



ANNUAL REPORT 2019-2020

INLAND WATERWAYS AUTHORITY OF INDIA
MINISTRY OF PORTS, SHIPPING & WATERWAYS

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1. IWT SECTOR – GENERAL INFORMATION

- (i) Transport sector comprising of railways, roadways, ocean and coastal shipping, inland waterways, pipelines and airways is critical infrastructure for economic development of any country. Navigable waterways are a fuel-efficient, environment friendly and cost-effective mode of transport. Water transport is also a safe, cheap and lower carbon footprint mode of transport. A developed transport system enables optimum cost of transportation in a multimodal network utilizing strengths of all modes on case to case basis. In these corridors, inland waterways can be developed with navigational channel of specified dimensions for making them commercially viable to promote cost effective, environment friendly and fuel efficient mode of transport, especially for bulk goods, hazardous cargo and over dimensional cargo. In some of the developed countries (e.g. USA, China and many countries of Europe), the modal share of the inland transport (IWT) sector is much higher than the IWT sector in India, thus benefitting their economies significantly through a self-sustainable supplementary mode of transportation.
- (ii) India has a number of rivers, canals, creeks and backwaters which have the potential to be developed and used as cost effective and efficient inland waterways. Till early 20th century, the IWT had been used as an important mode of transportation in various parts of the country. However, due to various factors, including rapid development of road and railways, little industrial development in the country, less attention paid to preservation and development of inland waterways etc, many waterways lost their competitive edge to the rail and road modes.
- (iii) A major boost to IWT Sector has been provided by the Government of India through enactment of National Waterways Act, 2016 (No.17 of 2016) dated 26th March, 2016 which came into force w.e.f 12th April, 2016. With the enactment of the National Waterways Act, 2016, the total number of national waterways is now 111 including 05 waterways declared through earlier Acts. 111 National Waterways cover a total length of 20375 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 can 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.
- (iv) Some of the major constraints which IWT sector in India is currently facing includes – Inadequate discharges in the rivers during lean season resulting in inadequate fairway with depth and width required for round the year operation of IWT vessels of reasonable size; drifting of navigable channel after every flood season due to bank erosion, lack of terminal infrastructure for loading and unloading of cargo and their first and last mile connectivity with road/rail infrastructure; navigational aids for safe and unhindered navigation during day and night and shortage of IWT vessels. To achieve substantial IWT traffic, thrust is therefore on creation of infrastructure (mainly through public funding) and at the same time, augmentation of IWT fleet primarily through private sector

2. ROLE OF IWAI

Inland Waterways Authority of India (IWAI) was constituted on 27th October, 1986 vide Inland Waterways Authority of India Act, 1985 for regulation and development of Inland Waterways for the

purposes of shipping and navigation. As per section 22 of the IWAI Act, 1985, the Annual Report of the Authority is prepared giving a full account of its activities during the previous financial year and submit a copy to the Government.

Besides, IWAI is developing and maintaining the Indian side of the designated waterway routes under the Indo-Bangladesh Protocol for Transit and Trade through inland vessels of country to the other country and is also assisting Government of Myanmar as a Project Development Consultant (PDC) for Kaladan Multimodal Transit Transport Project.

The role of IWAI in the overall augmentation of IWT sector is pivotal. It has potential to be developed as an eco-friendly, cheap and viable mode of transportation to boost the economy of India as trade, commerce, employment generation, tourism, etc. as well as satisfy the aspiration of the teeming millions of society.

3. DEVELOPMENT OF NATIONAL WATERWAYS

There are three basic infrastructural requirements for making a waterway viable for shipping and navigation. These are (i) navigation channel with adequate depth and width for movement of reasonable size of inland vessels; (ii) navigation aids for day and night navigation; and (iii) terminals to provide berthing of vessels, loading and unloading of cargo/passengers and road/rail connectivity.

4. NATIONAL WATERWAY (NW) - 1

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 river conservancy works like bandalling, dredging on the waterway for improvement of its navigability and also development & maintenance of other infrastructure such as navigation aids and terminal facilities as laid down in the IWAI Act, 1985 (82 of 1985).. Further, several developmental activities are being undertaken under Jal Marg Vikas Project (JMVP) for capacity augmentation the waterway to enable commercial navigation. At present, the waterway is being used by private cargo vessels, tourist vessels, ODC carriers and also movement of IWAI vessels etc. Besides, various power companies have initiated action for setting up Thermal Power projects along / around river Ganga i.e. NW-1 and extensive movement of Over Dimensional Cargo (ODC) & imported coal for NTPC projects and evacuation of fly ash is planned to operate during the upcoming years. During 2019-20, the important works carried out for development and maintenance of fairway, navigational aids and terminal facilities on NW-1 are as below:

4.1 Fairway Development:

A fairway with targeted depth and width is to be developed / maintained in NW-1 for the purpose of smooth and safe navigation. This was achieved by undertaking River Conservancy measures like bandalling, dredging in Tribeni - Varanasi stretch (about 1200 km) of NW-1. The 24 hours Navigation Aids being provided from Sagar to Ballia 1140km stretch and the day channel marks provided in entire stretch of NW-1.

In fact, the stretch between Haldia & Tribeni (196 km) is tidal and Least Available Depth (LAD) of more than 3.0 m is maintained naturally. IWAI undertaking River Conservancy works for fairway development in Tribeni – Varanasi stretch to maintain target LAD. Besides, Assured Depth Contracts to ensure target LAD in the respective reaches of NW-1 are also carried out under Jal Marg Vikas Projects assisted by World Bank.

During 2019-20, Bandalling works of 4,800 m in Tribeni - Rajmahal (399 km) stretch and 16110m in Rajmahal - Varanasi (about 801 km) stretch were executed for maintaining the fairway, besides, 0.38 lakh m³ dredging in Tribeni – Rajmahal stretch and 1.62 lakh m³ dredging in Rajmahal –Varanasi stretch was carried out by deploying IWAI's dredgers apart from dredging carried out under Assured Depth Contracts.



Bandal erected along National Waterway-1



Dredging in progress on National Waterway-1

The LAD, which was maintained for various stretches of NW-1 during 2019-20 as given below:

(a)	Haldia – Farakka stretch	(560 km)	–	2.6 m to 3.0 m
(b)	Farakka – Barh stretch	(400 km)	–	2.1 m to 3.0 m
(c)	Barh – Ghazipur stretch	(290 km)	–	1.5m to 2.5 m
(d)	Ghazipur – Varanasi	(140* km)	–	1.0 m to 2.20 m

The LAD ranging of 0.8 -1.5 m was naturally available in Varanasi-Allahabad / Prayagraj (230 km) stretch of NW-1.



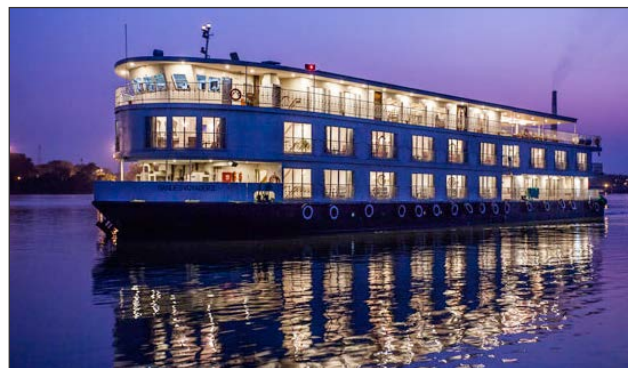
Transportation of Over Dimensional Cargo (ODC) on NW-1

4.2 Development of Tourism:

The movement of Inland tourist vessels RV Bengal Ganga, RV Kindat Pandaw, RV Katha Pandaw and RV Kalaw Pandaw are carrying out on NW-1 & an increasing trend in the State of West Bengal, Jharkhand, Bihar and Uttar Pradesh. The movements of these cruise vessels with foreign tourists were continued during 2019-20 and completed their commercial trips successfully as per schedule. Ninety four (94) no. to & fro voyages between Kolkata to Murshidabad/ Bateswarsthan/ Munger/ Patna / Varanasi has been performed by these tourist vessels.



Tourist Vessel RV Bengal Ganga on NW-1



Tourist Vessel Ganga Voyager on NW-1



Tourist Vessel RV Kalaw Pandaw on NW-1



Tourist Vessel RV Katha Pandaw on NW-1

4.3 Terminal Facilities:

The low level and high level jetties at Patna (Bihar) are operational since 2008 and 2012 respectively which are capable of mechanical handling of cargo. Bunkering facility and storage facility are also available at this terminal.



Vessels berthed at Low Level Jetty, Patna on NW-1



Vessels berthed at High Level Jetty, Patna on NW-1

A Permanent terminal at GR jetty-2, Kolkata is operational since November, 2013 for handling of General Cargo. Now days this jetty handed over to M/s Summit Alliance under a contract with IWAI for its operation on PPP mode.



Permanent Terminal at G R Jetty-2 Kolkata

Besides, fixed jetties at Farakka and Pakur also exist on NW-1 and being used by transporters / shippers / cruise vessels.

Further, floating jetty at 20 locations along National Waterway-1 are operational between Haldia and Allahabad which are being used for berthing of vessels, logistic support and embark / disembark facility to the users / tourists.



Floating terminal on NW-1

The locations of these 20 floating terminals are as under:

- (i) Haldia, Budge-Budge, BISN, Botanical Garden (Kolkata), Shantipur, Swaroopganj, Katwa, Hazardwari, Downstream (D/s) Farakka and Upstream (U/s) Farakka in West Bengal;
- (ii) Rajmahal (Manglahat) and Sahibganj (Samdaghat) in Jharkhand and Bateshwarsthan, Bhagalpur, Munger, Semaria and Buxar in Bihar; and

- (iii) Ghazipur / Rajghat, Ramnagar (Varanasi) and Allahabad terminals in Uttar Pradesh.

These floating jetty can be relocated at various sites on National Waterway-1, as per the requirement and availability of road - waterway connectivity.

An another Multi-Modal Terminal (MMT) on NW-1 at Sahibganj (Jharkhand) was inaugurated on 12.09.2019 by Hon'ble Prime Minister through video conferencing under Jal Marg Vikas Project (JMVP) with the World Bank assistance besides one Multi-Modal Terminal (MMT) at Varanasi (U.P.) has already been inaugurated by Hon'ble Prime Minister on 12.11.2018 and operational.

The details of Jal Marg Vikas projects are included in a separate section of this report.

4.4 Navigation Aids:

The 24 hours Navigation Aids being provided from Sagar to Ballia 1140km stretch through a system comprising of light - fitted country boats / bamboo structures, MS poles and trestle beacon towers to facilitate round the clock navigation and the day channel marks provided in entire stretch of NW-1.



Day Right Hand Mark



Light on Country Boat



Light on Beacon Tower



Light on Steel Pole

IWAI is conducting thalweg surveys regularly on fortnightly basis and issuing River Notices for information of operators / users.



IWAI Vessels conducting Hydrographic Survey on NW-1

IWAI also providing Pilotage to operators on need basis.

Moreover, for providing State of Art, 24 hours navigation aids on the waterway, the Differential Global Positioning System (DGPS) stations have been commissioned at Swaroopganj, Bhagalpur, Patna & Varanasi and made operational covering entire waterway for use of transporters / shippers.

An important project of providing world class River Information System (RIS) on NW-1 have been commissioned. The Phase-I project between Haldia-Farakka stretch consisting of 5 Base stations, including 2 Control stations and 30 Vessel stations has been commissioned and operational. The Phase-II project between Farakka-Patna stretch consisting of 5 Base stations and 1 Control station has also been commissioned. Further, Phase-III of RIS stations between Patna-Varanasi consisting of 3 Base stations and 1 Control station has been made operational.



River Information System Station at Farakka

4.5 Cargo Movements:

The transportation of 7.74 Lakhs MT cargo (under RO Patna) and in addition 8.20 Lakhs MT cargo (under RO Kolkata) consisting of Stone chips, Building materials, ODC's carrier, fly-ash etc. has been carried during the year 2019-20 between the Haldia-Rajmahal- Varanasi stretch using National Waterway-1. In addition, more than 42 TEU's Containerized cargo moved in this region.

IWAI had similarly rendered professional assistance to the Governments of West Bengal during the Ganga Sagar Mela on NW-1.

5. NATIONAL WATERWAY (NW) –2 :

River Brahmaputra from Sadiya to Bangladesh Border near Dhubri (891km) is the most important inland waterway in North Eastern Region (NER) forming NW-2, which was declared as National Waterway in 1988. Many rivers join this mighty river to form a fish bone structure. About 1687 km stretches of tributaries of Brahmaputra and Barak Rivers have been identified in NER having potential for development as feeder routes. NW-2 provides alternate connectivity to NER through 1700 km Indo-Bangladesh Protocol routes. During 2019-20, the important works carried out for development and maintenance of fairway, navigational aids and terminal facilities on NW- 2 are as below:

5.1 Fairway Development:

A navigable fairway of minimum 45 m width and 2.5 m Least Available Depth (LAD) is 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 (Orumghat) stretch, LAD of 1.5 m was maintained round the year navigation. To maintain this LAD, 21,000 m of bandals were erected at 54 locations and the same was maintained. In addition to above, 1,44,333 m³ of dredging were carried out at 8 locations using two departmental CSDs namely CSD Mandovi and CSD Brahmani.

One HSD namely - “HSD Dhansiri” was deployed for undertaking dredging in order to augment the depth in the fairway. There are certain volatile zones (about nine) between Bangladesh Border and Neamati where there is a frequent change in the depth and river bed/channel.

There are multiple channels at Buraburi which lead to difficulties in maintaining a navigational channel connecting Dhubri terminal. To mitigate this problem, a project at a cost of 21.69 crores for channelization of river at Buraburi (u/s of Dhubri) has been completed through Water Resource Department, Government of Assam for streaming the navigational channel through Dhubri terminal.



Typical Picture of Bandal



Dredging at Pandu by CSD Mandovi



5.2 Permanent Terminals (Existing):

Pandu (Guwahati) is the most important location on NW-2 for development of a multimodal river port. A master plan was therefore prepared for phased development of terminal at Pandu and development was carried out accordingly. A low-level jetty at a cost of 40.02 crores was made operational in 2009. A high level jetty at a cost of 43.89 crores was also made operational during 2014-15 for round the year operation with mechanical handing facility including containers.

Kamakhya railway station (Guwahati) has been constructed through NF Railway at a cost of 16.46 crore and opened for commercial operation by NF Railway in 2013. IWAI has signed the Agreement with NF Railway for using the BG Siding for movement of Cargo by third party.

Construction of permanent terminal at Dhubri has been completed during 2017 at a cost of 47.00 crores and was operationalized.

A broad gauge railway siding connecting Pandu port to



Ro-Ro Terminal at
Dhubri

This has provided direct IWT connectivity to Meghalaya through Hatsingimari from Dhubri (29km by river route) avoiding a circuitous road route 220 km long through Jogighopa bridge. CPWD commenced works at Hatsingimari; however, almost entire land selected for construction of terminal has been eroded by the river making it difficult to construct any permanent structure in present conditions. Brahmaputra Board is executing a project for protecting the bank in about 5 km length at this location. This, however, will take some time to implement and stabilization of bank thereafter.

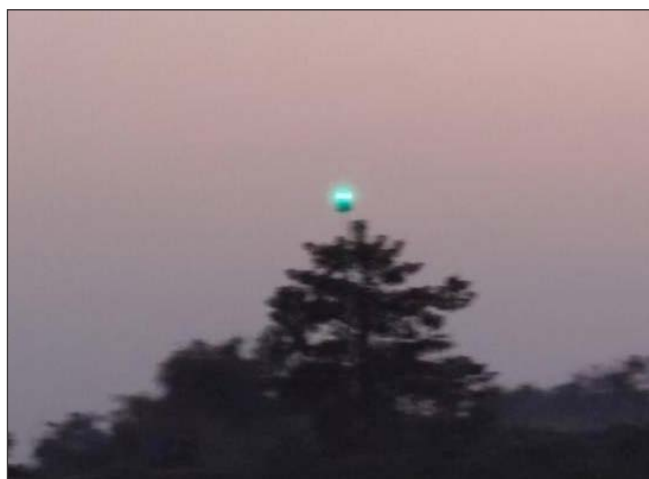
5.3 Floating Terminals:

Due to large variation (both horizontal and vertical) of water level in River Brahmaputra, construction of permanent terminals becomes very capital intensive. Hence, floating terminals have been provided at eleven identified locations viz. Hatsingimari, Dhubri, Jogighopa, Tezpur, Silghat, Biswanathghat, Neamati, Sengajan, Bogibeel, Dibrugarh/Oakland and Oriumghat.

At Jogighopa, out of 16.47 hectare of land, about 8.93 hectare of land was eroded. The continuing erosion has posed a threat to the nearby habitants. IWA in co-ordination with Water Resources Department (WRD), Government of Assam has protected the remaining terminal land by executing the bank protection work in a phased manner. This project had saved about 18.63 acres of land which would otherwise have been lost permanently. To strengthen further the implemented works, refurbishing is done through WRD, Government of Assam on deposit work basis. Due to heavy floods in 2017 the river configuration got drastically changed with major re-orientation of sand islands and river channels in the concerned reach. Accordingly, WRD, Government of Assam has re-aligned of some of the porcupine screens and work for the same is in progress.

5.4 Navigation Aids:

Channel marking for day navigation has been provided and maintained in the entire waterway. Night navigation aids have also been provided between Dhubri and Silghat (440 km) stretch and are being maintained. Fortnightly/ monthly thalweg surveys have been carried out in the entire waterway and regular river notices have been issued to provide fairway related information to the IWT operators. To supplement this, DGPS stations have been commissioned at Dhubri, Jogighopa, Silghat and Dibrugarh to facilitate DGPS connectivity in the entire NW-2. The DGPS station of Silghat has been shifted to Vishwanathghat due to severe erosion at Silghat.



5.5 River Tourism:

The presence of wild life sanctuaries at Kaziranga and Orang and other places of tourism interest viz. Sualkuchi, Sibasagar and Kamalabari on the banks of Brahmaputra (NW-2) has helped in bringing up the river tourism in this mighty river on the international platform. Three tourist vessels viz, MV Chairaidew and MV Chairaidew-I of Assam Bengal Navigation Pvt Ltd, MV Mahabaahu of Adventure Resorts & Cruises Pvt Ltd and MV Manasputra of Brahmaputra Cruises are regularly making voyages between Dhubri/Pandu and Neamati with increasing number of foreign tourists every year. This gets reflected in the number of successful voyages in the mighty river Brahmaputra, wherein the operators have successfully completed 39 trips during 2019-20.



Cruise Vessel M V Charaidew on its voyage to Neamati

6. NATIONAL WATERWAY (NW) – 3 :

The NW-3 which comprised of the West Coast Canal between Kottappuram and Kollam (168 km), Udyogmandal canal (23 km) and Champakkara canal (14 km) [total 205 km] was extended by another 165 km towards North from Kottapuram to Kozhikode during April 2016 with declaration of National Waterways Act, 2016. Preparation of two stage DPR for the development of the extended stretch is under progress. The important works carried out during the year for development and maintenance of fairway, terminals and navigation aids on the original stretches of NW-3 are briefly described below:

6.1 Fairway development:

To develop the navigation channel with the specified dimensions, estimated volume of 40.16 L. M³ capital dredging has been completed till 31.03.2020 in all stretches except a 1.00 km long shoal in Kayamkulam Kayal and 1.10 km in Edappallikotta – Kollam stretch. As on 31.3.2020, work in the Edappallikotta – Kollam stretch is in progress through contract.

Protection of canal banks against erosion is another important activity for safe navigation in NW-3. IWAI has provided bank protection so far to 15.97 km of canal banks in Champakkara and Udyogmandal canals. In the narrow sections of canal between Alappuzha and Kollam wherever widening was undertaken, bank protection has been provided in a length of 12.44 km.

The progress of capital dredging and widening of narrow sections in NW-3 has been experiencing delay over the years due to various local issues related to disposal of dredged material, demand for extra bank protection and dredged spoil, frequent stoppage of works and litigations by the local people and objection by the fishermen. With new regulations regarding protection of wet lands etc., identifying disposal sites for material dredged from National Waterway has become extremely difficult. To resolve such problems and take the works forward, IWAI is making regular interactions with the State Government, but still, the long-drawn process for allotting dumping sites is causing considerable under utilization of IWAI's dredging capacity in NW-3.

The Irrigation Department of Govt. of Kerala was entrusted with reconstruction of new navigational lock at Thrikkunnappuzha (with dimensions of 61m long, 14.75m wide and 6m (above HFL) vertical clearances), at a cost of Rs.38 Crore and IWAI released a total amount of 23 Crores to Govt. of Kerala. The construction of lock-gate is in progress by Irrigation Department, Govt. of Kerala on deposit basis.



Piling work for Thrikkunnappuzha Lock construction is in progress



Piling work for Thrikkunnapuzha Lock construction is in progress

The Irrigation Department, Govt of Kerala was entrusted with the replacement of lock shutters of 40 feet wide navigational lock at Thanneermukkom at a cost of Rs.2.85 crore on deposit basis. The shutters were replaced with stainless steel to avoid corrosion and maintenance free seamless operations. The work is completed in January 2020.



View of renovated Thanneermukkam 40' Lock

6.2 IWT Terminals:

Cargo terminals have been constructed at 9 places (viz., Kottappuram, Aluva, Maradu, Vaikkom, Thanneermukkom, Thrikkunnapuzha, Kayamkulam, Kollam and Alappuzha. The Alappuzha Terminal has taken over from CPWD in February 2020. The above terminals are not attracting expected cargo mainly due to reluctance on the part of consignors and consignees to accept a modal shift to IWT mode.

6.3 Ro-Ro Terminals & Cargo movement:

Two Roll-on/Roll-off terminals within the Cochin Port area, one at Bolghatty and the other at Willington Island have been constructed by IWA through Cochin Port Trust to provide connectivity with ICTT, Vallarpadam. By utilizing this facility, trucks / trailers bound for Vallarpadam need not pass through the congested roads of Kochi city. These terminals were in operation from February 2011 to June 2017. Total 2.58 lakh TEU's have been transported between these terminals by a Ro-Ro vessel operated under a contract with a private operator, till the operation was terminated in June 2017 due to the dispute between Operator and CoPT. In terms of tones, total cargo moved in NW.3 in an organized way by barges during 2019-20 was 5.74 lakh tones, which mainly consists of Sulphur, Phosphoric Acid, Liquefied Ammonia Gas, Rock Phosphorous etc.

6.4 Ro-Ro- Vessels

Two nos. of Ro-Ro vessels are under construction at Cochin shipyard for deployment between Willington Island and Bolgatty Jetty at a total cost of Rs. 24.57 crores. The Ro-Ro vessels will be in operation by 2021.



Ro-Ro vessel under construction at Cochin Shipyard

6.5 Navigational Aids:

A total of 312 solar powered lighted buoys and 17 numbers beacon lights were maintained by IWAI all along NW.3 to facilitate safe navigation round the clock.



Solar Powered FRP Buoy installed in NW-3



Beacon lamp in NW-3

6.6 New National Waterways in Kerala:

Following are the three new NWs in addition to extension of NW-3 declared in Kerala during April 2016:

- a) Alappuzha-Changanassery Waterway (NW-8) - 28 km
- b) Alappuzha-Kottayam- Athirampuzha Waterway-(NW-9) - 38 km and
- c) Kottayam-Vaikkom Waterway (NW-59) - 28 km

All the above new waterways in Kerala are directly connected to the existing NW.3. Preparation of two stage DPR for the development of all the new waterways under progress. The copies of the draft feasibility reports are shared with Govt. of Kerala for their inputs and comments.

6.7 Alappuzha – Kottayam – Athirampuzha Canal (NW-9) :

The Alappuzha– Kottayam– Athirampuzha canal (NW-9) having 38Km stretch was declared as NW-9 in April 2016. The NW-9 is passes through the Kodur River via., Kottayam Port (ICD) connecting the Kottayam Town with Kochi through NW-3. The container movement from Kottayam Port to Kochi Port was conducted on trial basis in March 2019 and regular movement of container is expected by 2021.

Removal of water hyacinth to open up the waterway was attended and also 24 hours Navigational Aids Buoys was procured and installed in NW-8 and NW-9.

7. NATIONAL WATERWAY (NW) – 4 :

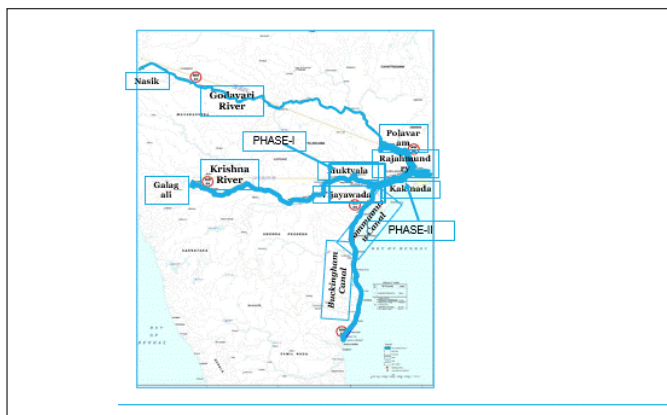
National Waterway – 4 was declared in 2008 for the length of 1,078 km comprising of the Kakinada – Puducherry stretch of Canals and the Kaluvelly Tank, Bhadrachalam – Rajahmundry stretch of River Godavari and Wazirabad – Vijayawada stretch of River Krishna. Further, the stretch has been extended by NW Act-2016 with additional reaches in the River Krishna from Wazirabad to Galagali (628 Km) and the River Godavari from Bhadrachalam to Nasik (1184Km). Total length of NW-4 after extension is 2890 km. A Project has been sanctioned for Rs. 96.0 cr for developing the stretch between Vijayawada to Muktyala (82

Km) of Krishna River in Phase-I. The important works during the year in the Phase-I stretch are as follows:

- i) Dredging work is completed at critical shoal locations.
- ii) Land acquisition for permanent terminals at Muktyala, Harschandrapuram & Ibrahimpatnam are in Progress.
- iii) Construction of four floating terminals is in progress.

A Comprehensive hydrographic and navigation study in Vijayawada – Kakinada & Rajahmundry – Polavaram stretches in Phase – II of NW – 4 is completed.

Cargo movement between Ibrahimpatnam to Lingayapalam on Krishna river commenced and 0.82 Lakhs tons of cargo (Construction Material) has moved during 2019-20.



National Waterway-4



Floating Terminals

8. NATIONAL WATERWAY (NW) – 5:

8.1 For developing 332 km stretch in 2 phases between Talcher & Paradip/Dhamra on NW-5, a Memorandum of Understanding (MoU) with Govt. of Odisha, Paradip Port & Dhamra Port Co. Ltd. Was signed by IWAI on 30.6.2014. The Phase-I development of 211 km stretch between Pankapal & Paradip/Dhamra is already under progress. The 131 km stretch between Talcher & Pankapal and East Coast Canal (Dhamra - Charabtia -Geonkhali) will be taken up in the 2nd Phase. Another MoU has been signed with paradip port on 28.9.2016 for development of Phase -1 on NW-5, which includes all the Project Management Consultant (PMC) services.

8.2 Consultancy service for preparation of Detailed Project Report (DPR) followed by Front End Engineering Design (FEED) for construction of 4 Weirs/Barrages with 3 navigational locks, 2 Check Dams & 1 Rubber Dam with navigational lock etc. between Paradip / Dhamra and Pankapal stretch (Phase – I, 212 km) on NW- 5, Odisha was awarded to M/s Tractebel Engineering Pvt. Ltd. The Draft design of W1, W2, W3, W4, W5, C1&C2 has been prepared and submitted to CWC for examination and vetting under intimation to WRD, Odisha on dt 03-09-2019, 27-09-2019, 05-11-2019, 22-11-2019 & 06-12-2019. Vetting from CWC, New Delhi is awaited.



8.3 Consultancy service for Preparation of Detailed Engineering Report (DER) including Detailed Engineering Design & Drawing (DED&D) for the existing bridges between Paradip/Dhamra stretch, which needs modification/re-construction on NW- 5, Odisha was awarded to M/s SM Consultants, Bhubaneswar in February 2018. Draft GADs and design details shared with the concerned owner organizations, Final reports being prepared based on the observations received and submitted to respective authorities. The BOQ with indicative / block cost estimate and implementation plan in connection with DER for all bridges with methodology of demolition of existing bridges have been received on 18-01-2020 which are under scrutiny by concerned department (Govt. of Odisha).

8.4 An amount of Rs. 20.16 crore released to Central Electricity Supply Utility of Odisha (CESU) for shifting the HT/LT electric lines between Dhamra and Alapua & Mangalgadi to Hansua mouth. An amount of Rs 20.66 crore and Rs 2.86 crore released for shifting the HT/LT power lines between Alapua and Pankapal on NW-5 to North Eastern Electricity Supply Company of Odisha Limited (NESCO) and Odisha Power Transmission Corporation Limited (OPTCL) respectively. All the works are in progress and will be completed before December, 2020.

8.5 Application for Coastal Regulation Zone (CRZ) and Wildlife clearance submitted to OCZMA and views of OCZMA obtained. Steps are being taken for obtaining fresh ToR. A meeting for ToR appraisal was held on 25-26, Nov 2019 at New Delhi.

8.6 Monthly Longitudinal Thalweg Survey (MLTS) between Paradip/ Dhamra and Pankapal is being conducted through M/s Global Marine Infratech Pvt Ltd. Total 2451.147 km was surveyed during this year 2019-20.

8.7 For development in phase-II (Pankapal to Talcher) hydrographic & topography survey has been completed.

9. NATIONAL WATERWAY-16 (BARAK RIVER)

River Barak was declared as National Waterway-16(NW-16) in the year 2016. It connects Silchar, Karimganj and Badarpur in Cachar valley of Assam with Haldia and Kolkata ports through Indo-Bangladesh Protocol (IBP) Route. The achievements of IWAI on NW-16 are enumerated as below:

Fairway Development

Work awarded to M/s Reach Dredging Barak SPV Pvt Ltd for dredging and providing fairway maintenance for Least Available Depth of 2m along with provision of navigational aid for the Stretch- B (Ujjainigram (73km to Sridharpur(95 km)) and Stretch-C (Sridharpur(95 km) to Bhanga (121 km)) at a total cost of 15.36 crore and 15.41 crore respectively. The dredging work at both stretches was commenced from November'2017

STATUS

- i) **Stretch – B (22 km) i.e Ujjainigram (Ch.73 km) to Siridharpur (Ch. 95 km) :-** The work in this stretch had commenced in November'2017 and has been terminated/foreclosed from 04.12.2019 as per directives of Ministry of Shipping. 6.41 cu m quantity has been dredged at a total cost of 14.83 cr (excluding GST).
- ii) **Stretch – C (26 km) i.e Siridharpur (Ch. 95 km) to Bhanga (Ch. 121 km) –** The work in this stretch was also commenced in November'2017 and is being continued by the contractor M/s RDBSPVPL. Till March 2020, 7.84 lakhs cu.m has been dredged at the total cost of 16.51 cr excluding GST.

Terminals

- i) Land availability Badarpur -1.34 acres (Ware House 29.84 x 16.07=479.53 sq.m) connecting NH-37 and Karimganj 1.87 acres land (Ware house 85 x 23 m =1955 sq.m, RCC Jetty 136.5 x 14.5 m) connecting NH-37 & 8.
- ii) The tender for upgradation / repairing of Karimganj and Badarpur terminals is under process. The estimated cost of the work is 5.42 cr (Karimganj 2.69 cr and Badarpur 2.73 cr).

10. NEW NATIONAL WATERWAYS

- (a) **Goa-Waterways - [River Zuari (NW-101), River Cumberjua (NW-27), River Mondovi (NW-68)] -**

A consolidated scheme for Rs.22.65 crore has been sanctioned by IWAI Board that comprises of provision for floating Concrete Jetty, night navigational aids & light houses.

As on date 1 no. floating concrete (India 1st concrete pontoon) was inaugurated by Hon'ble Minister of Shipping on 21.02.2020. The remaining 3 pontoons were slated to be inaugurated by July, 2020 but the same has been delayed due lockdown restrictions.

The night navigation tender was approved and slated to be floated by 26th March, 2020 but it has to be postponed due to lockdown restrictions. Fresh dates are being chalked out.

(b) Gujarat Waterways - [River Narmada (NW-73) & River Tapi (NW-100)] -

The relevant details are being worked out. Developmental activities has been proposed in propagated SFC note in consultation with State Govt.

(c) Maharashtra Waterways - [AMBA RIVER (NW-10), DABHOL CREEK -VASHISHTI RIVER SYSTEM (NW-28), KALYAN-THANE-MUMBAI WATERWAY, VASAI CREEK AND ULHAS RIVER SYSTEM (NW-53) & REVADANDA CREEK - KUNDALIKA RIVER SYSTEM (NW-85)]-

The relevant details are being worked out. Developmental activities has been proposed in propagated SFC note in consultation with State Govt.

(d) Sunderbans Waterway (NW-97) -

Sunderbans Waterway (NW-97) from Silver Tree Point to Atharabanki Khal, Bangladesh Border forms part of Indo–Bangladesh Protocol route.

The volume of IWT movement through Indo Bangladesh protocol route is gradually increasing and large quantity of fly ash cargo is being exported from India to Bangladesh. A substantial number of Outward and Inward permissions are also being processed on daily basis along with necessary evaluation and inspection of the foreign flagged vessels operating in the protocol route.



Exim cargo movement from Haldia to Assam via NW-97

11. INDO-BANGLADESH PROTOCOL ON TRANSIT & TRADE

11.1 Protocol on Inland Water Transit and Trade between India and Bangladesh

A Protocol on Inland Water on Transit and Trade (PIWT&T) between India and Bangladesh has been in existence since 1972 facilitating movement of inland cargo vessels of one country on designated routes other country for transit & trade of goods through inland waterways. It connects NW-1 (Ganga), NW-2

(Brahmaputra) and NW-16 (Barak) with Kolkata and Haldia ports through Bangladesh and NW-97(Sundarbans waterways). The designated Inland Water Routes under this protocol are :-

- 1 & 2- Kolkata-Silghat and vice-versa
- 3 & 4- Kolkata-Karimganj and vice-versa
- 5 & 6- Rajshahi-Dhulian and vice-versa
- 7 & 8- Silghat-Karimganj and vice-versa

The existing protocol is valid up to June'2020 and it shall automatically be extended for successive five years unless either Government terminates the Protocol by giving a written notice of its intention to terminate to the other Government at least 6 months before end of term. Under this Protocol, Inland vessels of both the countries can ply on the designated protocol route and dock at ports of call in each country, notified for loading / unloading of cargo. The following are the Ports of Call under PIWT&T:

India	Bangladesh
Kolkata	Narayanganj
Haldia	Khulna
Karimganj	Mongla
Pandu	Sirajganj
Silghat	Ashuganj
Dhubri	Pangaon

There has been significant improvement in the movement of cargo vessels in an organized manner on the Protocol route carrying both the transit cargo to NE region of India and vice-versa and export-cargo to Bangladesh. The Indian transit cargo is mainly coal, fly-ash, POL and ODC for power projects in NE region. The other potential cargo for movement is fertilisers, cement, food grains, agricultural products, containerized cargo etc.

The export cargo from India to Bangladesh is mainly fly-ash Approx 3.5 million tonne (3.0 million ton is fly ash) of traffic moved on the IBP route in Financial year 2019-20 and displayed a growth of approx. 7 % over Financial year 2018-2019.

Further it is also agreed by both the countries in the 19th and 20th meeting of Standing Committee on PIWT&T between India and Bangladesh, held at New Delhi and Dhaka on 25th October'2018 and 04th December,2019 respectively, to include Gumti river in Tripura in India and Bangladesh between Daudkandi and Sonamura in PIWT&T as IBP route no. 9 & 10 and extend existing protocol route no. 5 & 6 between Rajshahi - Godagari - Dhulian stretch upto Aricha in Bangladesh and to include the following Ports of Call:



India		Bangladesh	
Ports of Call	Extended Ports of Call	Ports of Call	Extended Ports of Call
Dhulian	Tribeni (Bandel) of Kolkata	Rajshahi	Ghorasal of Narayanganj
Maia		Sultanganj	
Kolaghat	Badarpur of Karimganj	Chilmari	Muktarpur of Pangaon
Sonamura		Daudkandi	
Jogighopa		Bahadurabad	

This will be included under PIWT&T through 2nd addendum to PIWT&T shortly.



The IBP routes under PIWT&T

11.2 Passenger and Cruise Services on IBP routes

An MoU and SoP have also been signed between India and Bangladesh for movement of Cruise and Passenger vessel on Indo-Bangladesh Protocol Route (IBP) on 8th April, 2017 and 25th October, 2018 respectively. Four river cruises have completed their voyage from Kolkata – Dhaka - Guwahati stretch and vice-versa since then successfully.



11.3 Movement on Shallow Draft Mechanized Vessels

As a path-breaking development, both sides have also agreed to introduce trade between Chilmari (Bangladesh) and Dhubri (India) through the use of shallow draft mechanized vessels, provided these are registered under Inland Shipping Ordinance 1976 of Bangladesh or Inland Vessels Act, 1917 of India as per provisions of Article 1.3 of the Protocol and conform to safety requirements. This initiative allows export of stone chips and other Bhutanese and North East cargo to Bangladesh and easy access for the traders to the hinterland of Bangladesh, enhancing the local economy in Bangladesh and the lower Assam region of India. 1674.54 MT of stone chips was exported from Dhubri to Chilmari during 2019-20.

11.4 Development of fairway in Sirajganj to Daikhowa stretch (175 km) of Jamuna river & Ashuganj to Zakiganj stretch (295 km) of Kushiya river on the Indo-Bangladesh Protocol Route

- i) A Memorandum of Understanding (MoU) has been signed on 08th April 2017 between Govt. of India and Govt. of Bangladesh for dredging and to develop and maintain fairway of 2.5 m depth and 30 m width for 07 years in Sirajganj-Daikhowa stretch (175 km) of river Jamuna and Ashuganj-Zakiganj stretch (295 km) of river Kushiya.
- ii) These stretches are part of Protocol on Inland Water Transit and Trade between India and Bangladesh providing connectivity to North-Eastern states through National Waterway-2 (River Brahmaputra) and National Waterway No-16 (River Barak)
- iii) Cost of project is 305.84 crores (India-INR 244.67 Cr. and Bangladesh-INR- 61.17 Cr.) and shall be shared on 80:20 basis by Government of India and Government of the People's Republic of Bangladesh. This project is funded by Ministry of External Affairs, Government of India.
- iv) Bangladesh Inland Waterways Transport Authority (BIWTA) has awarded the work to M/s Dharti-Banga JV at the total cost of BDT 95.49 Cr on 04.10.2018 for Ashuganj-Zakiganj and BDT 227.46 Cr on 11.11.2018 for Sirajganj-Daikhowa through open tendering for 07 years. The dredging has commenced from March'2019 in Ashuganj-Zakiganj and April'2019 in Sirajganj- Daikhowa stretches of IBP route.
- v) A Joint Monitoring Committee comprising 04 members each of India and Bangladesh are supervising and monitoring the progress of the work.
- vi) To give more emphasis on inspection and monitoring of ongoing dredging activities tender has been floated by BIWTA, Bangladesh for appointment of Project Management Consultant (PMC) . MEA has approved 'in-principle' funding of additional cost (6% of the tendered cost of 258.84 cr + GST) amounting to 12.4 cr + GST (MEA share @ 80% of total cost of 15.5 cr; Government of Bangladesh share is BDT 3.1 cr) to be shared on 80:20 basis between Government of India and Government of Bangladesh for appointment of PMC for monitoring and supervision of the dredging project.
- vii) Once these stretches become fully navigable, they will help in considerable reduction in the logistic cost of cargo movement in the North East Region (connecting NW-1 (River Ganga), NW-2 (River Brahmaputra) and NW-16 (River Barak) through Bangladesh waterways as

well as seamless navigation to and from North East India and reduction in congestion through the Siliguri Corridor (Chicken's neck).

12. INDO-MYANMAR KALADAN MULTIMODAL TRANSIT TRANSPORT PROJECT

The project is being implemented to provide an alternate connectivity to North East through Kaladan river & Sittwe Port in Myanmar. The project includes road connectivity from Mizoram to Paletwa (Myanmar), thereafter waterway connectivity from Paletwa to Sittwe (Myanmar) & coastal connectivity from Sittwe to any port in India and vice versa.

IWAI is the Project Development Consultant (PDC) of Ministry of External Affairs (MEA) for implementation of Port & IWT components of Kaladan Multimodal Transit Transport Project in Myanmar. The project is piloted and funded by MEA. An agreement between MEA and IWAI in this regard was signed on 19th March, 2009.

M/s Essar Project (India) Ltd. (EPIL) is the main contractor appointed by MEA for the works being implemented in Myanmar under IWAI's supervision. M/s URS Scott Wilson India Pvt. Ltd., Gurgaon are IWAI's Supervision Consultant for the project.

The Phase – I works of the project are completed. The highlights of Phase – I works are as follows:

A. Phase – I Works

1. Sittwe

- Construction of Rubble Mounted Dyke.
- The approach Jetty for both the Port & IWT jetty
- Construction of Port at Sittwe
- Construction of IWT Terminal at Sittwe.
- Dredging access channel and port basin at Sittwe port.
- Construction of backup facilities structures (Port Office, IWT Office, Covered Storage, Electrical & Generator Room, Canteen / Rest Room etc.)
- Erection of 10 T Level Luffing crane at Port Jetty and supply of other cargo handling equipments for Sittwe & Paletwa

2. Paletwa

- IWT Terminal
- Backup facility works like IWT office, Covered storage, Electrical & Generator Room, Canteen / Rest room etc.

3. River dredging work

4. Construction of 6 nos. of Barges 300 T capacities.

5. Installation of Navigational aids.

In addition to above, some additional works under Phase – I at Sittwe & Paletwa are also completed through EPIL.

B. Phase – II works

The works envisaged during Phase – II are as under:

- a) Construction of Container handling facility at Sittwe / Paletwa including preparation of Detailed Project Report (DPR) – DPR Prepared.
- b) Wreck removal from Sittwe Port Basin area: - Wrecks removal work from Sittwe Port Basin area is completed.
- c) Operation & Maintenance (O&M) of completed project components – Ministry of External Affairs, GoI entered a MOU with Govt of Union of Myanmar on 22nd October 2018 to maintain and operate the assets created in phase-I through an O&M agency.

Accordingly, the assets completed under phase-I have been handed over to M/s A to Z Exim through Myanmar Government departments on 31st Jan 2020 and Operation and maintenance has commenced from 1st Feb 2020.

IWAI in its role of PDC maintained regular coordination with all relevant stake holders like MEA, Embassy of India – Yangon, Ministry of Shipping, Ministry of DoNER, Govt. of Myanmar, Contractors and Consultants for implementation of the project.

13. HYDROGRAPHY SURVEY ACTIVITIES

Hydrography is the science that measures and describes the physical features of the navigable portion of the Earth's surface and adjoining coastal areas. Hydrographic surveyors study these bodies of water to see what the "floor" looks like. Hydrographic surveys to measure the depth and bottom configuration of water bodies. That data is used to update nautical charts and develop hydrographic models. This information is vital to navigating the ocean and our nation's waterways

Hydrographic survey is a pre-requisite for studies of waterway development and for safety of navigation. Hydrographic survey is the science of measurement and descriptions of features which affect navigation, marine construction, dredging, submerged wrecks and other feature demarcation and related activities. Hydrographic survey is the back-bone activity in decision making, whether it is related to planning and execution of developmental & maintenance activities, providing information to mariners/ users, publication of nautical charts etc. as an aid to safe navigation. The hydrographic wing also publishes Navigation Atlas & Pilots for the National Waterways providing supplementary information to the mariners.

“Plenty of blanks in the world's charts. There will have to be a lot surveying before all of them are filled in.”

- John Blaine, The Phantom Shark

Modern techniques using Automatic Hydrographic Survey System with Global Positioning System (GPS) are used for achieving better accuracy in surveys. The final stages of the hydrographic process use the raw data collected through hydrographic survey into information usable by the end user for analysis and safe

navigation. Hydrographic survey capabilities have been enhanced with introduction of latest survey equipment viz. Bathy-swath Multibeam Echo-Sounder, Acoustic Doppler Current Profiler (ADCP), Side Scan Sonar and Sub-Bottom Profiler.

13.1 NATIONAL WATERWAY -1 (Sagar-Prayagraj)

• THALWEG SURVEYS

During the year, Thalweg (longitudinal) surveys were conducted departmentally on fortnightly basis in lean season & monthly basis during floods and River Notices issued (both in English & Hindi) to the IWT users. Total 27,470 line-km of Thalweg surveys were undertaken during the year 2019-20.

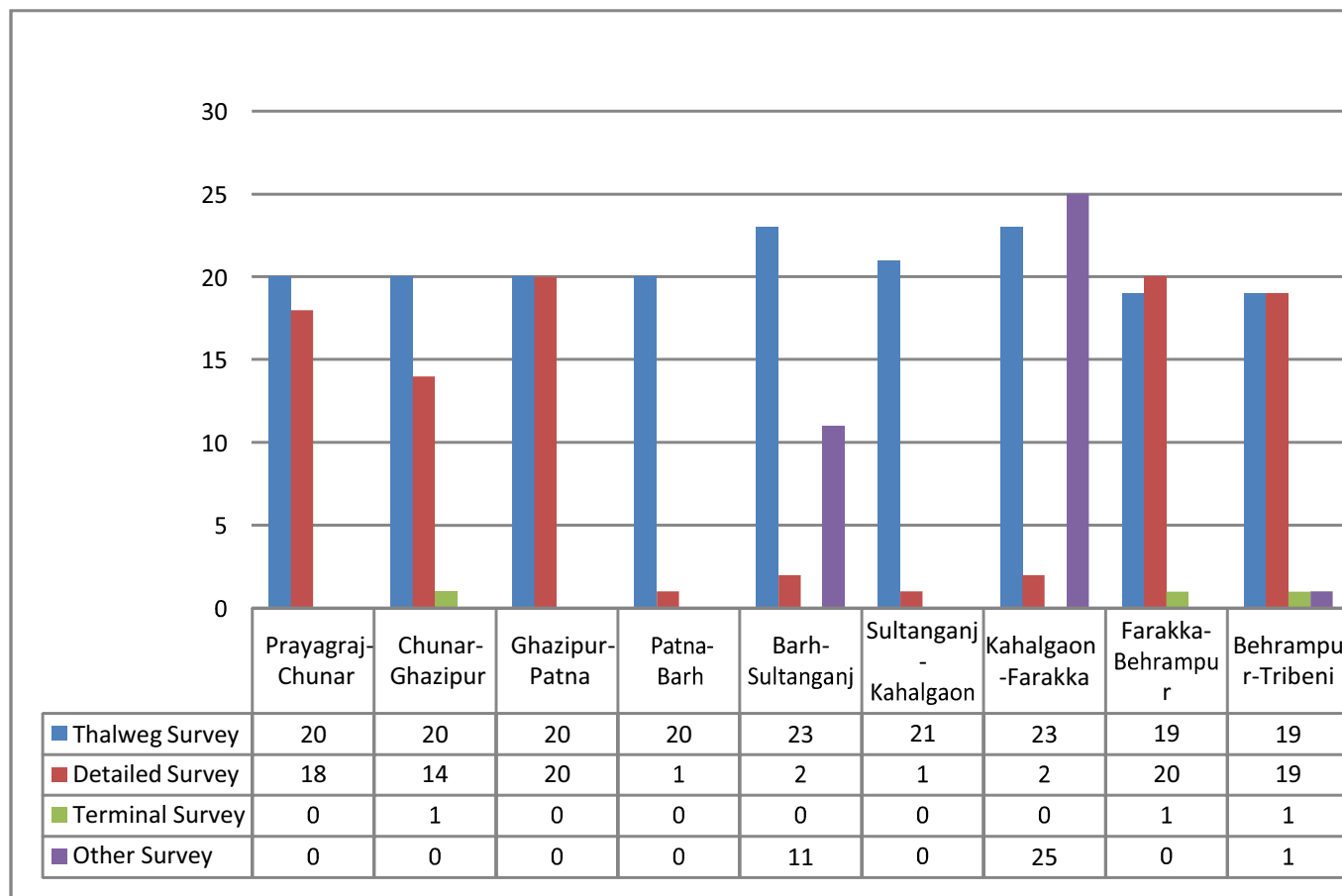
• DETAILED / BANDALLING / DREDGING SURVEYS

Pre & Post Bandalling/ Dredging and Detailed surveys were conducted departmentally at 97 shoal locations and 37 no. other survey during the year 2019-20, details are indicated in the form of Bar-Chart.

• TERMINAL SURVEYS

Terminal Surveys were carried out at 03 nos. existing terminals / proposed terminals during the year 2019-20.

A graph depicting various surveys activities in NW-1 has been shown below:



13.2 NATIONAL WATERWAY-2 (River Brahmaputra)

• THALWEG SURVEYS

During the year 2019-20, Thalweg surveys were conducted departmentally on fortnightly basis in lean season & on monthly basis during flood season and River Notices issued (both in English & Hindi) to the IWT users. Total 14,389 line-km of Thalweg surveys were undertaken during the year 2019-20.

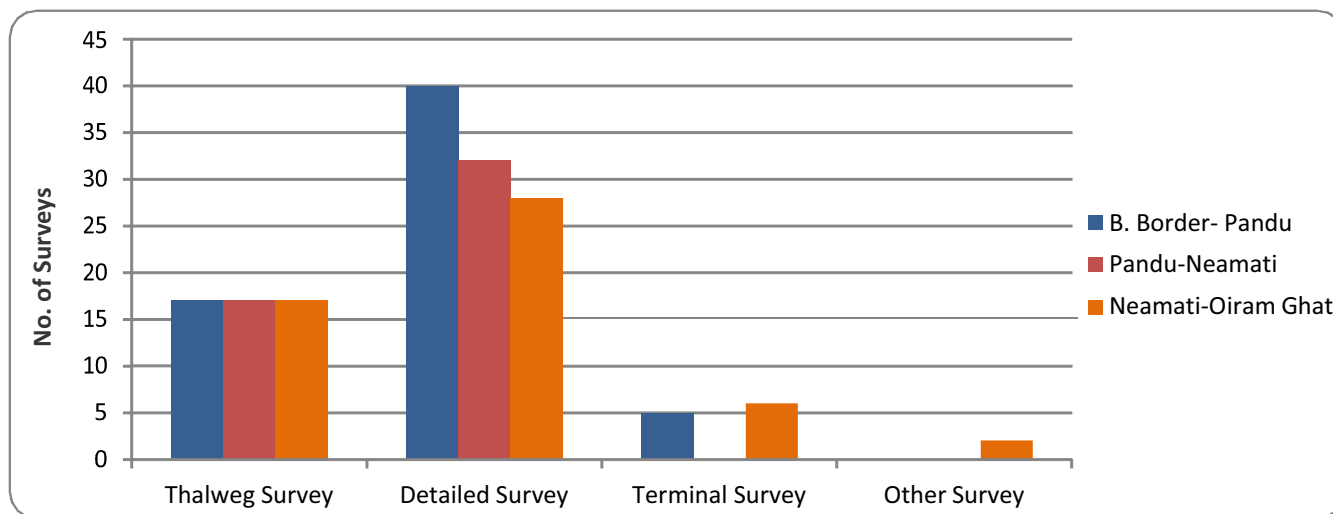
• DETAILED / BANDALLING / DREDGING SURVEYS

During the year, Pre / Post Bandalling/ Dredging and detailed surveys and 2 no. other survey were conducted departmentally at 100 shoal locations for undertaking RC works and ensure smooth navigation during the year 2019-20. Details are indicated in the form of Bar-Chart.

• TERMINAL SURVEYS

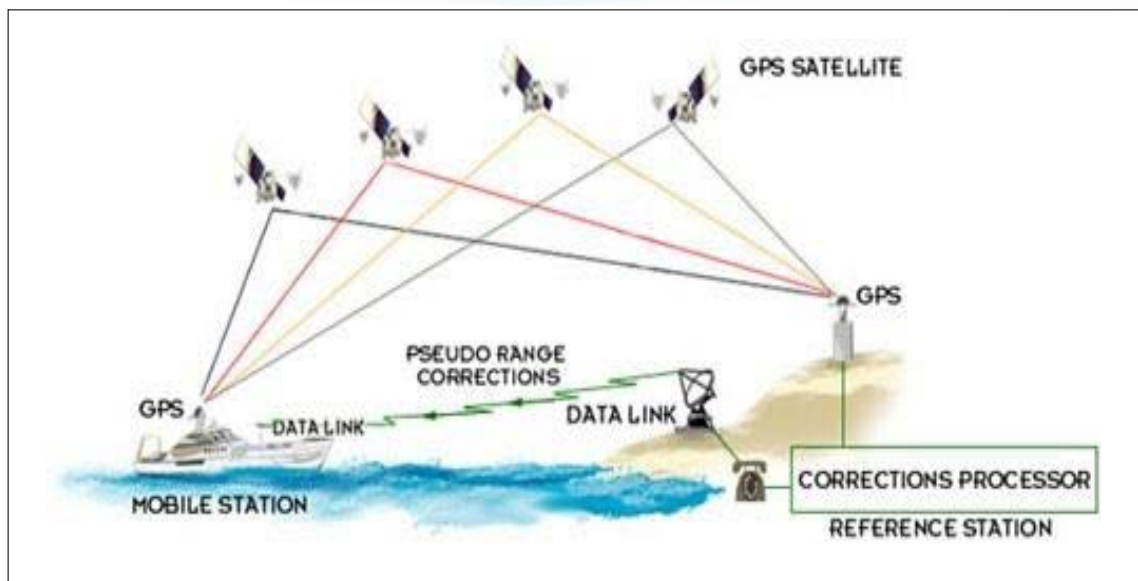
11 nos. of terminal surveys were carried out at existing / proposed terminals sites during the 2019-20 year.

A graph depicting various surveys activities in NW-2 has been shown below:



13.3 DGPS Based Navigation Systems: -

Keeping in view the commitment to introduce more reliable and safe inland navigation methods, IWAI had introduced navigation with DGPS (Differential Global Positioning System) technique in National Waterway 1 & 2. In this project, DGPS stations at Swaroopganj, Bhagalpur, Patna & Varanasi in NW-1 and Dhubri, Jogighoppa, Biswanath & Dibrugarh in NW-2 have already been commissioned. Presently, DGPS connectivity is available for entire stretch of NW-1 (1547 km) and NW-2 (891 km).



Working Principle of DGPS Station

The DGPS network facilitate efficient voyage of vessels plying in National Waterway-1 (the Ganga - Bhagirathi - Hooghly river system between Haldia and Prauagraj) and National Waterway -2 (the Brahmaputra river between Sadiya and Dhubri).

The additional station at Dhubri is facilitating safe and effective navigation in the Indo-Bangladesh Protocol routes. These stations are planned in such a manner so as to get a radial coverage of 150 km (approx.) with sub-meter accuracy in position.

13.4 NATIONAL WATERWAY -3 (West Coast Canal, Udyogmandal & Champakara Canals)

- **THALWEG SURVEYS**

The Thalweg surveys are carried out departmentally in Kottapuram – Kochi - Kollam stretch (West Coast Canal along with Udyogmandal & Champakara Canals) on monthly basis and River Notices were issued (both in English & Hindi). Total 2,337.00 line-km of Thalweg surveys were undertaken during the year 2019-20.

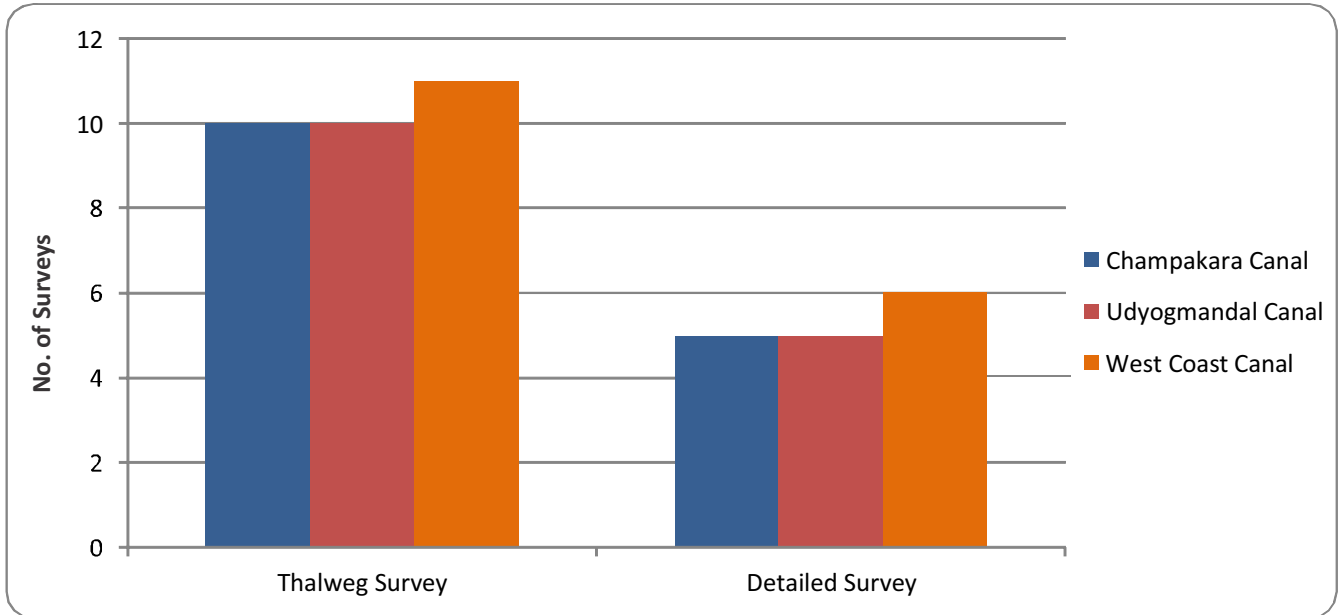
- **DETAILED SURVEYS**

Pre & Post dredging Surveys were carried out at 16 nos. locations during 2019-20.

- **TERMINAL SURVEYS**

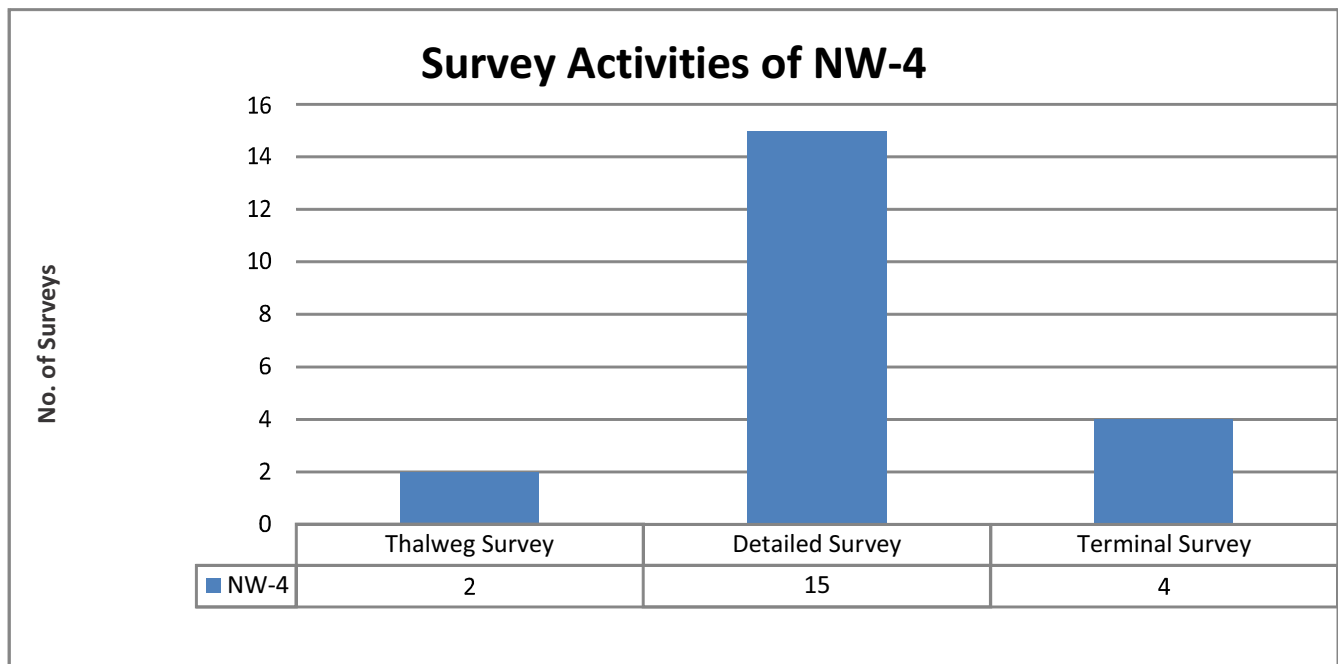
1 no. of terminal survey was carried out at existing terminal site during the 2019-20 year.

A graph depicting various surveys activities in NW-3 has been shown below:



13.5 NATIONAL WATERWAY - 4 (The Kakinada-Puducherry stretch of Canals integrated Bhadrachalam- Rajahmundry stretch of River Godavari and Wazirabad - Vijayawada stretch of River Krishna)

During the year 2019-20, 2 no. Thalweg survey of total 164.00 line-km were conducted. 5 Pre & 10 Post dredging and 4 nos. Terminal Surveys were carried out during 2019-20.

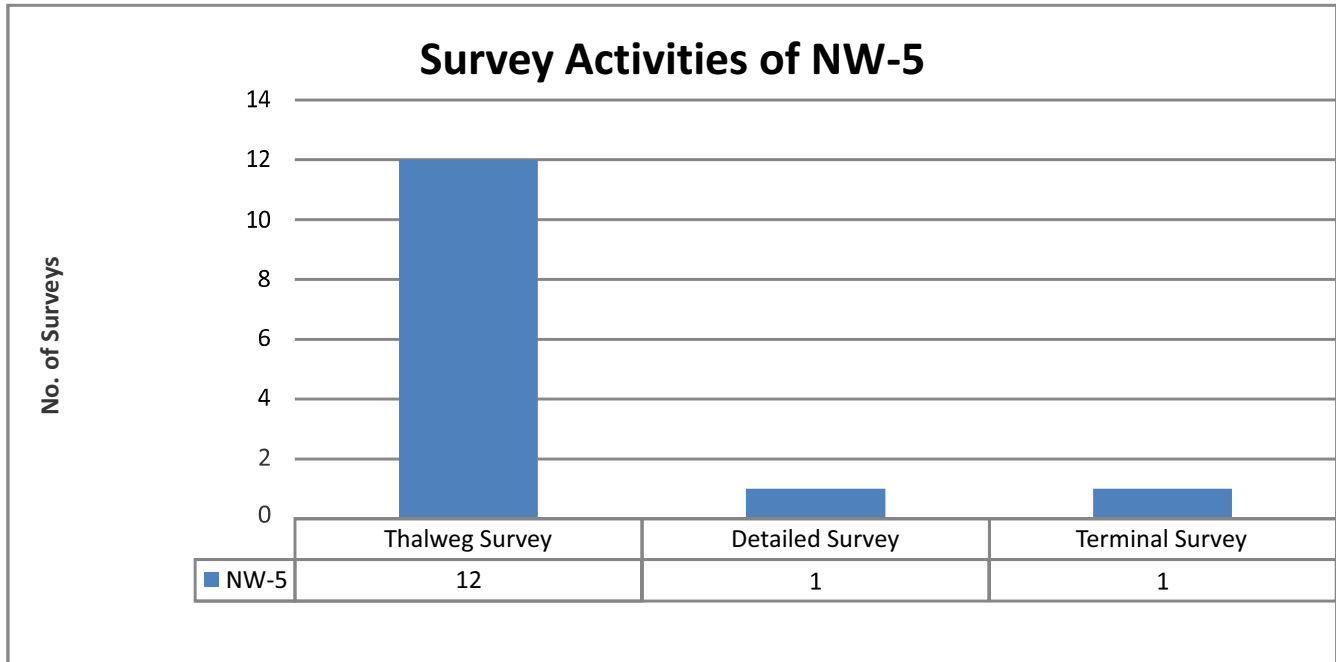


13.6 NATIONAL WATERWAY -5 (East Coast Canal along with Brahmani & Mahanadi Delta)

During the year 2019-20, 12 no. Thalweg survey of total 2,451.147 line-km were conducted.

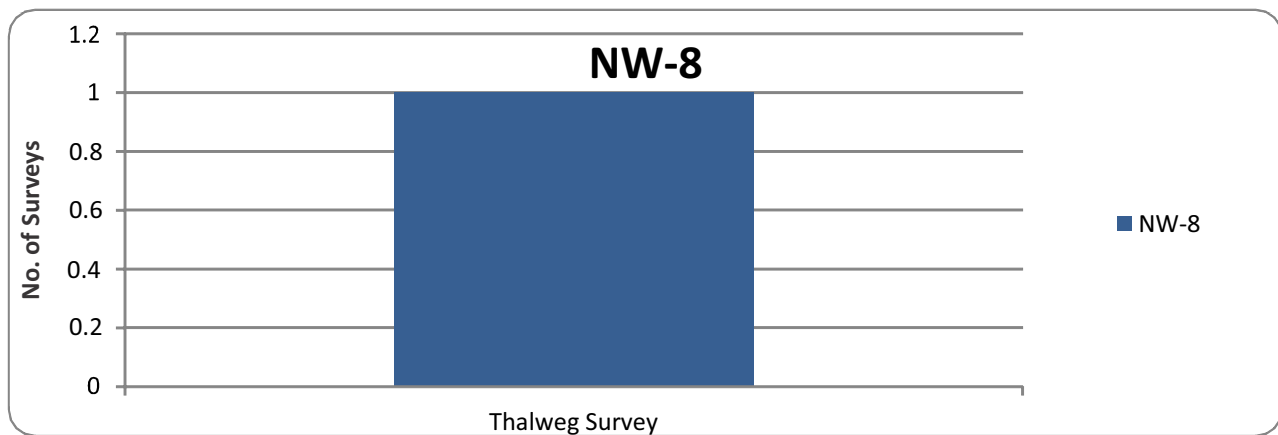
01 no. Detailed Survey from Pankapal to Talcher – length 120 km was completed.

01 no. Pankapal terminal survey (Topographical) was also completed.



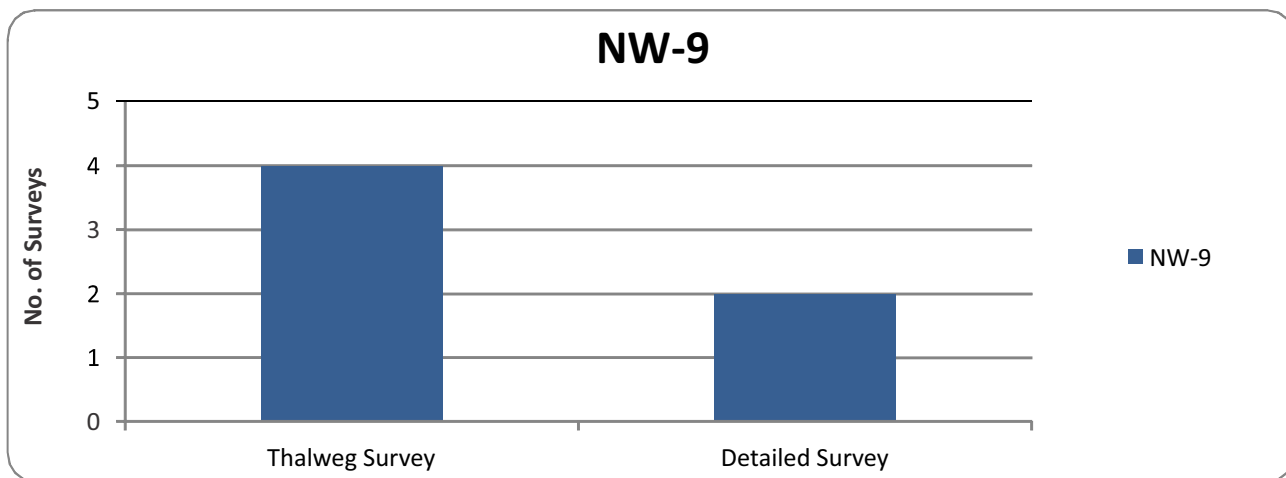
13.7 NATIONAL WATERWAY -8

During the year 2019-20, 1 no. Thalweg survey of total 29.00 line-km was conducted.



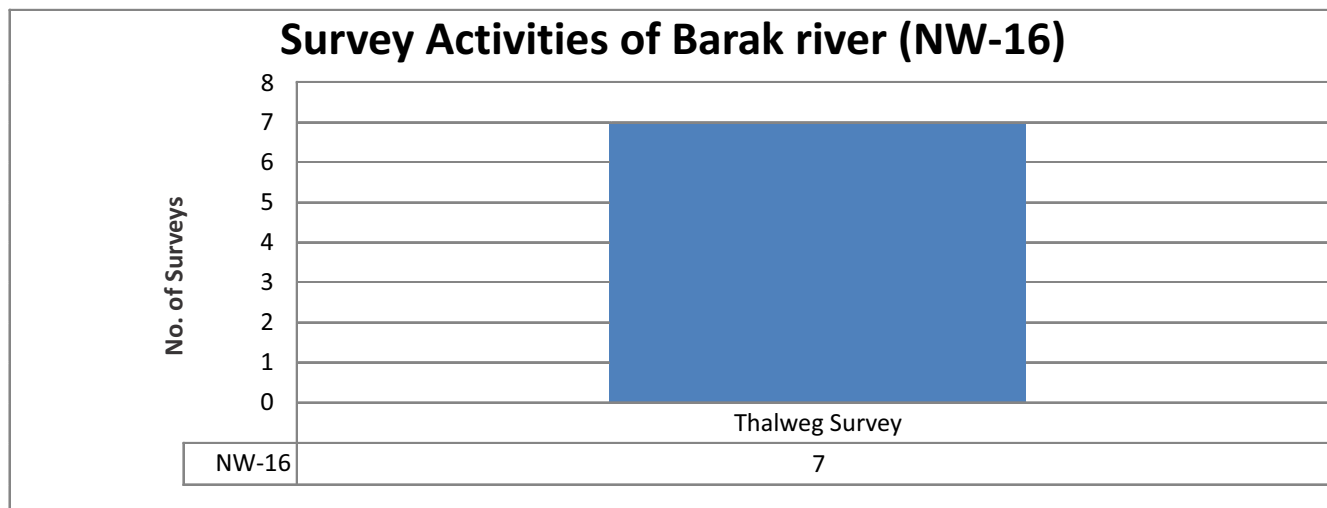
13.8 NATIONAL WATERWAY -9

During the year 2019-20, 4 no. Thalweg survey of total 100.00 line-km were conducted. Detailed Hydrographic Surveys were carried out at 2 nos. locations (Pattamulla & Alappuzha) during 2019-20.



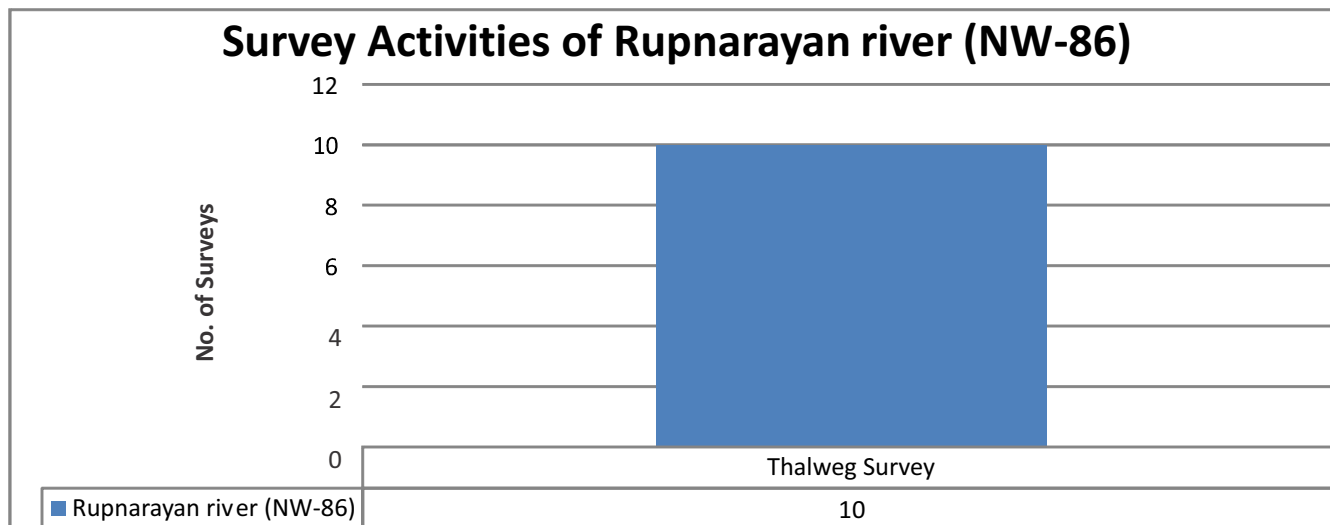
13.9 NATIONAL WATERWAY -16 (River Barak)

During the year 2019-20, 7 no. Thalweg survey of total 847.00 line-km were conducted.



13.10 NATIONAL WATERWAY -86 (River Rupnarayan)

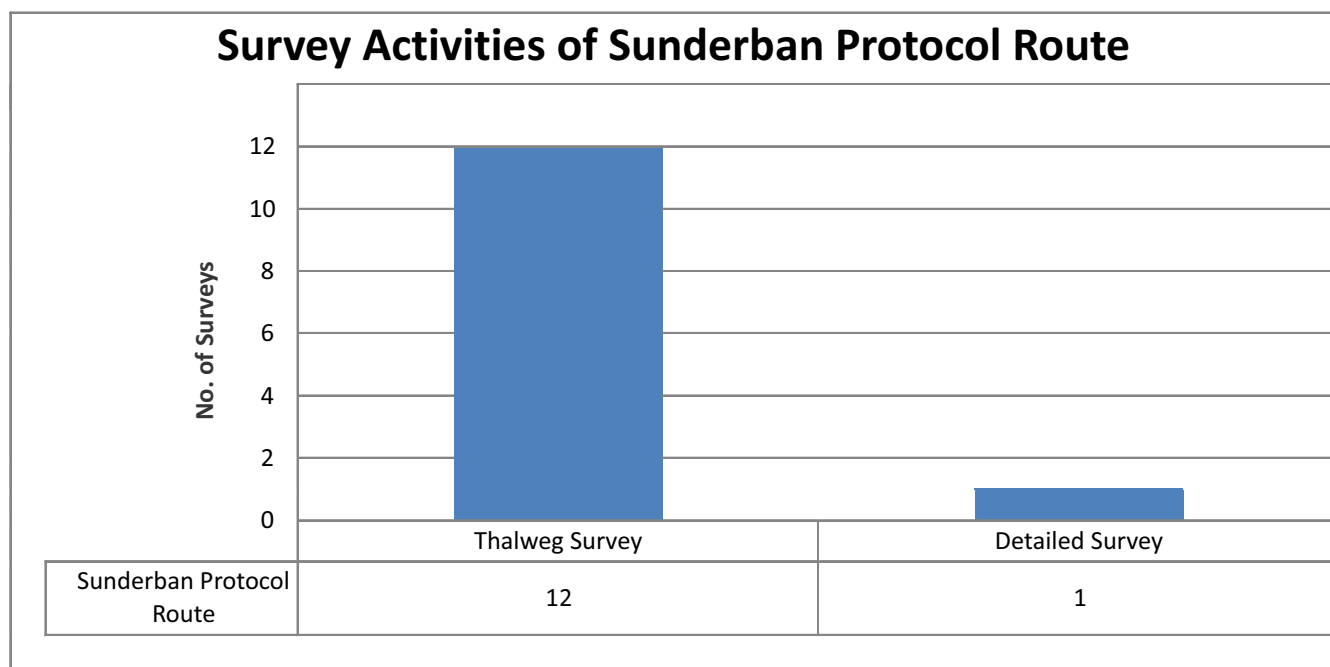
During the year 2019-20, 10 no. Thalweg survey of total 350.00 line-km were conducted.



13.11 Indo-Bangladesh Protocol Route (Sunderbans-NW-97)

During the year 2019-20, 12 nos. monthly Thalweg survey was carried out in Indo-Bangladesh Protocol route from Silver Tree point to Atharabanki Khal for a length of 201 km and LAD & River Notices published on IWAI web site. Total 2,412 line-km of Thalweg surveys were undertaken during the year 2019-20. 01 no. detailed survey in Sunderbans waterway under I.B.P. Route was conducted.

14 nos. monthly Thalweg survey was carried out in Indo-Bangladesh Protocol route No. 5 and 6 from Rajshahi to Dhulian and total 140 line-km of Thalweg surveys were undertaken during the year 2019-20.



13.12 SURVEY VESSELS

IWAI has deployed 18 nos. Survey vessels fitted with the state-of-the art survey equipment like Automated Hydrographic Survey System integrated with Digital echo sounder, DGPS receivers, laptop/desktop and current-meter sets for data collection, processing and printing.

02nos. Survey vessels fitted with the state-of-the art survey equipment namely S.L. Ganga and S.L. Jhanvi are also deployed in NW-1 under Jal Marg Vikas Project.

The following survey vessels in different waterways are operational and deployed for survey work:-

National Waterway	Name of Vessel			
NW-1	1) S.L. Koel	2) S.L. Gandak	3) S.L. Meghna	4) S.L. Anupallav
	5) S.L. Kamla	6) S.L. Ghaghra	7) S.L. Mandakini	8) S.L. Dwarkeswar
	9) S.L. Punpun	10) S.L. Rihand	11) S.L. Dihang	12) S.L. Ganga
	13) S.L. Jahanvi			
NW-2	1) S.L. Lohit	2) S.L. Barak	3) S.L. Subansiri	4) S.L. Burhi Dihing
	5) S.L. Dibang	6) S.L. Kosi		
NW-3	1) S.L. Pamba			

13.13 Setting up of River Information Services (RIS) system in Haldia-Farakka, Farakka-Patna & Patna-Varanasi stretch: -

IWAI launches a River Information System (RIS) on lines of Vessel Traffic Management System (VTMS). IWAI has taken up the above technologically challenging project of setting up of River Information Service System on National Waterway -1 (Ganga) for the first time in India. The project is being implemented in three phases, viz. Haldia-Farakka, Farakka-Patna and Patna- Varanasi. Details are as follows:

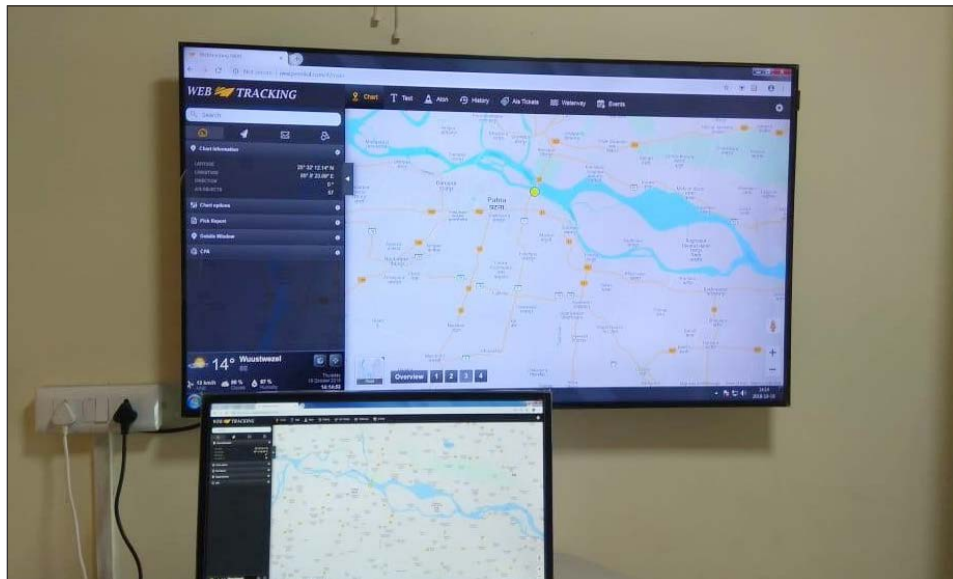
	<u>Phase -I:</u>	<u>Phase -II:</u>	<u>Phase -III:</u>
	<u>Haldia-Farakka</u>	<u>Farakka-Patna</u>	<u>Patna-Varanasi</u>
<u>Coverage</u>	545 Km	410 Km	353 km
<u>Infrastructures</u>	<ul style="list-style-type: none"> • 7 base stations • 2 Control stations • 30 Vessels station • Work awarded on 27.04.2014 	<ul style="list-style-type: none"> • 6 Base stations • 1 Control station • Work awarded on 05.06.2015. 	<ul style="list-style-type: none"> • 4 Base stations • 1 Control station • Work awarded on 03.03.2016.
<u>Status</u>	Commissioned on 06.01.2016.	Commissioned on 15.03.2018.	Installation is under progress.

The system would facilitate enhancement of inland navigation safety in ports/ river and enable efficient inland water transport by avoiding risks such as:

- a) Ship-to-Ship collisions.
- b) Ship-Bridge collisions.
- c) Groundings.



On board River Information system (RIS) equipment



Display at RIS base station

13.14 CARTOGRAPHIC CELL/ SEMINARS/ TRAINING

The Cartographic cell in IWAI Head Office Noida is equipped with modern equipment and software for preparation of Digital Charts using information System (GIS) & Image processing software like CARIS, ERDAS Imagine, AutoCAD, Global Mapper etc. The Cartographers of IWAI have been trained in using GIS software and Image processing software etc.

In Cartographic section, the newly identified 106 Waterways have been explored and river course have been digitized using state of the art computer hardware and software installed in Cartographic Lab for preparation of index map of New Waterways.

The IWAI is carrying out surveys from 1986 for development of the National Waterways. Section 14(2)(c) of the IWAI Act 2016 envisages carrying out Hydrographic surveys and publishing of river charts & IWAI has Published River Atlas & river Pilots National Waterways No.- 1,2,3 and Sunderbans for safe navigation purposes as follows: -

Sl. No.	NW	Description	No. of Charts
1.	NW 1	Sagar to Allahabad (Paper Charts)	103
2.	NW 2	Bangladesh border to Sadiya (Paper charts)	40
3.	NW 3	Kottapuram to Kollam including Champakara and Udyogmandal canals (Paper Charts)	49
4.	SUNDERBANS	Namkhana to Athrabankikhan	25
5.	NW 1	Updation of Sagar to Farakka (Paper chart) Production of New ENC's	66
6.	NW 1	Farakka to Patna (Paper Chart and ENC's)	

Satellite data from National Remote Sensing Centre, Hyderabad for Waterways was obtained and the same have been processed, digitized using GIS Software. The land marks, topographical features of survey of India (SOI) digital data were compiled along with field survey data (from Hypack) and latest NRSC data for preparation of electronic Charts.

IWAI is corporate Member of INCA and participated in 39th INCA International Congress held at Dehradun during 18-20 December, 2019.

13.14.1. Selling of Map, Atlas and Navigational Products 2019-2020

An amount of Rs. 60,643.00 has been collected through sale of Map, Atlas and Navigational products in 2019-20, to IWAI operator users, Private and Govt. departments. Details as shown below:

SI#	Particulars Map/Atlas/Pilot	Rate in Rs.	Quantity in nos.	Amount in Rs. With GST@18%
1	Atlas National Waterway-1	25,000.00	2	59,000.00
2	River Pilot NW-1	650.00	1	758.00
3	River Pilot NW-2	350.00	1	413.00
4	River Pilot NW-3	400.00	1	472.00
TOTAL				60,643.00
(Rupees Sixty thousand six hundred and forty three only)				

14. NATIONAL INLAND NAVIGATION INSTITUTE (NINI), PATNA

The National Inland Navigation Institute (NINI) was set up by Inland Waterways Authority of India (IWAI) at Patna, Bihar in February 2004 with a view to Develop Human Resource for the Inland Water Transport Sector. The Institute is managed by Inland Waterways Authority of India (IWAI) under The Ministry of Ports, Shipping and Waterways, Govt. of India. The major achievements during the year 2019-20 were as below:

A. ACTIVITIES

(i) The following training activities were carried out:

- Induction Training GP Rating Course (31st & 32nd Batch)
- Conducted internal final examinations (written and oral) for General Purpose Rating Induction courses in the months of July, 2019 and January, 2020.
- The GP Rating (Inland Vessel) trainees were imparted practical training on board training ship.
- T.S. Survekshak, CSD Buxar, Inland Vessel Training Simulator and Dredging Simulator.
- A course was conducted successfully for Bihar Government personnel for Boat Surveyor & Registering Officers.
- A course was conducted successfully for Bihar Government personnel for Master Trainer Course for “Safe Swim” Programme.
- A course was conducted successfully for Hy. Pack Course for IWAI personnel.
- A course was conducted successfully for Riverine Navigation Course IWAI personnel.
- A course was conducted successfully for Refresher training for IWT Assam personnel.
- Training in the following DG Approved Courses was provided:
 - o Elementary First Aid (EFA)
 - o Fire Prevention and Fire Fighting (FPFF)
 - o Personal Survival Technique (PST)

- o Personal Safety and Social Responsibility (PSSR)
- o Ship Maneuvering Simulator (SMS)
- o Bridge Team Management (BTM)

(ii) Preparatory Course for Inland Vessel Certificate of Competency

- Conducted the following Preparatory Courses for Inland Vessel Examinations:
 - o Serang
 - o Master Class II
 - o Master Class I
 - o Second Class Engine Driver
 - o First Class Engine Driver
 - o Inland Vessel Engineer

(iii) Conducting Inland Vessel Examination on behalf of Govt. of Bihar

- Examination conducted for candidates desiring to obtain Certificate of Competency for different categories mentioned below as per Inland Vessel Rules, Govt. of Bihar:
 - o Serang
 - o Master Class II
 - o Master Class I
 - o Second Class Engine Driver
 - o First Class Engine Driver
 - o Inland Engineer

	Serang	Master Class-II	Master Class-I	Engine Driver Class-II	Engine Driver Class-I	IV Engineer
Total Passed	189	77	151	223	74	8

A. TRAINING

NINI conducts training on regular basis and advertises its course in National Newspapers.

- Placement of trainees for undergoing Induction courses on Deck and Engine arranged with private barge operators.
- Database of COC examination and certificates being maintained.

Total Trained Detail for the F.Y. 2019-20

SI No	Name of Courses	No. of Trainees
1	Induction Course for IV GP Rating	55
2	Preparatory course for Serang	17
3	Preparatory course for Master II	37
4	Preparatory course for Master I	26
5	Preparatory course for Engine Driver II	11
6	Preparatory course for Engine Driver I	14
7	Preparatory course for I.V. Engineer	4
8	Inland Vessel Maneuvering Simulator Course	26
9	Master Trainer for Boat Surveyor Course	48
10	Bridge Team Management (BTM)	2
11	Ship Maneuvering Simulator (SMS)	11
12	Master Trainer Course for “Safe Swim” Programme	209
13	Basic Safety Course (STCW)	239
14	Hy. Pack Course for IWAI personnel	26
15	Refresher Course for IWT Assam Personnel	24
16	Riverine Navigation Course for IWAI Personnel	8
17	Master Trainer Course for Boat Owner and Boat Man	11
	Total	768

The number of candidate total trained in the various courses at NINI during the F.Y. 2019-20 is 768.

C. HUMAN RESOURCE

The Institute has developed a pool of faculty members and instructors for management of the Institute. The Institute deploys faculty in three categories namely regular consulting faculty, regular visiting faculty and need based visiting faculty.

D. AFFILIATIONS AND ASSOCIATIONS:

- The ISO 9001:2015 certificate by American Bureau of Shipping (ABS) renewed subsequent to their inspection of the Institute.
- NINI conducts the COC (Certificate of Competency) exams in NINI Campus on behalf of IWT, Bihar.



Practical training for Basic Safety Course, Safe Swim Course and Other Courses





The Visit of Chairperson & Vice Chairman, IWAI and Delegates from Ministry of Shipping

15. DETAILS OF TRAFFIC, CARGO MOVEMENT & OTHER HIGHLIGHTS

Inland Water Transport (IWT) is one of the most cost effective and environment friendly mode of transportation. As per a World Bank study, IWT mode has the least operational cost of USD 0.015/ ton- km, compared to USD 0.033/ ton-km for Road and USD 0.02/ ton-km for Rail. Globally, inland waterways have been recognized and developed as a mode of transportation to leverage these benefits. India has approximately 14,500 km of navigable waterways which comprise of rivers, canals, backwaters, creeks, etc. with significant potential to be developed as a mode of transportation. In the pre-independence years, IWT mode was used extensively in various parts of the country for transportation of both passengers and goods. However, post-independence, due to lack of adequate attention on developing the sector, the IWT mode lost recognition as a mode of transportation. As a result, despite the inherent advantages, the share of Inland waterway transport (IWT) mode in India is currently estimated to be around 2%. Inland waterways authority of India (IWAI), an authority under Ministry of Shipping, was established in 1986 to develop and regulate the inland waterways for shipping and navigation. Recognizing the benefits and importance of inland waterways and to increase its modal share, the Government of India declared 106 new waterways as National Waterways (NWs) through the National Waterways Act, 2016 taking the total number of NWs to 111. Out of the 111 NWs, based on various technical-economic feasibility studies, IWAI has identified 22 NWs for further development. For the development of these NWs, IWAI has been undertaking various activities including detailed technical and commercial studies, identifying projects for development and providing navigational infrastructure in the form of adequate fairways, locks, river information system, terminals and allied infrastructure for facilitating transportation of cargo and passenger using the IWT mode. The impact of these interventions along with various market outreach activities conducted by IWAI to promote the IWT sector is gradually resulting in recognition of IWT mode as an alternate mode of transportation by the industry. This report carries out a detailed analysis of the traffic movement on the 16 operational NWs in FY-20 and covers the details such as traffic quantity and trend vis-à-vis previous year, commodity profile and key origin and destination jetties/ locations on the operational NWs.

Traffic on National Waterways

The total traffic movement on NWs in the FY-20 was recorded as 73.64 million tonne against 72.3 million tonne in FY-19 thereby recording a YoY growth of approx. 2%. The following table presents the details of traffic movement on different NWs.

S. No.	National Waterway	Quantity in tonne		% change
		FY-19	FY-20	
1	NW-1 (Ganga-Bhagirathi-Hooghly river system)	6,793,981	9,114,957	34%
2	NW-2 (River Brahmaputra)	502,003	392,767	- 22%
3	NW-3 (West Coast canal, Champakara canal, Udyogmandal canal)	408,790	546,051	34%
4	NW-4 (River Krishna)	452,066	82,226	- 82%
Total - (NW 1, 2, 3, 4)		8,156,840	10,136,001	24%
Maharashtra Waterways				
5	NW-10 (River Amba)	22,381,100	22,014,464	-2%
6	NW-83 (Rajpuri Creek)	816,205	666,755	-18%
7	NW-85 (Revdanda Creek and River Kundalika)	1769,947	1,592,477	-10%
8	NW-91 (River Shastri – Jaigad fort Creek)	3374,399	119,443	-96%
Total		28,341,651	243,93,139	-14%
Goa Waterways				
9	NW-68 (River Mandovi)	1,653,751	1,575,640	-5%
10	NW-111 (River Zuari)	2,104,219	1,358,202	-35%
Total		3,757,970	2,933,842	-22%
Gujarat Waterways				
11	NW-73 (River Narmada)	40,941	99,614	143%
12	NW-100 (River Tapi)	28,780,183	30,916,062	7%
Total		28,821,124	31,015,676	8%
13	NW-97 (Sunderbans)	3,227,460	3,461,280	7%
14	NW-16 (River Barak)	-	4,418	NA
15	NW-44 (River Ichhamati)	-	898,642	NA
16	NW-94 (River Sone)	-	800,000	NA
Grand Total (tonne)		72,305,045	73,642,998	2%

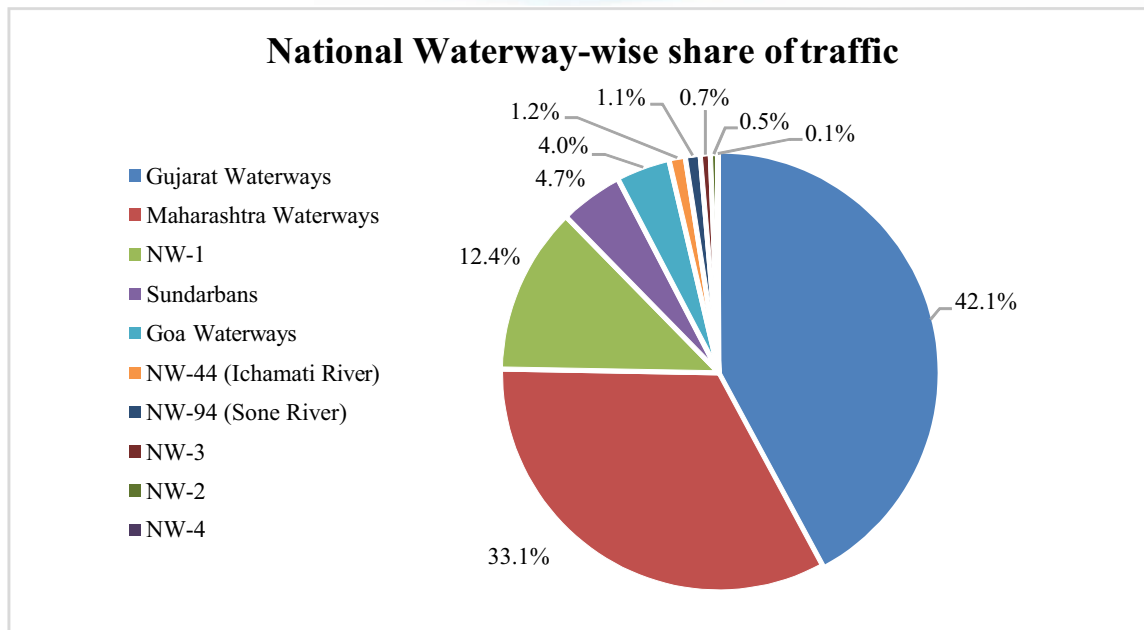


Figure 1: National Waterway-wise share of traffic

Gujarat Waterways (2 nos.) and Maharashtra Waterways (4 nos.) constituted more than 75% of the overall IWT traffic in FY-20.

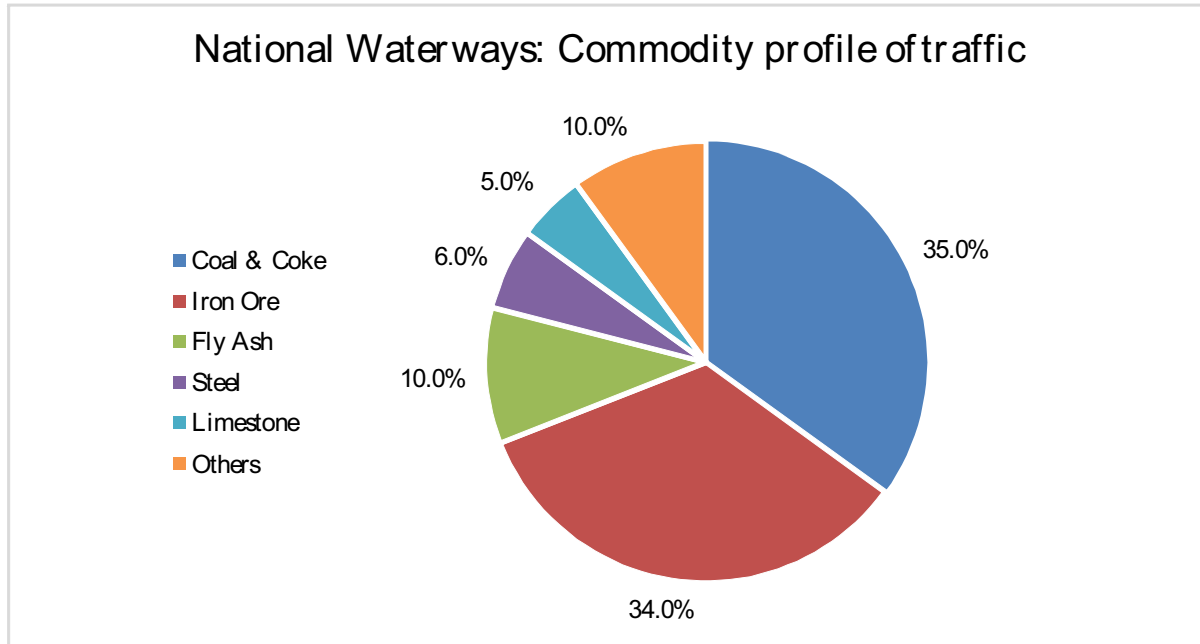


Figure 2- National Waterways-Commodity profile of traffic

Predominantly bulk commodities viz. coal & coke, iron ore, fly ash, limestone etc. are using the IWT mode in India and constitute more than 90% of the overall traffic.

The salient aspects of traffic movement recorded on NWs in FY-20 are as follows:

1. The number of operational NWs in FY-20 increased to 16 against 13 in FY-19. In FY-20, traffic movement on NW-16 (River Barak), NW-44 (River Ichhamati) and NW-94 (River Sone) was included.

2. In case of NW-1, in addition to the regular traffic movement on the Indo Bangladesh Protocol (IBP) route, transshipment traffic belonging to Kolkata Port, Ro-Ro traffic in Sahibganj- Manihari area and some longitudinal traffic on O-Ds between Haldia and Varanasi, following

With the number of operational NWs increasing to 16, IWT traffic has displayed a

moderate YoY growth of 2% in FY-20 despite multiple trade related challenges. traffic movements have been recorded and included in FY-20. These movements were not getting recorded till FY-19 due to lack of information and monitoring system to collect the data.

- a. Movement of sand by mechanized/ non-mechanized boats in Bihar from River Sone (NW-94) to various destinations on NW-1
- b. Movement of cargo through Ro-Ro operations between multiple O-Ds located on the Kolkata- Rajmahal stretch

3. In case of NW-2, movement of stone chips/ boulders originating from Bhutan and going to Bangladesh via the IBP route has gained traction. More than 10 shipments took place from IWAI's Dhubri (Assam) terminal using shallow draft vessels in FY-20 and these movements are expected to become regular. Additionally, five movements carrying coal and containerized cargo were successfully completed between Haldia and Guwahati during the year. These movements shall enhance the traffic to/ from North East region using IWT mode in the coming years.

4. The momentum of traffic movement on different NWs was interrupted due to multiple local and national level events in FY-20. On NW-1, the Ro-Ro traffic in the Sahibganj-Manihari region was impacted due to suspension of operations due to heavy floods during monsoon season. Traffic movement on NW-4 got suspended due to local disturbances and suspension of capital city construction works in Amravati. The traffic on Goa waterways has reduced significantly in last few years due to ban on iron ore mining in the State. With the nation-wide lockdown due to outbreak of Covid-19, the movement of vessels got suspended resulting in sharp fall in traffic in the month of March 2020.

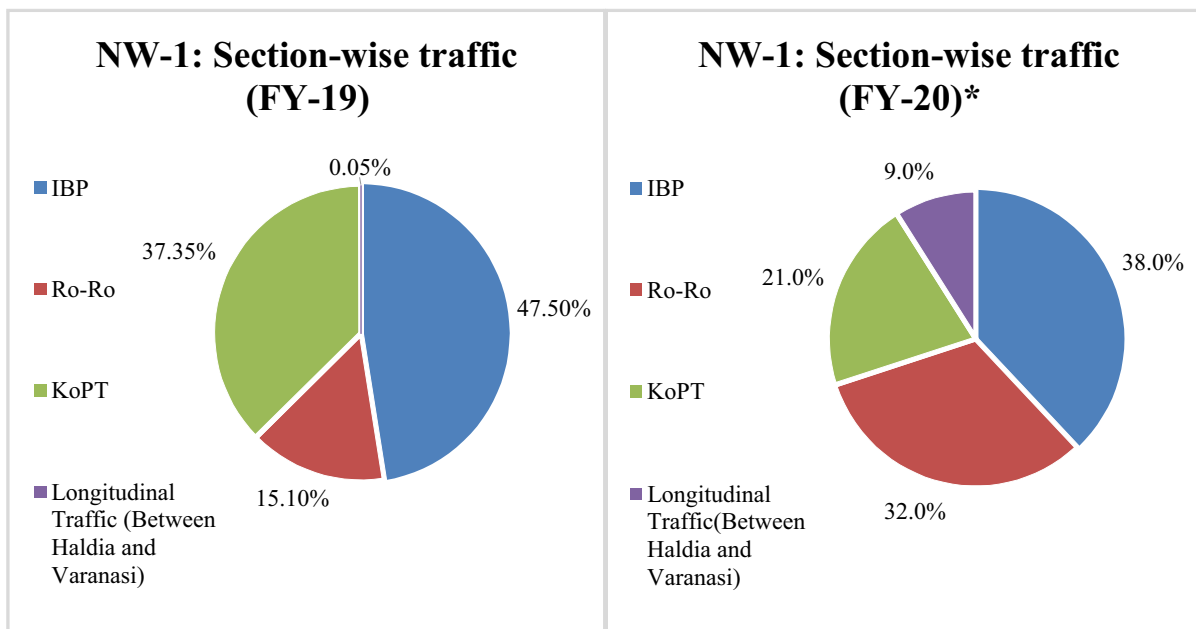
With the number of operational NWs increasing to 16, IWT traffic has displayed a moderate YoY growth of 2% in FY-20 despite multiple trade related challenges.

National Waterway-1

The Ganga - Bhagirathi - Hooghly river system between Haldia (Sagar) & Allahabad (1,620 km) is declared as the National Waterway No.1 (NW-1). The Haldia-Varanasi section of NW-1 is being developed under the Jal Marg Vikas Project (JMVP) for navigational purposes. The traffic on NW-1 can be categorized in 4 different sections i.e. the traffic movement on the Indo-Bangladesh Protocol (IBP) route, which is primarily the movement of traffic from Kolkata/Haldia to different parts of Bangladesh, the transshipment/ lighterage traffic at Kolkata/Haldia Port, the Ro-Ro traffic on NW-1 and the longitudinal traffic between Haldia and Varanasi. The graphs and table given below show the split of traffic among these 4 sections in FY-19 and FY-20.



Figure 3- NW-1: Multimodal Terminal at Varanasi



*- Traffic for FY-20 does not include transshipment traffic of KoPT in the month of March'20

Figure 4- NW-1: Section-wise traffic (FY-19 and FY-20)

S. No.	NW-1 Section	Quantity in million tonne	
		FY-19	FY-20
1	Indo Bangladesh Protocol (IBP) route	3.22	3.46
2	KoPT (Transshipment/ lighterage)	2.54	1.95*
3	Ro-Ro	1.03	2.88
4	Longitudinal (between Haldia and Varanasi)	0.004	0.82
	Total	6.79	9.11

*- KoPT data does not include March'20 data

It can be observed that the traffic moving on the Indo-Bangladesh Protocol route is the primary contributor to the NW-1 traffic, followed by the Ro-Ro/Cross Bank traffic on NW-1. The Ro-Ro movement on NW- 1 is primarily taking place in two specific areas:

- Movement of stone chips between Sahibganj (Jharkhand) and Manihari (Bihar)
- Movement of miscellaneous goods and passengers between multiple O-Ds located between Kolkata and Rajmahal (Jharkhand). The movement between multiple O-Ds between Kolkata and Rajmahal has been recorded in FY-20 and is not available for FY-19.

The longitudinal movement along NW-1 between Haldia and Varanasi primarily consists of sand movements originating from Koelwar (confluence point of River Ganga and River Sone in Bihar) and travelling to different points located on River Ganga (NW-1). These traffic movements have been recorded and included in the traffic of FY-20 and are not available for FY-19. In addition, few movements carrying ODC, stone chips, steel products and containerized cargo took place on NW-1

A detailed analysis of the traffic on the IBP route, Ro-Ro Traffic and the longitudinal traffic on NW-1 in FY-20 is given below.

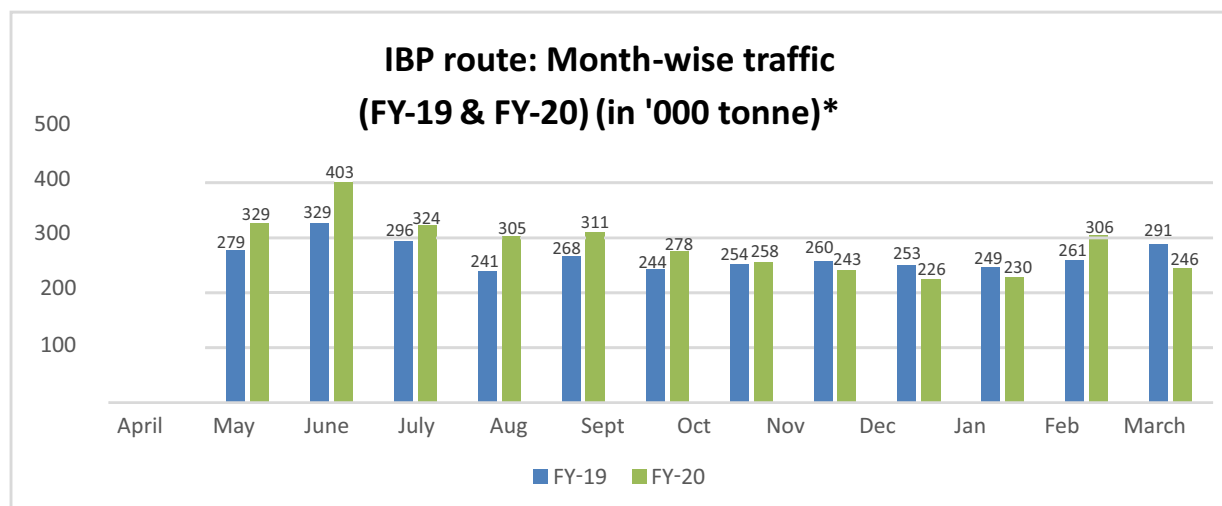
The Indo-Bangladesh Protocol route

India and Bangladesh have signed the Protocol on Inland Water Transit and Trade (PIWT&T) under which inland vessels of one country can transit through the specified protocol routes of the other country. Six Ports of call have been declared in each country under the PIWT&T. The Ports of call in India are Haldia (West Bengal), Kolkata (West Bengal), Dhubri (Assam), Pandu (Assam), Karimganj (Assam) and Silghat (Assam). The Ports of call in Bangladesh are Narayanganj, Khulna, Mongla, Sirajganj, Ashuganj and Pangaon. With collaborative efforts of IWAI and BIWTA the traffic has been continuously increasing on the IBP route and both the countries have agreed to add 7 new ports of call on along with addition/ extension of waterway routes under PIWT&T.



Figure 5: The Indo Bangladesh Protocol routes under PIWT&T

Approx. 3.5 million tonne of traffic moved on the IBP route in FY-20 and displayed a growth of approx. 7% over FY-19.



*The actual numbers have been rounded off to the nearest thousand for representation purposes

Figure 6- IBP route: Month-wise traffic (FY-19 & FY-20)

Traffic on the IBP route predominantly consists of fly ash movement from Kolkata/Haldia to destinations based in Bangladesh. Fly ash movement to Bangladesh is driven by the requirement of Cement plants.



Figure 7- Vessels plying on the IBP route

The graph below shows the commodity profile of the traffic handled on the IBP route in FY-20.

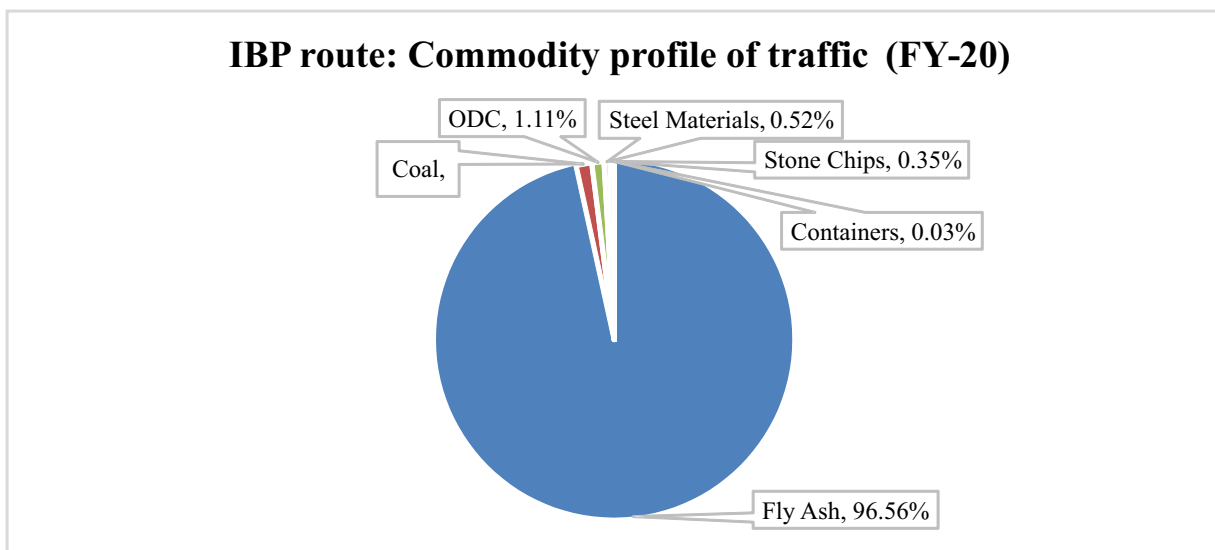


Figure 8- IBP route: Commodity profile of traffic (FY-20)

It can be observed that almost 97% of the traffic on the IBP route is fly ash. The jetties at the origin locations handling fly ash are IWAI Haldia Jetty (30%), Budge Budge, Kolkata (24%), T.T Shed (18%) and G.R Jetty 2 (14%). Among the jetties at the destination locations, Narayanganj receives 84% of this fly ash followed by Khulna which receives the remaining 16%. Commodities other than fly ash constitute approx. 3% of traffic on the IBP route, of which coal is the highest (1.4%) followed by Over Dimensional Cargo (ODC) (1.11%). Steel materials, Stone chips and Containers constitute less than 1% of the traffic.

The graph below shows the key shippers who used the IBP route for movement in FY-20.

Approx. 85% of the traffic moving on the IBP routes originates from 4 jetties on NW-1, while approx. 98% of the IBP traffic gets unloaded at Narayanganj and Khulna in Bangladesh.

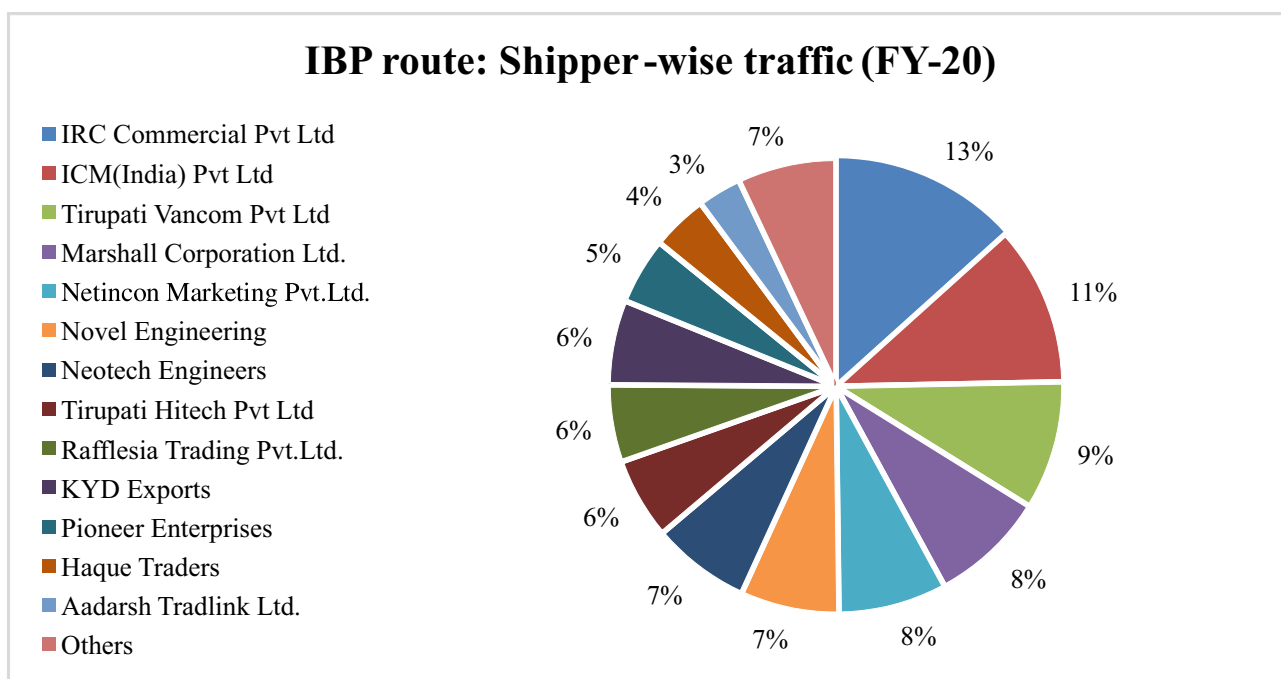
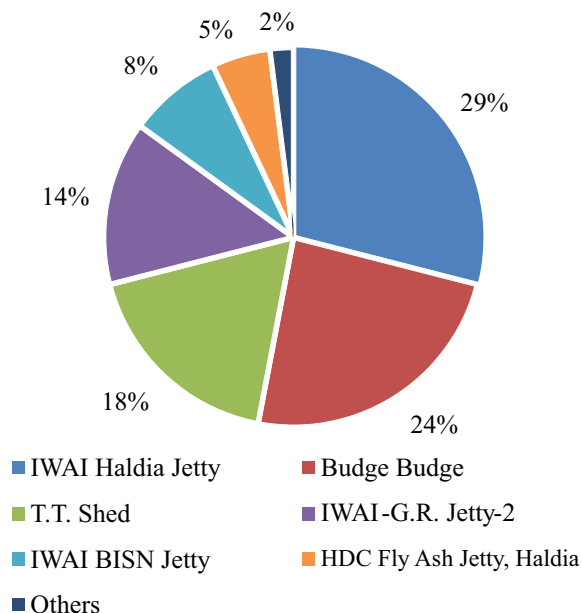


Figure 9- IBP route: Shipper-wise traffic (FY-20)

It can be observed that there are multiple shippers who move their cargo using the IBP route. Most of these shippers are exporters of fly ash. There are close to 39 shippers on the IBP route of which the top 13 constitute 93% of the traffic. The balance 25 shippers also include large scale companies like Bharat Heavy Electricals Limited (ODC, Steam Turbine & Steel), Jindal Steel & Power (Steel materials) and Tata Steel (Hot rolled steel coils). The graph below shows the jetty wise share of cargo handled both at the origin and the destination on the IBP Route in FY-20:

IBP Route: Jetty-wise share of traffic at origin (FY-20)



IBP Route: Jetty-wise share of traffic at destination (FY-20)

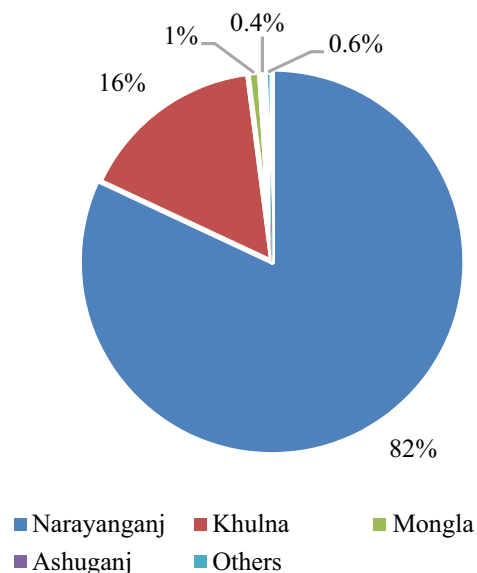
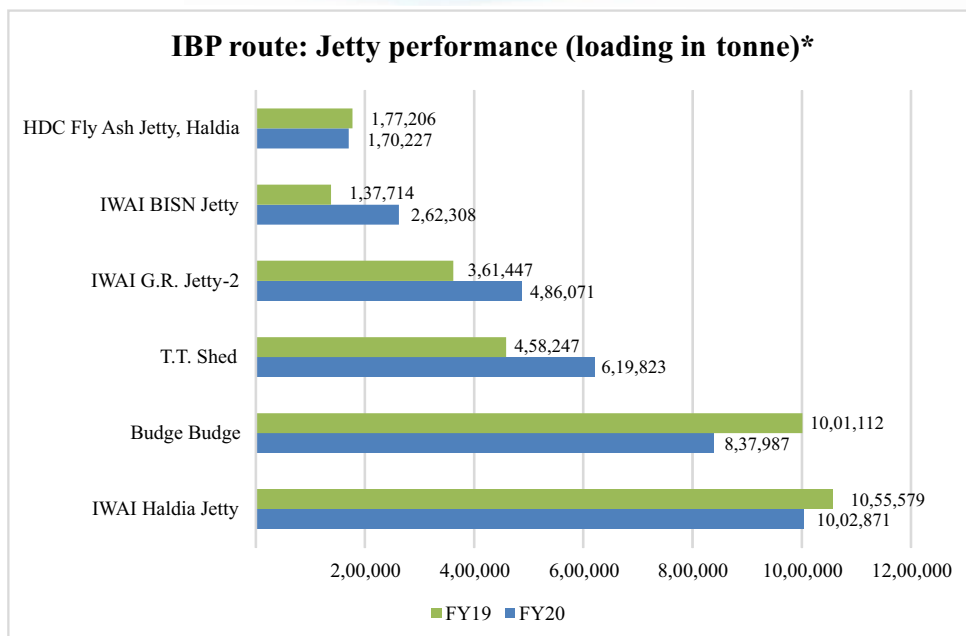


Figure 10- IBP route: Jetty-wise share of traffic at origin & destination (FY-20)

It can be observed that among the origin jetties/ports (India Ports of call), 85% of the traffic on the IBP route is handled at 4 jetties namely IWAI Haldia Jetty, Budge Budge-Kolkata, T.T Shed-Kolkata and G.R Jetty 2-Kolkata. Of these 4, the top 2 jetties, IWAI's Haldia Jetty and Budge Budge Jetty only handled fly ash and steam coal. T. T Shed primarily handled fly ash along with a small quantity of ODC and steam coal, whereas IWAI's G.R. Jetty 2 handled a variety of commodities. Of the remaining jetties, HDC fly ash Jetty and IWAI's BISN Jetty constituted 13% of the traffic. HDC fly ash jetty and IWAI BISN Jetty handled fly ash. The other jetties such as KPD, Kolkata, NS Dock, Kolkata and HDC, Kolkata jetties handled 2 % of the traffic mainly consisting of project cargo and steel materials.

In terms of the destination jetties/ports (Bangladesh Ports of call), Narayanganj and Khulna handled more than 98% of the traffic. Both these jetties predominantly unload fly ash along with small quantities of project cargo, steel material and stone chips.

A total of 12 jetties on NW-1 loaded traffic for the IBP route in FY-20, of which 6 jetties loaded 98% of the traffic. Given below is the traffic handled by these 6 jetties:

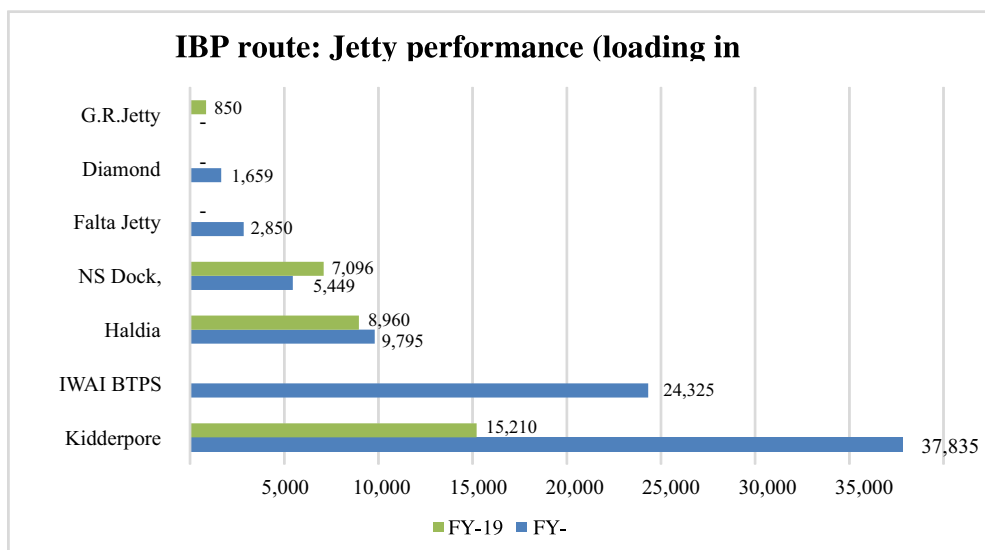


*- The above-mentioned jetties also handled KoPT's transshipment traffic (lighterage cargo), however same has not been included in this assessment

Figure 11- IBP route: Cargo handling performance of jetties (FY-19 & FY-20) (top 6 jetties)

Of the 6 jetties shown above, IWAI's Haldia Jetty and Budge Budge Jetty handled significant proportion of traffic. Among these 6 jetties, 3 jetties namely, IWAI Haldia Jetty, IWAI BISN Jetty and GR Jetty 2 are owned by IWAI. IWAI's Haldia Jetty has displayed a decrease in traffic handled in FY-20 vis-à-vis FY-19, whereas IWAI's GR Jetty 2 and IWAI BISN jetties have shown a significant increase.

The graph below shows the remaining 6 jetties on NW-1 that handled close to 2% of the traffic moving on the IBP route.



*- The above-mentioned jetties also handle KoPT's transshipment traffic (lighterage cargo), however same has not been included in this assessment

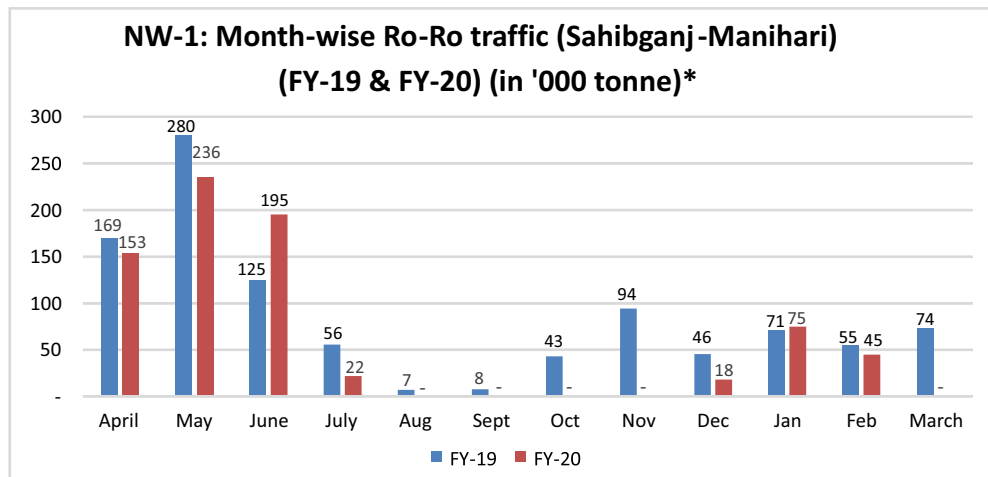
Figure 12- IBP route: Cargo handling performance of jetties (FY-19 & FY-20) - excluding top 6 jetties

Amongst these 6 jetties, Kidderpore Dock and HDC belonging to Kolkata Port Trust handled the maximum share of traffic. Falta and IWAI BTPS jetty did not handle any cargo in FY-19, however they have started to handle traffic in FY-20, thereby allowing more options to the exporters. The details of various jetties are available in the annexure.

Although the IBP route is predominantly used for movement of goods from India to Bangladesh, the route is also used for movement of domestic transit traffic to/ from North East region. North Eastern states of India are surrounded by Bangladesh, Myanmar, Bhutan and China and the only land route access to these states from within India is through the Chicken neck corridor (Siliguri corridor), which passes through hilly terrain with steep roads and multiple circuitous bends. Transportation to/ from the region is through railways and road and there is increasing pressure on the corridor owing to the increase in growth and developmental activities in the North East. Every year during monsoon season, the corridor faces instances of closure and inordinate waiting of trucks resulting in delays. These challenges make the IBP route strategically important for regular access to North East region of India. To allow round the year navigation, two stretches on the IBP route viz. Sirajganj – Daikhawa and Ashuganj - Zakiganj in Bangladesh are being developed (2.5 m LAD) at a total cost of approx. Rs 305.84 Cr. on 80:20 cost sharing basis (80% being borne by India & 20% by Bangladesh). The development of these two stretches will provide seamless navigation to and from North East India through waterways via the IBP route. To enhance use of the IBP route for transshipment of traffic to/ from North East regions, IWAI has initiated consultations with stakeholders such as Customs, BIWTA etc. to relax documentation procedures and improve navigation assisting services in Bangladesh waterways.

Ro-Ro Traffic

In FY-20, approx. 2.9 million tonne of traffic moved via Ro-Ro operations on NW-1. 2.2 million tonne of Ro-Ro traffic moved between various points located on the stretch between Kolkata and Rajmahal (Jharkhand). Additionally, 0.7 million tonne of Ro-Ro traffic moved from Sahibganj (Jharkhand) to Manihari (Bihar) wherein trucks loaded with stone chips get on board the Ro-Ro vessels on the Sahibganj side of NW-1 (South bank) and get off board the vessel on Manihari side (North bank). The graph below presents the month wise Ro-Ro traffic movement between Sahibganj and Manihari.



*The actual numbers have been rounded off to the nearest thousand for representation purposes. This data does not represent the movements taking place between O-Ds on Kolkata-Rajmahal stretch

Figure 13- NW-1: Month-wise Ro-Ro traffic (Sahibganj - Manihari) (FY-19 & FY-20)

It can be observed that the traffic in FY-20 was lower than the traffic in the corresponding period of FY-19. The overall traffic decreased 28% YoY from 1.03 million tonne in FY-19 to 0.74 million tonne in FY-20.



Ro-Ro vessel Flagging Off at Kolkata



Figure 14- NW-1: Ro-Ro vessel loading operation

The graph below presents the share of traffic at the origin/ destination locations (jetties/ landing points) for Ro-Ro Traffic in FY-20.

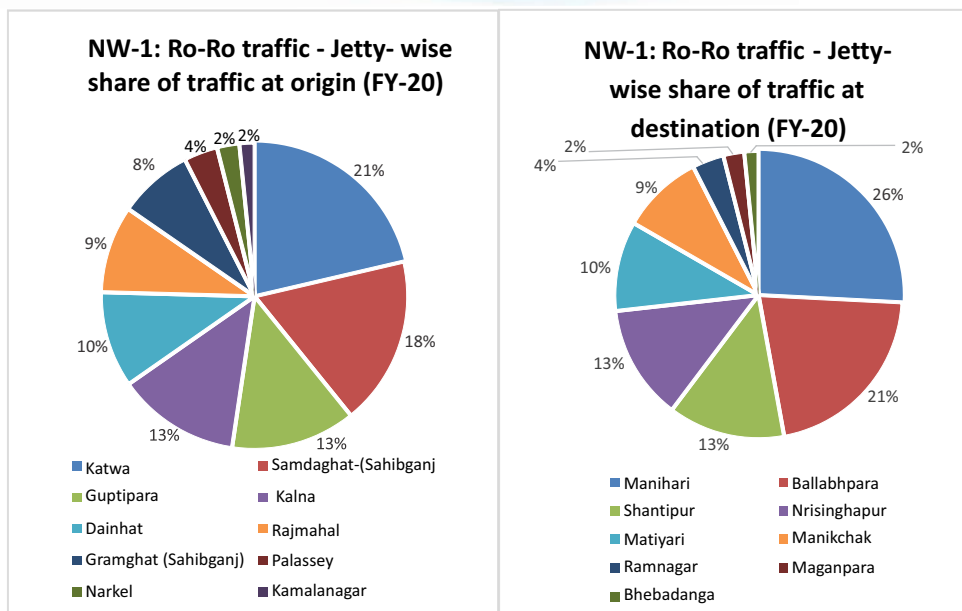
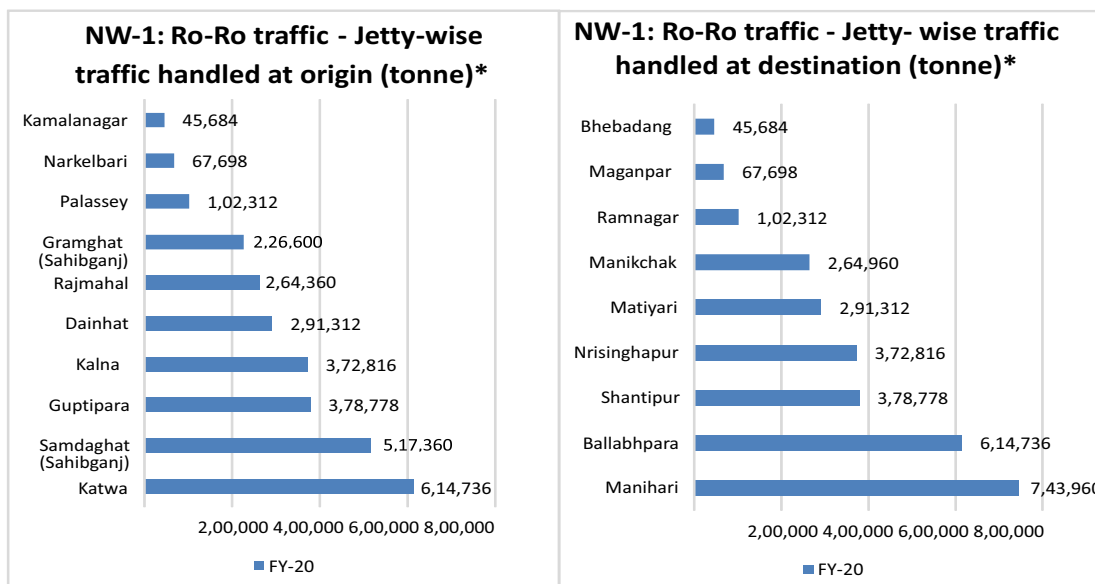


Figure 15- NW-1: Ro-Ro traffic – Jetty-wise share at origin & destination (FY-20)

There are 10 landing points on NW-1 where Ro-Ro vessels are on-loaded. Of these 10, Katwa accounts for the highest share of loaded traffic followed by Samdaghat (Sahibganj), Guptipara and Kalna. These 4-origin loading points account for 65% of the total traffic on-loaded. 8 out of these 10 locations, except Samdaghat and Gramghat, lie between Kolkata and Rajmahal.

There are 9 landing points on NW-1 where the Ro-Ro vessels are off-loaded. Of these, Manihari accounts for the highest share of off-loaded traffic followed by Ballabhpura, Shantipur and Nrisinghapur. These 4 jetties account for 73% of the total traffic off-loaded.

The graph below presents the traffic at origin/ destination locations (jetties/ landing points) for Ro-Ro Traffic in FY-20.

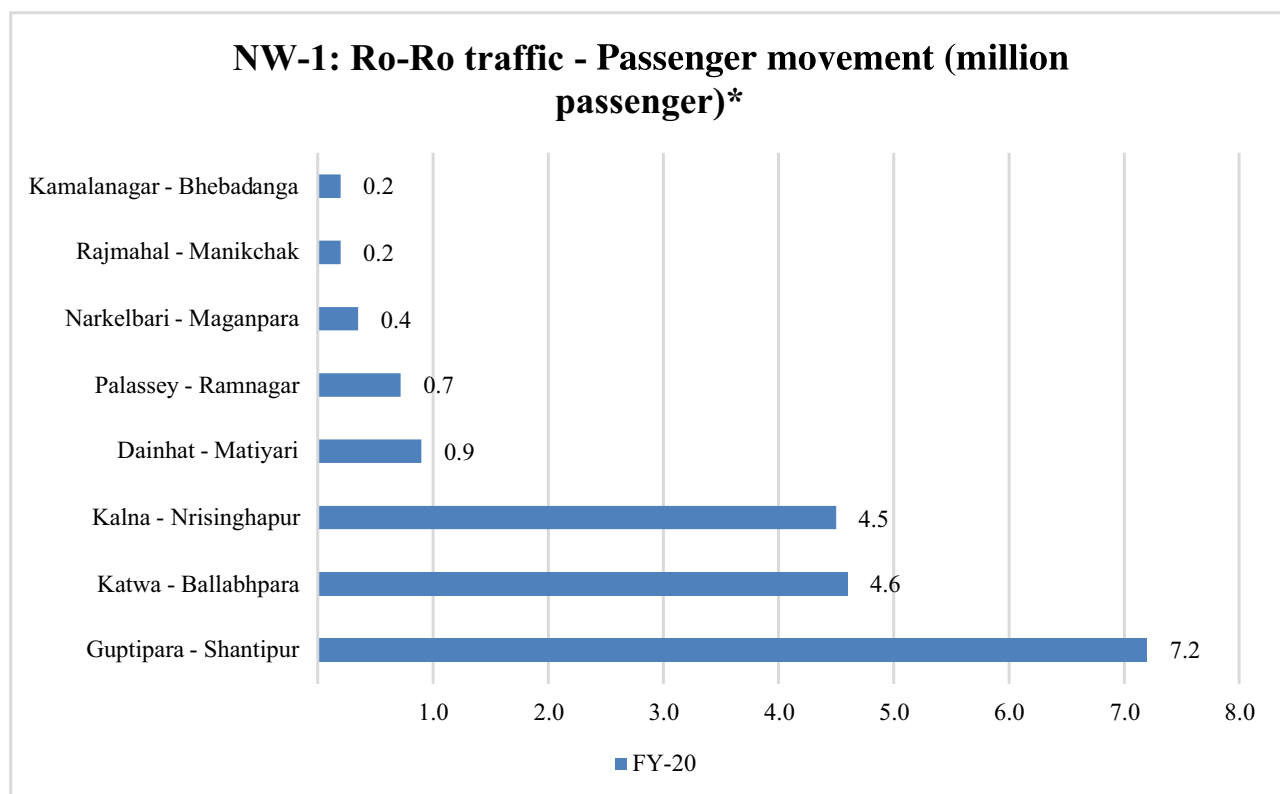


*- As per Ro-Ro traffic data available up to 18th March 2020

Figure 16- NW-1: Ro-Ro traffic – Traffic handling performance of jetties/ landing points (FY-20)

From origin locations except Samdaghat and Gramghat, commodities such as onions, potatoes, construction material, stone chips, furniture, wood and household items are transported to cross bank locations. From Samdaghat and Gramghat, stone chips are transported to Manihari.

The graph below presents the passenger traffic at origin/ destination locations (jetties/ landing points) for Ro-Ro Traffic in FY-20



*- As per Ro-Ro traffic data available up to 18th March 2020

Figure 17- NW-1: Ro-Ro traffic – Passenger traffic handling performance of jetties/ landing points (FY-20)

It can be observed that approx. 18.5 million passengers were ferried via LCT/Ro-Ro and passenger launches between various points located on the stretch between Kolkata and Rajmahal. The top three location pairs between which passenger traffic movement was highest were Guptipara to Shantipur (7.2 million pax), Katwa to Ballabhpara (4.6 million pax) and Kalna to Nrisinghapur (4.5 million pax).

Longitudinal Movement (between Haldia and Varanasi)

In FY-20, 8,16,502 tonne traffic moved longitudinally between Haldia and Varanasi on NW-1 and comprised of pilot as well as commercial movements.

Of the total traffic moved, approx. 800,000 tonne of sand movements originated from Koelwar on the confluence of River Sone and River Ganga and travelled to different parts of the NW-1. These movements are active for 8 months (non-monsoon season) in and ferry approx. 100,000 tonne per month.

The remaining traffic (16,502 tonne) was moved via 20 longitudinal movements between Haldia and Varanasi. Of these 20 movements, 2 were pilot movements and 18 were commercial movements. With the operationalization of the MMT at Sahibganj, regular shipments of stone chips have started taking place and multiple shipments were sent Karagola on NW-1 in FY-20. The details of all the movements are given below.



Figure 18: Multimodal Terminal at Sahibganj

Sr. No	Month	Movement	Origin	Destination	Commodity	Quantity (tonne)	Distance (Km)
1	April	Commercial	Rajmahal	Begusarai	Crane	110	233
2	May	Pilot	Farakka	Narayanganj	Ballast (Stone)	1,050	544*
3	July	Pilot	Haldia	Sahibganj MMT	Edible Oil (Containers)	1,300	920
4	Nov	Commercial	Haldia	Doriganj	Carbamate Condenser	487	965
5	Dec	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,145	43
6	Dec	Commercial	Rajmahal	Doriganj	Ammonia Converter	574	417
7	Dec	Commercial	Rajmahal	Doriganj	Urea Stripper	712	417
8	Dec	Commercial	Gaighat (Patna)	Raghopur	TMT Bars	1,208	10
9	Jan	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,566	43
10	Jan	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,014	43
11	Jan	Commercial	Gaighat	Raghopur	TMT Bars	381	10
12	Feb	Commercial	Gaighat	Raghopur	TMT Bars	1,220	10
13	Feb	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,575	43
14	Feb	Commercial	Diamond Harbour	Sahibganj	Secondary Reformer Main Equipment & Flare KO Drum	275	554
15	Feb	Commercial	Diamond Harbour	Semaria	Ammonia vent drum	276	789
16	Feb	Commercial	Diamond Harbour	Sahibganj	Ammonia vent drum	47	554

Sr. No	Month	Movement	Origin	Destination	Commodity	Quantity (tonne)	Distance (Km)
17	Feb	Commercial	Diamond Harbour	Semaria	Ammonia Converter	641	789
18	Feb	Commercial	Diamond Harbour	Semaria	Ammonia Converter	421	789
19	March	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,300	43
20	March	Commercial	Sahibganj MMT	Karagola	Stone Chips	1,200	43

*- The distance mentioned is for stretch bon NW-1 (Farakka to Sagar)

The graph below presents the traffic at origin/ destination locations (jetties/ landing points) for longitudinal traffic.

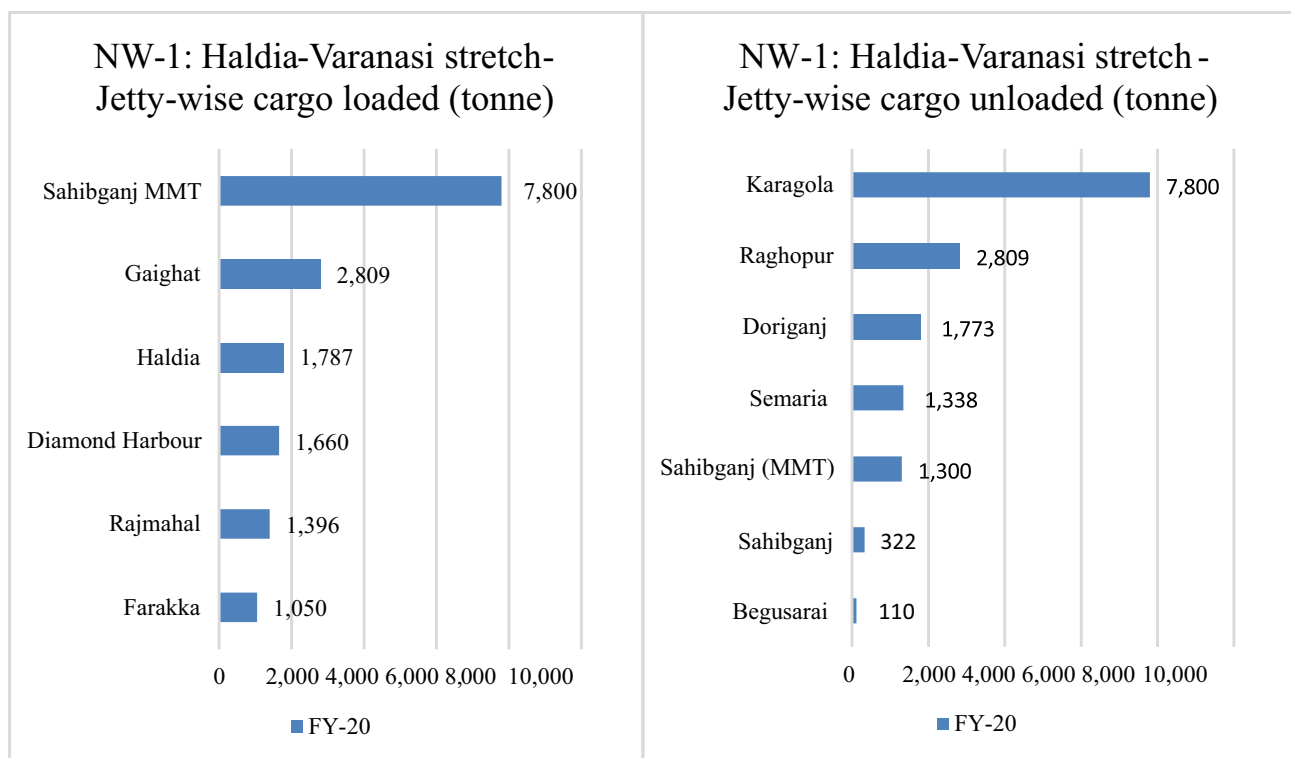


Figure 19- NW-1 wise jetty performance for longitudinal cargo movements

It can be observed that majority of the longitudinal cargo is loaded at Sahibganj MMT, followed by Gaighat. Sahibganj MMT began its operations from August 2019 onwards and currently regular movement is taking place to Karagola. Most of the other jetties handled ODC cargo. The details of various jetties are available in the annexure.

Over Dimensional Cargo (ODC) movement

Inland Waterway Transport (IWT) mode is the preferred mode for transportation of Over Dimensional Cargo (ODC) because of multiple advantages vis-à-vis land transport. Rail transport doesn't have significant flexibility to accommodate ODC cargo because of standard wagon sizes. Road transport faces significant challenges such as route and time restrictions, requirement of multiple permissions and significant effort in carrying out route surveys to carry ODC cargo. IWT mode allows movement of ODC cargo in a relatively convenient manner.

In FY-20, seven shipments constituting of approx. 3,500 tonne of Over Dimensional Cargo moved on NW-1.



Figure 20- NW-1: ODC cargo movement

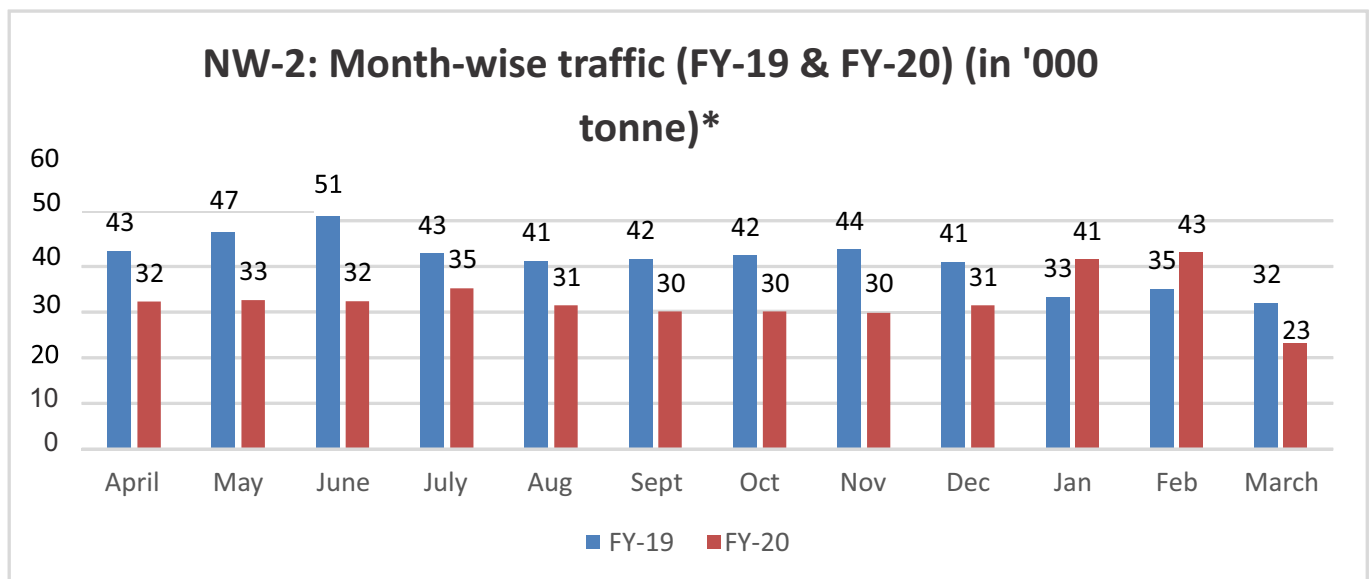
In FY-20 products such as Carbamate condenser, Ammonia condenser, Ammonia converter etc. were transported using IWT mode from Kolkata/ Haldia port to destinations along NW-1 where these products were imported for installation of fertilizer manufacturing unit.

National Waterway-2

National Waterway-2 is the 891 km stretch of River Brahmaputra between Bangladesh border near Dhubri and Sadiya. NW-2 has historically been a crucial mode of transportation for the state of Assam (in the North East India) and continues to remain so. IWAI maintains stretch-wise Least Available Depth (LAD) on NW-2 around the year, which has resulted in regular traffic movement. The traffic on NW-2 primarily consists of passengers, vehicles and goods movement taking place through ferries.



Approx. 0.39 million tonne of traffic moved on NW-2 in FY-20 between approx. 50 Origin-Destination pairs. The graph below presents the month wise traffic for FY-20 as compared to FY-19.



*- Actual numbers have been rounded off to the nearest thousand for representational purposes. The traffic data for March is up to 18th March 2020

Figure 21- NW-2: Month-wise traffic (FY-19 & FY-20)

The total traffic in FY-20 has decreased by approx. 22% from 0.5 million tonne in FY-19 to 0.39 million tonne in FY-20. The decrease in traffic is due to the shift of traffic from waterways to road after construction of the Bogibeel bridge over River Brahmaputra (NW-2) in December 2018. Due to the shift of traffic to road via Bogibeel bridge, NW-2 based cross river ferry movement at Bogibeel, Dibrugarh, Oriumghat and surrounding areas has stopped. In July 2019, movement of Bhutanese stone chips & boulders started using IWT mode from Dhubri to destinations in Bangladesh. The graph below presents the profile of traffic moving on NW-2 in FY-20.

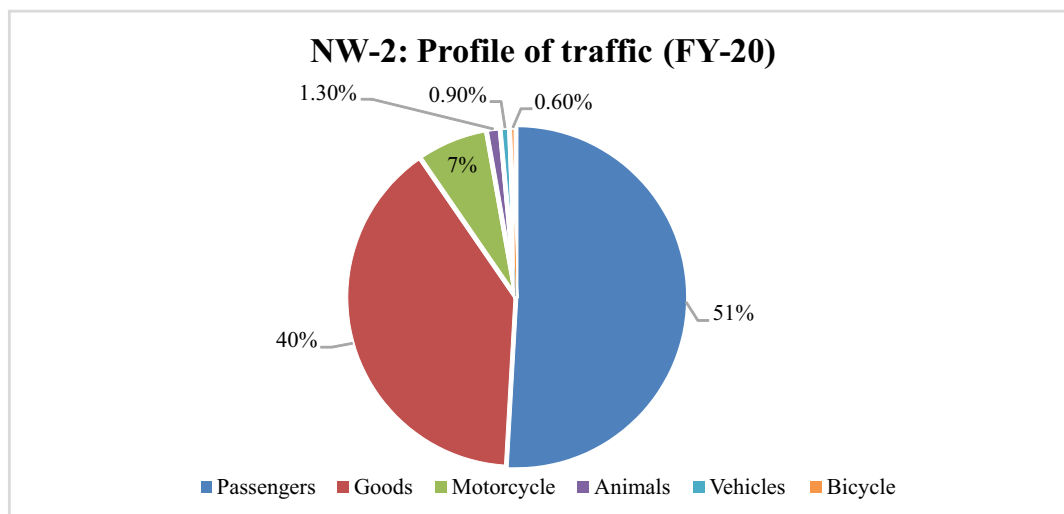


Figure 22- NW-2: Profile of traffic (FY-20)

Passengers (51%) account for the highest share of traffic moving on NW-2 followed by goods (40%). The goods movement on NW-2 is unorganized in nature consisting of personal items, vegetables etc. The graph below presents the share of jetties at the origin and destination locations on NW-2 for FY-20.

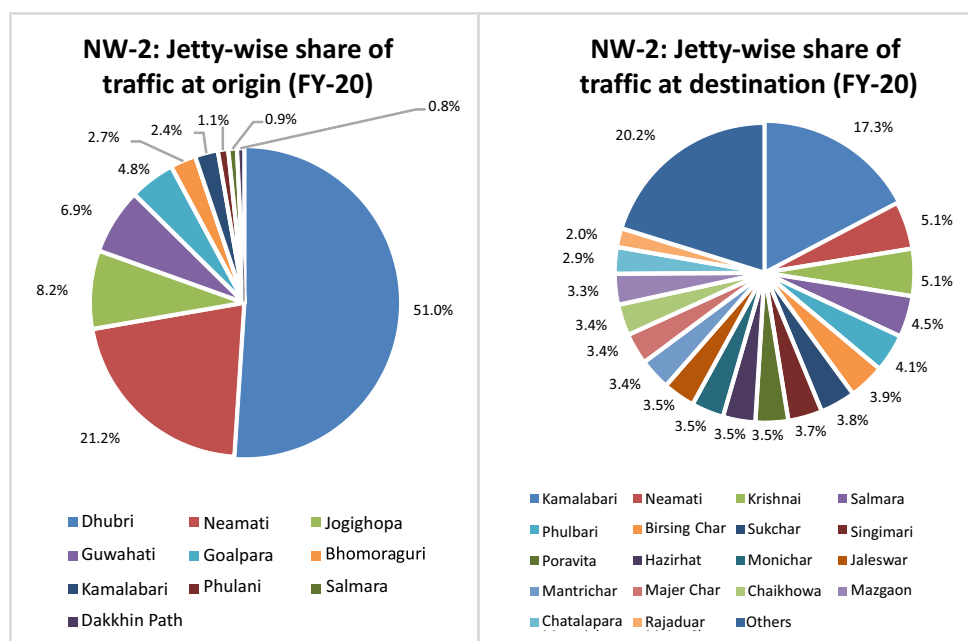


Figure 23- NW-2: Jetty-wise share of traffic at origin and destination (FY-20)

It can be observed that Dhubri is the major origin location accounting for 51.1% of the total traffic moving on NW-2. Traffic movement from Dhubri takes place to 17 destination locations. Dhubri is followed by Neamati (21%) and Jogighopa (8%), and these 3 origin locations constitute 80% of the origin traffic in FY-20. The destination locations are highly fragmented with a total of 46 destination locations. Of these 46 locations, Kamalabari accounts for 17.1% and Neamati accounts for 5.1%. The remaining 44 locations handle less than 5% traffic each. In FY-20, traffic on National Waterway-2 has



Figure 24- NW-2: Coal handling operations at Pandu terminal

Figure 24- NW-2: Coal handling operations at Pandu terminal have been recorded at approx. 60 jetties. These jetties handle goods, vehicles and passengers primarily through ferries. The traffic handled at the top 4 jetties has been depicted in the following graph.

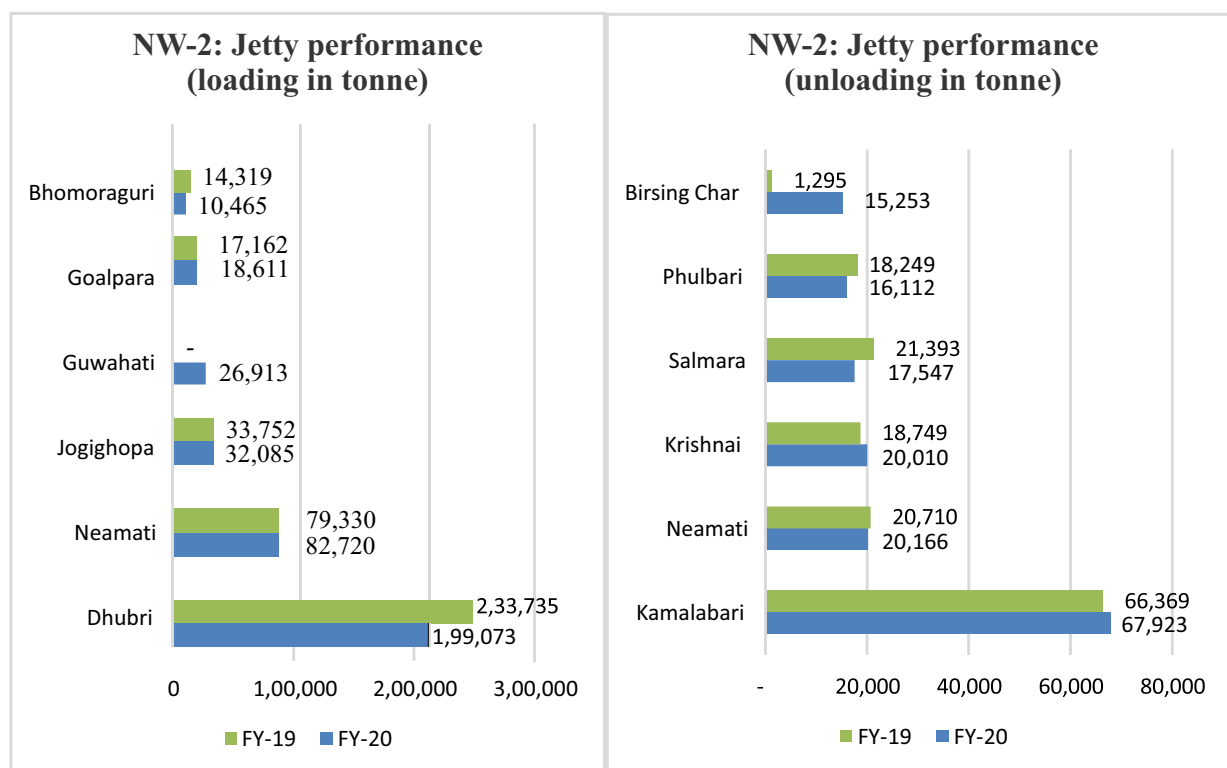


Figure 25- NW-2: Traffic handling performance of jetties (FY-19 & FY-20)

Among the jetties on NW-2, Dhubri handled the maximum loaded traffic however, it saw a dip in traffic in FY-20 as compared to FY-19. Neamati and Goalpara saw a slight increase in the loaded traffic, whereas Jogighopa and Bhomoraguri saw a slight decrease in the loaded traffic compared to FY-19.

Considering the unloaded traffic on the jetties on NW-2, Kamalabari handled the maximum traffic and saw an increase in its traffic as compared to FY-19. Birsing Char saw a drastic increase in the unloaded traffic, while Krishnai, Phulbari and Salmara saw a decrease in the unloaded traffic compared to FY-19. The details of various jetties are available in the annexure.

First ever containerized movement on NW-2

Successful completion of the first containerized movement on NW-2 marked FY-20 as a landmark year for Inland Waterway Transportation. In line with Government's focus on improving connectivity of the North Eastern Region (NER), a landmark Container cargo consignment sailed from Haldia Dock Complex (HDC) to IWAI's Pandu Port (Guwahati) on NW-2 on 4th November 2019. Shri Gopal Krishna, Secretary (Shipping) flagged off the inland vessel MV Maheshwari carrying 48 TEUs (with food & beverage, edible oil etc.) for its voyage via NW-1, NW-97 (Sundarbans), IBP route and NW-2.



Figure 26 – NW-2: First containerized movement

This initiative by IWAI (Ministry of Shipping) to commence containerized movement to North East via IWT mode has been appreciated by all stakeholders with great enthusiasm. IWAI is making concerted efforts to take up such movements to demonstrate the technical and commercial viability of Inland Waterways connectivity to NER to instill confidence in the industry for the modal shift of traffic and is at the same time engaging with stakeholders such as BIWTA, Customs authorities and Industry to address and resolve operational and procedural constraints.

Enabling Bhutan-Bangladesh trade via NW-2

Bhutan has been exporting significant quantity of stone aggregates through the land route for different construction projects in Bangladesh. Stone exporters have identified Inland waterways as an alternate mode of transportation considering the benefits associated with waterways mode such as lower transportation cost, larger shipment size compared to road, avoiding congestion on land routes etc. In the first such movement of its kind, 1,005 tonne of crushed stone aggregates originating from Bhutan was transported from IWAI's jetty at Dhubri (Assam) on NW-2 to Narayanganj, Bangladesh on 11th July 2019. Stone aggregates were transported using trucks from Bhutan based stone quarries to IWAI's Dhubri jetty and subsequently loaded on IWAI's vessel MV AAI using mechanized loading system.

This movement evinced confidence in the Bhutanese exporters to increasingly shift to waterways mode and increase the trade of stone aggregates and other

With successful completion of five pilot movements for bulk and containerized cargo, more than 10 movements of Bhutanese stone chips to Bangladesh in FY-20, and development of critical stretches on the IBP route, traffic on NW-2 is expected to increase in the coming years. commodities between Bhutan and Bangladesh. As a result of the success of the first movement, movement of stone aggregates has become regular between Dhubri and Chilmari (Bangladesh) and more than 10 shipments of approx. 100-300 tonne size have been completed in FY-20.

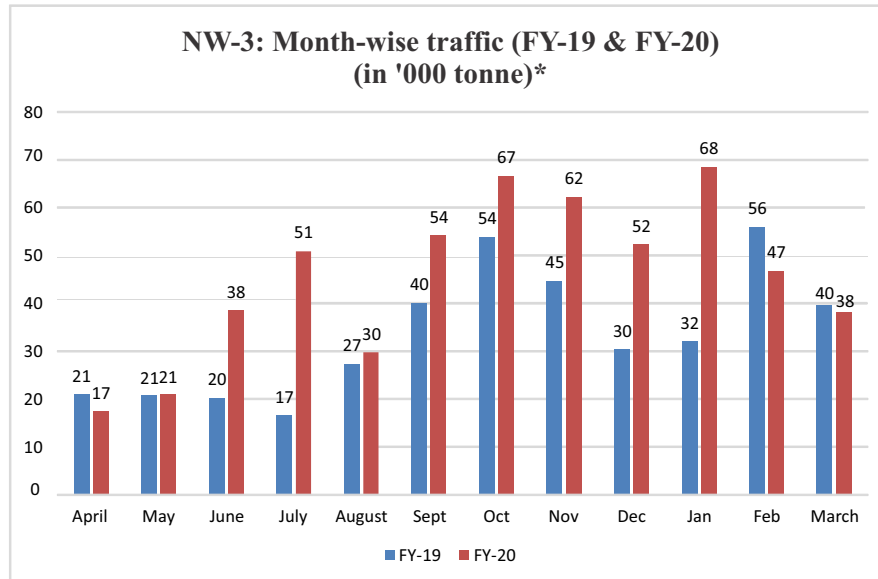
With successful completion of five pilot movements for bulk and containerized cargo, more than 10 movements of Bhutanese stone chips to Bangladesh in FY-20, and development of critical stretches on the IBP route, traffic on NW-2 is expected to increase in the coming years.



Figure 27- NW-2: Loading operations at Dhubri jetty

National Waterway-3

Kottapuram- Kollam stretch of the West Coast canal along with Champakara canal and Udyogmandal canal has been declared as the National Waterway-3 (NW-3). Approx. 0.55 million tonne traffic moved on NW-3 in FY-20. Most of the traffic movement on NW-3 is contributed by the movement of raw materials belonging to M/s Fertilizers and Chemicals Travancore Ltd (FACT) from Cochin port to the jetties at FACT factories. The graph below presents the month-wise traffic movement on NW-3 in FY- 20.



*- The traffic numbers have been rounded off to the nearest thousand for representational purposes

Figure 28- NW-3: Month-wise traffic (FY-19 & FY-20)

The total traffic in FY-20 has increased by approx. 34% to approx. 0.55 million tonne in FY-20 from approx. 0.41 million tonne in FY-19.

4. The graph below presents the commodity profile of traffic on NW-3 in FY-20.

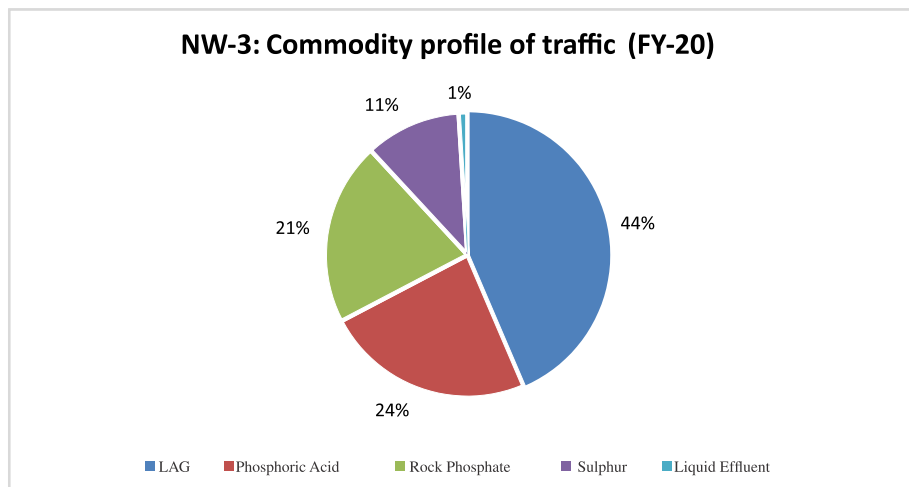


Figure 29- NW-3: Commodity profile of traffic (FY-20)

The traffic moving on NW-3 is primarily the raw materials moved by Fertilizers and Chemicals Travancore (FACT) to and in between their plants. LAG (44%) constitutes the highest share of traffic followed by Phosphoric Acid (24%) and Rock Phosphate (21%). LAG is transported to FACT's Cochin Division and Petrochemical Division; Phosphoric acid and Sulphur is transported to FACT's Cochin Division and Udyog Mandal Division while most of the Rock Phosphate is transported to FACT's Cochin Division jetty.



Figure 30- Vessel sailing on NW-3

The graph below presents the jetty-wise share at origin and destination in traffic on NW-3 in FY-20.

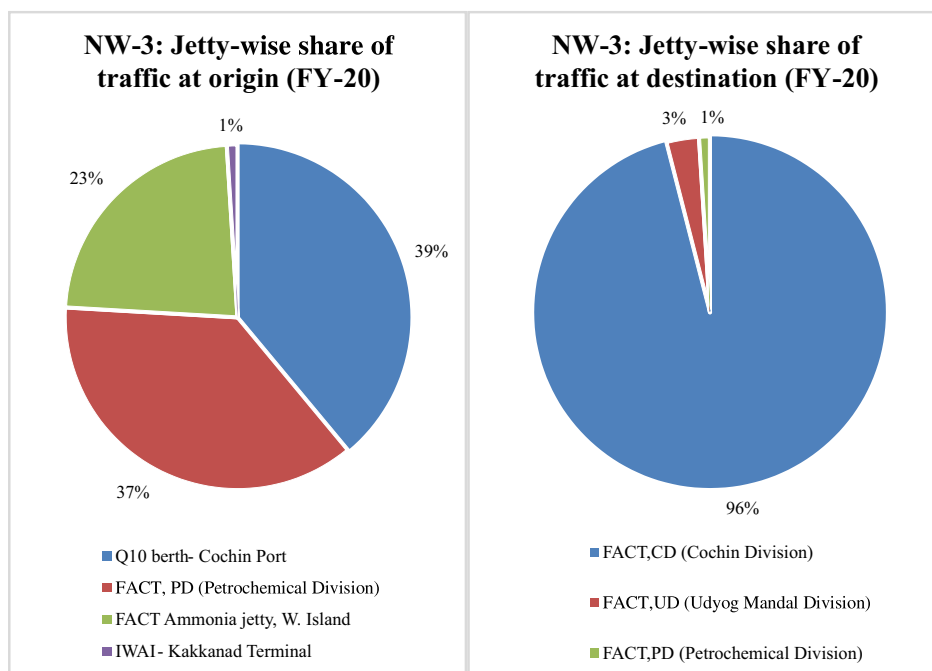


Figure 31- NW-3: Jetty-wise share of traffic at origin & destination (FY-20)

It can be observed that a major share of traffic on NW-3 originates from the Q10 berth-Cochin port and FACT, PD (Petrochemical Division) jetty. The Q10 berth-Cochin Port is used to transport Phosphoric acid, Rock phosphate and Sulphur to multiple destinations. FACT, PD jetty is used for transporting LAG, whereas the FACT Ammonia Jetty is used for transporting LAG, Phosphoric Acid, Rock Phosphate and Sulphur. Among the destination locations, FACT,CD (Cochin Division) jetty accounts for the largest share of traffic and handles multiple commodities i.e. Rock Phosphate, Sulphur, LAG and Phosphoric Acid. This is followed by FACT, UD (Udyog Mandal Division) jetty, which receives Phosphoric Acid, Rock Phosphate, Sulphur and FACT, PD jetty, which receives only LAG.

Traffic on NW-3 primarily consists of industrial products belonging to various divisions of M/s FACT. Connectivity of waterways in Kerala with Cochin port provides a distinct advantage to the IWT mode.

The graph below shows the traffic handled at various jetties (including private jetties) on NW-3.

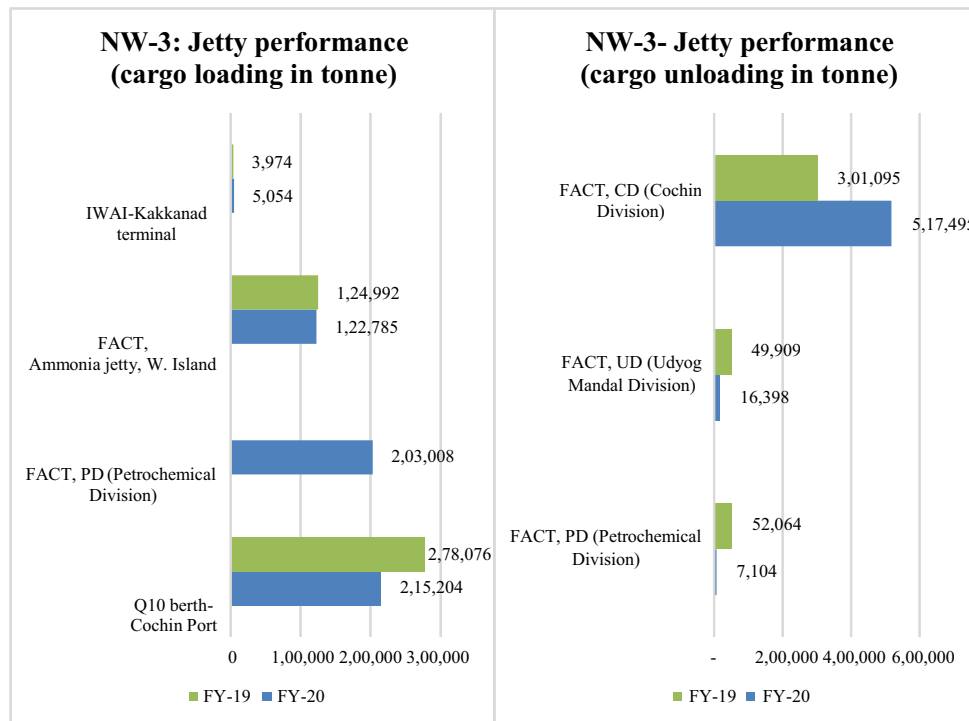


Figure 32- NW-3: Traffic handling performance of jetties (FY-19 & FY-20)

From the above graph it can be observed that the traffic handling on NW-3 is currently taking place at 7 jetties. There was a significant rise in the cargo unloading at FACT, CD jetty in FY-20, whereas cargo loading by Q10 berth-Cochin Port has decreased in FY-20 as compared to the same period last year. FACT, PD jetty was used as a loading point in FY-20, whereas in FY-19 it was only used as an unloading point.

The graph given below shows the jetty/ Port wise loaded commodities handled on NW-3.

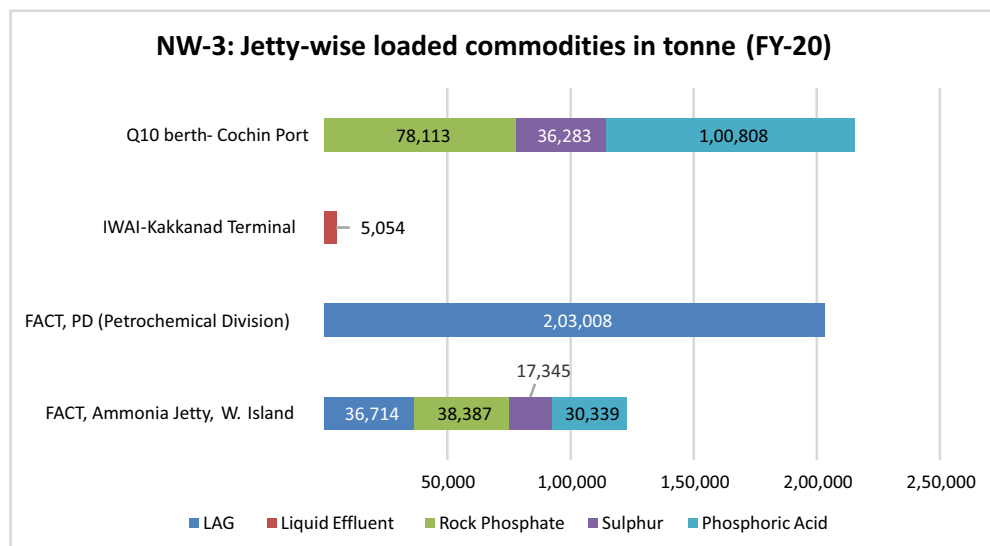


Figure 33- NW-3: Jetty-wise loaded commodities (FY-20)

Fertilizer and Container Travancore (FACT) uses jetties at Petrochemical Division (PD), Willington Island (Ammonia jetty) and Q10 berth-Cochin Port to transport Rock Phosphate, Sulphur and LAG to its jetties at Udyog Mandal Division (UD) and Cochin Division (CD). The Q10-berth at Cochin Port is used to transport Phosphoric Acid, Rock Phosphate and Sulphur to multiple destinations. FACT PD (Petrochemical Division) jetty is used exclusively for transporting LAG, whereas the FACT Ammonia Jetty (Willington island) is used for transporting LAG, Phosphoric Acid, Rock Phosphate and Sulphur.

The graph given below shows the jetty/ Port wise unloaded commodities handled on NW-3.

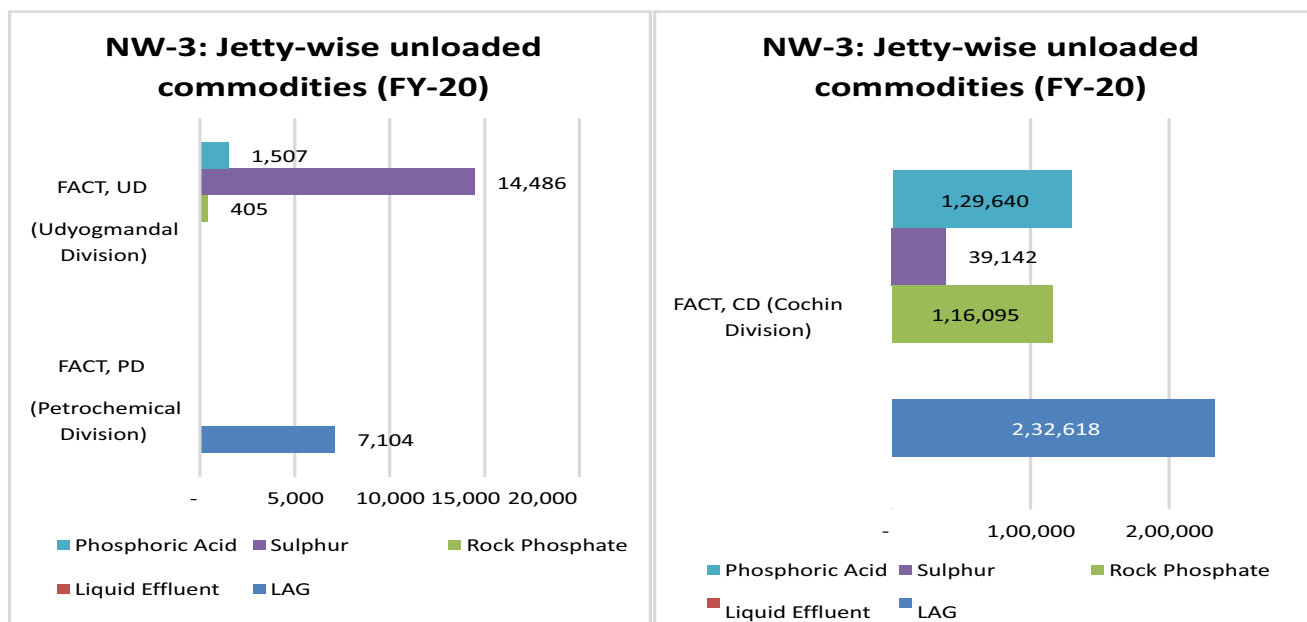
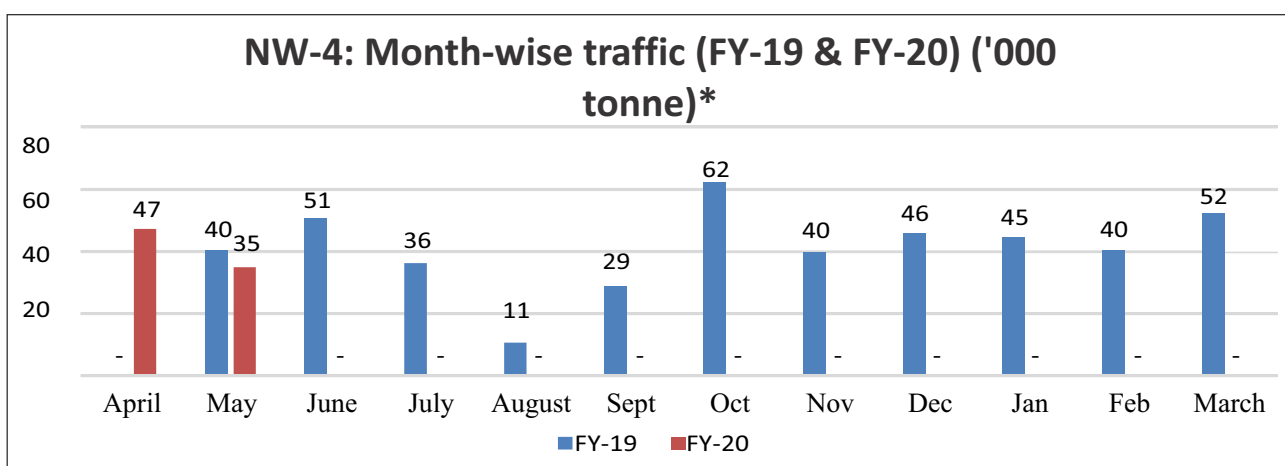


Figure 34- NW-3: Jetty-wise unloaded commodities (FY-20)

It can be observed that FACT, CD (Cochin Division) jetty accounts for the largest share of unloaded traffic and handles multiple commodities i.e. Rock Phosphate, Sulphur, LAG and Phosphoric Acid with LAG being the largest handled commodity at the jetty. This is followed by the FACT, UD (Udyog Mandal Division) jetty, which primarily receives Sulphur along with limited quantities of Phosphoric Acid and Rock Phosphate. FACT, PD (Petrochemical Division) jetty only handles LAG.

National Waterway-4

National Waterway 4 (NW-4) is a 2,890 kilometers long waterway consisting of stretches of River Krishna, River Godavari, Commamur Canal and Buckingham Canal. It passes through the Indian states of Telangana, Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra and the union territory of Puducherry. The graph below presents the month wise traffic movement on NW-4 in FY-20.



*- The traffic figures have been rounded off to the nearest thousand for representational purposes

Figure 35- NW-4: Month-wise traffic (FY-19 & FY-20)

The traffic movement on NW-4 is through Ro-Ro operations wherein trucks carrying construction material are carried from Ibrahimpatnam to Lingayapalam using Ro-Ro inland vessels. In FY-19, traffic handled on NW-4 was 452,066 tonne, while in FY-20 traffic reduced to 82,226 tonne due to suspension of operations due to local issues and suspension of capital city construction works in Amravati.



Figure 36- NW-4: Ro-Ro vessel operations

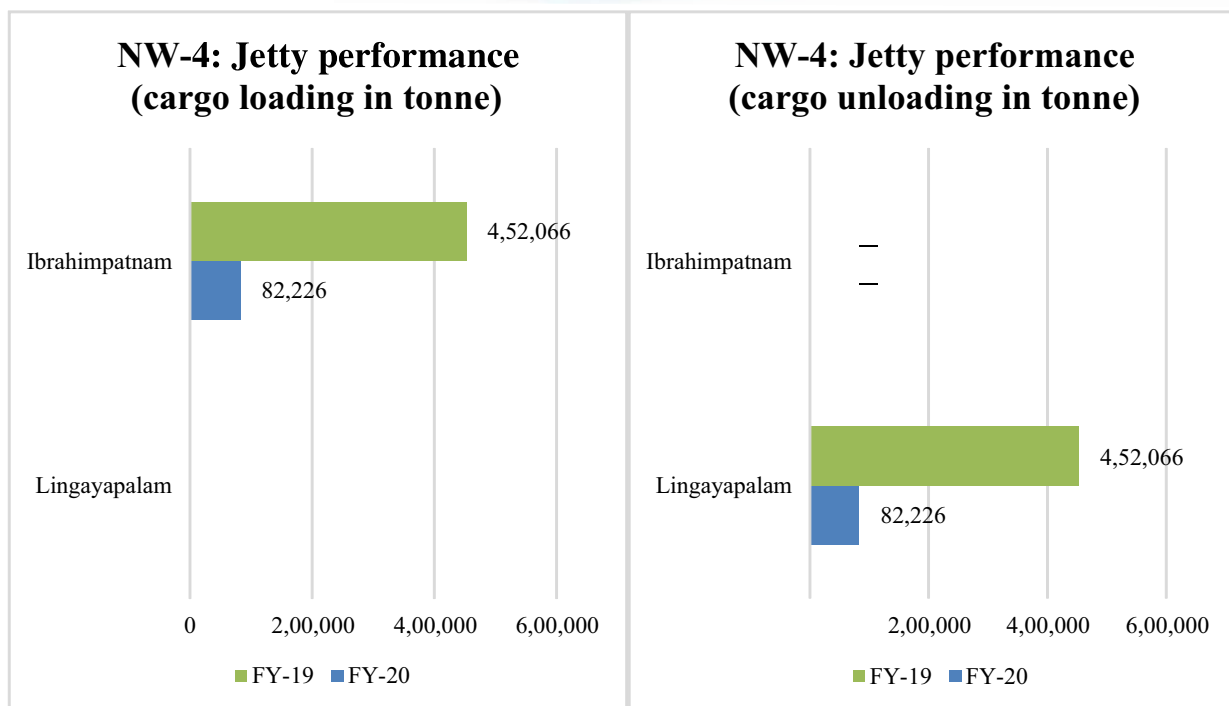


Figure 37 - NW-4: Traffic handling performance of jetties/ landing points (FY-19 & FY-20)

Only a limited stretch of approx. 2 km on NW-4 was being used for the Ro-Ro operations with traffic recorded at only 2 jetties namely Ibrahimpatnam, which is used as a loading point and Lingayapalam which is used as an unloading point. Both the locations are used as Ro-Ro jetties/ landing points for movement of trucks carrying construction materials.

Maharashtra Waterways

Maharashtra has 4 operational NWs which are NW-10 (Amba River), NW-83 (Rajpuri creek), NW-85 (Revdanda creek/ Kundalika River) and NW-91 (Shastri River/ Jaigad Fort Creek). Maharashtra Waterways constituted approx. 33% of the total traffic handled on all National Waterways in the country in the FY-20. NW-10 handles close to 90% of the total traffic on Maharashtra Waterways followed by NW-85 which handles approx. 7% of the total traffic.



Figure 38- Maharashtra NWs: Operational waterways

In FY-19, traffic handled on the Maharashtra Waterways was approx. 28.3 million tonne, while in FY-20 traffic reduced to 24.4 million tonne mainly due to reduction in import/export traffic.

The graph below presents the commodity profile of traffic on Maharashtra Waterways in FY-20.

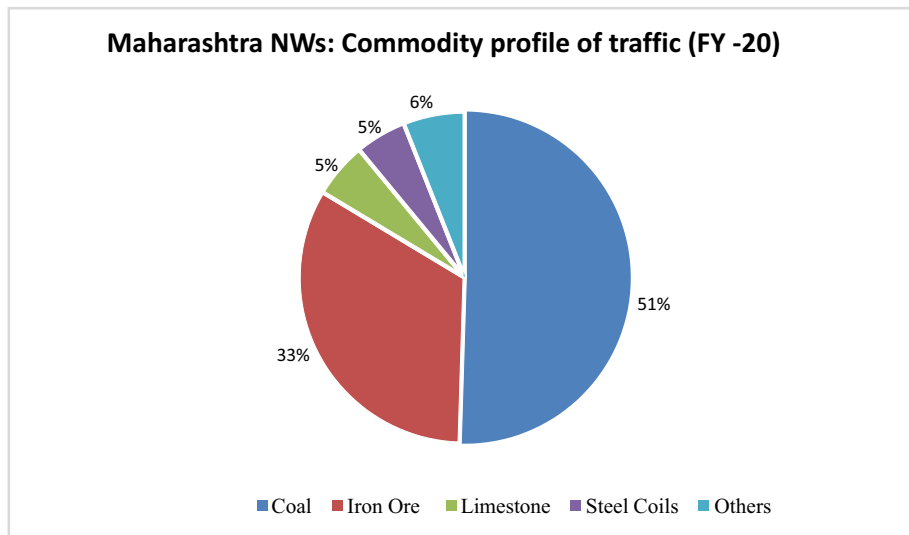


Figure 39- Maharashtra NWs: Commodity profile of traffic (FY-20)

It can be observed that Coal (51%) followed by Iron Ore (33%) account for 84% of the traffic moved on the Maharashtra Waterways. Limestone and Steel coils each account for 5% of the traffic moved, whereas commodities such as Dolomite, Clinker and lose cement make up for most of the other category of commodities.

The graph below presents the jetty-wise share of traffic at origin and destination on the Maharashtra waterways in FY-20.

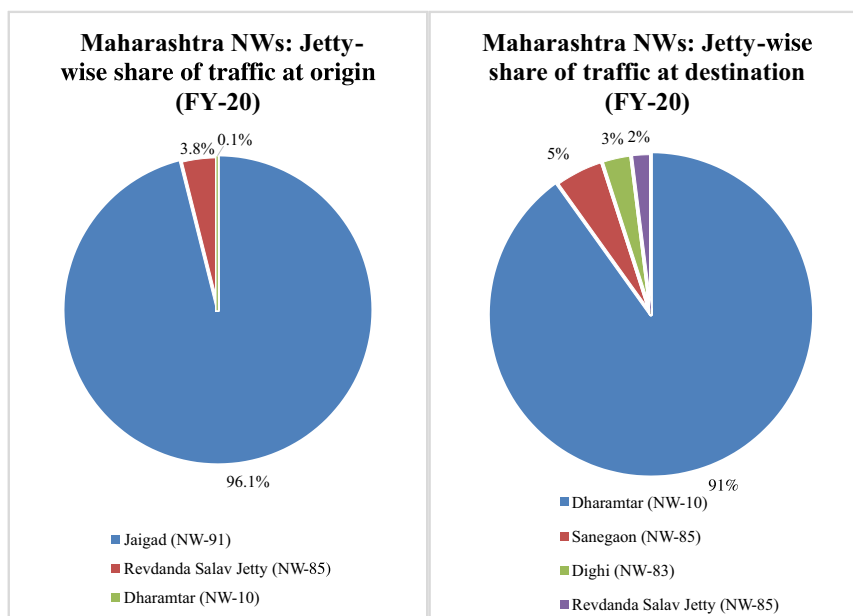


Figure 40- Maharashtra NWs: Jetty-wise share of traffic at origin & destination (FY-20)

Of the total traffic moving on the Maharashtra Waterways, approx. 40% originates from the jetties present on the Maharashtra Waterways while 60% originates either from foreign ports or from the coastal ports of India. Of this 40% which originates on the Maharashtra Waterways, approx. 96% is handled by Jaigad and close to 4% is handled by Revdanda Salav Jetty. There is no originating traffic from Dighi or Sanegaon jetty while Dharamtar handles a very limited share of the originating traffic.

Maharashtra waterways constitute approx. 33% of the entire IWT traffic in India. Industrial units/Ports/Lighterage points located at the interface of Coastal and Inland Waterways drive this traffic.

The graph given below shows the jetty/ Port wise traffic handled on the Maharashtra Waterways.

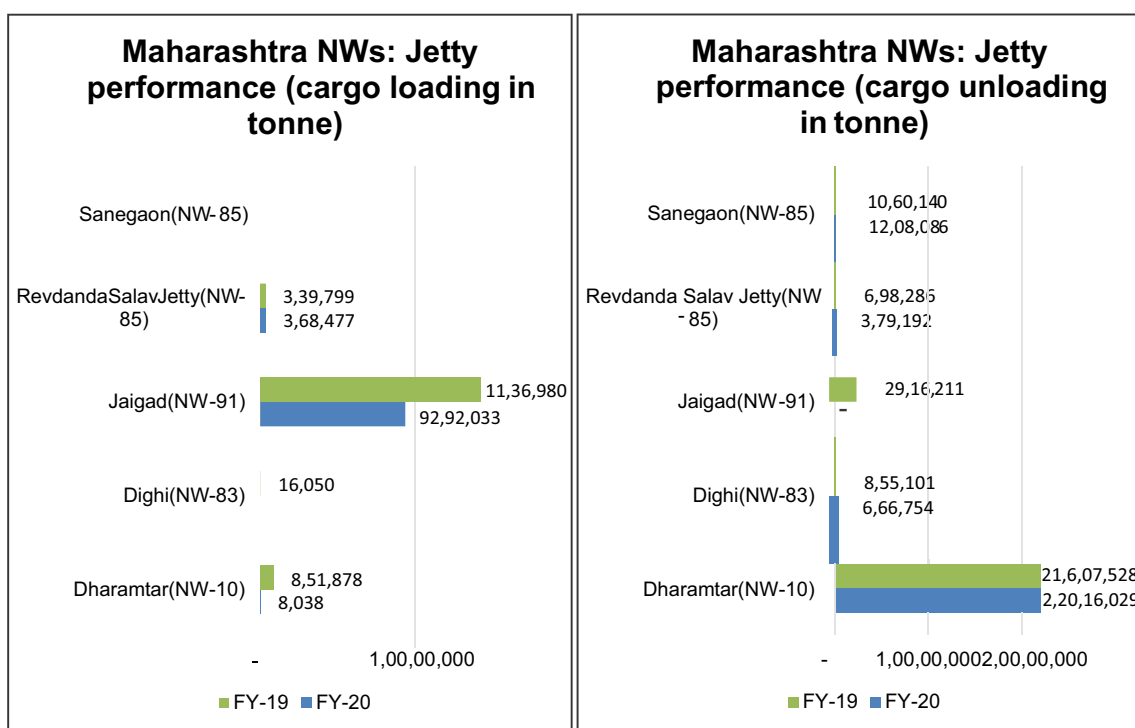


Figure 41- Maharashtra NWs: Traffic handling performance of jetties (FY-19 & FY-20)

It can be observed that Dharamtar (on NW-10) handled majority of the unloaded traffic on the Maharashtra waterways i.e. 80% in FY-19 and 91% in FY-20, whereas Jaigad (on NW-91) handled majority of the loaded traffic i.e. 92% in FY-19 and 80% in FY-20. Dharamtar has seen an increase in traffic handled, whereas Jaigad has seen a drastic decrease in the traffic handled. The other jetties/ Ports on the Maharashtra Waterways are Dighi Port on NW-83, Revdanda Salav jetty and Sanegaon jetty on NW-85. Dighi had limited traffic loaded from it in FY-19, however in FY-20 it was used only as an unloading jetty. Revdanda Salav jetty is used as both loading and unloading jetty, whereas Sanegaon was used for unloading only. Revdanda Salav jetty, Jaigad, and Dighi have seen a decrease in traffic handled over the same period in the past year.

The graph given below shows the profile of commodities loaded on different jetties/ Ports on the Maharashtra Waterways.

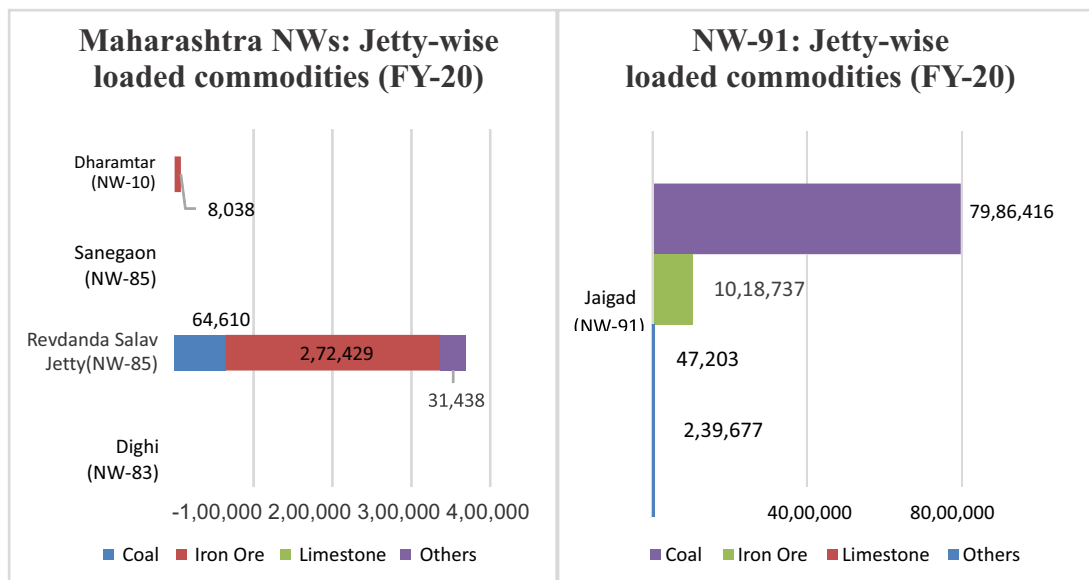


Figure 42- Maharashtra Waterways: Jetty-wise loaded commodities (FY-20)

Among the jetties on the Maharashtra Waterways, Jaigad followed by Revdanda Salav Jetty accounted for the highest share of loaded traffic. Coal accounted for majority of the traffic loaded at Jaigad followed by Iron Ore and both these commodities were predominantly transported to Dharamtar port. Revdanda Salav Jetty has been mainly used as a loading point for Iron Ore fines shipments to Dharamtar port. Dharamtar port had limited traffic movements of Iron Ore to Revdanda, whereas Dighi and Sanegaon did not load any cargo in FY-20.

The graph given below shows the profile of unloaded commodities on different jetties/ Ports on the Maharashtra Waterways.

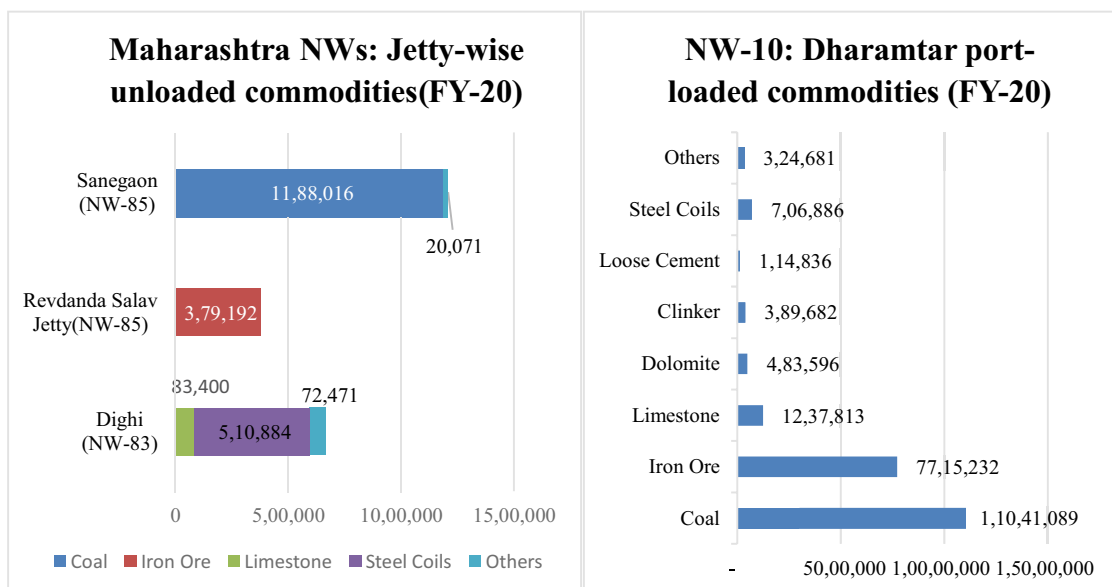


Figure 43- Maharashtra NWs: Jetty-wise unloaded commodities (FY-20)

In terms of the jetties used for unloading on the Maharashtra Waterways, Dharamtar followed by Sanegaon jetty accounted for the highest unloaded traffic. Dharamtar primarily received Coal, Iron ore and Limestone from origin points such as Jaigad, coastal ports such as Paradip and Vizag and foreign ports. Sanegaon received Coal via lighterage operations at Revdanda Anchorage. Dighi is primarily used for receiving steel coils from Hazira and Revdanda Salav jetty received Iron ore via lighterage operations at Revdanda Anchorage.

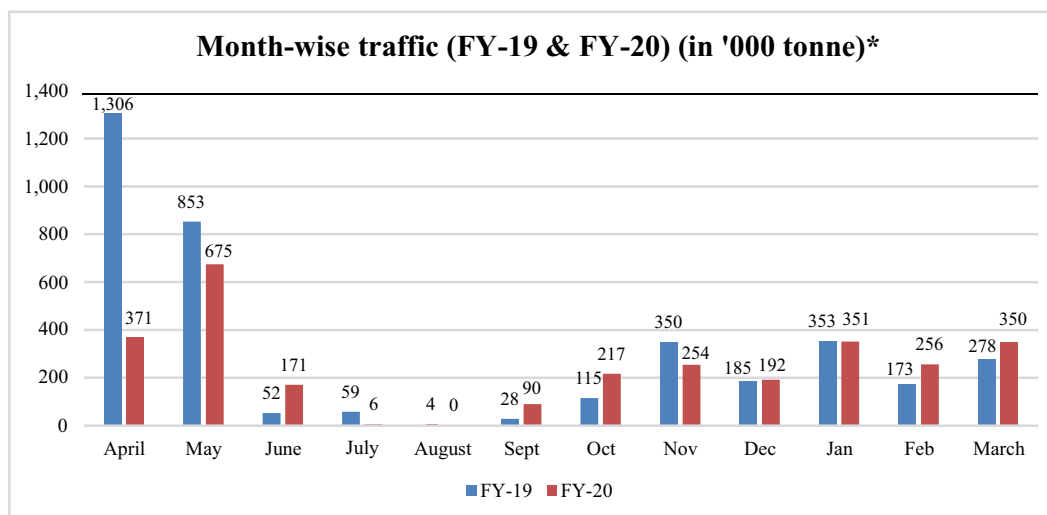
Goa Waterways

Goa has 2 operational National Waterways i.e. NW-68 (River Mandovi) and NW-111 (River Zuari).



Figure 44

With traffic movement of approx. 2.9 million tonne, the Goa waterways constituted approx. 4% of the total traffic on all NWs in FY-20. 51% (approx. 1.6 million tonne) of the total traffic on the Goa Waterways was handled on NW-68, whereas the remaining 49% (approx. 1.3 million tonne) was handled on NW-111. The graph below presents the month wise traffic movement on the Goa waterways in FY- 20.



*- The traffic numbers have been rounded off to the nearest thousand for representational purposes

Figure 45- Goa NWs: Month-wise traffic (FY-19 & FY-20)

Traffic on the Goa Waterways has been continuously decreasing post the ban on iron ore mining in the state. The traffic declined from approx. 3.7 million tonne in FY-19 to approx. 2.9 million tonne in FY-20. Although iron ore has been the key commodity moving on Goa Waterways, there are various other industrial commodities that use the IWT mode in Goa. The graph below presents the commodity profile of traffic on Goa Waterways in FY-20.

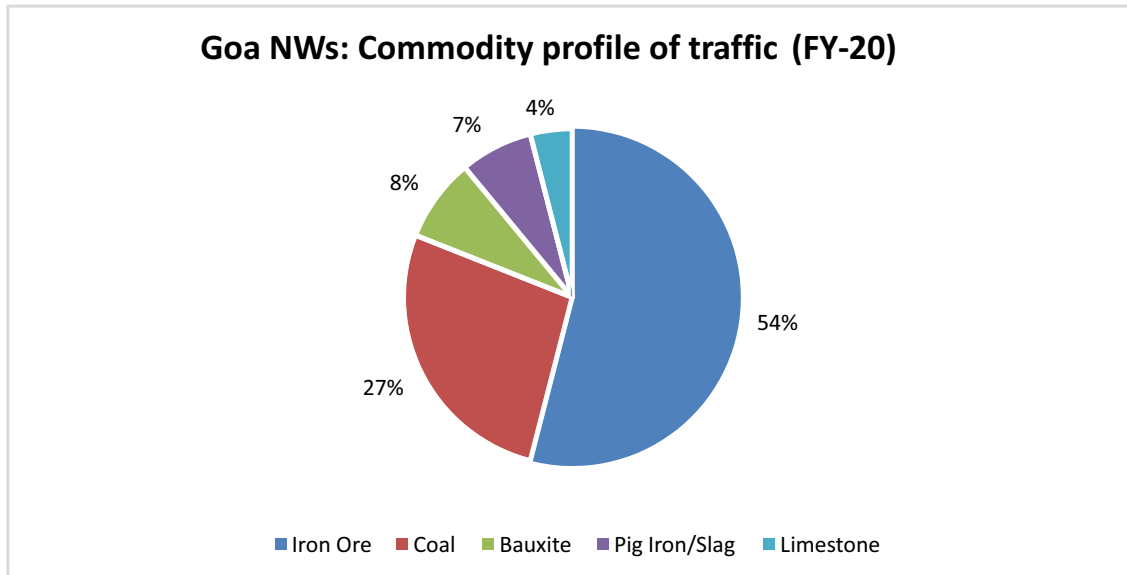


Figure 46- Goa NWs: Commodity Profile of traffic (FY-20)

It can be observed that the top two commodities on the Goa Waterways are Iron Ore (54%) and Coal (27%). Most of the Iron Ore is exported to foreign countries from Mormugao Port, whereas coal is imported from foreign ports to Mormugao Port. Amongst the other commodities, Bauxite is imported from foreign ports by Aluminum manufacturers such as Hindalco.

Gujarat Waterways

Gujarat has 2 operational National Waterways i.e. NW-73 (River Narmada) and NW-100 (River Tapi). With approx. 31 million traffic, the Gujarat waterways constituted 42% of the total traffic on all National Waterways in FY-20. Over 99% of the Gujarat Waterway traffic is handled on NW-100 (River -Tapi).

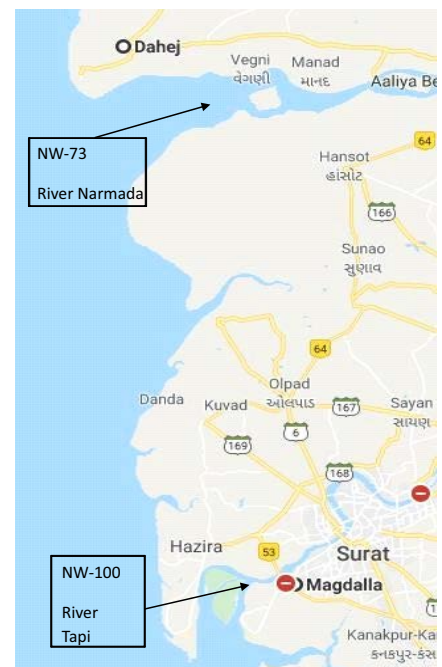


Figure 47- Gujarat Waterways: Operational NWs

The graph below presents the month wise traffic movement on NW-100 (Tapi River) in FY-20.

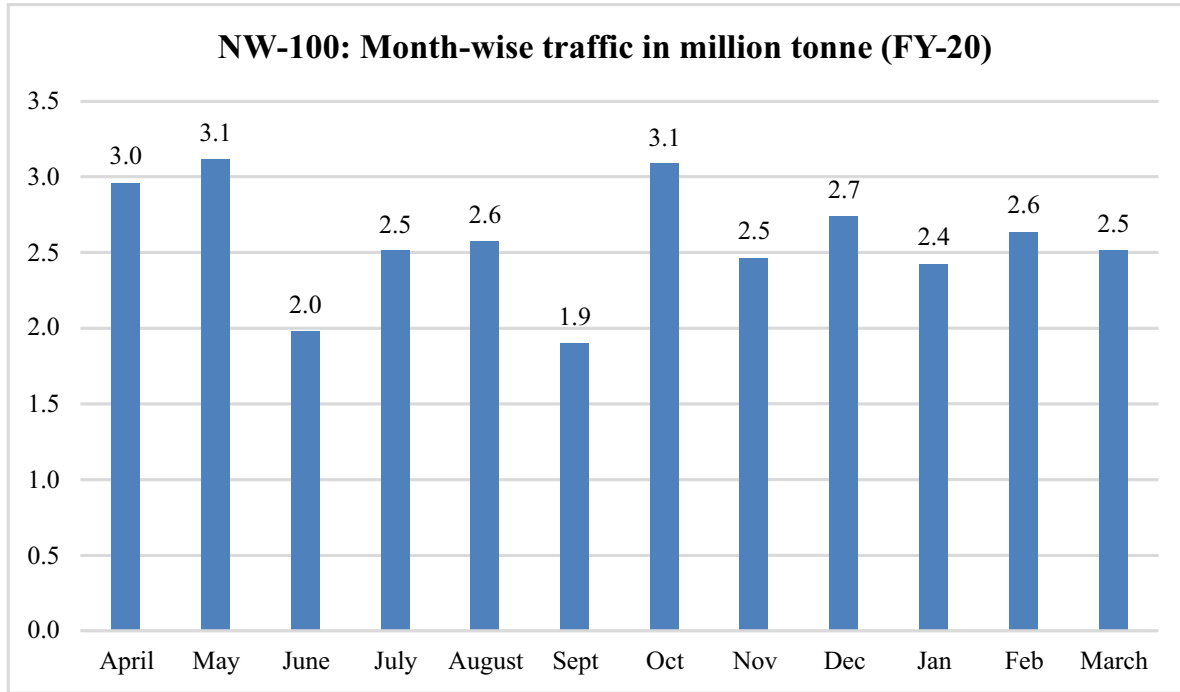


Figure 48- NW-100: Month-wise traffic (FY-20)

With total traffic of 30.09 million tonne in FY-20, NW-100 displayed a growth of 7% vis-à-vis traffic of approx. 28.70 million tonne in FY-19.

The graph below presents the month wise traffic movement on NW-73 (Narmada River) in FY-20.

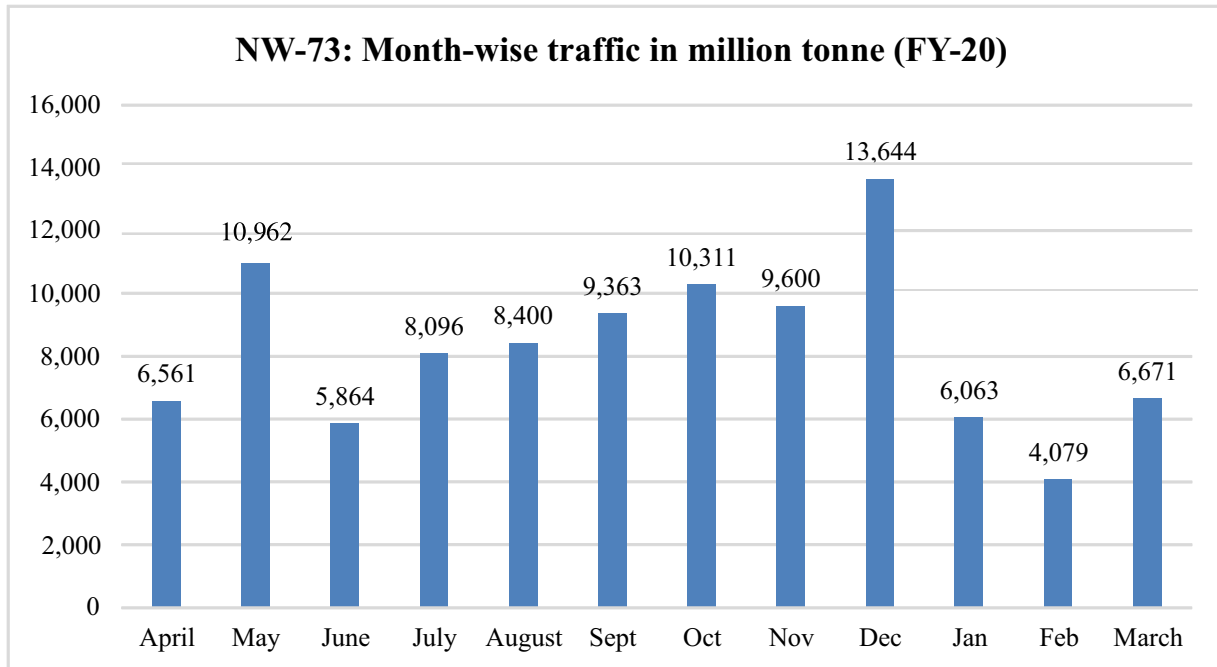


Figure 49-NW-73: Month-wise traffic (FY-20)

In FY-20, 99,614 tonne of traffic was handled on NW-73 as compared to 40,941 tonne in FY-19, thereby displaying a growth of 143%.

The graph below presents the commodity profile of traffic on Gujarat Waterways in FY-20.

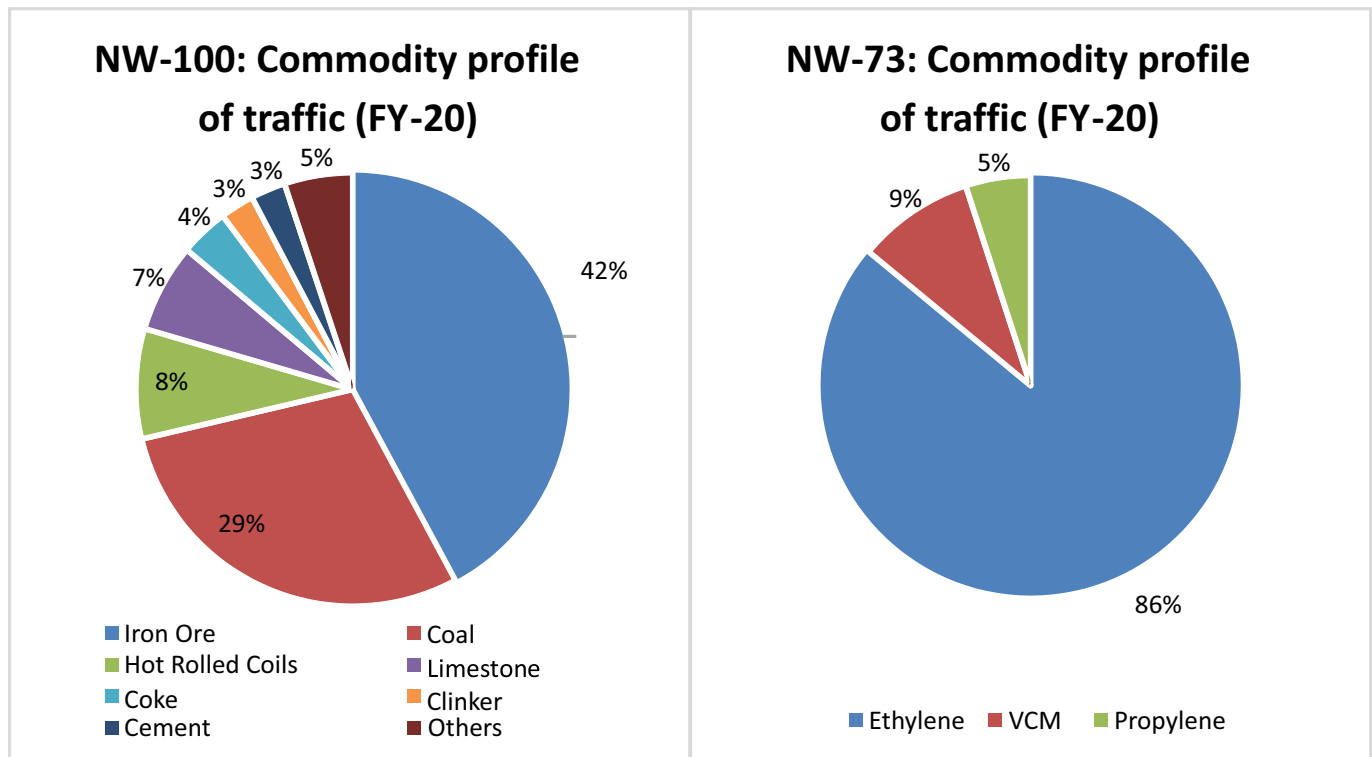


Figure 50- Gujarat NWs: Commodity profile of traffic (FY-20)

It can be observed that the top two commodities i.e. Iron Ore (42%) and Coal (29%) form 71% of the total traffic moving on NW-100 (Tapi River). These are followed by Hot rolled coils and Limestone which account for 8% and 7% of the traffic respectively. Other commodities moving on the NW-100 are Coke, Clinker, Cement etc.

Only 3 commodities were transported on NW-73 (Narmada River) in FY-20 of which Ethylene (86%) accounted for the highest share of the total traffic followed by Vinyl Chloride, VCM (9%) and Propylene (5%). Traffic is handled on two group of jetties on the Gujarat Waterways i.e. Magdalla (on NW-100) and Dahej (on NW-73). The graph below shows the traffic handled at these group of jetties on the Gujarat Waterways.

Gujarat waterways constituted 43% of the entire IWT traffic in India in FY-20. Industries have set-up their private & captive jetties for handling their raw material and finished goods.

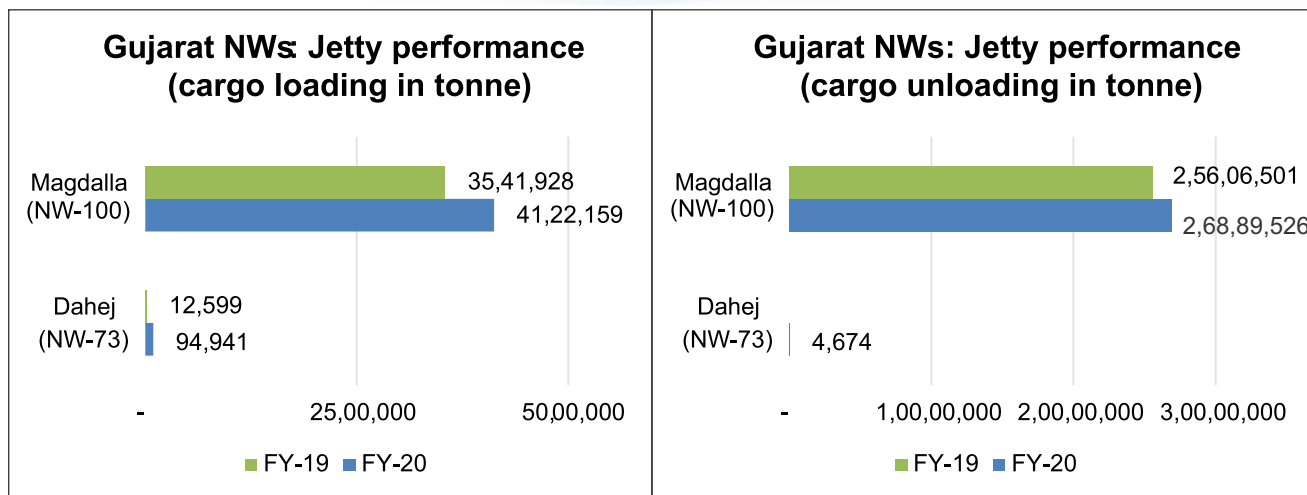


Figure 51- Gujarat NWs: Traffic handling performance of jetties (FY-19 & FY-20)

Magdalla based jetties handled more than 99% of the total traffic of Gujarat Waterways. These jetties are primarily used for various inward commodities, which are used as raw material primarily by steel and metal industries. In FY-20, Magdalla based jetties have collectively seen an increase of 17% and 5% in the loaded and unloaded traffic handled respectively. Similarly, Dahej based jetties have also seen a drastic increase in the traffic handled, however the overall traffic quantity handled is not significant as compared to traffic handled at Magdalla based jetties. The graph given below shows the loaded and unloaded commodities handled on NW-100.

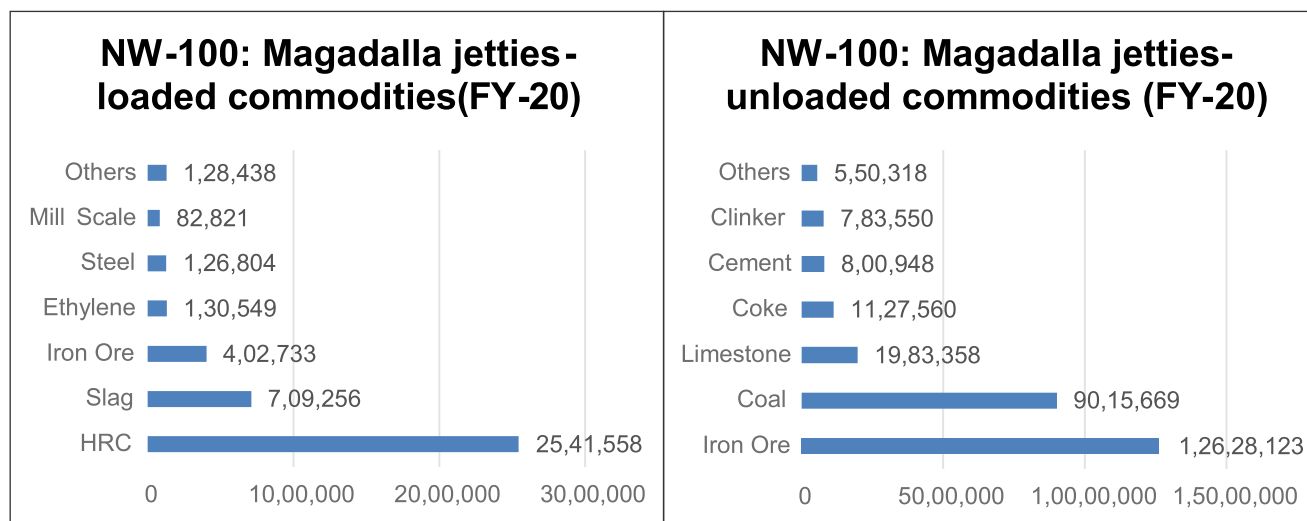


Figure 52- NW-100: Magadalla based jetties – Loaded and unloaded commodities (FY-20)

The major commodity loaded on NW-100 is Hot Rolled Coils, which is transported through coastal shipping route to multiple Indian ports. Additionally, Slag is shipped to foreign ports and Iron ore is mostly shipped to Vizag, Paradip and Ennore through coastal shipping.

The major commodity unloaded on NW-100 is Iron Ore, which is received via Coastal route from Vizag and Paradip Ports, and Coal and Limestone which are received from multiple foreign ports.

The graph given below shows the commodities handled on the NW-73 in FY-20.

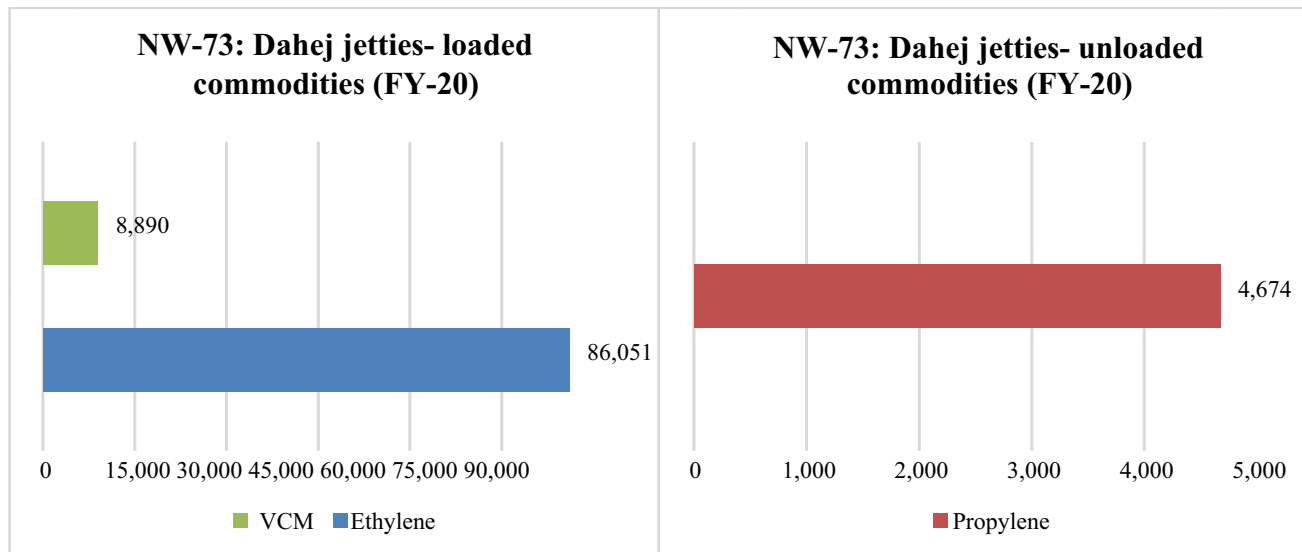


Figure 53- NW-73: Dahej based jetties – Loaded and unloaded commodities (FY-20)

Dahej based jetties handled less than 1% of the total traffic on Gujarat Waterways. The traffic at the port is primarily outward movement of Ethylene and inward movement of Propylene.

Newly Operational National Waterways

The number of operational NWs has increased to 16 in FY-20 with the inclusion of traffic on NW-16 (River Barak), NW-44 (River Ichhamati) and NW-94 (River Sone). The details of traffic on these newly included NWs are as follows:

- NW-16 (River Barak):** In FY-20, approx. 4,400 tonne of traffic consisting of Ginger and fruits (Orange, Pineapple, Grapes) moved on NW-16. This traffic was moved on small country boats, which ply between Karimganj (Assam, India) and Zakiganj (Bangladesh) through the Indo Bangladesh Protocol (IBP) route.
- NW-44 (River Ichhamati):** In FY-20, approx. 0.9 million tonne of traffic consisting of construction material such as bricks, stone chips, sand and cement moved on NW-44. This traffic originated from Basirhat and travelled to multiple destinations such as Dayapur/ Sajjalai/ Pathakali/ Raghunathganj/ Namkhana (Sundarbans Delta Islands) on NW-1 and in and around Basirhat Brick kilns on NW-44.
- NW-94 (River Sone):** In FY-20, approx. 0.8 million tonne of traffic (mainly sand) moved on NW-94. This traffic movement using mechanized/ non-mechanized boats was recorded to be taking place in Bihar region from Koelwar (confluence point of River Ganga and River Sone in Bihar) to multiple destinations such as Doriganj, Avtarnagar, Pehleja, Gangajal, Maturapur, Kalighat, Tiwarighat, Jahajghat, Masanghat and Sabalpur located along River Ganga (NW-1).


Initiatives for growth of traffic on National Waterways

To enhance the utilization of NWs for transportation of cargo and passengers, IWAI is pursuing multiple initiatives in consultation with different stakeholders. These initiatives are briefly summarized as follows.

1. **Fairway development works:** Fairway development works to ensure Least Available Depth (LAD) of 3.0 meter in Haldia-Barh, 2.5 meter in Barh-Ghazipur and 2.2 meter in Ghazipur-Varanasi stretches on NW-1 are in progress under the Jal Marg Vikas Project (JMVP) which has been undertaken by IWAI with technical and financial assistance from World Bank. Similarly, to improve the connectivity between NW-1 and NW-2/ NW-16 via the Indo Bangladesh protocol route, the critical and shallow stretches between Sirajganj and Daikhowa on protocol route No1 & 2 and Ashuganj and Zakiganj on protocol route no 3 & 4 in Bangladesh are being jointly developed by India and Bangladesh for round the year navigability (with targeted LAD of 2.5 mtrs). Similarly, fairway development works are being carried out on NW-97 in Sunderbans to allow smooth navigation of vessels on the Indo-Bangladesh Protocol Route.
2. **Operations & Management of IWAI's terminals by Private Operators:** IWAI is in the process of handing over its terminals on all NWs to private operators on PPP basis. The newly constructed Multimodal Terminals (MMTs) at Varanasi (capacity 1.26 million tonne), Sahibganj (capacity 3.03 million tonne) and Haldia (capacity 3.18 million tonne) on NW-1 under JMVP are in the process of being tendered out private operators on PPP basis for operation and maintenance. Similar exercise is in progress for IWAI's terminals at Gaihat (Patna) on National Waterway-1 and Dhubri, Pandu (Guwahati) on National Waterway-2. Subsequently, IWAI's terminals on NW-3 and NW-16 are also planned to be handed over for O&M to private players. Appointment of O&M operators will bring in necessary operations and marketing experience and contribute to increasing traffic on the IWT mode.
3. **Policy for development of Private jetty/ terminal:** With the growth of IWT traffic on NWs, private entities have exhibited interest to build and operate private terminals on NWs. Allowing private entities to build, operate and manage the terminals will enable rapid development of terminal network on NWs. In view of the advantages associated with private sector participation in development of terminals on NWs, IWAI has proposed to permit the private sector to develop their own jetties and operate them on commercial basis. Recently IWAI has permitted RO-RO operations by private operators on NW-1 using their land on banks as landing points on temporary basis. This initiative is expected to bring in much needed participation of private sector in augmenting the development of infrastructure and modal shift of cargo in favor of IWT.
4. **Development of portals FOCAL and LAD:** A dedicated portal named FOCAL (Forum of Cargo Owners and Logistics Operators) was developed by IWAI to connect cargo owners interested in moving their cargo using the IWT mode and vessel operators who are operating vessels on National Waterways (NWs). The portal allows registered users to share their transportation requirement and positioning of vessels on different NWs. Also, IWAI has internally developed a portal 'LAD' to facilitate the day-to-day operations of inland vessels plying on NWs and to avoid any hindrance in service and operation. The portal enhances credibility and efficiency of information sharing to achieve seamless operations on NWs, besides pre-empting problems that may occur during

movement of vessels.

5. **Digital portal for dissemination of information to IWT users:** IWAI is currently developing a digital portal to disseminate key systematic and aggregated River and Navigational information related to NWs to various stakeholders. The portal shall provide detailed information on various NWs in India such as fairway (LAD, etc.), infrastructure facilities (jetties, pontoons, cargo handling equipment, storage facilities), cross river structures (bridge locations locks, barrages), connectivity at jetties, emergency services, vessel sailing plan details etc. for facilitating transportation of cargo and other vessels through NWs. This will help different stakeholders to better understand the key features of the NWs that are essential for decision making on the use of IWT mode.



Initiatives such as Fairway development for vessel navigation, Private sector participation in sector development and Digital portal for information access & operational planning shall promote ease of accessing the IWT system.
6. **Facilitation of Cargo transportation by the local community:** IWT has been traditionally used by the local community for transportation of their produce and passengers. Facilitation of movement of goods on waterways and local level as part of the Arth Ganga vision will further enhance use of IWT.
7. **Enhanced regional trade using IWT mode:**
 - a. **Addition of new Ports of Call and routes in India and Bangladesh under PIWT&T:** With 7 new ports of call agreed to be added on each side along with addition/ extension of waterway routes under PIWT&T between India and Bangladesh, the accessibility of IWT mode for trade between India and Bangladesh is expected to increase and result in growth of traffic on NWs. As per an assessment, approx. 2.5 million tonne of traffic is expected to get diverted to IWT mode with the extension of Rajshahi-Dhulian route up to Aricha in Bangladesh.
 - b. **Inclusion of IWT mode in the Indo Nepal trade treaty:** Inland waterways mode has been agreed for inclusion in the trade treaty between India and Nepal. This will allow Nepal bound cargo (coming from 3rd country via Kolkata port and India's exports) to take waterway up to Sahibganj MMT (Jharkhand), proposed Kalughat terminal near Patna (Bihar) and Varanasi MMT (UP) and further movement to Nepal via road. The IWT route will provide an alternate option to the traffic, which currently faces significant challenges such as congestion and delays on the rail and road mode currently.
 - c. **Trade between Bhutan and Bangladesh:** Stone exporters from Bhutan have identified Inland waterways as an alternate mode of transportation considering the benefits associated with waterways mode such as lower transportation cost, larger shipment size compared to road, avoiding congestion on land routes etc. The first movement under supervision of IWAI was successfully executed in July 2019. This movement evinced confidence in the Bhutanese exporters to increasingly shift to waterways mode and increase the trade of stone aggregates

and other commodities between Bhutan and Bangladesh. As a result of the success of the first movement, transportation of stone aggregates has become regular between Dhubri and Chilmari (Bangladesh) and more than 10 shipments of approx. 100-300 tonne size have been completed in FY-20. This trade using the IWT mode is expected to continue and reach a significant scale in the coming years.

8. **Delineation and relaxation of Customs procedures for transportation of transit goods via Bangladesh through the IBP route:** To further facilitate use of the IWT mode for movements of goods to/ from North East states of India via the IBP route (under PIWT&T), IWAI held consultations with the Central Board of Indirect Taxes and Customs (CBIC), Ministry of Finance (GoI) to delineate the Customs procedure and consider possible relaxations. In view of this, CBIC has issued Transportation of Goods (Through Foreign Territory), Regulations, 2020 on 21st February 2021. These regulations delineate the procedures to be followed by the trade for transit goods passing through the IBP route and have also dispensed with the requirement of Cross Border Certificate for the purpose of the subject regulations.
9. **Facilitation of Ro-Ro/ Ro-PAX traffic:** IWAI has procured Ro-Ro and Ro-PAX vessels for operations NW-1, 2 and 3. Discussions are in progress with multiple State Governments to operate these vessels and to regularize the operations of informal sector.
10. **Container movement between Cochin port and Kottayam port via IWT:** After the success of the pilot movement in 2019, containerized movement between Cochin port and Kottayam port via NW-3 and NW-9 is expected to become regular in the coming years, thereby shifting traffic from road to IWT mode and helping in reducing road congestion.
11. **Development of new National Waterways:** IWAI has identified 20-25 new National Waterways (NWs) through technoeconomic feasibility studies for undertaking technical interventions to make the waterways navigable for transportation purpose. Once ready, these new waterways will provide an alternate mode of transportation in respective geographies.
12. **Stakeholder consultations:** IWAI carried out stakeholder consultations at six different locations (Kolkata, Kochi, Mumbai, Patna, Goa and Dhaka) in FY-20. These interactions helped in promoting waterways as a mode of transportation and understanding expectations and feedback of stakeholders. IWAI is undertaking targeted initiatives to address the expectation and feedback received to further enhance traffic on NWs.

The above initiatives shall promote ease of accessing and using the IWT system, besides enhancing the efficiency and safety of operations and shall result in traffic increase on the National Waterways in the coming years.

Annexure

A. Details of IWAI's permanent jetties on National Waterways

National Waterway-1				
Location	Jetty/ Terminal	Storage Facility	Equipment	Other Facilities
Varanasi MMT	RCC jetty (Length- 200m, Width-35m) Passenger Jetty (Floating pontoons length –20m Width –10m)	No covered storage facility. Space available for development of covered storage.	Two Mobile Harbour Cranes of capacity 50 MT each	
Gaighat, Patna	Low flood level RCC jetty (Length – 46m, Width – 15m) High flood level RCC jetty (Length – 70m, Width – 30m)	Transit shed (length-45m, breath – 15m)	One rubber tyre mobile crane of capacity 70 MT and Two 30 MT rubber tyre mobile crane	
Sahibganj MMT	RCC jetty (Length- 270m, Width-25m)	Storage shed (132 m X 30 m), Stock yard development for stone chips & coal: 50,000 sq. m.	One Mobile Harbour crane, Eight front end loaders, Conveyor system with fixed hopper (1,200 TPH), Two weigh bridges	
Garden Reach Jetty II, Kolkata	RCC jetty (Length – 70m)	Storage shed (~1,100 sq. m.)	Screw Compressor, loader, Crane, Material handler	Customs Notified

National Waterway-2				
Location	Jetty/ Terminal	Storage Facility	Equipment	Other Facilities
Pandu, Guwahati	Low level RCC jetty – (Length – 50 m, Width – 20 m)	2 nos. Transit Sheds (75 m x 21 m each),	Two hydraulic shore cranes of 20 MT and 75 MT capacity, One Weigh bridge: 100 MT capacity	A Railway Broad Gauge (BG) siding
	High level RCC jetty – (Length – 50 m, Width – 20 m)	Open storage area: 553.90 sq. m.		Customs Notified
Dhubri	Ro-Ro RCC Jetty - (Length – 186 m, Width – 15.6 m)	2 nos. Transit Sheds (25 m x 15 m each), Open storage area: 553.90 sq.m.	One Shore crane - 20 MT capacity, One Weigh Bridge - 60 MT capacity	Customs Notified

National Waterway-3				
Location	Jetty/ Terminal	Storage Facility	Equipment	Other Facilities
Kottapuram	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 800 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Aluva	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage 1500 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
CSEZ (Kakkanad)	Land only. Temporary berthing jetty – 10 m length	Nil	Nil	
Maradu	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 2000 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Vaikkom	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 800 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	

Thannermukkom	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 800 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Alappuzha	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 2000 sqm	Nil	
Thrikunnappuzha	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 800 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Kayamkulam	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 2000 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Chavara	Land Only	Nil	Nil	
Kollam	RCC jetty: 30 m length	Covered storage - 300 sqm, Open Storage - 2000 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Bolgatty	Ro-Ro/Lo-Lo landing point	Nil	Nil	
Willingdon Island	Ro-Ro/Lo-Lo landing point	Nil	Nil	

National Waterway-16				
Terminal location	Jetty	Storage Facility	Equipment (proposed)	Other Facilities
Badarpur	RCC jetty – (Length - 91 m, Width - 37 m)	Covered storage (29.84 m x 16.07 m), Open stack space	One shore crane, One floating pontoon, One forklift	
Karimganj	RCC jetty - (Length - 136.5 m, Width - 14.5 m)	Covered storage (85 m x 23 m), Open stack area of 553.90 sq. m.	One shore crane, One floating pontoon, One forklift	Customs Notified

B. Other terminals, jetties (permanent & temporary), landing points, ghats on NW-1, NW-2

National Waterway	Location
NW-1	IWAI Haldia Fly ash jetty, Haldia*
	HDC Fly Ash Jetty, Haldia*
	Budge Budge jetty, Kolkata*
	IWAI BISN Jetty, Kolkata*
	Kidderpore Dock, Kolkata (KoPT)
	T.T. Shed, Kolkata*
	Netaji Subhash Dock, Kolkata (KoPT)*
	Haldia Dock Complex, Kolkata (KoPT)*
	Manglahat (Howrah)
	IWAI BTPS Jetty, Bandel*
	Falta Jetty (South 24 Parganas)
	Srirampur* (South 24 Parganas)
	Surinam* (South 24 Parganas)
	Pakur (Putimari)* (Murshidabad)
	Farakka Barrage Project (RCC & Terminal ghat)* (Murshidabad)
	KTPS, Kolaghat* (East Medinipur)
	Katwa (East Bardhaman) (Ro-Ro)
	Guptipara (Hooghly) (Ro-Ro)
	Dainhat (East Bardhaman) (Ro-Ro)
	Narkelbari (Murshidabad) (Ro-Ro)
	Kalna (East Bardhaman) (Ro-Ro)
	Palassey (Nadia) (Ro-Ro)
	Shantipur (Nadia) (Ro-Ro)
	Matiyari (Nadia) (Ro-Ro)
	Ramnagar (East Medinipur) (Ro-Ro)
	Ballabhpara (Nadia) (Ro-Ro)
	Nrisinghapur (Nadia) (Ro-Ro)
	Manikchak (Malda) (Ro-Ro)
	Maganpara (Murshidabad) (Ro-Ro)
	Manihari (Ro-Ro) (Katihar) (Ro-Ro)
	Samdaghat (Sahebganj) (Ro-Ro)
	Gram Ghat (Sahebganj) (Ro-Ro)
	Rajmahal (Sahebganj)
	Tintanga (Bhagalpur)
	Gaighat (Patna)

	Begusarai
	Doriganj (Saran)
	Karagola (Katihar)
	Raghopur (Vaishali)
	Semaria (Siwan)

* Customs notified

National Waterway	Location
NW-2	Bogibil (Dibrugarh)
	Tezpur (Sonitpur)
	Jogighopa (Bongaigaon)
	Sengajan (Golaghat)
	Silghat* (Nagaon)
	Biswnath Ghat (Biswanath)
	Dibrugarh
	Oriumghat (Golaghat)
	Bhomoraguri (Sontipur)
	Goalpara
	Guwahati
	Kamalabari (Jorhat)
	Karen Chapri (Dhemaji)
	Neamati (Jorhat)
	Phulani (Nagaon)
	Salmara (South Salmara Mankachar)
	Bagbor (Barpeta)
	Baluguri (Tinsukia)
	Chaikhowa (Tinsukia)
	Chapar (Dhubri)
	Chunari (Goalpara)
	Dolgama (Goalpara)
	Hatsingimari (South Salmara Mankachar)
	Hazirhat (Dhubri)
	Jaleswar (Goalpara)
	Kadamtala (Barpeta)
	Karikhaiti (Barpeta)
	Khankhawa (Dhubri)
	Krishnai (Goalpara)
	Majer Char (Dhubri)

	Mantrichar (Dhubri)
	Moimbari (Barpeta)
	Mondia (Dhubri)
	Panpur (Sonitpur)
	Phulbari (Sonitpur)
	Poravita (Dhubri)
	Rajaduar (North Guwahati)
	Singimari (Nagaon)
	Sukchar (Dhubri)
	Umananda (North Guwahati)
	Madhyamkhanda (Kamrup)
	Mazgaon (Barpeta)

**Customs notified*

STAKEHOLDERS CONFERENCES

In order to promote IWT on National Waterways for movement of passengers and cargo, IWAI participates in various conferences / seminars and workshops organized by various trade associations and industry partners and presents various developments in the IWT sector to promote its use. During the year FY 2019-20, stakeholder conferences were organized by IWAI in partnership with Industry Associations, State Governments and other important organizations. The broad objectives of these conferences were:

- To promote Inland Waterways as an enabler for establishing domestic and regional connectivity for movement of passengers and cargo
- To promote IWT as an additional mode of transport for trade and tourism
- To identify issues & challenges faced by stakeholders for development and usage of Inland Waterways
- To identify strategies for creating opportunities in the IWT sector through private investments, policy incentivization and linkages with new business models.
- To engage and exchange perspectives in the sector and share the latest developments, policy updates, market insights and business prospects.

The stakeholder conferences were organized at the following locations:

#	Date	Location	Partnership
1.	30-Nov-19	Goa	CII
2.	05-Dec-19	Dhaka	High Commission of India
3.	17-Dec-19	Kolkata	CII
4.	24-Jan-20	Kochi	ASSOCHAM
5.	07-Feb-20	Mumbai	ASSOCHAM
6.	11-Feb-20	Patna	FICCI

The conferences at these 6 locations deliberated upon the key trends and developments in infrastructure and challenges faced and also highlighted the emerging opportunities in cargo transportation, infrastructure development, innovative financial models and river tourism.

1. Stakeholders conference at Goa on 30.11.2019

IWAI partnered with Confederation of Indian Industry (CII) to organize the 5th CII Conference on Logistics: 'Roadmap for Port Led Development, Inland Waterways & Multi-Modal Logistics' at Goa on 30th November 2019. The sessions of the conference were based on the following themes:

- Development of IWT sector: Emerging opportunities for modal shift of cargo and encouraging private Investments.
- Significance of Sagarmala Programme and initiatives undertaken under port led development.
- Development of multi-modal logistics for seamless movement of cargo in Goa.

d) Role of IWT to boost river cruise tourism

The conference was inaugurated by Hon'ble Minister of Ports, Waste Management, Science and Technology, and Rural Development of Goa, Shri Michael Lobo along with Hon'ble Minister for Transport and Legislative affairs of Goa, Shri Mauvin Godinho. The conference was well attended by the senior officials of the State Government, DG Shipping, IWAI, Customs, Ministry of Railways, several trade associations and cargo owners / operators.

1.1. Key highlights

- **Inaugural Speeches by Hon'ble Ministers, Government of Goa:** The inaugural speeches were made by Hon'ble Minister of Ports, Waste Management, Science and Technology, and Rural Development of Goa, Shri Michael Lobo along with Hon'ble Minister for Transport and Legislative affairs of Goa, Shri Mauvin Godinho. Shri Lobo highlighted the main issues faced by the Goa mining industry currently due to the halt of mining activities and assured that mining and associated economic activity will restart as sincere efforts have been taken by the state government in this regard. Mr. Lobo also declared that the Government of Goa will take up comprehensive studies to explore the potential of its rivers in tourism activities on the hinterland and the transport through the Inland Waterways. Shri Godinho asserted that the State Government is open for support to private players and stressed on their participation in the logistics sector.
- **Presentation by Chairperson, IWAI on Goa Waterways:** Chairperson IWAI apprised the stakeholders about current traffic movements on Goa Waterways primarily on River Mandovi and Zuari. She further elaborated about proposed interventions undertaken by IWAI with an estimated project cost of Rs. 22.65 crores for construction of 4 concrete floating pontoons at Dempo, CoP, Old Goa and Chapora and installation of RIS and navigational aids on Mandovi, Zuari and Cumbarjua Rivers as per IALA standards. She also stated about emerging opportunities for private players in the areas of fairway development & maintenance, ship building and repair facilities, terminal operations and river cruise tourism. She further emphasized on the integration of coastal and inland waterways to enhance the use of inland barges available in Goa.
- **Promotion of River Cruise Tourism and development of new IWT terminals:** During the conference, stakeholders expressed that inland waterways in Goa provides opportunity for exhibiting the rich cultural heritage of the state, long & scenic river routes, natural spots and breath-taking views which can create immense potential for river cruise tourism in the state. Stakeholders also expressed the need to construct more jetties on the Zuari river at talukas of Tiswadi, Ponda, Mormugao, Salcete, Sanguem, Quepem, and Cortalim. In this regard, private sector was urged to explore 3-5-day cruises on Mandovi, Cumbarjua canal and Zuari river to attract tourists and also create employment among the locals. State Government announced that the first concrete floating jetty of the country and an immigration facility at a cruise terminal at Vasco is stated to be inaugurated in early 2020 which would give a boost to river cruise tourism in the State*. The Stakeholders requested the State Government and the Customs department for speedy facilitation of developing passenger terminals and amenities. In addition, the Captain of Ports (COP), Goa sought assistance from Government of India for developing 40 new jetties on National Waterways of Goa. COP had also sought assistance from IWAI for dredging on Sal River (NW-27). *It was subsequently inaugurated by Hon'ble Minister of State (Independent Charge) for Ministry of Shipping, Shri

Mansukh Mandaviya on 21.02.2020.

- **Issues of barge operators due to closure of mining in Goa:** The industry stakeholders expressed their concern about reduction of traffic since Supreme Court's order on closure of iron ore mines in Goa in February 2018 which has resulted in loss of business for barge operators. The State Government informed that to aid the barge operators, file for exemption of barge tax is being moved and is under consideration with the Finance Department. The state government also informed that formation of Goa Maritime Board would be taken up, and assured support for reviving the barge industry. Barge Operators also expressed the requirement of soft loans in order to put up the idle lying barges for alternative uses. They also sought financial assistance to make their vessels seaworthy by upgrading their vessels to ply within 5 nautical miles of inshore traffic corridor under Statement of Compliance (SOC) by DG Shipping order no. 8 of 2018. This would help them to get back in business by catering to coastal shipping / transshipment cargo.
- **Discussion on the need for comprehensive logistics policy for Goa:** It was discussed that the State of Goa requires a comprehensive “Logistics Policy” for efficient logistic solutions which would go hand to hand with the development of industry and trade in Goa. The State Government stressed on the participation of private players in the logistics sector and asserted that there is a need of out-of-the-box concrete proposals. In this regard, Industry requested the State Government to release the blocked land in Verna and allocate the same for developing SEZ for the benefit of logistics and other sectors.
- **Strengthening of skill development programs:** On skill development front, the State Government was urged to start a specialized institute in logistics and allied activities for the benefit of the local youth. This would provide them with the required trainings, which would increase efficiency in warehouse operations like grading, sorting, labelling, customs packaging etc.

2. Stakeholders conference at Dhaka on 05.12.2019

To promote IBP route as an enabler of regional connectivity, a stakeholder's conference was organized in Dhaka in partnership with High Commission of India in Dhaka on 5th December 2019 subsequent to the Shipping Secretary Level Talks (SSLT), Inter Government Committee (IGC) Meeting on the use of Chattogram and Mongla Ports for movement of goods to and from India and 20th meeting of the Standing Committee (SCM) of PIWT&T between India and Bangladesh. The event was inaugurated by Shri Gopal Krishna, Secretary, Ministry of Shipping, Government of India and his counterpart Sh. Md. Abdus Samad, Secretary, Ministry of Shipping, Government of Bangladesh. Other dignitaries included Shri Bhola Nath Dey, Additional Secretary, Ministry of Shipping, Bangladesh; Shri Rajat Sachar, Senior Economic Advisor, Ministry of Shipping, India; and other senior government officials from both sides.

The event was duly attended by over 50 delegates from Bangladesh who were apprised of the regional connectivity enabled by the IBP route. Chairperson IWA gave a detailed presentation about the emergence of opportunities for Bangladeshi stakeholders with the operationalization of IBP route. She also elaborated on the joint fairway development works undertaken by both governments to ensure round the year navigability. Further, she informed the stakeholders about commencement of river-based cruise services between India and Bangladesh as the waterways pass through various places of cultural, ancient and wildlife

importance and can increase tourism in the region and generate employment.

2.1 Key highlights

Secretary (Shipping) led a delegation to Dhaka on December 04-05, 2019 for the SSLT and to attend 20th SCM under PIWT&T and 1st meeting of IGC on the use of Chattogram and Mongla Ports for movement of goods to and from India. The following agreements were arrived during discussions.

- On the movement of Indian transit cargo for North East Region (NER) through Chattogram and Mongla ports in Bangladesh, both countries agreed to commence trial runs from January-February 2020.
 - There are six Ports of Call (POC) under PIWTT in India and Bangladesh at present and it was decided to increase Ports of Call both sides to include other important locations to enhance trade between the two countries. *
 - Under the Coastal Shipping Agreement, three more ports on the Indian eastern coast, viz. Dhamra, Ennore and Tuticorin and two ports of Bangladesh namely Cox Bazar and Muktarpur have been agreed to be included as POC.
 - Constitute a Joint Technical Committee (JTC) for undertaking hydrographic survey for studying the technical feasibility of navigation on inclusion of Ichamati River (National Waterway 44) as a new route under PIWTT.
 - Bangladesh Inland Water Transport Authority (BIWTA) agreed to provide necessary navigational aids and pilot services on Indo-Bangladesh Protocol routes on their side for smooth connectivity and navigation of vessels to NER.
 - On the quantum of administrative fees to be charged by Bangladesh for movement of India's transit cargo for NER through Chattogram and Mongla Ports, Bangladesh agreed to review its proposal as the proposed high charges would be unfruitful for the industry to adopt the shorter route.
 - During the first IGC meeting, it was proposed to include an additional new route - Chitagong / Mongla to Dalu via Nakugaon and was agreed to amend the agreement accordingly during the next SSLT in 2020. Dalu / Nakugaon is an LCS situated west of Dawki at the Meghalaya – Bangladesh border.
 - It was agreed to allow shallow draft smaller size vessels to promote cross-border trade between the two countries.
- * *With the signing of the second addendum to the PIWT&T on 20th May 2020, the declared protocol routes are:*
- (i) *Kolkata – Silghat – Kolkata extended up to Kolaghat in India (IBP route 1 & 2)*
 - (ii) *Kolkata – Badarpur – Kolkata (IBP route 3 & 4)*
 - (iii) *Aricha – Dhulian – Aricha (IBP route 5 & 6)*
 - (iv) *Badarpur – Silghat – Badarpur (IBP route 7 & 8)*

(v) Sonamura – Daudkandi – Sonamura (IBP route 9 & 10)

Moreover, five new 'Ports of Call' and two 'Extended Ports of Call' have been added on each side thereby taking the total no. of Ports of Call on each side to 13 (including extended ports of call). These Ports of call are Kolkata, Haldia, Dhubri, Pandu, Silghat, Karimganj, Dhulian, Maia, Kolaghat, Jogighopa and Sonamura in India, and Narayanganj, Khulna, Mongla, Sirajganj, Ashuganj, Pangaon, Rajshahi, Sultanganj, Chilmari, Daudkandi and Bahadurabad in Bangladesh. The extended Ports of call are Tribeni (Bandel) and Badarpur in India, and Ghorasal and Muktarpur in Bangladesh.

As a path-breaking development signed in the 2nd Addendum under PIWT&T, both sides also have agreed to introduce trade between Chilmari (Bangladesh) and Dhubri (India) through the use of shallow draft mechanized vessels, provided these are registered under Inland Shipping Ordinance 1976 of Bangladesh or Inland Vessels Act, 1917 of India as per provisions of Article 1.3 of the Protocol and conform to safety requirements. This initiative will allow export of stone chips and other Bhutanese and North East cargo to Bangladesh and easy access for the traders to the hinterland of Bangladesh, enhancing the local economy in Bangladesh and the lower Assam region of India.

3. Stakeholders conference at Kolkata on 17.12.2019

To leverage on the high concentration of stakeholders in the region, IWAI organized a stakeholder's conference for "Facilitating regional connectivity through Inland Waterways" at Kolkata, West Bengal on 17th December 2019 in partnership with Confederation of Indian Industry (CII). The interactions primarily focused on several initiatives of the Government driving India's maritime sector and enhancing connectivity with its neighboring partners and is making way for easy, hassle-free movement of cargo between India, Bangladesh, Bhutan and Nepal, and to the north-eastern States of India. More than 100 participants attended the meeting and gained insights about IWT. Discussions were deliberated around the utilization of inland waterways and current infrastructure and its development plans to improve the logistics efficiency and thereby the competitiveness of the regional countries.

The conference was duly attended by senior officials from IWAI, KoPT, Govt of Nepal and Bangladesh and industry. The inaugural session started with the speeches delivered by Chairman CII West Bengal, followed by representative of Ministry of Shipping, Govt. of Bangladesh; Joint secretary, Water Resources, Govt of Nepal & finally by Chairperson, IWAI to set the context of the conference of enhancing regional connectivity through Inland Waterways Systems. Post the inaugural session, 3 sessions were organized to capture stakeholder's viewpoint on various topics as mentioned below.

- a) Integration of inland waterways and coastal shipping to enhance regional connectivity.
- b) Multimodal infrastructure and logistics facilities on NW-1
- c) Importance of fairway development to maintain the navigability of rivers.
- d) Development of river cruise tourism.

3.1 Key highlights

- **Presentation by Chairperson, IWAI on Regional Connectivity:** Chairperson IWAI gave a detailed presentation on regional connectivity enabled by inland waterways during the inaugural session of the conference. She mentioned that the waterway connectivity between India and

Bangladesh along with their coastal routes offer tremendous potential to develop integrated waterway routes for cargo movements between India, Bangladesh, Nepal, Bhutan, Myanmar and also other South East Asian Countries. She also stated that IWT will help divert traffic from other congested and carbon intensive modes and generate significant economic activities and significantly boost international trade in the region. In addition, she apprised the stakeholders about signing of agreement and SOP on use of Chittagong and Mongla Ports in Bangladesh for transit cargo of India which would benefit movement of transit cargo to / from North East Region (NER). India's North East region will be benefited by faster access to Sea Ports, while industries in Bangladesh will be benefitted with increase in demand for logistics services for transportation of goods through all modes of transport within Bangladesh.

- **IWT Connectivity with Nepal:** The representative from Govt of Nepal and other stakeholders stated that Nepal is a land locked country & an unhindered access of Nepal to the sea can be achieved by developing rivers like Kosi, Karnali and Gandak which merges with NW-1. Indo Nepal Treaty currently entails use of roadways and railways for cargo transportation between the two countries. At present, Nepalese trade to/ from third countries primarily uses Kolkata Port (KDS and HDC) and hinterland transportation takes place using road and rail mode. Inclusion of IWT mode in the Treaty will allow Nepal bound cargo (to/ from 3rd country via Kolkata port) to take the waterway route from Haldia/ Kolkata. It was emphasized that the development of NW-1 will not only improve the connectivity of Nepal with seaports but will also significantly reduce the transportation time and cost. From Kolkata and Haldia ports, goods can move up to Sahibganj MMT, Kalughat IMT (under development) and Varanasi MMT for onward movement by road. The inclusion of waterways in the Treaty will reduce the logistics cost of Nepal and will further the trade interest of both the countries equally.
- **Inconsistent LAD on NW-1:** The industry stakeholders expressed their concern about seasonal variation of water depth level, due to low water discharge, siltation and shifting of channels, resulting into lack of interest in diverting cargo to IWT mode. Availability of consistent and adequate water draft is the topmost requirement for regularization of commercially viable cargo operations on waterways. CII presented a chart on LAD variation on NW-1 and stressed that the LAD between Patna to Varanasi is generally below 2m and sometimes falls below 1m which makes NW-1 not navigable for a large period of the year (Oct to May). Unless the confidence of industry is restored by improving LAD for round the year, no investment can be expected from the industry in IWT mode beyond Sahibganj.
- **Insufficient air draft availability on NW-1 during flood season:** Industry representatives also stated that vertical clearance with bridges during high flood level on stretches Rajamaharaj – Bhagalpur and Saidpur – Varanasi of NW-1 is approx. 3.3 meters and 6.5 meters respectively. These clearance levels are insufficient for vessel navigation as the vessels of capacity 1200-1500 DWT require min. 8.5 to 10 meters of air clearance for safe navigation. The constraint of less than required vertical clearance levels on waterways should be addressed and resolved in coordination with the relevant State Governments so that end-to-end and seamless vessel navigation on waterways is ensured.
- **Lack of efficient cargo handling equipment at jetties/ terminals and limited operational hours:**

Stakeholders raised a concern that the cargo handling equipment available on jetties have limited cargo handling capacity and have been found to be non-functional at times. Although the new terminals such as Varanasi are equipped with modern Liebherr mobile harbour cranes (LHM 180) which have a maximum lifting capacity of approx. 60 tonne, the terminals at Patna and Guwahati do not have efficient equipment and manpower. Due to these challenges, cargo owners have to arrange own equipment and operators, which demotivates users from shifting to the IWT mode. Moreover, currently cargo handling operations are carried out at terminals for maximum 12 hours. Poor cargo handling rates increase the number of charter days of vessel and crew in voyage, thereby resulting in increased per tonne cost.

- **Reduction of high first/ last mile transport cost (On NW-1, IBP route and NW-2):** The end-to-end logistics cost through different modes of transport is a key criterion for industry to decide on its preferred mode. Although on a standalone basis IWT mode is economical, however due to cost associated with cargo handling at origin/ destination and first/ last mile transportation, the end-to-end logistics cost increases and negatively impacts the cost competitiveness of IWT mode. It has been assessed by CII that for viability of a 2,000 MT cargo movement over 1,000 Km using IWT mode, total first and last mile distance should be within 60 Km.
- **Issues related to river cruise tourism:** Stakeholders from the tourism industry raised multiple issues which needs to be addressed for promotion of river cruise tourism. To promote investments from private players and to ensure uptake by suppliers and simultaneously create demand, there is a need for improvement of infrastructure for passenger embarking/ disembarking facilities and other amenities at locations of tourist importance. In case of cross-border (India-Bangladesh) cruise services, co-ordination between various agencies viz. immigration, state govt and waterway authorities should improve to standardize processes to avoid inconvenience to passengers and improve infrastructure for immigration services at Hemnagar (Indo-Bangla Border on Sunderban Waterways). It was emphasized that berthing space for cruise vessels must be adequately created to encourage the investment in the sector
- **Poor access to information on Indo Bangladesh Protocol (IBP) route:** Stakeholders also expressed that information such as LAD availability, charges, documentation requirement on IBP route is not accessible and cargo owners/ vessel operators have to remain dependent on agents for this. On multiple occasion, agents have been found to share misleading information and charge exorbitant amount for their services such as documentation, customs clearance, and arrangement of pilotage on IBP route etc.
- **Developing LNG Network:** M/s. JM Baxi expressed that Inland Waterways has an opportunity to become an integral part of LNG supply chains. It is suggested to setup LNG bunkering at MMTs & also use LNG enabled vessels.

4. Stakeholders conference at Kochi on 24.01.2020

IWAI, in partnership with The Associated Chambers of Commerce of India (ASSOCHAM), organized the “Stakeholders Interaction for Development of Inland Waterways Systems in Kerala” on January 24th, 2020 at Kochi, Kerala. The Inaugural session was duly attended by Shri N. Sivasailam IAS, Special Secretary Logistics, Ministry of Commerce; Dr Amita Prasad, IAS,

Chairperson, IWAI; Dr Vishwas Mehta IAS, Chairman, Kerala Shipping & Inland Navigation Corporation & Addl. CS, Water Resources, Coastal Shipping & Inland Navigation, Govt. of Kerala; Dr. M. Beena IAS, Chairperson, Cochin Port Trust; Shri Madhu S Nair, CMD Cochin Shipyard Ltd; Capt. Sandeep Mehta, Chairman ASSOCHAM's National Council on Ports and Shipping and President Adani Ports and SEZ; and other eminent stakeholders from the Kerala shipping industry. More than 80 delegates participated in the conference. Post the inaugural session, 3 sessions were organized to capture stakeholder's viewpoint on various topics as mentioned below.

- a) Integration of inland waterways and coastal shipping
- b) Challenges of modal competition with Roadways & Railways
- c) Issues related to Fairway Development
- d) Vessels and terminal infrastructure

4.1 Key highlights

- **Presentation by Chairperson, IWAI on Kerala Waterways:** Chairperson IWAI made a detailed presentation on Development of Inland Waterways Systems in Kerala. She stated that the connectivity of Inland Waterways with coastal shipping in Kerala has opened up numerous possibilities of trade for stakeholders in southern region of India, with Kochi being the focal point for integrated waterways development. Kochi has been facilitating cargo movements between India and Middle east and South East Asian Countries. The trio of CPT, ICTT and Kottayam Port supported by other IWT terminals on NW-3, offers a robust waterways connectivity between hinterland and coastal shipping for efficient and fast cargo evacuation. She mentioned that industries like engineering, metals, agro, paper mills, POL etc which are located in close proximity to NWs can explore possibility of using waterways for movement of their cargo. She also apprised the stakeholders about 24-hrs navigational aids being provided by IWAI for round the clock navigation on NW-3, NW-8 and NW-9. She also sought assistance from the State Government for the finalization of DPRs of NW-8, NW-9 and NW-59, identification of disposal sites for dredged material and utilization of existing IWT terminals. Chairperson emphasized that the State Government should come forward to operate Ro-Ro and ferry services on NW-3 and IWAI would definitely assist in State Government's endeavor to promote IWT.
- **Integration of Inland Waterways and Coastal Shipping in Kerala:** Stakeholders stated in unison that there is a need to integrate Inland Waterways with Coastal Shipping in order to achieve faster evacuation of EXIM cargo. The relaxation granted by DG Shipping vide circular no. no. 8 of 2018 of Inland Vessels in the 5 nautical miles inshore traffic corridor provides seamless integration of IWT and coastal traffic. ICTT, Vallarpadam with a draft of 14 m, can facilitate transshipment of cargo to smaller inland barges for direct transportation to inland terminals. The Ro-Ro service between Bolghatty and Willingdon Islands to support cargo evacuation through ICTT terminal is set to recommence during FY 20-21 with the help of KSINC. However, support to port operators at these smaller ports needs to be assessed and issues related to “No customs code” at Kottayam, Kollam, Beypore and Azhikkal needs to be resolved with the help of Central Board of Indirect Taxes and Customs. In addition, ICTT also requested hand holding support from Government of India until a sustainable volume of trade is achieved.

- **Issues related to fairway development on NW-3:** The industry stakeholders submitted that there have been incidents of grounding / touching reported on NW-3 and other NWs of Kerala because of inadequate LAD at some places. In addition, cases of encroachment of canals and eviction have also been reported along with low air draft due to many bridges built by local government bodies over the years. Slush from canal dredged out, cannot be transported as it is laden with water, which needs to be drained out. For this purpose, dumping yards are required, which is often objected by local residents. The State Government made a presentation on the fairway development works related to riverbed maintenance and bank protection taken up in West Coast Canal and stated that it is exploring to use wetland/ government land for the purpose of dumping slushes. The State Government also expressed concerns about issues being faced while undertaking development works like removal of encroachment in a densely populated state and obstructions like Sivagiri and Chilakkur tunnels, bridges, locks and electrical lines. Cruise tour operators requested for removal of fishing nets from the fairway and adoption of standardized fairway development works to enable them to provide integrated cruise tours (sea, river and canals) which would draw more tourists towards choosing cruises. In addition, it was discussed that the fairway development plan of NW-3, NW-8 and NW-9 needs to be holistically reviewed along with the State Government with respect to its development viz a viz the cargo anticipated. In addition, there is a need for institutionalizing fairway development mechanism and identification of suitable land for disposal of dredged material prior to awarding dredging contracts.
- **Issues raised by barge operators and vessel owners –** Stakeholders expressed the need for reduction of costs which would solve issues like unavailability of return cargo and motivate users to shift their operations to inland waterways. High cost of parking of vessels and empty containers also needs to be addressed to remain competitive against other modes of transport. Double handling and empty return of vessels cannot compete with rail / road cargo movement.
- **Development of Water Metro service:** The State Govt gave in-depth information about their upcoming Water Metro Project. Kochi Metro Rail Ltd. is all set to implement the integrated water transport project at a cost of Rs.747 crore with financial assistance from the German Bank, KfW. The project envisages the development of 16 identified routes, connecting 10 islands along a network of routes that span 76 km. The project intends to bring in a fleet of 78 fast, fuel-efficient, air-conditioned ferries plying to 38 jetties, 18 of which will be developed as main boat hubs, while the remaining 20 will be minor jetties for transit services. More than 100,000 islanders are expected to benefit from the Water Metro with modern watercrafts. It was also discussed that for Integration of all modes of transport, demand from urban areas need to be identified and connectivity to other modes of transport should be provided accordingly at designated places.
- **Issues related to availability of financing in shipbuilding:** The industry has been requesting to aid the entrepreneurs in providing long term loans for shipbuilding activities. Currently debt financing for ship building is not exercised by banks in India which is having an adverse impact on maritime & logistics sector's growth. Secretary Logistics stated that role of equity financing and creation of Maritime Development Fund may be explored to address this issue. The Kerala Government had been providing subsidy for inland transportation and that has been recently discontinued. The same may be pursued with State Government of Kerala to ensure continued benefits to the Kerala inland

ship owners. Other relevant State Governments may be pursued for bringing in such schemes in the respective states. Another concern which was raised was the absence of any subsidies or incentives due to which, investors/ vessel operators are not coming forward to invest in inland vessels.

5. Stakeholders conference at Mumbai on 07.02.2020

Waterways of Goa, Gujarat and Maharashtra carry approx. 80% of inland cargo traffic on India's Inland Waterways. Major commodities, which were transported on these waterways, were mined minerals, coal, steel products, cement, clinker and other bulk cargo. Mumbai being a focal point in this region, holds a strategic importance for IWT promotion, shipbuilding and investment in the sector.

To reach out to the stakeholders, IWAI in partnership with ASSOCHAM organized the stakeholder conference for “Augmenting trade potential through Inland Waterways and Coastal Shipping” at Mumbai on 7th February 2020 duly attended by senior officials of IWAI viz, Chairperson, Vice Chairman, Member (Traffic & Logistics) and Hydrographic Chief. The conference was organized at apex level with inaugural session duly attended by Shri Sanjay Bandyopadhyay IAS, Addl Secy to Govt of India; Ministry of Shipping; Shri Sanjay Kumar, AS & FA, Ministry of Shipping; Dr Amita Prasad IAS, Chairperson, IWAI; Shri Sanjay Bhatia IAS, Chairman, Mumbai Port Trust; Shri Amitabh Kumar, Director General Shipping, Govt of India; Smt H K Joshi, CMD Shipping Corporation of India,; Md. Manjurul Kabir, Chief Engineer, DG Shipping Bangladesh and other senior members of the Shipping Industry.

The inaugural session started with the welcome remarks by Chairman ASSOCHAM National Council on Ports & Shipping, followed by addresses from other dignitaries mentioned above and finally a keynote address by Chairperson IWAI to set the context of the conference. Post the inaugural session, 2 sessions were organized to capture stakeholder's viewpoint on various topics as mentioned below.

- a) Augmenting trade potential through inland waterways and coastal shipping
- b) Salient features of IV Bill 2020
- c) Fairway development plan to maintain the navigability of NW-1.
- d) Commercialization of IWT & Multimodal Operations

5.1 Key highlights

- **Presentation by Chairperson, IWAI on NW traffic:** Chairperson IWAI made a detailed presentation on the cargo movement on National Waterways in the three states of Goa, Gujarat and Maharashtra. She apprised the stakeholders that these waterways provide ample opportunity for transportation of bulk cargo. She expressed that traffic is expected to grow further in line with the industrial growth in the region specifically in Gujarat. Commodities like HR coils, mined minerals, cement, heavy machinery and imported coal are major contributors towards the growth of IWT in the region. In addition, she also apprised the stakeholders about IWAI's initiatives for the development of IWT in East India region. By giving a brief on various trade agreements with neighboring countries, she mentioned that integrated waterways connectivity between India and Bangladesh has opened up new opportunities to explore waterways-based trade routes with Nepal, Bhutan and

Myanmar. The waterways-based transportation routes provide an alternate route to the congested road routes passing through Land Customs Stations (LCS) where cargo faces challenges such as long waiting time, multiple cargo handling, damages etc.

More number of choices to trade will reduce logistics cost and result in growth in traffic movement using IWT mode.

- **Cargo on NWs in Maharashtra:** The total traffic on Maharashtra Waterways in FY 2018-19 was 22.3 MMT. NW10-Amba River constituted the majority of the share followed by NW-85. JSW has contributed significantly towards integrated movement of cargo through inland waterways and coastal shipping in the recent past. Approx. 12 MMT of JSW's bulk cargo was moved on NW-10 during FY 2018-19 and is expected to increase to 30 MMT over the next few years. To cater these volumes, JSW has ordered 18 mini-bulk carriers from Indian and Korean Shipyards. JSW expressed that cost of putting the ships in waters is very high and only dedicated, voluminous cargo can justify the kind of investments. JSW has also invested in Paradip port for transportation of coastal cargo comprising steel, iron ore and coal.
- **Discussion on modal shift of cargo to IWT:** To further promote movement of bulk cargo on NWs, the industry stakeholders suggested that the Central Government may provide initial thrust by raising the mandate to at least 15 - 20 % volume of bulk cargo to be moved essentially through waterways. The ideal commodities could be hazardous goods, coal, fertilizers, cement, fly ash, ores, steel, POL, oversize cargo and food grains from PSUs. Apart from bulk cargo, stakeholders raised concerns over lack of sufficient bagged or container cargo for inland waterway / coastal movement as there is lack of good agglomeration services for small produce and low volume goods. Goods from farmers, MSME manufacturers and traders need to be aggregated and transported through multi modal transport including IWT. To address this, it was discussed that supply chains of agri produce and manufactured goods needs to be identified in collaboration with State Governments and subsequently role of IWT in these supply chains needs to be articulated and marketed accordingly.
- **Discussion on lack of container manufacturing in India:** The Industry stakeholders pointed out that companies in India import containers from China and South Korea because the cost is about 20-25 per cent lower as compared to manufacturing in India. Most of the companies which have a bulk dry container requirement import from these markets. Hence, Indian manufacturers find it difficult to compete. The industry purchases containers from Indian container manufacturer only when there is requirement for low volume, and custom-made containers. It is suggested to undertake a study on the market development analysis of containers in India and factors affecting the change in demand and supply. Subsequently it can be further taken up with Ministry of Commerce & Industry for discussions on possible solutions for reduction of costs.
- **Passenger transportation using cruises:** MbPT is focusing on developing and encouraging passenger movement by water transport system with a challenge to make it cheaper and faster than cabs / trains. Ro- Pax services has started between Mumbai and Mandva/ Alibaug to boost tourism. MbPT has also introduced hovercrafts for faster access to destination points. 22 hovercrafts with 12 pax capacity are currently plying between DCT (Bhauchadhakka) and Navi Mumbai/ Nerul/ Vashi/ Aeroli/ New Airport at a nominal price of Rs. 350. Commutation time for the same has been reduced

to just 25-30 minutes.

MbPT suggested that such hovercrafts can be replicated in other cities located on coastal area or along riverbanks.

- **Strengthening of Ease of Doing Business:** Adani Logistics has expressed that currently long-haul transportation of goods via IWT has the potential to reduce the logistics costs as compared to roadways and railways. They stated that the recent pilot movements of long-haul transportation (movement on NW- 1, IBP route and NW-2) faced numerous checks & barriers on route which delays the arrival of cargo at destination. It was suggested that these barriers need to be holistically reviewed and simplified for promotion of ease of doing business. Adani also raised concern over the serviceability at IWT terminals and requested for a review on realization and removal of pain points at the terminals.
- **Strengthening of River Information Systems:** Stakeholders also expressed that critical information such as LAD status and river notices are published on IWAI website with a significant delay. Industry requires assured and live status of LAD and other navigational information so that voyages can be planned and executed in a safe manner. Moreover, availability of necessary information for industry to evaluate IWT mode is not easily available through IWAI's website. Basic information such as distance between two points on national waterways, infrastructure such as jetties, cargo handling equipment, storage facilities etc. required for a cargo owner/ vessel operator to design IWT based solution are not available at a single place and are not easily accessible through IWAI's website. Industry has to call or visit offices of IWAI to get this information. IWAI stated that 24 River Information Stations (RIS) from Haldia to Varanasi have been put in place. It provides information including the water current (unit meter/second) and electronic navigation chart. However, large number of vessels, plying on the National Waterway 1, do not have corresponding Automated Information System (AIS) which is needed to communicate with River Information Systems. Stakeholders requested the Government for subsidizing installation of AIS systems on vessels. They also stated that awareness through training programs for seafarers and operators can be taken up at National Inland Navigation Institute (NINI) in Patna, to share data on River information system (RIS) and how to respond to any challenge they face at particular stretches.

6. Stakeholders conference at Patna on 11.02.2020

The Ganga-Bhagirathi-Hooghly river system from Haldia to Allahabad, a distance of about 1,620 km, declared as National Waterway-1 (NW-1) in 1986 is of national significance passing through four states of Uttar Pradesh, Bihar, Jharkhand, and West Bengal. The waterway is potentially serving the major cities of Haldia, Howrah, Kolkata, Tribeni, Katwa, Behrampur, Farakka, Rajmahal, Sahibganj, Bhagalpur, Patna, Ballia, Buxer, Ghazipur, Varanasi and Allahabad, their industrial hinterlands, and several industries located along the Ganga basin. The river basin of the Ganges is fertile and is extensively used for agriculture, resulting in significant transport demand. The river system also serves richly endowed natural reserve areas as well as a large number of industrial units comprising thermal power plants, iron & steel plant, sugar mills, cement industry, small scale industries etc.

With an initiative to on board all existing IWT stakeholders and prospective businesses to

understand and leverage the benefits of inland waterways transportation on NW-1 and promote integration with coastal shipping, IWAI in partnership with Federation of Indian Chambers of Commerce and Industry (FICCI) organized the “Stakeholders Interaction for Development and Promotion of Cargo Movement on National Waterway -1” at Patna on 11th February. The push initiated by the government through various initiatives, like the Jal Marg Vikas Project (JMVP), construction of multi modal terminals at Varanasi, Haldia and Sahibganj, development of Ro-Ro terminals amongst other, have generated private sector's interest in the recent past. The platform was an opportunity for the stakeholders to collectively deliberate and evaluate these initiatives and define roadmap for development of the economical, efficient and environment friendly mode of transport.

The inaugural session started with the speeches delivered by Chairman FICCI Sub-Committee on Inland Waterways, followed by speeches from senior official from Ministry of Shipping, State Government of Bihar and finally by Chairperson IWAI to set the context of the conference. Post the inaugural session, 2 sessions were organized to capture stakeholder's viewpoint on various topics. The major topics discussed comprised of following:

- a) National Waterway - 1: Augmenting trade on an alternative mode of transport
- b) Global best practices adopted for movement of cargo on inland waterways
- c) Fairway development plan to maintain the navigability of NW-1
- d) Dredging and operational improvements
- e) Navigational aids for safe movement of cargo
- f) Emergency response and disaster management plans for NW-1
- g) Socio-economic impact of waterways projects
- h) IWAI's Gaighat Jetty (Patna) – proposed PPP framework

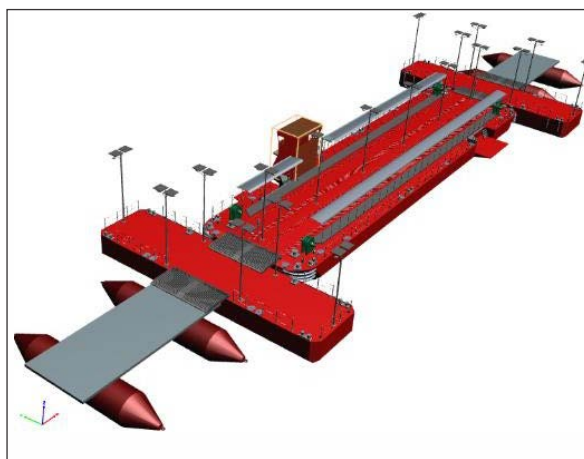
6.1 Key highlights

- Presentation by IWAI on NW-1: While addressing the stakeholders about IWAI's initiatives for the development of NW -1, Chairperson stated that IWAI is targeting 2.5 % of the total cargo movement through inland waterways in the next 5 years from the current 2 %. She highlighted that alongside roadways and railways, inland waterways should be looked as an additional medium of transportation for movement of cargo and passengers. She also mentioned that JMVP is being implemented at an estimated cost of Rs. 5369 cr. for capacity augmentation of navigation on National Waterway -1 (NW-1) on the Haldia – Varanasi stretch with the technical and financial assistance of the World Bank. She apprised that the project is scheduled to be completed by March 2023. Projects worth Rs. 1800 crores (approx.) have commenced on ground in a time period of three years after statutory clearances. On completion, JMVP will provide a supplementary, cost-effective, safe and environment-friendly mode of transport, giving the cargo operator modal choice of transport and enable socio-economic growth in Uttar Pradesh, Bihar, Jharkhand and West Bengal. She concluded by citing the various opportunities offered by NW-1 such as maintenance of waterways, dredging, terminal operations, shipbuilding and ship repair, tourism amongst others.

In addition, Vice Chairperson gave a detailed presentation on IWAI's approach to dredging

management of NW-1. He started by mentioning that the economic rate of return from the Indian inland waterways transportation is 21.44% whereas the worldwide threshold is 12% which is considered a healthy rate of return in IWT. He further spoke about various challenges related to fairway development like river siltation, sediment load, meandering and shoal formation. To overcome these issues, he apprised that IWAI has adopted assured depth-based dredging at certain stretches of River Ganga and have appointed M/s Inros Lackner SE, as Technical Support Services cum Project Management Consultant to facilitate efficient management cum supervision of contracts awarded for assured LAD on National Waterways.

- Address by IIT KGP on mechanized pontoon bridges:** Movement of vessels are obstructed on various stretches of River Ganga between Varanasi and Barh due to presence of pontoon bridges used by locals. To allow passage for vessels, a section of these pontoon bridges is being gas cut and welded back after stopping the traffic over the bridges. This activity faces much resistance by the locals adding to the time taken for completion which delays movement of vessels to reach their destination. To address this issue, IIT KGP gave a presentation on developing mechanized opening and closing of a section of pontoon bridge which would significantly reduce turnaround time for allowing passage to the vessels. This innovative technology with IIT KGP may be pursued and further be taken up with State Governments of Uttar Pradesh and Bihar for implementation.
- Discussion on Disaster Management Plans for NW-1:** Representative of KITCO gave a brief presentation on disaster management plans for NW-1. The presentation laid emphasis on causes of emergencies and operational profile of vessels. KITCO further stated about their observations on hotspots on NW-1 with regards to siltation, critical bends, obstructions, ferry crossings, wastewater disposals from vessels, agriculture intakes, aquatic biodiversity, temples, industrial establishments, common public utilities etc. KITCO also gave a brief on institutional framework in place for disaster management including acts, nodal ministries & departments, early warning agencies, incident reporting framework and key interventions required from IWAI.
- Feedback from State Government of Bihar:** State Government of Bihar emphasized on the potential of inland waterways sector in the state of Bihar and how the state is trying to unlock its capacity. It was further mentioned that the state is currently facing various concerns related to cargo transportation due to lack of proper roads and railway infrastructure. The Inland waterways could help in tackling these issues through development of essential infrastructure and financial support from central and state government. Furthermore, the state government stated the opportunities present in Ro-Ro services for transporting cargo and passengers in the state of Bihar. The State Government lauded IWAI and the World Bank for putting together a sound model of techno-commercial solution for economic value addition of all stakeholders. It was further mentioned that through sectoral co-linking and an integrated endogenous approach can lead to robust additional



growth of 1.33 per cent of the State GDP in the medium term if inland waterways are used as an infrastructure input.

- Feedback from Adani Ports:** Adani Ports and SEZ said that the India's maritime sector is on a high growth path, mainly due to the efforts done by the government to revive the inland waterways to promote the cargo movement and how it is welcomed by the industry. The riverine ports and jetties have been developed well which has helped in promoting long distance cargo transportation on the national waterways. It was further added that the industry is keenly observing the development of small jetties along the river coast for promoting short distance cargo transportation which would further encourage more industry players to participate in this segment.
- Address by World Bank on developing robust inland waterways transportation in India:** Representative of World Bank made a presentation on key success factors for development of Inland Waterways in India and emphasized on several socio-economic dimensions which needs comprehensive planning viz; network level planning, climate adaptation, aquatic biodiversity, cultural values, market development, riverside land use management, short sea shipping integration, multimodal connectivity, vessel design, sustainable cost recovery mechanisms and adopting performance based O&M frameworks. It was further emphasized on other critical success factors like skilled manpower, continuous R&D / innovation, robust river information systems and disaster management systems.

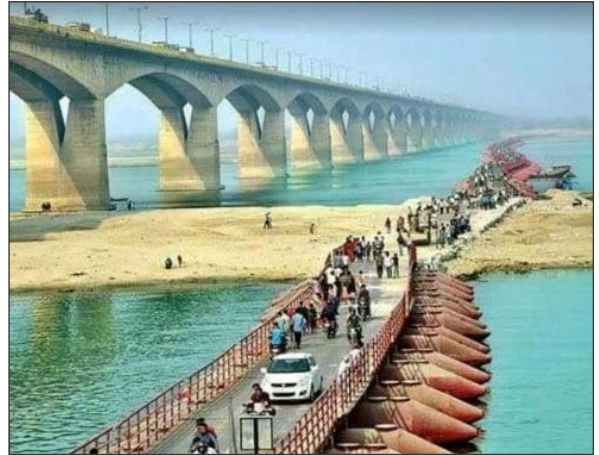


Photo Gallery



Shri Michael Lobo, Hon'ble Minister of Ports, Waste Management, Science and Technology, and Rural Development of Goa giving the inaugural speech at Goa



Shri Mauvin Goudinho, Hon'ble Minister for Transport and Legislative affairs of Goa giving the inaugural speech at Goa



Dr. Amita Prasad, Chairperson, IWAI making a presentation on Goa Waterways in Goa Conference



Shri Shashi Bhushan Shukla, Member (Traffic & Logistics) moderating a session on Emerging opportunities for Modal shift of cargo at Goa Conference



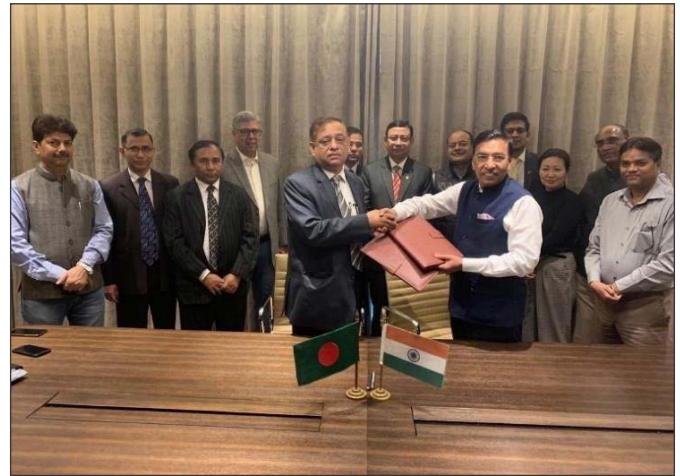
IWAI meeting with Shri Michael Lobo and other officials from Government of Goa



IWAI meeting with Goa Barge Owners Association



SSLT between India and Bangladesh



The first meeting of IGC on use of Chattogram and Mongla ports for movement of goods to and from India



Delegates from India and Bangladesh at 20th SCM of PIWT&T

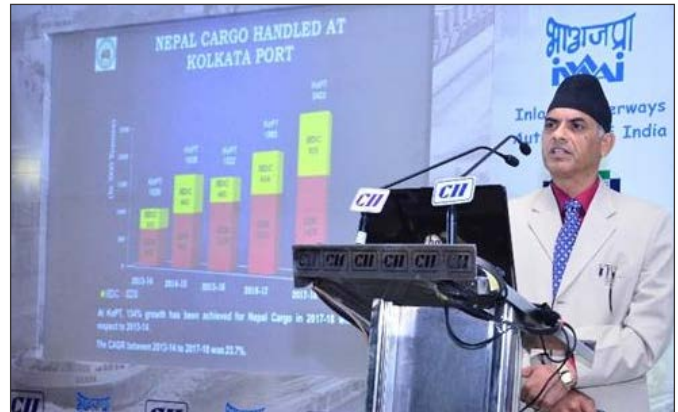


Dr. Amita Prasad, Chairperson IWA, making a presentation on emerging opportunities due to operationalization of IBP route at the stakeholder conference

4.4 Photo Gallery



Dr. Amita Prasad, Chairperson, IWAI making a presentation on regional connectivity enabled by inland waterways during the inaugural session at Kolkata



Shri Shishir Koirala, Joint Secretary, Water Resources, Govt of Nepal addressing during the inaugural session at Kolkata



Shri Vineet Kumar, Chairman, KoPT addressing during the inaugural session at Kolkata



Shri Shashi Bhushan Shukla, Member (T&L), IWAI giving a keynote address on Enhancing Regional Connectivity through IWT at Kolkata



Speakers at the inaugural session at Kolkata



Speakers at the session on Enhancing Regional Connectivity through Inland Waterways at Kolkata

5.4 Photo Gallery



Dr Amita Prasad, Chairperson IWAI addressing the inaugural session on Development of Inland Waterway systems in Kerala at Kochi



Shri Sanjay Bandopadhyay, Addl. Secretary to the Govt of India, Ministry of Shipping addressing the inaugural session at Kochi



Shri N Sivasailam, Special Secretary Logistics, Ministry of Commerce addressing the inaugural session at Kochi



Smt M Beena, CMD, Cochin Port Trust addressing the inaugural session at Kochi



Dr Vishwas Mehta, Chairman, Kerala Shipping & Inland Navigation Corporation and Addl. CS, Water Resources, Coastal Shipping & Inland Navigation, Govt. of Kerala addressing the inaugural session at Kochi



Shri Shashi Bhushan Shukla, Member (T&L) IWAI moderating a session on Kerala IWT for Urban Transport, Tourism and Cruise at Kochi

6.4 Photo Gallery



Senior officials from Government and Industry inaugurated the conference



Shri Sanjay Bandopadhyay, Addl. Secretary, Ministry of Shipping addressing during the inaugural session



Dr. Amita Prasad, Chairperson IWAI addressing during the inaugural session



Shri Sanjay Kumar, AS&FA, Ministry of Shipping addressing during the inaugural session



Shri Pravir Pandey, Vice – Chairperson, IWAI interacting with the stakeholders on fairway development works on NW-1



Shri Shashi Bhushan Shukla, Member (T&L) moderating the session on Augmenting trade potential through coastal shipping and transshipment

7.4 Photo Gallery



Dr. Amita Prasad, Chairperson IWAI addressing during the inaugural session at Mumbai



Speakers from Government and Industry during the inaugural session at Mumbai



Shri Pravir Pandey, Vice Chairperson IWAI making presentation on IWAI's approach to Dredging at Mumbai



Shri Sanjay Kumar Agarwal, Secretary, Transport Department, Govt of Bihar addressing during the inaugural session at Mumbai

16. JAL MARG VIKAS PROJECT ON NW-1

- 16.1 Inland Waterways Authority of India, a statutory body under the Ministry, is implementing the Jal Marg Vikas Project (JMVP) for capacity augmentation of navigation on NW-1 (Haldia-Varanasi stretch) with the technical assistance and financial support of the World Bank.
- 16.2 Detailed Engineering & FEED, ESIA and IWT Sector Development Strategy & Business Development Studies were carried out on NW-1 for project formulation. Based on the outcomes of these studies, a detailed proposal for implementation of JMVP at an estimated cost of Rs. 5,369.18 crores was prepared. As per this proposal, JMVP envisages to improve navigability of National Waterway-1 (NW-1) on the Haldia-Varanasi stretch of Ganga-Bhagirathi-Hooghly River System through-
- (i) **Fairway development:** Provision of LAD of 2.5/ 3 m on Haldia- Varanasi stretch, with bottom channel width of 35/45 m. This component also includes re-engineering of river bends, dredging, bandalling, bank protection works; provision of River Information System (RIS) and Vessel Traffic Management System (VTMS) etc.
 - (ii) **Civil Construction Works:** Construction of multimodal terminals at Varanasi, Sahibganj and Haldia; intermodal terminals at Ghazipur and Kalughat; Ro-Ro terminals at Rajmahal, Manikchak, Samdaghat, Manihari, Kahalgaon, Tintanga, Hasanpur, Bakhtiyarpur, Buxar and Saraikota; one new navigational lock at Farakka; and vessel repair & maintenance complexes at Sahibganj and Gaighat.
 - (iii) **Institutional strengthening and improving the investment climate; vessel design and procurement; and construction framework.**
- 16.3 The vexatious issue of requirement of environment clearance for maintenance dredging in rivers was also resolved and the Ministry of Environment, Forest & Climate Change (MoEF&CC) conveyed the decision that maintenance dredging in rivers did not require prior environment clearance and cleared the JMVP for implementation subject to IWAI implementing certain environment safety measures prescribed by MoEF&CC. Further, the Hon'ble National Green Tribunal (Principal Bench), New Delhi, through an order dated 01.11.2018, dismissed O.A. No. 487 of 2015 filed by Shri Bharat Jhunjhunwala & Ors. against IWAI & Ors. seeking a direction to the Respondents to obtain prior environmental clearance for the JMVP under the EIA Notification of 2006, as amended from time to time.
- 16.4 The proposal for implementation of JMVP at the estimated cost of Rs. 5369.18 crores, appraised and recommended by the Public Investment Board, was approved by the Cabinet Committee on Economic Affairs on 03.01.2018 with the following funding pattern:
- (a) IBRD Loan- Rs.2,512.00 crores (US\$ 375.00 million);
 - (b) Government of India Counterpart Funds (budgetary allocation and proceeds from issue of infrastructure bonds: Rs.2,556.00 crores (US\$ 380.00 million); and
 - (c) Private sector participation under PPP mode: Rs. 301.00 crores (US\$ 45.00 million).
- 16.5 After due negotiations between the Government of India and the World Bank, the Board of the Executive Directors of the International Bank for Reconstruction & Development approved the loan

of USD 375 million for the project on 12.04. 2017. The Loan Agreement between the World Bank and the Government of India and the Project Agreement between the World Bank and IWAI were signed on 02.02.2018. The Loan Agreement and the Project Agreement became effective from 23rd March, 2018.

- 16.6 On completion, JMVP will provide an alternative, cost-effective, safe and environment-friendly mode of transport and would be an attractor for industries and logistic players in and around the project corridor, enabling socio-economic growth in the region covering the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal.
- 16.7 The project implementation is planned to be completed by December, 2023 and is progressing as per this time schedule. The following observation on JMVP implementation made in the Tripartite Project Review Meeting of the World Bank ongoing projects held in Chennai on 23-24 August, 2018 validates the commendable achievements made by IWAI in the project implementation:

“The project, at this stage, is progressing ahead of the planned schedule. However, to sustain this momentum, the pending land acquisition issues affecting the timely procurement of terminals, particularly at Kalughat, need to be resolved at the earliest.”

- 16.8 The progress achieved under each component of JMVP during the period of report is summarised below:

I. Fairway Development

(i) Provision of LAD:

- Dredging Management Plan and Strategy for NW-1, approved by IWAI Board in the 164th Board Meeting held on 2.6.2017, at Agenda point 164.20 was taken up for implementation.
- Contract for Provision of least assured depth (LAD) of 3m and bottom channel width of 35/45 m on the Farakka-Kahalgaon stretch (146 Kms) through Performance Based Assured Dredging contract was awarded to M/s Adani Ports & SEZ Ltd. on 09.04.2018 at a cost of Rs.150.00 crores.
- Procurement process for Provision of LAD of 3 m and bottom channel width of 35/45 m on the Sultanganj-Mahendrapur (74 Kms) and Mahendrapur- Barh (71 km) stretches through Performance Based Assured Dredging contracts and the work was awarded for both the stretches on 06.03.2019
- Provision of LAD of 2.5 m and bottom channel width of 35/45 m on the Barh – Majhaua (167 kms) and Majhaua -Ghazipur (121 kms) stretches through Quantity based maintenance dredging contracts (Mix & Match – IWAI dredger + SP-CSD from Service Provider); Provision of LAD of 2.2 m and bottom channel width of 35/ 45 m on the Ghazipur –Saidpur stretch (76 kms) through deployment of departmental dredgers on O&M basis, with performance criteria for maintaining LAD on quantity basis; and Provision of LAD of 2.2 m and bottom channel width of 35/ 45 m on the Saidpur-Varanasi stretch (57 km) through Performance based Assured Dredging Contract are at advanced stages of finalisation.

(ii) Bank Protection Works:

- Locations requiring bank protection works have been identified in the Farakka Feeder Canal (9.438 km), Farakka to Haldia reaches (33.095 km) and river bend at Farakka (3.20 km).
- Geo-technical investigations on the Farakka Feeder Canal and river bend at Farakka have been completed.
- The draft DPR and drawings have been finalized on the basis of inputs received from the World Bank, the Farakka Barrage Project and IIT, Madras.
- A Joint Committee consisting of Addl. Chief Secretary (I&WD, Govt. of West Bengal), KoPT and IWAI was formed on 17.03.18 to discuss the modalities of carrying out the works. The Committee met on 19.06.18 and 18.01.2019.
- Regarding Farakka Feeder Canal – The technical advisory committee of Farakka Barrage project (FBP) in the meeting held on 20 and 21st February 2020 decided that FBP should carryout such maintenance work on regular basis. Moreover, FBP being owner of the project has the responsibility to maintain the feeder canal in long run.
- Regarding Bank Protection works in Bhagirathi Hooghly river system: MoS vide letter dt. 02.12.2019 informed that Bank Protection works of the river system shall be taken by Government of West Bengal within their jurisdiction in Murshidabad and Nadia Dist. out of their own budgetary resources.

(iii) Navigational Aids & RIS

- DGPS reference station with MF link was established at Swaroopganj with a view to provide sub-meter accuracy in position fixing so as to facilitate the operators to navigate their vessel smoothly and effectively along the navigational channel.
- The River Information System was made fully operational to monitor vessel movements through remote base stations at Haldia, Garden Reach (GR) Jetty, Tribeni, Swaroopganj, Kumarpur, Ballia and Farakka. These stations were integrated into two control stations at Farakka and GR Jetty. Both the control stations would monitor the vessels plying in this river stretch via Automatic Identification System (AIS) and communicate with vessels via VHF. 30 IWAI vessels were equipped with Inland AIS system, short range radar and VHF.

II. Civil Construction Works:

(i) Construction of the Multimodal terminal at Varanasi:

- The multimodal terminal, with a terminal capacity of 1.26 MTPA, is being constructed in two Phases at Ralhupur Khas, Ramnagar, Varanasi. Of the estimated requirement of 67.12 ha of land, 20.039 ha for Phase-I and Phase-II and road connectivity to NH-7 have been acquired and registered in the name of IWAI.
- Civil construction work for Phase-I of the terminal, awarded to M/s AFCONS Infrastructure Ltd. at a cost of Rs. 169.70 crores in May, 2016. Hon'ble Prime Minister inaugurated the 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. Terminal was handed over by the contractor on 23.08.2019.

- Work on road connectivity to NH-7 was completed in December, 2018.
- Rail connectivity from the IWT terminal to Jeonathpur Railway Station on the Eastern Dedicated Freight Corridor (EDFC) is planned. M/s EPIL and M/s Aarvee Associates, the consultant submitted the DPR for railway connectivity in March, 2018 approved by DFCCIL. The Engineering scale plan submitted in March, 2019 approved by North Central Railway and DFCCIL. Final location survey and general arrangement drawing of bridges are under preparation by the consultant.
- The Standing Committee of National Board for Wildlife, in its meeting held on 15.05.17, had recommended grant of permission for movement and plying of inland vessels through the Kashi Turtle Wild Life Sanctuary at Varanasi subject to IWAI taking the standard mitigation measures prescribed by the Wildlife Institute of India and conditions prescribed by the State Chief Wildlife Warden. IWAI has complied with/is complying with these mitigation measures as per the stipulations.

(ii) Construction of the Multimodal Terminal at Sahibganj:

- The multimodal terminal, with a terminal capacity of 3.03 MPTA, is being constructed in two Phases in Samdanala village of Sahibganj. Hon'ble Prime Minister laid the foundation stone of this multimodal terminal on 06.04.2017. Terminal was inaugurated on 12.09.2019.
- 192.37 acres of land requisitioned for the IWT terminal and for the road connectivity from the terminal to NH-80 have been acquired and the land is fully in the possession of IWAI. The IWT terminal is connected to NH-80 through road and will be connected to Sakarigali railway station by rail.
- Rehabilitation & Resettlement of 485 project affected families (PAFs) is being implemented by the District Administration, Sahibganj. IWAI has transferred Rs. 67.63 crores to District Administration for implementation of R&R. Out of 485 PAFs, R&R assistance paid to 417 PAFs. Two Resettlement Colonies with all required infrastructure and civic amenities are being developed on 32.28 acres of land in Samdanala and Paltanganj villages. Land for both the colonies have been acquired; plotting of the Samdanala colony was completed and plots allotted to 288 families in the joint names of husband and wife; plotting in the Paltanganj Resettlement Colony has been completed. The houses will be constructed by the District Administration at an approved cost of Rs. 5.93 lakh per house and handed over to the families. Contract for construction of 417 houses awarded by the District Administration, Sahibganj. The construction of 25 houses are completed and 25 PAFs are shifted from project land to R&R colony. The construction of the Primary School building with boundary wall, two community centers and two temples are completed in R&R colony.
- Construction work for Phase-I of the multimodal terminal, awarded to M/s Larson and Toubro on 27.10.2016 at a cost of Rs. 280.90 crores, with a completion time line of May, 2019, **achieved physical target of 99.5% and financial progress was Rs. 242.73 crores as on 31.03.2020.**
- Rail connectivity: M/s RITES has been appointed on 25.07.2018 as the consultant for development of rail connectivity from the terminal to Sakrigali Railway Station. The consultant completed the field survey in August 2018 and out of the 3 alternate alignments, initially developed, 1 alignment

was found feasible, which was also approved in principle by Eastern Railway Division, Malda on 19.09.2018. Ministry of Road Transport and Highways also conveyed in principle approval for the ROB at NH-80, Sahibganj on 29.11.2018 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 nala. Layout has been approved by IWAI and feasibility report is awaited from the consultant.

(iii) Construction of the Multimodal Terminal at Haldia:

- The multimodal terminal at Haldia, with a terminal capacity of 3.18 MPTA, is being constructed in two Phases on a 61 acres land in the Haldia Dock Complex leased from the Kolkata Port Trust (KoPT) on a 30 year tenure.
- The work on Phase-I, awarded to M/s ITD Cementations at a cost of Rs. 517.36 crores on 30.06.2017 with a completion timeline of December, 2019, **achieved physical progress of 25.01% and financial progress of Rs. 110.50 crores as on 31.12.2018.**



World Bank team visit to IWAI, MMT IWT Terminal at Haldia

- MoEF&CC granted Coastal Regulation Zone clearance for the terminal on 06.11.2017 subject to IWAI taking prescribed standard mitigation measures. IWAI has complied with/is complying with these mitigation measures as per the stipulations.

(iv) Navigational Locks at Farakka:

- The new navigational lock is being constructed on a 14.86 ha of land in the Farakka Barrage Project (FBP), taken on transfer from the FBP on 02.03.2016.

- The construction work of this lock, awarded to M/s Larsen & Toubro Ltd. on 24.11.2016 at a cost of Rs. 359.19 crores, with a completion time line of June, 2021, achieved physical progress of 74.46% (November 2020) and financial progress of Rs. 250.00 crores as on 30.11.2020.
- The existing Navigational lock at Farakka, along with land measuring 7.155 ha, was handed over to IWAI on 06.04.2018 by FBP. IWAI has initiated action for its modernization and rehabilitation to synchronize with the commissioning of the new navigational lock.
- On completion of work, both the locks will provide two-way passage to vessels across the Farakka Barrage, thereby facilitating smooth and seamless movement of vessels on NW-1.

(v) Intermodal terminal at Kalughat:

- The terminal is proposed to be constructed on a 5.159 ha (12.80 acres) land in Kalughat, Saran district of Bihar, with road connectivity to NH-19. Requisition for acquisition of the land was filed with the District Administration, Saran on 29.12.2016. Mapping/verification of land has been completed, but the land acquisition process is yet to be completed. IWAI transferred Rs. 17.83 crores to the State Government for the acquisition of land on 9.11.2019. The District Administration, Saran has allocated the SIA study of the proposed land to the AN Sinha Institute of Social Studies, Patna at a cost of Rs. 7.57 lakhs. IWAI has released the said amount to the state Government. The SIA study has been completed the report is submitted to DM, Saran on 6.12.2019. The SIA report, after inclusion of proceedings of DM saran's public hearing, was referred to an Expert Committee for the comments and vetting and the committee has recommended the land acquisition. The Preliminary notification was issued for 13.17 acres of land on 8.02.2020.
- The DPR and tender document for the terminal are at an advanced stage of finalization.
- The Terminal is being planned to handle mostly container traffic destined to Nepal.

(vi) Intermodal terminal at Ghazipur:

- The terminal is proposed to be constructed on a 8.917 ha land in Ghazipur, Uttar Pradesh. 4.386 ha of land has already been acquired and registered. Balance 4.531 ha of land is at an advanced stage of acquisition.
- The Foundation Stone for the Terminal was laid by the Hon'ble Minister for Shipping, Road Transport and Highways on 25th January, 2018.
- The DPR for the terminal is at an advanced stage of finalization.

(vii) Ro-Ro terminals:

- Locations for five pairs of Ro-Ro terminals were identified at Rajmahal and Manikchak; Samdaghat and Manihari; Kahalgaon and Tintanga; Hasnapur and Bakhtiyarpur and Buxar and Saraikota.
- Requirement of land was estimated as follows: Rajmahal -1.764 ha; Manikchak – 2.288 ha; Samdaghat – 19.2 ha; Manihari – 2.257 ha; Kahalgaon – 2.376 ha; and Tintanga – 2.038 ha. Land for the remaining four terminals is being identified.
- Draft DPRs for all the ten Ro-Ro Terminals have been submitted by the Engineering Consultant and

are under finalization.

- Topographic survey for the terminals have been completed.
- Geotechnical investigation has been completed for the Rajmahal, Manikchak and Manihari Ro-Ro Terminals.
- Consultant has been asked to submit the low-cost solution for the terminals which is now under consideration of Arth Ganga Program of JMVP.

(viii) Integrated Vessel Repair & Maintenance Complexes:

The Integrated Vessel Repair & Maintenance Complexes are proposed to be set up at Sahibganj and Gaighat (Patna).

(a) Status of Gaighat Complex

- Draft DPR has been submitted by M/s HOWE Engineering Projects India Pvt. Ltd. in May 2018. The same was examined in IWAI in detail and the observations of IWAI sent to the Consultant in May 2018. The revised DPR and tender document has been submitted by the Consultant.
- Estimated cost of civil construction for the project is Rs. 5.60 crores.

(b) Status of Sahibganj Complex

- Draft feasibility report has been received from M/s Howe Engineering Projects India Pvt. Ltd. in November 2016.
- Estimated cost of civil construction is Rs. 140 crore.
- Estimated area of land to be acquired is 19.35 ha. Requisition was filed with District Administration, Sahibganj on 05.11.2018.
- IWAI requested consultant to prepare the report for the afloat vessel repair facility at Sahibganj and the same has been submitted by the consultant and is under examination of JMVP.

III. Institutional strengthening and improving the investment climate; vessel design and procurement; and civil construction framework.

The following Consultancies and procurement actions were initiated under this component and substantial progress was achieved:

(i) Design of Inland Waterway Vessels

- M/s DST, Germany, the consultants engaged for design of Inland Waterway Vessels, submitted 13 designs of inland waterway vessels. These models were tested at the facilities of the Consultant in Nuremburg, Germany. The approved designs have been uploaded on the IWAI website for public information for the prospective vessel builders.
- In the meantime, after due assessment of market conditions, IWAI has come to the conclusion that IWAI should own at least one vessel each conforming to these designs to kick start the vessel construction activity and demonstrate their effectiveness to the private vessel builders/shippers. Accordingly, the process for getting these vessels constructed within India has been initiated.

(ii) Commercialization on NW-1

- M/s Hamburg Port Consulting, the Consultants engaged to provide consultancy services for planning and implementation of commercialisation on NW-1, had recommended arranging 20 pilot movements of cargo vessels on NW-1 by IWAI to kick start commercialisation on NW-1. Out of these, 14 pilot movements were organised and successfully implemented by IWAI.
- One of the pilot movements undertaken was by MV Rabindranath Tagore, India's container inland vessel, transporting container cargo consisting of 16 containers (equivalent to 16 truckloads) of food and snacks from Kolkata to Varanasi. This container vessel was received by the Hon'ble Prime Minister at Varanasi on 12th November, 2018.

(iii) Development of ferry services on NW-1.

- M/s Thompson Design Group and Massachusetts Institute of Technology/IAL, Consultants for providing consultancy services for development of ferry services on NW-1 were to identify suitable locations for the ferry services in Varanasi, Patna, Munger, Bhagalpur, Kolkata and Haldia to decongest the road traffic in these cities. Pre-feasibility reports, Schematic designs and draft specification drawings for the ferries at Varanasi and Patna have been submitted by the Consultants.

(iv) Communications and Outreach Programme.

- M/s. AMS Consulting (P) Limited, Lucknow, the Consultants engaged to carry out a Communications Needs Assessment Study for JMVP, had recommended a number of measures. As per these recommendations, a 26-day Outreach Programme was conducted from 16th July to 09th August, 2018 at various locations in the States of Uttar Pradesh, Bihar, Jharkhand and West Bengal.

(v) Consultancy services for study on the effect of navigational activities on dolphins in NW-1.

- M/s EQMS, who was engaged to carry out the study on 20.12.2017, submitted his Preliminary Report in July, 2018. Further study is in finalization stage.

(vi) Risk Assessment and Disaster Management Plan for NW-1.

- M/s Kitco Limited, Kochi was awarded the Consultancy for Risk Assessment and Disaster Management Plan for NW-1 on 04.04.2018 at a cost of Rs. 69.47 lakhs. Further study is in finalization stage and Final report submitted by the consultant.

(vii) Development of Asset Management Framework for NW-1

- JV of M/s KPMG Advisory Services P. Ltd.; M/s Maritime & Transport Business Solutions B.V.; and M/s Advaita Legal was awarded the Consultancy for development of a Asset Management Framework for NW-1 on 13.02.2018 at a cost of Rs. 7.95 crores.
- The Consultant has submitted RFQ, RFP and Agreement for Operation, Maintenance and Development of the Multi-Modal Terminal, Varanasi under PPP. The process to award the operation, management and further development of the multimodal terminal in Varanasi is at an advanced stage of completion.
- Initial RFQ for Operation and Maintenance (O&M) of Varanasi MMT was rolled out on 8 Jun 2018 to gauge private sector interest towards the project. Subsequently, pre-application meeting was

conducted on 22 Jun 2018 wherein it was suggested by interested private parties to include expansion phase as part of the project. IWAI agreed to the request as this shall reduce financial burden of expansion phase from the Government.

- RFQ was accordingly modified and transaction model was changed from “Operation, Maintain and Transfer” to “Operation, Management and Development”. A modified RFQ was therefore published on 11 Jul 2018 against which submissions were invited.
- Pre-bid meetings with the prospective bidders were held on 19.08.2019 and on 03.10.2019.
- No bids were received for Varanasi MMT OMD project on bid due date on 15 Jan 2020.
- After internal deliberation during meeting with the Secretary, Ministry of Shipping on 22 Jan 2020, it was decided that an alternative model viz. Equip, Operate and Transfer (EOT) may be adopted for Varanasi MMT. A workshop was then held on 31 Jan 2020 to gauge market interest towards the alternative model and IWAI received a positive response and healthy participation by various prospective bidders.

(viii) Technical Support Services for execution of civil works under JMVP

- JV of M/s Egis India Consulting Engineers Pvt. Ltd & Egis France International was awarded the consultancy contract for technical support services for the civil works on the Varanasi-Sahibganj stretch on 22.01.2018.
- JV of M/s Arkitechno Consultants (I) Pvt. Ltd, Bhubaneswar and M/s IR CLASS Systems & Structures Pvt. Ltd., Mumbai was awarded the consultancy contract for technical support services for the civil works on the Farakka- Haldia stretch on 08.11.2017.
- Tendering process for engagement of a Consultant for technical support services for the dredging contracts under JMVP is at an advanced stage of finalization.

(ix) Selection of NGO for Implementation of Resettlement Action Plan for Sahibganj

NGO M/s CRADLE has been engaged for carrying out the work for Implementation of Resettlement Action Plan (RAP) at Sahibganj on 16th December 2019. The NGO has submitted the Inception Report.

(x) ESIA, EMP and RAP for additional interventions in JMVP

Consultancy for ESIA, EMP and RAP was awarded to M/s Eco-chem sales and services on 27.02.2019 and the study is in progress.

The National Waterways Act, 2016

Government of India has declared 111 waterways as National Waterways through National Waterways Act, 2016 enacted on 12.04.2016. These are:-

Sl#	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, Karnataka, Tamil Nadu, Pondichery, Chhatisgarh 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) Maharashtra, Telangana, Andhra Pradesh & Chattisgarh	

Sl#	National Waterway No.	Length (km)	Details of Waterways	STATES
		636	River Krishna (Wazirabad-Galagali) Karnataka, Telangana & Andhra Pradesh	
5	National Waterway 5	256	East Coast Canal and Matai river	Odisha and West Bengal
		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
10	National Waterway 10	45	AMBA RIVER	Maharashtra
11	National Waterway 11	99	ARUNAWATI - ARAN RIVER SYSTEM	Maharashtra
12	National Waterway 12	6	ASI RIVER	Uttar Pradesh
13	National Waterway 13	11	AVM CANAL	Kerala & Tamil Nadu (8.5km)
14	National Waterway 14	48	BAITARNI RIVER	Odisha
15	National Waterway 15	135	BAKRESWAR -MAYURAKSHI RIVER SYSTEM	West Bengal
16	National Waterway 16	121	BARAK RIVER	Assam
17	National Waterway 17	189	BEAS RIVER	Himachal Pradesh & Punjab
18	National Waterway 18	69	BEKI RIVER	Assam
19	National Waterway 19	67	BETWA RIVER	Uttar Pradesh
20	National Waterway 20	95	BHAVANI RIVER	Tamil Nadu
21	National Waterway 21	139	BHEEMA RIVER	Karnataka & Telangana
22	National Waterway 22	156	BIRUPA - BADI GENGUTI - BRAHMANI RIVER SYSTEM	Odisha
23	National Waterway 23	56	BUDHA BALANGA	Odisha

Sl#	National Waterway No.	Length (km)	Details of Waterways	STATES
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
31	National Waterway 31	114	DHANSIRI / CHATHE	Assam
32	National Waterway 32	63	DIKHU RIVER	Assam
33	National Waterway 33	61	DOYANS RIVER	Assam
34	National Waterway 34	137	DVC CANAL	West Bengal
35	National Waterway 35	108	DWAREKESWAR RIVER	West Bengal
36	National Waterway 36	119	DWARKA RIVER	West Bengal
37	National Waterway 37	296	GANDAK RIVER	Bihar & Uttar Pradesh
38	National Waterway 38	62	GANGADHAR RIVER	Assam & West Bengal
39	National Waterway 39	49	GANOL RIVER	Meghalaya
40	National Waterway 40	354	GHAGHRA RIVER	Bihar & Uttar Pradesh
41	National Waterway 41	112	GHATAPRABHA RIVER	Karnataka
42	National Waterway 42	514	GOMTI RIVER	Uttar Pradesh
43	National Waterway 43	10	GURUPUR RIVER	Karnataka
44	National Waterway 44	63	ICHAMATI RIVER	West Bengal
45	National Waterway 45	650	INDIRA GANDHI CANAL	Punjab, Haryana & Rajasthan
46	National Waterway 46	35	INDUS RIVER	Jammu & Kashmir
47	National Waterway 47	131	JALANGI RIVER	West Bengal
48	National Waterway 48	615	JAWAI-LUNI-RANN OF KUTCH RIVER SYSTEM	Gujarat & Rajasthan
49	National Waterway 49	110	JHELMUM 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

Sl#	National Waterway No.	Length (km)	Details of Waterways	STATES
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	KOPI LI RIVER	Assam
58	National Waterway 58	233	KOSI RIVER	Bihar
59	National Waterway 59	19	KOTTAYAM-VAIKOM CANAL	Kerala
60	National Waterway 60	80	KUMARI RIVER	West Bengal
61	National Waterway 61	28	KYN SHI 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	MANJIRA 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	PAZH YAR RIVER	Tamil Nadu

Sl#	National Waterway No.	Length (km)	Details of Waterways	STATES
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
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	
		15	CHHOTA KALAGACHI (CHHOTO KALERGACHI) RIVER	
		7	GOMAR RIVER	
		16	HARIBHANGA RIVER	
		37	HOGLA (HOGAL)-PATHANKHALI RIVER	

Sl#	National Waterway No.	Length (km)	Details of Waterways	STATES
		9	KALINDI (KALANDI) RIVER	West Bengal
		22	KATAKHALI RIVER	
		99	MATLA RIVER	
		28	MURI GANGA (BARATALA) RIVER	
		53	RAIMANGAL RIVER	
		14	SAHIBKHALI (SAHEBKHALI) RIVER	
		37	SAPTAMUKHI RIVER	
		64	THAKURRAN RIVER	
98	National Waterway 98	377	SUTLEJ RIVER	Himachal Pradesh & Punjab
99	National Waterway 99	62	TAMARAPARANI RIVER	Tamil Nadu
100	National Waterway 100	436	TAPI RIVER	Maharashtra & Gujarat
101	National Waterway 101	42	TIZU - ZUNGKI RIVERS	Nagaland
102	National Waterway 102	87	TLWANG (DHALESWARI RIVER)	Assam & Mizoram
103	National Waterway 103	73	TONS RIVER	Uttar Pradesh
104	National Waterway 104	232	TUNGABHADRA RIVER	Karnataka, Telangana & Andhra Pradesh
105	National Waterway 105	15	UDAYAVARA RIVER	Karnataka
106	National Waterway 106	20	UMNGOT (DAWKI) RIVER	Meghalaya
107	National Waterway 107	46	VAIGAI RIVER	Tamil Nadu
108	National Waterway 108	53	VARUNA RIVER	Uttar Pradesh
109	National Waterway 109	166	WAINGANGA - PRANAHITA RIVER SYSTEM	Maharashtra & Telangana
110	National Waterway 110	1081	YAMUNA RIVER	Delhi, Haryana & Uttar Pradesh
111	National Waterway 111	50	ZUARI RIVER	Goa

17. FINANCIAL PERFORMANCE

Income & Expenditure :

During the financial year 2019-20, a sum of Rs52676.92 lakh was received from the Government of India, Ministry of Shipping and balance fund of Rs. 31088.79 lakh raised through Extra Budgetary Resources (EBR). A sum of Rs.2995.98 lakh was earned by the Authority by way of interest on short term deposits, sale of tender forms, over dimension Cargo/general Cargo movement, berthing/Pilotage chargers etc; The major scheme-wise expenditure is indicated below:-

Sl. No.	Name of the scheme	(Rs. in Lakh)	
		Expenditure	
		Previous Year 2018-19	Current Year 2019-20
1	National Waterway No – 1		
(i)	River Conservancy Works	6128.38	4642.00
(ii)	Construction of Cargo berth/ Terminals	13255.07	6497.56
(iii)	Installation of DGPS Station	12.75	0.00
(iv)	Installation of RIS System	214.81	143.40
(v)	Acquisition of RO-PaxVessels	594.00	3776.72
(vi)	NINI	246.87	219.06
(vii)	IWT Promotion Activities	657.55	231.91
	Sub-Total	21109.43	15510.65
2	National Waterway No – 2		
(i)	River Conservancy Works	2059.56	2214.72
(ii)	Construction & Maintenance of Terminals	744.58	550.43
(iii)	Construction of RO-RO Terminal	0.00	
(iv)	Acquisition of RO-PaxVessels	2280.00	2086.31
(v)	Construction of cargo vessels	1802.61	0.00
(vi)	Bank protection work	0.80	
(vii)	Installation of DGPS Station	0.00	0.13
(viii)	Information Technology Related Expenses	23.57	1.97
(ix)	Development of Protocol route	239.30	270.63
(x)	Land for terminal	0.05	0.00
(xi)	O&M of cargo vessels and IWT promotion activities	561.49	304.23
(xii)	TEF/DPR/CRZ/Studies for NWs (NER)	2648.43	248.86
(xiii)	Consultancy charges and PMU expenses	0.00	164.79
	Sub-Total	10360.39	5842.07
3	National Waterway No. – 3		
(i)	River Conservancy works	929.57	399.67
(ii)	Construction of Terminals	217.02	114.80
(iii)	Construction & repairs of locks	0.00	796.66
(iv)	Acquisition of RO-PaxVessels	351.00	1295.82
	Sub-Total	1497.59	2606.95

Sl. No.	Name of the scheme	(Rs. in Lakh)	
		Expenditure	
		Previous Year 2018-19	Current Year 2019-20
4	National Waterway No. – 4		
(i)	Development work	1734.66	413.43
	Land Acquisition at Harischandrapur	0.00	0.00
	land-Acquisition at Muktyala	41.73	
	Construction of floating Steel Pontoon	303.52	27.81
	Sub-Total	2079.91	441.24
5	National Waterway No. – 5		
(i)	Development work	223.81	329.60
	Sub-Total	223.81	329.60
6	Jal Marg Vikas Project		
(i)	Lease land Haldia	0.00	1365.82
(ii)	Consultancy charges and PMU expenses	2941.99	2617.16
(iii)	Terminal Facilities Expenses	0.00	0.00
(iv)	Acquisition of Land-Sahebganj	144.00	0.00
(v)	Maintence of Navigational in Farakka Kahalgaon of NW-1	0.00	6170.48
(vi)	Setup of Trust for turtle wildlife sanctuary Management	90.37	0.00
(vii)	GEO Technical Investigation on Terminal	0.00	0.00
(viii)	Construction of Multimodal terminal Hhaldia	16457.80	20191.15
(ix)	Construction of Multimodal – Sahebganj	5964.62	4573.81
(x)	Construction of Multimodal – Varanasi	7444.34	756.69
(xi)	Construction of New Navigational Lock Farakka	8169.37	8732.07
(xii)	Acquisition of Land Varanasi	1880.48	0.00
(xiii)	Study for Kalughat Terminal	0.00	1775.58
	Sub-Total	43092.97	46182.76
7	I.T. activities expenses	94.41	45.69
8	Indian Institute of Technoogy Madras	403.20	0.00
9	IWT Development Fund	166.36	221.60
10	Establishment	6739.51	4380.88
11	Project Management Consultancy	-	-
12	Bond Related exp.	7652.34	7643.34
13	Mormugao Port Trust		815.04
14	Inco Mechel Pvt. Ltd		71.78
15	Freight Village		78.80
16	New National Waterways	1636.71	1144.35
	Sub-Total	16692.53	14401.48
	Grand Total	95056.63	85314.75

18. IMPLEMENTATION OF OFFICIAL LANGUAGE POLICY OF UNION IN THE AUTHORITY :

The Authority is committed to implement official language policy of the Union in all its activities in a progressive manner. Hindi workshops and other related activities were periodically organized at the head office and regional offices. Hindi fortnight/week/day was organized at the Head Office and Regional Offices. On this occasion different types of Hindi competitions were organized in all the offices.

The Authority has been entrusted with the additional responsibility of implementing the official language policy of the Union in all the member offices of the Town Official Language Implementation Committee (T.O.L.I.C.), Noida by the Department of Official Language of the Ministry of Home Affairs. The Chairman of the Authority is the Chairman of T.O.L.I.C.(Office), Noida. A half-yearly meeting was organized regularly to discuss problems and difficulties being faced by the different member offices of the T.O.L.I.C.(Office), Noida. In order to encourage personnel of the member offices to work more and more in Official Language different types of Hindi Competitions, Workshops and other related activities were organized from time to time under the auspices of T.O.L.I.C.(Office), Noida. Also, the children of the personnel of member offices who secure outstanding marks in 10th and 12th examinations are awarded each year with 'Hindi Pratibha Award'.

19. PERSONNEL AND ADMINISTRATION

As on 31-03-2020, 29 Officers and 58 staff at the head office and 31 Officers and 183 staff in the field offices were in position.

ACKNOWLEDGEMENT

IWAI places on record its appreciation of the sincere efforts and contribution made by the employees at all levels.

IWAI also acknowledges the assistance and support given by the Ministry of Shipping, Comptroller & Auditor General of India and other Government departments and other agencies.

FOR AND ON BEHALF OF
INLAND WATERWAYS AUTHORITY OF INDIA

A handwritten signature in blue ink, belonging to Dr. Amita Prasad, is positioned above the printed name.

(DR. AMITA PRASAD)
CHAIRPERSON

INLAND WATERWAYS AUTHORITY OF INDIA

20. BALANCE SHEET AS AT 31st MARCH 2020

(Amount in Rs.)

PARTICULARS	SCHEDULES	CURRENT YEAR	PREVIOUS YEAR
I. SOURCES OF FUND			
(i) CORPUS/CAPITAL	3		
(a) CAPITAL U/S 11 (1) (C) OF IWAI ACT		9,437,244.00	9,437,244.00
(b) IWAI FUND U/S 19 OF IWAI ACT		17,764,289,668.00	15,751,695,114.00
(ii) RESERVES & SURPLUS	4	-	-
(iii) EARMARKED/ENDOWMENT FUNDS	5	-	-
(iv) NON CURRENT LIABILITIES AND PROVISIONS			
(a) LONG - TERM BORROWINGS	6	10,000,000,000.00	10,000,000,000.00
(b) OTHER NON CURRENT LIABILITIES	7	723,049,770.00	405,273,225.00
(c) LONG TERM PROVISIONS	8	16,557,618.00	17,847,070.00
(v) CURRENT LIABILITIES & PROVISIONS			
(a) SHORT TERM BORROWINGS	9	251,627,916.00	250,966,575.00
(b) SUNDRY CREDITORS	10	1,839,268,669.00	112,255,237.00
(c) OTHER CURRENT LIABILITIES	11	808,390,903.00	1,730,220,997.00
(d) PROVISIONS	12	10,791,641.00	6,484,145.00
TOTAL		31,423,413,429.00	28,284,179,607.00
II. APPLICATION OF FUND			
(i) FIXED ASSETS	13		
(a) TANGIBLE ASSETS GROSS BLOCK		16,734,760,431.00	13,709,283,525.00
LESS: DEPRECIATION		(3,210,981,476.00)	(2,879,909,948.00)
(b) INTANGIBLE ASSETS GROSS BLOCK		14,740,301.00	13,617,225.00
LESS: DEPRECIATION		(12,338,199.00)	(11,538,022.00)
(c) CAPITAL WORK - IN - PROGRESS	14	11,498,146,365.00	9,315,225,032.00
(d) INTANGIBLE ASSETS UNDER DEVELOPMENT	14	-	
(ii) NON CURRENT ASSETS, LOANS AND ADVANCES			
(a) NON CURRENT INVESTMENTS	15	104,235,203.00	104,235,203.00
(b) DEPOSITS, LOANS AND ADVANCES	16	1,718,748,100.00	1,860,288,233.00
(c) OTHER NON CURRENT ASSETS	17	180,913,276.00	84,107,864.00
(d) MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
(iii) CURRENT ASSETS, LOANS AND ADVANCES			
(a) CURRENT INVESTMENTS	18	21,373,281.00	-
(b) INVENTORIES	19	22,291,414.00	49,863,992.00
(c) SUNDRY DEBTORS	20	119,532,070.00	123,884,856.00
(d) CASH AND CASH EQUIVALENTS	21	2,710,216,410.00	4,929,182,213.00
(e) DEPOSITS, LOANS AND ADVANCES	22	1,511,575,773.00	967,580,815.00
(f) OTHER CURRENT ASSETS	23	10,200,480.00	18,358,619.00
TOTAL		31,423,413,429.00	28,284,179,607.00
Note: (A) Significant Accounting Policy	1		
(B) Notes to accounts forms an integral part of the financial statements	2	-	-



(A. K. Gupta)
Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman

For and on behalf of the Authority



(Dr. Amita Prasad)
Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA
21. INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2020

(Amount in Rs.)

PARTICULARS	SCHEDULES	CURRENT YEAR	PREVIOUS YEAR
I. INCOME			
(a) REVENUE GRANTS/SUBSIDIES			
- FROM CENTRAL GOVERNMENT		1,201,765,000.00	1,587,102,000.00
- FROM STATE GOVERNMENT(S)			
- INTERNATIONAL ORGANIZATIONS			
- OTHERS (SPECIFY)			
(b) TRANSFERRED FROM IWAI FUND		321,576,653.00	270,004,071.00
(c) OTHER INCOME (NATURE TO BE SPECIFIED)			
TOTAL INCOME (A)		1,523,341,653.00	1,857,106,071.00
II. EXPENDITURE			
(a) OPERATIONAL & MAINTENANCE EXPENSES	24	1,747,673,373.00	1,914,413,324.00
(b) PERSONNEL & ADMINISTRATIVE EXPENSES	25	420,016,647.00	578,024,205.00
(c) FINANCE CHARGES	26	764,423,890.00	763,052,369.00
(d) DEPRECIATION	13	321,576,653.00	270,004,071.00
(e) SUBSIDIES		-	-
(f) EXPENDITURE ON GRANT, SUBSIDIES ETC.		-	-
TOTAL EXPENDITURE (B)		3,253,690,563.00	3,525,493,969.00
EXCESS OF INCOME OVER EXPENDITURE/EXCESS OF EXPENDITURE IF IT		(1,730,348,910.00)	(1,668,387,898.00)
ADD/LESS: PRIOR PERIOD ITEMS	27	(1,167,889.00)	684,745,277.00
ADD/LESS: EXTRAORDINARY ITEMS			
ADD/LESS: TRANSFER TO/FROM SPECIAL RESERVES (NATURE TO BE SPECIFIED)		-	-
ADD/LESS: TRANSFER TO/FROM GENERAL RESERVE			
BALANCE BEING SURPLUS/ (DEFICIT) TRANSFERRED TO IWAI FUND			
		(1,731,516,799.00)	(983,642,621.00)
Note: (A) Significant Accounting Policy			
(B) Notes to accounts forms an integral part of the financial statements	1 2		

For and on behalf of the Authority


(A. K. Gupta)
Director (F&A)

(Rajesh Kumar Pathak)
Member (Finance)

(Pravir Pandey)
Vice-Chairman

(Dr. Amita Prasad)
Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA

22. RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st MARCH 2020

(Amount in Rs.)

PARTICULARS	Current Year	Previous Year
RECEIPTS		
(I) OPENING BALANCE		
(a) CASH IN HAND		
- INR	33,876.00	27,723.00
- FOREIGN CURRENCY	-	-
(b) STAMPS IN HAND	1,940.00	-
(c) CASH WITH BANK	(9,300,176.09)	588,961,394.00
(d) SHORT TERM DEPOSIT WITH BANK	4,940,708,362.89	5,116,196,763.00
(e) REMMITANCE IN TRANSIT	-	-
(II) GRANTS RECEIVED		
(a) FROM CENTRAL GOVERNMENT	5,330,072,454.00	4,205,400,000.00
(b) FROM STATE GOVERNMENT	-	-
(c) INTERNATIONAL ORGANIZATIONS	-	-
(d) OTHER GRANTS (NATURE TO BE SPECIFIED)	-	-
(III) RECEIPT FROM BORROWINGS		
(a) FROM BONDS/SECURITIES	-	-
(b) FROM LOANS	-	-
(c) FROM OTHERS (IWAI FUND & Other)	2,218,996,738.67	4,654,657,509.00
(IV) INTERNAL RECEIPTS		
(a) RENT RECEIVED		
- RENTAL INCOME (BUILDING)	8,565,773.00	19,682,057.00
- RENTAL INCOME (OTHER TO BE SPECIFIED)	534,885.00	-
(b) INTEREST INCOME RECEIVED		
- INTEREST ON SHORT TERM DEPOSITS	203,631,213.17	80,487,337.00
- INTEREST ON STAFF ADVANCE	2,256.00	-
- INTEREST ON MOBILISATION ADVANCE	-	-
- OTHER INTEREST RECEIVED (TO BE SPECIFIED)	6,545,152.75	23,656,284.00
(c) OTHER INTERNAL RECEIPTS (NATURE TO BE SPECIFIED)		
- INCOME FROM INVESTMENTS	-	-
- CONSULTANCY CHARGES	3,647.00	-
- WATERWAY USES CHARGES	4,047,523.00	5,126,430.00
- BERTHINGE CHARGES	2,079,000.00	-
- TOWAGE CHARGES	-	-
- PILOTAGE CHARGES	803,581.00	-
- TERMINAL CHARGES	74,306,079.64	-
- TRANSIT SHED CHARGES	-	-
- MOVEMENT OF OVER DIMENSIONAL CHARGES (ODC)	-	-
- CRANE (INCLUDING PONTOON CRANE) HIRE CHARGES	-	-
- CONTAINER CRANE CHARGES	-	-
- FORK LIFT CHARGES	-	-

PARTICULARS	Current Year	Previous Year
RECEIPTS		
- ELECTRIC SUPPLY TO THE VESSEL		-
- WHARFAGE		-
- DEMURRAGE	-	-
- SALE OF TENDER FORMS	384,624.02	63,000.00
- PROTOCOL FEES	3,662.24	1,500.00
- SALE OF NAVIGATION CHARTS	68,350.00	-
- VESSELS HIRE CHARGES	-	-
- HOSTEL ETC. CHARGES	-	-
- TUTION FEES	-	
- UNIFORM CHARGES	-	
- RECEIPTS ON SALE OF FIXED ASSETS	-	211,694.00
- SECURITY DEPOSITS RECEIVED	12,355,718.00	20,000,137.00
- EARNEST MONEY RECEIVED	27,327,851.36	26,058,640.00
- RECOVERY OF ADVANCES	11,244,823.61	95,203,746.00
- RECOVERY FROM DEBTORS	-	-
- RECOVERY FROM NPS TRUST	-	-
- MISCELLANEOUS RECEIPTS	106,828,585.00	11,905,006.00
-		
TOTAL	12,939,245,920.26	14,847,639,220.00
PARTICULARS	Current Year	Previous Year
PAYMENTS		
(I) EXPENDITURES		
(a) OPERATIONAL AND MAINTENANCE EXPENSES	4,081,965,972.94	70,827,810.00
(b) PERSONNEL EXPENSES	227,482,746.00	399,455,221.00
(c) FINANCE CHARGES	359,510.40	75,829.00
(d) PRIOR PERIOD EXPENSES	-	142,045.00
(II) REPAYMENTS OF BORROWINGS		
(a) REPAYMENTS OF BOND/SECURITIES	-	-
(b) REPAYMENTS OF LOAN	-	-
(III) INVESTMENTS & DEPOSITS MADE		
(a) OUT OF EARMARKED FUNDS.	-	-
(b) OUT OF OWN FUNDS.	-	-
(IV) EXPENDITURE ON FIXED ASSETS & CAPITAL WORK-IN-PROGRESS'		
(a) PURCHASE OF FIXED ASSETS	29,214,662.00	709,206,801.00
(b) EXPENDITURE CAPITAL WORK-IN-PROGRESS'	408,300,000.00	9,554,363.00
	-	-
(V) PAYMENTS OF LOAN & ADVANCE		
(a) HOUSE BUILDING ADVANCE	1,206,371.00	3,706,024.00
(b) DEPARTMENTAL ADVANCE	6,913,937.00	7,671,500.00
(c) TRAVELLING ADVANCE	2,452,926.00	8,130,468.00
(d) LTC ADVANCE	29,614.00	3,405,882.00

PARTICULARS	Current Year	Previous Year
PAYMENTS		
(e) MEDICAL ADVANCE TO STAFF	454,822.00	25,000.00
(f) PERSONAL COMPUTER (P.C) ADVANCE	-	38,440.00
(g) OTHER ADVANCE TO STAFF	7,627,891.00	174,302.00
(h) ADVANCE TO SUPPLIERS & CONTRACTORS	342,890,537.00	1,152,993,148.00
(VI) REFUND OF UNUTILISED GRANTS /SUBSIDY		
(a) TO THE GOVT. OF INDIA	-	
(b) TO THE STATE GOVT.	-	
© TO OTHER PROVIDERS OF FUNDS	-	
(VII) OTHER PAYMENTS		
(a) REFUND OF SECURITY DEPOSIT	256,922,642.00	246,544,926.00
(b) REFUND OF EARNEST MONEY	41,877,961.00	2,929,695.00
(c) SECURITY DEPOSIT PAID	500,000.00	1,177,337.00
(d) DUTIES AND TAXES PAID	312,074,430.91	512,395,266.00
(e) PREPAID EXPENSES	-	30,462.00
(f) PAYMENT TO MINISTRY OF SHIPPING (INTERNAL RECEIPT)	173,890,019.00	247,250,021.00
(g) PAYMENT ON PENSION CONTRIBUTION		-
(h) PAYMENT ON BEHALE OF THIRD PARTY		-
(i) PAYMENT ON GPF CONTRIBUTION	4,364,440.00	42,657,725.00
(j) PAYMENT ON GPF ADVANCE RECOVERY	78,432.00	-
(k) PAYMENT OF WITHELD TAXES	625,544,297.00	7,830.00
(l) PAYMENT TO SUPPLIERS & CONTRACTORS	203,012,034.00	5,567,246,126.00
(m) PAYMENT OF BOND RELATED EXPENSES	41,986.00	625,177,225.00
(n) PAYMENT OF VERIOUS RECOVERIES TO RELATED DEPARTMENTS	(7,209,539.00)	11,824,802.00
(o) PAYMENT FOR PROVISIONS	46,471,178.00	295,562,836.00
(p) OTHER EXPENSES	97,174,390.52	292,492.00
(r) DONATION TO RELIEF FUND	-	43,428.00
(VIII) CLOSING BALANCE		
(a) CASH IN HAND		
- INR	27,492.00	35,819.00
- FOREIGN CURRENCY	-	-
(b) STAMPS IN HAND	-	-
(c) CASH WITH BANKS	3,365,388,249.27	1,009,984,233.00
(d) SHORT TERM DEPOSIT WITH BANK	2,710,188,918.22	3,919,162,164.00
(e) REMMITANCE IN TRANSIT		
TOTAL	12,939,245,920.26	14,847,729,220.00

For and on behalf of the Authority



(A. K. Gupta)
Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman



(Dr. Amita Prasad)
Chairperson

SCHEDULE -1

23. “SIGNIFICANT ACCOUNTING POLICIES”**1. Basis of Preparation of Financial Statements:**

The financial statements have been prepared in accordance with Indian Generally Accepted Accounting Principles (GAAP) under the historical cost convention on the accrual basis and the applicable accounting standards issued by the Institute of Chartered Accountants of India (ICAI) except otherwise reported, as these accounting policies and standard have been consistently applied.

2. Credit to, and debit from fund:

The following shall be credited into the Fund, namely: -

- a. Any Grants received from Government (s) for acquiring assets, development and maintenance of infrastructure facility
- b. All fees, charges and other internal receipts received by the Authority.
- c. All sums received by the Authority from such other sources as may be decided upon by the Central Government.
- d. Any other grants received by the authority.
- e. Any surplus of Income & Expenditure account.

The following shall be debited from the Fund, namely:-

- a. Any amount payable to Government of India (GOI) as per their instructions.
- b. Amount equivalent to depreciation on fixed assets which are purchased out of grants.
- c. Book value of fixed assets, which is sold/written off during the year and the assets have been purchased earlier out of grant.
- d. Any deficit of “Income and expenditure” Account.

3. Treatment of Grants:

- a. Government grants related to revenue used for personnel and general administrative expenses and any other grants specified as revenue grants shall be recognized in the “Income and Expenditure Accounts” as revenue grants.
- b. The Government grants related to acquisition of assets, development and maintenance of infrastructure and other related activities shall be credited to Fund and Deferred Income Method of accounting shall be adopted for such grants.

4. Manner of accounting of Fixed Assets:

The following manner shall be adopted for accounting of fixed assets, namely:-

- a. Any fixed asset, including property, Plant and Equipment shall be assessed initially at cost of acquisition or construction which shall also include any cost directly attributable to bringing

the assets to the location or condition necessary for it to be capable of operating in the manner intended.

- b. After deducting accumulated depreciation or amortization and accumulated impairment losses, if any, from the initial assessed cost of fixed assets, the net cost shall be carried forward to the next year.
- c. Property, Plant and Equipment shall be capitalized on the date of transfer of ownership or date of put to use whichever is earlier.
- d. Cost of material, construction or erection charges and other expenses incurred for the construction of fixed assets shall be shown as Capital-Work-in-Progress based on progress of construction or erection work till the date of capitalization.
- e. Depreciation shall be:
 - charged on straight line method of depreciation.
 - provided at the rates and in the manner specified in Schedule II of the Companies Act 2013 (18 of 2013) using the useful lives and residual values as basis, except where the useful life of the asset is otherwise specified by the authority.
 - provided on the pro-rata time proportion basis in case of the new assets acquired or disposed of during the year.
 - Intangible assets are amortized over their respective individual estimated useful lives on straight line method, commencing from the date the asset is available to the authority for its use but not exceeding a period of ten years.

5. Inventory Valuation:

Inventories viz. Stores, Spares and tools (including machinery spares) etc. are valued at cost.

6. Revenue Recognition:

All Revenue has been recognized on accrual basis.

7. Investment:

Investments classified as “long term Investments” are carried at cost and provision for decline, other than temporary, have been made in carrying cost of such investments.

8. Lease:

Lease rental shall be booked as expenditure as per lease terms.

9. Retirement benefits:

Provision for all employee's benefits are created as per applicable Accounting Standard-15.

10. Prior Period Items:

The details of prior period items, being income or expenditure of more than Rs. 25000/- which arise in the current period as a result of errors or omissions in the preparation of the financial statements of one or more prior periods shall be separately disclosed in the statement of income and expenditure account in a manner that their impact on the current surplus or deficit can be perceived in accordance

with the provisions of applicable Accounting Standard.

11. Treatment of expenses:

- a. Expenditure on hydrographic survey, studies (i.e. feasibility study, DPR, EIA, SIA etc.) bandalling, bottom-paneling, dredging, operation and maintenance of terminals, temporary structure in channel marking maintenance of vessels and such other expenditure shall be treated as revenue expenditure.
- b. expenditure on creation of permanent structures in channel marking, terminal construction and land, cost of vessels, survey launches, tugs, barges, dredgers, and such other expenditure shall be treated as capital expenditure.
- c. Salary, Wages & Other Administration Expenses incurred on various projects of waterways is allocated to respective waterways as per deployment.

12. Provision for Bad or Doubtful Debts:

Provision for bad and doubtful debts shall be recognized on the basis of management estimates which would be based upon the past experience of the management and any event or dispute arising with the debtors.

13. Contingent Liabilities and Contingent Assets:

- a. A provision shall be recognized if, as a result of a past event, the authority has a present legal obligation that can be estimated reliably, and it is probable that an outflow of economic benefits shall be required to settle the obligation.
- b. Provisions shall be determined by the best estimate of the outflow of economic benefits required to settle the obligations at the reporting date.
- c. Where no reliable estimate can be made, a disclosure is made as contingent liability.
- d. A disclosure for a contingent liability is also made when there is a possible obligation or a present obligation that may, but probably will may not, require an outflow of resources.
- e. Contingent assets are neither recognized nor disclosed in the financial statements.

14. Foreign Currency Transactions:

Foreign exchange transactions relating to purchase or acquisition of, or in relation to fixed assets, goods and services accounted for at the exchange rates prevailing as on the date of the transaction.

For and on behalf of the Authority



(A. K. Gupta)
Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman



(Dr. Amita Prasad)
Chairperson

Schedule-2

24. NOTES TO ACCOUNTS FORM INTEGRAL PART OF FINANCIAL STATEMENTS AS ON 31.03.2020

- 1.(i) In F. Y. 2019-20, the Authority incurred the following expenditure in respect of Key Management Personnel (KMP) and full time Members:

(Figures in Rupees)

Sl. No.	Name of the Official	Designation	Period (From – To)	Emoluments	Travelling Expenses	Total
1.	Dr. Amita Prasad	Chairperson	August 19 to March 20	3127500	505592	3633092
2.	Sh. Jalaj Shrivastava	Ex-Chairman	April 19 to June 19	1017414	235439	1252853
3.	Sh. Pravir Pandey	Vice- Chairman	April 19 to March 20	3026613	2688362	5714975
4.	Sh. Alok Ranjan	Member (Finance)	April 19 to March 20	3329164	541130	3870294
5.	Sh. Shashi Bhushan Shukla	Member (Traffic & Logistic)	April 19 to March 20	2781654	1241687	4023341
6.	Sh. Sanjay Kumar Gangwar	Member (Tech.)	April 19 to March 20	2940666	1351815	4292481
	Total			16223011 / -	6564025 / -	22787036 / -
	Total (Previous Year)			17780082 / -	6522352 / -	24302434 / -

During the F.Y. 2019-20, the Chairperson, Vice-Chairman and Members of the IWAI under took the following foreign visits:

Chairperson visited Bangladesh for India Bangladesh Shipping Secretary level meeting of Standing Committee under PIWTT and Inter-governmental Committee on use of Chattogram and Mongla ports from 4th -5th Dec 2019. Ex-chairman visited Bangkok for SAR training workshop on Leadership communication for reform from 20-24 April 2019.

Vice-chairman visited New Orleans to study the Mississippi river system and connecting waterways in United States from 22-24 April 2019 and visited Nepal for consolidation of letter of exchange for amendments in India -Nepal treaty from 26-27 Nov 2019.

Member (Tech) visited Bangladesh for dredging of Ashuganj-Zakiganj /Karimganj and Sirajganj-Daikhowa stretch from 13-14 June, 2019, visited Bangladesh relating to selection of project management consultant and monitoring and supervising dredging works of Ashuganj-Zakiganj /Karimganj and Sirajganj-Daikhowa stretch from 18-20 February 2020 and attend PIANC seminar on THE WORLD ASSOCIATION for Water Borne Transport Infrastructure and congress at Lyon, FRANCE, from 30 September to 4th October 2019

Member (Traffic & logistic) visited Bangladesh for India-Bangladesh Secretary level meetings of Standing Committee under PIWTT and Inter Governmental Committee on use of Chattogram and Mongla Ports from 4-5th December, 2019

(ii) No member of IWAI Board has outstanding debts/ loans/ advances.

2. Department of Economic Affairs conveyed approval to IWAI for raising of EBR to the extent of Rs.1000.00 crore during 2016-17 vide their OM no.F.15(4)-B(CDN)/2015 dated 03.10.2016.

As per OM No. F.No.15(4)-B(CDN)/2015 dated 20.10.2016 “Separate Government Guarantee is not required for issue of bonds to raise Extra Budgetary Resources as these bonds will be fully serviced (Principal of Interest) by Government of India through General Budget”.

Ministry of Shipping shall suitably make budgetary provisions for the half yearly interest payment and issue expenses and other miscellaneous expenses during the tenure of Bonds and repayment of principal at the time of maturity.

IWAI went for electronic bidding and successfully raised EBR worth Rs.340.00 crore through “GOI Fully Serviced Bonds” in private placement mode on 01.03.2017 in F. Y. 2016-17 with tenure of 10 years at a coupon rate of 7.90 percent (Semi Annually). In F. Y. 2017-18, the Authority requested Ministry of Shipping to allow raising of EBR for balance Rs.660.00 crore on same terms and conditions as earlier. Out of approval of Rs.1000.00 in F. Y. 2016-17. Ministry of Shipping vide letter no. IWT/45/2016-IWT (Vol-II) Part dated 27.07.2017 conveyed Cabinet approval to the proposal of re-validation of permission to raise Extra Budgetary Resources (EBRs) worth Rs.660.00 crore for F. Y. 2017-18. After receiving the approval IWAI successfully raised EBRs of Rs.660.00 crore through “GOI Fully Serviced Bond” in Private Placement Mode on 11.10.2017 on the electronic bidding platform and raised fund with a tenure of 10 years at a coupon rate of 7.47 percent (Semi Annually). In F. Y 2019-20 Authority has not raised any funds through extra Budgetary resource (EBR) and fully utilized EBR's fund raised.

3. The Jal Marg Vikas Project (JMVP), announced by the Hon'ble Finance Minister in his budget speech of July, 2014, was originally conceived to cover the entire stretch of NW-1 (Haldia-Allahabad stretch of Ganga-Bhagirathi-Hooghly river system-1620 km), to be implemented over a period of six years, at an estimated cost of Rs.4200 crore with the technical and investment support of the World Bank. Subsequently, on the recommendation of the World Bank, it was decided to implement the project on the Haldia-Varanasi stretch.

Ministry of Shipping, through a Gazette Notification dated 15.10.2014, designated Inland Waterways Authority of India (IWAI), with a Project Management Unit (PMU), as the Implementing Agency

for the JMVP. The following institutional arrangements have been made to successfully implement the project:

- (i) PMU at the IWAI Head Office headed by the Vice Chairman as Project Director. The Project Director is assisted by Chief Engineer & Project Manager, Director (Finance & Accounts) and domain experts in Administration, Finance & Accounts, Engineering, Procurement, Marketing & Business Development, Environment, Social Development and Communications.
- (ii) Project Oversight Committee consisting of Chairperson and senior Officers of IWAI, representatives of Ministry of Shipping, Central Water Commission, Governments of Uttar Pradesh, Bihar, Jharkhand and West Bengal to provide critical guidance and evaluation of the project.
- (iii) Project Implementation Units at Patna, Kolkata, Varanasi, Sahibganj, Farakka and Haldia under the charge of the respective Directors, assisted by domain experts in the fields of Engineering, Land Acquisition, Livelihood management, Social Development etc.

As part of the pre-investment activities, the consultants in Engineering, FEED and ancillary works; ESIA; and Marketing & Business Development undertook studies on the Haldia-Varanasi stretch. Based on the reports submitted by these Consultants, the estimated cost of JMVP on Haldia-Varanasi stretch of the project was revised to Rs.5369.18 crore. The interventions now proposed include fairway development to provide LAD of 2.2 m to 3 m and bottom channel width of 45 meter for the entire stretch; construction of five multimodal/intermodal terminals; construction of a new navigational lock at Farakka; construction of five pairs of Ro-Ro terminals; two integrated vessel repair & maintenance complexes etc.

The cost of the project is being financed through the following sources:

- (i) IBRD Loan of Rs.2512.00 crore (US\$ 375.00 million).
- (ii) Government of India Counterpart Funds (budgetary allocation and proceeds from bond issue: Rs.2556.00 crore (US\$380.00 million) and
- (iii) Private sector participation under PPP mode: Rs.301.00 crore (US\$ 45 million).

The IBRD Loan component was appraised by the DEA on 27.09.2016; loan negotiations were held between the World Bank and Government of India on 15.03.2017; The Board of the Executive Directors of International Bank for Reconstruction & Development approved the loan (Loan No.8752-IN) on 12th April, 2017. The Cabinet Committee on Economic affairs approved the Project implementation at an estimated cost of Rs. 5639.18 crore on 03.01.2018. The Loan Agreement and the Project Agreement relating to the IBRD Loan of USD 375.00 million were signed on 02.02.2018 between the World Bank and the Department of Economic Affairs & IWAI and both these documents became effective from 23rd March, 2018. Under the active financing clause of the Loan agreement, JMVP has submitted a claim of Rs 661.00 crore to CAAA out of the same an amount of Rs.656.42 crores which includes retroactive and project preparatory advance has been credited in Consolidated Fund of India upto end of March, 2020. For the above project the Authority received fund through Budgetary resource under the Budget head made for the above project and Extra Budgetary resource available with authority. In F. Y. 2019-20, Authority got sanctioned budget of Rs. 230.00 crores and same has been released by the Government of India through Ministry of Shipping.

Major projects of JMVP, which are under execution during the current financial year are: - Construction of the Multimodal Terminal at Varanasi at a cost of Rs.169.59 crore; Multimodal Terminal at

Sahibganj at a cost of Rs.280.90 crore; Multimodal Terminal at Haldia at a cost of Rs.481.37 crore; and new navigational lock at Farakka at a cost of Rs.359.19 crore. Besides this, LAD dredging contract at a cost of Rs. 150 crores, Rs.159.30 crores and Rs. 182.10 crores have been awarded for the stretch between Farakka-Kahalgaon, Sultanganj – Mahendrapur and Mahendrapur - Barh respectively. Expenditure on the project have been treated as capital expenditure. In F Y 2019-20 a sum of Rs 18243.92 lakh has been capitalized on construction of the Multimodal Terminal at Varanasi. Since the inception of the project total expenditure of Rs.169048.37 lakh (previous year Rs. 1,22,865.63 lakh) has been incurred as of 31st March 2020 against which an expenditure of Rs.46182.74 lakh (Previous year Rs. 43389.75lakh) has been incurred in the financial year 2019-20.

4. A sum of Rs.5282.22 lakh (previous year Rs.5271.22 lakh) towards cost of land for 11 terminals includes approach road and land for widening of narrow canal made as advance to Government of Kerala. In F.Y. 2019-20, a sum of Rs 480.62 lakh returned by District collector on acquisition of land for approach road at Maradu terminal. Out of above deposit, 12.3589 hectares of land capitalized for Rs.2144.51 Lakh till 31.03.2020. For widening of canal, a 21.5305 hectares land acquired at the cost of Rs.1779.45 lakh. An amount of Rs.1617.09 lakh has been charged to revenue expenditure since the land sub-merged in water after widening of Waterways upto 31.03.2020. Authority is liable to pay interest and enhancement of cost on land acquired if the orders of various courts in Kerala so directs. A sum of Rs.877.64 lakh was available with various District Collectors in Kerala which included Rs.849.76 lakh deposited for land acquisition for new approach road to Maradu terminal.

5. A sum of Rs.3440.02 lakh (previous year Rs. 3446.81 lakh) includes refund of Rs 6.79 lakh has been released as advance to CPWD for construction of terminals. A sum of Rs.2679.38 lakh has been capitalized (Terminals and Buildings) and Rs. 101.52 lakh has been shown as revenue expenditure till date. The expenditure incurred till date for Rs.603.98 lakh for the construction of Kayamkulam terminal, approach road (Rs.389.00 lakh) and Chavara approach road and Compound wall (Rs.214.98 lakh) have been shown under Capital Work in Progress.

6. A sum of Rs.1660.00 lakh (previous year Rs.1660.00 lakh) paid as deposit to Cochin Port Trust (CPT) for construction of Jetty at Bolghatty and Willington Island. Out of the same, Rs.1575.02 lakh has been capitalized till date and balance Rs.84.98 lakh is available with CPT.

7. A sum of Rs.138.75 lakh (previous year Rs. 138.75 lakh) has been paid as advance to Executive Engineer, Harbour Engineering Division, Assramam, Kollam Govt. of Kerala for the construction of a single lane bridge across NW-3 at Kovilthottam, Chavara and same has been shown as Capital Advance.

8. A sum of Rs.2411.97 lakh (previous year Rs. 1300.00 lakh) has been deposited includes interest of Rs 111.97 lakh to Director, Inland Navigation Directorate, Asramam, Kollam, Govt. of Kerala for the reconstruction of Navigational Lock at Thrikkunnappuzha of NW-3. Expenditure of Rs. 536.32 Lakhs (Previous Year 162.29 lakh) has been incurred shown as Capital work-in-progress and balance in Capital Advance.

9. A sum of Rs.1638 lakh (previous year Rs.258 lakh) has been released to M/s Cochin Shipyard Ltd, towards the cost for the construction of 02 nos. of Ro-Ro vessels for NW-3. The same has been shown as capital work in progress.

10. A sum of Rs.706.22 lakh (previous year Rs.706.22 lakh) has been deposited with CPWD, Patna for

construction of office building, boundary wall, generator room and partitions of office space etc. at Gaighat, Patna. Out of this, as per financial progress of work, an amount of Rs.674.36 lakh has been capitalized and balance Rs.31.86 lakh shown as advance to CPWD.

11. An amount of Rs.9352.24 lakh (previous year Rs.9352.24 lakh) has been released as advance to District Land Acquisition Officer and Deputy Commissioner, Sahibganj for acquisition of land for construction of multi-modal terminal at Sahibganj. Out of above, land measuring 184.685 acres has been taken over amounting to Rs.11719.36 lakh (previous year Rs.11719.36 lakh), the same has been capitalized and Rs.2367.12 lakh (previous year Rs.2463.96 lakh) has been shown as liability for balance dues against the land taken over as on 31.03.2020. In addition, Rs. 6767.22 lakhs (previous year Rs. 6767.22 lakh) has been released to District Land Acquisition Officer and Deputy Commissioner, Sahibganj for rehabilitation and resettlement of effective families on the project. Out of the above Rs 4216.51 lakh (previous year Rs. 3744.19 lakh) shown as capital work in progress and balance Rs 2550.71 lakh (previous year Rs. 3023.03 lakh) as advance.

12. 53 flats at Sector-34, Noida were taken over on December, 2002 from Director General of Light Houses & Light Ships (DGLL), Ministry of Shipping for the staff of IWAI at a total transfer price of Rs.225.28 lakh plus transfer fee, stamp duty etc. The title deed is yet to be executed.

After completing major repairs of the houses, a sum of Rs.307.33 lakh (previous year Rs.307.33 lakh) has been capitalized. However, transfer in the name of IWAI could not be registered since the flats have not yet been registered in the name of the first owner DGLL. After persuasion with DGLL for making payment of land rent, etc. to Noida, the initial registration will be taken-up with Noida. The actual liability for registration of flats will be taken care at the time of registration.

13. Ministry of External Affairs (MEA), Government of India in March, 2009 through an agreement appointed the Authority as Project Development Consultant for implementation of multi-modal transit transport facility on Kaladan river between Sittwe and Paletwa in Myanmar. This is known as “Kaladan Multi Modal Project”.

The above project is being implemented in two phases. Phase-1 work has been executed in two parts viz (i) Initial work and (ii) Additional works. Initial awarded work of Port & IWT component and additional under phase-1 work like staff quarters, slope protection work, bank protection work, fuel bunkering station, workshop, etc. have been completed.

The phase-2 works involving construction of container terminal at Sittwe & Paletwa, removal of two wrecks at Sittwe and O&M of assets completed under phase-1 works. Wreck removal work has been completed. The assets completed under phase-1 of Port & IWT components of KMTTP have been handed over to appointed port operator through Myanmar Government departments on 31.01.2020 and work commenced from 01.02.2020. Construction of container terminal at Sittwe and Paletwa is proposed based on viability criteria.

The above Expenditure of Project Development Consultants is met from Consultancy fees (6% of project cost) received from MEA as per Agreement. Further since Receipts & expenditure on the above project is not a part of Grants received by IWAI, the yearly surplus/deficit on the project cannot be taken to IWAI fund. Therefore, the Income & Expenditure related to Kaladan project were not included in annual accounts of IWAI since inception of the project because if the same is included it would result in inflating

figures on both side of income& expenditure account and its transfer of yearly surplus/deficit to IWAI fund is not advisable. Authority maintains separate Books of Accounts on the project and Annual Accounts on the same is duly audited and certified by Independent Chartered Accountant Firm. In F.Y.2019-20 as assured to Audit components of assets and liabilities excluding capital reserve and fixed asset, since the same will affect capital grant of the authority, has been included in Annual Accounts of IWAI for the F. Y. 2019-20.

The Authority has received Rs.3387.04 lakh from MEA including PDC fees of Rs.2904.98 lakh, Service Tax Rs.211.44 lakh, GST Rs171.75 lakh and reimbursement of Hydrographic Survey Expenditure of Rs.98.87 lakh upto 31.03.2020. In addition, there has been internal receipts of Rs.256.04 lakh mainly bank interest generated on the project. Out of the above, an expenditure of Rs.2985.32 lakh has been incurred.

During F. Y. 2019-20, an amount of Rs.226.17 lakh (previous year Rs.208.41 lakh) has been incurred as expenditure and an amount of Rs18.55 lakh has been (previous year Rs. 6.50 lakh) received as internal receipt on the project.

The Audited and certified Annual Accounts on the above Project by the Independent Chartered Accountant Firm is attached as “Annex-A”.

14. Authority has taken three policies from LIC for Pension, Gratuity and Leave Encashment for IWAI employees. LIC has provided actuarial valuation for all the three policies. As per actuarial valuation as on 31.03.2020, an amount of Rs.13725.00 lakh for Pension (previous year Rs. 13380.00 lakh), Rs.1870.94 lakh for Gratuity (previous year Rs. 1730.30 lakh) and Rs.1220.06 lakh for leave encashment (previous year Rs. 1157.88 lakh) is required.

Authority has established a Trust in the name of “IWAI-Employees Pension fund” with effect from 25.03.2003 for administering and managing the pension/gratuity fund in respect of employees of the Authority. IWAI-Employees Pension Fund and leave encashment is managed by LIC of India. As per IWAI-Employees Pension Fund account, a fund of Rs.16355.84 lakh and Rs.1856.75 lakh is available with the Trust for pension and gratuity respectively and Rs.1253.08 lakh is available with LIC for leave encashment fund. In F. Y. 2019-20, Provisions for Pension, Gratuity, Leave Encashment has not been provided since there are surplus funds available in Pension policy and required deficit under Gratuity will be transferred from pension policy in F. Y. 2020-21.

For Actuarial Valuation, the assumptions are:

Mortality Rate	:	IALM (2006-08) ultimate.
Withdrawal Rate	:	1% to 3% for all age.
Discount Rate	:	7.25% p.a.
Salary Escalation	:	7% p.a.

15. Authority has appointed Actuarial Valuer for providing actuarial valuation of the post-retirement medical benefit (PRMB) to those retired employees of the Authority who opted to avail medical facilities. As per actuarial valuation certificate liability on post-retirement medical benefit to retired employees of the Authority is Rs 206.97 lakh as on 31.03.2020. In F. Y. 2019-20, an amount of Rs 41.39 lakh (previous year Rs. 64.51 lakh) has been provided on the same.

16. Authority entered into shareholders' agreement in three JV projects with three companies namely (i)

M/s Royal Logistics (Ship) Ltd., Kolkata (ii) M/s SKS Waterways Ltd., Kolkata and (iii) M/s Vivada Logistics Pvt. Ltd. Kolkata. As per the shareholders' agreement with M/s Royal Logistics (Ship) Ltd, Kolkata and M/s SKS Waterways Ltd, Kolkata the initial authorized share capital of each company was Rs.5.00 lakh and same was required to be contributed in the ratio of 70% by the J.V. partners and 30% by IWAI. Accordingly, Authority contributed its share of Rs.1.50 lakh each as initial authorized share capital in M/s Royal Logistics (Ship) Ltd., Kolkata and M/s SKS Waterways Ltd. Kolkata.

The firms viz., M/s Royal Logistics (Ship) Ltd. and M/s SKS Waterways Ltd. were requested vide letter dated 22.08.2016 and email dated 17.01.2017 to take expeditious action for settlement of the accounts of equity amount held by them and to arrive at a decision for termination of JVs as no progress was made.

In response, M/s Shahi Shipping Ltd. (formerly SKS Logistics Ltd.) vide their letter dated 16.06.2017 informed that they intend to close JV firms viz Royal Logistics and SKS Waterways for which necessary formalities are being completed from their end. However, the settlement of accounts is awaited.

17. There are four Arbitration cases pending before the Arbitrators having contingent liability upon IWAI and claim by IWAI as on 31.03.2020. These are i) dredging work in NW-3, ii) dredging work in NW-5, iii) slipway work in NW-2 and iv) construction of vessels. At present one case related to LAR/LAA with Sub-Court, Kerala is pending having contingent liability. The list of pending court cases with liability thereon shown in tabulated format as below :-

(Rs. in crore)

Court	No. of case	Liability upon IWAI	Claim by IWAI
Hon'ble Supreme court	04	-	-
NGT, Delhi	02	-	-
NGT Southern Zone, Chennai	02	-	-
Hon'ble High Court, Delhi	03	-	-
Hon'ble High Court, Kerala	13	-	-
Hon'ble High Court, Patna	02	15.2	-
Hon'ble High Court, Allahabad	13	7.65	-
Hon'ble High Court, Kolkata	12	0.18	3.97
Hon'ble High Court, Guwahati	07	0.29	-
Hon'ble High Court, Hyderabad	02	0.03	-
Hon'ble High Court, Madras	01	-	-
District Court, Varanasi	01	-	-
Adll Chief Judicial Magistrate Jangipur, Murshidabad	01	-	-
Debts Recovery Tribunal, Bangalore	00	-	-
Lower Court, Balasore	01	-	-
CGIT cum Labour Court, Guwahati	01	-	-
Office of ALC, Guwahati	02	-	-

Sub Court, Patna	01	-	-
City Court, Kolkata	02	-	-
CGIT cum Labour Court, Kolkata	05	-	-
Additional District Judge, Visakhapatnam	01	-	-
Munsiff Court, Kerala	03	-	-
Magistrate Court, Kerala	01		
Human Right Commission, Kerala	01	-	-
Arbitration between IWAI vs DDCL	01	-	-
Arbitration between IWAI vs M/s Neptune Maritime	01	29.8 1	21.04
Sub Court, Kerala (LAR/LAA cases)	01	1.17	0.00
District Court, Ernakulam	02		
Arbitration RDL Vs. IWAI, Delhi	01		
Arbitration Yojaka Vs. IWAI, Allahabad	01	12.89	13.60
Total	88	67.22	38.61

18. Authority received Rs.52676.92 lakh as Grant under different budget heads. Authority also had available fund of Rs.31088.79 lakh against the fund raised by issuance of Bonds in F. Y. 2017-18. During the year, capital expenditure of Rs 55981.93 lakh and revenue expenditure of Rs. 29332.81 lakh was incurred by the Authority. During the year, Authority generated Internal Receipts of Rs 2995.98 lakh. The same has been shown as liability since the amount is payable to Government of India as per directions of MoS vide their letter no. G-20017/7/2013-IWT dated 06.12.2013. Summarized details are as under:-

Abstract of Fund received and Expenditure in F. Y. 2019-20

Particulars		(Amount in lakh)
Grants/ EBRs received		Total
(a) Plan	52676.92	
(b) Bonds (EBRs)	31088.79	
(c) Deficit of F. Y. 2018-19	(2228.71)	81537.00
Less:- Expenditure incurred		
(a) Revenue expenditure	29332.81	
(b) Capital expenditure	55981.93	85314.74

19. Authority had rented out 4 floors of the Building at Head Office Noida to Govt. PSUs/ Deptt. Rent received of Rs.64.65 lakh, Rs.200.06 lakh, Rs.258.16 lakh, Rs.290.94 lakh, Rs.297.36 lakhs and Rs 245.75 lakh for the F. Y. 2013-14, 2014-15, 2015-16, 2016-17, 2017-18 and F.Y. 2018-19 respectively have been deposited in Consolidated Fund of India. Two floors of Head Office building were vacated during the year. An amount of Rs. 141.44 lakh pertaining to F. Y. 2019-20 is yet to be deposited.

20. In F. Y. 2019-20, Internal Receipts of Rs. 2995.98 lakhs (previous year Rs. 3712.88 lakhs) has been generated. As per letter no. G-20017/7/2013-IWT dated 06.12.2013 of Ministry of Shipping the same has to be deposited in Government Account. The amount of Internal Receipts has been shown as liability to Government of India. The details of Internal Receipts are as under:-

Sl. No.	Internal Receipts	Amount (in Rs.)
1.	Pilotage Charges	662999
2.	Birthing Charges	8146090
3.	Over Dimension Cargo Income	2656607
4.	Other Income	8456317
5.	Protocol Fees	2106062
6.	Misc. Receipts	2086321
7.	Rent Received Terminal	865018
8.	Sale of Tender Forms	387124
9.	Sale of Navigation Chart	236350
10.	Course Fee& Hostel Charges NINI	5162907
11.	Dry Cargo	1947917
12.	Pontoon Hire Charges	245813
13.	Hiring of Vessels	31986048
14.	Water Usage Charges	4330195
15.	Interest on Deposits/ Investment	203084391
16.	Interest on Mobilization Advance	11490137
17.	Rent-Building	14144332
18.	Storage and handling charges	12298
19.	Towage charges	649450
20.	Interest on HBA etc.	941860
	Total	299598237

21. The Lease Land has been acquired at Noida and Haldia on upfront payment basis. The amount of lease rent pertaining to particular financial year is charged to revenue expenditure in respective financial year.
22. A work of Hydrographic survey for setting up of water Aerodromes has been assigned by Airport Authority of India to execute work on deposit basis. As per scope of work, 5 nos. of location are assigned to Authority as under:
- Shatrunjay Dam – Gujarat
 - Sardar Sarovar Dam – Statue of Unity – Gujarat
 - Sabarmati River Front – Gujarat

(iv) Guwahati River Front – Assam

(v) Umrangso Reservoir – Assam

For the above work, an estimate of Rs. 1183.70 lakh was sent to Airport Authority of India (AAI) and the same was agreed to. A sum of Rs. 1003.14 lakh has been released to IWAI for above work and the work is under progress. The amount received from AAI has been shown as advance in F.Y. 2019-20.

23. Authority was preparing Annual Accounts on the format approved by Ministry of Shipping vide their letter no. G-25020/1/2004-IWT dated 28.02.2005 consisting of Balance sheet, Income & Expenditure accounts alongwith Schedules. Format of Accounts has been revised and the same has been adopted in 164th Authority meeting of IWAI Board. The revised format of Accounts consisting Balance Sheet, Income & Expenditure Account, Receipts & Payment Account with Schedules and Accounting Policy was sent to Ministry of Shipping for approval in consultation with C&AG office vide IWAI letter no. IWAI/Fin./3442/98/16-17 dated 07.05.2018. The revised format of Accounts has been duly vetted by C&AG office vide their letter no. DD-1/HQ/IWAI/A/AC/1-2/2018-19 dated 12.04.2019. The revised format of Accounts has been approved and notified in official Gazette on dated 13.07.2020. Annual accounts for FY 2019-2020 prepared on the notified format.
24. The liability on the Capital awarded contracts, to be executed, is expected to be Rs.79993.33 lakhs at the end of March, 2020.
25. Bank Guarantee valued at Rs. 31135.84 lakh (previous year Rs. 30849.48 lakh) have been received from contractors / suppliers towards security deposit, Earnest money and Mobilization advance against the works / contracts awarded to them till 31st March 2020.
26. Details of location-wise Land/ Lease Land in the possession of the Authority as on 31.03.2020 is enclosed at “Annex.-B”.
27. Details of Fixed Assets alongwith depreciation thereon located in respective field offices as on 31.03.2020 is enclosed at “Annex.-C”.
28. IWAI has paid Rs.2.17 crore to Kolkata Port Trust (KPT) in March, 2017 towards upfront Lease Rent for separate land parcels taken at Swaroopganj, Nadia District (West Bengal) on long term lease for 30 years. This has been shown as advance as the Lease Agreements is yet to be executed with KPT.
29. The land eroded at Neamati 7 Bighas, 2 Kathas, 14 Lessas costing Rs. 3,91,246/- Similarly the land eroded at Hatsingimari 12 Bighas, 4 Kathas, 9 Lessas costing Rs. 5,86,229/-. Keeping in view the anti-erosion work by water Resource Department and Brahmaputra Board at Neamati and Hatsingimari respectively the land may be reclaimed. As per the information received from Revenue Department the land can be reclaimed with in 15 year. Hence, the writing off the eroded land is not taken in books of accounts.
30. (i) ITAT, New Delhi for the assessment years 1988-89 to 1997-98 (excluding Assessment Year 1990-91) ruled in July, 2006 that the grants to the Authority is not revenue in nature and hence not taxable. While giving effect to the ITAT order, ACIT, Noida issued fresh assessment order in November, 2010 wherein the miscellaneous receipts of the Authority has been treated as income and action has been initiated to impose penalty. The due tax alongwith penalty has been collected. Thereafter, the Authority continuously pursued the matter through appeals and counter appeals in

ITAT, New Delhi; CIT (Appeals), Ghaziabad; to get the order of ACIT, Noida regarding treatment of miscellaneous receipts as income of the Authority dismissed.

The Authority filed an appeal in ITAT, New Delhi against the order of CIT (Appeal). ITAT, New Delhi vide their order dated 21.11.2014 had passed the consolidated order with the view that miscellaneous receipts is adjusted/ refunded to Government while releasing grant in subsequent financial year. Hence, the same cannot be treated as income for the Authority. The matter is pending with DCIT (Exemption), Ghaziabad for giving effect of the order of ITAT, New Delhi.

- (ii) ACIT, Noida also imposed penalty in the fresh assessment order of November, 2010 and raised a demand of Rs.11.80 crore, the same has been collected by the I. T. department. The amount collected by Income Tax department was charged to Grant received in that particular financial year.

Subsequently, ACIT, Noida issued an order with the contention that no fresh adjudication of penalty u/s 271(1) (C) in view of ITAT direction is required. Against the said order of ACIT, Noida, the Authority has filed an application with ACIT, Noida/ Ghaziabad u/s 154 to review the matter in accordance with the directions of ITAT, New Delhi. The matter has been pursued by the authority with the higher officer of the department and at present it is pending with DCIT, Ghaziabad at present.

- (iii) The authority registered under section 12 A with effect from 01.04.1998 and exempted under section 10 (23 c) (iv) and (v) of Income Tax act, 1961.

31. Indo-Bangladesh Protocol Route (IBP)

- (i) There is a Protocol agreement called Inland Water Transit and Trade Protocol between India and Bangladesh under which vessels of either country can travel through specified river routes of each country. Under these protocol routes there are 6 ports of call in each country. The agreement is valid upto June, 2020 and renewable automatically in line with India – Bangladesh Trade Agreement.
- (ii) During the meeting of the Shipping Secretaries of Bangladesh and India, held at Dhaka on 06-07 December 2016, it was decided that “dredging to maintain 2.5 m depth is to be done in 470 km in two stretches of Protocol routes i.e. Zakiganj/ Karimganj to Ashuganj and Sirajganj – Daikhawa” on cost sharing ratio of 80:20 between India and Bangladesh. The tender has been finalized and work awarded by Government of Bangladesh to M/s Dharti – Banga JV for a period of 7 years at a total cost of BDT 322.95 crore including taxes. It is also proposed to appoint PMC for which proposal is under consideration by MEA. The Work has commenced on 31st March, 2019 and is in progress. With the development of above protocol route, there will be uninterrupted connectivity from Varanasi on NW-1 to Sadiya (Assam) through National Waterway–2 and to Lakhimpur (Assam) through National Waterway – 16 via Patna (Bihar), Sahibganj (Jharkhand), Haldia (West Bengal).

IWAI is overseeing the project as nodal agency from Indian side. A Joint Monitoring Committee (JMC) has been constituted by Govt. of India comprising Member (Technical), IWAI, Chief Engineer (Tech) IWAI, Director (IWT), MoS, First Secretary, IHC Dhaka.

32. In the current year under schedule-14 column assets capitalized during the year 2019-20, amount paid to DFO, Kashi Wildlife division for Rs.9,36,97,387/- for setting up of trust for turtle world life century shown in capital work in progress in F.Y.2018-19 has been transfer to claim recoverable and amount paid to Executive Engineer, Irrigation Department of Govt. of Kerala for Rs.285.00 lakh for repair of 40 feet navigational lock at Thrikkunnappuzha shown as capital work in progress in F.Y.2018-19 has been transferred to revenue expenditure as repair & maintenance of lock gate.
33. Annual Accounts has been prepared as per Accounting Standards issued by the Institute of Chartered Accountant of India as far as possible.
34. Re-grouping and re-classification has been done where considered necessary.
35. All the figures are rounded off to the nearest rupee and figures in () indicate negative figures.

For and on behalf of the Authority



(A. K. Gupta)
Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman



(Dr.Amita Prasad)
Chairperson

25. AUDITOR'S REPORT (CHARTERED ACCOUNTANTS) (ANNEX-A)



ATUL K. GARG & CO.

Chartered Accountants

(A Peer Reviewed Firm)

Auditor's Report

1. We have audited the attached Balance Sheet of **Inland Waterways Authority of India Kaladan Project** as at 31st March, 2020 and also the Income & Expenditure Account for the year ended on that date annexed thereto. These financial statements are the responsibility of the project management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We conducted our audit in accordance with the auditing standards generally accepted in India. These Standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.
3. We report that:
 - (i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit ;
 - (ii) In our opinion, proper books of account as required by law have been kept by the Project so far as appears from our examination of those books.
 - (iii) The Balance Sheet and Income & Expenditure Account dealt with by this report are in agreement with the books of account of the Project.
 - (iv) In our opinion and to the best of our information and according to the explanations given to us, the said accounts read together with Significant Accounting Policies and Notes on Accounts in Schedule and those appearing elsewhere in the accounts give a true and fair view in conformity with the accounting principles generally accepted in India:
 - (a) In the case of the Balance Sheet, of the state of affairs of the project as at 31st March 2020;
 - (b) In the case of the Income & Expenditure Account, of the surplus/deficit for the year ended on that date.

Place: Noida
Date: 24.07.2020



For Atul K Garg & Co.
Chartered Accountants
(FRN 15668N)

CA. D.D. Goel
Partner

M. No. 90332
UDIN 20090332AAAABP6660

IWAI - KALADAN PROJECT

Balance Sheet as at 31.03.2020

Previous Year	Liabilities	Current Year	Previous Year	Assets	Current Year
	Capital Reserve			Fixed Assets	
362,150	Capital for Fixed Assets	362,150	362,150	Gross Block	362,150
322,301	Less:- Replacement Reserve	326,051	322,301	Less: Depreciation	326,051
39,849		36,099	39,849	Net Block	36,099
	Capital Reserve			<i>(Refer Schedule I)</i>	
3,832,388	Expenses / Claims Payable	4,485,152	12,146	Cash & Bank Balances	
4,667,978	Retention Fund from MEA	48,601,160	500,644	Syndicate Bank, Noida	3,276,325
	<i>(Refer Note I of Schedule II)</i>			United Bank of India, Noida	500,154
0	TDS Payable on GST	198,708	722,000	Short Term Deposits with	
			1,027,000	Syndicate Bank, Noida	2,280,000
				United Bank of India, Noida	44,106,000
			14,645	Accrued Interest on FDR	0
			6,223,931	TDS Recoverable	3,122,541
8,540,215		53,321,119	8,540,215		53,321,119

Schedule - I to II form an integral part of accounts

As per audit report of even date attached

For Atul K Garg & Co.

Chartered Accountants

(FRN 015668N)



CA. D.D. Goel

Partner

M No. 090332

UDIN-20090332AAAABP6660

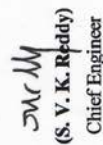
Place : Noida

Date : 24-07-2020

For and on behalf of IWAI Kaladan Project



(A.K. Gupta)
Director (F & A)



(S. V. K. Reddy)
Chief Engineer

IWAI - KALADAN PROJECT
Income & Expenditure Account for the year ended 31.03.2020

Previous Year	Expenditure	Current Year	Previous Year	Income	Current Year
19,330,526	Consultancy Charges	22,011,833	649,527	Bank Interest	1,854,038
8,947	Postage, Telegram & Telegram	6,004	20,191,636	Consultancy Charge	20,762,118
613,899	Traveling Expenses - Abroad	442,480		(Refer note no. 2 of Schedule-II)	
19,004	Audit Fee	20,807	12,852	Replacement Reserve as per contra	3,751
157,962	Bank Charges	8,519		(Being Depreciation as per Contra)	
237,262	Interest on GST	0	0	Miscellaneous Receipts	908
98,630	Miscellaneous Charges	0			
12,852	Depreciation	3,751			
374,933	Remuneration to experts	127,421			
20,854,015		22,620,815	20,854,015		22,620,815

Schedule - I to II form an integral part of accounts

As per audit report of even date attached

For Atul K Garg & Co.

Chartered Accountants

(FRN 015668N)



CA. D.D. Goel

Partner

M No. 090332

UDIN-20090332AAAAABP6660

Place : Noida

Date : 24-07-2020

For and on behalf of IWAI Kaladan Project

(A. K. Gupta)

Director (F & A)

(S.V.K Reddy)

Chief Engineer

Schedule - I

IWAI - KALADAN PROJECT
SCHEDULE FOR FIXED ASSETS AS ON 31.03.2020

Sl. No.	Particulars	Gross Block as on 31.03.2019	Addition During the Year	Adjustment	Gross Block as on 31.03.2020	Depreciation		Total Depreciation	Net Block as on 31.03.2020
						Upto 31.03.2019	For the Year Depreciation		
1	Furniture & Fixture	103,334	-	-	103,334	75,657	3,751	79,408	23,926
2	Computers	243,452	-	-	243,452	231,279	-	231,279	12,173
3	Temporary Structure	15,364	-	-	15,364	15,364	-	15,364	-
	Total	362,150	-	-	362,150	322,300	3,751	326,051	36,099



Schedule - II

Notes forming part of accounts as on 31.03.2020

1. The Kaladan Multimodal Transit Transport Project in Myanmar is to be implemented in accordance with the Framework Agreement dated 02.04.2008 between the Govt. of India (GoI) and the Govt. of Myanmar (GoM) for development of an alternate transport connectivity between the mainland India and the N.E. states, especially Mizoram. Transit through Myanmar by a multimodal transport system is the principal part of the proposed connectivity. Ministry of External Affairs (MEA), Govt. of India as the Nodal Agency has appointed Inland Waterways Authority of India (IWAI) as the Project Development Consultant (PDC) for implementation of the project vide Agreement dated 19.03.2009 and supplementary agreement dated 28.04.2016. The responsibility of IWAI as PDC is at present for implementation of the Port & IWT components only. The IWAI will be the PDC for the implementation of the Project with the consultancy / management fee of 6% of the approved effective estimated cost or actual/ tendered cost (whichever is lower) plus other Statutory Taxes. Release of money to IWAI shall be as per the deliverables/ specific milestones of the projects and will be made in instalments. The project is to be fully funded by the MEA, Govt. of India.

The position of Advance Received from MEA towards Consultancy Charges as at 31.03.2020 is as under:

Particulars	Amount (Rs.)
Opening Balance on 01.04.2019	46,67,978.00
Add: Fund Received from MEA during the Year	6,46,95,300.00
Total Fund towards Consultancy Charges	6,93,63,278.00
Less: Utilized During the Year (Refer Note 2 of Schedule II)	2,07,62,118.00
Balance of Advance From MEA	4,86,01,160.00

2. Consultancy Charges has been accounted for to the extent of expenditure incurred during the Financial Year and has been adjusted from the "Advance Received from MEA" towards the Consultancy Charges.
3. Depreciation on fixed assets has been provided on SLM method over the useful life prescribed in schedule II to the Companies Act, 2013 after considering salvage value of five percent of original cost. The Company has considered useful life of assets same as prescribed under the Companies Act, 2016. The depreciation has been charged for the whole year in the year of purchase and no depreciation will be charged in the year of disposal/sale.

As per our report of even date

For Atul K Garg & Co.

Chartered Accountants

(FRN 015668N)

CA. D. D. Goel

Partner

M. No. 090332

UDIN 20090332AAAAABP6660

Place: Noida

Date: 24.07.2020



For and on behalf of IWAI Kaladan Project

(A. K. Gupta)
Director (F & A)

(S. V. K. Reddy)
Chief Engineer

INLAND WATERWAYS AUTHORITY OF INDIA

26. OFFICE-WISE DETAILS OF LAND AS ON 31.03.2020

Sl. No.	Location of Land	Land Acquired (Per Sq. Mtr.)	Land under possession (Per Sq. Mtr.)	Title deed executed in the name of IWA	Whether Mutation done (Yes/No)	Encroachments (if any)	Land Title is Freehold or Lease Hold	Remarks
(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
KOLKATA OFFICE								
A. Operation & Maintenance of Terminal								
1	Haldia, Purba Midnapur Distt., (W.B.)	10319	10319	On lease basis w.e.f. 04.03.1994 to 02.02.2021	No	Nil	136817 (Monthly)	This land will be expired on 02nd February 2021. However, it is proposed to take over the land on permanent/long term i.e. 30 years basis as IWA has facilitated RIS station, road development, transit shed, three nos gangway jetties for loading of fly ash there.
2	BISN/GRI-I Kolkata Distt., (W.B.)	30409.64	30409.64	Handingover and takingover made on 31.10.2018 & registration of sale deed executed on 08.02.2020	Mutation will be process after lift of Lock down	Nil	Purchased	The land has already been transferred to IWA from KoPT and the sale deed executed on 08.02.2020.
3	G.R. Jetty -II Kolkata Distt., (W.B.)	14557	14557	Handingover and takingover made on 31.10.2018 & registration of sale deed executed on 08.02.2020	do	Nil	Purchased	do
4	Haldia, Purba Midnapur distt.	246858.155 (61Acre)	246858.155 (61Acre)	Lease deed made on 23.04.2018 to 22.04.2048	No	Nil	291292 (Annually afront charges)	Land is on long term lease i.e. 30 years basis. However it is proposed to take over the land on permanent transfer basis so that third party terminal service contract can be given.
5	Haldia, (For Railway siding) Purba Midnapur Distt.	43341.832 (10.71Acre)	43341.832 (10.71Acre)	Approval awaited from H.O.	No	Nil		Approval awaited from H.O. However, it is proposed to take over the land on permanent transfer basis so that their party terminal service contract can be given.
6	Swaroopganj Store Nadia Distt., West Bengal	290	290	Lease Basis w.e.f 18.08.2001	No	Nil	36304 (Monthly)	On monthly rent basis, however IWA Noid has releases of Rs. 2,08,16,329/- on 31.03.2017 for regularised the lease for 30, years long terms basis but after many reminder the same has not been regularised till date due non approval from ter Board.
7	Swaroopganj Store, Nadia Distt., West Bengal	22.5	22.5	Lease Basis w.e.f 18.08.2002	No	Nil	2401 (Monthly)	
8	Swaroopganj Store Nadia Distt., West Bengal	25	25	Lease Basis w.e.f 01.01.2003	No	Nil	2667 (Monthly)	
9	Office Building at Khidirpur, Kolkata Distt.	941	941	Lease Basis w.e.f 01.07.2005	No	Nil	92638 (Monthly)	The office building land is on 11 months rent basis. However it is proposed to take over the land on 30 years long terms lease or permanent transfer basis so that construction of office building can be initiated.
10	Prinsep Ghat	446.75	446.75	No	Nil	NA	Proposal forwarded to KoPT for taking over the land on permanent transfer basis for construction of tourist jetty, Custom & Immigration office.
PATNA OFFICE								
1	Gaighat, Patna, Distt - Patna	11868.23	11868.23		Yes	No	Freehold	Low Level Jetty, Terminal
2		4046.86	4046.86	07.10.2013	Yes	No	Freehold	High Level Jetty, DGPS Station, RIS Station
3		17401.50	17401.50	No, But land under possession of IWA since 27.01.1987	No	No	Freehold	National Inland Navigation Institute
4		5539.34	5539.34	07.10.2013	Yes	No	Freehold	NINI Extension
5	Bari Khanjarpur, Bhagalpur, Distt - Bhagalpur	15620.87	15620.87	16.03.2013	Yes	No	Freehold	DGPS Station, RIS Station
6	Khas Mahal Gird Kila, Munger, Distt - Munger	13759.31	13759.31	No, But land under possession of IWA since 19.06.1995	No	40% Encroachment	Freehold	RIS station

7	Dungurpur, Jalapaur, Distt - Ghazipur	43860	43860	21.09.2017, 17.10.2017, 17.11.2017, 18.11.2017, 01.12.2017, 18.01.2018, 16.02.2018, 17.02.2018, 22.02.2018, 26.02.2018, 27.02.2018, 21.03.2018, 23.03.2018	Yes	No	Freehold	Terminal, Approach Road
8	Milkipur, Distt - Chandauli	9740.67	9740.67	Land under possession of IWAJ	Yes	No	Freehold	IWAJ Freight Village
9	Lawain Khurd, Allahabad, Distt - Allahabad	87590	87590	25.01.2004	Yes	No	Freehold	Land for IWT Terminal
10	Samdanala, Sahibganj, Distt - Sahibganj	741099.64	741099.64	04.01.2019	Yes	No	Freehold	IWAJ Multimodal Terminal
11	Manihari Maskan, (Manihari), Distt - Katihar	743.49	743.49	Leasehold under possession of IWAJ w.e.f. 07.02.2017	No	No	Lease Hold	On lease basis for 29 years 11 months taken from Smt. Chandrakanta Bai, C/o Sh. Pradeep Narayan Singh, Vill- Manihari, Maskan, P.O.- Manihari, Distt - Katihar. Lease deed registered on 07.02.2017.
12	Marachi, Hatidah, Distt - Patna	743.49	743.49	Leasehold under possession of IWAJ w.e.f. 03.05.2016	No	No	Lease Hold	On lease basis for 29 years 11 months taken from Sh. Hariwansh Prasad Singh, C/o Sh. Vinod Singh, Vill + PO + PS - Marachi, Distt - Patna. Lease deed registered on 03.05.2016.
13	Nawada, Barh, Distt - Patna	662.64	662.64	Leasehold under possession of IWAJ w.e.f. 03.05.2016	No	No	Lease Hold	On lease basis for 29 years 11 months taken from Sh. Abhishek Kumar Singh, C/o Sh. Ravindra Singh, Vill - Nawada, P.O. - Mohammadpur, Distt - Patna. Lease deed registered on 03.05.2016.
14	Mauzampur, Ara, Distt - Bhojpur	797.03	797.03	Leasehold under possession of IWAJ w.e.f. 31.08.2017	No	No	Lease Hold	On lease basis for 29 years 11 months taken from Sh. Deo Ballav Singh, C/o Late Ramchandra Singh, Vill - Mauzampur, P.O. - Mahulghat, Distt - Bhojpur. Lease deed registered on 31.08.2017.
15	Govindpur Khas, Bharauli, Distt - Ballia	743.49	743.49	Leasehold under possession of IWAJ w.e.f. 22.12.2016	No	No	Lease Hold	On lease basis for 29 years 11 months taken from Sh. Akshay Kumar Rai, C/o Sh. Yugul Kishore Rai, Vill - Bharauli, P.O. - Bharauli, Distt - Ballia. Lease deed registered on 22.12.2016.
Guwahati Office								
1	Pandu Kamrup Metro Distt.	77870	77870	Govt. of India Land (Railway) Title deed not executed in the name of IWAJ	No	No	Govt Land (Railway)	Govt land takeover from CIWTC. As per revenue record the land in Pandu is in the name of Rly. Deptt. However, the land is in possession of IWAJ.
2	Jogighopa (Terminal) Bongaigaon Distt.	164700	164700	Govt. of India Land. Title deed not executed in the name of IWAJ	No	No	Freehold	Title deed not executed. Applied for mutation in the name of IWAJ. Circle Officer Bongaigaon submitted report to DC for approval of mutation. This part of Jogighopa land is free from encroachment and is in the possession of IWAJ.
3	Neamati, Jorhat Distt.	20000	20000	Acquired through Govt. of Assam As per telephonic conversation on 15/05/2018 with Circle Officer title deed has been executed in the name of IWAJ.	Yes	Yes	Freehold	Land partly eroded. Eroded report received from ADC Jorhat. Demarcation completed on 12.11.2018 by fixing trench pillars. IWAJ is now creating infrastructure for Ro-Ro facilities at this location. The Ro-Ro service has already been started from Neamati to Kamalabari. However, due to encroachment it has become difficult for IWAJ to plan out the development activities. Govt of Assam is requested to get the IWAJ land vacated at the earliest
4	Hasingmari, Dhubri Distt.	17240	17240	Acquired through Govt. of Assam Title deed not executed in the name of IWAJ	No	-	Freehold	Land completely eroded as per Deputy Commissioner, South Salmara, Manacchar. Hasingmari letter No. HLA-1/2017/21 dated 20.09.2018.
5	Dibrughat, Dibrughat Distt.	40190	40190	Executed in the name of IWAJ on 18.10.2012	Yes	No	Freehold	IWT terminal & DGPS station. Terminal land demarcation done on 20/02/2019 by fixing trench pillar. Record correction is under process by Circle Officer. The relevant documents have been submitted at the time of demarcation.
6	Silghat, Nagaon Distt.	20070	20070	Executed in the name of IWAJ on 24.01.2013	Yes	-		Land has been eroded completely as per ADC Nagaon letter no. NRS/65/2014/63 dated 18.09.2018
7	Bishwanighat, Sonitpur Distt.	6300	6300	Executed in the name of IWAJ on 16.05.2013	Yes	No	Freehold	IWAJ terminal running

8	Dhubri, Dhubri Dist.	32500	32500	17501	17501	Executed in the name of IWAI on 18.07.2013	Yes	No	Freehold	Terminal is running.
						Under process	No.	No	Freehold	Advance passion was taken in 3-2-12 Mutation in the name of IWAI is in Process
9	Oriunghat, Dhemaji Dist.	26000	26000	26000	26000	Acquired through Govt. of Assam Title deed not executed in the name of IWAI	No	No	Freehold	Mutation of land could not be done as SDO(C), Jonai has disbursed 80% money to the land owners, and remaining 20% has been put into Revenue Deposit by mistake. Matter has been taken up with DC Dhemaji. SDO Jonai wrote letter to Commissioner Secretary, Govt of Assam, Dispur vide letter no. JN/3/2013/16/1150-552 dated 20/12/2018 to release the compensation amount alongwith contingency deposited in the State exchequer vide Chailan No. 2015/08/00562 dated 17/8/2015 money. Matter has been taken with Secretariate, Dispur and is still pending for disposal.
10	Old Jogighopa Port	416826	NIL			Govt. of India land Title deed not executed in the name of IWAI			Freehold	151 acre land of Jogighopa port was acquired by SDO (Civil) Goalpara, land acquisition Branch in the year 1965-66 vide land acquisition case No. 26L/65-66 & handed over to SDO (PWD), Abhayapuri for development. After development as per instruction received from Ministry of Shipping & Transport, Govt of India (Now Ministry of Shipping, Road Transport & Highway) vide letter No. 3-JWT (10)/69 dated 18th August 1970, Union of India instructed CIWTC to maintain two ports (Jogighopa & Pandu) on Agency basis as caretaker. 40.70 acre land were taken over by IWAI on 17/01/2004 from CIWTC Ltd. It is well protected. This portion of Jogighopa land is free from encroachment. Another part of land measuring 103 acre were taken over from CIWTC on 26.04.2017. This land at Jogighopa is encroached by unauthorised people. But it could not be evicted due to WP(C) No. 6230/2017 case filed in the Hon'ble Gauhati High Court by 68 Nos. of unauthorised encroachers. Again, another WP(C) 6299/2017 has been filed in the Hon'ble Gauhati High Court by affected land owners of Jogighopa & Bhatipara for payment of compensation due to them. Mutation of the land at Jogighopa is in the process. On 9th July 2018 SDO (Civil) Abhayapuri vide his letter no. NSRP/LA/IWAI/27/2017/75 advised Circle Officer Boltamari to Mutate 231 Bigha 01 Katha 11 Lessa (71 Acre approx) in favour of IWAI in 1st phase after approval of DC Bongaigaon. Parawise Case No. WP(C) 230/2017 & against case no. WP(C) 6299/2017 SDO Civil will call a meeting with the land owners to settle out the case of the court after the parliamentary election. Last date of hearing was on 18/03/2019
11	Agency Bunglow at Dibruguth	6314	6314	6314	6314	Executed in the name of IWAI on 7.11.2017	Yes	No	Freehold	Takenover from CIWTC. Mutation completed. Branch office running.
12	Karingunji, Steamer Ghat	7237	7237	7237	7237	Executed in the name of IWAI on 30.01.2018	Yes	No	Freehold	Land takenover from CIWTC. Mutation completed
13	Badarpur, Steamer Ghat	4361	4361	4361	4361	Executed in the name of IWAI on 29.01.2018	Yes	No	Freehold	Putta land of CIWTC takenover. Mutation completed
14	Uzanbazaar	1258	1258	1258	1258	Executed in the name of IWAI on 26.04.2018	Yes	No	Freehold	Mutation completed. Boundary fencing completed.
15	Fancy Bazar, Guwahati	2157.4	2157.4	2157.4	2157.4	Govt. Land. Title deed not executed in the name of IWAI. CIWTC handed over the land to IWAI as custodian.	No	No	Freehold	All documents sent to by Regional Office to HO, Nodda in a chronological order for taking up the matter with Ministry. Decision in this regard may be taken early.
Kochi Office										
1	Kottappuram Terminal, Thrissur District	5823	5823	5823	5823	Possession and enjoyment Certificate obtained	Yes	No	freehold	Land Transferred into the name of IWAI
2	Aluva Terminal, Ernakulam District	13310	13310	13310	13310	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
3	Maradu Terminal, Ernakulam District	20085	20085	20085	20085	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
4	Kakkanad Terminal, Ernakulam District	12205	12205	12205	12205	Under process	No	No	freehold	Transferring land into the name of IWAI is under process

5	Vaikkom Terminal, Kottayam District	5184	5184	Possession and enjoyment Certificate obtained	Yes	No	freehold	Land Transferred into the name of IWAI
6	Thrikkunnapuzha Terminal, Alappuzha District	5057	5057	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
7	Thanneermukkom Terminal, Alappuzha District	9170	9170	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
8	Alappuzha Terminal, Alappuzha District	22550	22550	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
9	Kayamkulam Terminal, Kollam District	16332	16332	Possession and enjoyment Certificate obtained	Yes	No	freehold	-do-
10	Chavara Terminal, Kollam District	8061	8061	Under process	No	No	freehold	Transferring land into the name of IWAI is under process
11	Kollam Terminal, Kollam District	5812	5812	Under process	No	No	freehold	Transferring land into the name of IWAI is under process
12	Land acquired for widening of canals in:							* Land 182995 sq. mtr. subsumed in canal as on 31/3/2019 and cost booked in revenue expenditure.
	1) Alappuzha District	113147	113147	Since the land acquired for widening waterway has been submerged in canal and no physical land is available. Hence the same is not processed for mutation.		No	freehold	Land Transferred into the Name of National Waterway Purambokke in village records
	2) Kollam District	102178	102178			No	freehold	Transferring land into the name of National Waterway Purambokke in village records is under process
	Sub Total	338914						
Details of land taken over on lease basis from Cochin Port Trust								
Ro Ro Terminal,		3000	3000	Lease Deed executed between IWAI and CoPT on 15/06/2016 for 30 years w.e.f. 23/04/2010	No	No	freehold	No

INLAND WATERWAYS AUTHORITY OF INDIA

27. SCHEDULE OF FIXED ASSETS AS ON 31.03.2020

	PARTICULARS	GROSS BLOCK		ADJUSTMENT/ DEDUCTIONS	GROSS BLOCK		DEPRECIATION/A MORTISATION		ADJUSTMENT ON ACCOUNT OF ASSETS SOLD/TRANSFERRED	TOTAL DEPRECIATION AS ON 31.03.2020 (7 + 8 + 9)	NET BLOCK AS ON 31.03.2020 (6 - 10)
		AS ON 31.03.2019	DURING THE YEAR		AS ON 31.03.2020	AS ON 31.03.2019	FOR THE YEAR				
1	2	3	4	5	6	7	8	9	10	11	
NOIDA	Survey Equipment	2,561,260	-	-	2,561,260	2,387,936	3,679	-	2,391,615	169,645	
	Vehicles	2,258,620	-	-	2,258,620	1,357,194	234,689	-	1,591,883	666,737	
	Furniture & Fixture	7,334,031	233,850	-	7,567,881	4,785,588	404,883	-	5,190,471	2,377,410	
	Office Equipment	12,212,530	34,790	-	12,247,320	6,931,520	1,420,353	-	8,351,873	3,895,447	
	Electric Installation	11,719,138	-	-	11,719,138	5,709,597	1,008,677	-	6,718,274	5,000,864	
	Air Conditioners	21,260,451	-	-	21,260,451	10,858,218	1,861,493	-	12,719,711	8,540,740	
	Water Coolers & Refrigerators	182,751	-	-	182,751	173,614	-	-	173,614	9,137	
	Fans & Air-Coolers	1,187,013	-	-	1,187,013	1,116,887	3,295	-	1,120,182	66,831	
	Generator Set	7,047,195	-	-	7,047,195	3,087,197	360,284	-	3,447,481	3,599,714	
	Cycle	27,711	-	-	27,711	26,112	268	-	26,380	1,331	
	Temporary Structure	710,114	-	-	710,114	710,114	-	-	710,114	-	
	Library Books	1,394,547	61,924	-	1,456,471	1,394,547	61,924	-	1,456,471	-	
	Computer	26,273,981	3,072,884	-	29,346,865	20,926,047	3,059,032	-	23,985,079	5,361,786	
	Computer (Survey)	2,990,000	87,350	-	3,077,350	12,970	947,819	-	960,789	2,116,561	
	Computer (FV)	-	139,981	-	139,981	-	32,061	-	32,061	107,920	
KOLKATA	Communication equip. Building	1,523,420	-	-	1,523,420	1,305,708	141,540	-	1,447,248	76,172	
	Computer Software	110,197,880	475,375	-	110,197,880	34,620,716	1,846,153	-	36,466,869	73,731,011	
	Computer Software (Survey)	2,250,247	418,621	-	2,725,622	1,718,575	305,615	-	2,024,190	701,432	
	Residence Quarter	30,857,003	-	-	30,857,003	8,407,380	474,684	-	8,882,064	21,974,939	
	Car Parking	23,392,491	-	-	23,392,491	3,584,079	338,921	-	3,923,000	19,469,491	
	Lease -Land	17,951,542	-	-	17,951,542	271,655	271,655	-	543,310	17,408,232	
	Passenger Lift	4,612,400	-	-	4,612,400	706,689	66,826	-	773,515	3,838,885	
	TOTAL (A)	287,944,325	4,524,775	-	292,469,100	110,092,343	12,878,757	-	122,971,100	169,498,000	
	Terminal	469,533,981	403,200	-	469,937,181	85,621,461	13,884,052	-	99,505,513	370,431,668	
	Vehicles	1,184,049	-	-	1,184,049	595,451	108,409	-	703,860	480,189	
	Furniture & Fixture	1,580,731	1,600	-	1,582,331	1,186,654	82,900	-	1,269,554	312,777	
	Office Equipment	876,819	174,026	-	1,050,845	671,813	62,260	-	734,073	316,772	
	Electric Installation	67,889	-	-	67,889	59,986	2,014	-	62,000	5,889	
	Survey Instruments	26,022,845	1,244,900	-	27,267,745	19,244,120	1,264,627	-	20,508,747	6,758,998	
	Library Books	135,388	8,498	-	143,886	135,388	8,498	-	143,886	-	
Speed Boats	2,833,266	-	-	2,833,266	2,658,928	19,653	-	2,678,583	154,683		
Vessels Ordinary	219,718,583	-	-	219,718,583	101,197,812	5,574,465	-	106,772,277	112,946,306		
Fans & Air Coolers	91,073	-	-	91,073	70,483	3,518	-	74,001	17,072		
Communication Network	4,099,567	-	-	4,099,567	913,453	577,783	-	1,491,236	2,608,331		
Barges	116,331,102	-	17,830,905	134,162,007	36,313,424	2,802,706	563,098	39,679,228	94,482,779		
Cycles	5,975	-	-	5,975	4,718	297	-	5,015	960		
Vessel Dredging Unit	206,693,296	-	-	206,693,296	71,738,628	6,411,831	-	78,150,459	128,542,837		
Computers	2,931,454	483,928	-	3,415,382	2,668,208	144,328	-	2,812,536	602,846		
Computers Software	2,562,108	-	-	2,562,108	1,750,598	279,403	-	2,030,001	532,107		
Night Nav. Equipment	59,181,599	3,314,247	-	62,495,846	26,544,595	2,911,235	345,248	29,801,078	32,694,768		
Air Conditioner	728,854	185,016	-	913,870	426,285	71,434	-	497,719	416,151		
Generator Set	1,185,869	-	-	1,185,869	534,493	75,728	-	610,221	575,648		

RIS Station Structure	19,869,240			19,869,240	1,017,992	314,973	1,332,965	18,536,275
RIS Equipment	140,667,890			140,667,890	28,801,579	8,908,966	37,710,545	102,957,345
Terminal - Land	1,150,000,000			1,150,000,000	-	-	-	1,150,000,000
DGPS Station	14,215,359			14,215,359	5,746,606	750,255	6,496,861	7,718,498
TOTAL (B)	2,440,536,937	5,815,415	17,830,905	2,464,183,257	387,902,675	44,259,337	433,070,358	2,031,112,899
Land	21,620,100			21,620,100	-	-	-	21,620,100
Vehicle	2,620,377			2,620,377	881,328	224,325	1,105,653	1,514,724
Furniture & Fixture	2,623,735	61,365		2,685,100	2,119,457	198,633	1,418,090	1,267,010
Office Equipment	380,623	306,379		687,002	216,981	46,378	363,359	423,643
Electric Installation	2,573,508			2,573,508	287,254	244,628	531,882	2,041,626
Air Conditioners	1,354,325	281,160		1,635,485	599,980	144,980	744,960	890,525
Water Coolers &					-	-	-	-
Refrigerators	70,950	36,250		107,200	52,429	13,247	65,676	41,524
Generator Set					-	-	-	-
Survey Instruments	32,200,605	5,074,600		37,275,205	15,612,707	1,820,925	17,401,096	19,874,109
Vessels: Dredging Unit	804,999,581			804,999,581	456,985,255	13,470,873	470,456,128	334,543,453
Vessels: Ordinary	107,275,723	437,071,860		544,347,583	47,774,731	3,876,143	51,650,874	492,696,709
Speed Boat	2,662,309			2,662,309	1,881,506	72,486	1,953,992	708,317
Barges	92,233,341			92,233,341	42,934,924	1,667,873	44,602,797	47,630,544
Temporary Structure		424,845		424,845	-	21,747	21,747	403,098
Computer	4,550,079	209,824		4,759,903	4,051,879	187,201	4,239,080	520,823
Library Books	107,521	9,943		117,464	107,521	9,943	117,464	-
Survey Equip(compu)	4,857,317	455,629		5,312,946	4,604,441	80,087	4,684,528	628,418
Survey Pillars	649,995			649,995	438,738	22,368	461,106	188,889
Communication Equip.	1,345,844			1,345,844	1,135,736	43,117	1,178,853	166,991
Building on Free Hold Land	57,087,430			57,087,430	3,234,858	904,262	4,139,120	52,948,310
Building on Lease Hold Land	22,416,797	3,292,179		25,708,976	464,479	394,558	859,037	24,849,939
Boundary Wall	6,393,000			6,393,000	303,027	101,009	404,036	5,988,964
Terminals & Building -	602,909,758			602,909,758	220,762,453	16,296,603	237,059,056	365,850,702
Night Navigation BOUYS	9,277,200			9,277,200	5,063,261	494,680	5,557,941	3,719,259
DGPS STATION	32,245,501			32,245,501	14,033,222	1,640,687	15,673,909	16,571,592
BEACON Tower	15,895,321			15,895,321	7,894,318	1,029,866	8,924,184	6,971,137
SHOAL ANALYSIS	4,926,846			4,926,846	4,680,503	-	4,680,503	246,343
RIS Station	102,149,566			102,149,566	8,295,400	5,806,966	14,102,366	88,047,200
Sewerage Treatment Plant	10,888,000		(36,000)	10,852,000	1,718,078	699,294	2,417,372	8,434,628
CRANE	46,326,824			46,326,824	36,763,981	4,974,602	41,738,583	4,588,241
TOTAL (C)	1,992,642,176	447,224,034	(36,000)	2,439,830,210	881,998,447	54,487,481	936,453,392	1,503,376,818
Communication Equipment	1,504,388			1,504,388	1,135,349	81,255	1,216,604	287,784
Vehicles	1,576,029			1,576,029	429,662	124,892	554,554	1,021,475
Furniture & Fixture	1,487,039	223,870		1,710,909	830,882	100,265	931,147	779,762
Office Equipment	770,252	47,415		817,667	497,823	66,655	564,478	253,189
Electric Installation	50,819			50,819	39,153	2,542	41,695	9,124
Fans & Air-Coolers	51,180	6,600		57,780	33,426	3,772	37,198	20,582
Survey Instruments	15,454,689	5,665,876		21,120,565	10,388,107	940,836	11,328,943	9,791,622
Cycle	680			680	646	-	646	34
Library Books	44,175	3,709		47,884	44,175	3,709	47,884	-
Vessel Speed Boat	4,021,123			4,021,123	3,002,340	183,890	3,186,230	834,893
Generator Set	119,500			119,500	42,568	5,281	47,849	71,651
Computer	5,660,851	561,571		6,222,422	4,309,227	326,068	4,635,295	1,587,127
Terminals- Pandu	1,782,458,492	51,073,086		1,833,531,578	337,203,613	53,394,962	390,598,575	1,442,933,003
Night Navigation Equip.	15,617,252			15,617,252	10,122,121	951,148	11,073,269	4,543,983
Barges	133,745,241			133,745,241	58,016,557	3,912,531	61,929,088	71,816,153
Vessels - Ordinary	1,047,604,543	436,190,400		1,483,794,943	112,253,598	33,237,318	145,490,916	1,338,304,027

Land Terminal	128,549,213	-	-	128,549,213	-	-	-	128,549,213
Vessels Dredging Unit	1,504,254,532	-	-	1,504,254,532	504,634,560	37,930,476	-	542,565,036
CRANE	44,969,796	-	-	44,969,796	33,504,148	4,621,240	-	38,125,388
Air Conditioner	798,000	-	-	798,000	266,271	75,520	-	341,791
RIS Equipment	4,207,723	-	-	4,207,723	541,751	266,488	-	808,239
Building	-	-	-	-	-	-	-	-
TOTAL (D)	4,692,945,517	493,772,527	-	5,186,718,044	1,077,295,977	136,228,848	-	1,213,524,825
SAHIBGANJ	54,467	-	-	54,467	51,744	-	-	3,973,193,219
Buoys	1,388,939	-	-	1,388,939	334,226	117,484	-	51,744
Vehicle	276,402	-	-	276,402	188,473	13,276	-	451,710
Furniture & Fixtures	182,810	-	-	182,810	113,278	22,204	-	201,749
Office Equipment	3,227	-	-	3,227	3,066	-	-	135,482
Electric Installation	25,819	-	-	25,819	13,592	1,829	-	3,066
Fans & Air Coolers	2,606,603	-	-	2,606,603	2,170,857	68,119	-	15,421
Survey Instruments	561,255	-	-	561,255	561,255	-	-	10,398
Barges	701	-	-	701	666	-	-	2,238,976
Cycle	25,805	-	-	25,805	25,805	-	-	2,895,427
Library Books	157,026	-	-	157,026	149,175	-	-	-
Communication Equipment	36,734	-	-	36,734	-	-	-	666
Land	237,197	-	-	237,197	225,338	-	-	25,805
Computers	18,320,308	-	-	18,320,308	9,190,056	1,028,893	-	149,175
DGPS STATION	4,570,826	-	-	4,570,826	757,811	81,884	-	7,851
Terminals-	20,000	-	-	20,000	9,563	1,923	-	149,175
Air-Conditioner	28,468,119	2,527,800	-	30,434,664	13,794,905	1,335,612	(561,255)	36,734
TOTAL (E)	1,341,190	-	(561,255)	1,341,190	831,145	67,649	-	225,338
Furniture & Fixtures	532,621	386,885	-	919,506	209,225	80,935	-	-
Office Equipment	54,890	4,956	-	59,846	39,046	2,309	-	809,395
Fans & Air Coolers	83,200	-	-	83,200	45,610	4,085	-	11,486
Survey Instruments	8,216,131	1,604,250	-	9,820,381	4,867,133	483,571	-	8,514
Communication Equipment	1,478,437	1,820	-	1,480,257	868,837	148,895	-	49,695
Generator	354,969	-	-	354,969	273,815	22,481	-	5,352,704
Computer	2,276,469	-	-	2,276,469	1,724,790	226,163	-	1,017,732
Survey Launch	5,624,584	-	-	5,624,584	3,918,552	156,737	-	296,296
SPEED BOATS	1,120,418	-	-	1,120,418	1,009,945	70,960	-	1,950,953
Land (Terminals)	212,276,630	2,174,821	-	214,451,451	-	-	-	4,075,289
Land Widening	17,169,491	171,905	(1,105,057)	16,236,339	-	-	-	1,080,905
Library Books	19,847	-	-	19,847	19,847	-	-	39,513
Building	8,390,016	-	-	8,390,016	1,446,101	132,842	-	214,451,451
Terminal & Building	346,552,315	96,368,855	-	442,921,170	131,037,584	11,333,671	-	16,236,339
Dredger	139,823,701	-	-	139,823,701	55,011,173	4,334,142	-	19,847
Night Navigation	46,829,294	2,421,927	(5,452,672)	43,798,549	26,946,545	1,767,962	(3,790,602)	1,578,943
Foot Over Bridge	2,188,615	-	-	2,188,615	1,139,479	69,306	-	142,371,255
Thottappally	-	-	-	-	-	-	-	59,345,315
Fork Lifts	6,370,925	-	-	6,370,925	5,002,815	403,492	-	80,478,386
Hydraulic Cranes	68,945,177	-	-	68,945,177	53,066,297	4,366,528	-	24,923,905
Electrical Installations	1,266,828	-	-	1,266,828	265,097	120,349	-	1,208,785
Temporary Terminal	1,236,195	-	-	1,236,195	1,236,195	-	-	54,063,307
Computer Software	2,316,621	209,080	-	2,525,701	2,018,807	114,147	-	57,432,825
TOTAL (F)	874,468,564	103,344,499	(6,557,729)	971,255,334	290,978,038	23,908,224	(3,790,602)	385,446
ALLAHABAD	660,471	163,880	-	824,351	468,217	143,371	-	1,236,195
Computer	154,339	-	-	154,339	146,622	-	-	2,132,954
Furniture & Fixtures	135,464	17,540	-	153,004	90,923	16,823	-	392,747
Office Equipment	12,155	-	-	12,155	11,547	-	-	2,132,954
Fans & Air Coolers	58,784	-	-	58,784	58,784	-	-	611,588
Library Books	1,074,339	-	-	1,074,339	453,336	105,986	-	146,622
Electrical Installation	-	-	-	-	-	-	-	107,746
	-	-	-	-	-	-	-	11,547
	-	-	-	-	-	-	-	58,784
	-	-	-	-	-	-	-	559,322
	-	-	-	-	-	-	-	515,017

Air-Conditioner		93,900		93,900		9,653		9,653		84,247
Land	2,405,763			2,405,763		-		-		2,405,763
TERMINAL	5,882,942	-		5,882,942	1,532,322	184,431		1,716,753		4,166,189
Buoys	3,613,680	-		3,613,680	47,027	116,780		163,807		3,449,873
W.C.&Bathroom(Terminal)	634,118	-		634,118	21,684	291,705		313,389		320,729
Survey Instruments	2,440,667	2,508,800	-	4,949,467	2,242,088	57,016		2,299,104		2,650,363
TOTAL (G)	17,072,722	2,784,120	-	19,856,842	5,072,550	925,765		5,998,315		13,858,527
VARANASI										
Furniture & Fixtures	176,607	767,888	121,112	1,065,607	138,967	46,795		185,762		879,845
Computer	706,742	-		706,742	346,461	62,957		409,418		297,324
Office Equipment	379,218	-		379,218	112,373	100,764		213,137		166,081
Fans & Air Coolers	7,225	40,000		47,225	6,356	2,096		8,452		38,773
Air-Conditioner		626,500		626,500		24,304		24,304		602,196
Electrical Installation		52,550		52,550		2,499		2,499		50,051
Vehicle	1,583,642	-		1,583,642	432,268	144,250		576,518		1,007,124
Communication Equipment		-		-		-		-		-
Library book	10,909	-		10,909		-		10,909		-
DGPS Station	12,558,612	-		12,558,612	986,038	400,225		1,386,263		11,172,349
Land -Freight Village	111,682,138	64,293,773	(95,441,788)	80,534,123		-		-		80,534,123
Building	2,155,414	-	(121,112)	2,034,302	148,409	985,212		1,133,621		900,681
Survey Instruments	3,060,383	2,527,800	-	5,588,183	2,254,504	361,758		2,190,364		3,397,819
TOTAL (H)	132,320,890	68,308,511	(95,441,788)	105,187,613	4,436,285	2,130,860		6,141,247		99,046,366
NINI										
Furniture & Fixtures	4,988,261	557,743	-	5,546,004	4,031,825	167,346		4,199,171		1,346,833
Generator Set	657,371	766,210	-	1,423,581	624,502	1,994		626,496		797,085
Computer	1,885,002	107,750	-	1,992,752	1,532,353	132,186		1,664,539		328,213
Office Equipment	1,397,909	492,456	-	1,890,365	1,219,247	57,644		1,276,891		613,474
Air Conditioner	1,444,881	211,800	-	1,656,681	1,053,863	111,045		1,164,908		491,773
Building/Workshop	113,739,075	-	-	113,739,075	18,368,841	1,774,901		20,143,742		93,595,333
Hostel & kitchen	606,957	-		606,957	576,610	-		576,610		30,347
Work SHOP WQUIPMENT	402,778	-		402,778	204,023	26,579		230,602		172,176
Fire Mock up Equipments	5,237,144	-		5,237,144	4,975,288	-		4,975,288		261,856
FRP Boat with OBM	528,962	-		528,962	232,667	30,121		262,788		266,174
Water Cooler& Refrigerator	542,542	90,600	-	633,142	365,742	24,898		390,640		242,502
Temporay Structure	1,661,542	-		1,661,542	1,661,542	-		1,661,542		-
Course Material & Equipments	529,999	-		529,999	529,999	-		529,999		-
SIMULATOR										
Library book	31,731,375	-	-	31,731,375	30,144,804	-		30,144,804		1,586,571
Computer Software	1,665,159	-		1,665,159	1,665,159	-		1,665,159		-
Electric Installation	6,002,388	-		6,002,388	5,702,269	-		5,702,269		300,119
Fans & Air Coolers	494,676	-		494,676	238,101	50,033		288,134		206,542
Survey Instruments	90,545	-		90,545	40,281	8,929		49,210		41,335
Vessel (Buxar, Ghoghra)	5,256,165	-	-	5,256,165	4,990,607	-		4,990,607		265,558
LAND	65,000	-	-	65,000	-	-		-		65,000
TOTAL (I)	165,881,542	2,226,559	-	165,881,542	78,157,723	2,385,676		80,543,399		266,492,433
JMVP										
Furniture & Fixtures	6,184,846	-	-	6,184,846	2,329,618	587,239		2,916,857		3,267,989
Furniture & Fixture-PIU-Patna	279,770	19,863	(204,970)	94,663	47,132	7,506		21,737		72,926
Furniture & Fixture-PIU-Sahibganj			204,970	204,970	-	19,467		52,368		152,602
Computer	2,735,505	-	-	2,735,505	2,217,024	214,781		2,431,805		303,700
computer-PIU Patna	280,875	-	(81,676)	199,199	111,505	55,604		166,682		32,517
Office Equipment	2,129,154	99,850	-	2,229,004	1,448,350	408,078		1,856,428		372,576
Office Equipment-Sahibganj		43,650	-	43,650	-	3,772		3,772		39,878
Office Equipment -Varansi		17,363	-	17,363	-	3,990		3,990		13,373
Library book	14,000	-	-	14,000	14,000	-		14,000		-

	Air Conditioner- PIU- Patna	408,000	-	(408,000)	-	77,485	-	(77,485)	-	-
	Air Conditioner- Sahibganj-PIU			408,000	408,000		38,739	77,485	116,224	291,776
	Computer Software	485,861	20,000		505,861	347,773	66,106		413,879	91,982
	Temporay Structure	9,037,112			9,037,112	9,037,112	-		9,037,112	-
	Electric Installation	2,549,577			2,549,577	968,839	242,210		1,211,049	1,338,528
	Electric Installation-- Varansi-PIU		11,619,270		11,619,270				-	11,619,270
	Electric Installation-- Sahibganj-PIU		32,999,567		32,999,567		1,305,691		1,305,691	31,693,876
	Kitchen Equipment	8,720			8,720	4,907	1,657		6,564	2,156
	WaterCooler & Refrigerator	27,800	-	(27,800)	-	8,412	-	(8,412)	-	-
	WaterCooler& Refrigerator-Sahi			27,800	27,800		5,281	8,412	13,693	14,107
	Fan & Air Coolers	15,525	7,505		23,030	6,965	4,020		10,985	12,045
	Furniture & Fixture-Kolkata	321,484	-		321,484	89,704	30,541		120,245	201,239
	Lease Land -Kolkata	401,888,022	-		401,888,022	14,574,399	14,571,126	-	29,145,525	372,742,497
	Land -Farakka-Kolkata	23,580,160			23,580,160	-	-	-	-	23,580,160
	Computer-Kolkata	411,342	17,555		428,897	128,256	117,460		245,716	183,181
	Computer-Varansi PIU			81,676	81,676		39,010	427	39,437	42,239
	Computer-Sahibganj-PIU		187,133		187,133		25,426		25,426	161,707
	Communication Equipment	861,858	2,685,882		3,547,740	92,868	569,722		662,590	2,885,150
	Vessel Ordinary-patna	63,343,800	-		63,343,800	3,950,483	2,005,887		5,956,370	57,387,430
	Vessel Ordinary-kolkata	63,343,800	-		63,343,800	3,811,185	2,006,376		5,817,561	57,526,239
	Terminal-Varansi	1,824,392,265			1,824,392,265		35,042,286		35,042,286	1,789,349,979
	LAND-Varanasi-Terminal	992,124,969	28,106,491	95,441,788	1,115,673,248	-	-		-	1,115,673,248
	LAND -Ghaziipur-Terminal	147,670,289	-		147,670,289				147,670,289	
	LAND-Sahibganj-Terminal	1,171,935,919	-		1,171,935,919				-	1,171,935,919
	TOTAL (K)	2,889,638,388	1,900,216,394	95,441,788	4,885,296,570	39,266,017	57,371,975	-	96,637,992	4,788,658,578
NW-4	Computer	535,163	205,582		740,745	273,061	109,998		383,059	357,686
	Furniture & Fixtures	745,107	138,584		883,691	237,670	75,753		313,423	570,268
	Library Books	4,910	7,598		12,508	4,910	7,598		12,508	
	Office Equipment	188,850	160,493		349,343	688	45,796		46,484	302,859
	Water Cooler	7,999	-		7,999	4	1,520		1,524	6,475
	Speed Boat (P.B.Falcon-I)	1,120,418			1,120,418	1,047,742	70,960	(82,686)	1,036,016	84,402
	Survey Instruments		2,489,800		2,489,800		49,116		49,116	2,440,684
	Air Conditioner	213,000	-		213,000	41,418	20,236		61,654	151,346
	TOTAL (L)	2,815,447	3,002,057		5,817,504	1,605,493	380,977	(82,686)	1,903,784	3,913,720
NW-5	Computer	770,660			770,660	139,396	69,698		209,094	561,566
	Furniture & Fixtures	341,042			341,042	68,008	34,004		102,012	239,030
	Water Cooler& Refrigerator	34,000			34,000		-		34,000	
	Office Equipment	81,345	8,275		89,620	16,908	8,964		25,872	63,748
	Fan & Air Coolers	10,100			10,100	746	373		1,119	8,981
	Barges & Pontoons	17,830,905		(17,830,905)	-	563,098		(563,098)	-	-
	Air Conditioner	170,340	-		170,340	25,361	12,883		38,244	132,096
	TOTAL (M)	19,238,392	8,275	(17,830,905)	1,415,762	847,517	125,922	(563,098)	410,341	1,005,421
	GRAND TOTAL	13,722,900,750	3,033,754,966	(7,154,984)	16,749,500,732	2,891,447,970	336,419,434	(4,547,729)	3,223,319,675	13,526,181,057
	(A+B+C+D+E+F+G+H+I+J+K+L+M)									
	PREVIOUS YEAR	(10,482,876,091)	901,656,140	(22,152,532)	13,722,900,750	2,380,073,050	229,445,434	(846,661)	2,608,671,823	8,753,707,879

For and on behalf of the Authority



(Dr.Amita Prasad)
Chairperson



(Rajesh Kumar Pathak)
Member (Finance)



(A. K. Gupta)
Director (F&A)

INLAND WATERWAYS AUTHORITY OF INDIA

28. SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020

		(Amount in Rs.)	
	PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 3 "CAPITAL"			
1	CAPITAL U/S 11 (1) (c) OF IWAI ACT	9,437,244.00	9,437,244.00
2	IWAI FUND U/S 19 OF IWAI ACT		
	OPENING BALANCE OF FUND	15,751,695,114.00	9,986,030,748.00
	ADD:		
	CAPITAL GRANTS RECEIVED FROM GOI	4,065,927,000.00	7,032,900,000.00
	INTERNAL RECEIPTS (AS PER LIST)	299,598,237.30	371,287,654.71
	OTHER GRANTS RECEIVED (NATURE TO BE SPECIFIED)		
	OTHERS (NATURE TO BE SPECIFIED)		
	LESS:		
	AMOUNT PAYABLE TO GOI	(299,598,237.30)	(371,287,654.71)
	UNSPENT GRANT PAYABLE TO GOI	-	(13,960,000.00)
	TRANSFERRED TO INCOME & EXPENDITURE ACCOUNTS	(321,576,653.00)	(270,004,071.00)
	BOOK VALUE OF FIXED ASSETS SOLD/WRITTEN OFF DURING THE YEAR	(238,994.00)	371,058.00
	OTHERS (NATURE TO BE SPECIFIED)		
	- ADJUSTMENT OF DEPRECIATION		-
	ADD/LESS: SURPLUS/DEFICIT TRANSFERRED FROM INCOME & EXPENDITURE ACCOUNTS	(1,731,516,799.00)	(983,642,621.00)
	CLOSING BALANCE OF IWAI FUND	17,764,289,668.00	15,751,695,114.00
	TOTAL		
SCHEDULE - 4 "RESERVES & SURPLUS"			
1	CAPITAL RESERVES		
	OPENING BALANCE		-
	ADDITION DURING THE YEAR	-	-
	REDUCTION DURING THE YEAR		-
	CLOSING BALANCE	-	-
2	GENERAL RESERVE		
	OPENING BALANCE	-	-
	ADDITION DURING THE YEAR	-	-
	REDUCTION DURING THE YEAR	-	-
	CLOSING BALANCE	-	-
3	ANY OTHER RESERVES/FUND (NATURE TO BE SPECIFIED)		
	OPENING BALANCE	-	-
	ADDITION DURING THE YEAR	-	-
	REDUCTION DURING THE YEAR	-	-
	CLOSING BALANCE	-	-
	TOTAL (1+2+3)	-	-
SCHEDULE - 5 "EARMARKED/ENDOWMENT FUNDS"			
	OPENING BALANCE	-	-
	ADDITION DURING THE YEAR FROM DONATIONS/GRANTS	-	-
	INCOME FROM INVESTMENT MADE ON ACCOUNT OF FUNDS	-	-
	OTHER ADDITIONS (NATURE TO BE SPECIFIED)	-	-
	REDUCTION DURING THE YEAR	-	-
	CLOSING BALANCE	-	-

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 6 "LONG TERM BORROWINGS"			
A	SECURED		
1	LOANS FROM GOVT. OF INDIA		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
2	LOANS FROM FINANCIAL INSTITUTIONS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
3	LOANS FROM BANKS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
4	LOANS FROM OTHER INSTITUTIONS & AGENCIES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
5	BONDS/DEBENTURES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
6	OTHER LOANS (NATURE TO BE SPECIFIED)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
B	UNSECURED		
1	LOANS FROM GOVT. OF INDIA		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
2	LOANS FROM FINANCIAL INSTITUTIONS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
3	LOANS FROM BANKS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
4	LOANS FROM OTHER INSTITUTIONS & AGENCIES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
5	BONDS/DEBENTURES		
	OPENING BALANCE	10,000,000,000.00	10,000,000,000.00

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
	ADDITION, IF ANY, DURING THE YEAR		-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	10,000,000,000.00	10,000,000,000.00
6	OTHER LOANS (NATURE TO BE SPECIFIED)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	TOTAL (SCHEDULE - 6)	10,000,000,000.00	10,000,000,000.00
SCHEDULE - 7 "OTHER NON CURRENT LIABILITIES"			
1	SECURITY DEPOSIT RECEIVED	355,759,794.00	269,048,701.00
2	EARNEST MONEY RECEIVED	1,718,322.00	3,066,354.00
3	MARGIN MONEY RECEIVED		
4	TAXES WITHHELD	153,888,438.00	2,860,215.00
5	LIABILITIES FOR EXPENSES	88,745,815.00	5,956,308.00
6	DUTIES AND TAXES PAYABLE	-	1,918,238.00
7	INTERNAL RECEIPT PAYABLE TO GOI	-	
8	ADVANCE RECEIVED FROM CUSTOMERS	1,562,307.00	
9	RETENTION MONEY	-	
10	OTHERS		
	- LIABILITIES FOR LEAVE ENCASHMENT	103,935,203.00	103,935,203.00
	- CLAIM PAYABLE	17,439,891.00	18,488,206.00
	TOTAL	723,049,770.00	405,273,225.00
SCHEDULE - 8 "LONG TERM PROVISIONS"			
1	PROVISION FOR GRATUITY	-	-
2	PROVISION FOR LEAVE SALARY & PENSION CONTRIBUTION (FOR EMPLOYEES ON DEPUTATION)	-	-
3	PROVISION FOR PENSION CONTRIBUTION	-	-
4	PROVISION FOR LEAVE ENCASHMENT	-	-
5	PROVISION FOR NEW PENSION SCHEME	-	-
6	PROVISION FOR BONUS	-	-
7	PROVISION FOR DUTIES AND TAXES	-	-
8	PROVISION FOR INTEREST ON BONDS/DEBENTURES (i.e ACCRUED BUT NOT DUE)	-	-
9	PROVISIONS FOR BAD AND DOUBTFUL DEBTS	-	-
10	OTHER PROVISIONS	16,557,618.00	17,847,070.00
	TOTAL	16,557,618.00	17,847,070.00
SCHEDULE - 9 " SHORT- TERM BORROWINGS"			
A	SECURED		
1	LOANS FROM GOVT. OF INDIA		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
2	LOANS FROM FINANCIAL INSTITUTIONS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
3	LOANS FROM BANKS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
4	LOANS FROM OTHER INSTITUTIONS & AGENCIES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
5	BONDS/DEBENTURES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
6	OTHER LOANS (NATURE TO BE SPECIFIED)	-	
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
B	UNSECURED		
1	LOANS FROM GOVT. OF INDIA		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
2	LOANS FROM FINANCIAL INSTITUTIONS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
3	LOANS FROM BANKS		
	(A) TERM LOANS		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	(B) OTHER LOANS (SPECIFY)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
4	LOANS FROM OTHER INSTITUTIONS & AGENCIES		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
5	BONDS/DEBENTURES		
	OPENING BALANCE	250,966,575.00	249,615,830.00
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	(250,966,575.00)	(249,615,830.00)
	INTEREST ACCRUED AND DUE	251,627,916.00	250,966,575.00
	CLOSING BALANCE	251,627,916.00	250,966,575.00
6	OTHER LOANS (NATURE TO BE SPECIFIED)		
	OPENING BALANCE	-	-
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	-	-
	TOTAL (SCHEDULE - 9)	251,627,916.00	250,966,575.00
SCHEDULE - 10 "SUNDRY CREDITORS"			
1	SUPPLIERS & CONTRACTORS	548,954,438.00	73,382,231.00
2	PROFESSIONALS	1,280,922.00	31,171,897.00
3	OTHERS	1,289,033,309.00	7,701,109.00
	TOTAL	1,839,268,669.00	112,255,237.00
SCHEDULE - 11 "OTHER CURRENT LIABILITIES"			
1	SECURITY DEPOSIT RECEIVED	78,764,663.00	195,415,224.00
2	EARNEST MONEY RECEIVED	8,090,032.00	24,500,240.00
3	MARGIN MONEY RECEIVED	-	-
4	TAXES WITHHELD	75,500,933.00	241,075,860.00
5	LIABILITIES FOR EXPENSES	138,283,481.00	815,262,391.00

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
6	DUTIES AND TAXES PAYABLE	10,470,857.00	29,351,362.00
7	INTERNAL RECEIPT PAYABLE TO GOI	299,598,237.00	371,287,655.00
8	UNSPENT GRANT PAYABLE TO GOI	-	13,960,000.00
9	ADVANCE RECEIVED FROM CUSTOMERS	51,443,777.00	11,985,589.00
10	RETENTION MONEY	6,800.00	-
11	OTHERS (NATURE TO BE SPECIFIED)	146,232,123.00	27,382,676.00
TOTAL		808,390,903.00	1,730,220,997.00
SCHEDULE - 12 "PROVISIONS"			
1	PROVISION FOR GRATUITY	-	-
2	PROVISION FOR LEAVE SALARY & PENSION CONTRIBUTION (FOR EMPLOYEES ON DEPUTATION)	5,118,990.00	3,649,332.00
3	PROVISION FOR PENSION CONTRIBUTION	-	-
4	PROVISION FOR LEAVE ENCASHMENT	-	-
5	PROVISION FOR NEW PENSION SCHEME	-	-
6	PROVISION FOR BONUS	1,533,577.00	1,553,725.00
7	PROVISION FOR DUTIES AND TAXES	-	-
8	PROVISION FOR INTEREST ON BONDS/DEBENTURES (i.e ACCRUED BUT NOT DUE)	-	-
9	PROVISION FOR BAD & DOUBTFULL DEBTS	-	-
10	OTHER PROVISIONS (MEDICAL)	4,139,074.00	1,281,088.00
TOTAL		10,791,641.00	6,484,145.00



(A. K. Gupta)
Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman

For and on behalf of the Authority



(Dr. Amita Prasad)
Chairperson

SCHEDULE - 13

175

- Fire Mock up Equipments	5,237,144	-	-	5,237,144	4,975,288	-	-	4,975,288	261,856	261,856
- Survey Equipments/Instruments	103,326,660	24,099,455	-	127,426,115	69,202,841	5,161,855	(458,434)	73,906,262	53,519,853	34,123,819
- Others (to be specified)	-	-	-	-	-	-	-	-	-	-
- Kitchen Equipment	8,720	-	-	8,720	4,907	1,657	-	6,564	2,156	3,813
- Sewerage Treatment Plant	10,888,000	-	(36,000)	10,852,000	1,718,078	699,294	-	2,417,372	8,434,628	9,169,922
TOTAL (IV)	731,743,040	32,000,215	(5,488,672)	758,254,583	358,946,222	38,612,579	(3,903,788)	393,655,113	364,599,470	372,796,718
Furniture and fittings										
- Hostel & kitchen	606,957	-	-	606,957	576,610	-	-	576,610	30,347	30,347
- Furniture & Fixtures	27,834,584	2,004,763	121,112	29,960,459	16,131,745	1,836,257	-	17,968,002	11,992,457	11,702,839
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (V)	28,441,541	2,004,763	121,112	30,567,416	16,708,355	1,836,257	-	18,544,612	12,022,804	11,733,186
Motor Vehicles										
- Motor Vehicles	10,611,656	-	-	10,611,656	4,030,129	954,049	-	4,984,178	5,627,478	6,581,527
- Cycles	35,067	-	-	35,067	32,142	565	-	32,707	2,360	2,925
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (VI)	10,646,723	-	-	10,646,723	4,062,271	954,614	-	5,016,885	5,629,838	6,584,452
Ships and Vessels										
- Vessels Ordinary	1,506,976,033	873,262,260	-	2,380,238,293	272,906,361	46,856,926	-	319,763,287	2,060,475,006	1,234,069,672
- Speed Boats	12,286,496	-	-	12,286,496	9,803,008	417,951	(82,686)	10,138,273	2,148,223	2,483,488
- Vessels Dredging Unit	2,655,771,110	-	-	2,655,771,110	1,088,391,300	62,147,322	-	1,150,538,622	1,505,232,488	1,567,379,810
- Barges and Pontoons	360,701,844	-	(561,255)	360,140,589	147,985,098	17,978,952	(561,255)	165,402,795	194,737,794	212,716,746
- Others (to be specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (VII)	4,535,735,483	873,262,260	(561,255)	5,408,436,488	1,519,085,767	127,401,151	(643,941)	1,645,842,977	3,762,593,511	3,016,649,716
Office equipments										
- Water Coolers & Refrigerators	866,042	126,850	-	992,892	634,201	44,946	-	679,147	313,745	231,841
- Fans & Air Coolers	1,545,525	59,061	-	1,604,586	1,339,329	30,141	-	1,369,470	235,116	206,196
- Others (Printer/Fax/Copier,etc.)	19,267,595	1,789,122	-	21,056,717	11,621,997	2,344,616	-	13,966,613	7,090,104	7,645,598
TOTAL (VIII)	21,679,162	1,975,033	-	23,654,195	13,595,527	2,419,703	-	16,015,230	7,638,965	8,083,635
Computers and data processing units										
- Computers	52,905,791	5,237,438	-	58,143,229	39,140,881	5,893,163	-	45,034,044	13,109,185	13,764,910
- Communication Equipments	10,970,540	2,687,702	-	13,658,242	5,508,258	1,562,312	-	7,070,570	6,587,672	5,462,282
- Simulators	31,731,375	-	-	31,731,375	30,144,804	-	-	30,144,804	1,586,571	1,586,571
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (IX)	95,607,706	7,925,140	-	103,532,846	74,793,943	7,455,475	-	82,249,418	21,283,428	20,813,763
Electrical Installations and Equipment										
- Electric Installations	19,800,001	44,671,387	-	64,471,388	8,024,429	3,084,629	-	11,109,058	53,362,330	11,775,572
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (X)	19,800,001	44,671,387	-	64,471,388	8,024,429	3,084,629	-	11,109,058	53,362,330	11,775,572
Books & Periodicals										
- Library Books	3,481,045	91,672	-	3,572,717	3,481,045	91,672	-	3,572,717	-	-
- Course Materials & Equipment (NINI)	529,999	-	-	529,999	529,999	-	-	529,999	-	-
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL (XI)	4,011,044	91,672	-	4,102,716	4,011,044	91,672	-	4,102,716	-	-
TOTAL - (A) TANGIBLE ASSETS (I to XI)	13,709,283,525	3,032,631,890	(7,154,984)	16,734,760,431	2,879,909,948	335,619,257	(4,547,729)	3,210,981,476	13,523,778,955	10,829,373,577
(B) INTANGIBLE ASSETS										
- Developed in-House	-	-	-	-	-	-	-	-	-	-
- Software	-	-	-	-	-	-	-	-	-	-
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
Bought Out										
- Software	13,617,225	1,123,076	-	14,740,301	11,538,022	800,177	-	12,338,199	2,402,102	2,079,203
- Others (to be Specified)	-	-	-	-	-	-	-	-	-	-
TOTAL - (B) INTANGIBLE ASSETS	13,617,225	1,123,076	-	14,740,301	11,538,022	800,177	-	12,338,199	2,402,102	2,079,203
GRAND TOTAL (A + B)	13,722,900,750	3,033,754,966	(7,154,984)	16,749,500,732	2,891,447,970	336,419,434	(4,547,729)	3,223,319,675	13,526,181,057	10,831,452,780
Previous Year	11,362,379,702	901,656,140	(22,152,532)	12,241,883,310	2,891,447,970	229,445,434	(846,661)	3,120,046,743	8,102,803,044	8,753,707,879

Note : - Depreciation of Rs. 336419434/- for the year and Rs. 322319675/- includes Amortisation of Rs. 14842781/- for the year on the Gross Blocks of Rs. 24481916/- in respect of Lease Land at Noida Office & Rs. 434253632/- in respect of Lease Land Terminals at Haldia Terminal.

(A. K. Gupta)
Director (F&A)

(Rajesh Kumar Pathak)
Member (Finance)

(Pravir Pandey)
Vice-Chairman

(Dr.Amita Prasad)
Chairperson

For and on behalf of the Authority

INLAND WATERWAYS AUTHORITY OF INDIA

30. SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020


SCHEDULE 14: "CAPITAL WORK IN PROGRESS"


(Amount in Rs.)


S.No.	PARTICULAR		OPENING BALANCE AS ON 31.03.2019	ADDITIONS DURING THE YEAR 2019-20	ASSETS CAPITALIZED DURING THE YEAR 2019-20	CLOSING BALANCE (As on 31.03.2020)
1	Noida Office					
1	M/s AB Design Habit & Co.,	Design, supervision of museum	3474805	0	0	3474805
2	M/s Inco Mechel Pvt. Ltd	Supply of 2 nos. pontoons of Sonia Vihar & Jagatpur		7178295	0	7178295
3	M/s Mormugao Port Trust			12873434	0	12873434
	Total Noida Office		3474805	20051729	0	23526534
	NW- 1 - Kolkata office					
1	M/s Nalanda Engineering Enterprises	Construction of BISN Gangways at Haldia Terminal	2122241	0		2122241
2	M/s Cleghorn Manufacturing Co. Limited	Keen laying of steel pontoon	4819500	0	0	4819500
	Total - Kolkata office		6941741	0	0	6941741
	Patna Office					
1	M/s Elcome Integrated Services Pvt. Ltd.	RIS Equipment at Patna-Varanasi, Mauzampur & Govindpur	14995864	0	0	14995864
2	M/s Cochin Shipyards Ltd.,		59400000	356400000	415800000	0
3	M/s Shiv Chandra Kumar	RIS Ramnagar, Zamania & Mauzampur	7414490	858011	3292179	4980322
4	M/s Indian Registrar Shipping	supervision work for vessels		881460	881460	0
5	M/s Libra Ship Management Pvt. Ltd	Transporting of -RO-Pax Vessels		20390400	20390400	0
	Total -Patna office		81810354	378529871	419092179	19976186
	Jal Marg Vikas Project					
1	M/s Afcons Infrastructure Ltd.	Construction of multimodal terminal at Varanasi	1736539760	87,852,505.00	1824392265	0
2	M/s Larsen & Toubro Ltd.	Construction of multimodal terminal at Sahibganj	1916685243	510762028	0	2427447271
		Construction of new navigational lock at Farakka	1217863319	997,951,237.00	0	2215814556
3	DFO, Kashi Wildlife Division	Setup of Trust for turtle wildlife sanctuary management	93697387		93697387	0
4	M/s ITD Cementation India Ltd.	Construction of MMT at Haldia	2188647251	1977957353	0	4166604604
5	M/s Adani Ports & SEZ Limited		217544062	345647603	0	563191665
6	CWIP-Operational & Maintenance	JMVP-PMU	894124162.1	233636662.6	0	1127760825
7	CWIP-Operational & Maintenance	Patna-PIU	30921901.41	-23285896.31		7636005.1
8	CWIP-Operational & Maintenance	Kolkata-PIU	20588678.2	25781580.67	0	46370258.87


S.No.	PARTICULAR		OPENING BALANCE AS ON 31.03.2019	ADDITIONS DURING THE YEAR 2019-20	ASSETS CAPITALIZED DURING THE YEAR 2019-20	CLOSING BALANCE (As on 31.03.2020)
9	CWIP-Operational & Maintenance	Varansi-PIU		6117123.26	0	6117123.26
10	CWIP-Operational & Maintenance	Sahibganj-PIU		42369234	0	42369234
11	Executive Engineer of varanasi	replacement cost of pump canal sytem	39000000		0	39000000
12	District Land Acquisition Officer	R&R for Sahibganj Land	374419000		0	374419000
13	D.C.Saran	District Land Acq.Officer, Saran, forSIA Study for Kalughat Terminal		757103		757103
14	M/s Adani Ports & SEZ Limited	LAD-Mahendraour-Barh		23030963	0	23030963
15	M/s Adani Ports & SEZ Limited	lad-Sultanganj-Mahendrapur		46652198	0	46652198
16	R&R-District Administration Sahibganj	R&R for Sahibganj Land		47232230		47232230
17						
	Total - JMVP		8730030764	4,322,461,924.25	1918089652	11134403036.00
NW-2						
1	CPWD-Guwahati	Construction of Terminal at Dhubri	0			0
2	M/s Yojaka India Pvt. Ltd	Construction of Slipway repair facility	4913896	0		4913896
3	Cochin Shipard Ltd	Construction of RO- pax Vessels	228000000	208190400	436190400	0
4	M/s Ranu Nandi	Extension & electrical installation of building for customs & immigration office at Dhubri	646418	0	646418	0
5	I.R.S	supervision work for vessels		440730		440730
Total - NW-2			233560314	208631130	436836818	5354626
NW-3						
1	CPWD-Kerala	Construction of terminal and approach Road at Alappuzha, Kayamkulam, Chavara	156,046,313	721195	96368855	60,398,653
2	M/s Cochin Shipyards Ltd.,		35,100,000	128700000	0	163,800,000
3	M/s IRS	supervision work for vessels		881460		881,460
3	M/s The Bismi Infotech	Local Area Network work	0	0	0	0
4	Executive Engineer Irrigation, Govt of Kerala	repair works of 40 feet navigational lock at Thanneermukkom	22800000	5700000	28500000	0
5	The Director, Inland Navigation Directorate	reconstruction of navigational lock at Thrikkunnappuzha	16228741	37403388		53632129
Total - NW-3			230,175,054	173,406,043	124,868,855	278,712,242
NW-4						
1	M/s Waterways Shipyards Pvt. Limited	floating pontoons on river krishna-NW-4	29232000	0	0	29232000
Total - NW-4			29,232,000	0	0	29,232,000
NW-5						
1	M/s Merolyn Engineering Works Pvt. Ltd.	Construction Design of Steel Pontoon with Gangway	0	0	0	0
Total - NW-5			0	0	0	0
1	Intangible Assets Under Development					
Grand Total			9,315,225,031.75	5,103,080,697.25	2,898,887,504.00	11,498,146,365.00

For and on behalf of the Authority


(A. K. Gupta)
Director (F&A)


(Rajesh Kumar Pathak)
Member (Finance)


(Pravar Pandey)
Vice-Chairman


(Dr. Amita Prasad)
Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA
SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020

SCHEDULE 15: "NON CURRENT INVESTMENTS"**(Amount in Rs.)**

S. No.	PARTICULAR	OPENING BALANCE	ADDITIONS DURING THE YEAR	DISPOSE OFF/ WRITTEN DOWN DURING THE YEAR	CLOSING BALANCE
A	INVESTMENT OUT OF EARMARKED FUND				
1	IN GOVERNMENT SECURITIES	-	-	-	-
2	OTHER APPROVED SECURITIES	-	-	-	-
3	SHARES	-	-	-	-
4	DEBENTURES AND BONDS	-	-	-	-
5	SUBSIDIARIES AND JOINT VENTURES	300,000.00	-	-	300,000.00
6	OTHERS (TO BE SPECIFIED)	-	-	-	-
	SUB -TOTAL (A)	300,000.00	-	-	300,000.00
B	INVESTMENT OUT OF OWN FUND				
1	IN GOVERNMENT SECURITIES				-
2	OTHER APPROVED SECURITIES	-	-	-	-
3	SHARES	-	-	-	-
4	DEBENTURES AND BONDS	-	-	-	-
5	SUBSIDIARIES AND JOINT VENTURES	-	-	-	-
6	OTHERS (LIC OF INDIA))	103,935,203.00	-	-	103,935,203.00
	SUB -TOTAL (B)	103,935,203.00	-	-	103,935,203.00
	TOTAL (A+B)	104,235,203.00	-	-	104,235,203.00

For and on behalf of the Authority



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Director (F&A)



(Rajesh Kumar Pathak)
Member (Finance)



(Pravir Pandey)
Vice-Chairman



(Dr. Amita Prasad)
Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020

(Amount in Rs.)

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 16 "DEPOSITS, LOANS AND ADVANCES"			
1	ADVANCE TO CONTRACTORS & SUPPLIERS		
	- CAPITAL ADVANCE	1638497094	1770283964
	- REVENUE ADVANCE	24994285	29225553
2	ADVANCE TO STAFF	6275551	6283935
3	DEPARTMENTAL ADVANCE		
4	SECURITY DEPOSITS PAID	41084101	39571460
5	ADVANCE DUTIES AND TAXES PAID	7804524	14804293
6	INTEREST ACCRUED & DUE	92545	119028
7	OTHERS	0	
	TOTAL	1718748100	1860288233
SCHEDULE - 17 "OTHER NON CURRENT ASSETS"			
1	PREPAID EXPENSES	831778	1262850
2	CLAIMS RECOVERABLE	180081498	82845014
3	OTHERS (NATURE TO BE SPECIFIED)		
	TOTAL	180913276	84107864



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Chairperson

SCHEDULE 18: "CURRENT INVESTMENTS"

(Amount in Rs.)

S. No.	PARTICULAR	OPENING BALANCE	ADDITIONS DURING THE YEAR	DISPOSE OFF/ WRITTEN DOWN DURING THE YEAR	CLOSING BALANCE
1	IN GOVERNMENT SECURITIES	-	-	-	-
2	OTHER APPROVED SECURITIES	-	-	-	-
3	SHARES	-	-	-	-
4	DEBENTURES AND BONDS	-	-	-	-
5	OTHERS (TO BE SPECIFIED)	-	21,373,281.00	-	21,373,281.00
	TOTAL	-	21,373,281.00	-	21,373,281.00



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Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA
SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020

(Amount in Rs.)

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 19 "INVENTORIES"			
1	MARINE SPARE PARTS	10388218	29511914
2	PERMANENT STORES	615786	6331347
3	CONSUMABLES & STATIONERY	470072	449539
4	POL STOCK	10817338	13571192
5	OTHERS (NATURE TO BE SPECIFIED)		0
	TOTAL	22291414	49863992
SCHEDULE - 20 "SUNDRY DEBTORS"			
1	MORE THAN SIX MONTHS	107966869	104052028
2	OTHERS (i.e. LESS THAN SIX MONTHS)	11565201	19832828
	TOTAL	119532070	123884856
SCHEDULE - 21 "CASH AND CASH EQUIVALENTS"			
1	CASH IN -HAND		
	- INR	27492	35816
	- FOREIGN CURRENCY		
2	STAMP IN-HAND		
3	CASH WITH BANKS		
	- CURRENT ACCOUNTS	86010	94261940
	- SAVING ACCOUNTS	138408978	915722293
4	SHORT TERM DEPOSIT WITH BANKS	2571693930	3919162164
5	REMITTANCE IN TRANSIT		0
	TOTAL	2710216410	4929182213
SCHEDULE - 22 "DEPOSITS LOANS AND ADVANCES"			
1	ADVANCE TO CONTRACTORS & SUPPLIERS		
	- CAPITAL ADVANCE	1468926385	929347898
	- REVENUE ADVANCE	9958118	14824206
2	ADVANCE TO STAFF	731049	1068159
3	DEPARTMENTAL ADVANCE	1074237	660331
4	SECURITY DEPOSITS PAID	2594389	1103766
5	ADVANCE DUTIES AND TAXES PAID	27491789	13302747
6	INTEREST ACCRUED & DUE	799806	7273708
7	OTHERS (NATURE TO BE SPECIFIED)		
	TOTAL	1511575773	967580815

INLAND WATERWAYS AUTHORITY OF INDIA
SCHEDULES FORMING PART OF THE BALANCE SHEET
AS AT 31st MARCH 2020

(Amount in Rs.)

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 23 "OTHER CURRENT ASSETS"			
1	INCOME ACCRUED	0	0
(a)	ON INVESTMENTS		
(b)	ON LOANS AND ADVANCES		
2	OTHER (INCLUDING CLAIMS RECOVERABLES)		
	- CLAIM RECOVERABLE	9139697	17901828
	- PREPAID EXPENSE	1060784	456791
	TOTAL	10200480	18358619

For and on behalf of the Authority



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(Pravir Pandey)
Vice-Chairman



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Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA

31. SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 2020 SCHEDULE - 24 "OPERATIONAL AND MAINTENANCE EXPENSES"

(Amount in Rs.)

PARTICULARS	H.O.	NW-1	NW-2	NW-3	NW-4	NW-5	NEW WATER WAYS	PATNA - NINI	JALMARG VIKAS PROJECT	CURRENT YEAR	PREVIOUS YEAR
(i) SURVEYING		13212906	32924368	2177553	2785066	48397567			0	218397460	156664792
(ii) DREDGING		11070130	44994718	21368108	28038945	0				205102901	523307731
(iii) BANDALLING		54086535	65576866							119663401	115473666
(iv) AIDS TO NAVIGATION & CHANNEL MARKING		11945309	22848941	11208317		174038673				220041240	41280986
(v) TERMINAL FACILITIES		81724132	55055968	11480253	0	121125			0	148381478	190548687
(vi) REPAIR AND MAINTENANCE OF VESSELS		72085661	13452760	3509925	141364	0				89189710	80715375
(vii) NIGHT NAVIGATION		83270155	48618221	35818657						167707033	111063536
(viii) PROTOCOL EXPENSES		27062508	0							27062508	23929717
(ix) RIVER BANK PROTECTION			181710183	9591176						191301359	5290669
(x) TRAINING EXPENSES		21906281								21906281	24686571
(xi) CONSULTANCY CHARGES	63270043	21358000	7584000	0	1862760	324470	62732918		0	157132191	170186048
(xii) PROJECT MANAGEMENT CONSULTANCY CHARGES	0		8895493	1650048	5665021	1709164	33947534		0	51867260	67174632
(xiii) PUBLIC PRIVATE PARTNERSHIP PROJECT EXPENSES										0	
(xiv) INFORMATION TECHNOLOGY RELATED EXPENSES	4569192	194400	196799	178020						5138411	9393006
(xv) INLAND WATERWAYS TRANSPORT PROMOTIONS EXPENSES	18821332	23191252	16970356	238813	0	0				59221753	117522531
(xvi) SALARY WAGES & OTHERS ADMINISTRATIVE EXPENSES							4763922		0	4763922	0
(xvii) OTHERS-Freight Village	7880405	4395328								12275733	1981032
- BARAK							35529785			35529785	250238041
-GHAGRA							26315			26315	117661
-GANDAK							12964633			12964633	24644643
TOTAL	94540972	644033597	498828673	97220870	38493156	224590999	149965107	0	0	1747673373	1914413324

For and on behalf of the Authority

(Signature)

(A. K. Gupta)
Director (F&A)

(Signature)

(Rajesh Kumar Pathak)
Member (Finance)

(Signature)

(Pravir Pandey)
Vice-Chairman

(Signature)

(Dr.Amita Prasad)
Chairperson

SCHEDULE - 25 "PERSONNEL AND ADMINISTRATIVE EXPENSES"

(Amount in Rs.)

PARTICULARS	HO	NW-1	NW-2	NW-3	NW-4	NW-5	NEW WATERWAYS	PATNA - NINI	JAL MARG VIKAS PROJECT	CURRENT YEAR	PREVIOUS YEAR
(A) PERSONNEL EXPENSES											
(i) PAY & ALLOWANCE	129118335	111945071	24515579	18075761	4709988	2653898				291018632	280073508
(ii) HONORARIUM	0								0	0	131500
(iii) MEDICAL FACILITIES	11385133	2453659	492658	1076957	147259	19787				15575453	16478169
(iv) DAILY WAGES						24440				24440	35230
(v) OVER TIME ALLOWANCES (OTA)	40413	48814	0							89227	169296
(vi) BONUS	435204	808237	163489	117436	27632	20724				1572722	1570419
(vii) LEAVE SALARY AND PENSION CONTRIBUTION FOR EMPLOYEES ON DEPUTATION	5118990									5118990	3808504
(viii) RENT FOR ACCOMMODATION PROVIDED TO EMPLOYEES	848433		0							848433	815903
(ix) LIVERIES	0	22478	45000	7500						74978	88180
(x) TUITION FEES	879200	788012	514456	398250	27000	27000				2633918	2460929
(xi) PENSION CONTRIBUTION	0	0	0	0	0	0				0	184869147
(xii) GRATUITY CONTRIBUTION	0	0	0	0	0	0				0	0
(xiii) LEAVE ENCASHMENT	1534298	93067	0	49257	0	0				15487622	1724986
(xiv) EMPLOYERS CONTRIBUTION TO NEW PENSION SCHEME (NPS)	1153434	718160	545462	271091	218552	0				2906699	2651038
(xv) LTC EXPENSES	1382764	676975	105092	138697	0	0				2323528	4551224
(xvi) STAFF WELFARE EXPENSES	1735326	408722	90600	59492	25785	15266				2335191	2562125
(xvii) STAFF RECRUITMENT EXPENSES	3379253			0						3379253	7283844
(xviii) SEMINAR AND TRAINING EXPENSES	3276479			0						3276479	727631
(xix) OTHER EXPENSES (NATURE TO BE SPECIFIED)										0	-
TOTAL	174098262	117963195	26472336	20214441	5156216	2761115	0	0	0	346665565	510003633
(B) ADMINISTRATIVE EXPENSES											
(i) REPAIR & MAINTENANCE	13589790	602015	81819	83560	276197	142463				14775844	14650119
(ii) COMMUNICATION EXPENSES	1377434	347753	161687	61031	61612					2145689	2135838
(iii) PRINTING & STATIONERY	3742877	151417	85604	111133	20084	42755				4153870	4150747
(iv) VEHICLE RUNNING & MAINTENANCE	9699599	625466	0	0	544797					10869862	10340589
(v) ADVERTISEMENT & PUBLICITY	495000			7983	0	147134				650117	959819
(vi) CONVEYANCE REIMBURSEMENT	431646	171576	7750	7424	4800	4950				628146	80812
(vii) TRAVELLING										0	-
- INLAND	12065533	971364	0	14910	96720	392920				13541447	13839343
- FOREIGN	371294	6772								3778066	2012168
(viii) NEWSPAPER & PERIODICALS	357311	129867	60479	54304	9315	2870				614146	487164
(ix) CONSUMABLES	292202	93175	10696	0	20840	13738				430651	496992
(x) ELECTRICITY & WATER	5129032	627461	0	137058	146656	47645				6087852	6098728
(xi) LEGAL AND PROFESSIONAL CHARGES	3697560	43391		211203	0	0				3952154	2920722
(xii) LOSS ON SALE OF ASSETS										0	-
(xiii) HINDI PROMOTION	300089	238735	42232	27930	1000					609986	603033
(xiv) AUDIT FEES & EXPENSE	3060424									3060424	2707698
(xv) AUTHORITY MEETINGS EXPENSES	140789				5726					146515	34494
(xvi) INSURANCE					26297					26297	6411
(xvii) RENT, RATES & TAXES		1718156	0	0		20724				1738880	2241696
(xviii) WRITTEN OFF										0	-
(ix) BAD DEBTS										0	-
(x) MISC. EXPENDITURE	22456	4935	0	84654	15345	9265				136656	519525
(xi) Bond Related Exp	0					0				0	2182037
(xii) OTHERS (Swachh Bharat Abhiyan)	505704	406785	111990	116245	40102	0				5732826	459981
- LEASE RENT WRITTEN OFF	271655									271655	271655
TOTAL	63502395	6138868	536742	1018091	724112	1430873	0	0	0	73351082	68020571
GRAND TOTAL (A + B)	237600657	124102063	27009078	21232532	5880328	4191988	0	0	0	420016647	578024205

SCHEDULE - 26 "FINANCE CHARGES"

(Amount in Rs.)

PARTICULARS	HO	NW-1	NW-2	NW-3	NW-4	NW-5	NEW WATERWAYS	PATNA - NINI	JALMARGVIKAS PROJECT	CURRENT YEAR	PREVIOUS YEAR
(i) BANK CHARGES	49826	29776	6009	2585	1043	979		0	0	90219	81631
(ii) INTEREST PAID										0	
- ON BONDS / DEBENTURE	764332001									764332001	762970738
- ON OTHERS				1670						1670	
(iii) COMMISSION / BROKAGE										0	
TOTAL	764381827	29776	6009	4255	1043	979	0	0	0	764423890	763052369

For and on behalf of the Authority

(Signature)

(A. K. Gupta)
Director (F&A)

(Signature)

(Rajesh Kumar Pathak)
Member (Finance)

(Signature)

(Pravir Pandey)
Vice-Chairman

(Signature)

(Dr.Amita Prasad)
Chairperson

INLAND WATERWAYS AUTHORITY OF INDIA

32. SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2020

SCHEDULE 27: "PRIOR PERIOD EXPENSES"

(Amount in Rs.)

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
Noida Office		
Noida Automobiles	318590	
Sharwan Kumar Kanojia	36899	
M/s First Class Photostate	31457	
United Associates	3609985	
NPC	41193	
NICST	726000	
GST	88789	
CITY LIFT (India) Pvt. Ltd	956744	
AIMS Raibareley	49500	
PCDA New Delhi	17853	
Abinash Roual	8736	
Charna Gupta Consultancy Pvt. Ltd	8850	
Indian Maritime University	17700	
Meena Devi	75465	
PK Srivastva, Ex HC	3402	
Noida	190969	
Controller of Publication, New Delhi	82500	
Indian Core Jams Jaguar ventines	200000	
Old World Hospitality Pvt. Ltd	46500	
Friendz Exhibitions & Promotions Pvt. Ltd	88500	
NPS in r/o Traun Kumar	32041	
EMD refund	32000	
Indian Chamber of Commerce	(513000)	
Total (A)	6150673	
Patna Office		
M/s Sanil Diesel Engineer	(468701)	
Ram Lochan, Assistant	9744	
M/s Balaram Singh	44800	

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
M/s Bhuvnesh Pratap Singh	43484	
D.M Patna	(13997)	
M/s Hi Tech. Elastomer Ltd.,	(203100)	
Survey Equipment excess depreciation charged	(32536)	
M/s Abhay Kumar Singh	(11396)	
M/s Gupta Instrument Works	420147	
Adjustement of S. Tax Old Due	(24365)	
Total (B)	(235920)	
Kolkata Office		
RAMASHANKAR	(25144)	
ADVANCE NAVIGATION	(246500)	
ELCOMER MARINE	(9057)	
MODEL CONSTRUCTION	(15100)	
ADVANCE NAVIGATION	(229750)	
A C ROY & CO. J958	(4750)	
A C ROY & CO. J961	(4750)	
SABITA UDYOG J990	(786)	
SIM CO. J59	(35853)	
LOKNATH J64	(1374)	
LOKNATH J65	(1291)	
JAGDEEP SINGH J66	(1181)	
SIM CO. J82	(18912)	
MODEL J87	(18186)	
MD WASIM J151	(2691)	
LOKNATH TRAVELS J152	(748)	
DAS ENTERPRISE	(1470)	
CARRION AIRCOOLING J180	(1540)	
PARBATI J203	(25093)	
Das Enterprise J205	(2465)	
HARERAM SHARMA J242	(18607)	
SIM CO. J243	(37825)	
EMTECH J268	(62568)	

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
FRENCH J282	(2088)	(684745278)
SIM CO. J289	(2093)	
Bard Roy Infotech J290	(9233)	
STOTEX J293	(3572)	
HARERAM SHARMA J300	(1803)	
Hareram J302	(946)	
LOKNATH TRAVELS J322	(1526)	
LOKNATH CONST. J367	(737)	
SINHA & ASSOCIATES J371	(2175)	
DAS ENTERPRISE J846	(1465)	
ELEGANT J384	(329)	
FRENCH J393	(431)	
FRENCH J394	(248)	
FRENCH ENTERPRISE J429	(1220)	
DAS ENTERPRISE J432	(2481)	
SIM CO. J437	(39005)	
SIM CO. J438	(30002)	
FRENCH J440	(1228)	
HARERAM J460	(2940)	
FRENCH J462	(14410)	
ASIAN J463	(4854)	
Loknath Travels J475	(1067)	
RAMASHANKAR J512	(70777)	
FRENCH J513	(548)	
HOOGHLY MARINE J553	(36026)	
SERVONICS J555	(2610)	
Das Enterprise J562	(1114)	
SIM CO. J573	(39004)	
SUBIR PAUL J578	(856)	
DAS ENTERPRISE J586	(1500)	
FRENCH J590	(5448)	
PARBATI CONSTRUCTION J679	(3481)	

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
PARBATI J689	(11393)	
LOKNATH TRAVELS J697	(2261)	
ELCOME J698	(29885)	
FRENCH J700	(4740)	
SIM CO. J709	(19502)	
FRENCH J738	(913)	
French J741	(8126)	
SIM Company J-797	(19502)	
A.B.Traders J-798	(2026)	
A.B.Traders J-799	(68241)	
FRENCH ENTERPRISES J-810	(6063)	
FRENCH J-812	(5325)	
FRENCH ENTERPRISES J-812	(4720)	
Emtech Service	(26777)	
PARBATI J816	(10638)	
LOKNATH J820	(519)	
SIM CO. J855	(14456)	
SIM CO. J856	(14070)	
SIM CO. J857	(14070)	
SIM CO. J858	(14070)	
SIM CO. J861	(14070)	
SIM COM0PANY J-862	(15050)	
SIM CO. J863	(14070)	
SIM CO. J865	(7282)	
SIM CO. J866	(14070)	
SIM CO. J867	(10496)	
SIM CO. J868	(14070)	
Sim Co. 869	(14070)	
Sim Co. J870	(14070)	
Sim Co. J871	(14070)	
Sim Co. J872	(7282)	
Sim Co. J873	(20894)	

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
SIM J876	(31825)	
DAS ENTERPRISE J879	(168142)	
FRENCH J882	(4325)	
FRENCH J889	(14855)	
FRENCH J890	(15146)	
FRENCH J901	(8125)	
HARERAM SHARMA J967	(8449)	
French Enterprises	(9186)	
HARERAM J988	(12896)	
FRENCH J1050	(19861)	
Nalanda Engineering	(9000)	
R.K.Engineering	(5800)	
R.K.Engineering	(34440)	
MONSHA WATERLINES	(4680)	
MODEL CONSTRUCTION	(5500)	
CLAIM FOR LOST OF BUOYS	(1194399)	
CLAIM RECOVERABLE FROM CIWTC	56950	
Total (C)	(2977328)	
Varanasi Office		
	(14204)	
	(425898)	
	(1436248)	
Total (D)	(1876350)	
NINI Office		
Farha Tailors	(39402)	
Total (E)	(39402)	

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
Kochi Office		
M/s KSEB Thakazhy	219461	
Shifting of Jalanidhi Pipe Lines	9441	
Total (F)	228902	
Vijaywada office		
Depreciation of P.B Falcon-1	5693	
Depreciation of P.B Falcon-1	(88379)	
Total (G)	(82686)	
Gran Total (A+B+C+D+E+F)	1167889	(684745278)

For and on behalf of the Authority


(A. K. Gupta)
Director (F&A)

(Rajesh Kumar Pathak)
Member (Finance)

(Pravir Pandey)
Vice-Chairman

(Dr. Amita Prasad)
Chairperson

33. AUDIT REPORT OF THE COMPTROLLER AND AUDITOR GENERAL OF INDIA ON THE ACCOUNTS OF INLAND WATERWAYS AUTHORITY OF INDIA FOR THE YEAR ENDED 31 MARCH 2020

We have audited the attached Balance Sheet of Inland Waterways Authority of India (Authority) as at 31 March 2020 and the Income and Expenditure Account/Receipt & Payment Account for the year ended on that date under Section 23 of the Inland Waterways Authority of India Act, 1985 (IWAI Act 1985) and Rule 28(3) of the Inland Waterways Authority of India Rules, 1986 (IWAI Rules 1986). These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.

Based on our audit, we report that:

- (i) We have obtained all the information and explanations, which to the best of our knowledge and belief were necessary for the purpose of our audit;
- (ii) The Balance Sheet and Income and Expenditure Account/Receipt & Payment Account dealt with by this report have been prepared in the revised format of accounts which the IWAI has sent for approval of Ministry of Shipping, Government of India (GoI) and the same was in the process of approval of GoI, under Section 34(2)(g) of the IWAI Act, 1985 and Rule 28(2) of the IWAI Rules, 1986;
- (iii) In our opinion and subject to approval of revised format by Government of India proper books of accounts and other relevant records have been maintained by the Authority as required under Section 34(2)(g) of the IWAI Act, 1985 in so far as it appears from our examination of such books except that: We further report that:

General

Ministry of External Affairs (MEA). Government of India through an agreement (March 2009) appointed the Authority as Project Development Consultant (PDC) for Kaladan Project being executed for implementation of multi-modal transit transport facility on Kaladan River connecting Sittwe Port in Myanmar with the State of Mizoram in India. The work on the project is still in progress.

As per the disclosure made in Point No. 13 of Notes to financial statements Authority has received, upto 31 March 2020, 33.87 crore from MEA including PDC fees of Rs. 29.05 crore, Service Tax of Rs. 2.11 crore, GST of Rs. 1.72 crore and reimbursement of Hydrographic Survey Expenditure of Rs. 0.99 crore. Internal receipts of Rs. 2.56 crore including bank interest have also been generated in the project till 31 March 2020. Out of the above an expenditure of Rs. 29.85 crore has been incurred upto 31 March 2020.

The facts and figures of the above note cannot be vouched safe by audit as Authority has prepared separate books of accounts of the Kaladan Project for the year 2019-20 and no impact of transactions of above project have been included in the accounts of Authority for the year 2019-20. This issue was raised during 2016-17, 2017-18 and 2018-19 also but no corrective action has been taken by the management yet.

- (iv) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income and Expenditure Account/Receipt and Payment Account dealt with by this report are in agreement with the books of account.
- (v) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and subject to the significant matter stated above and other matters mentioned in Annexure to this Audit Report, give a true and fair view in conformity with accounting principles generally accepted in India;
- a) In so far as it relates to the Balance Sheet, of the state of affairs of the Authority as at 31 March 2020; and
- b) In so far as it relates to the Income & Expenditure Account, of the deficit for the year ended on 31 March 2020.

Place: New Delhi
Dated: February 2021

**For and on behalf of the
Comptroller and Auditor General of India**



(Rina Akoijam)

**Principal Director of Audit (Infrastructure)
New Delhi**

Annexure**(To the Audit Report on the Accounts of Inland Waterways Authority of India for the year 2019-20)****1. Adequacy of Internal Audit System**

The internal audit for the year 2019-20 was carried out by a firm of Chartered Accountants.

2. Adequacy of Internal Control System

Some Crew members of Vessel CL Kasturba, while coming from Ghazipur to Patna sold about 900-1000 liters of diesel from the vessel on 17.08.2019. This malpractice regarding sale of 900-1000 liters of diesel from the vessel has neither been disclosed in notes to accounts nor has any adjustment been done in the annual accounts. IWAI on 17 July 2020 issued instructions to maintain the log books of vessels depicting inadequate internal control system.

3. System of Physical verification of fixed assets

The physical verification of fixed assets has been conducted for 2019-20. However, the fixed asset register was not being maintained as per the requirements of General Financial Rules.

4. System of Physical verification of inventory

Inventory register of consumable items has not been prepared as per Form GFR 23 prescribed under Rule 211 (ii) (b) of GFR, 2017 and no physical verification of inventory items have been conducted for the year 2019-20.

5. Regularity in payment of statutory dues

No instances of delay in payment of statutory dues was noticed.

34. MANAGEMENT REPLIES ON THE COMMENTS OF THE COMPTROLLER & AUDITOR GENERAL OF INDIA ON THE ACCOUNTS OF INLAND WATERWAYS AUTHORITY OF INDIA FOR THE YEAR ENDED 31 MARCH 2020.

1. General

IWAI was appointed as Project Development Consultant for implementation of Multi-Modal Transit Transport facility on Kaladan River Project in Myanmar by Ministry of External Affairs and received funds from MEA to meet out the expenditure on supervision of execution only of the Kaladan Project as a Consultant. The work assigned to IWAI for the project has since been completed and no more fund is being received. IWAI is not receiving any grant for the same from Government of India. IWAI is maintaining a separate book of Accounts for Kaladan Project and the same is audited and certified by an independent Chartered Accountant Firm. This position has been disclosed adequately in Notes to Accounts forming integral part of Financial Statements. (Please refer Note No.13 of schedule 2 of the Annual Accounts for the F.Y.2019-20).

Further, since receipts and expenditure on Kaladan Project is not a part of grants received by IWAI, the yearly surplus/deficit on the project cannot be taken to IWAI fund u/s 19 of the IWAI Act, 1985. Therefore, the Income & Expenditure and Assets and Liabilities relating to Kaladan project were not included in Annual Accounts of IWAI up-to the F.Y.2018-19. Had the same been included in IWAI accounts, it would have only inflated figures on both side of Income & Expenditure and Balance Sheet. This would have also distorted the figures of yearly surplus/deficit which is transferable to IWAI Fund. Further, same is also not advisable as per section 19 of the IWAI Act, 1985.

Although, the issue was raised by Audit during 2016-17, 2017-18 and 2018-19 the account of this project was maintained separately as stated above. The above observation was discussed with Audit team deputed by C&AG office while conducting Annual Accounts Audit for the F.Y.2018-19. It emerged from the discussion that some of the components like Assets and liabilities of Annual Accounts of Kaladan Project may be included in Annual Accounts of IWAI so that the effect of the same will not be in 'IWAI Fund under Section 19 of IWAI Act, 1985'. Accordingly, the authority assured that the matter would be examined during F.Y.2019-20 for possible inclusion of Accounts of this project in the Annual Accounts of IWAI for the F.Y. 2019-20. As assured, the authority has incorporated assets and liabilities components of Kaladan Audited accounts in Annual Accounts of IWAI for the F.Y 2019-20, except Capital Reserve (Rs.0.36) and corresponding assets.

The reason for not incorporating all items of Balance Sheet and Income Expenditure Account of Kaladan Project in IWAI annual account was that the same would have distorted true & fair picture of annual accounts/financial statements of IWAI.

Annexure**(to the Audit Report on the Accounts of Inland Waterways Authority of India for the year 2019-20)****1. Adequacy of Internal Audit System**

In order to strengthen Internal Audit System further, IWAI Hqrs, Noida has started deputing special audit teams comprising officials from Finance & Establishment to conduct periodic internal check & audit of operations of regional and sub-offices of IWAI.

2. Adequacy of Internal Control System

Observation of the Audit noted for compliance. IWAI, Hqrs., vide its letter No. IWAI/HQ/VIG/45/Ajaykumar/diesel/2020 dated 07.09.2020(copy enclosed) has directed IWAI, Patna to file a FIR in the Police Station in this regard. Necessary disclosure and treatment in accounts will be carried out in the Annual Accounts of IWAI for the FY 2020-21 after outcome of Police Investigation. Further to strengthen internal control system in this regard, all wing heads in IWAI have been directed to take necessary corrective measures in maintaining log books for Vessels and ensure that the operating staff so not get any opportunity to manipulate the records so as to avoid occurrence of such incidences in future. Accordingly, action has been taken by Mech-Marine Wing of IWAI vide its letter No. IWAI/MD/347/2020-21 dated 10.08.2020 and also by IWAI, Kolkata vide their letter No. IWAI/KOL/Estt./(01)/2018/288 dated 12.08.2020.

In order to strengthen Internal Audit System, IWAI Hqrs, Noida has constituted & started deputing special audit teams comprising officials from Finance & Establishment to conduct periodic internal check & audit of operation of regional and sub-offices of IWAI.

3. System of Physical verification of fixed assets

Fixed Assets Register has been prepared in the format approved by authority and the same is continuing since inception. The particular head has been created as per the nature of the asset and details of procurement along with depreciation year-wise has been shown in the register. However, the observation of the audit has been noted for compliance and it is assured that the Fixed Assets Register shall be maintained as per GFR from the FY 2020-21.

4. System of Physical verification of inventory

Fixed Assets Register has been prepared in the format approved by authority and the same is continuing since inception. However, the observation of the audit has been noted for compliance and it is assured that the Inventory Register shall be maintained as per GFR from the FY 2020-21.

5. Regularity in payment of statutory dues

No comments