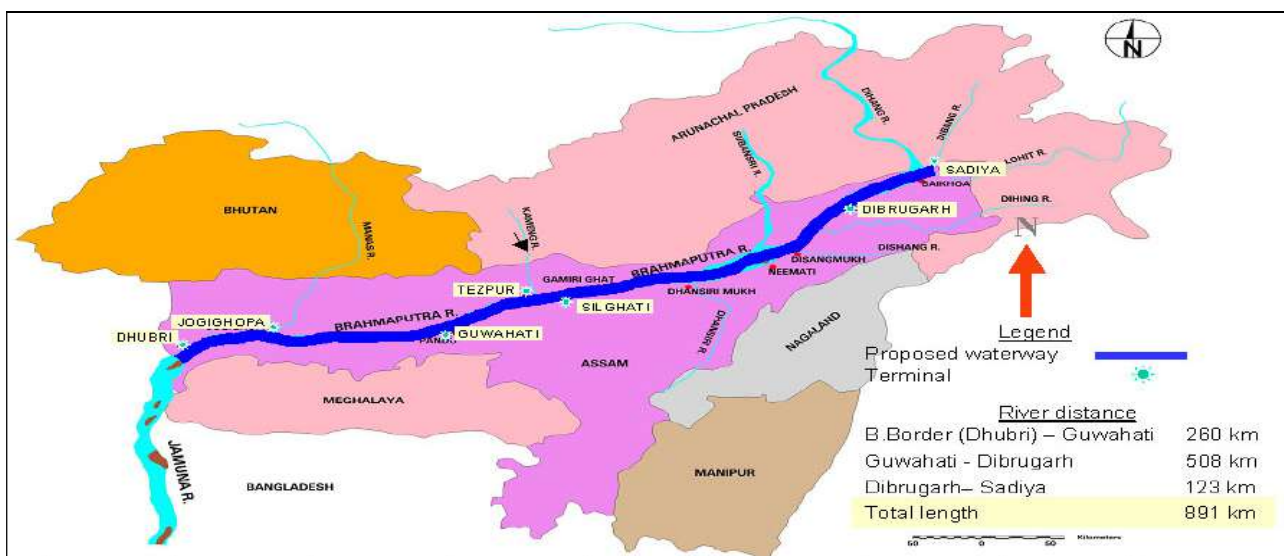
	Maintenance Complexes		<p><u>(a) Sahibganj: Feasibility</u></p> <ol style="list-style-type: none"> 1. Draft feasibility report received from M/s HOWE in November, 2017 2. DPR and tender document still awaited from the Consultant. 3. New location is being identified for vessel repair at Sahibganj 4. Land estimated is 19.35 ha. and the estimated cost is ₹130.00 crores. 5. Letter issued to IIT Madras (NTCPWC) on 20.03.2019 to take up the study and the ToR shared with them. They have submitted the draft proposal and the same is under examination. <p><u>(b) Gaighat (Patna):</u></p> <ol style="list-style-type: none"> 1. DPR for the Gaighat Complex submitted by the Consultant in September, 2018. 2. The observations of IWAI sent to the Consultant in November, 2018. 3. The estimated project cost is ₹5.6 crores. 4. Revised DPR and tender documents still awaited from the Consultant. <p><u>Land:</u> 56.22 acres of land adjoining the site of the multimodal terminal and Ro-Ro terminal at Sahibganj were identified for the Vessel Repair & Maintenance Complex. Requisition filed by IWAI on 21.11.2017. Requisition for acquisition of land for the complex and the proposed Industrial-cum-Logistic Park (total 337.395 acres) was resubmitted to the District Administration, Sahibganj on 05.11.18. Acquisition process is pending with the District Administration.</p>
9.	Construction of Ro-Ro Terminals.	December, 2019	<u>Pairing & Locations:</u>

			<ul style="list-style-type: none"> • Rajmahal and Manikchak; • Samdaghat and Manihari; • Kahalgaon and Tintanga; • Hasanpur and Bakhtiyarpur; and • Buxar and Saraikota. <p><u>Civil construction:</u></p> <ul style="list-style-type: none"> • Draft DPRs for all the ten Ro-Ro Terminals have been submitted by the Engineering Consultant and are under finalization. • Topographic survey completed at all the ten sites. • Geotechnical investigation done for RajmahalManikchak and Manihari Ro-Ro Terminal sites.
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The total expenditure as on 31.10.2019 on the Project is Rs.1447.43 crore.

National Waterways No. II (The Brahmaputra)

22. National Waterway-2 comprises of Dhubri to Sadiya of 891 Km 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 providing DGPS connectivity in entire NW- 2 and some portion of Protocol routes in Bangladesh.

23. The total cargo traffic on NW II was 28.72 lakh tonnes during 2018-19 as against 31.62 lakh tonnes during 2017-18 showing a decrease of 9.17%. Commodity-wise composition of cargo movement over the years on this waterway is given below:

Table 5 : Composition of Cargo Moved on National Waterway - II (In Tonnes)						
Commodity	2013-14	2014-15	2015-16	2016-17	2017-18 \$	2018-19
Building Material	-	-	-	-	-	-
Food items	-	-	-	-	-	-
Miscellaneous	2475349 (100.0)	2491720 (100.0)	2584306 (100.0)	2590754 (100.0)	3162151 (100.0)	2871817 (100.0)
Mix	-	-	-	-	-	-
Ore/Minerals	-	-	-	-	-	-
POL/POL Products	-	-	-	-	-	-
Total NW II	2475349 (100.0)	2491720 (100.0)	2584306 (100.0)	2590754 (100.0)	3162151 (100.0)	2871817 (100.0)

Source: Inland Waterways Authority of India for National Waterways.

Note: Figure within bracket indicates percentage to the total

Neg. – negligible

\$: Revised information has been furnished by IWAI in respect of unorganized sector (560924.2 tonnes) operated on II during 2017-18

Mix – Food Items, Iron Steel & Building Material(Flyash,FO,HF) etc.

Miscellaneous – Machinery, Steam Turbine, ODC Cargo, Harbour Crane and Turbine & Generator etc.

National Waterway No. III (West Coast Canal)

24. West Coast Canal from Kottapuram to Kollam (168KM) together with Champakara canal (14Km) and Udyogmandal canal (23 KM) was declared as NW-3 in 1993. The National Waterways Act 2016 included stretch of West Coast Canal from Kottapuram to Kozhikode for a length of 160 km, thereby extending the total length of NW-3 to 365 km. IWAI is conducting channel developmental works that includes dredging for providing fairway of 2.20m LAD, channel width of 38 / 32m, 24 hours navigational facilities and terminal facilities equipped with mechanical cargo handling equipment. IWAI has constructed eight permanent terminals at Kottapuram, Aluva, Maradu, Vaikom, Thanneermukkom (Cherthala), Kayamkulam, Thrikkunnapuzha and Kollam. 9th terminal is under construction at Alappuzha. In addition, two terminals with Ro-Ro facilities

have been constructed by IWAI at Bolghatty and Willingdon Island. NW-3 is provided with 24 hours navigational aids in the entire route. An average tonnage of 10 lakh tonnes of cargo moved on NW-3 per annum in the last five years. IWAI has sanctioned INR 38 crore for reconstruction of lock gate at Trikkunnappzha across NW-3 for utilization of full capacity of NW-3. The NW-3 is fully navigable.

25. The total volume of cargo moved on National Waterway III has been fluctuating over the past few years. The volume of cargo marginally reduced to 4.20 lakh tonnes in 2018-19 compared to 4.28 lakh tonnes in 2017-18 recording a fall of 1.9%. 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.

Commodity	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Chemicals	124782 (11.7)	96773 (11.5)	155567 (14.7)	195809 (19.0)	323501 (75.6)	387002 (92.1)
Fertilisers	262974 (24.7)	231951 (27.5)	216648 (20.4)	224903 (21.8)	57998 (13.6)	29403 (7.0)
Food items	18000 (1.7)	-	-	-	-	-
Mix	606760 (56.9)	512490 (60.7)	686350 (64.7)	608670 (58.9)	42860 (10.0)	247 (0.1)
Ore/Minerals	28542 (2.7)	262 (neg)	-	-	-	-
POL/POL products	24948 (2.3)	2221 (0.3)	2477 (0.2)	3457 (0.3)	3630 (0.8)	3630 (0.9)
Total NW III	1066006 (100.0)	843697 (100.0)	1061042 (100.0)	1032839 (100.0)	427989 (100.0)	420312 (100.0)
Source: Inland Waterways Authority of India for National Waterways.						
Note: Figure within brackets indicate percentage to the total						
Mix – Food Items, Iron Steel & Building Material(Flyash,FO,HF) etc.						
Miscellaneous – Machinery, Steam Turbine, ODC Cargo, Harbour Crane and Turbine & Generator etc.						

The cargo composition of freight traffic shows that Chemicals (92.1%) and Fertilisers (7.0%) were the major commodities moved through NW-III during 2018-19. 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.

26. The total cargo moved through all the three National Waterways (NW) increased by 17.33% from 90.69 lakh tonnes during 2017-18 to 106.41 lakh tonnes during 2018-19. In 2018-19, 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 69.1%, 27.0%, and 3.9% 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 97.8%, 1.9% and 0.3% of the total tonne kilometers moved. The highest share of NW I in tonne kilometers reflect long average distance travelled by cargo of 394.67 kms compared with an average distance of 19.53 kms for NW II and average distance of 21.02 kms for NW III in the year 2018-19. Table 7 gives cargo movement of National Waterways in Tonnage and Tonne Kilometers.

Table 7 : Cargo Movement on National Waterways									
Sl. No	Details of Waterway	Cargo Moved (lakh Tonnes)				Tonne Kms (in lakh)			
		2015-16	2016-17	2017-18	2018-19	2015-16	2016-17	2017-18	2018-19
1	National Waterway No. I	62.37 (63.1)	45.05 (55.4)	54.79 (60.4)	73.49 (69.1)	26995 (97.8)	24598 (97.6)	27773 (97.5)	29003.84 (97.8)
2	National Waterway No. II	25.84 (26.2)	25.91 (31.9)	31.62 \$ (34.9)	28.72 (27.0)	505 (1.8)	503 (2.0)	614.69 (2.2)	561.00 (1.9)
3	National Waterway No. III	10.61 (10.7)	10.33 (12.7)	4.28 (4.7)	4.20 (3.9)	105 (0.4)	109 (0.4)	81.14 (0.3)	88.3 (0.3)
	Total NWs	98.82 (100.0)	81.29 (100.0)	90.69 (100.0)	106.41 (100.0)	27605 (100.0)	25210 (100.0)	28468.83 (100.0)	29653.14 (100.0)
<p>Source: Inland Waterways Authority of India for National Waterways. Cargo handled in Kolkata-Bangladesh-Kolkata route is included in the traffic on National Waterway No. I. The route is a link between NW-I & NW-II through Bangladesh.</p> <p>Note : Figure within brackets indicate percentage to the total</p> <p>\$: Revised information has been furnished by IWAI in respect of unorganized sector operated on NW-II during 2017-18</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 miscellaneous items has shown significant increase while Coal, food items and fertilizers have shown sharp decrease in volume terms on the National Waterways in 2018-2019. The highest percentage of cargo moved in 2018-2019 was building material (42.1%) followed by miscellaneous (27.1%) & mix items (26.8%).

Table 8: Composition of Cargo Moved on national waterways (In tonnes)						
Commodity	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Building Material	1997301 (29)	2044784 (24.4)	2393416 (24.2)	2704742 (33.3)	3568909 (41.9)	4478790 (42.1)
Chemicals	124782 (1.8)	96773 (1.2)	155567 (1.6)	195809 (2.4)	323501 (3.8)	387002 (3.6)
Fertilisers	299774 (4.4)	364250 (4.3)	340648 (3.4)	951163 (11.7)	57998 (0.7)	29403 (0.3)
Food items	412935 (6.0)	527048 (6.3)	499024 (5.0)	137730 (1.7)	38340 (0.5)	260 (Neg.)
Miscellaneous	2486825 (36.1)	2509410 (29.9)	2592316 (26.2)	2650232 (32.6)	2604043 (30.6)	2877140 (27.1)
Mix	615010 (8.9)	577802 (6.9)	686350 (6.9)	608670 (7.5)	4338283 (20.4)	2854333.9 (26.8)
Ore/Minerals	140542 (2.0)	242262 (2.9)	31000 (0.3)	16761 (0.2)	0 (0)	0 (0)
POL/POL Products	237011 (3.4)	252639 (3.0)	276161 (2.8)	165977 (2.0)	3630 (Neg.)	3660 (Neg.)
Coal	561456 (8.1)	1736492 (20.7)	2843001 (28.8)	668740 (8.2)	160262 (1.9)	924 (Neg.)
Iron & Steel	14857 (0.2)	34166 (0.4)	64989 (0.7)	29146 (0.4)	14839 (0.2)	9946 (0.1)
Total	6890493 (100.0)	8385626 (100.0)	9882472 (100.0)	8128970 (100.0)	8508578 (100.0)	10641459 (100.0)
Source: Inland Waterways Authority of India						
Note : Figure within brackets indicate percentage to the total						
Mix – Food Items, Iron Steel & Building Material(Flyash,FO,HF) etc.						
Miscellaneous – Machinery, Steam Turbine, ODC Cargo, Harbour Crane and Turbine & Generator etc.						

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). As mentioned earlier, 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 trans-shipment point located at a distance of 40 -50 km. It can be observed that traffic increased from FY 2014-15 to FY 2016-17 on account of lifting of iron ore mining ban by Supreme Court. While the exports declined in year FY2017-18 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 in this traffic are predominately Iron ore (41%), Coal (38%), Steel (6%), Lime Stone (4%) and other Misc. commodities (11%).

30. Traffic on Gujarat waterways is primarily EXIM and coastal cargo at 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. The total Traffic in FY 2018-19 was 28.82 Million Tonne. The commodities in this traffic were Iron Ore (41%), Coal (29%), Steel (6%), Lime Stones (5%), Construction Material (4%) and other Misc. commodities (15%).

NATIONAL WATERWAYS 4 & 5

31. These waterways were declared as National Waterways in November 2008. Thereafter, Detailed Project Reports (DPRs) for development of both NWs were 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

32. NW-4 was declared in 2008 for the length of 1,078 km comprising of the Kakinada – Puducherry stretch of canals and the Kaluvelly Tank, Bhadrachalam – Rajahmundry stretch of river Godavari and Wazirabad – Vijayawada stretch of river Krishna in Andhra Pradesh & Tamil Nadu. With the notification of the National Waterways Act 2016, the total length of NW-4 got extended to 2,890 km.

- Fairway development works in Vijayawada – Muktyala stretch of river Krishna (Part of NW-4) under phase – I has commenced at a cost of Rs. 96 cr. including following main activities:-
- Dredging to develop and maintain fairway is in progress and to be completed in March, 2020.
- Floating terminals (4 nos.) at DurgaGhat, Bhavani Island, Amaravati and Vedadri are at the final stage of completion.
- Land acquisition for fixed terminals (3 nos.) at Ibrahimpatnam, Harischandrapuram and Muktryala is in progress.
- Ro-Ro services from Ibrahimpatnam to Lingayapalem are under operation since April, 2018 by Pvt. operators with a total cargo movement, primarily construction material, of approx. 0.45 Million Tonne till March 2019.

NATIONAL WATERWAY-5

33. (Brahmani–Kharsua–Kani river & Mahanadi Delta river system)

- NW-5, notified in 2008, consists of Brahmani, Kharsua, Kani, Dhamra, Matai & Mahanadi delta & East Coast Canal spreading across the states of Odisha and West Bengal. (497 Km in Odisha & 91 Km in West Bengal).
- NW-5 will provide connectivity between Paradip/Dhamra Ports and Kalinganagar Industrial cluster (Pankapal) in Phase 1 and Mahanadi Coal Field Ltd. (Talcher) in Phase 2.
- Development of National Waterway-5 (NW-5) from Pankapal-Dhamra Port – Mangalgadi-Paradip Port covering 212 km with the following activities :
 - a. Monthly Longitudinal Thalweg Survey for assessing depth and horizontal/vertical clearance for cross structures/bridges.
 - b. Consultancy/Work has been awarded for:
 - Preparation of Detailed Project Report (DPR) followed by Front End Engineering Design (FEED) for hydrolic interventions, rectification of cross structures for navigational clearance,
 - Environmental clearance (EIA & EMP) including CRZ an Wildlife Clearance.
 - Navigational Clearance below existing power lines from Dhamra / Paradip to Pankapal on deposit basis through Govt. of Odisha

34. NATIONAL INLAND NAVIGATION INSTITUTE (NINI)

- i. 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 **9848** candidates have been trained at NINI till **31st October, 2018**.
- ii. The administration and management of the Institute is done by IWAI Patna from 1st of December, 2018.
- iii. NINI has got upgraded to ISO 9001:2015 certifications from American Bureau of Shipping Classification Society on 23rd 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 Shipping 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 Shipping 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 (FPFF)
- 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

35. 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)			
	2015-16	2016-17	2017-18	2018-19	2015-16	2016-17	2017-18	2018-19
Assam	182	187	191	198	178.73	3871.07	706066.16	272873.15
Bihar	138	138	138*	138*	2.40	2.40	2.40*	2.40*
Goa	159	311	266	250	429966.0	116600.8	71902.10	14839.4
Karnataka	66	66	66	66	50.5	29.98	93.27	0
Kerala	13819	5556	7656	5953	2912.06	326.64	447.98	262.35
Maharashtra @	678	384	1166	1391	14056.97	17642.72	18336.59	20397.93
Orissa	199	557	635	335	...	...	...	...
West Bengal	2106	2155	2216	2327	16730	22654	36719	46930
Tamil Nadu	2	2	2	2	...	...	...	...
Gujarat	...	...	...	495	...	...	...	...
TOTAL (reporting states)	17349	9356	12336	11155	463896.7	161127.6	833567.5	355305.2

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

*: Pertains to 2016-17 as data for 2018-19 is not provided by the state

@: Revised information for 2015-16 to 2018-19 is provided by Maharashtra Maritime Board.

... Not Available,

The total number of vessels in the States during 2018-19 was 11155 which is lower as compared to 12336 vessels in the year 2017-18. Kerala has reported the highest number of vessels 5953 followed by West Bengal (2327), Maharashtra (1391), Gujarat (495) and Orissa (335). However, the volume of cargo handled through these vessels in the year 2018-19 was 355305.2 thousand tonnes. Assam has reported the highest cargo handled through waterways which was 272873.15 thousand tonnes followed by West Bengal 46930 thousand tonnes.

PERFORMANCE OF COMPANIES ENGAGED IN IWT

36. The data received from 50 IWT companies shows that amongst the reporting private companies the maximum number of powered vessels was held by JSW Dharmatar Port Pvt. Ltd. (52) followed by Vedanta Limited (30), PNP Maritime services Pvt. Ltd. (25), Eastern Navigation Pvt. Ltd. (15) and Indo Energy International Ltd. (11). Detailed performance of companies engaged in inland water transport activities is given in Table 4.1 & 4.2 (section 4).

The Maximum cargo of 12757.00 thousand tonnes was carried by JSW Dharmatar Port Pvt. Ltd. followed by PNP Maritime services Pvt. Ltd. (3915.155 thousand tonnes), Vedanta Ltd. (1971.61 thousand tonnes), JSW Jaigarh Port Ltd. (1337.00), Indo Energy International Ltd. (944.63 thousand tonnes) and JSW Salav Steel Ltd. (553.18 thousand tonnes).

37. Cargo moved by top 15 reporting private companies in decreasing order of cargo moved along with the number of powered vessels employed in 2018-19 is given below in Table 10.

Table 10 : Top Fifteen Private Companies - Cargo moved and Vessels Operated 2018-19		
Name of the Company	No. of Powered Vessels	Cargo moved ('000 tonnes)
1. JSW Dharmatar Port Pvt. Ltd.	52	12757.00
2. PNP Maritime services Pvt. Ltd.	25	3915.155
3. Vedanta Limited	30	1971.61
4. JSW Jaigarh Port Ltd.	2	1337.00
5. Indo Energy International Ltd.	11	944.63
6. JSW Salav Steel Ltd.	7	553.18
7. S. V. Salgaocar, Goa	3	278.40
8. VIVADA Inland Waterways Ltd	10	273.60
9. V.M. Salgaocar Sales International	2	211.20
10. D.V. Salgaocar, Goa	3	170.40
11. Kerala Shipping & Inland Navigation Co. Ltd.	7	139.21
12. Infrastructure Logistics Pvt. Ltd.	2	105.77
13. Sesa Resources Ltd Goa	2	98.55
14. Ganges Water Transport co. Pvt. Ltd.	2	95.86
15. Haldia Nirman Projects Pvt. Ltd.	3	75.00

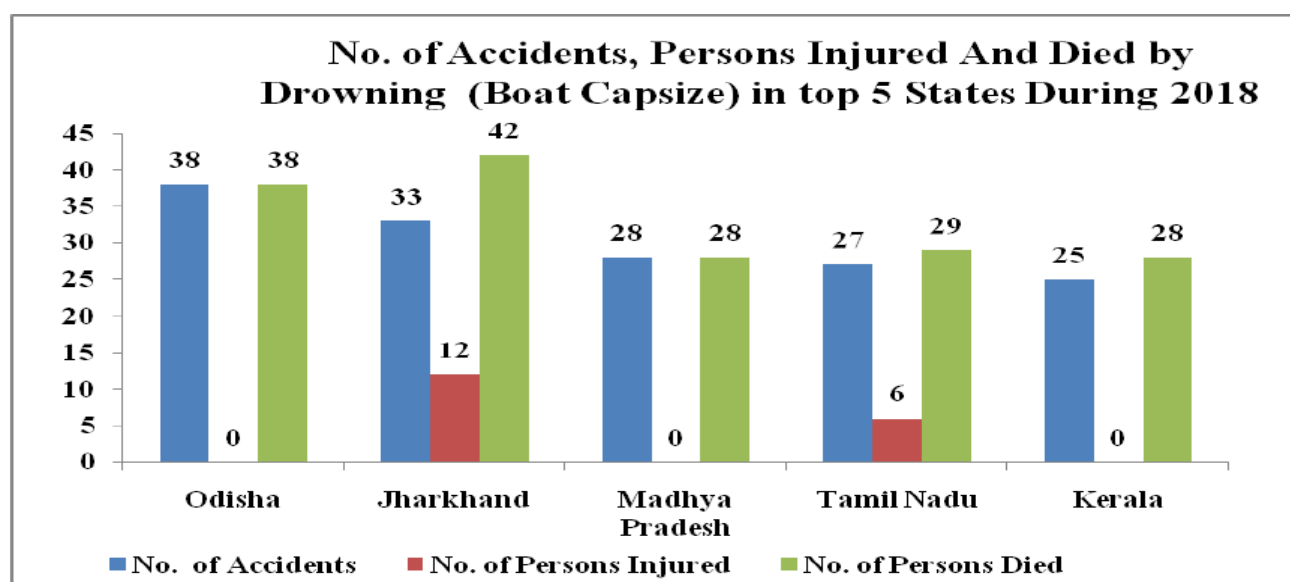
Source: Private Companies/ Undertakings engaged in inland water transport activities

FINANCIAL OUTLAY & EXPENDITURE FOR IWAI

38. 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 fund raised from Extra Budgetary Resources (EBRs) of Rs. 660 crore. The Budget Estimate (B.E.) during 2018-19 was Rs. 322.75 crore and Revised Estimate (R.E) during 2018-19 was Rs. 703.29 crore. The expenditure during the same year was Rs. 836.05 crore, expenditure during 2018-19. Out of Rs. 836.05 crore; the expenditure of Rs. 430.93 crore was done on one of the Central Sector Project namely Jal Marg Vikas Project (JMVP). For the year 2019-20 the Budget Estimate (B.E.) was Rs. 614.56 crore. Detailed financial outlay & expenditure for IWAI is given in Table 5.1 (section 5).

INLAND WATERWAYS TRANSPORT ACCIDENTS

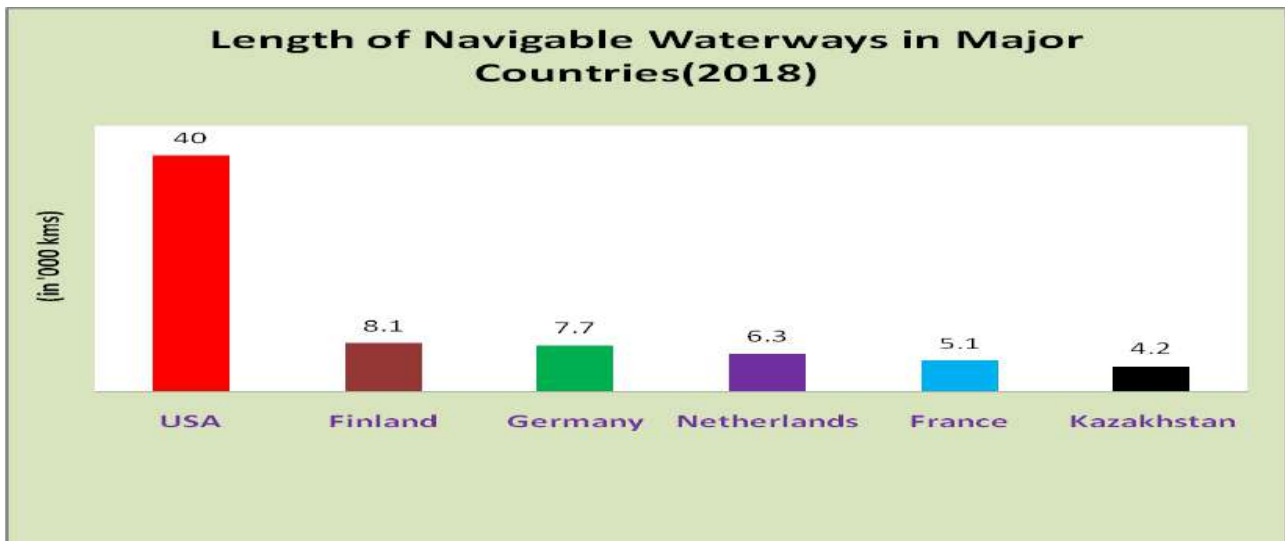
39. The total number of accidents on inland waterways during the year 2018 was 211 out of which 38 were reported in Odisha followed by Jharkhand and Madhya Pradesh with 33 and 28 accidents respectively. The number of deaths during the year due to boat mishaps was highest in Jharkhand at 42 followed by Odisha and Bihar with 38 and 37 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 2018 is presented in the graph given below.



Source: Accidental Deaths & Suicides in India- 2018, *National Crime Records Bureau, M/o Home Affairs, Govt. of India*

INLAND WATERWAYS IN SELECTED COUNTRIES

40. The maximum length of Navigable Inland Waterways in Europe and North America belongs to USA with 40000 Kms followed by Finland with 8,132 Kms, Germany with 7,675 Kms., Netherlands with 6,256 Kms, France with 5,065 Kms. and Kazakhstan with 4,151 Kms. in the year 2018 (table 7.1, section 7). However, the maximum quantity of Goods carried was in Belgium at 205 million tonnes followed by Germany at 198 million tonnes, and France at 57 million tonnes (table 7.4, section 7). Details of inland waterways in these selected countries are given in section 7.



Source: UNECE Database (https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS).

SECTION – 1

**NAVIGABLE WATERWAYS
AND INFRASTRUCTURE**

Table No. 1.1

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2018-19	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
1 ANDHRA PRADESH			
(i)	Godavari	1530	171
(ii)	Krishna	1400	157
(iii)	Others **	832	832
	Total	3762	1160
2. ASSAM			
(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
	Total	4267	1938
3. BIHAR ***			
(i)	Ganga	510	510
(ii)	Gandak	300	300
(iii)	Koshi	233	160
(iv)	Ghaghra	100	100
(v)	Sone	226	31
(vi)	Mahananda	140	...
(vii)	Burhi Gandak	400	...
(viii)	Punpun	200	...
(ix)	Phalgu Harihar	300	...
(x)	Kiul	100	...
(xi)	Kari Koshi	150	...
(xii)	Chandan	100	...
(xiii)	Karamnasha	144	...
(xiv)	Others	860	290
	Total	3763	1391

Table No. 1.1

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2018-19	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
4	GOA		
(i)	Mandovi	78	66
(ii)	Zuari	68	68
(iii)	Mapusa	27	27
(iv)	Chapora	34	32
(v)	Tiracol	29	23
(vi)	Sal	20	15
(vii)	Others	18	18
	Total	274	249
5	GUJARAT *		
	Total		
6	KARNATAKA		
(i)	Sharavathi	80	27
(ii)	Tungabhadra	375	375
(iii)	Malaprabha	270	230
(iv)	Chataprabha	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
	Total	2902	1215
7	KERALA \$\$		
(i)	Kallada	...	...
(ii)	lthikkara	...	...
(iii)	Muvattupuzha	...	...
(iv)	Menachil	...	...
(v)	Kariyar	...	...
(vi)	Manimala	...	...
(vii)	Kodoor	...	...
(viii)	Periyar	...	...
(ix)	Kodungallur	...	...
(x)	Ponnai Kochi	...	...
(xi)	Chalaky Kundoor	...	...
(xii)	Chaliyar	...	...
(xiii)	Kadalundi	...	...
(xiv)	Bharathapuzha	...	...
(xv)	Tirurpuzha	...	...
(xvi)	Poorapuzha	...	...
(xvii)	Keeranallur	...	...
(xviii)	Kanjiramukku	...	...

Table No. 1.1

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2018-19	
		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	2060.954	842.31
(xxxx)	Others **	1195.18	1055.18
	Total	3256.134	1897.49
8 MAHARASHTRA			
(i)	Dande River	2	1
(ii)	Pangere River	2	1
(iii)	Girye River	3	1
(iv)	Kajali River	35	5
(v)	Kalbadevi River	10	2
(vi)	Are River	6	1
(vii)	Jog River	10	5
(viii)	Kelshi River	10	3
(ix)	Savitri River(Bankot to Mahad)	45	40
(x)	Kal River	6	4
(xi)	Vaitarna River	24	9
(xii)	Ulhas River	32.5	28
(xiii)	Mahim River(Bay)	1.5	1
(xiv)	Amba River	23	20
(xv)	Patalganga River/Creek (Aware to Kharpada)	11	6.5
(xvi)	Kundalika River	16	16
(xvii)	Mandad River(Rajpuri to Mandad)	14	10
(xviii)	Mhasla River(Turmad to Mhasla)	9	5
(xix)	Vashisti River(Dabhol to Govalkot)	45	38
(xx)	Jagbudi River(Karambavne to Khed)	20	20
(xxi)	Shastri River/Jaigad Creek(Jaigad to 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
	Total	631.00	461.50

Table No. 1.1

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2018-19	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
9	ODISHA		
(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)	Bansagadai	...	32
(xii)	Hansua	...	37
(xiii)	Tirkota	...	18
(xiv)	Jamboo	...	6
(xv)	Gobari	...	16
(xvi)	Ramchandi	...	16
(xvii)	Kharansi	...	14
(xviii)	Batigharia	...	14
(xix)	Birupa	...	110
(xx)	Genguti	...	45
(xxi)	Luna	...	37
(xxii)	Devi	...	20
(xxiii)	Prachi	...	15
(xxiv)	Kadha	...	30
(xxv)	Kushabhadra	...	25
(xxvi)	Daya	...	9
(xxvii)	Rajua	...	7
(xxviii)	Makara	...	11
(xxix)	Others **	...	367
	Total \$	1378	1555
10	TAMIL NADU		
(i)	Anantha Victoria Marthandavarna (AVM)	27	...@@@
(ii)	North Buckingham Canal	58	... @@
(iii)	Central Buckingham Canal	7.1	... @@
(iv)	South Buckingham Canal	105	... @@
(v)	Mullai Periyar Lake	..	14
	Total	197.1	14
11	UTTAR PRADESH ***		
(i)	Gomti	960	...
(ii)	Rapti	778	...
(iii)	Ghaghra	1116	...
(iv)	Ganga	2345	425
(v)	Sai	760	...
(vi)	Tons	485	...
	Total	6444	425
12	WEST BENGAL		
(i)	Hooghly	580	580
(ii)	Mahananda	206	58
(iii)	Ajoy	174	174
(iv)	Jalangi	232	232

Table No. 1.1 (Contd...)

Navigable Waterways in India

(In Kms.)

Sl. No.	State/Rivers/Canals/Lakes	2018-19	
		Total Length of the Rivers/Canals/Lakes in the State	Navigable Length
1	2	3	4
(v)	Dwarka	129	129
(vi)	Bakreswar	102	102
(vii)	Damodar	437	437
(viii)	Dwarekeswar	103	103
(ix)	Silabati	135	135
(x)	Kumari	347	347
(xi)	Ichamati	232	232
(xii)	Others@	2064	2064
	Total	4741	4593
13	NAGALAND		
(i)	Tizu/Zungki	-	42
(ii)	Dhansiri/Chathe	-	110
(iii)	Dikhu	-	63
(iv)	Doyang	-	61
	Total	-	276
14	MIZORAM ***		
(i)	R. Tlawng (Dhaleswari)	238	81
(ii)	R. Kolodyne (Chhimtuipui)	196	22
(iii)	Khawthlang Tuipui	134	17
(iv)	R. Tuichawrg	167	19
(v)	Tul River	55	16
(vi)	Others	...	...
		790	155

Source: IWT Directorate of states.

* Data is reported nil for the year 2018-19

** Including Canals.

*** Information for the year 2018-19 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.

.@@@ The AVM canal was used for navigation during British period. Now the canal has been silted up heavily and lot encroachments were made. Navigation could be possible only after clearing encroachments and renovating the canal.

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

\$ \$ Total length & 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 31-3-2019)

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) BSN/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 31-3-2019)

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) Bateswarsthan	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.
3. Barh-Ghazipur : (290 km),Depth - 1.6 to 2.0					
(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	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.
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.
4. Ghazipur-Allahabad : (370 km) ,Depth -1.2 to 1.5					
* In Chunar- Allahabad stretch (198 km) no RC works was undertaken. Except day channel marking.					
(xix) Ghazipur/ Rajghat	300	One(floating)	...	...	Being used for embark/disembark and logistic support.
(xx) 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.
(xxi) 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 31-3-2019)

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	-	
(f) Silghat	600	One(floating)		Open storage facility available	
(g) Biswanath	600	One(floating)	Pontoon	Open storage facility available	DGPS station is commissioned.
(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 (Orumghat) : (139 km),Depth - 1.5					
(k) Oakland/ Dibrugarh	600	One(floating)	Pontoon	-	DGPS station is commissioned.
(l) Orumghat	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 31-3-2019)			
Place	Size of Vessels that can be accommodated (DWT)	No. of Berths	Cargo Handling Equip. and their Capacity	Type and Extent of Storage Facility Available	Remarks
1	2	3	4	5	6
National Waterways No. 3					
1. Kochi-Kottapuram : (30 km), Depth-2.0					
(a) Kottapuram	350.0	One 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.
2. Udyogmandal Canal : (23 km),Depth -2.0					
(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.
3. Champakara Canal : (14 km), Depth - 2.0					
(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.
4. Kochi - Kollam : (138 km) , Depth - 2.0					
(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.
(l)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 31-3-2019)**

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.
5. CPT Area : Depth -2.0					
(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 31-3-2019)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	Cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9
1	ANDHRA PRADESH*** Kakinada to Puducherry	-	-	-	-	-	-	-
2	BIHAR *** Ganga River	2 metres	(I) (a) Sahebganj- Manihari	134'x31' 80'x15'x7' 55'x13'3"x4'8"	2 Nos. 1 Nos. 1 Nos.	Nil Nil Nil	Nil Nil Nil	- - -
			(II) Kahalgaon-Tintanga	60'x16'x6'	2 Nos.	Nil	Nil	-
			(III) Sultanganj - Agwani	70'x18'x6'	2 Nos.	Nil	Nil	-
			(IV) (a) Munghyr- Raighat	56'3"x14'2"x5'9" 58'3"x16'4"x5'8" 47'2"x12'6"x5'8" 59'5"x15'6"x5'6"	1 Nos. 1 Nos. 1 Nos. 1 Nos.	Shore crane- 2 Pontoon crane-2 Container crane-1	Godown	-
			(V) Buxar-Ujiyarghat	-	2 Nos.	-	-	At IWAI terminal
3	GOA Panaji Port (River Mandovi)	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 31.3.2019)

Sl. No.	Navigational Channel	Depth (Meters)	Availability and Capacity of Terminals					Remarks
			Place	Size of vessels that can be accommodated (DWT)/dimension	No. of berths	Cargo handling equip. and their capacity	Type and extent of storage facility available	
1	2	3	4	5	6	7	8	9
4	Odisha							
	Balugaon Sector							
	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.
	Astarang Sector							
	Nuagarh-Sribantpur	Varies between 2 to 10 meters	River Devi	26 ft	3	-	-do-	Passenger waiting hall & Jetty are available at Balugaon & Nuagarh.
	Chandabali Sector							
	Chandabali-Rajnagar	Varies between 7 to 10 metres	River Brahmani/ Baitarani	52 ft	13	-	-do-	Jetty & waiting hall are available at Chandabali, Nalitapatia, Chardia & Raj Nagar.
	Chandabali-Talucha	Varies between 7 to 20 metres	River Brahmani/ Baitarani	50 ft	10	-	-do-	Jetty & waiting hall are available at Chandabali, Dhamara, Nalitapatia & Chardia.
	Chandabali-Aradi	Varies between 7 to 18 meters	River Brahmani	35 ft	3	-	-do-	Jetty and waiting hall are available at Chandabali & Aradi.
5	TAMILNADU							
	Periyar Lake in Kerala	41.46	Thekkady	Vessel 1 (kannagi) Length-8.5m Breadth-3m Depth-1.4m	-	-	-	-
	(Under lease in Tamil Nadu)			Vessel 2(Jalratna) 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 31.3.2019)

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							
	...	1.5	Irrigation Division, Kollam	50 T	-	...	...	Managed by Inland Waterway Authority of India
	...		Irrigation Division, Kottayam				3800 Sq /Feet/Godown	
	...	3.75		Barrage 250/metric ton	2		40000/sq/feet godown	Managed by Kottayam Port & Container Terminal Service Pvt. Ltd.
	...		Irrigation Division, Ernakulam	....			
	...		Additional Irrigation Division, Thrissur	....			
	...		Irrigation Division, Malappuram					
	...		Inland Navigation Division, Kozhikkode	....			
	...	2	Inland Navigation Division, Kollam					
	...	5.5	Inland Navigation Division, Kannur					
	...		KSINC, Kochi	....			
	...		S W T, Dept.. Allappuzha	....			

Source : State Govts.

*** Information for 2018-2019 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)			
			2015-16	2016-17	2017-18	2018-19	2015-16	2016-17	2017-18	2018-19
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	62.37	45.05	54.79	73.49	26995	24598.00	27773.00	29003.84
2	National Waterway No. II (Sadiya-Dhubri stretch of Brahmaputra River system)	891.00	25.84	25.91	31.62 \$	28.72	505	503.00	614.69	561.00
3	National Waterway No. III (Kollam-Kottapuram stretch of West Coast Canal along with Champakara Canal and Udyogmandal Canal)	205.00	10.61	10.33	4.28	4.20	105	109.00	81.14	88.30
4	National Waterway No. IV (Kakinada-Pudducherry stretch)*	2890.00				4.50				10.00
	Sub Total NWs	5606.00	98.82	81.29	90.69	110.91	27605.00	25210.00	28468.83	29663.14
5	Goa Waterways	202.00	49.75	157.68	111.62	37.72	1987	7884.00	5581.06	1886.40
6	Maharashtra Waterways	453.00	140.57	176.43	183.37	203.98	3931	5214.00	5520.00	5972.00
7	Gujarat Waterways (from Oct 2017)				115.20	288.20			1728	4300
8	Sunderban Waterways#	172				32.30				5600
	Grand Total	6261.00	289.14	415.40	500.88	673.11	33523.00	38308.00	41297.89	47421.54

Source: Inland Waterways Authority of India for National Waterways, Gujarat Waterways and Sunderban 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). Revised information for 2016-17 to 2018-19 is provided by Maharashtra Maritime Board.

\$: Revised information has been furnished by IWAI in respect of unorganized sector (560924.2 tonnes) operated on NW-II during 2017-18

#: Included for the first time

* NW-4 comprising of Kakinada-Pudducherry stretch of canals and the Kaluvelly Tank, Bhadrachalam-Rajahmundry stretch of river Godavari and Wazirabad-Vijawada stretch of Krishna in Andhra Pradesh & Tamil Nadu

Table No. 2.2

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
A. CIWTC							
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
	Sub Total (A)		0	0	0	0	
B. VIVADA IWL							
1	Haldia-Sagar	35	2098	2697	331	0	FO/HF HSD
2	Haldia-Budge-Budge	78/84	59793	57141	51960	57182	FO, HF HSD, Lube
3	Haldia-KPD/NSD/RVM	106/105	46615	47570	63130	63964	HF HSD, Lube Oil, FO
4	Haldia-Diamond Harbour	29	1565	4070	758	1244	FO, HF HSD
5	Budge-Budge-NSD/KPD/RVM/Suri	21/19	2183	40	1319	440	HF, HSD, FO
6	Haldia- J'Ham	10	17419	12565	16544	17407	FO, HF HSD
7	Budge-Budge-KPD	21	2824	865	0	0	FO, HSD
8	Haldia-Namkhana	46	2626	2870	2940	2165	HF, HSD
9	Budge-Budge-Pujali	5	0	...	0	0	LDO
10	Haldia-Haldia Oil Barge	3	84196	81164	74822	83882	FO, HF HSD
11	Haldia-Haldia Oil Jetty	3	50525	57563	53195	71782	FO, HF HSD
12	Surninam-KPD	2	0	356	300	0	FO
13	Surninam-NSD	1	1461	156	0	0	HSD, HF
14	Haldia-HOB	3	...	...	0	0	
15	Haldia-KPD	105	...	16522	0	0	
16	Haldia- Noorpur	43	0	0	0	0	
17	Haldia-Ramnagar	101	2379	896	2458	0	LUBE
18	Budge Budge - Kolkatta	21	...	0	0	0	HF, HSD
19	Haldia-Titagar	127	...	...	...	82	HF HSD
	Sub Total (B)		273684	284475	267757	298149	
C. OTHER PRIVATE OPERATORS							
1 TIRUPATI VESSEL (P) LTD.							
1	Budge- Budge(Kol)- Khulna	497	60,498	42,012	27,661	6,514	Flyash
2	Budge- Budge Narayanganj	884	2,77,590	2,75,025	2,51,660	2,08,548	Flyash
3	Budge- Budge- Mongla	484	...	...	-	-	Flyash
4	IWAI Haldia Jetty-Khulna	439	30,781	36,692	40,663	50,541	Flyash
5	IWAI Haldia Jetty-Narayanganj	826	17,538	26,408	42,586	41,426	Flyash
6	Samdaghat (Sahebganj) to Manihari & vise versa	14	...	...	...	3,48,280	Stone chips
2 RELIANCE EXPORT CORPORATION							
1	T.T.Shed-Narayanganj	910	...	...	0	0	Flyash
2	Budge- Budge Narayanganj	884	...	...	0	0	Flyash
3	IWAI BISN Jetty-Narayanganj	909	...	...	0	0	Flyash

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

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
C.	OTHER PRIVATE OPERATORS						
3	Maitrayee Shipping & Logistics						
1	IWAI BISN Jetty-Narayanganj	909	20102	10010	7050	4152	Flyash
2	IWAI BISN Jetty-Khulna	522	...	...	0	0	Flyash
3	T.T.Shed-Narayanganj	910	8234	7897	37170	33433	Flyash
4	T.T.Shed-Mongla	510	...	...	0	0	Flyash
5	Budge Budge- Naryanganj	884	28140	31196	35427	13993	Flyash
6	Budge Budge- Khulna	497	...	...	0	0	Flyash
7	Sri Ram Jetty - Narayanganj	905	2145	2839	715	0	Flyash
8	Budge Budge - Karimganj	1332	715	...	0	0	Flyash
9	IWAI BISN Jetty - Karimganj	1357	1858	...	0	0	Flyash
10	Karimganj-T. T. Shed	1358	53	...	0	0	Iron Fabricated
11	Gr Jetty II - Narayanganj	909	...	...	2987	10352	Flyash
4	P K Shipping						
1	Orient Jute Mill- Ashuganj	1015	8024	...	0	0	Rice
2	Budge- Budge Narayanganj	884	...	...	0	0	Flyash
3	Narayanganj- T.T.Shed	910	...	...	0	0	Cement
4	K.P.Dock-Narayanganj	910	1030	...	0	0	Prime mild steel billets, Steel Coils & Plates
5	Haldia H.D.C.-Karimganj	1274	...	...	0	0	Coal
6	KP Dock- Ashuganj	1038	...	3339	0	0	Steel Materials / GC Sheet, Rice
7	Kolkatta-Karimganj	1358	...	...	0	0	ODC Kargo
8	Diamond Harbour-Ashuganj	962	...	...	0	0	Food Grain (Rice)
9	Sri Ram Jetty-Narayanganj	905	...	...	0	0	Flyash
10	K.P.Dock-Khulna	523	495	...	0	0	Dolomite Powder, Steel Sheet
11	T. T. Shed - Narayanganj	910	...	...	0	0	Flyash
12	IWAI BISN Jetty - Narayanganj	909	...	...	0	0	Flyash
13	K.P.Dock-Mongla	510	...	...	0	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	0	Project Cargo
5	SOHAM COMMERCIAL						
1	Sri Ram Jetty-Narayanganj	905	...	...	945	0	Flyash
2	Kolkatta(Sri Ram Jetty)-Narayanganj	905	...	...	0	0	Flyash
3	T.T.Shed-Narayanganj	910	97014	97668	57852.02	3288	Flyash, Stone Chips
4	T.T.Shed-Khulna	523	...	...	8545.53	4335	Stone Chips
5	Khulna - FSEZ Jetty(Falta), Kolkatta, India	472	...	...	0	0	Jute Carpet, Baking Cloth
6	KPD - Narayanganj	910	...	...	0	0	Steel Coil
7	IWAI BISN Jetty - Narayanganj	909	3362	...	0	0	Flyash
8	IWAI BISN Jetty - Khulna	522	...	...	0	0	Flyash
9	Putimari Jetty-Khulna (Sohom Overseas)	906.5	...	...	...	6356	Stone Chips
6	RENAISSANCE IMPEX Pvt Ltd						
1	IWAI BISN Jetty-Narayanganj	909	5136	5925	4888	0	Flyash
2	IWAI BISN Jetty-Karimganj Assam	1357	...	...	0	0	Flyash, HDPE Bags, Coal
3	Sri Ram Jetty-Narayanganj	905	...	...	0	0	Flyash
4	Karimganj Assam-IWAI BISN Jetty	1357	...	...	0	0	Coal
5	IWAI Haldia Jetty- Narayanganj	826	6523	...	0	0	Flyash
6	Shri Ram Jetty- Mongla	505	...	...	0	0	Flyash

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

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
7	TT Shed-Narayanganj	910	12050	10839	4958	0	Flyash
8	Budge Budge Naryanganj	884	6066	9140	2150	0	Flyash
9	Budge Budge Karimganj	1332	...	...	0	0	Flyash
10	KPD - Mongla	510	...	...	0	0	Prime Hot Roll Non Alloy Steel Coils
11	TT Shed-Khulna	523	...	...	0	0	Flyash
12	GR Jetty II- Narayanganj	909	...	1880	0	0	
13	IWAI Haldia Jetty- Khulna	439	...	...	755	0	Flyash
7	Rivering Shipping & Logistics						
1	IWAI Haldia Jetty-Khulna	439	2520	796	0	0	Flyash
2	Budge- Budge (Kol)- Khulna	497	4102	5199	6309	11145	Flyash
3	Budge Budge-Naryanganj	884	19121	14554	18912	39480	Flyash
4	TT Shed-Narayanganj	910	46354	42034	45438	44885	Flyash
5	K P Dock- Khulna	523	...	...	0	0	Wheat
6	Sri Ram Jetty-Khulna	518	793	...	1486	0	Flyash
7	Sri Ram Jetty-Narayanganj	905	5777	5608	10764	0	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	13033	9069	10687	24374	Flyash
9	K P Dock- Mongla	510	...	...	0	0	Maize
10	NSD - Mongla	508	...	...	0	0	Maize
11	IWAI BISN Jetty-Khulna	522	3470	2970	1892	0	Flyash
12	IWAI BISN Jetty-Narayanganj	909	...	2901	1964	2598	Flyash
13	GR Jetty II- Khulna	522	...	1045	0	1573	Flyash
14	HDC Fly Ash Jetty Haldia-Narayanganj	826	...	9924	5775	9552	Flyash
15	T.T.Shed-Khulna	523	1026	1100	805	741	Flyash
16	Kolaghat-GR Jetty II	97	...	192	0	0	Cement
17	GR Jetty II- Narayanganj	909	...	...	2887	8311	Flyash
18	GR Jetty II - Mongla	509	...	...	1596.44	0	Rice, De Oiled Rice Bran Extraction
8	GLOBAL SHIPPING & Forwarding						
1	Budge Budge-Narayanganj	884	820	1429	1380	840	Flyash
2	Budge Budge-Khulna	497	815	3059	14113	19153	Flyash
3	IWAI BISN Jetty-Khulna	522	1571	5155	3746	890	Flyash
4	IWAI BISN Jetty-Narayanganj	909	...	1458	0	0	Flyash
5	T.T.Shed-Khulna	523	...	...	3164	2221	Flyash
6	IWAI Haldia Jetty - Khulna	439	6930	...	2492	882	Flyash
7	T.T.Shed-Narayanganj	910	1930	750	708	860	Flyash
8	IWAI Haldia Jetty - Narayanganj	826	5338	...	0	0	Flyash
9	Sri Ram Jetty-Narayanganj	905	...	...	0	0	Flyash
10	HDC Fly Ash Jetty Haldia-Khulna	439	...	14338	4045	5007	Flyash
11	HDC Fly Ash Jetty Haldia-Narayanganj	826	...	1500	2655	780	Flyash
12	Sri Ram Jetty-Narayanganj	905	...	2349	0	0	
13	Sri Ram Jetty-Khulna	518	...	3114	0	0	
14	GR Jetty II- Khulna	522	...	...	...	1678	Flyash
15	Budge Budge-Mongla	484	...	...	...	888	Flyash
9	COASTAL CONNEXIONS						
1	Budge Budge-Narayanganj	884	...	7989	0	2386	Flyash
2	Budge Budge-Karimganj	1332	...	...	0	0	Flyash
3	Budge Budge-Khulna	497	831	9058	17470	21024	Flyash
4	IWAI BISN Jetty-Narayanganj	909	...	...	0	0	Flyash
5	BISN Jetty-Narayanganj	1357	...	...	0	0	Flyash
6	IWAI BISN Jetty-Karimganj	1357	...	...	0	0	Flyash

Table No. 2.2

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
7	BISN Jetty-Karimganj	1357	...	...	0	0	Coal
8	IWAI BISN Jetty-Khulna	532	16074	7330	6973	0	Flyash
9	IWAI Haldia Jetty-Khulna	439	5646	3608	8491	9291	Flyash
10	IWAI Haldia Jetty-Narayanganj	826	1055	2625	0	0	Flyash
11	Karimganj(Badarpur, Assam) - Narayanganj	478	...	...	0	0	Cement Clinker
12	GR Jetty II - Khulna	522	...	...	945	4256	Flyash
10	KANISHKA SHIPPING LINES						
1	Budge Budge-Narayanganj	884	23420	23023	46519	13236	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	142072	180532	224781	168868	Flyash
3	Sri Ram Jetty-Khulna	518	2039	1996	0	0	Flyash
4	T.T.Shed-Narayanganj	910	25944	54542	17342	59215	Flyash
5	Sri Ram Jetty-Narayanganj	905	16848	6107	9252	0	Flyash
6	IWAI BISN Jetty-Khulna	522	...	10384	24630	34832	Flyash
7	IWAI BISN Jetty-Narayanganj	895/909	9216	13876	6443	17474	Flyash
8	T.T. Shed - Mongla	510	...	...	0	0	Flyash
9	IWAI Haldia Jetty-Khulna	439	...	14354	34537	43339	Flyash
10	IWAI Haldia Jetty-Mongla	426	848	1608	0	0	Flyash
11	Diamond Harbour - Ashuganj	962	...	...	0	0	Foodgrain(Rice)
12	HDC Fly Ash Jetty-Narayanganj	826	11699	6289	32572	650	Flyash
13	T. T. Shed-Khulna	523	1032	14534	24829	21136	Flyash
14	KPD-Mongla	510	1028	642	0	2006	Machinery, Steel Cargo, Steam Turbine Associated
15	Budge Budge-Khulna	497	...	9360	47485	6999	Flyash
16	GR Jetty 2- Narayanganj	909	...	3570	60128	102712	Flyash
17	HDC Fly Ash Jetty-Khulna	439	...	1791	0	0	
18	Budge Budge - Mongla	484	...	...	1125	0	Flyash
19	GR Jetty II- Khulna	522	...	...	6617	25357	Flyash
20	GR Jetty II - Narayanganj	909	...	...	1500	0	Rice Brown
21	HDC - Ashuganj	954	...	...	556.97	1732	Steel Pipe
22	KPD- Narayanganj	910	...	...	1482.42	...	Wire Rod Coil
23	Putimari Jetty-G.R. Jetty-2	384.5	...	...	...	720	Stone Chips
24	Putimari Jetty-Mongla(Star Mourya Power)	893.5	...	...	...	1210	Stone Chips
25	GR Jetty II- Mongla	509	...	...	...	9171	Construction Material & Steel Cargo, New Empty Gas Cylinders, Steam Turbine, Steel Cargo & Associated miscellaneous
26	NSD - Mongla	508	...	...	...	2069	Steam Turbine, Steel Cargo Associated
27	HDC - Narayanganj	826	...	...	...	4189	Hot Rolled Steel Coils
11	Eastern Navigation Pvt Ltd., Kolkatta						
1	Kolkatta-Zamania	1065	...	...	0	0	ODC Cargo
2	Kolkatta-Silghatghat	1748	...	...	0	0	ODC Cargo
3	Haldia-Silghatghat	1664	...	...	0	0	ODC Cargo
4	T.T. Shed - Pandu	1573	...	...	0	0	Control & Protection Equipments for HVDC
5	Kolkatta-Jogigopa, Assam	1432	...	310	0	981	ODC Cargo
6	Rajmahal to Atthmalgola	303	...	...	360	0	Steam Turbine of complete Generator Stator
7	Atthmalgola to Bakhtiyarpur	30	...	...	150	0	Crawler crane
8	Mahenderpur to Munger	27	...	...	75	0	Crawler crane
12	A.K.Navigation						
1	T.T.Shed-Narayanganj	910	21553	25322	0	0	Flyash
2	T.T.Shed-Khulna	523	...	...	0	0	Wheat

Table No. 2.2
(Contd...)

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
13	Desha International						
1	Budge Budge-Narayanganj	884	108031	98890	152726	270594	Flyash
2	IWAI Haldia Jetty-Khulna	439	21998	22156	5085	16935	Flyash
3	IWAI Haldia Jetty-Mongla	426	6375		2218	3453	Flyash
4	Budge Budge-Khulna	497	14909	36121	36171	53414	Flyash
5	IWAI BISN Jetty-Narayanganj	909	21148	30420	25035	4257	Flyash
6	IWAI BISN Jetty-Karimganj	1357	...		0	0	Flyash
7	BISN Jetty-Karimganj(Badarpur)	1357	...		0	0	Coal
8	Sri Ram Jetty-Mongla	505	...		0	0	Flyash
9	Sri Ram Jetty-Khulna	518	10479	10800	15272	0	Flyash
10	Sri Ram Jetty-Narayanganj	905	35915	41543	58864	0	Flyash
11	T.T.Shed-Mongla	510	...	760	359	0	Wheat,Soyabean Extraction, Maize
12	T.T.Shed-Khulna	523	2714	4665	21525	6920	Flyash
13	T.T.Shed-Narayanganj	910	121599	130564	206367	102426	Flyash
14	K.P.Dock-Mongla	510	2006		4058.98	5229	Rice, Steel Plates, Rapeseed Extraction
15	K.P.Dock-Khulna	523	...		548.2	90	Steel Plates, Pipes & Accessories
16	IWAI Haldia Jetty-Narayanganj	826	255415	411400	510991	519361	Flyash
17	IWAI BISN Jetty-Khulna	532/522	2651	705	1799	685	Flyash
18	Budge Budge- Mongla	484	...	...	690	1610	Flyash
19	IWAI BISN Jetty (kol)- Mongla	509	1410	...	0	0	Flyash
20	K.P.Dock-Narayanganj	910	...	...	4150.98	1786	Soyabean Extraction, Steel Plates Sponge iron
21	NSD - Narayanganj	908	...	...	0	0	Soyabean Extraction, Maize
22	NSD- Mongla	508	...	...	0	3331	Maize, Steel Plate,Project Cargo
23	Gr. Jetty II - Mongla	509	...	...	20960.07	3451	Rice, Soyabean Extraction, Stone Chips, Railway Track, Steel Plates, De Oiled Rice Bran Extraction, Project cargo
24	IWAI Haldia Jetty-Karimganj	1274	779	...	0	0	Flyash
25	HDC-Mongla	426	1168	3674	1984.73	0	Steel Coils
26	HDC Fly Ash Jetty-Narayanganj	826	17751	37458	109221	51355	Flyash
27	GR Jetty II- Narayanganj	909		7289	27277	29019	Flyash, Parboiled Rice
28	GR Jetty II- Khulna	522		630	5411	8288	Flyash, Stone Chips
29	HDC Fly Ash Jetty-Khulna	439		4695	10700	842	Flyash
30	KPD - Narayanganj	910			2300	0	Rapseed Extraction
31	IWAI Haldia Jetty - Ashuganj	945			220.56	0	Edible Oil
32	HDC - Narayanganj	826			6115.92	0	Steel Coils
33	Gumani-Ashuganj (Rajesh Auto Merchandise Pvt. Ltd.)	1444	...	...	...	2080	Stone Chips
34	Gumani-Mongla (Rajesh Auto Merchandise Pvt. Ltd.)	916	...	...	...	20695	Stone Chips
35	Putimari Jetty-Mongla (Kuchupara Infra Projects)	893.5	...	...	...	1208	Stone Chips
36	Putimari Jetty-Narayanganj (Kuchupara Infra Projects)	1293.5	...	...	...	1628	Stone Chips
37	GR Jetty II - Ashuganj	1037	...	...	...	4239	Parboiled Rice, Stone Chips
14	Reliance Enterprise						
1	Budge Budge-Narayanganj	884	...	2132	0	0	Flyash
2	Budge Budge-Khulna	497	...	...	0	0	Flyash
3	Sri Ram Jetty-Khulna	518	...	...	0	0	Flyash
4	IWAI BISN Jetty-Narayanganj	909	...	...	0	0	Flyash
5	T.T.Shed-Narayanganj	910	41934	18431	0	0	Flyash
7	IWAI Haldia Jetty-Narayanganj	826	...	851	0	0	Flyash
8	IWAI Haldia Jetty-Khulna	439	...	...	0	0	Flyash
9	Sri Ram Jetty-Narayanganj	905	...	...	0	0	Flyash

Table No. 2.2
(Contd...)

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
15	Saha Oversees Corporation						
1	Budge Budge-Narayanganj	884	...	...	0	0	Flyash
2	Sri Ram Jetty-Khulna	518	...	...	0	0	Flyash
3	T.T.Shed-Narayanganj	910	...	...	0	0	Flyash
16	C. Day & Brothers						
1	Budge Budge-Narayanganj	884	19594	24651	36724	53294	Flyash
2	Budge Budge-Khulna	497	2174	3512	5647	7749	Flyash
3	Sri Ram Jetty-Khulna	518	...	...	0	0	Flyash
4	Sri Ram Jetty-Narayanganj	905	...	1887	2216	0	Flyash
5	IWAI Haldia Jetty-Mongla	426	...	...	0	0	Flyash
6	IWAI Haldia Jetty-Khulna	439	11207	2244	3317	655	Flyash
7	IWAI BISN Jetty-Narayanganj	909	7229	5560	2514	5239	Flyash
8	IWAI Haldia Jetty-Narayanganj	826	23246	2664	1436	61333	Flyash
9	T.T.Shed-Khulna	523	...	...	0	0	Flyash
10	T.T.Shed-Narayanganj	910	17172	5707	620	1394	flyash, Ironfines
11	IWAI BISN Jetty - Khulna	522	1683	1921	0	654	Flyash
12	HDC Fly Ash Jetty-Narayanganj	826	3385	682	0	0	Flyash
13	HDC Fly Ash Jetty-Khulna	439	...	650	1428	1414	Flyash
14	GR Jetty II- Narayanganj	909	...	2322	3378	13783	Flyash
17	Fortune Cargo (India Pvt Ltd)						
1	Budge Budge-Narayanganj	894/884	15934	23503	27197	33428	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	9579	2063	0	2133	Flyash
3	T.T.Shed-Narayanganj	910	872	1652	1758	28342	Flyash
4	IWAI BISN Jetty-Khulna	522	...	...	1045	0	Flyash
5	IWAI BISN Jetty-Narayanganj	909	9737	13149	1380	10165	Flyash
6	T.T.Shed-Khulna	523	...	...	0	0	Flyash
7	Sri Ram Jetty - Narayanganj	905	...	670	0	0	Flyash
8	Sri Ram Jetty - Khulna	518	933	...	0	0	Flyash
9	IWAI Haldia Jetty-Khulna	439	1090	...	0	0	Flyash
10	Budge Budge-Khulna	497	...	624	6704	3261	Flyash
11	G.R. Jetty-II-Narayanganj	909	...	...	...	9816	Flyash
18	Sea Water Transport Co. Pvt Ltd						
1	T.T.Shed-Khulna	523	...	...	0	0	Wheat
2	K.P. Dock-Mongla	510	...	...	0	0	Steel Coils, Steel Plates, Steel items
3	IWAI Haldia Jetty-Mongla	426	...	...	0	0	Flyash
4	IWAI BISN Jetty-Khulna	522	...	...	0	0	Flyash
19	Krishna Shipping & Logistics						
1	Budge Budge- Narayanganj	884	...	...	0	0	Flyash
2	Budge Budge- Karimganj	1332	...	...	0	0	Flyash
3	TT Shed- Narayanganj	910	...	...	0	0	Flyash
4	Kolkatta- Pandu	1432	...	...	0	0	ODC Cargo
5	G.R. Jetty-II-Ashuganj	1037	4285	1364	0	0	Steel Bridge Girder
6	N. S. Dock, Kolkata-Sahibganj, Jharkhand	478	...	...	...	244	ODC Cargo
7	G.R. Jetty-II-Khulna	522	...	...	...	933	Steel Girder
8	Rajmahal to Sahibganj	39	...	...	...	244	Harbour Crane

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

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
20	Neli						
1	Budge Budge-Narayanganj	884	8745	12409	1200	0	Flyash
2	IWAI Haldia Jetty-Narayanganj	826	...	...	1720	0	Flyash
3	IWAI BISN Jetty-Narayanganj	909	9415	9262	9394	3330	Flyash
4	T.T. Shed - Narayanganj	910	11978	11607	14876	9866	Flyash
5	T.T. Shed - Khulna	523	...	...	980	0	Flyash
6	Budge Budge-Khulna	497	...	...	0	0	Flyash
7	Sri Ram Jetty- Mongla	505	...	...	0	0	Flyash
8	Sri Ram Jetty- Khulna	518	...	...	0	0	Flyash
9	Budge Budge- Karimganj	1332	...	...	0	0	Flyash
10	Kolkatta- Narayanganj	894	...	...	0	0	Flyash
11	IWAI BISN Jetty-Karimganj	1357	...	...	0	0	Flyash
12	T.T. Shed-Mongla	510	2120	855	0	0	Flyash
13	GR Jetty II- Narayanganj	909	...	2370	0	0	Flyash
14	Sri Ram Jetty- Narayanganj	905	...	866	0	0	Flyash
21	Ajbela Navigation						
1	Sri Ram Jetty-Khulna	518	1608	...	0	0	Flyash
2	Sri Ram Jetty-Narayanganj	905	6328	3852	1712	0	Flyash
3	K.P.Dock-Khulna	523	...	...	0	0	Wheat
4	T.T.Shed-Narayanganj	910	33313	29804	45141	23336	Flyash
5	T.T.Shed-Mongla	510	...	840	0	0	Maize
6	T.T.Shed-Khulna	523	895	901	3867	1075	Flyash
7	HDC Fly Ash Jetty-Narayanganj	826	...	14324	13565	13326	Flyash
8	Budge Budge-Narayanganj	884	35311	21604	5727	25402	Flyash
9	Budge Budge-Khulna	497	690	3579	0	7013	Flyash
10	IWAI Haldia Jetty-Mongla	426	...	...	0	0	Flyash
11	IWAI Haldia Jetty-Khulna	439	...	1680	0	0	Flyash
12	IWAI Haldia Jetty-Narayanganj	836/826	35877	19814	8472	24270	Flyash
13	IWAI BISN Jetty - Narayanganj	909	2032	4708	737	744	Flyash
14	IWAI Haldia Jetty-Karimganj	1274	678	...	0	0	Flyash
15	GR Jetty II - Narayanganj	909	...	...	5734	2831	Flyash
16	GR Jetty II - Mongla	509	...	...	1017.71	0	Rice
17	GR Jetty II - Khulna	522	...	...	...	925	Flyash
18	HDC Fly Ash Jetty-Khulna	439	...	...	...	3476	Flyash
22	Reach Asia						
1	Kolkatta-Jogighopa, Assam	1392	...	...	0	0	ODC Cargo
23	Neticon						
1	KP Dock- Khulna	510	...	...	0	0	Wheat
24	Duttson						
1	T.T.Shed-Narayanganj	910	756	...	7222	6309	Flyash
2	IWAI BISN Jetty-Narayanganj	909	2216	9239	878	545	Flyash
3	Budge Budge-Narayanganj	884	2253	5419	9891	32341	Flyash
4	IWAI Haldia Jetty - Mongla	426	...	621	0	0	Flyash

Table No. 2.2
(Contd...)

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

SI. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
5	IWAI Haldia Jetty - Narayanganj	826	11340	13452	18257	26421	Flyash
6	IWAI Haldia Jetty - Khulna	439	...	...	0	0	Flyash
7	IWAI BISN Jetty-Khulna	522	...	...	0	0	Flyash
8	IWAI BISN Jetty-Karimganj	1357	...	...	0	0	Flyash, Spare parts
9	Budge Budge-Karimganj	1332	...	...	0	0	Flyash
10	Karimganj(Badarpur) - Narayanganj	478	...	...	0	0	Cement Clinker
11	Sri Ram Jetty - Narayanganj	905	795	484	8934	0	Flyash
12	IWAI Haldia Jetty-Karimganj	1274	640	...	0	0	Flyash
13	Budge Budge-Khulna	497	...	730	0	2120	Flyash
14	GR Jetty II- Narayanganj	909	...	3740	7178	2310	Flyash
15	HDC Fly Ash Jetty-Narayanganj	826	...	564	2975	0	Flyash
16	T.T.Shed-Khulna	523	...	...	1420	1430	Flyash
17	Sri Ram Jetty - Khulna	518	...	...	1688	0	Flyash
18	KPD- Mongla	510	...	...	2292	0	Rice
19	HDC Fly Ash Jetty-Khulna	439	...	...	...	726	Flyash
25	Seaways Shipping & Logistics Ltd.						
1	KP Dock - Mongla	510	...	...	0	0	Steel Plates, Steel coils, Steel items
26	J.D.Shipping						
1	Budge Budge-Narayanganj	884	18464	35160	29310	59298	Flyash
2	Sri Ram Jetty(Kol) - Narayanganj	905	8387	8119	802	0	Flyash
3	Sri Ram Jetty(Kol) - Khulna	518	...	...	0	0	Flyash
4	Sri Ram Jetty(Kol) - Mongla	505	...	...	0	0	Flyash
5	IWAI Haldia Jetty - Narayanganj	826	4464	2268	2348	10231	Flyash
6	KP Dock - Mongla	510	...	...	0	0	Steel plate, Steel items
7	KP Dock - Narayanganj	910	...	...	0	0	Machinery
8	KP Dock - Khulna	523	...	...	0	0	Steel plate
9	T.T. Shed - Narayanganj	910	5485	23342	17155	22106	Flyash
10	IWAI BISN Jetty - Narayanganj	909	1984	12854	9700	2528	Flyash
11	HDC Fly Ash Jetty-Narayanganj	826	3378	6160	0	72820	Flyash
12	Karimganj - Ashuganj	320	...	...	210	0	Lime Stone
13	G.R. Jetty II - Narayanganj	909	...	...	5093	0	Flyash
14	Budge Budge-Khulna	497	...	...	...	1601	Flyash
15	HDC Fly Ash Jetty-Khulna	439	...	...	...	15589	Flyash
16	IWAI BISN Jetty - Khulna	522	...	...	...	605	Flyash
17	T.T. Shed - Khulna	523	...	...	...	1544	Flyash
18	Budge Budge-Mongla	484	...	...	...	1916	Flyash
19	GR Jetty II- Mongla	509	...	...	...	1848	Turbine & Generator
20	HDC Fly Ash Jetty-Mongla	426	...	...	...	840	Flyash
27	Ganga Water Transport						
1	K.P.Dock-Mongla	510	...	...	0	0	Wheat
2	K.P.Dock-Narayanganj	910	...	...	0	0	Non Alloyed Hot Rolled Steel Coil
3	Budge Budge - Khulna	497	...	...	0	0	Flyash
28	Bertling Logistic India Pvt.Ltd.						
1	Haldia-Balia	1028	...	...	0	0	ODC Cargo
2	Kolkata - Balia	923	...	...	0	0	ODC Cargo
29	Venketesh Logistics						
1	Haldia-Bhaktiyarpur	885	...	...	0	0	ODC Cargo

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

Table No. 2.2

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
30	All Cargo Logistics Ltd.						
1	Haldia-Zamania	1170	...		0	0	ODC Cargo
2	Haldia - Biswanath Chareli, Assam(NW2)	1730/1694	...		0	0	ODC Cargo
3	T.T. Shed - Biswanath Charlie	1778	870		0	0	ODC Cargo
4	Haldia-Jogigopa	1348	...		0	0	ODC Cargo
5	Kolkata - Jogigopa	1432	...	361	0	0	ODC Cargo
6	T.T. Shed - Jogigopa	1432	250	...	310	0	ODC Cargo
7	T.T. Shed - Pandu	1573	560	...	0	0	ODC Cargo
8	T.T. Shed - Silghat	1721	500	...	0	0	ODC Cargo
9	NSD, Kolkata-Pandu	1573	0	...	0	0	ODC Cargo
10	Haldia-Bhaktiyarpur	885	...	361	0	0	ODC Cargo
11	Kolkatta- Bhaktiyarpur	780	...	750	0	0	ODC Cargo
12	T.T. Shed - Silchar	1438			350	0	ODC Cargo
31	Prism Logistics Pvt.Ltd.						
1	Haldia-Allahabad	1512	...	...	0	0	ODC Cargo
32	Safehand Logistics						
1	IWAI BISN Jetty - Karimganj (Badarpur)	1357	...	...	0	0	Flyash
2	Budge Budge - Narayanganj	884	5675	1512	4095	7581	Flyash
3	IWAI Haldia Jetty - Narayanganj	826	18292	3094	2502	4172	Flyash
4	IWAI Haldia Jetty -Khulna	439	...	...	0	781	Flyash
5	IWAI BISN Jetty - Narayanganj	909	516	750	2819	0	Flyash
6	Sri Ram Jetty-Narayanganj	905	845	...	0	0	Flyash
7	T. T. Shed-Narayanganj	910	6266	...	0	2273	Flyash
8	IWAI Haldia Jetty -Karimganj	1274	606	...	0	0	Flyash
9	KPD-Khulna	523	786	...	0	0	Steel Plates
10	Budge Budge - khulna	497		650	0	780	Flyash
33	Shun Shing India Private Ltd.						
1	Budge Budge - Narayanganj	884	42578	34187	38929	17158	Flyash
2	Budge Budge - khulna	497	60144	58537	37676	59608	Flyash
3	IWAI BISN Jetty- Narayanganj	909	1311	2122	1136	5341	Flyash
4	IWAI BISN Jetty- Khulna	522	...	3909	868	5338	Flyash
5	Sri Ram Jetty - Khulna	518	9110	...	1681	0	Flyash
6	T.T.Shed-Khulna	523	690	...	3909	653	Flyash
7	GR Jetty II- Khulna	522	...	2000	4886	5545	Flyash
8	GR Jetty II- Narayanganj	909	...	4358	6496	2588	Flyash
9	Sri Ram Jetty-Narayanganj	905	...	2006	645	0	Flyash
10	T. T. Shed-Narayanganj	910	...	4859	6531	5777	Flyash
34	Jindal ITF Ltd.						
1	Sagar - Farakka	540	716116	370740	160262	0	Coal
35	AFS Logistics Pvt. Ltd.						
1	AWAI Haldia Jetty - Fatuha	910			0	0	Fertilizers
2	Fatuha - Kolkatta	805			0	0	Fertilizers
36	Lee & Muirhead Pvt. Ltd.						
1	Haldia - Sirsa	1471			0	0	ODC Cargo

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

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
37	Boxco India Pvt. Ltd.						
1	Haldia - Geonkhali	43			0	0	ODC Cargo
2	KPD - Jogjigopha	1432			809.6	0	ODC Cargo
38	K K Shipping						
1	T.T. Shed - Narayanganj	910	62283	39745	8472	21561	Flyash
2	Budge Budge - Narayanganj	884	1164		0	0	Flyash
3	IWAI Haldia Jetty - Narayanganj	826	6557	9325	0	2754	Flyash
4	IWAI BISN Jetty - Narayanganj	909	6068	10627	4560	16435	Flyash
5	Sri Ram Jetty-Narayanganj	905	2621	661	0	0	Flyash
6	IWAI BISN Jetty- Khulna	522	7316		0	0	Flyash
7	T.T.Shed-Khulna	523	2010		830	0	Flyash
8	IWAI BISN Jetty- Mongla	509	992		0	3136	Flyash
9	T.T.Shed-Mongla	510	1281	855	0	0	Flyash
10	IWAI Haldia Jetty - Mongla	426		686	0	0	Flyash
11	Budge Budge - Khulna	497			960	0	Flyash
12	IWAI Haldia Jetty - Khulna	439			1140	0	Flyash
13	T.T.Shed-Mongla	510				1140	Flyash
39	Tetron Merchandise						
1	IWAI BISN Jetty- Khulna	522	5778	5512	4740	4390	Flyash
2	Budge Budge - Khulna	497	1462	3061	10049	10097	Flyash
3	IWAI BISN Jetty - Narayanganj	909		802	0	0	Flyash
4	G.R. Jetty II - Narayanganj	909			2005	2968	Flyash
5	G.R. Jetty II - Khulna	522			7772	43576	Flyash
40	Transcoast Trading Pvt. Ltd.						
1	Budge Budge - Narayanganj	884	25354	9721	2948	1080	Flyash
2	IWAI Haldia Jetty - Narayanganj	826	2130	546	4442	10267	Flyash
3	IWAI BISN Jetty - Narayanganj	909	13491	31736	20165	8490	Flyash
4	T.T.Shed-Narayanganj	910	10539	15300	12037	15711	Flyash
5	G. R. Jetty-II-Mongla	509	264		0	0	Project Cargo
6	G. R. Jetty-II-Mongla	509	84		0	0	Steel Items
7	KPD-Mongla	510	782		20399.13	5165	Steel Bar, Rice, TMT Bars
8	G. R. Jetty-II-Narayanganj	909		8055	8716	0	Flyash
9	Khulna-NSD Kolkatta	521		626	0	0	Strand Jack with Accessories
10	KPD Kolkatta-Ashuganj	1038		2367	0	0	Rice, TMT Bars, & Steel Sheets, Iron Pipe & Plates
11	KPD Kolkatta-Mongla	510		2107	0	0	Parallel Flange Universal Beams & ISMC Channel & Equal
12	KPD Kolkatta-Narayanganj	910		3267	0	0	Steel Iron Plates
13	NSD Kolkatta-Mongla	508		526	2093.76	1696	Rice, Steel Materials
14	Sri Ram Jetty-Narayanganj	905		1056	0	0	Flyash
15	HDC - Narayanganj	826			761	0	Contaners (Denim fabrics)
16	HDC - Mongla	426			848.77	0	HR Plate
17	KPD Kolkatta-Khulna	523				933	Fabricated Steel Materials
41	Hindustan Natural Glass & Industries Ltd.						
1	Rajmahal-Kolkata	443			0	0	Slica Sand, Cement
42	M/s. Spring Professional Services Pvt. Ltd.						
1	Haldia-Patna	920	1410	352	0	0	Cement
2	Varanasi-GR Jetty 2	1171		12	0	0	Cars
3	Gayaspur to bhagalpur	210			210	0	Cement
4	Sahibganj to Manihari	8			47800	0	Stone Chips

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
43	M/s. Srimaa Import & Export Pvt. Ltd.						
1	HDC Haldia-Mongla	426		2074	0	0	Steel Coils and Plates
2	HDC Haldia-Narayanganj	826		1558	0	0	Steel coils
3	HDC Haldia-Pangaon	842		805	0	0	20 teu container (35 no)
4	KPD Kolkata- Mawa via Narayanganj	910		2500	0	0	Stone / Pebbles
5	KPD Kolkata- Mongla	510		1949	0	0	Steel Plates
6	KPD Kolkata- Narayanganj	910		2131	0	0	Pakur Crushed Stone / Pebbles
44	Mags Impex Pvt. Ltd.						
1	T.T.Shed-Narayanganj	910		715	0	0	Flyash
45	H.P Shipping Lines.						
	T.T. Shed - Narayanganj	910	...		33297	12685	Flyash
46	Pioneer Shipping Lines						
1	T.T. Shed - Narayanganj	910	...	...	1998	0	Flyash
2	IWAI BISN Jetty- Narayanganj	909	...	...	1426	0	Flyash
3	Budge Budge- Narayanganj	884	...	...	717	0	Flyash
4	G.R.Jetty 2- Narayanganj	909	...	...	2107	0	Flyash
47	Rain Maker						
1	IWAI Haldia Jetty- Narayanganj	826	...	...	8837	34902	Flyash
2	Budge Budge- Narayanganj	884	...	...	3087	3077	Flyash
3	G.R.Jetty 2- Narayanganj	909	...	...	4264	33553	Flyash
4	IWAI BISN Jetty- Narayanganj	909	...	...	696	2971	Flyash
5	Budge Budge- Khulna	497				1729	Flyash
6	IWAI BISN Jetty- Khulna	522				875	Flyash
7	T.T. Shed - Khulna	523				1392	Flyash
8	HDC Fly Ash Jetty- Narayanganj	826				1154	Flyash
9	T.T. Shed - Narayanganj	910				21328	Flyash
48	M/s Rajesh Kumar						
1	Samdaghat (Sahebganj) to Manihari & vice versa	14			2,37,300	5,06,950	Stone Chips
49	M/s. Rajesh Auto Merchandise Pvt. Ltd.*						
1	Kolkata-Manik Chak	436				5729	Coal
50	M/s. M. K. Shipping*						
1	Budge Budge- Narayanganj	884				1065	Fly Ash
51	M/s. Vinayak Shipping*						
1	Budge Budge- Narayanganj	884	...	...	...	2540	Fly Ash
2	T.T. Shed - Narayanganj	910	...	...	...	865	Fly Ash
52	M/s Sushe Marine Services Pvt. Ltd.*						
1	Samdaghat (Sahebganj) to Manihari & vise versa	14	...	...	...	1,05,000	Stone chips
53	M/s Haldia Nirman Project Pvt. Ltd.*						
1	Samdaghat (Sahebganj) to Manihari & vise versa	14	...	...	...	67,200	Stone chips
2	Sahebganj to Tintanga	69	...	...	...	200	Stone chips
3	Sahebganj to Kahalgaon	64	...	...	...	200	Stone chips
Sub Total (C)		-	3001210	2955773	3534587	4256036	

Details of Cargo Moved on National Waterways (National Waterway No.1) - THE GANGA-BHAGIRATHI-HOOGHLY RIVER SYSTEM

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

(In tonnes)

Sl. No.	River/Stretch	Approximate	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	9
D IWAI Vessels							
1	Rajmahal -Patna	368	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
6	Putimary Jetty-G.R. Jetty-2 (Desha International)	384.5				300	Stone Chips
7	Rajmahal-G.R. Jetty-2, Kolkata (RQS Mining Pvt. Ltd.)	443				1214	High Silica Sand
8	BTPS Jetty, Tribeni-Falta (IFB Agro Industries Ltd)	110				260	Broken Rice
9	Kahalgaon-Pandu, Assam (M/s. Star Cement Ltd.)	2123				1227	Fly Ash
10	HDC-Dhubri(M/s. Fuel Sources (India) Pvt. Ltd.)	1266				924	Steam Coal
Other vessels in Patna region							
11	Rajmahal to Bhagalpur	128	...	162520	240	...	
12	Fathua to Bhagalpur	230			200	...	
13	Kahalgaon to Rajmahal	103			300	...	
14	Rajmahal -Patna	368				220	Fly Ash
15	Rajmahal to Varanasi	725				16 TEU's	Containerised Cargo
16	Varanasi to Rajmahal	725				32 TEU's	Containerised Cargo
Sub Total (D)		-	1346	240869	1280	4145	
E KOPT							
1	Sagar- KPD	146	2744017	726260	987738	1083000	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, <i>Met Coke</i> , Other/Misc.
2	Kolkatta-Sagar	146	...		0	0	Iron Ore, Iron & Steel ,Other/Misc.
3	Diamond Harbour - KPD	78	216868	298000	678000	1708000	Pulses, Iron & Steel, Iron Ore, Lime Stone, Manganese Ore, Thermal Coal, Other Coke/Coal, Coking Coal, Met Coke, Fertiliser, Rock Phosphate, Timber, Other/Misc
4	Sagar-Kolkatta	146	...	...	0	0	Iron Ore,Pulses,Sugar,Timber,Coking Coal,Rock Phosphate,Rice & Wheat,Fertiliser,Manganese Ore,Pet Cock
5	Kolkatta-Diamond Harbour		...	...	...	...
6	Diamond Harbour-Kolkatta	78	...	...	...	...	Iron Ore, Sugar, Pet Cock, Pulses, Cokjing, Fertilizer, Limestone,Cooking oil
7	KPD- Sagar	146			4000	0	Iron & Steel, Rice, Wheat
8	KPD-Diamond Harbour	78			6000	0	Rice & Wheat
Sub Total (E)			2960885	1024260	1675738	2791000	
Total (NW-I) (A+B+C+D+ E)			6237124	4505377	5479362	7349330	

Table No. 2.2

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	8
A	Organised Cargo		2,530	1,060	2,232.8	5,123	
B	IWTD Assam		19,81,935	19,81,935	25,98,994	23,69,814	Transformers of power grid, Transmission equipments, Goods, Passengers, Bicycle, bikes, live stock
C	Unorganised Sector \$		5,99,841	6,07,759	5,60,924.2	4,96,880	
Sub Total (A+B+C)			25,84,306	25,90,754	31,62,151	28,71,817	
Total (NW-II)(A+B+C)			25,84,306	25,90,754	31,62,151	28,71,817	

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)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	8
A.	CHAMPAKARA CANAL						
1	KSINC						
	Cochin Port-FACT-CD	21.5	204207.00	217257.00		-	Raw Sulphur, Rock Phosphate & Phosphoric Acid etc..
	Q10 Berth-CPT-Fact, CD	21	...	...	177044.00	1,38,913	Sulpher,Rock Phosphate,Phosphoric Acid
	BPCL Irumbanam-Ship Bunkring	16	...	...		-	Furnace Oil
2	LOTS Shipping & Trading						
	Cochin Port-FACT-CD	21.5	91383.00	76153.00			Raw Sulphur, Rock Phosphate & Phosphoric Acid & Stone aggregates
	Q10 Berth-CPT-Fact, CD	21	...	...	49242.00	1,18,067	Phosphoric 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	Kerala Backwater Navigation						
	Cochin Port -FACT CD	21.5/27					Rock Phosphate, Sulphur, LAG
	FACT,PD- FACT, CD	21	18208.00	31264.00	36,864		LAG
	FACT , Ammonia jetty- FACT, CD	27	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			12,762		
	W. Island ammonia jetty to FACT(CD)	22				57,216	LAG
4	FACT Ltd.*						
	W. Island ammonia jetty to FACT(CD)	22				17,560	LAG
Sub Total			10,40,357	9,54,464	2,75,912	3,31,756	
B.	UDYOGMANDAL CANAL						
1	LOTS Shipping & Trading*						
	Cochin Port FACT-UD	20		41926			Zibframe, Sulphur, Furnance oil, Zinc

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

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	8
	BPCL Irumbanam- FACT PD	11					Furnace Oil
	Q10 CPT-Fact, UD	20		0	57,998	29,403	Phosphoric Acid, Sulphur
	Q6 Berth CPT-Binani Zinc Ltd.	22					Zinc.
	Q5 Berth CPT-Binani Zinc Ltd.	22					Zinc.
	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		...	42860		various commodities in container
	Willinbgdon island						
2	KSINC*						
	Cochin Port-FACT UD	21		...			Rock Phosphate , Sulphur, Phosphoric Acid
	Q10 Berth, CPT-Fact UD	20		...	23612	3590	Phosphoric Acid, sulphur
3	Kerala Back Water Navigation						
	Fact ,PD - FACT, CD	14.5	18208	31264			Sulphur. Phosphoric Acid
	Fact ,CD - FACT, PD	14.5					Lag
	Ammonia jetty (w. Island) - FACT, PD	20		1728	23977	12264	Lag
4	Logos Agencies						
	Aluva Terminal-Sea	23.5	2477	694			Liquid Effluent
5	Amrok Industrial & Investments						
	Aluva Terminal-Sea	23.5					Furnance oil
							Furnance oil
6	Cochin Bunkers						
	BPCL, Irumbanam - Fact PD	27.5					Liquid effluent
	IOC(BPT berth) - Fact PD	17					Liquid effluent
7	Tisha Navigation Inc.						
	Aluva Terminal - Sea			2091			Liquid effluent
	Bolgatty Terminal - Sea	6		672	2654		Liquid Effluent
	Kakanadu Terminal -Sea	21			976	3660	Liquid Effluent
8	FACT Ltd.*						
	W. Island ammonia jetty to FACT(CD)	20				39,392	LAG
Sub Total			20685	78375	152077	88309	

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

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

(In tonnes)

Sl. No.	River/Stretch	Approximate Distance (Kms)	2015-16	2016-17	2017-18	2018-19	Cargo generally moved
1	2	3	5	6	7	8	8
C. THE WEST COASTAL CANAL							
1	KSINC Ltd*. Fine Arts Jetty- Vypeen ErnaKulum terminal-Cochin port	4 5					0 Potable water POL(Bunkering to Ship)
2	Travancore Cements Ltd. Vaikom- Chitramangalam	20	0				0 Lime shell with clay & other impurities
Sub Total			0	0	0	0	
D. NW-3 & 9 **							
	ICTT VALLARPADAM TO KOTTAYAM PORT	75					247 TRIAL RUN OF NEWSPRINT
Total (NW-III) (A+B+C+D)			1061042	1032839	427989	420312	
Total Cargo Moved on National Waterways (NW-I+NW-II+NW-III)							
GRAND TOTAL (NW-I+NW-II+NW-III)			98,82,472	81,28,970	90,69,502	1,06,41,458	

Source : Inland Waterways Authority of India

* Newly added Companies in 2018-19

** Newly added Stretch in 2018-20

§ : Revised information has been furnished by IWAI in respect unorganized sector operated on NW-II during 2017-18

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					Non-Self Propelled						Grand Total
			Cargo	Passenger	Cargo cum Passenger	Tugs & Pushers	Total (Col.3 to Col.6)	Dumb Barges	Dumb Tankers	Dumb Flat	Boats	Others @@	Total (Col.8 to Col.12)	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	Andhra Pradesh ***	2017	...	...	...	...	...	...	...	...	...	...	...
		2018	...	...	...	...	...	...	...	...	...	...	...
		2019	...	...	...	...	...	...	...	...	...	...	...
2	Assam	2017	0	14	94	6	114	13	...	60	...	73	187	
		2018	0	18	94	6	118	13	...	60	...	73	191	
		2019	0	25	94	6	125	13	0	60	0	73	198	
3	Bihar ***	2017	1	19*	74*	6	100	5	...	...	9	24	38
		2018	1	19*	74*	6	100	5	...	...	9	24	38
		2019	1	19*	74*	6	100	5	...	...	9	24	38
4	Goa	2017	184	126	...	...	310	1	...	...	...	1	311
		2018	133	116	...	16	265	1	...	...	...	1	266
		2019	112	117	18	2	249	1	0	0	0	1	250	
5	Karnataka	2017	...	61	5	...	66	...	...	...	...	0	66
		2018	...	61	5	...	66	...	...	...	...	0	66
		2019	...	61	5	...	66	...	...	...	...	0	66
6	Kerala	2017	7	59	...	...	66	...	...	...	5430	60	5556
		2018	806	967	...	...	1773	26	3	2	770	5082	7656
		2019	268	270	0	0	538	27	0	4	275	5109	5953	
7	Maharashtra	2017	158	165	0	39	362	22	...	...	...	22	384
		2018	235	750	0	115	1100	66	...	...	...	66	1166
		2019	197	951	49	73	1270	78	29	11	0	3	1391	
8	Orissa **	2017	...	557	...	...	557	...	...	...	...	0	557
		2018	...	...	635	...	635	...	...	...	...	0	635
		2019	...	...	335	...	335	...	...	...	...	0	335
9	West Bengal	2017	62	262	3	25	352	10	3	3	1752	35	2155	
		2018	74	286	4	32	396	4	3	3	1768	42	2216	
		2019	82	326	5	35	448	5	3	3	1823	45	2327	
10	Tamil Nadu	2017	...	...	...	...	0	...	...	...	2	...	2
		2018	...	...	...	...	0	...	...	...	2	...	2
		2019	...	...	...	...	0	...	...	...	2	...	2
11	MIZORAM***	2017	...	...	...	...	0	...	...	...	...	0	0
		2018	...	...	...	...	0	...	...	...	...	0	0
		2019	...	...	...	...	0	...	...	...	...	0	0
12	Nagaland	2018	...	...	...	...	0	...	...	...	...	0	0
		2019	...	...	...	...	0	...	...	...	...	0	0
							0	...	...	...	...	0	0
13	Gujarat	2019	207	1	0	169	377	46	0	6	6	60	495	
Grand Total		2017	412	1263	176	76	1927	51	3	63	7193	119	9356	
		2018	1249	2217	812	175	4453	115	6	65	2549	5148	12336	
		2019	867	1770	580	291	3508	175	32	84	2115	5241	11155	

Source : Govt. of States & 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

** : From 2017-18 onwards separate values are not provided for Passenger & Cargo-cum-passenger category (col. 4 & 5) only sum of both categories is provided .

***Information for the year 2017-18 & 2018-19 has not been received. information has been repeated.

@ @ Others includes country boats

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	2016	...	...	...	...
		2017	...	...	...	...
		2018	...	...	...	...
		2019	-	-	-	-
2	Assam	2016#	56	56	178.73@	16461.48
		2017	13	94	3871.07	9187.14
		2018	13	98	706066.16	9044.43
		2019	13	98	272873.15	8514.22
3	Bihar ***	2016	1	83	2.40	578.00
		2017	1	83	2.40	578.00
		2018	1	83	2.40	578.00
		2019	1	83	2.40	578.00
4	Goa	2016	81	38	429966.00	1440.00
		2017	106	115	116600.76	...
		2018	149	...	71902.10	...
		2019	121	...	14839.40	...
5	Karnataka	2016#	66	66	50.50 **	2003.71**
		2017	66	66	29.98	1747.77
		2018	66	66	93.27	1720.86
		2019	0	10	0.00	2158.00
6	Kerala	2016#	28	185	2912.06	13750.50
		2017	7	55	326.64	2994.72
		2018	17	87	447.98	22825.66
		2019	16	66	262.35	19739.08
7	Maharashtra	2016	...	...	14056.97	18074.00
		2017	...	...	17642.72	18281.73
		2018	...	...	18336.60	19095.00
		2019	...	...	20397.94	19291.70
8	Odisha	2016	...	9	...	164.00
		2017	...	9	...	157.00
		2018	...	9	...	132.00
		2019	...	11	...	128.62
9	West Bengal	2016	88	251	16730.00	66.49
		2017	90	262	22654.00	74.47
		2018	110	286	36719.00	82.90
		2019	132	321	46930.00	106.49
10	MIZORAM***	2016	...	...	...	...
		2017	...	...	...	...
		2018	...	...	...	...
		2019	...	...	...	...
11	Tamil Nadu	2016	...	...	...	...
		2017 *	...	...	...	...
		2018 *	...	...	...	...
		2019 *	...	...	...	...
12	Nagaland	2018	...	...	...	...
		2019	...	...	...	...

Source : Govt. of States & Union Territories

... : Not Available

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

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

***Information for the year 2018-19 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.

@ 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 thousandTonnes)	Passenger(in No.)	
1	2	3	4	5	6	7
1	S.V.Salgaocar, Goa					
	2017	3	...	684.00	...	...
	2018	3	...	597.60	...	...
	2019	3	...	278.40	...	...
2	D.V.Salgaocar, Goa					
	2017	3	...	681.60	...	...
	2018	3	...	612.00	...	...
	2019	3	...	170.40	...	...
3	V.M.Salgaocar Sales International					
	2017	2	...	453.60	...	...
	2018	2	...	386.40	...	...
	2019	2	...	211.20	...	...
4	Sesa Resource Ltd Goa					
	2017	2	...	2139	...	...
	2018	2	...	2139	...	...
	2019	2	...	2139	...	...
5	Vedanta Ltd.					
	2017	31	1	42235	88	...
	2018	32	1	42294	88	...
	2019	30	1	41150	88	...
6	Goa Ore Carriers					
	2017	1	...	124.46	...	...
	2018	1	...	55.80	...	...
	2019 @	...	...	...	...	...
7	Maharshi Shipping Co.***					
	2017	3	...	84.56	...	...
	2018	5	...	184.56	...	...
	2019	5	...	184.56	...	...
8	Indo-Swiss Trading Co. Kolkata.					
	2017	-	2	118	270	...
	2018	-	2	118	270	...
	2019	-	2	118	270	...
9	Vivada Inland Waterways Ltd. Kolkata					
	2017	9	5	595.26	110776	...
	2018	10	6	695.26	180975	...
	2019	8	0	5.250	-	2
10	West Bengal Surface Transport Corporation Ltd***					
	2017	4	32	...	31059670	...
	2018	5	47	...	38069650	...
	2019	5	47	...	38069650	...

**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
11	Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata***					
	2017	...	34	...	21230567	...
	2018	...	34	...	27250167	...
	2019	...	34	...	27250167	...
12	West Bengal Tourism Development Corporation limited, Kolkata***					
	2017	...	3	...	12940	...
	2018	...	3	...	15940	...
	2019	...	3	...	15940	...
13	Eastern Navigation (P) Ltd., Kolkata					
	2017	21	2	256.34	...	...
	2018	28	2	556.34	...	...
	2019	15	...	3.95	...	19
14	Ghatal Steam Navigation (P) Ltd., Kolkata***					
	2017	...	3	...	115508	...
	2018	...	3	...	135508	...
	2019	...	3	...	135508	...
15	Diamond Harbour Municipality, Kolkata***					
	2017	...	3	...	118729	...
	2018	...	3	...	128729	...
	2019	...	3	...	128729	...
16	Bengal Heritage River***					
	2017	...	3	...	15840	...
	2018	...	3	...	18840	...
	2019	...	3	...	18840	...
17	Chandan Nagar Municipality, Kolkata***					
	2017	...	5	...	17608	...
	2018	...	5	...	21608	...
	2019	...	5	...	21608	...
18	Sohom Shipping Pvt.Ltd.					
	2017	3	...	...	...	...
	2018	4	...	...	...	...
	2019	9	...	6.569	...	...
19	Assam Bengal Steam Navigation					
	2017	2	...	...	12540	...
	2018	2	...	...	16540	...
	2019	...	4	2.402	124	...
20	Pioneer Shipping Lines					
	2018	-	-	-	-	-
	2019	-	-	-	-	-

**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
21	Ganges Water Transport Co. Pvt.					
	2018	2	...	2.86	...	...
	2019	2	...	5.28	...	...
22	Krishna Shipping & Logistics Ltd.					
	2018	4 #	...	1.86	...	2
	2019	5	...	2.08	...	2
23	JSW Salav Steel Ltd.					
	2018	...	...	...	...	...
	2019	7	...	12.57	...	...
24	Finolex Industries Ltd.					
	2018	1	...	0.01	6	...
	2019	1	...	0.01	6	...
25	Lots Shipping Ltd. ***					
	2018	4	...	1.19	-	1
	2019	4	...	1.19	-	1
26	Jsw Jaigarh Port Ltd.					
	2018	2	...	10.53	...	...
	2019	2	...	10.53	...	...
27	Global Shipping & Forwarding					
	2018	9	...	6.99	...	...
	2019	9	...	9.14	...	...
28	Infrastructure Logistics Pvt. Ltd.					
	2018	4	...	199.52	...	...
	2019	2	...	105.77	...	...
29	Kerala Shipping & Inland Navigation Co. Ltd.					
	2018	3	...	1.05	...	-
	2019	3	...	1.05	...	-
30	Timblo Pvt. Ltd.					
	2018	4	1	6.099 + (60 kilo ltrs.)	14	-
	2019	4	1	5.950 + (60 kilo ltrs.)	14	-
31	Backwater Navigation Co.					
	2018	1	...	0.43	...	...
	2019	1	...	0.69	...	...
32	Indo Energy International Ltd.					
	2018	11	-	11.84	-	-
	2019	11	-	11.84	-	-

**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
33	K.K. Shipping					
	2018	-	-	-	-	-
	2019	1	-	0.41	-	-
34	Haldia Nirman Projects P. Ltd.					
	2018	3	-	1.998	-	-
	2019	3	-	1.998	-	-
35	Angre Port Pvt. Ltd.					
	2018	-	-	-	-	-
	2019	-	-	-	-	-
36	M/S Neli					
	2018	1	...	1.55	...	...
	2019	1	-	0.37	...	...
37	oring Professional Services Pvt. Ltd. ##					
	2019	-	1	-	70	-
38	JSW Dharamtar Port Pvt. Ltd. ##					
	2019	-	-	-	-	3
39	PNP Maritime Services Pvt. Ltd. ##					
	2019	25	...	31.24	...	...
40	Mags Impex (Shipping) Pvt. Ltd. ##					
	2019	-	-	-	-	-
41	Minescape Minerals Pvt. Ltd. ##					
	2019	6	-	13.45	-	-
42	Nirakar Engineering Services Ltd. ##					
	2019	1	-	1	-	-
43	Star Cement ##					
	2019	-	-	-	-	-
44	Kottayam Port and Container Terminal Pvt. Ltd. ##					
	2019	1	...	0.160	...	...
45	FACT (Coachin Division) ##					
	2019	1	...	0.417	...	...
46	Brahmaputra Cruises ##					
	2019	...	1	...	150	1
47	Adventure Resorts & Cruises Pvt. Ltd. ##					
	2018	-	1	-	46	-
	2019	...	3	1.25	68	...
48	Pennon Shipping ##					
	2019	1	-	1.798	-	-

**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
49	Heritage River Journeys Pvt. Ltd. ##					
	2019	-	3	-	168	-
50	Jindal ITF Ltd.***					
	2017	28	...	325.27	...	...
	2018	28	...	425.27	...	...
	2019	28	...	425.27	...	...

2 Tugs and 2 Loading Barge

@ Barges have not been plying due to mining ban in Goa

***The information for the year 2018-19 has not been received from the company, hence previous year information has been repeated.

: Added in 2018-19 for the first time as per updated list of companies involved in IWT operations provided by Inland Water Authority of India (IWAI)

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	S. V. Salgaocar, Goa								
	2017	Cargo	3	19950	574.56	684000	13645.80	...	...
	2018	Cargo	3	17430	450.57	597600	10416.17	...	...
	2019	Cargo	3	8120	222.72	278400	2260.61	...	...
2	D. V. Salgaocar, Goa								
	2017	Cargo	3	19880	572.54	681600	13550.21	...	...
	2018	Cargo	3	17850	313.85	612000	10924.20	...	...
	2019	Cargo	3	4970	136.32	170400	846.89	...	...
3	V.M.Salgaocar Sales International								
	2017	Cargo	2	13230	381.02	453600	6001.13	...	...
	2018	Cargo	2	11270	124.54	386400	4354.73	...	...
	2019	Cargo	2	6160	168.96	211200	1300.99	...	...
4	Sesa Resources Ltd Goa								
	2017	Cargo	2	22966	(c)	417907	9597.65	...	...
	2018	Cargo	2	11736	(c)	183955	2158.90	...	...
	2019	Cargo	2	7550	(c)	98550.07	744.05	...	...
5	Vedanta Ltd.								
	2017	Cargo/Passenger	32	299844	(c)	6554273	1965259.43	...	...
	2018	Cargo/Passenger	32	184892	(c)	4638637	857646.87	...	...
	2019	Cargo/Passenger		103000	(c)	1971614.76	203076.32	...	...
6	Goa Ore Carriers								
	2017	Cargo	1	6210	105.79	124462	772.91	...	...
	2018	Cargo	1	2790	50.22	55800	155.68	...	...
	2019@	...	...	...	...	...	...	...	...
7	Maharshi Shipping Co.***								
	2017	Cargo	3	...	59.36	84560	...	...	...
	2018	Cargo	5	...	154.36	184560	...	...	...
	2019	Cargo	5	...	154.36	184560	...	...	...
8	Indo-Swiss Trading Co.Pvt. Ltd., Kolkata								
	2017	Pass.	2	15500	143.00	...	...	121038	...
	2018	Pass.	3	15615	153.00	...	...	141038	...
	2019	Pass.	2	15450	-	...	...	...	...
9	VIVADA Inland Waterways Ltd., Kolkata								
	2017	Cargo/Tug/Pass/LCT	14	...	824.38	595262		110776	...
	2018	Cargo/Tug/Pass/LCT	16	...	904.38	695262		180975	...
	2019	Cargo/Tug/Pass/LCT	10	10132	-	273600	2772.12	-	-
10	W. Bengal Surface Transport Corporation Ltd., Kolkata***								
	2017	Pass./LCT	36	...	582.56	33581(b)	...	31059670	...
	2018	Pass./LCT	56	...	782.56	35581(b)	...	38069650	...
	2019	Pass./LCT	56	...	782.56	35581(b)	...	38069650	...

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
11	Hooghly Nadi Jalapath Paribahan Samabaya Samity, Kolkata***								
	2017	Pass.	34	...	383.72	...	...	21230567	...
	2018	Pass.	34	...	483.72	...	...	27250167	...
	2019	Pass.	34	...	483.72	...	...	27250167	...
12	West Bengal Tourism Development Corpn. Ltd., Kolkata***								
	2017	Pass.	3	...	88.27	...	...	12940	...
	2018	Pass.	3	...	98.27	...	...	15940	...
	2019	Pass.	3	...	98.27	...	...	15940	...
13	Eastern Navigation (P) Ltd., W. Bengal, Kolkata								
	2017	Cargo/Tug/Pass.	23	...	315.25	256340	...	...	...
	2018	Cargo/Tug/Pass.	30	...	418.25	556340	...	...	...
	2019	Cargo/Tug/Pass.	3	1600	80.00	800	1.28	...	...
14	Ghatal steam Navigation (P) Ltd. Kolkata***								
	2017	Pass.	3	...	141.29	...	...	115508	...
	2018	Pass.	3	...	149.29	...	...	135508	...
	2019	Pass.	3	...	149.29	...	...	135508	...
15	Diamond Harbour Municipality, Kolkata***								
	2017	Pass.	3	...	133.56	...	...	118729	...
	2018	Pass.	3	...	153.56	...	...	128729	...
	2019	Pass.	3	...	153.56	...	...	128729	...
16	Assam Bengal Steam Navigation								
	2017	Tugs	2	...	15.13	...	...	12540	...
	2018	Tugs	2	...	...	...	...	16540	...
	2019	...	4	2242	...	...	...	1040	-
17	Bengal Heritage River***								
	2017	Tugs	3	...	18.45	...	...	15840	...
	2018	Tugs	3	...	28.45	...	...	18840	...
	2019	Tugs	3	...	28.45	...	...	18840	...
18	Chandan Nagar Municipality, Kolkata***								
	2017	Pass.	5	...	6.45	...	...	17608	...
	2018	Pass.	5	...	7.45	...	...	21608	...
	2019	Pass.	5	...	7.45	...	...	21608	...
19	Soham Shipping Pvt.Ltd.								
	2017	Cargo	3	...	59.72	84210	...	....	....
	2018	Cargo	4	...	129.72	124210	...	....	....
	2019	Cargo	-	-	-	-	-	-	-
20	Pioneer Shipping Lines								
	2018	-	-	-	-	-	-	-	-
	2019	-	-	-	-	-	-	-	-

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
21	Ganges Water Transport Co. Pvt. Ltd.								
	2018	Cargo	2	5699.00	342.26	116995	666.75	...	...
	2019	Cargo	2	40410	289	95863	3873.82	...	...
22	Krishna Shipping & Logistics Ltd.								
	2018		...	...	...	...	...	...	...
	2019		...	...	...	...	...	...	...
23	JSW Salav Steel Ltd.								
	2018		...	...	...	...	...	...	...
	2019	...	7	2070	cc	553175.5	1145.07	...	...
24	Finolex Industries Ltd.								
	2018	...	...	...	...	...	...	...	...
	2019	...	...	...	...	...	...	...	...
25	Lots Shipping Ltd.***								
	2018	Cargo	4	18895	77	175267	3311.67	-	-
	2019	Cargo	4	18895	77	175267	3311.67	-	-
26	Jsw Jaigarh Port Ltd.								
	2018	Cargo	2	48256	-	734000	35419.90	-	-
	2019	Cargo	2	88160	-	1337000	117869.92	-	-
27	Global Shipping & Forwarding								
	2018	...	...	...	...	...	...	...	...
	2019	...	...	...	...	...	...	...	...
28	Infrastructure Logistics Pvt.								
	2018	Cargo	4	7400	(d)	199515	1476.41	...	...
	2019	Cargo	2	4700	(d)	105772	497.13	...	...
29	Kerala Shipping & Inland								
	2018	Cargo	3	27132	357.68	200658	5444.25	...	...
	2019	Cargo	7	13230	246.48	139210	1841.75	...	...
30	Timblo Pvt. Ltd.								
	2018	Cargo/Passenger	5	3467	111.20	151200+960 Kilo Ltrs.)	524.19	...	...
	2019	Cargo/Passenger	5	1904	64.89	63139+353 Kilo Ltrs.)	287.86	...	...
31	Backwater Navigation Co.								
	2018	Cargo	1	17072	260.74	74496	1271.80	...	...
	2019	Cargo	1	25986	241.00	70272	1826.09	...	...
32	Indo Energy International Ltd.								
	2018	Cargo	11	58900	...	1041963	61371.62	...	...
	2019	Cargo	11	44206	...	944637	41758.62	...	...
33	K.K. Shipping								
	2018	-	-	-	-	-	-	-	-
	2019	Cargo	1	2340	9.33 e	1000	2.34	...	...
34	Haldia Nirman Projects P. Ltd.								
	2018	Cargo	3	...	...	75000	...	-	...
	2019	Cargo	3	...	...	75000	...	-	...

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
		...							
35	Angre Port Pvt. Ltd.	-	-	-	-	-	-	-	-
	2018	-	-	-	-	-	-	-	-
	2019	-	-	-	-	-	-	-	-
36	M/S Neli								
	2018		...	...	...	...	...	...	...
	2019	Cargo	1	6240	64.31 e	6887	43	...	...
37	Kottayam Port & Container Terminal Pvt. Ltd. ##								
	2019	All	1	300	Rs. 9000/ Container	247	0.07		
38	Adventure Resorts & Cruises Pvt. Ltd. *								
	2018		4	776	675	-	-	1002	...
	2019	Passenger	3	3973	855	...	...	1295	#####
39	FACT (Cochin Division) ##								
	2019		1	13400	+	62931	843.28		
40	Pennon Shipping ##								
	2019	Cargo	1	2050	-	29496	60	-	-
41	eritage River Journeys Pvt. Ltd. ##								
	2019	Passenger	3	1253	-	-	-	1550	#####
42	Spring Professional Services Pvt. Ltd.##								
	2019	Cargo	1	11242	187	23320	262		
43	JSW Dharamtar Port Pvt. Ltd. ##								
	2019	Cargo	52	538454	-	12757000	6869058		
44	NP Maritime Services Pvt. Ltd. ##								
	2019	Cargo				3915155	0		
45	Mags Impex (Shipping) Pvt. Ltd. ##								
	2019	...	...	...	...	...	...	...	...
46	Minescape Mineraaals Pvt. Ltd. ##								
	2019	-	-	-	-	-	-	-	-
47	irakar Engineering Services Ltd.##								
	2019	Cargo	1	2222	34.68	42827	95	...	...
48	Star Cement ##								
	2019	Cargo	4	...	20.07	2209	...	...	...

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
49	Brahmaputra Cruises Pvt. Ltd.##								
	2019	Pass.	1	5	244.09	...	...	65000	325000
50	Jindal ITF Ltd.***								
	2017	Cargo	28	...	365.23	325270	...	....	....
	2018	Cargo	28	...	465.23	425270	...	....	....
	2019	Cargo	28	...	465.23	425270	...	....	....

Source : Public & Private IWT operators/companies

(b) : data relates to no of vehicles on L.C.T.

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

(cc)Own vessels no freight collection

(d): Cargo sold on FOB Basis

(e) as per USD rate in Rs. on 31.03.2019

* Earlier Horizon Tourism Pvt. Ltd.

***The information for the year 2018- 2019 has not been received from the company, hence previous year information has been repeated.

: Added in 2018-19 for the first time as per updated list of companies involved in IWT operations provided by Inland Water Authority of India (IWA)

+ : Barge is used for transportation between production division

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

@ Barges have not been plying due to mining ban in Goa

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**

(Rs. In Crore)

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)			(2015-16)			(2016-17)			(2017-18)			(2018-19)			(2019-20)		
		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.
I	Grants to IWAI																					
1	National Waterway 1	154.97	155.11	135.62	241.69	235.81	228.95			47.89	50.58	50.58	112.94*	54.77	54.77	54.77	100.57	110.57	228.16	96.66		
2	National Waterway 3	54.49	46.58	36.10	75.48	107.23	104.82			8.32	10.38	10.38	8.33	28.83	29.10	29.09	25	15.00	15.12	51.43		
3	Others **	37.60	23.88	12.99	26.00	7.59	9.57			153.65	189.04	142.04	346.10*	18.4	54.79	85.23	52.18	52.18	55.3	156.47		
	Sub Total - I (Grants to IWAI)	247.06	225.57	184.71	343.17	350.63	343.34	205.00	216.72	209.86	250.00	203.00	467.37*	102.00	138.66	169.09	177.75	177.75	298.58	304.56	0.00	0.00
4	Jal Marg Vikas Project (JMVP)														75.00	348.53	25	420.54	430.93	230		
	Sub Total - II (Grants to IWAI including JMVP)	247.06	225.57	184.71	343.17	350.63	343.34	205.00	216.72	209.86	250.00	203.00	467.37*	102.00	213.66	* 517.62	202.75	598.29	729.51	534.56	0.00	0.00
II	North Eastern Area																					
4	National Waterway 2	216.28	180.60	132.15	319.29	243.17	202.07	90.08	77.80	79.39	75.00	93.30	74.67	93.00	109.15	118.97	120.00	105.00	106.54	80.00		
5	Central Plan scheme for NER	17.00	0.00	0.00	16.03	15.03	6.62	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		
6	Proposed NW-16 (Barak) ***	3.00	0.00	0.00	1.51	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		
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	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		
	Sub total - II (NER)	237.58	181.70	132.81	336.83	258.20	208.69	90.08	77.80	79.39	75.00	93.30	74.67	93.00	109.15	118.97	120.00	105.00	106.54	80.00	0.00	0.00
III	Interest Subsidy to Bank, Loan to IWT Enterprenuer for Inland Vessel Subsidy Scheme	8.50	5.00	5.40	8.00	7.00	4.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
IV	Tech Studies & R&D	26.00	19.00	9.09	5.00	5.00	4.32	1.00	1.00	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
V	Central Plan Scheme/ CSS	40.00	65.00	52.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
	Grand Total	559.14	496.27	384.84	693.00	620.83	560.48	296.08	295.52	290.24	325.00	296.30	542.04	195.00	322.81	636.59	322.75	703.29	836.05	614.56	0.00	0.00

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 2018.

Sl. No.	State/UT	No. of Accidents	Drowning (Boat Capsize)							
			No. of Persons Injured				No. of Persons Died			
			Male	Female	Transgenders	Total	Male	Female	Transgenders	Total
1	2	3	4	5	6	7	8	9	10	11
STATES										
1	Andhra Pradesh	2	0	0	0	0	2	0	0	2
2	Arunachal Pradesh	0	0	0	0	0	0	0	0	0
3	Assam	7	0	0	0	0	7	2	0	9
4	Bihar	22	0	0	0	0	22	15	0	37
5	Chhattisgarh	0	0	0	0	0	0	0	0	0
6	Goa	1	0	0	0	0	1	0	0	1
7	Gujarat	5	0	0	0	0	5	0	0	5
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	33	6	6	0	12	34	8	0	42
12	Karnataka	2	0	0	0	0	2	0	0	2
13	Kerala	25	0	0	0	0	28	0	0	28
14	Madhya Pradesh	28	0	0	0	0	19	9	0	28
15	Maharashtra	8	0	0	0	0	7	4	0	11
16	Manipur	0	0	0	0	0	0	0	0	0
17	Meghalaya	0	0	0	0	0	0	0	0	0
18	Mizoram	1	0	0	0	0	3	1	0	4
19	Nagaland	0	0	0	0	0	0	0	0	0
20	Odisha	38	0	0	0	0	28	10	0	38
21	Punjab	0	0	0	0	0	0	0	0	0
22	Rajasthan	1	0	0	0	0	1	2	0	3
23	Sikkim	0	0	0	0	0	0	0	0	0
24	Tamil Nadu	27	6	0	0	6	27	2	0	29
25	Telangana	1	0	0	0	0	1	0	0	1
26	Tripura	0	0	0	0	0	0	0	0	0
27	Uttar Pradesh	7	0	0	0	0	8	5	0	13
28	Uttarakhand	0	0	0	0	0	0	0	0	0
29	West Bengal	1	0	0	0	0	1	2	0	3
Total (States)		209	12	6	0	18	196	60	0	256
UNION TERRITORIES										
30	A&N Island	0	0	0	0	0	0	0	0	0
31	Chandigarh	0	0	0	0	0	0	0	0	0
32	D&N haveli	0	0	0	0	0	0	0	0	0
33	Daman & Diu	2	0	0	0	0	2	0	0	2
34	Delhi	0	0	0	0	0	0	0	0	0
35	Lakshadweep	0	0	0	0	0	0	0	0	0
36	Pondicherry	0	0	0	0	0	0	0	0	0
Total (UTs)		2	0	0	0	0	2	0	0	2
Total States/UTs		211	12	6	0	18	198	60	0	258

Source : Accidental Deaths & Suicides in India - 2018

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

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

SECTION – 7

**INLAND WATERWAYS IN
SELECT COUNTRIES**

Table No. 7.1**Length of Navigable Inland Waterways in Europe and USA in 2016 , 2017 & 2018****(In Kms.)**

Sl. No.	Country	Canals			Rivers and Lakes			Total		
		2016	2017	2018	2016	2017	2018	2016	2017	2018
1	2	3	4	5	6	7	8	9	10	11
1	Austria	-	-	-	-	-	-	351	351	351
2	Bulgaria	-	-	-	470	470	470	470	470	470
3	Belarus	243	243	243	1471	1872	1646	1714	2115	1889
4	Croatia	-	-	-	1017	1017	1017	1017	1017	1017
5	Czechia	39	39	39	682	682	682	721	721	721
6	Estonia	-	-	-	-	-	-	0	0	0
7	Finland	125	125	125	8011	8011	8007	8136	8136	8132
8	France	2798	3044	3102	1975	2016	1963	4773	5060	5065
9	Germany	2027	2027	2027	5648	5648	5648	7675	7675	7675
10	Hungary	173	173	173	1691	1691	1691	1864	1864	1864
11	Italy	950	-	-	612	-	-	1562	0	0
12	Kazakhstan	772	772	772	3379	3379	3379	4151	4151	4151
13	Lithuania	1	1	1	484	487	492	485	488	493
14	Netherlands	3497	3497	3497	2759	2759	2759	6256	6256	6256
15	Poland	336	335	335	3319	3319	3319	3655	3654	3654
16	Republic of Moldova	-	-	-	45	90	90	45	90	90
17	Romania	132	132	132	1647	1647	1647	1779	1779	1779
18	Russian Federation	-	-	-	-	-	-	0	0	0
19	Serbia	522	522	-	1071	1071	-	1593	1593	0
20	Slovakia	39	39	39	134	134	134	173	173	173
21	Ukraine	1061	753	649	508	1376	1239	1569	2129	1888
22	United Kingdom	159	159	-	891	891	891	1050	1050	891
23	United States	-	-	-	-	-	-	40000	40000	40000

Source: UNECE Database (https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS).

Table No. 7.2**Length of Navigable Waterways By Permissible carrying Capacity of Vessels - 2018**

(in kms)

Sl.No.	Country	Total Length (Kms.)	Carrying Capacity of Vessels (in tonnes)						
			upto 249	250-399	400-649	650-999	1000-1499	1500-2999	3000 & Above
1	2	3	4	5	6	7	8	9	10
1	Austria	351							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
2	Bulgaria	470							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	470	...	...	...	...	...	...	...
3	Belarus	1889							
	Canals	243	...	...	...	...	...	...	...
	Rivers & Lakes	1646	...	...	...	...	...	...	...
4	Croatia	1017							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	1017	...	...	...	...	...	...	...
5	Czechia	721							
	Canals	39	...	...	...	...	...	...	...
	Rivers & Lakes	682	...	...	...	...	...	...	...
6	Estonia	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
7	Finland	8132							
	Canals	125	...	...	...	...	...	...	...
	Rivers & Lakes	8007	...	...	...	...	...	...	...
8	France	5065							
	Canals	3102	...	...	...	...	...	...	...
	Rivers & Lakes	1963	...	...	...	...	...	...	...
9	Germany	7675							
	Canals	2027	...	...	...	...	...	...	...
	Rivers & Lakes	5648	...	...	...	...	...	...	...
10	Hungary	1864							
	Canals	173	...	...	...	...	...	...	...
	Rivers & Lakes	1691	...	...	...	...	...	...	...

Table No. 7.2 (Contd...)

Length of Navigable Waterways By Permissible carrying Capacity of Vessels - 2018

(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
11	Italy	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
12	Kazakhstan	4151							
	Canals	772	...	...	...	...	...	...	...
	Rivers & Lakes	3379	...	...	...	...	...	...	...
13	Lithuania	485							
	Canals	1	...	...	...	...	...	...	...
	Rivers & Lakes	492	...	...	...	...	...	...	...
14	Netherlands	6256							
	Canals	3497	...	...	...	...	...	...	...
	Rivers & Lakes	2759	...	...	...	...	...	...	...
15	Poland	3655							
	Canals	335	...	...	...	...	...	...	...
	Rivers & Lakes	3319	...	...	...	...	...	...	...
16	Republic of Moldova	90							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	90	...	...	...	...	...	...	...
17	Romania	1779							
	Canals	132	...	...	...	...	...	...	...
	Rivers & Lakes	1647	...	...	...	...	...	...	...
18	Russian Fedration	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
19	Serbia	...							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...
20	Slovakia	172							
	Canals	39	...	...	...	...	...	...	...
	Rivers & Lakes	134	...	...	...	...	...	...	...
21	Ukraine	1888							
	Canals	649	...	...	...	...	...	...	...
	Rivers & Lakes	1239	...	...	...	...	...	...	...
22	United Kingdom	891							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	891	...	...	...	...	...	...	...
23	United States	40000							
	Canals	...	...	...	...	...	...	...	...
	Rivers & Lakes	...	...	...	...	...	...	...	...

Source: UNECE Database (https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS).

Table No. 7.3**Inland Waterways vessels in Service at the end of 2018**

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	1	1	...	145	108	72	16
3	Bulgaria	34	52	28	111	187	30	29
4	Croatia	19	21	12	108	88	35	12
5	Czechia	39	40	18	115	61	73	24
6	Estonia	...	...	...	...	...	...	...
7	Finland	189	18	41	54	8	30	10
8	France	704	632	35	337	450	-	-
9	Germany	1187	1796	889	818	749	418	163
10	Hungary	70	...	...	243	...	56	...
11	Italy	...	...	...	...	...	...	...
12	Kazakhstan	9	...	...	56	...	68	...
13	Lithuania	27	5	5	21	3	26	5
13	Netherlands	...	...	...	...	...	...	...
14	Poland	89	67	32	462	211	201	52
15	Republic of Moldova	2	...	...	7	0	7	1
16	Romania	161	...	...	1123	1497	296	198
17	Russian Federation	...	...	...	...	...	...	...
18	Serbia	...	...	...	...	...	...	...
19	Slovakia	9	8	4	100	161	33	27
20	Switzerland	10	18	...	2	5	10	...
21	Ukraine	1222	...	...	...	...	...	...
22	United Kingdom	...	...	...	...	...	...	...

Source: UNECE Database (https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS).

Table No. 7.4**Goods Transport by Type of Transport on National Territory - 2018**

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	277	1777	3793	1356	7203	28	257	729	474	1488
2	Belarus	2195	-	-	-	2195	37	-	-	-	37
3	Belgium	49227	60733	80938	13884	204782	4490	2136	3596	1135	11357
4	Bulgaria	850	1150	1547	11915	15462	17	49	166	4627	4859
5	Croatia	72	280	240	4590	5182	16	17	12	633	678
6	Czechia	315	58	17	0	390	-	-	-	-	0
7	Finland	580	-	-	-	580	120	-	-	-	120
8	France	27922	14790	8990	5700	57402	4200	1450	1040	399	7089
9	Germany	52101	44253	90170	11380	197904	9917	11020	18708	7256	46901
10	Hungary	184	2411	2053	2278	6926	5	456	293	864	1618
11	Italy	-	-	-	-	-	-	-	-	-	-
12	Kazakhstan	1183	-	-	-	1183	40	-	-	-	40
13	Lithuania	13	0	0	0	13	0	0	0	0	0
14	Luxembourg	...	...	...	...	...	...	...	...	...	...
15	Netherlands	...	...	...	...	...	...	...	...	...	...
16	Poland	2432	364	182	10	2988	97	15	7	1	120
17	Republic of Moldova	127	...	-	-	127	0	-	-	-	0
18	Romania	16140	4008	4532	5034	29714	3702	2326	2500	3733	12261
19	Russian Federati	-	-	-	-	-	-	-	-	-	-
20	Serbia	-	-	-	-	-	-	-	-	-	-
21	Slovakia	30	1156	55	4326	5567	2	28	4	744	778
22	Switzerland	-	930	3768	-	4698	32	-	-	-	32
23	Ukraine	-	-	-	-	-	-	-	-	-	-
24	United Kingdom	-	-	-	-	-	-	-	-	-	-

Source: UNECE Database (https://w3.unece.org/PXWeb2015/pxweb/en/STAT/STAT__40-TRTRANS).

*: Kilometers within the territory of the reporting country.

Annex- 1**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).

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
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-BadiGenguti-Brahmani River System	Odisha
23	National Waterway 23	56	BudhaBalanga	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

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
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 & Rajashtan
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

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
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 System	Maharashtra

Sl. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
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	ChhotaKalagachi (ChhotoKalergachi) 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	Katakhali 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	Tlwanng (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 System	Maharashtra & Telangana

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

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 (560km), 2.5 m in Farakka- Barh (396km) & 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, Sahibganj, Patna (Low level and high level)and Varanasi.
- Planned/ under implementation: Under JMVP, Multimodal Terminal at 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 3rd 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 is ongoing.

B. Terminals

- **Existing:** IWAI has already constructed 9 no. permanent terminals on NW.3 viz., Kottapuram, Aluva, Maradu, Vaikom, Thanneermukkom, Alappuzha, 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.

DEFINITIONS OF TERMS USED

(For Section-7)

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

<u>Navigable Inland Waterways</u>	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.
<u>Inland Water Transport (IWT) Craft</u>	Craft having a minimum carrying capacity of 20 tonnes designed for the carriage of goods by inland waterways.
<u>Dumb Barge</u>	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.
<u>Dumb Tanker</u>	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.
<u>Self-Propelled Barge</u>	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.
<u>Self Propelled Tanker</u>	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
H.F.	Harbor Freight
POL	Petroleum Oil Lubricant
ODC	Over Dimensional Cargo
LAG	Liquified Amonnia Gas
FO	Furnace Oil
LDO	Light Diesel Oil
GC/G Cargo	General Cargo
Neg/N	Negligible
FBP	Farakka Barage Project
IOC	Indian Oil Corporation
HSD	High Speed Diesel
LCT	Loaded Carriage Tug
FACT	Fertilisers and Chemicals Travancore Ltd.