



Annual Report 2021-2022

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

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I. 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 20186 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-Irrigation-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 provides 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 and around of 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 2021-22, 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 for the purpose of smooth and safe navigation. This was achieved by undertaking River Conservancy measures like bandalling, dredging in Tribeni - Varanasi / Allahabad (Prayagraj) stretch (1424 km) 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. The 24 hours Navigation Aids being provided from Sagar to Ballia 1140 km stretch and the day channel marks provided in entire stretch of NW-1.

IWAf undertaking River Conservancy works for fairway development in Tribeni - Varanasi stretch to maintain target Least Available Depth (LAD). Besides, Assured Depth Contracts to ensure target LAD in the respective reaches of NW-I are also carried out under Jal Marg Vikas Projects assisted by World Bank. During 2021-22, Bandalling works of 4,800 m in Tribeni - Farakka stretch and 13,200 m in Kalalganj - Varanasi stretch were executed for developing and maintaining the fairway. Besides, 1.15 lakh m³ dredging was carried out by deploying IWAf's dredgers apart from dredging by Assured Depth Contracts under JMVP.



Photograph of Bandal on NW-I



Dredging in progress on NW-I

The Least Available Depth (LAD), which was maintained for various stretches of NW-1 during 2021-22 as given below:

(a)	Haldia (Sagar) – 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)	=	1.6 m to 2.5 m
(d)	Ghazipur – MMT Varanasi	(143 km)	=	1.0 m to 2.2 m



Vessel movement on NW-1

4.2 Development of Tourism:

The movement of Inland tourist vessels RV Bengal Ganga and ABN Rajmahal is carrying out since many years on NW-1 & an increasing trend in the State of West Bengal, Jharkhand, Bihar and Uttar Pradesh.



Tourist Vessel RV Bengal Ganga



Tourist Vessel ABN Rajmahal

4.3 Terminal Facilities:

The RCC jetty at GR Jetty-II, Gangway jetty facilities at BISN & GR Jetty-I are operational in through Terminal Service Contract (TSC) and GR Jetty-II is operational since November 2013 and capable of mechanical handling of cargo. Storage facility is also available at this terminal. Apart from this old Haldia jetty, BTPS jetty are also operational for handling of Fly ash and General cargo.



Haldia jetty on D.W.I.



Bisn gangway from GR Jetty-D on D.W.I.



Fly ash handling vessel movement on NW-1 FWAJ cargo vessel BOKI & AAT



The low level and high-level jetties at Gaighat, 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 on High level jetty, Pakur on NW-1



Vessels berthed at Low Level Jetty, Pakur on NW-1, PMSI Vessel berthed at High Level Jetty, Pakur.

Besides, fixed jetties of Farakka Barrage Project (FBP) at Farakka and Pakur also exist on NW-1 and being used by transporters / shippers/ cruise vessels.

Further, floating terminals at 20 locations along National Waterway-1 are operational between Haldia and Allahabad which are being used for berthing of vessels, logistic support and embarking/ disembarking facility to the crew and passengers.

FT Samdaghat



Heating terminal on NW-I

The locations of these 20 floating terminals are as under:

- (i) Haldia, Budge-Budge, BISN, Botanical Garden (Kolkata), Shantipur, Swarnajayanti, Kalwa, Hazaribari, Downstream (D/s) Farakka and Upstream (U/s) Farakka in West Bengal;
- (ii) Rajmahal (Manglahat) and Sahibganj (Samdaghat) in Jharkhand;
- (iii) Bateshwarasthan, Bhagalpur, Munger, Semarpur and Buxar in Bihar; and
- (iv) Ghazipur / Rajghat, Ramnagar (Vitanasari) and Allahabad terminals in Uttar Pradesh.

The floating terminals can be shifted along NW-I as per the requirement.

In addition, two Multi-Modal Terminals (MMT) at Varanasi (U.P.) and at Sahibganj (Jharkhand) on NW-I are operational.



MMT Varanasi



MMT Sahibganj

Further, another Multi-Modal Terminal (MMT) Haldia and Navigational Lock at Farakka are in progress under Jal Marg Vikas Project (JMVP) assisted by World Bank.



Haldia-Ballia multi-purpose



Navigational Lock Parakka under construction

The detail of Jal Marg Vikas Projects is placed in separate column of JMVP and may be seen.

4.4 Navigation Aids:

Day channel marking is being provided across entire stretch Haldia-Varanasi to facilitate navigation. Night navigation aids between Haldia & Ballia (1140 km) stretch have also been provided through a system comprising of light - fitted country boats / bamboo structures, MS poles and trestle beacon towers to facilitate round the clock navigation.



Day Channel Mark



Light on Country Boat



Light on Steel Pole



Light on Beacon Tower

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



IWAI's Survey Vessels on NW-1

Besides, IWAI is providing Pilotage to operators on need basis. Moreover, for providing State of Art, 24 hours navigation aids on the waterway. An important project of providing world class River Information System (RIS) on NW-1 are operational.



River Information System Station at Porsika

4.5 Cargo Movements:

Inward and outward permission were issued to IWT vessels 5116 ton. and 5152 ton. respectively plying on NW-1 under PIWTT Route during 2021-22. The Transportation of 10,75,189 MT cargo consisting of Stone chips, Building materials, ODC's carrier, fly-ash etc. has been carried during the year 2021-22 using NW-1.



ODC movement on NW-I



Cargo movement on NW-I

Special Participation

IWAI had similarly rendered professional assistance to the Governments of West Bengal during the Ganga Sagar Mela at Sagar (W.B.) and Prakash Parv, Chhath puja at Patna (Bihar).

Significant event

- Two MoU executed between IWAI and M/s Jimex International & M/S Rajesh Auto for development Main Terminal on PPP mode.
- Two nos. Ro Pax Vessels namely M.V. Swami Vivekananda and M.V. Sam Maneckshaw have been handed over to U.P. Tourism at Varanasi on 23.07.2021 as per the MoU signed (on 26.11.2021) between IWAI and Tourism Department, Govt. of Uttar Pradesh.
- One no. ODC voyage of total 471 MT Consignment of (M/s Grasim Industries Limited) by M/s Deugro Projects (India) Pvt. Ltd., Mumbai from Kolkata completed their voyage destination up to Mirzapur, UP during November 2021.
- General Cargo movement on NW-I during 2021-22 including ODC is 1,09,27,788 MT which is Approx. 19% increased against the previous year 2020-21.
- Flagging-off of Pilot Movement of Food Grains through Vessel MV LB Shastri from Patna NW-1 (River Ganga) to Pandu (Gorakhati) NW-2 (River Brahmaputra) via IBP route by Shri Sarbananda Sonowal, Hon'ble Union Minister, Ministry of Ports, Shipping & Waterways and Shri Shantanu Thakur, Hon'ble Minister of State, Ministry of Ports, Shipping & Waterways in presence of other Central and State Ministers.



Flagging off ceremony at Patna, Bihar on NW-I





5. NATIONAL WATERWAY (NW-2):



M.V. RANIGANJ VISSITI, PLYING ON NATIONAL WATERWAY

- 5.1 National Waterway - 2 comprises of river Brahmaputra from Dhubri to Sadiya of 891 Km in the state of Assam. A navigable fairway of minimum 45 m width and 2.5 m Least Available Depth (LAD) was maintained by the IWAI 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 (Oringhat) stretch, LAD of 1.5 m was maintained for 365 days. Night navigation facilities provided between Dhubri and Silghat can be extended in a short period of time depending upon demand.



- 5.2 Currently, there are three road bridges across river Brahmaputra at Guwahati, Tezpur, Sadiya and three rail cum road bridges at Jorhat, Guwahati and Bongaigaon for connectivity between southern and northern parts of Assam. People residing on either side of the river need to cross the river using conventional ferry service at various locations for their day to day needs.



Containerized cargo transportation from Italiia on NW 1 to Panikh on NW 2

- 5.3 Earlier, IWAI had started a similar Ro-Pax service between Dhubri and Hailakandi which reduced the travel distance by 190 km. A permanent Ro-Ro terminal was constructed at Dhubri for the purpose to provide a direct link between Assam and Meghalaya, avoiding circuitous route of 220 km through Jorhat. Ro-Ro operation between Dhubri & Hailakandi established. IWAI has deployed its own modern Ro-Ro Vessel Gopimati Bordoloi for Ro-Ro operation in this route from July, 2017. Two Ro-Ro routes are under operation viz. i) between Nameri (to Kamalabari) and ii) between Hailakandi and Dhubri. Due to some technical issue Ro-Ro vessel MV Gopimati Bordoloi and MV Bhupen Hazarika was shifted to Odisha & NW-1. After this, 4 Nos. of Ro-Pax vessels was inaugurated by Hon'ble Prime Minister on



18.2.2021 (1) Dhubri-Haatsingimari - MV Bob Khaliling (2) South Guwahati – North Guwahati - MV JFR Jacob (3) Neamati - Kamalabari - MV Ram Gaidinliu & MV Sachin Dev Barman respectively. Ro-Ro terminals is also proposed at Majjan (Dibrugarh) to Seugajan for which DPR has been prepared. IWAI has deployed 4 nos. of Departmental Dredgers and 5 nos. of Survey Launches in NW-2 and one survey vessel is being operated in NW-16 (River Barak).

- 5.4. The IWAI had launched a Roll on-Roll off(Ro-Ro) service from 11th October *2018 in Assam from Neamati to Majuli Island / Kamalabari. The new Ro-Ro facility has been started in collaboration with the Government of Assam to provide the much needed connectivity for Majuli Island. This service has reduced the road route distance of 423 km that trucks take from Neamati to Majuli Island via Tezpur Road Bridge to only 12.7 km with the use of river route. Majuli is one of the biggest riverine islands (144 km²) in the world located on river Brahmaputra and faces serious challenges of connectivity. It has 144 villages with a population of over 1,50,000.
- 5.5. The IWAI had procured new vessels MV Ram Gaidinliu, MV Sachindev Barman, MV Bob Khaliling & MV JFR Jacob at a cost of Rs 10.40 crore each. For the new services from Neamati to Majuli Island / Kamalabari and Neamati to Aphlamukh are also providing the needed terminal infrastructure. The 36.46 metre long, 12.50 metre wide vessels has the carrying capacity of two trucks and 200 passengers and 4 cars. The IWAI is also planning to procure more such Ro-Ro vessels for use on river Brahmaputra.

Developmental works in North East India

- a. As per decision in the 19th meeting of Standing Committee of PIWT&T, Bangladesh portion of Guni river (i.e., Sonamura to Daunkandi / Satmal stretch was included as part of the Indo-Bangladesh Protocol routes 9 & 10 respectively. An amount of Rs. 10.10 crore envisaged in the revised SPC for construction of a permanent terminal at Sonamura. IWAI has established a temporary floating jetty at Sonamura to facilitate merchants of both the countries. Land for construction of terminal is available with Land Ports Authority of India (LPAI).
- b. Further, the work for Design, Supply, Installation, testing & commissioning of two nos. of Temporary Jetties at Bogibeel & Gujan is under progress. The inauguration of the Maritime skill developmental Centre for North east at Guwahati and laying of foundation stone ceremony for development of Ship repair facility at Pandu & development of Approach Road from IWAI Pandu Terminal to NH – 27 was done by the Hon'ble Prime Minister through Virtually on 13.01.2023.

6. NATIONAL WATERWAY (NW-3):

- 6.1. On NW-3 in Kerala, the important fairway developmental works carried out during FY 2021-22 is dredging by departmental dredgers at Ambalamughal in Champakara canal stretch and at Thottapally shoal in order to maintain a depth of 2.0m in Alappuzha- Kayamkulam stretch of NW-3. In addition, providing bank protection works in Udyogmandal canal also executed on open tender basis.
- 6.2. The progress of capital dredging and widening of narrow sections in NW-3 as well as



maintenance dredging 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 litigation's by the local people and objection by the fishermen. With new regulations regarding protection of wet lands, identifying disposal sites for material dredged from National Waterway has become extremely difficult. To resolve such problems and take the works forward, IWAI is regularly interacting 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.

- 6.3. The Irrigation Department of Govt. of Kerala was entrusted with reconstruction of new navigational lock at Thrikkunnapuzha (with dimensions of 61m long, 14.75m wide and 6m (above HFL) vertical clearances), at a cost of Rs. 38 crore on deposit basis. IWAI has deposited a total amount of Rs. 38 crore to Inland Navigation Directorate, Govt. of Kerala, Kollam. The physical progress of the construction of lock-gate is 50% and same is in progress which is expected to be completed in March 2024.



- 6.4. The project of shifting of low-level High-tension lines in Champakara Canal to 19m vertical clearance above HFL (Class-III standards), at a cost of 5.15 crore is completed 4 sites out of 5 min. by KSEB on deposit basis. The hurdles related with 5th site is now over and the work is expected to be completed in December 2023.

- 6.5. The Rip-Rap type Bank protection works in Udyogamandal canal was carried out in National waterway route to protect the bank erosion.



- 6.6. Cargo terminals have been constructed at 9 places (viz. Kottappuram, Aluva, Maradu, Vaikkom, Thanneermukkott, Alappuzha, Thrikkunnappuzha, Kayankulam & Kollam). The above terminals are not attracting expected cargo mainly due to reluctance on the part of consigners and consignees to accept a mode shift to IWT mode. Hence 3 terminals handed over (Kottappuram, Aluva and Kollam) to KSWC (Kerala State Warehousing Corporation) for utilization of terminals on lease basis. Further a study on Transaction Advisory Consultancy services for selection of O&M operations for 3 IWT terminals namely, Aluva, Maradu and Alappuzha in NW-3 entrusted to M/s KITCO, Kochi and draft report accepted by IWAI.



- 6.7. Two Roll-on/Roll-off terminals within the Cochin Port Trust (CoPT) limit, one at Bolghatty and the other at Willington Island have been constructed by IWAI through Cochin Port Trust under a MoU 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.
- 6.8. Ro-Ro vessels viz., M.V. CV RAMAN and M.V. ADI SHANKARA having capacity of transporting 15 TEU's constructed through Cochin Shipyard Ltd (CSL) at a cost of Rs. 24.57 crore taken over on 28.09.2020 and deployed for Ro-Ro service between Willington Island & Bolghatty Island on NW-3. 6.9. The Operation & Maintenance under an MoU was signed on 24.10.2020 with M/s Kerala Shipping & Inland Navigation Corporation Ltd. (A Govt. of Kerala Undertaking) and entrusted for operation of Ro-Ro vessels for a period of 15 years. The Ro-Ro service commenced from February 2021 which will decrease the road congestion from the city roads of Kochi and to reach the destination at ICTT, Vallarpadam Container Terminal through IWT mode.



- 6.9 Total cargo moved in NW_3 by IWT mode during the FY 2021-22 is 16.95 lakh tonnes, which mainly consists of containers, trucks, Liquified Ammonia Gas , Rock Phosphate ,Sulphur, Phosphoric Acid etc;
- 6.10 A total number of 312 nos. Solar powered lighted FRP buoys and 17 nos. Beacon lamp posts maintained by IWAI along Champakkara & Udyogmandal Canals and Kottapuram - Kollam (West Coast Canal) stretches of NW-3 to facilitate round the clock safe navigation.



Solar Powered FWP Buoy installed in NW-3 and Devarampatti NW-3

7. National Waterway (NW-4):

- 7.1 The 1,078 Km long National Waterway (NW-4) was notified in 2008 and comprises two major Rivers "Godavari (Bhadraichalam to Rajahmundry) and "Krishna" (Wazirabad to Vijayawada) and the canal system comprises of Kakinada Canal (Kakinada to Rajahmundry), Eluru Canal (Rajahmundry to Vijayawada), Commanur Canal (Vijayawada to Peddaganjam), North Buckingham Canal (Peddaganjam to Chennai), South Buckingham Canal (Chennai to Marakkam) and Kaluvelli tank (Marakkam to Kaluvelli).

Further, the stretch has been extended by NW Act-2016 with additional reaches in the River Krishna from Wazirabad to Galagali and the River Godavari from Bhadrachalam to Nasik taking the National Waterway-4 length up to 2,916 Kms.

- 7.2 The developmental activities of National Waterway (NW)-4 are planned in a phased manner. The developmental works in Phase – I of the project in Muktyala to Vijayawada stretch on Krishna River covering a distance of 82 Kms are in progress. The important works in the Phase-I stretch are as follows:
- Dredging work is completed at critical shoal locations.
 - Land acquisition for permanent Ro-Ro terminals at Muktyala & Ibrahimpatnam are in Progress.
 - Construction of four floating terminals completed.



8. National Waterway (NW - 5):

- 8.1 Govt. of India declared National Waterway-5 (NW-5) in Mahanadi / Brahmani delta, Mati River & East Coast Canal (ECC) in November 2008 for total length of about 588 Km. The lengthwise distribution of NW-5 in 3 different stretches; as per the DPR is given below:

(i)	Stretch I	Talcher to Mangalgudi	237 Km
(ii)	Stretch II	Dhamra to Paradip	95 Km
(iii)	Stretch III	Dhamra to Geonkhali	256 Km
		Total	588 KM

The index map is enclosed below.



- 8.2 Based on the feasibility studies conducted and DPR submitted in 2016 and also keeping in view the potential of cargo movements as emanated through various studies, it was decided to initially develop 332 Km of economically & commercially viable stretches of NW-5 between Paradip / Dhamra and Talcher in following 2 phases and balance length of the waterway from Dhamra to Geonkhali is not considered feasible for development:

- I. Phase - I : Between Paradip/Dhamra and Pankapal : 212 Km
- II. Phase - II : Pankapal To Talcher : 120 Km

- 8.3 Phase-I development covering 212 Km between Paradip / Dhamra and Pankapal is taken up initially, such as (i) Monthly Thalweg survey, (ii) Studies on the modification of existing cross structures / bridges – 9 nos (Study completed and reports submitted to Govt. of Odisha) (iii) Construction of weirs/barrages/locks (for ponding of water to create LAD – work entrusted to

Central Water Commission for vetting of designs) and (iv) Hydrographic Survey in Phase-II covering 120 kms from Pankapal to Talcher (Study completed in October, 2020). Shifting / Relocation of HF / LT Power lines entrusted with Govt. of Odisha on deposit basis at a cost of Rs. 45.08 crore is in progress and expected to be completed by March, 2023.

- 8.4. Gypsum Trial Movement held on 02.02.2022 from IFFCO Riverine Jetty in Mahanadi River to Paradip Port (NW-5 & NW-64).



- 8.5. ODC cargo moved from Paradip Port to Lura Jetty in River Mahanadi (NW-64) from 12/03/2022 to 13/03/2022. ODC moved to Tata Steel plant expansion project at Kalinganagar.



9. National Waterway-16 (Barak River)

- 9.1 As per decision in the 19th meeting of Standing Committee of PIWT&T, Bangladesh portion of Gundi river (i.e., Sonamura to Daudkandi/Satinal stretch) was included as part of the Indo-Bangladesh Protocol routes 9 & 10 respectively. An amount of Rs. 10.10 crore envisaged in the revised SPC for construction of a permanent terminal at Sonamura. IWA has established a temporary floating jetty at Sonamura to facilitate merchants of both the countries. Land for construction of terminal is available with Land Ports Authority of India (LPAI).
- 9.2 Further, the work for Design, Supply, Installation, testing & commissioning of two nos. of Temporary Jetties at Bogibeel & Gujan is under progress. The inauguration of the Maritime skill developmental Centre for North east at Guwahati and laying of foundation stone ceremony for development of Ship repair facility at Pandu & development of Approach Road from IWA Pandu Terminal to NH - 27 was done by the Hon'ble Prime Minister through Virtually on 13.01.2023.

10. NEW NATIONAL WATERWAYS

- 10.1 Based on the outcome of techno-economic feasibility conducted for 106 new NWs, 26 NWs have been found to be technically viable and Detailed Project Reports (DPRs) also prepared. Development activities have been initiated on 10 most viable NWs viz., River Barak (NW-16), Waterways in Goa-NW-27- Cumberjua, NW-68- Mandovi, NW-111- Zuari, river Kali (NW-52), Alappuzha-Kottayam-Althurampuzha Canal (NW-9), Alappuzha-Changanassery Canal (NW-8), River Ghagra (NW-40), River Rupnarayan (NW-86), Sunderbans Waterways (NW-97).
- 10.2 Considering the potential waterways for development as per the categorization of A, B, C, the following National Waterways are considered for development during the FY 2022-23 to FY 2025-26. DIB memo for development of 23 Nos (NW-3, NW-4, NW-5 & 20 nos. New Waterways - Phase-I) during next four year from FY 2022-23 to FY 2025-26 at a cost of Rs. 267 crores have been approved by MoPS&W on 07.11.2022. As per the directives, the DIB memo is also circulated on 12.12.2022. The list of waterways considered for development is as follows:

Sl. No.	Details	Name of National Waterways	State
1	National Waterway-3	West Coast Canal	Kerala
2	National Waterway-4	Kakmada Godavari river	Andhra Pradesh
3	National Waterway-5	East Coast Canal	Odisha
4	National Waterway-8	Alappuzha- Changanassery Canal	Kerala
5	National Waterway-9	Alappuzha- Kottayam – Althurampuzha Canal	Kerala
6	National Waterway-10	Amba River	Maharashtra
7	National Waterway-27	Cumberjua River	Goa
8	National Waterway-44	Ichamati River	West Bengal
9	National Waterway-52	Kali River	Karnataka
10	National Waterway-57	Kohi River	Assam

11	National Waterway-68	Mandovi River	Goa
12	National Waterway-111	Zuari River	Goa
13	National Waterway-28	Dabhol Creek-Vashinathi river	Maharashtra
14	National Waterway-37	River Gandak	Bihar
15	National Waterway-73	Narmada river	Gujarat and Madhya Pradesh
16	National Waterway-85	Revadanda Creek	Maharashtra
17	National Waterway-86	River Rupnarayan	West Bengal
18	National Waterway-97	Sundarbans Waterways	West Bengal
19	National Waterway-100	River Tapi	Madhya Pradesh
20	National Waterway-94	Sone River	Madhya Pradesh and Bihar
21	National Waterway-40	Ghagra river	Bihar
22	National Waterway-25	Chapora river	Goa
23	National Waterway-31	Dhansiri river	Assam

10.3. National Waterway (NW -8)

NW-8 from Alappuzha to Chengannery covering 28km long. Monthly longitudinal survey is being carried out to monitor the channel depths and 15 nos. navigational aids provided for safe navigation.

10.4. National Waterway (NW-9)

NW-9 from Alappuzha to Kodimathia (Kottayam) covering 28km long. Monthly longitudinal survey is being conducted to monitor the channel depths and 25 nos. navigational aids is provided for safe navigation. The shoal and water hyacinth observed at Pallom site was cleared using departmental dredger to maintain 2.0m LAD.



Initial dredge movement from Rabbia to Assoor via NW-8T

H. INDO-BANGLADESH PROTOCOL ON TRANSIT & TRADE

11.1 Development of fairway from Sirajganj to Daikhowa and Ashuganj to Zakiganj on Indo-Bangladesh Protocol route : India and Bangladesh have signed an MoU for development of fairway from Sirajganj to Daikhowa (175km) and Ashuganj to Zakiganj (295km) on Indo-Bangladesh Protocol route for dredging and to develop and maintain fairway of 2.5 m depth and 30 m width for 07 years wherein the cost of dredging is to be borne in a 80:20 ratio between India and Bangladesh. The estimated cost of the project is Rs. 305.84 crore, out of which Rs. 244.67 crore is to be borne by India.



Figure 3: The Indo-Bangladesh Protocol route India PINTAT

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 and supplementary agreement was signed on 28.04.2016.

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

A. Phase-I Works

I. Sittwe

- 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.)

II. 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.

II. Phase – II works

The Major 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 Accepted by MEA.
- (b) Operation & Maintenance (O&M) of completed project components — The assets completed under phase-I have been handed over to port operator 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.

12.1 Hydrography Survey Activities

Hydrography is 'the Applied Science of measuring and depicting the physical features of oceans, seas, coastal areas, lakes, rivers and canals, as well as with the prediction / observation of their change over time, for the primary purpose of safety of navigation and in support of all other marine activities, including economic development, security, scientific research, and environmental protection. Hydrographic surveyor's studies harbors, rivers, and other water bodies to determine navigable channel, shorelines, the topography of the floor, water depth, and other features.

Hydrographic survey is a pre-requisite for studies of waterway development for safety of navigation and 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. Most of the data collected is compiled into a chart which shows, by means of appropriate symbols, the depth of water, the low and high water lines, offshore features such as islands, isolated rocks, the nature and extent of river bottom elevations, navigable channels and routes as well as aids to navigation and other pertinent

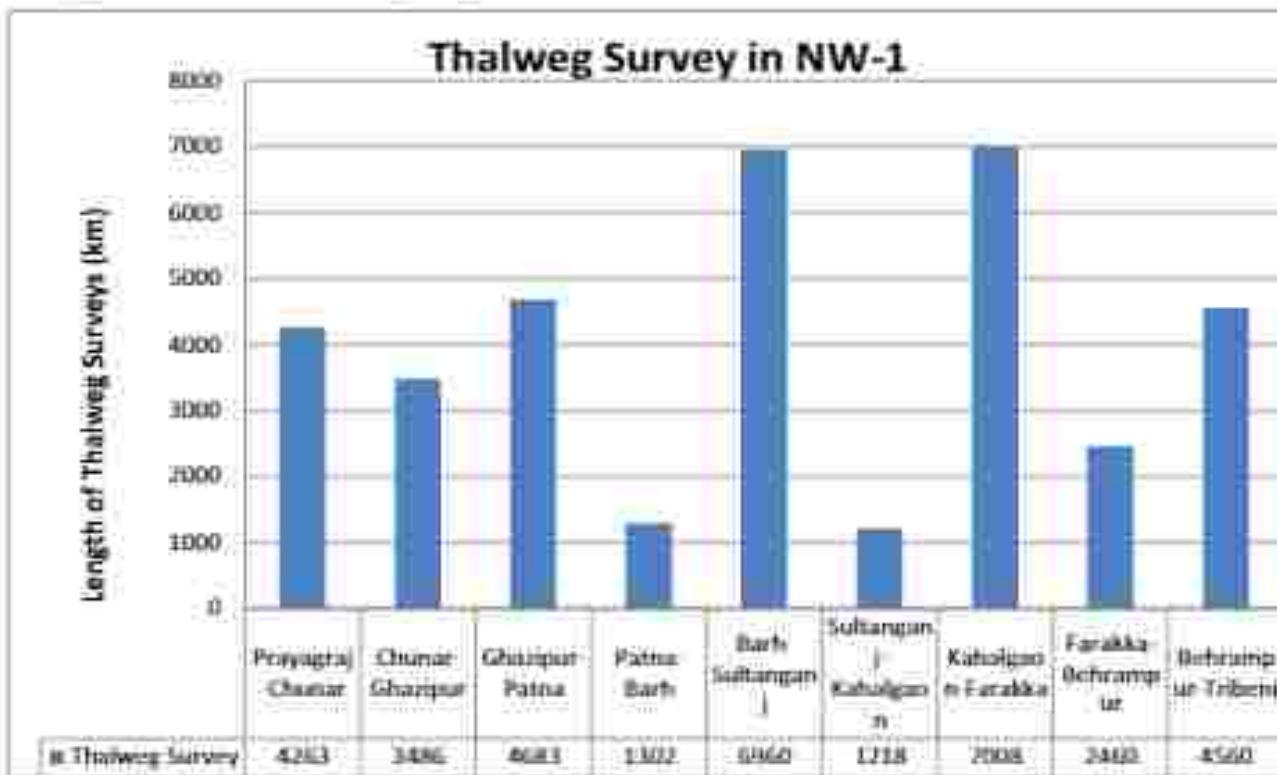
information required for safe navigation.

Hydrographic surveying is undergoing fundamental changes in measurement technology. Multibeam acoustic and airborne laser systems now provide almost total seafloor coverage and measurement as compared to the earlier sampling by bathymetric profiles. The capability to position the data precisely in the horizontal plane has been increased enormously by the availability of satellite positioning systems, particularly when augmented by differential techniques.

12.2 NATIONAL WATERWAY -1 (Sagar-Prayagraj)

Thalweg Surveys

During the year, thalweg (longitudinal) surveys were conducted departmentally on weekly / fortnightly basis in lean season & on weekly / monthly basis during floods and River Notices has been issued (both in English & Hindi) to the IWT users. Regular Thalweg surveys in Farakka - Kahlgaon stretch of NW-1 were conducted under Assured Depth contract. Total 35,940 line-km of Thalweg surveys were undertaken during the year 2021-22.



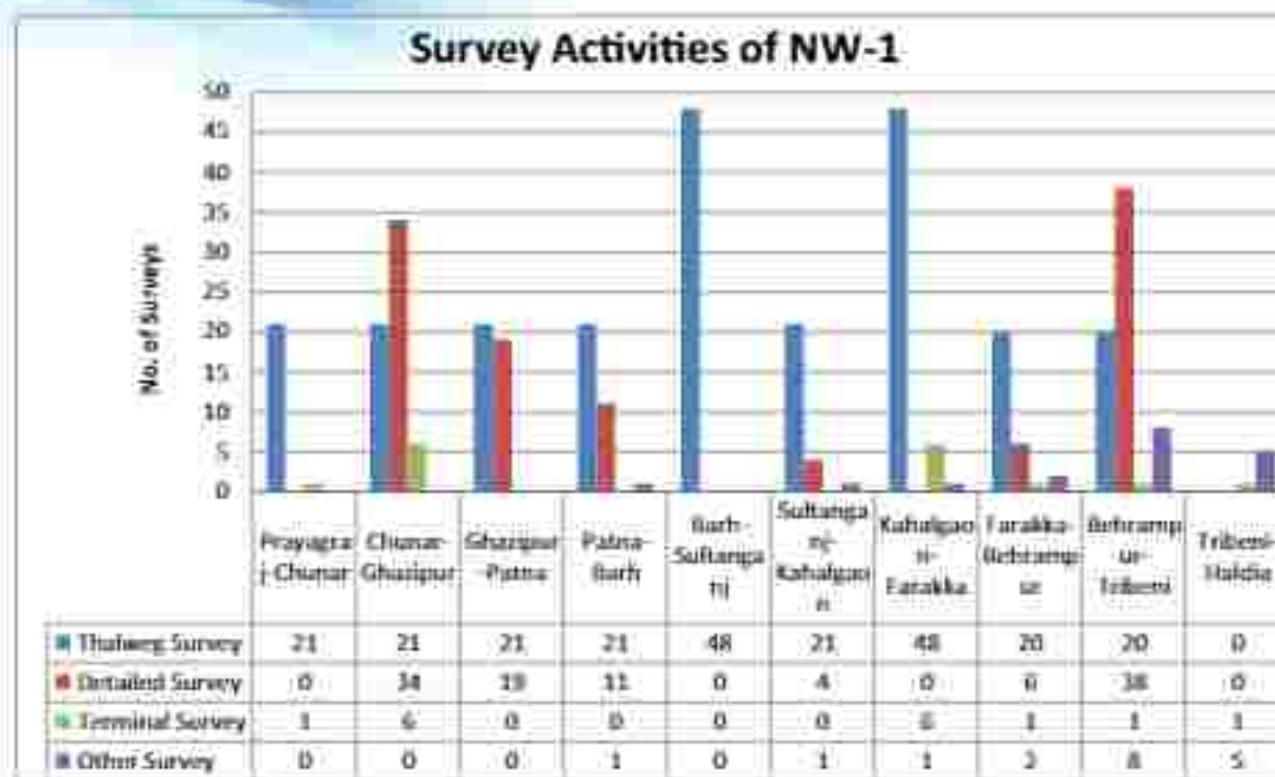
Graph depicting thalweg survey activities in NW-1

12.3 Detailed / Bandalling/ Dredging Surveys

112 nos. Pre & Post Bandalling / Dredging and Detailed surveys and 18 nos. other surveys were undertaken departmentally during the year 2021-22, details are indicated in the form of Bar-Chart.

12.4 Terminal Surveys

16 nos. Terminal Surveys were carried out at existing / proposed terminals during the year 2021-22.



Graph depicting various surveys/activities in NW-1

13. NATIONALWATERWAY -2 (River Brahmaputra)

13.1. Thalweg Surveys

During the year, 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 16,038 line-km of thalweg surveys were undertaken during the year 2021-22.

13.2 Detailed / Bandalling/ Dredging Survey

During the year, 127 nos. Pre / Post Bandalling/ Dredging / detailed surveys were conducted departmentally at various locations for undertaking RC works and to ensure smooth navigation during the year 2021-22. Details are indicated in the form of Bar-Chart.

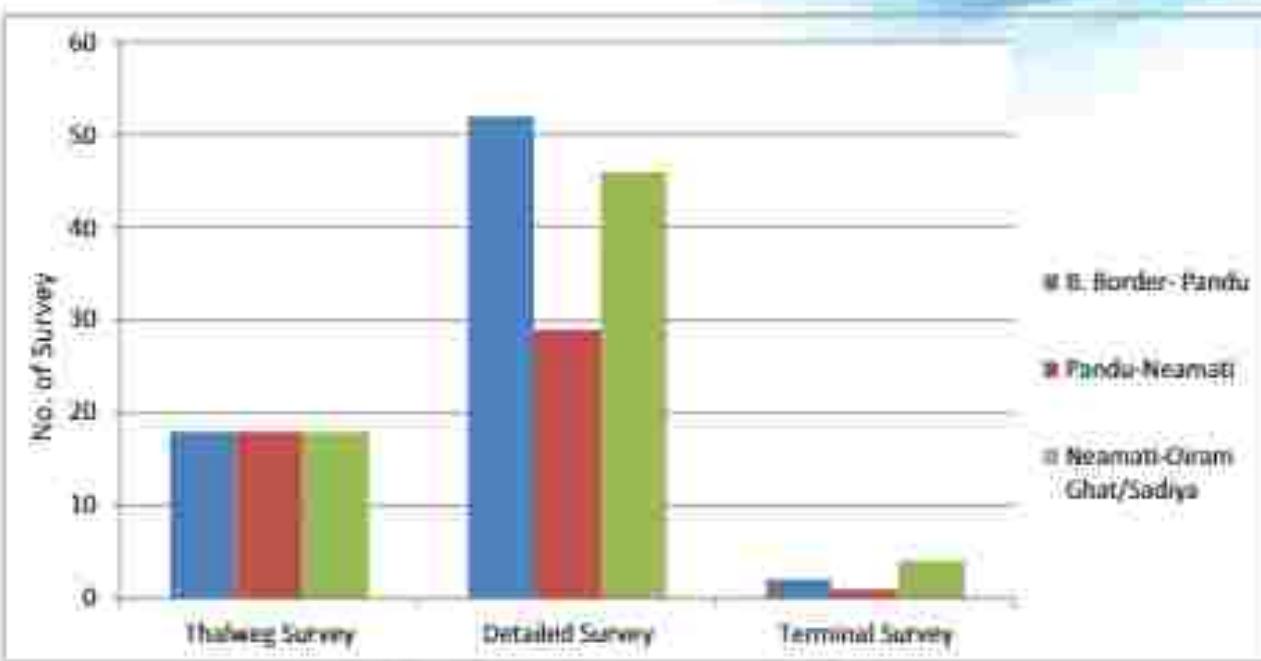
13.3 Terminal Surveys

07 nos. terminal surveys were carried out at existing / proposed terminals sites during the year 2021-22.

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

13.5 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 2,527.80 line-km of thalweg surveys were



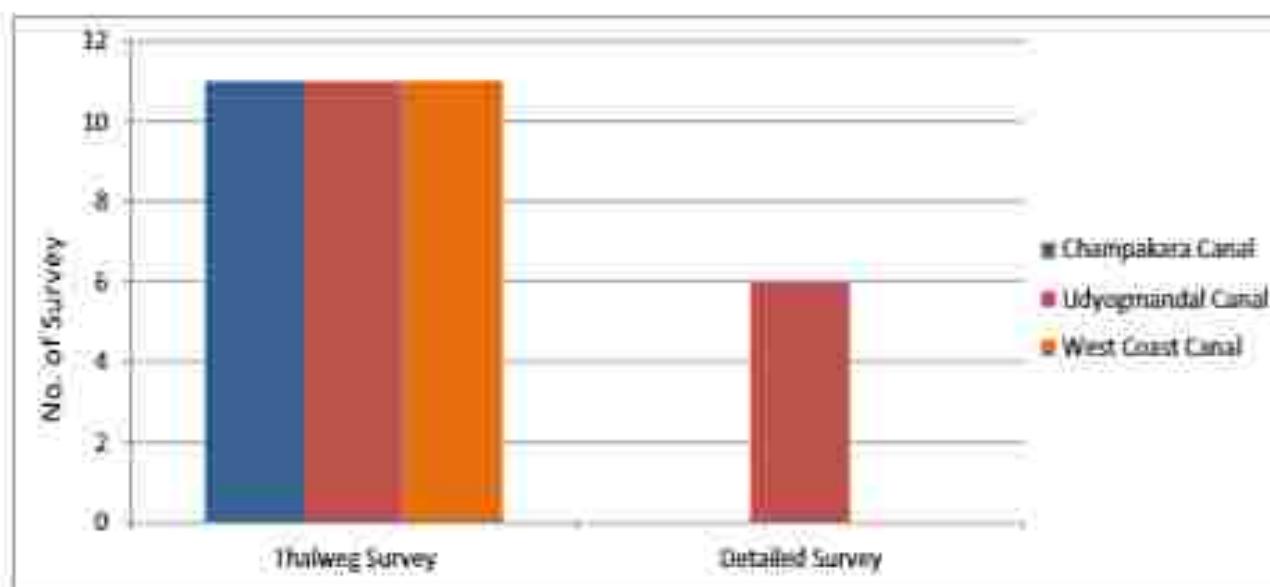
Graph depicting various surveys activities in NW-2 undertaken during the year 2021-22.

13.6 Detailed Surveys

06 no. Pre & Post dredging Surveys were carried out during FY 2021-22.

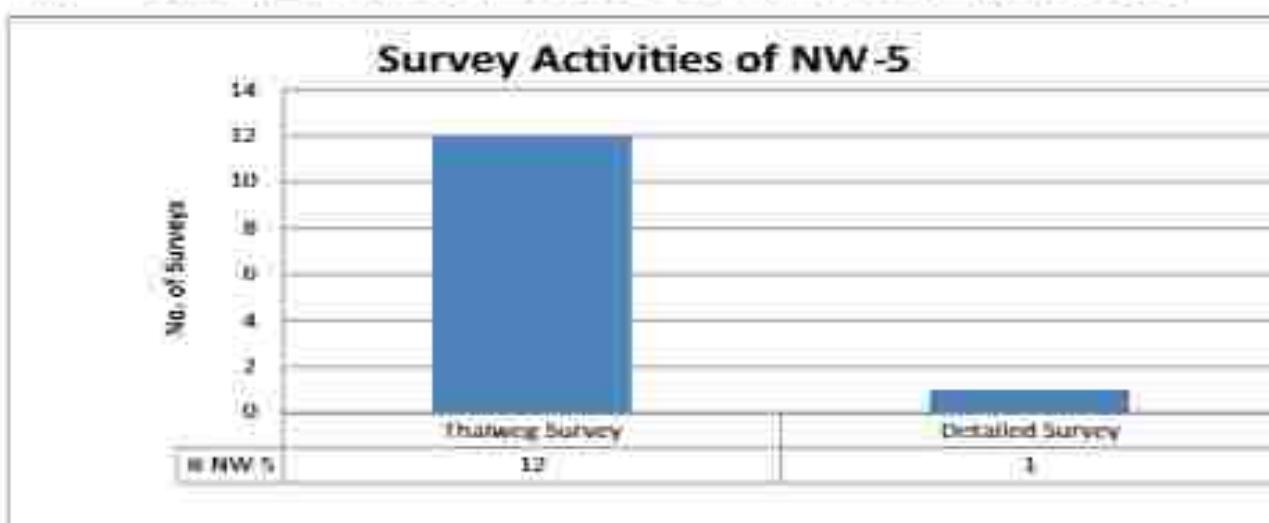
13.7 Terminal Surveys

03 no. terminal surveys were carried out at existing terminal site during the year 2021-22.



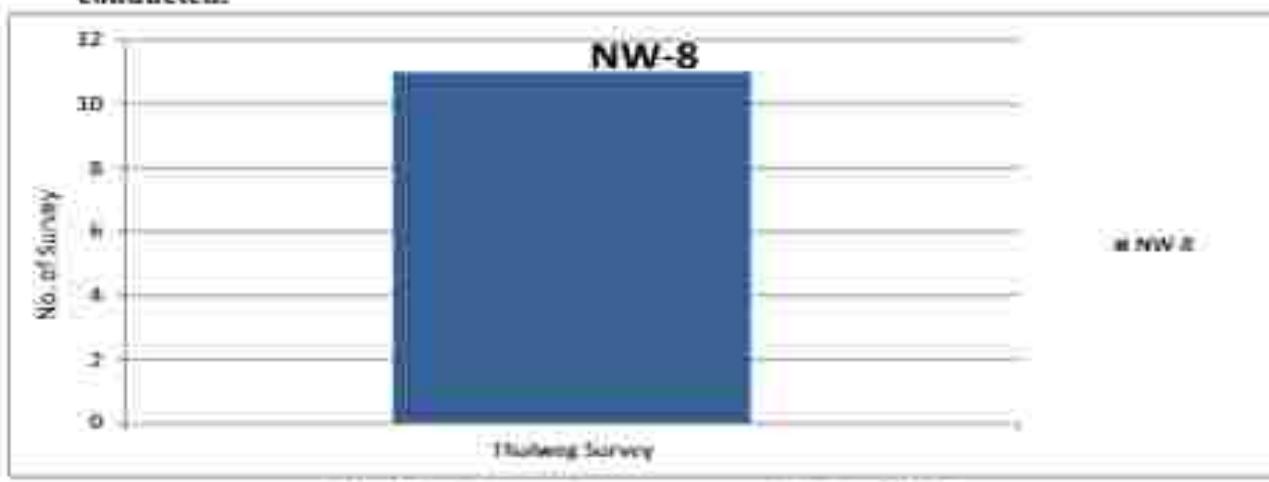
Graph depicting various surveys activities in NW-3

- 13.8 National Waterway - 4 (The Kakinada-Puducherry Stretch of Canals Integrated Bhadrachalam- Rajahmundry Stretch of River Godavari and Wazirabad - Vijayawada Stretch of River Krishna)
- No Survey was carried out during 2021-22.
- 13.9 National Waterway -5 (East Coast Canal alongwith Brahmani & Mahanadi Delta)
- 13.10 During the year 2021-22, 12 nos. thalweg surveys of total 1,629.623 line-km were conducted.
- 13.11 01 no. detailed hydrographic survey was conducted during the year 2021-22.



Graph depicting various surveys activities in NW-5

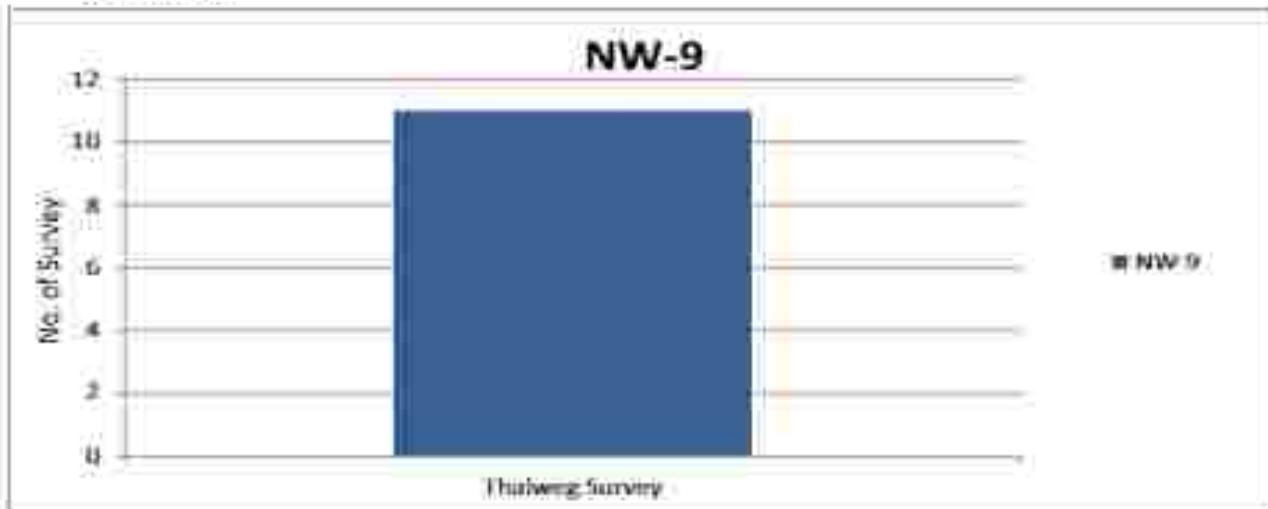
- 13.12 NATIONAL WATERWAY-8 (Alappuzha – Changannassery Canal)
- 13.13 During the year 2021-22, 11 nos. thalweg surveys of total 319 line-km were conducted.



Graph depicting various surveys activities in NW-8

13.14 NATIONAL WATERWAY-9 (Alappuzha-Kottayam Canal)

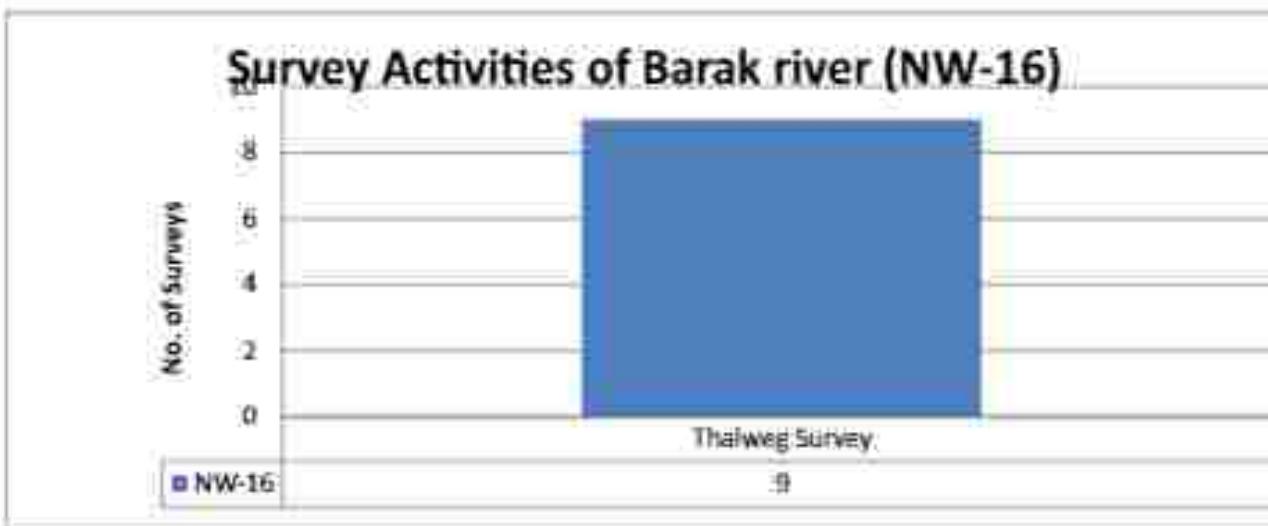
13.15 During the year 2021-22, 11 nos. thalweg surveys of total 275 line-km were conducted.



Graph depicting various surveys activities in NW-9

13.16 NATIONAL WATERWAY-16 (Barak River)

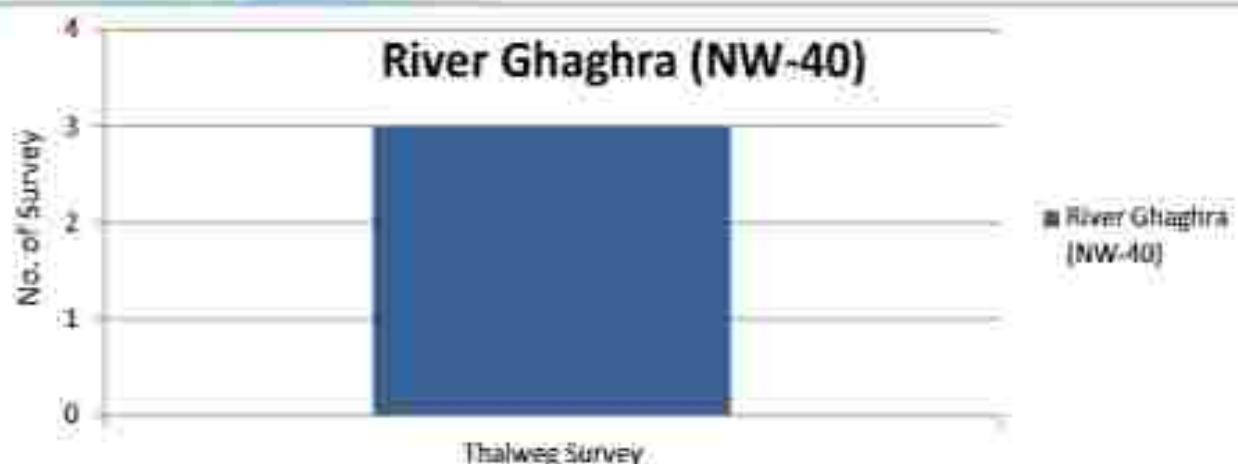
During the year 2021-22, 09 nos. thalweg surveys of total 99 line-km were conducted.



Graph depicting various surveys activities in NW-16

13.17 NATIONAL WATERWAY-40 (River Ghaghra)

13.17.1 During the year 2021-22, 03 nos. thalweg surveys of total 1,059 line-km were conducted.

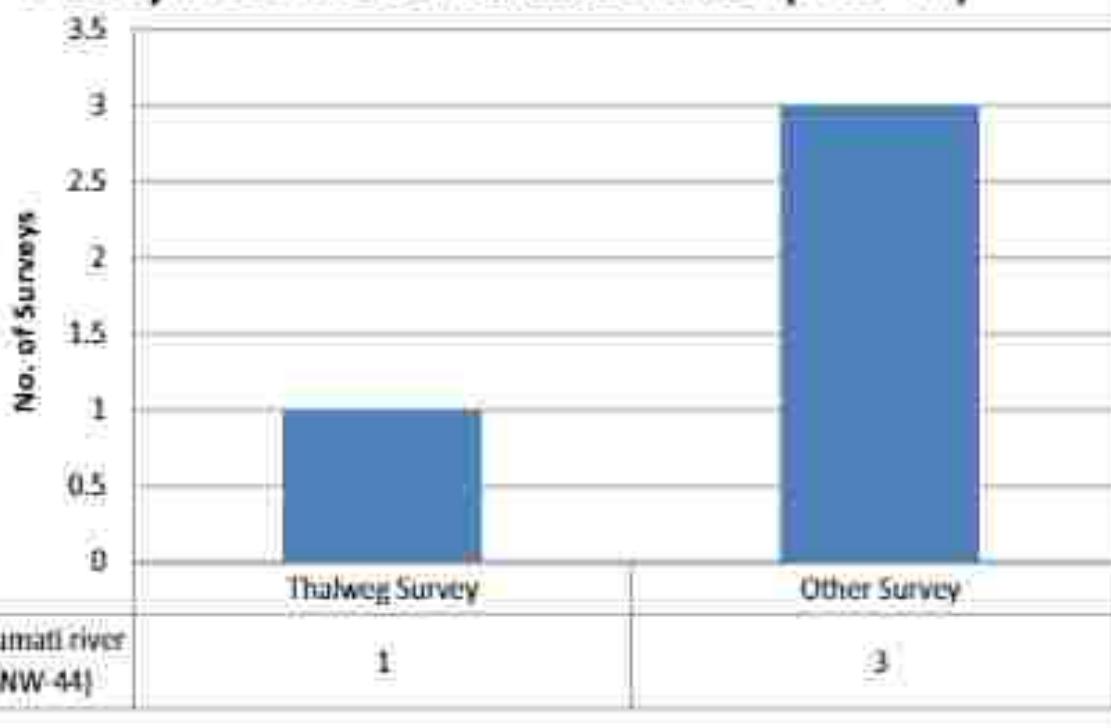


Graph depicting various surveys activities in NW-40

13.18 NATIONAL WATERWAY-44 (River Ichamati)

- 13.18.1 During the year 2021-22, 01 no. thalweg survey of total 63.81 line-km was conducted. 03 nos. other surveys were also conducted.

Survey Activities of Ichamati river (NW-44)

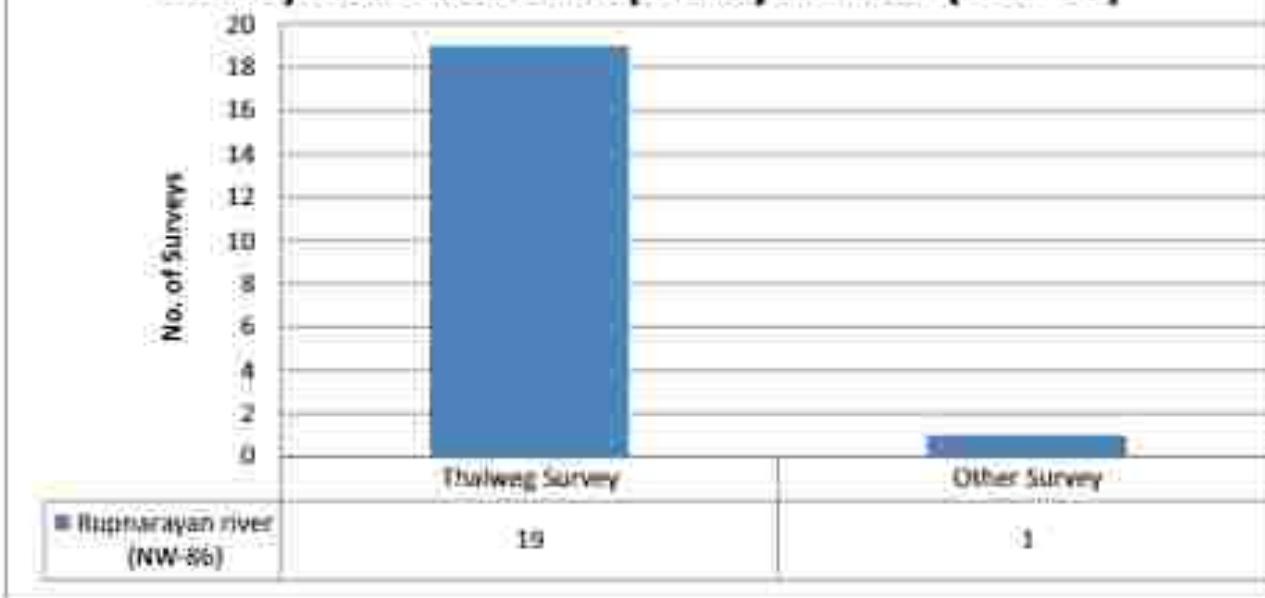


Graph depicting various surveys activities in NW-44

13.19 NATIONAL WATERWAY -86 (River Rupnarayan)

- 13.19.1 During the year 2021-22, 19 nos.thalweg surveys of total 665 line-km were conducted. 01 no. other survey was also conducted.

Survey Activities of Rupnarayan river (NW-86)



Graph depicting various surveys activities in NW-86

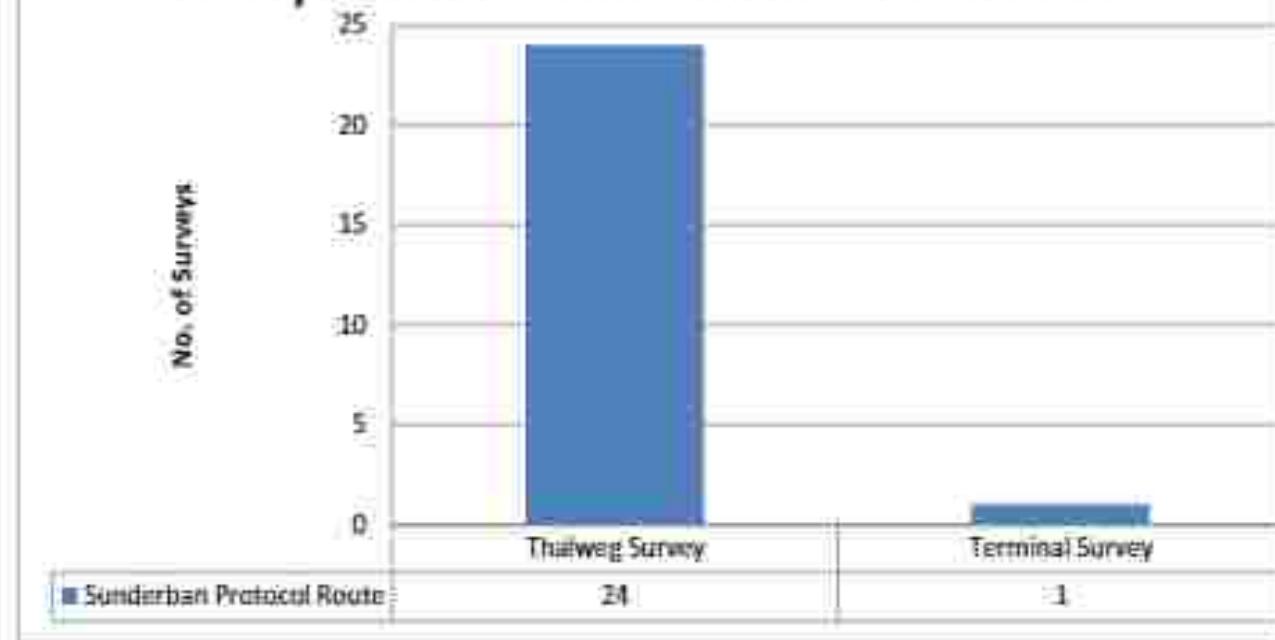
13.20 INDO-BANGLADESH PROTOCOL ROUTE (Sunderbans-NW-97)

- 13.20.1 During the year 2021-22, 24 nos. monthly thalweg surveys were carried out in Indo-Bangladesh Protocol route from Silver Tree point to Atharabanki Khal (NW-97) for a length of 201 km and LAD & River Notices published on IWAI website. Total 4,824 line-km of Thalweg surveys were undertaken during the year 2021-22. 01 no. Terminal survey in Sunderbans waterway under I.B.P. Route was conducted.
- 13.20.2 20 nos. monthly thalweg surveys were carried out in Indo-Bangladesh Protocol route No. 5 & 6 from Rajshahi to Dhulian and total 398 line-km of thalweg surveys were undertaken during the year 2021-22.
- 13.20.3 Additionally, 09 nos. thalweg surveys from Bhanga to B'Border in I.B.P route no. 3 & 4 and 7 & 8 for a total 315 line-km were undertaken during the year 2021-22.
- 13.20.4 03 nos. longitudinal surveys were undertaken between Hemnagar and Bansjhari Mallikpur for a distance of 82 km for undertaking feasibility study.

13.21 SURVEY VESSELS

- 13.21.1 IWAI has fitted with the state-of-the-art survey equipment like Automated Hydrographic

Survey Activities of Sunderban Protocol Route



Graph depicting various surveys activities in Sunderbans.

Survey System integrated with Digital Echosounder, DGPS receivers, Laptop / Desktop and current-meter sets for data collection in 30 vessels including 18 nos. Survey vessels. The vessels in NW-1 are monitored by RIS control stations.

- 13.21.2 02 nos. 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.
- 13.21.3 The following survey vessels in different waterways are operational and deployed for survey work:-

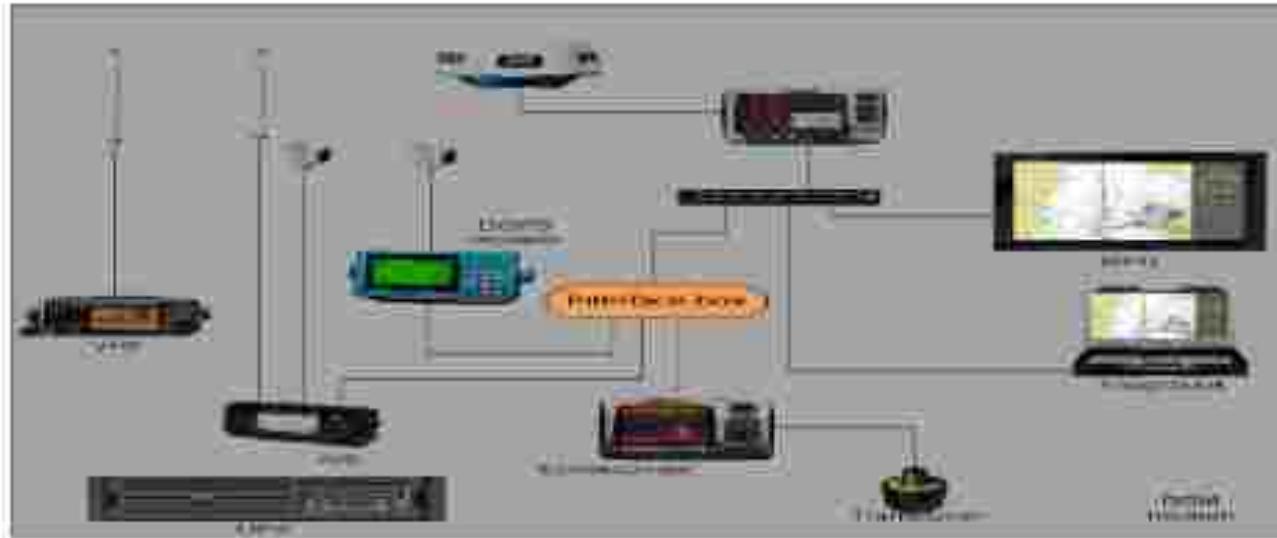
National Waterway	Name of Vessel			
NW-1	1) S.L. Koel	2) S.L. Gandak	3) S.L. Meghna	4) S.L. Anupallav
	5) S.L. Kamla	6) S.L. Ghaghra	7) S.L. Mandakini	8) S.L. Dwarkeswar
	9) S.L. Purna	10) S.L. Rihand	11) S.L. Dihing	12) S.L. Ganga
	13) S.L. Jhanvi			
NW-2	1) S.L. Lohit	2) S.L. Barak	3) S.L. Subansiri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

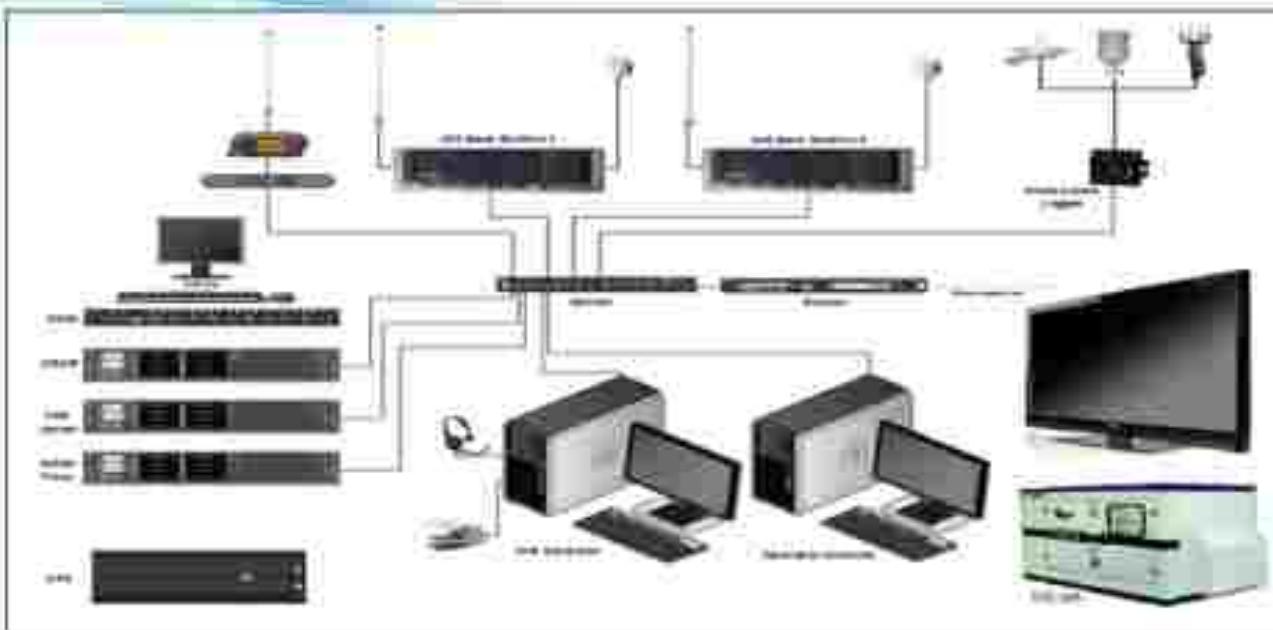
13.22 River Information System:-

The River Information Services (RIS) for tracking and tracing of inland navigation vessels has been set up in 3 phases from Haldia to Varanasi. It supports onboard navigation, shore-based traffic monitoring and other tasks such as calamity abatement.

The details of three phases, viz. Haldia-Farakka, Farakka-Patna and Patna-Varanasi are as follows:

	Phase-I	Phase-II	Phase-III
	Haldia-Farakka	Haldia-Patna	Patna-Varanasi
Coverage	545 Km	410 Km	353 km
Control Station	BISN Jetty(Kolkata) & Farakka	Patna	Ramnagar
Base Stations	1. Haldia 2. Tribeni 3. Swarnopur 4. Baiti 5. Kumarpur	1. Muzihari 2. Bhagulpur 3. Munger 4. Hatidah 5. Barh	1. Majajpur 2. Gobindpur Khas (Buxar) 3. Zamana
Date of Commissioning	01.10.2015	15.03.2018	26.8.2020





13.23 Share of survey data in Public domain

The data acquired during thalweg survey in all National Waterways are published in Portal for Assets and Navigational Information (PANI) periodically. The data is available for Voyage Planner. The navigational routes acquired during the thalweg surveys are available over a period of National waterways 1,2,3 in repository. The similar data are also new National waterways wherein regular thalweg surveys are conducted.





Reconnaissance Survey Under Progress On the 44 km long Trans-Hooghly River



Preliminary Hydrography And Topography Survey For Revised UL Jangipur Lock (ext. 300 Km)



DETAIL SURVEY AT KAYAMKULAM ALAPPUZHA



DETAIL SURVEY AT THoothUKUDI

13.24 Cartographic Cell/ Seminars/ Training

- 13.24.1 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, HRDAS Imagine, AutoCAD, Global Mapper etc. The Cartographers of IWAI have been trained in using GIS software and Image processing software etc.
- 13.24.2 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.
- 13.24.3 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 NW-97 for safe navigation purposes as follows:-

S.No.	NW	Description	No. of Charts
1.	NW 1	Sagar to Allahabad (Paper Charts)	103
2.	NW 2	Bangladesh border to Sadiya (Paper charts)	46
3.	NW 3	Kettapuram to Kollam including Champakari and Udyogmandal canals (Paper Charts)	49
4.	SUNDERBANS	Namkhana to Ahtabankikhan	25
5.	NW 1	Updation of Sagar to Parakka (Paper chart) Production of New ENC's	66
6.	NW 1	Parakka to Palma (Paper Chart and ENC's)	

- 13.24.4 Satellite data from National Remote Sensing Centre, Hyderabad for Waterways was obtained and the same have been processed, digitized using GIS Software. The landmarks, 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.
- 13.24.5 During the year 2021-22 Satellite data from National Remote Sensing Centre, Hyderabad for Waterways was obtained and the same have been processed, digitized using GIS Software.

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 :-

S. No.	National Waterway No.	Length (km)	Details of Waterways	STATES
1	National Waterway 1	1620	Ganga-Bhagirathi-Hooghly River System (Haldia - Prayagraj)	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)	
		171	Godavari river (Bhadrachalam to Rajahmundry)	
		139	Eluru Canal (Rajahmundry to Vijayawada)	
		157	Krishna river (Warishab to Vijayawada)	
		113	Commanur Canal (Vijayawada to Peddaganjam)	
		316	North Buckingham Canal (Peddaganjam to Central Station of Chennai)	Andhra Pradesh, Telangana, Karnataka, Tamil Nadu, Puducherry, Chhattisgarh and Maharashtra
		110	South Buckingham canal (Central Station of Chennai to Marskanam)	
		22	Marskanam to Pualocherry through Kaluvekk tank	
		1202	River Godavari (Bhadrachalam - Nashik) Maharashtra, Telangana, Andhra Pradesh & Chhattisgarh	
		636	River Krishna (Waranadu - Galagali) Karnataka, Telangana & Andhra Pradesh	
5	National Waterway 5	256	East Coast Canal and Mahan river	
		265	Brahmani-Khurjan-Dhamra rivers	
		67	Mahamadi delta rivers (Consisting of Hamsa river, Nummula, Gobindula, Khurjani river and Mahamadi river)	Odisha and West Bengal

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 – ATHIRAMPULIYA 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	HIRUPA - BADI GENGUTI - BRAHMANI RIVER SYSTEM	Odisha
23	National Waterway 23	56	BUDHA BALANGA	Odisha
24	National Waterway 24	61	CHAMHAL 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	CLUMBERJUA RIVER	Goa

28	National Waterway 28	45	DABHOL CREEK - VASHISHT 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	DOWANS 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, Assam
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	JHELUM RIVER	Jammu & Kashmir



50	National Waterway 50	43	JINJIRAM RIVER	Assam & Meghalaya
51	National Waterway 51	23	KABINI RIVER	Karnataka
52	National Waterway 52	53	KALI RIVER	Karnataka
53	National Waterway 53	145	KALYAN - THANE - MUMBAI WATERWAY, VASAI CREEK AND ULHAS RIVER SYSTEM	Maharashtra
54	National Waterway 54	86	KARAMNASA RIVER	Bihar & Uttar Pradesh
55	National Waterway 55	311	KAVERI - KOLLIDAM RIVER SYSTEM	Tamil Nadu
56	National Waterway 56	22	KHERKAI RIVER	Jharkhand
57	National Waterway 57	50	KOPILI RIVER	Assam
58	National Waterway 58	233	KOSI RIVER	Bihar
59	National Waterway 59	19	KOTTAYAM - VAJKOM CANAL	Kerala
60	National Waterway 60	80	KUMARI RIVER	West Bengal
61	National Waterway 61	28	KYNSHI RIVER	Meghalaya
62	National Waterway 62	86	LOHIT RIVER	Assam & Arunachal Pradesh
63	National Waterway 63	336	LUNI RIVER	Rajasthan
64	National Waterway 64	426	MAHANADI RIVER	Odisha
65	National Waterway 65	80	MARANANDA RIVER	West Bengal
66	National Waterway 66	247	MAJI 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	NETRAVAT HI RIVER	Karnataka
75	National Waterway 75	142	PALAR RIVER	Tamil Nadu
76	National Waterway 76	23	PANCHAGANGAVALLI (PANCHAGANGOLI) RIVER	Karnataka
77	National Waterway 77	20	PAZHAR RIVER	Tamil Nadu
78	National Waterway 78	262	PENGANAGA - WARDHA RIVER SYSTEM	Maharashtra & Telangana
79	National Waterway 79	28	PENNAR RIVER	Andhra Pradesh
80	National Waterway 80	126	PONNIYAR RIVER	Tamil Nadu
81	National Waterway 81	35	PUNJU RIVER	Bihar
82	National Waterway 82	58	PUTTHIMARI RIVER	Assam
83	National Waterway 83	31	RAJURICREEK	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	West Bengal
		15	CHHOTA KALAGACHI (CHHOTO KALERGACHI) RIVER	West Bengal
		7	GOMAR RIVER	West Bengal
		16	HARIHHANGA RIVER	West Bengal
		37	HOGILA (HOGAL)-PATHANKHALI RIVER	West Bengal
		9	KALINDI (KALANDI) RIVER	West Bengal
		22	KATAKHALI RIVER	West Bengal
		99	MATLA RIVER	West Bengal
		28	MURI GANGA (BARATALA) RIVER	West Bengal
		53	RAIMANGAL RIVER	West Bengal
		14	SAHEBKHALI (SAHEBKHALI) RIVER	West Bengal
		37	SAPTAMUKHI RIVER	West Bengal
		64	THAKURRAN RIVER	West Bengal
98	National Waterway 98	377	SUTLEJ RIVER	Himachal Pradesh & Punjab
99	National Waterway 99	62	TAMARAPARANI RIVER	Tamil Nadu
100	National Waterway 100	436	TAPI RIVER	Maharashtra & Gujarat
101	National Waterway 101	42	TIZU - ZUNGKI RIVERS	Nagaland
102	National Waterway 102	87	TEWANG (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 (DAWK3) RIVER	Meghalaya
107	National Waterway 107	46	VARGAI 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

13.25 E-Navigation Software

E-Navigation is an indigenous software being developed by IWAI through NTCPWC IIT Madras. The software is utilised by Masters of the passenger/Ro-Ro vessels for navigation along the proposed ferry routes. Although River Information System is in place but the basic requirement of AIS for tracking any vessel is must and keeping in view the procurement & annual license fee for AIS, small time operators were unable to bear the cost. It was accordingly felt that we may develop another software that may provide similar directions keeping in view the penetration of smart phones and internet across all sections of society as mandate of IWAI for safe navigation.

The software works on Android platform. In the first phase, NW-1 is intended to be covered as IWAI is holding a repository of Thalweg/Detailed survey detailed which is being utilised by NTCPWC considering the navigational route in the development of software. The field trials are underway and recently a trial has been conducted by Hydrographic Chief IWAI in Patna.



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 the 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 2021-22 were as below:



A. ACTIVITIES

- (i) The following training activities were carried out:
 - Induction Training GP Rating Course (33rd, 34th & 35th Batch)
 - The GP Rating (Inland Vessel) trainees were imparted practical training on board training ship HSD Sone.
 - A course was conducted successfully for Bihar Government personnel for Refresher Training of Master Trainer for "Safe Swim" Programme.
- (ii) Preparatory Course for Inland Vessel Certificate of Competency.
 - Conducted the following Preparatory Courses for Inland Vessel Examinations:
 - Serang
 - Master Class II
 - Master Class I
 - Second Class Engine Driver
 - First Class Engine Driver

B. TRAINING

- NINL 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.

S. No.	Name of Courses	No. of Trainees
1.	Induction Training of Inland Vessel General Purpose Rating	30
2.	Preparatory course for Serang	33
3.	Preparatory course for Master II	45
4.	Preparatory course for Master I	17
5.	Preparatory course for Engine Driver II	15
6.	Preparatory course for Engine Driver I	21
7.	Preparatory Course for Inland Vessel Engineer	04
8.	Inland Vessel Manoeuvring Simulator Course	12
9.	Refresher Training of Master Trainer for "Safe Swim" Programme	19
Total		196

The number of candidate total trained in the various courses at NIIT during the F.Y. 2021-22 is 196.

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. NIIT conducts the COC (Certificate of Competency) exams in NIIT Campus on behalf of IWT, Bihar.

Photographs of Hon'ble Minister of State, Chairman, Vice Chairman and Hydrographic Chief during the visit of NIIT in Patna.





15. DETAILS OF TRAFFIC, CARGO, MOVEMENT & OTHER HIGHLIGHTS DURING THE YEAR

1. Introduction

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 23 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 19 operational NWs in FY-22 and covers the details such as traffic quantity and trend vis-a-vis previous year, commodity profile and key origin and destination jetties/ locations on the operational NWs.

2. Traffic on National Waterways

The total traffic movement on NWs in the FY 21-22 was recorded as 108.79 million tonne against 83.61 million tonne in FY 20-21 thereby recording a YoY growth of approx. 30.12%. The following table presents the details of traffic movement on different NWs.

S. No.	National Waterway	Quantity in tonne		% change
		FY-21	FY-22	
1	NW-1 (Ganga-Bhagirathi-Hooghly river system)	9,206,984	10,927,788	19%
2	NW-2 (River Brahmaputra)	307,191	428,134	39%
3	NW-3 (West Coast canal, Champakara canal, Udyogmandal canal)	733,977	1,695,033	131%

4	NW-4 (River Krishna)	6,831,824	11,233,685	64%
	Total - (NW 1, 2, 3, 4)	17,079,977	24,284,640	42%
Maharashtra Waterways				
5	NW-10 (River Armba)	17,685,737	20,229,460	14%
6	NW-83 (Rajpuri Creek)	205,567	228,505	11%
7	NW-85 (Revandudi Creek and River Kundalika)	1,083,701	700,955	-35%
8	NW-91 (River Shastri – Jaigad fort Creek)	9,234,983	22,447,037	143%
	Total	28,209,988	43,605,957	55%
Goa Waterways				
9	NW-68 (River Mandovi)	3,996,431	2,621,634	-34%
10	NW-111 (River Zuari)	4,464,662	1,956,232	-56%
	Total	8,461,093	4,577,866	-46%
Gujarat Waterways				
11	NW-73 (River Narmada)	82,311	45,223	-45%
12	NW-100 (River Tapi)	25,629,554	29,322,174	14%
	Total	25,711,865	29,367,397	14%
13	NW-16 (River Barak)	1032	5,088	393%
14	NW-44 (River Ichhamati)	280,353	817,950	102%
15	NW-94 (Sone River)	0	0	-
16	NW-97 (Sunderbans)	3,861,439	6,102,787	58%
17	NW-64 (Mahanadi River)	0	14,923	-
18	NW-5 (East Coast Canal And Matai River/Brahmani-Kharka-Dhamra Rivers/Mahanadi Delta Rivers)	0	14,923	-
19	NW-86 (Rupnarayan River)	1,443	616	-57%
	Grand Total (tonne)	83,607,189	108,792,147	30.12%

National Waterways-wise Share of Traffic

- NW-1 (Ganga-Bhagirathi-Hooghly River System (Haldia-Altahabat))
- NW-3 (West Coast Canal)
- NW-4 (Krishna-Godavari River System)
- NW-10 (Armba River)
- NW-91 (Shastri River-Jaigad Creek System)
- NW-68 (Mandovi River)
- NW-111 (Zuari River)
- NW-100 (Tapi River)
- NW-97 (Sunderbans Waterway)
- Others

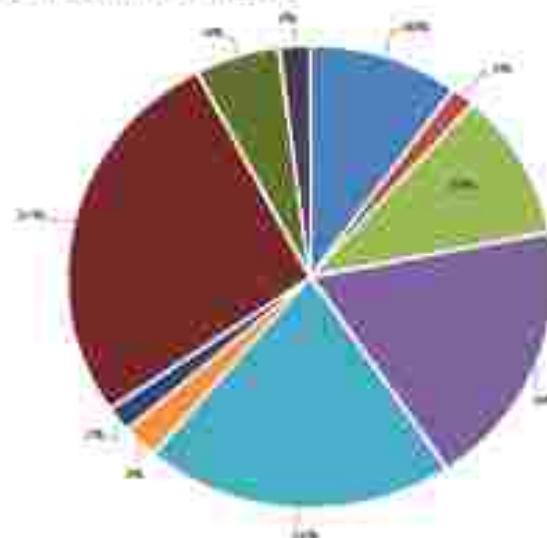


Figure 1: National Waterways-wise Share of Traffic FY-22

Share of Gujarat Waterways (2 Nos.) and Maharashtra Waterways (4 Nos.) have been reduced to 67% of the overall IWT Traffic in FY-22 against that of over 75% for FY-21.

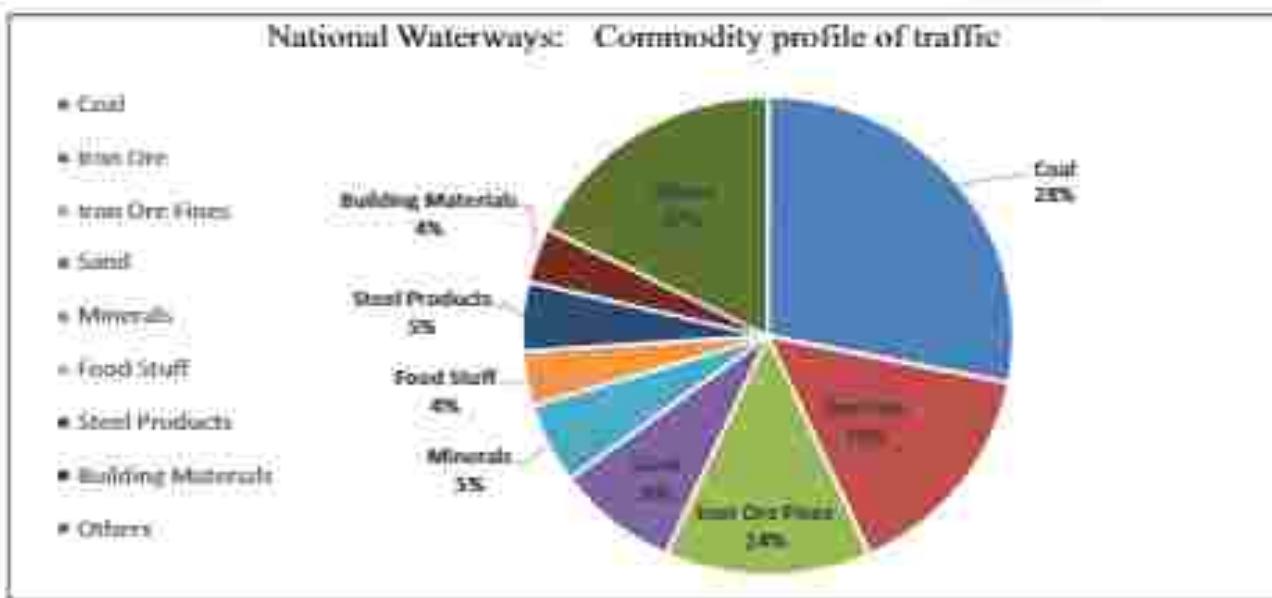


Figure 3: National Waterways Commodity profile of traffic FY-22.

Predominantly bulk commodities viz. coal, iron ore, iron ores fines, Sand, minerals & others are using the IWT mode in India.

The salient aspects of traffic movement recorded on NWs in FY-22 are as follows:

1. The number of operational NWs in FY-22 increased to 19 against 17 in FY-21. In FY-22, traffic movement on NW-64 (Mahanali River) and NW-5 (East Coast Canal and Mahi River) was included.
2. Maharashtra Waterways (NW-10 River Amba, NW-83 Rajpuri Creek, NW-85 Revdanda Creek and River Kundalika, NW-91 River Shastri – Juigad fort Creek) and National Waterways (NW-1 Ganga-Bhagirathi-Hooghly river system, NW-2 River Brahmaputra, NW-3 West Coast canal, Champakara canal, Udyogmandal canal, NW-4 River Krishna) contribute more than 60% of the entire National Waterways traffic followed by Gujarat Waterways (NW-73 River Narmada & NW-100 River Tapi) together constitutes 27% traffic on the National Waterways for the FY 2021-22.

Maharashtra Waterways and National Waterways -1, 2, 3, 4 contribute more than 60% in IWT Traffic FY 2021-22.

3 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

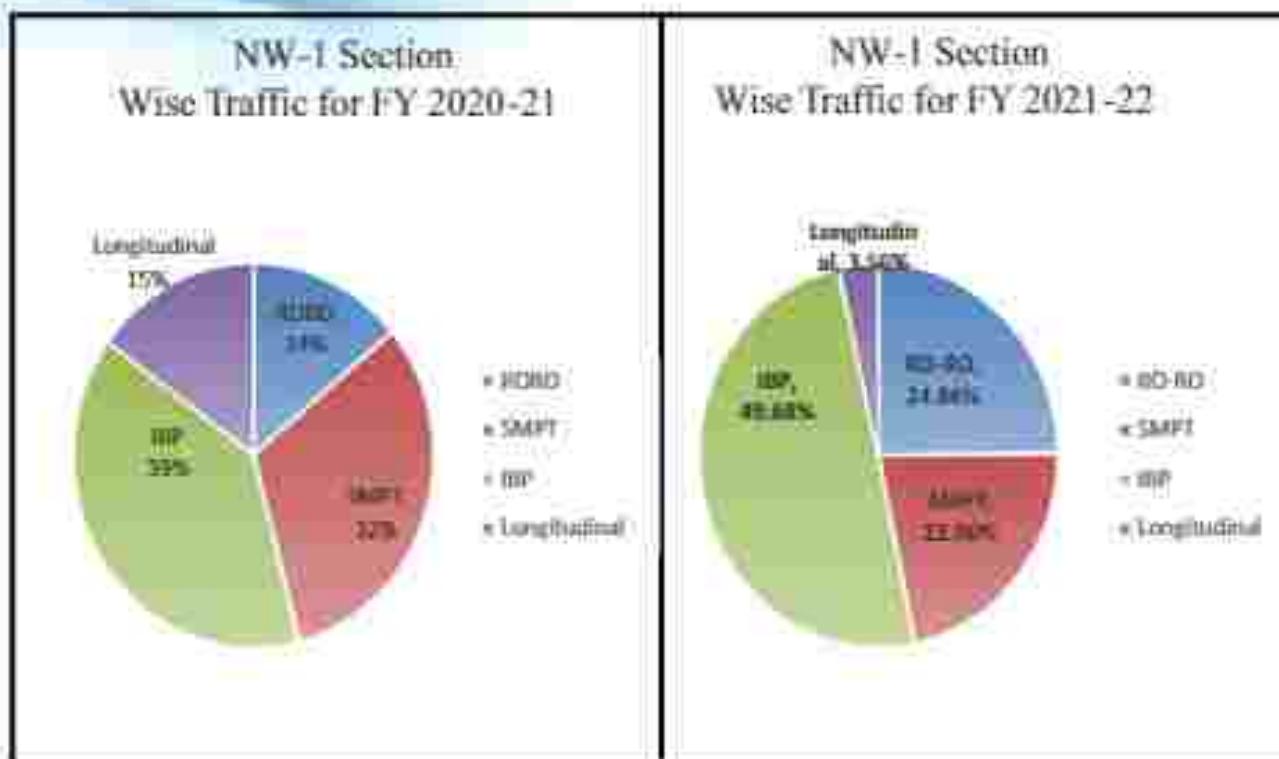


Figure 5-NW-1 Section-wise traffic(FY-21 and FY-22)

A detailed analysis of the traffic on the IBDP route, Ro-Ro Traffic and the longitudinal traffic on NW-1 in FY-22 is given below:

S. No.	NW-1 Section	Quantity in million tonne	
		FY 2020-21	FY 2021-22
1	Indo-Bangladesh Protocol (IBDP) route	3597254	5429287
2	SMPT (Transhipment/ lightering)	2942000	2393000
3	Ro-Ro	1287621	2716675
4	Longitudinal (between Haldia and Varanasi)	1380109	388828
	Total	9206984	10927790

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 SMPT (Transhipment/ lightering). The Ro-Ro movement on NW-1 is primarily movement of miscellaneous goods between multiple O-Ds located between Kolkata and Rajmahal (Jharkhand).

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). In addition, few movements carrying ODC, stone chips, steel products and containerized cargo took place on NW-1.



Figure 4: IWAI MMT Vessel.

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. Eleven Ports of call and two extended ports of call have been declared in each country under the PIWT&T. The Ports of call in India are Kolaghat (West Bengal), Haldia (West Bengal), Kolkata (West Bengal), Majuli (Assam), Dhubri (Assam), Sonamura (Tripura), Dhubri (Assam), Pandu (Assam), Karimganj (Assam), Silghat (Assam) and Jorhat (Assam). The extended ports of call are Tribeni (West Bengal) and Badarpur (Assam). The Ports of call in Bangladesh are Narayanganj, Khulna, Mongla, Sirajganj, Ashuganj, Pangaon, Rajshahi, Sultanganj, Chilmuri, Daudkhandi and Bahadurabad. The extended Ports of call in Bangladesh are Ghorail and Muktiarpur. With collaborative efforts of IWAI and BIWTA the traffic has been continuously increasing on the IBP route.



Figure 5: The Indo-Bangladesh Protocol route under PIWT&T



5.43 million tonnes of traffic moved on the IBP route in FY-22 and displayed a growth of approx. 51% over FY-21.

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



Figure 6: IBP route Month-wise traffic (FY-21 & FY-22)

Traffic on the IBP route predominantly consists of fly ash movement from Kolkata/Haldia to destinations based in Bangladesh. The share of other commodities are increasing from 3.6 % in FY-21 to 26.6% in FY-22. Fly ash movement to Bangladesh is driven by the requirement of Cement plants. Movement of Bhutanesic stone aggregates have been started moving from Dhubri to Chilmari. More than 31,000 MT cargo moved on this route during FY-22.



Figure 7: Vessel plying on the IBP route

Approx. 84% of the traffic moving on the IBP routes originates from 5 jetties on NW-I, while approx. 99% of the IBP traffic gets unloaded at Narayanganj, Khulna and Mongla in Bangladesh.

The graph below shows the commodity profile of the traffic handled on the IBP route in FY-22.

Approx. 84% of the traffic moving on the IBP routes originates from 5 jetties on NW-I, while approx. 99% of the IBP traffic gets unloaded at Narayanganj, Khulna and Mongla in Bangladesh.

IBP ROUTE : COMMODITY PROFILE OF TRAFFIC

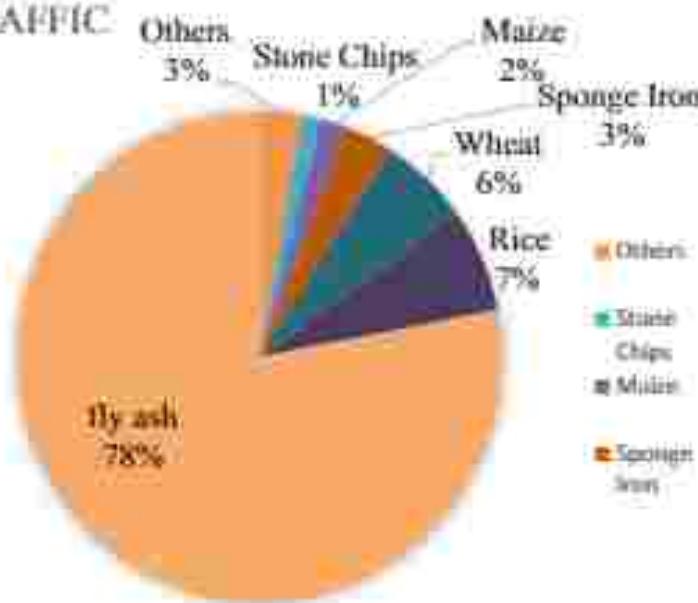


Figure 8: IBP route : Commodity profile of traffic (FY-22)

It can be observed that almost 78% of the traffic on the IBP route is fly ash apart from Rice (7%), Wheat (6%), Sponge Iron (3%), and Stone Chips (1%) and others (3%). The jetties at the origin locations handling fly ash are IWAI Halda Jetty (29%), Budge Budge Kolkata (18%), K.P. Dock, Kolkata (20%), T.T Shesi (8%) and G.R. Jetty 2 (10%) and IWAI BTPS Jetty (7%). Among the jetties at the destination locations, Narayanganj receives 79% of fly ash followed by Khulna (12%) and Mongla (8%).

The graph below shows the key shippers who used the IBP route for movement in FY-22.

IBP Route Shipper Wise Traffic

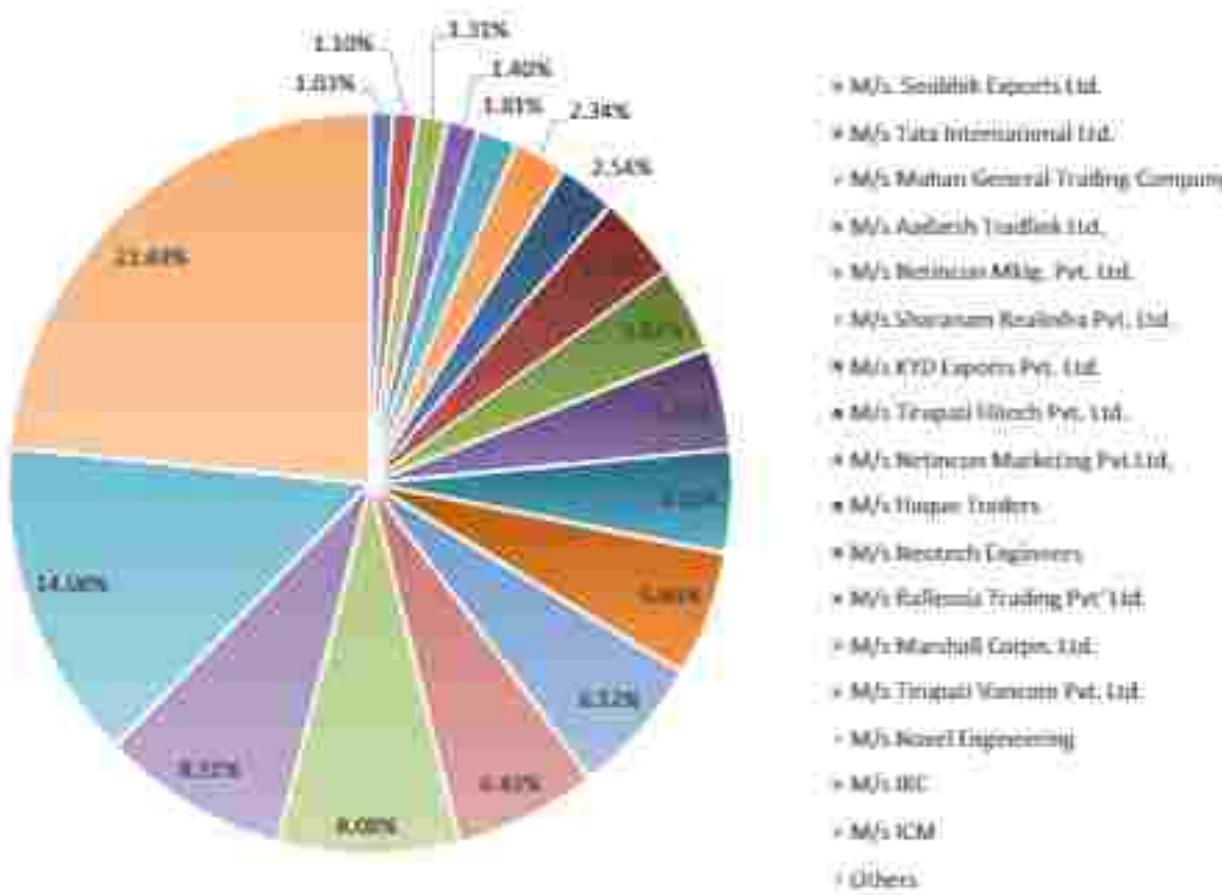
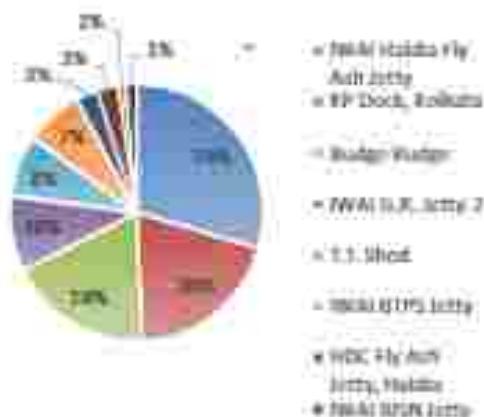


Figure 9: IBP route Shipper wise traffic (FY 22)

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 39 top shippers on the IBP route of which the 17 shippers constitute 76 % of the traffic. The balance 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-22:

NW IBP Jetty-wise share of traffic at Origin FY -22



NW IBP Jetty-wise share of traffic at Destination FY -22

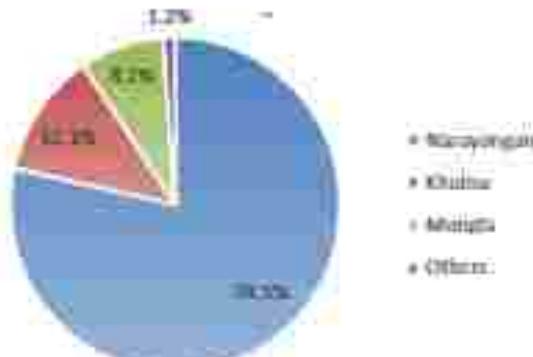


Figure 10: IBP route Jetty-wise share of traffic at origin & destination (FY-22)

It can be observed that among the origin jetties/ports (India Ports of call), 78% of the traffic on the IBP route is handled at 4 jetties; namely IWAI Haldia Fly Ash Jetty, K.P. Dock, Kolkata, Budge Budge-Kolkata and G.R. Jetty 2-Kolkata. Of these 4, the top 2 jetties, IWAI's Haldia Fly Ash Jetty and Budge Budge-Kolkata only handled fly ash. Movement of Bhutianese Stone aggregates started moving from Dhubri to Bangladesh. T.T. Shed primarily handled fly ash along with a small quantity of ODC, whereas IWAI's G.R. Jetty 2 handled a variety of commodities. Share of other commodities like rice, wheat, steel products, stone aggregates and Coal have been increased to 22% in FY-22 from 3.64 % in FY-21.

In terms of the destination jetties/ports (Bangladesh Ports of call), Narayanganj and Khulna handled more than 90% of the traffic. Both these jetties predominantly unload fly ash along with project cargo, steel material, coal and food products etc.

A total of 11 jetties on NW-1 loaded traffic for the IBP route in FY-22, of which 6 jetties loaded 82% of the traffic. Cargo has been loaded from 3 Jetties on NW-2, two jetties on NW-16 and one Jetty on NW-86. Given below is the traffic handled by these 6 jetties on NW-1:



Figure 11: IBP route: Cargo handling patternwise of jetties (FY-21 & FY-22) (Top 6 jetties)

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

Of the 6 jetties shown above, IWAI's Haldia fly ash Jetty, KP Dock and Budge Budge Jetty handled significant proportion of traffic. Among these 6 jetties, jetties namely, IWAI Haldia Jetty, IWAI BTPS Jetty and GR Jetty 2 are owned by IWAI. All the Jetties except T.T. Shed have displayed increase in traffic handled in FY-22 vis-à-vis FY-21. Amongst these 6 jetties, Kidderpore Dock and T.T. Shed belongs to Shyama Prasad Mukherjee Port Trust.

The graph below shows the remaining 9 jetties on NW-1, NW-2 and NW-16 that handled close to 18% of the traffic moving on the IBP route.

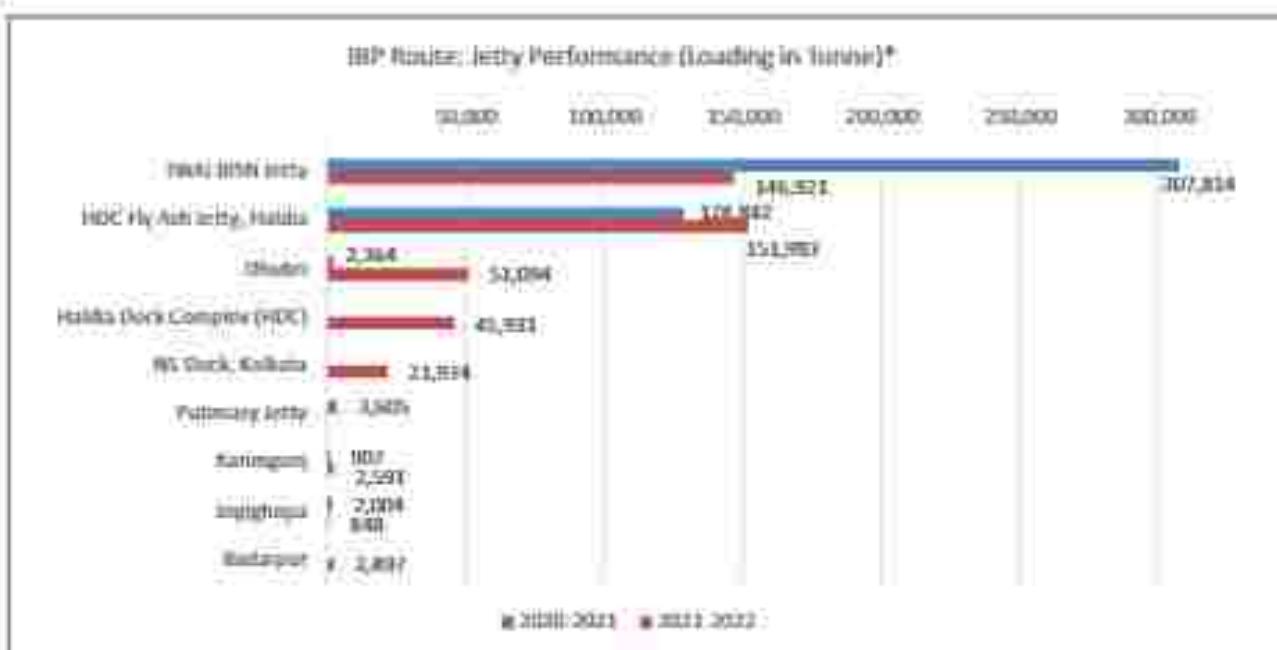


Figure 13: IBP route: Cargo handling performance of jetties (FY 2021 & FY 2022) excluding NW-6 route

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

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 - Datkhawa 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 IWP route. To enhance use of the IWP route for transhipment 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-22, approx. 2.7 million tonne of traffic moved via Ro-Ro operations on NW-1. The graph below presents the month wise Ro-Ro traffic movement on NW-1.



Figure 13: NW-1 Month wise Ro-Ro traffic (FY 21 & FY 22)

*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.

It can be observed that the traffic in FY-22 was more than doubled than the traffic in the corresponding period of FY-21.



Figure 14: NW-1 Ro-Ro cargo handling operation

The graph below presents the share of traffic at the origin/ destination locations (jeties/ landing points) for Ro-Ro Traffic in FY-22.

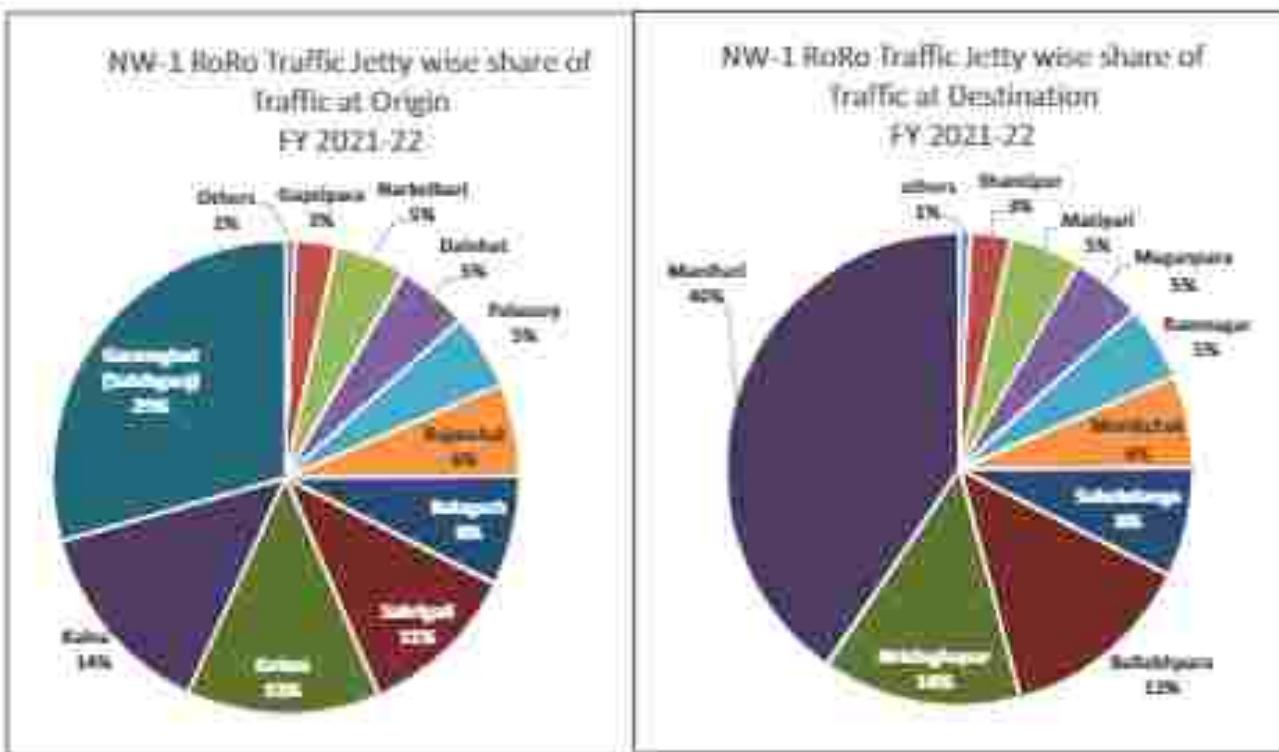


Figure 15: NW-1 Ro-Ro traffic - Jetty wise share at origin & destination (FY.22)

There are 10 landing points on NW-1 where Ro-Ro vessels are on-loaded. Of these 10, Ganjam accounts for the highest share of loaded traffic followed by Kalna, Katwa and Sakrigali. These 4-origin loading points account for 67% of the total traffic on-loaded.

There are 9 landing points on NW-1 where the Ro-Ro vessels are off-loaded. Of these, Mahul accounts for the highest share of off-loaded traffic followed by Nrisinghampur, Ballabhpur and

Sahebdanga. These 4 jetties account for 75% 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-22.

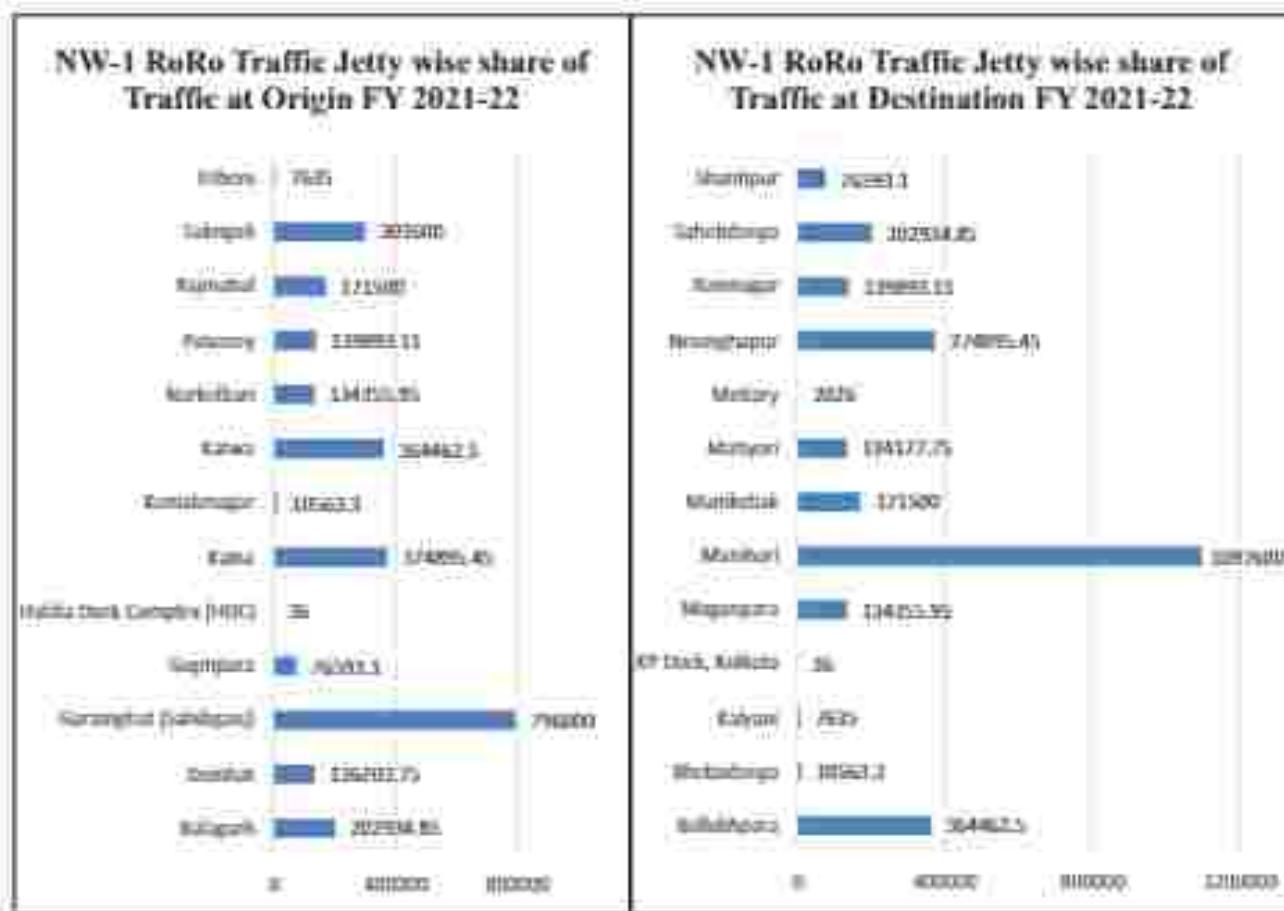


Figure 14: NW-1 RoRo traffic - Traffic handling performance at critical loading points (FY22)

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

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-22, twelve shipments constituting of approx. 3,410 tonne of Over Dimensional Cargo moved on NW-1.



Figure 17: NW-1: IWT cargo movement

In FY-22 products such as Transformers, Batch Digestors, Chimneys, Power Generator Equipment, Crane etc. were transported using IWT mode from Kolkata/Haldia port to destinations along IHP, NW-1, NW-2.

4. 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 Bhutanese stone aggregates movement to Bangladesh, rice, passengers, vehicles and goods movement taking place through ferries.



Figure 18: NW-2: BHU RD M———



Approx. 0.43 million tonne of traffic moved on NW-2 in FY-22 between approx. 48 Origin-Destination pairs. The graph below presents the month wise traffic for FY-22 as compared to FY-21.

*- Actual numbers have been rounded off to the nearest thousand for representational purposes.

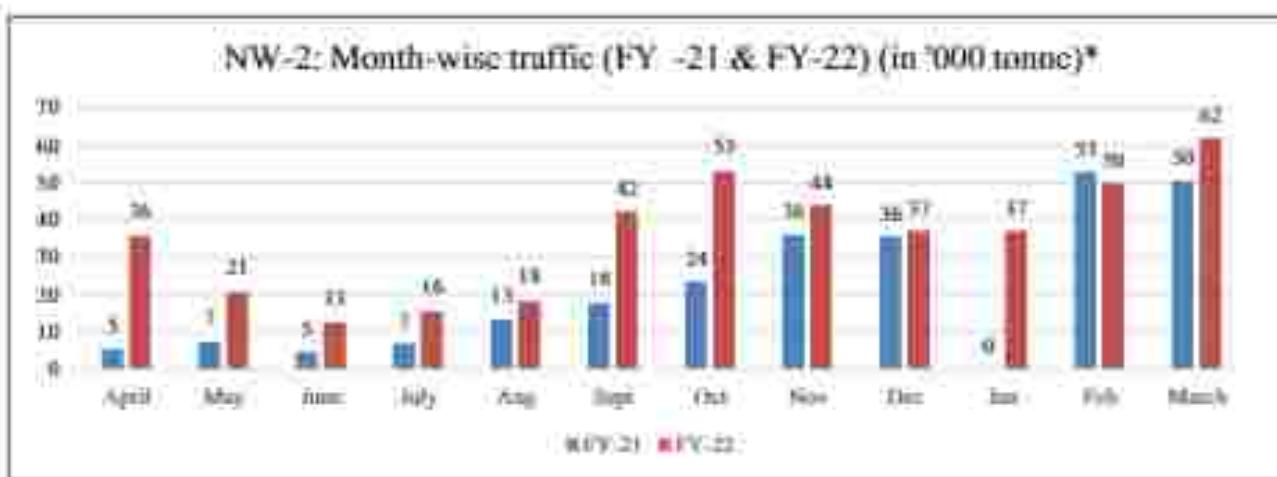


Figure 19: NW-2: Month-wise traffic (FY-21 & FY-22)

The total traffic in FY-22 has increased by approx. 39% from 0.31 million tonne in FY-21 to 0.43 million tonne in FY-22. The increase in traffic is due to starting of movement of Bhutanese stone aggregates movement to Bangladesh and introduction of more Ro-Pax service. 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-22.

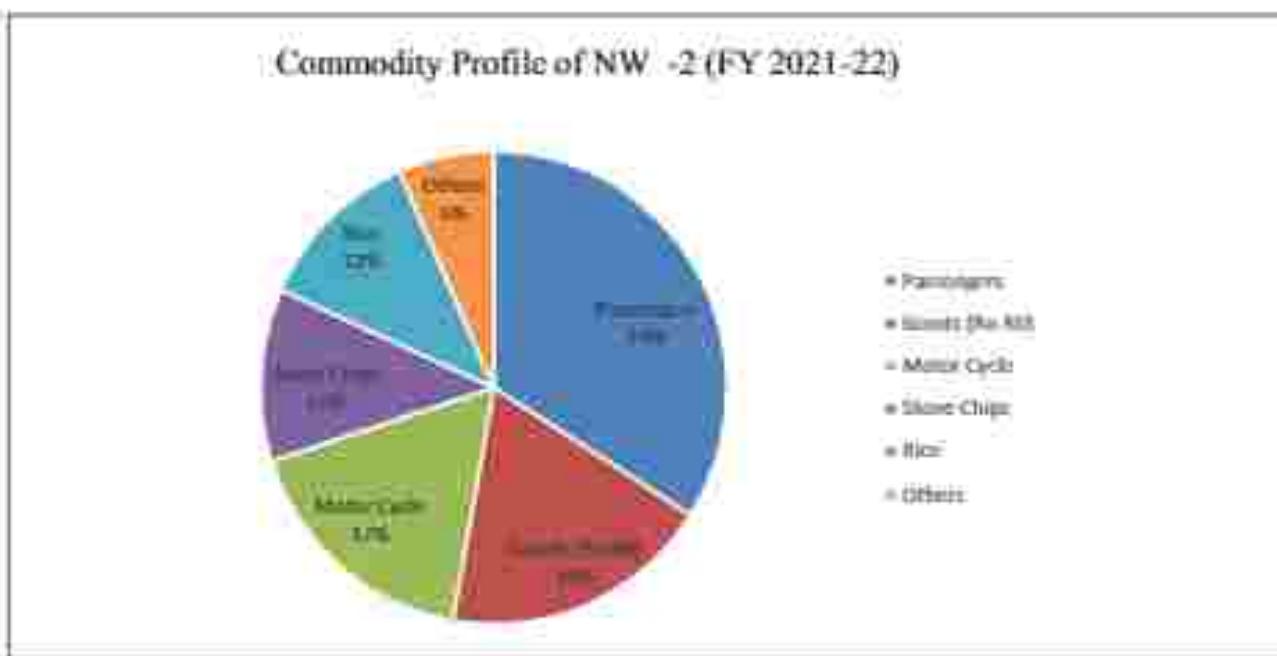


Figure 20: NW-2: Profile of traffic (FY-22)



Passenger (34%) account for the highest share of traffic moving on NW-2 followed by goods (19%). 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-22.



Figure 21: NW-2: Cargo vessel movement

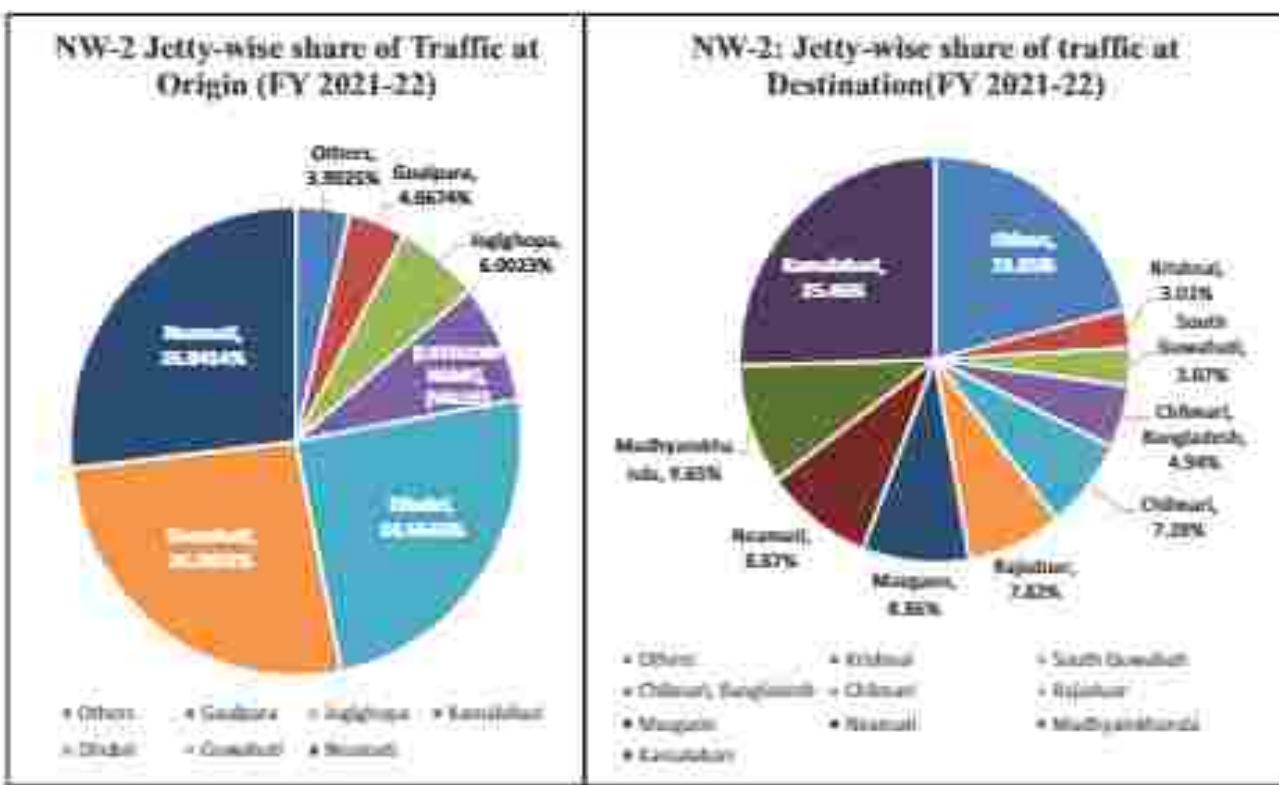


Figure 21: NW-2: Jetty-wise share of traffic at origin and destination (FY 22)



It can be observed that Neamati, Guwahati and Dhubri together accounts for 80% of origin locations on NW-2. Traffic movement from Dhubri takes place to 20 destination locations, Neamati and Guwahati to 4 locations. The destination locations are highly fragmented with a total of 44 destination locations. Of these 44 locations, Kamalaburi accounts for 25.5%, Madhyamankhanda 9.7% and Neamati accounts for 8.9%. The remaining 41 locations handle less than 5% traffic.

In FY-22, traffic on National Waterway-2 has been recorded at approx. 48 jetties. These jetties handle stone aggregates to Bangladesh and goods, vehicles and passengers through ferries. The traffic handled at the top jetties has been depicted in the following graph.

Among the jetties on NW-2, Neamati, Guwahati and Dhubri handled the maximum loaded traffic. It saw an increase in traffic in FY-22 as compared to FY-21 except for Guwahati.

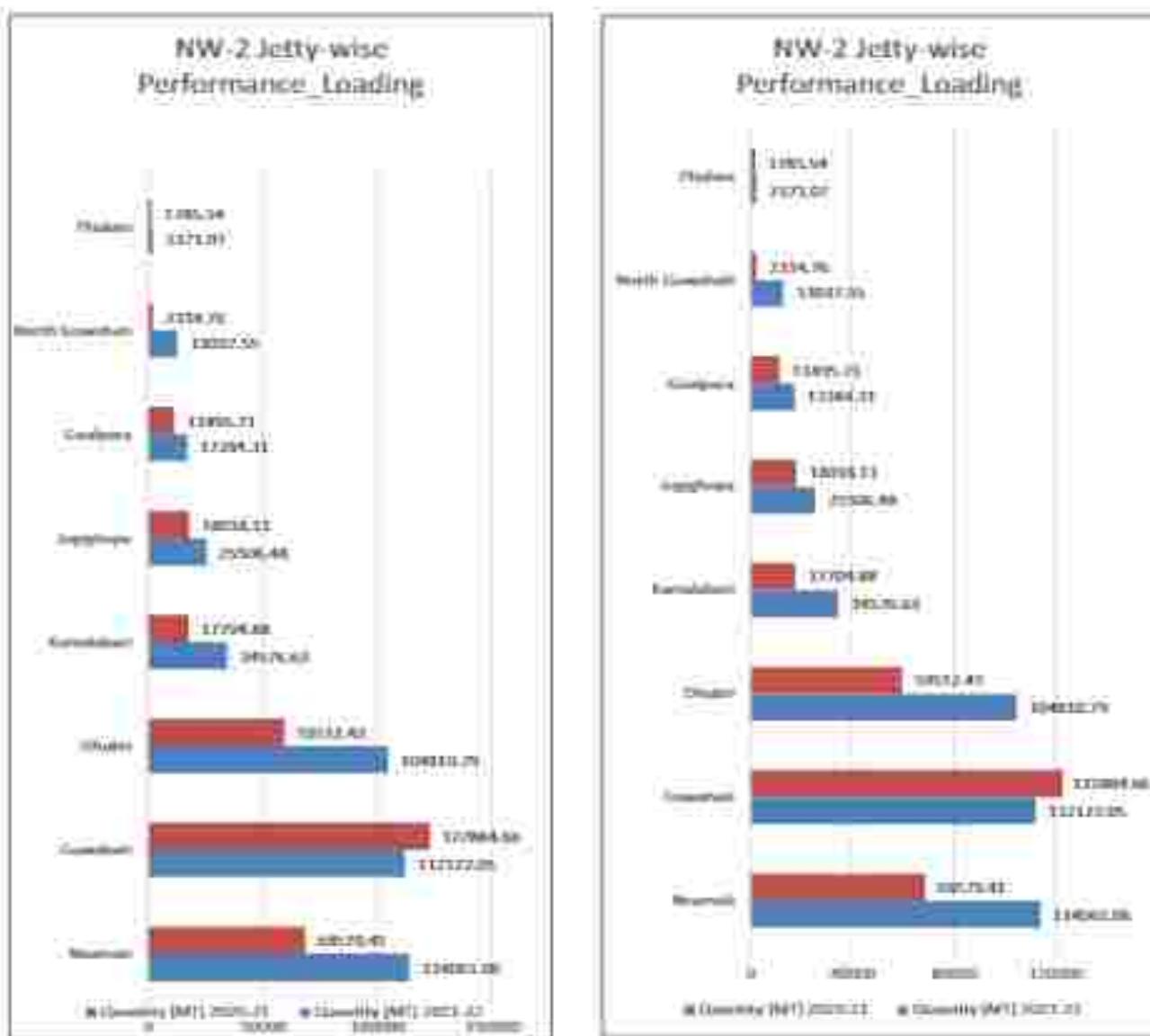


Figure 23 NW-2: Traffic handling performance of jetties (FY-21 & FY-22)



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-21. Chilmari, Bangladesh saw a drastic increase in the unloaded traffic due to movement of stone aggregates. Madhyamkhanda and Neamati saw an increase in the unloaded traffic compared to FY-21 while Mazzam and Rajaduar saw decrease in traffic. The details of various jetties are available in the annexure.

First ever movements from (NW-1) to NW-2 through IWP.



Figure 26: NW-2: MV Lal Bahadur Shashtri managing food grains

MV Lal Bahadur Shashtri carrying 200 tonnes of food grains of FCI, flagged off from Patna to Pandu by Hon'ble Minister of MoPSW Shri Sarbananda Sonowal and Hon'ble Minister of Consumer Affairs, Food and Public Distribution, Shri Piyush Goyal on 5th February 2022. The vessel sailed from Patna on National Waterway-1 (river Ganga), passed through Bhagalpur, Manikarni, Sahibganj, Farakka, Tribeni, Kolkata, Haldia, Hemnagar, Indo Bangladeshi Protocol (IBP) route through Khulna, Narayanganj, Sirajganj, Chilmari and National Waterway-2 through Dhubri, and Jorhat covering a distance of 2,350 km. The vessel arrived at Pandu Port, Guwahati on 06.03.2022. The event was attended by Hon'ble Union Minister of PSW&A Sh. Sarbananda Sonowal, Hon'ble Chief Minister, Assam Sh. Himanta Biswa Sarma, Hon'ble Member of Parliament Queen Oja, Chairman of IWAI and Chairman of Syama Prasad Mukherjee Port.

Another vessel MV Ram Prasad Bismil with Dumb Burges APJ Abdul Kalam & Kalpana Chawla loaded with 1798.27 MT of Prime TMT Bars of M/s. Tata Steel Limited started the voyage from Haldia on 16th February, 2022. Hon'ble Minister Sh. Sarbananda Sonowal alongwith, Secretary, Shipping, Chairman, IWAI & Chairman, SMPK flagged off the flotilla on 16.02.2022 at Haldia Dock complex. The flotilla arrived at Pandu port on 15.3.2022 through Protocol on Inland Water Transit & Trade Route.



MV Basu Prasad Bhutan with Dead Weight API Khidil Kanta A Kalpna Chandra loaded with 1796.27 MT of Prime TMT Bars of 30Mm Size Berthed on 16-02-2012 at Haldia Docks complex.

Two ODC (over Dimensional cargo, 501 MT (252 + 249 MT) movements for Numaligarh Bio-refinery from Kolkata to Silghat, Assam also took place through NW-1, IBP route and NW-2.

This initiative by IWAI (Ministry of Shipping) to commence movements to the 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

With successful completion of five pilot movements for bulk and containerized cargo, 221 movements 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.

subsequently loaded on IWAT'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 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 221 vessels loaded with 31068.34 MT Bhutanese Stone Aggregates have sailed from Dhubri to Chilmari in Bangladesh during FY22.

5. National Waterway-3

Kottapuram– Kollam stretch of the West Coast canal along with Champakura canal and Udyogmandal canal has been declared as the National Waterway-3 (NW-3). Approx. 1.70 million tonne traffic moved on NW-3 in FY-22. Traffic movement on NW-3 consisting Ro-Ro movement between Bolgatty and Willingdon Island and 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-22.

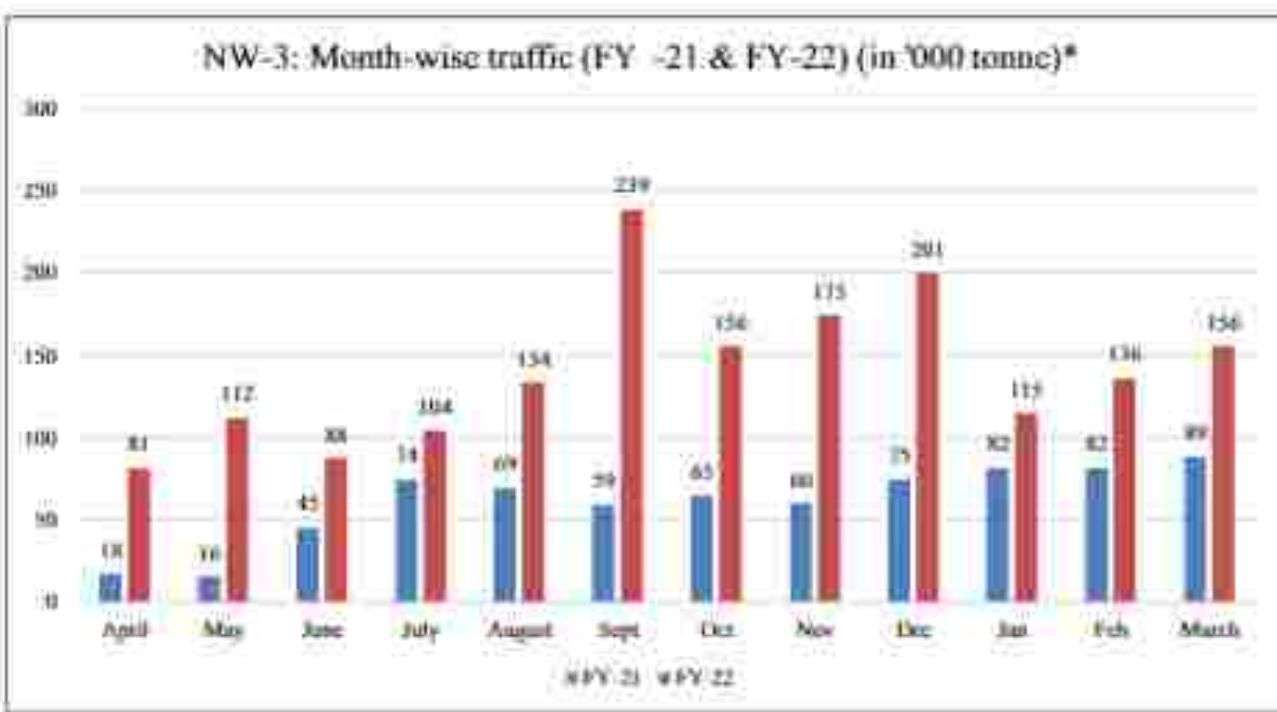


Figure 23: NW-3: Month-wise traffic (FY-21 & FY-22)

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

The total traffic in FY-22 has increased by approx. 131 % to approx. 1.70 million tonnes in FY-22 from approx. 0.73 million tonnes in FY-21.

The graph below presents the commodity profile of traffic on NW-3 in FY-22.

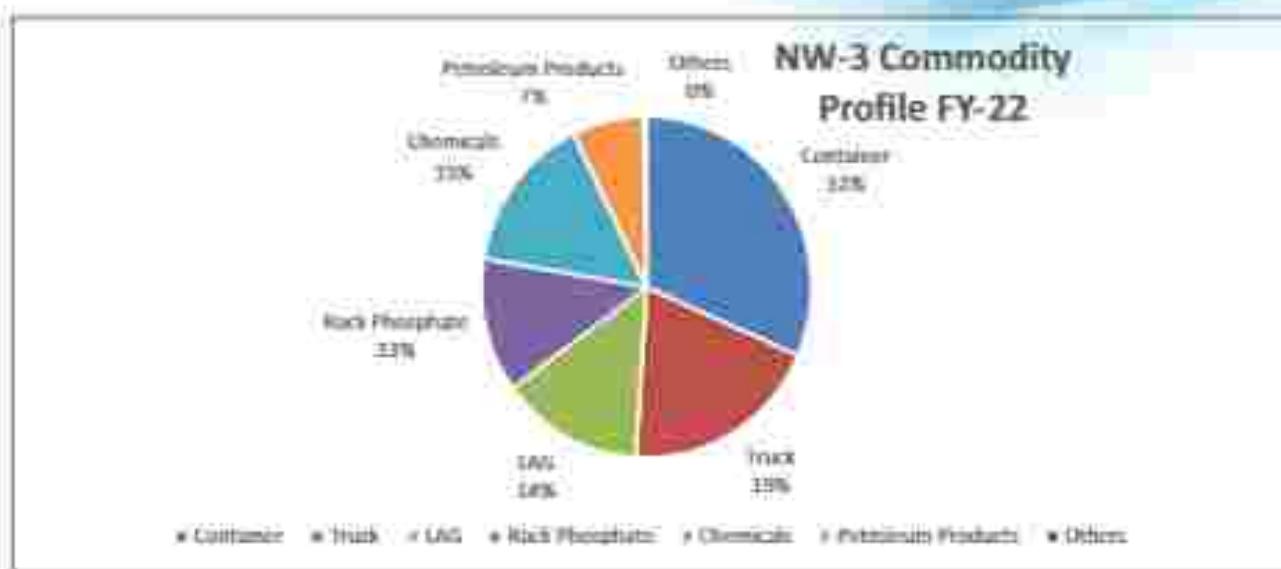


Figure 26: NW-3 Commodity profile of traffic (FY-22)

The traffic moving on NW-3 is primarily the containers and trucks moved by the Ro-Ro service (51%) followed by raw materials moved by Fertilizers and Chemicals Travancore (FACT) to and in between their plants. Chemicals (15%) followed by LNG (14%) and Rock Phosphate (13%). LNG is transported to FACT's Cochin Division and Petrochemical Division; Chemicals transported to FACT's Cochin Division and Udyog Mundal Division while most of the Rock Phosphate is transported to FACT's Cochin Division jetty.



Figure 27: Ro-Ro Vessel sailing on NW-3

The graph below presents the jetty-wise share at origin and destination in traffic on NW-3 in FY-22.

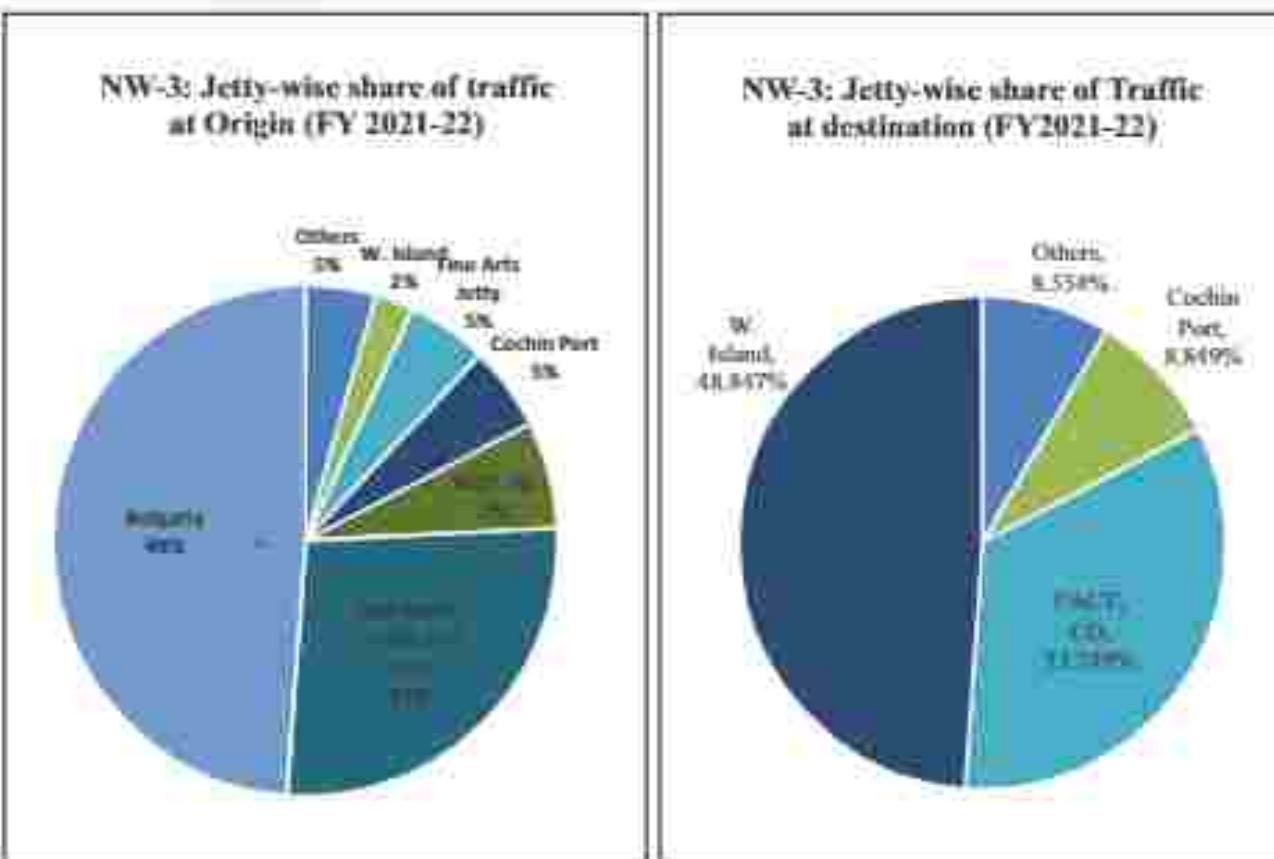


Figure 23: NW-3: Jetty-wise share of traffic at origin & destination (FY 22)

It can be observed that a major share of traffic on NW-3 originates from the IWAI's Bolgatty jetty used by the Ro-Ro service. 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, Willingdon Island jetty accounts for the largest share of traffic and handles containers, trucks and automobiles. FACT, CD (Cochin Division) handles multiple commodities i.e. Rock Phosphate, Sulphur, LAG and Phosphoric Acid. This is followed by Cochin Port.

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

NW-3: Jetty Performance (Cargo Loading in tonne)

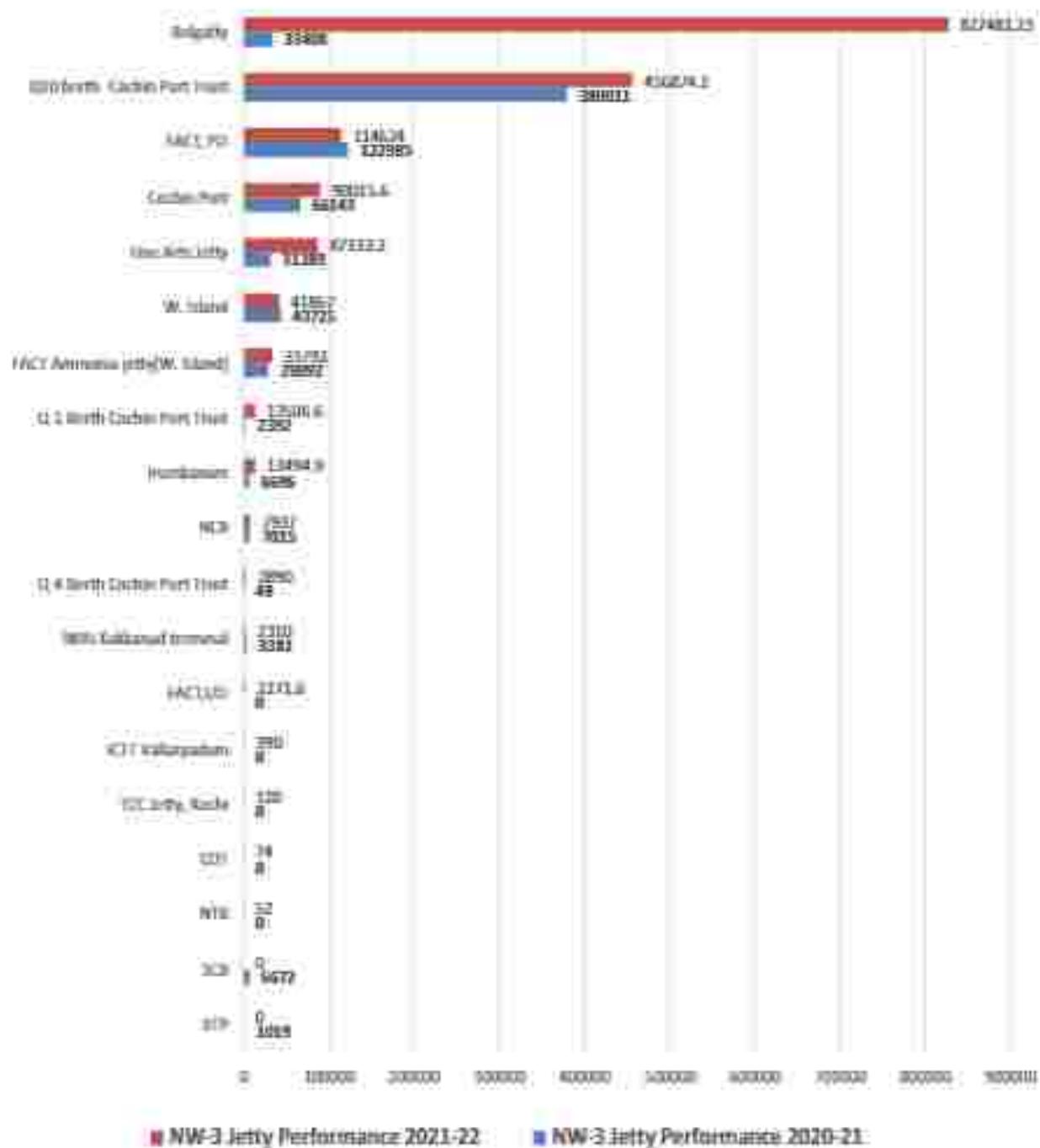


Figure 26: NW-3: Traffic handling performance of jetties (Loading for FY 21 & FY 22)



NW-3 Jetty Performance (Unloading in tonne)

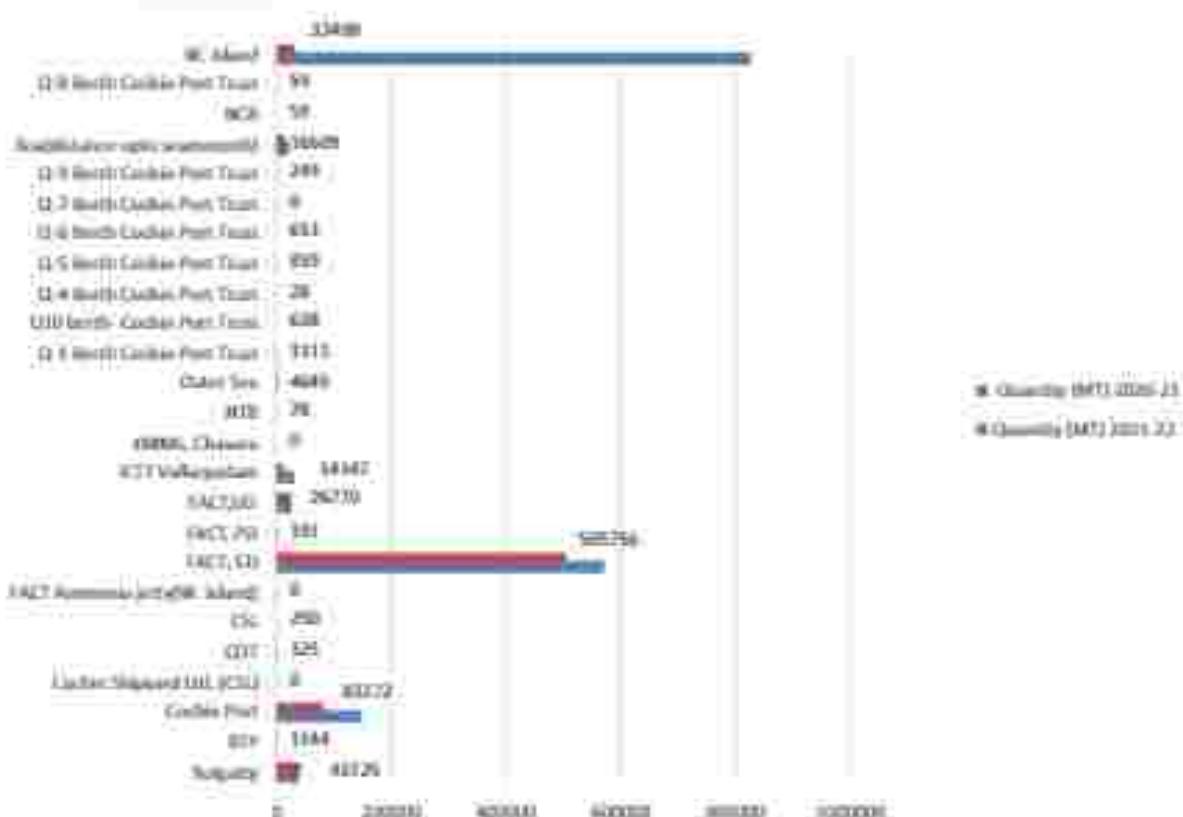


Figure 10: NW-3 Traffic handling performance of jetties (Unloading for FY21 & FY22)

From the above graph it can be observed that the traffic handling on NW-3 is currently taking place at 21 jetties. There was a significant rise in the cargo unloading at Willingdon Island in FY-22, and cargo loading has increased on all the jetties in FY-22 as compared to the same period last year.

Traffic on NW-3 primarily consists of Ro-Ro movement and 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 given below shows the jetty/ Port wise loaded commodities handled on NW-3.

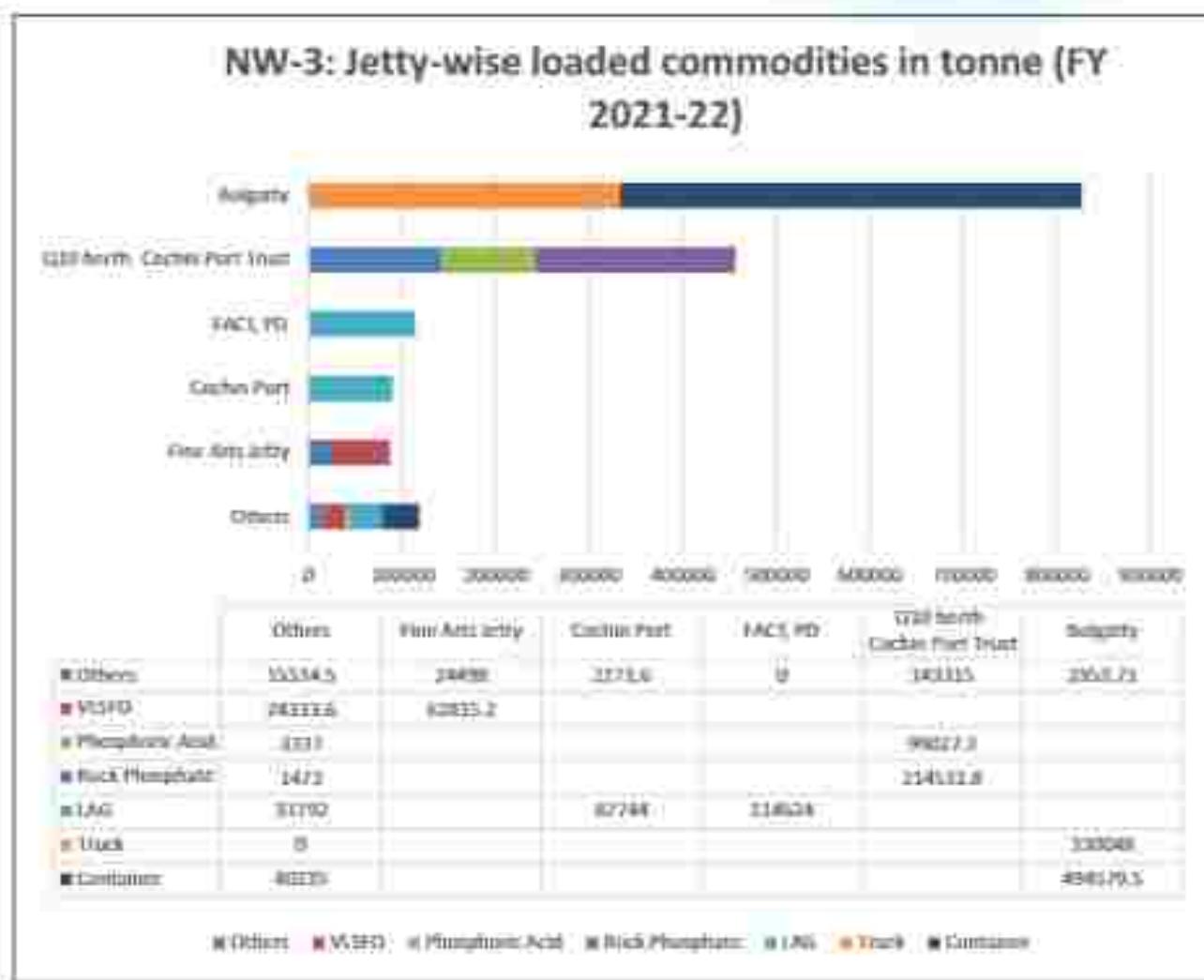


Figure 31: NW-3 Jetty-wise loaded commodities (FY 22)

It can be observed that Bolgatty jetty accounts for the largest share of loaded traffic due to Ro-Ro service. Fertilizer and Chemicals Travancore (FACT) uses Q-10, Fact PD, Cochin Port and Fine Arts jetties 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 (Willingdon 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.

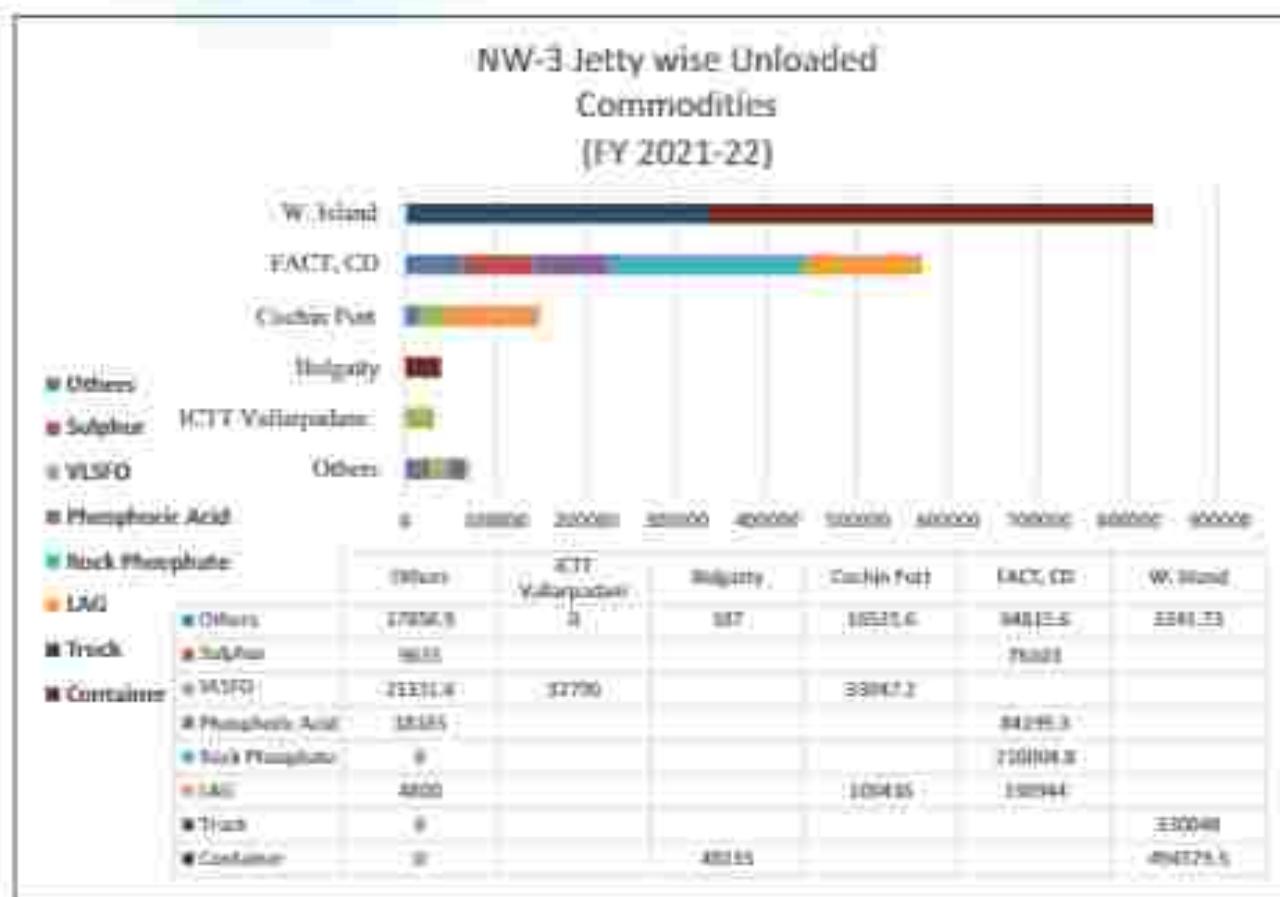


Figure 12: NW-3 Jetty wise unloaded commodities [FY 22]

It can be observed that Willingdon Island jetty accounts for the largest share of unloaded traffic (Ro-Ro) and FACT, CD (Cochin Division) 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 Cochin port , which primarily receives Sulphur along with limited quantities of Phosphoric Acid and Rock Phosphate. FACT, PD (Petrochemical Division) jetty only handles LAG.

6. National Waterway-4

National Waterway 4 (NW-4) is a 2,890 kilometers long waterway consisting of stretches of River Krishna, River Godavari, Cauvery 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-21 & FY-22.

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

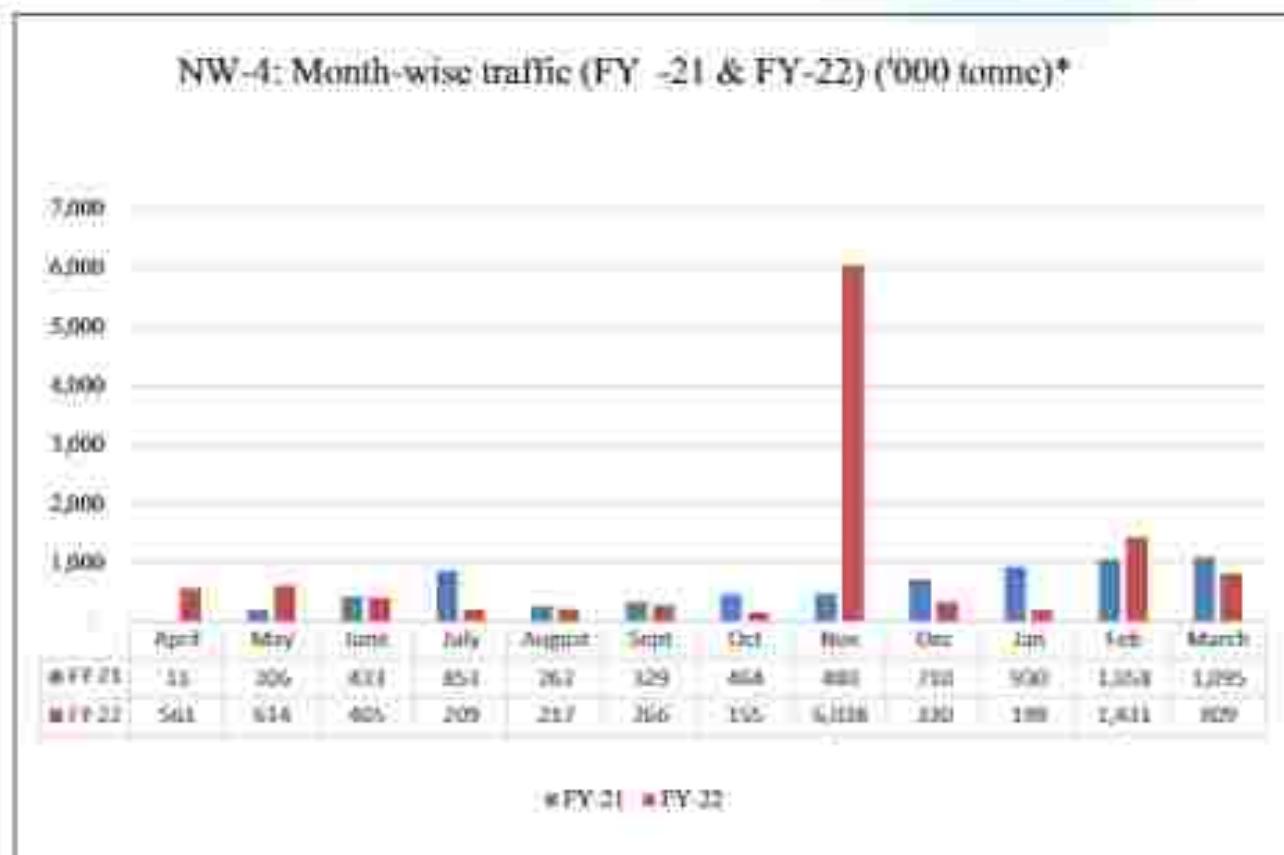


Figure 11: NW-4: Month-wise traffic (FY 21 & FY 22)

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

The traffic movement on NW-4 is through Ro-Ro operations wherein trucks carrying construction material are carried from Ibrahimpatnam to Liegapalam using Ro-Ro inland vessels. In FY-21, traffic handled on NW-4 was 6.83 million tons, while in FY-22 traffic increased to 11.23 million tons due to addition of movement from / to Krishnapatnam port through NW-4.

7. Maharashtra Waterways

Maharashtra has 4 operational NWs which are NW-10 (Arha River), NW-83 (Rajpuri creek), NW-85 (Revandura creek/Kundalika River) and NW-91 (Shastri River/ Jaigad Fort Creek). Maharashtra Waterways constituted approx. 40% of the total traffic handled on all National Waterways in the country in the FY-22. NW-91 handles approx. 51.5% of the total traffic Maharashtra Waterways followed by NW-10 which handles close to 46%. NW-85 handles approx. 2% of the total traffic.



Figure 54: Maharashtra NW's Operational routes

In FY-21, traffic handled on the Maharashtra Waterways was approx. 28.21 million tonne, while in FY-22 traffic increased to 43.61 million tonne mainly due to increase in movement of Coal, Iron Ore and Sugar etc. The graph below presents the commodity profile of traffic on Maharashtra Waterways in FY-22.

Maharashtra NWs: Commodity profile of traffic
(FY 2021-22)

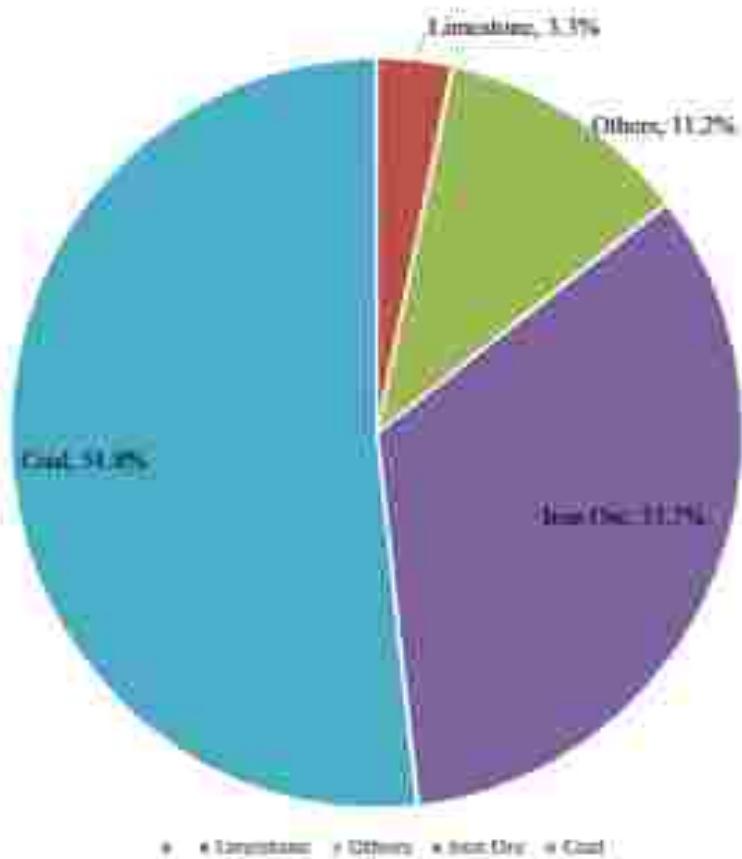
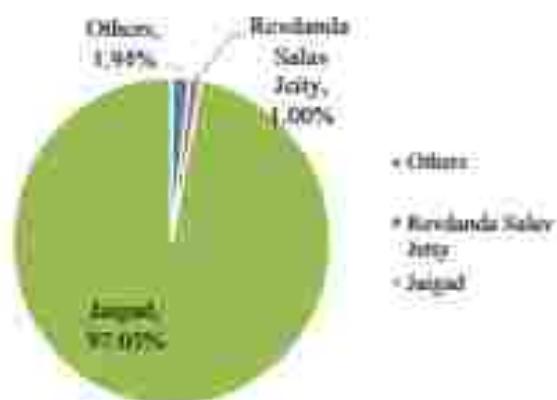


Figure 11: Maharashtra NWs Commodity profile of traffic (FY 22)

It can be observed that Coal (52%) followed by Iron Ore (34%) account for 86% of the traffic moved on the Maharashtra Waterways. Limestone account for 3.3% of the traffic moved, whereas commodities such as Sugar, Dolomite, Clinker and Urea 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-22.

Maharashtra NWc: Jetty-wise share of traffic at origin (FY 2021-22)



Maharashtra NWc: Jetty-wise share of traffic at Destination (FY 2021-22)

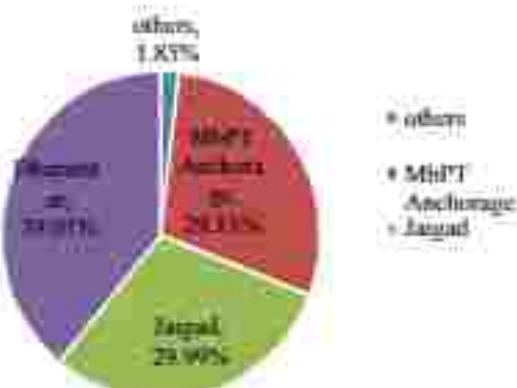


Figure 16: Maharashtra NWc Jetty-wise share of traffic at origin & destination (FY 22)

Of the total traffic moving on the Maharashtra Waterways, approx. 36% originates from the jetties present on the Maharashtra Waterways while 64% originates either from foreign ports or from the coastal ports of India. Of this 36% which originates on the Maharashtra Waterways, approx. 98% is handled by Jaigad and close to 1% 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.

Of the total traffic moving on the Maharashtra Waterways, 98% goes to jetties present on the Maharashtra Waterways while the remaining 2% is destined for coastal ports of India. Of this 98% which is destined for the Maharashtra Waterways, Dharamtar handles 39% and Jaigad handles 30%.

Maharashtra waterways constitute approx. 40% of the entire IWT traffic in India. Industrial units' Port/ 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.

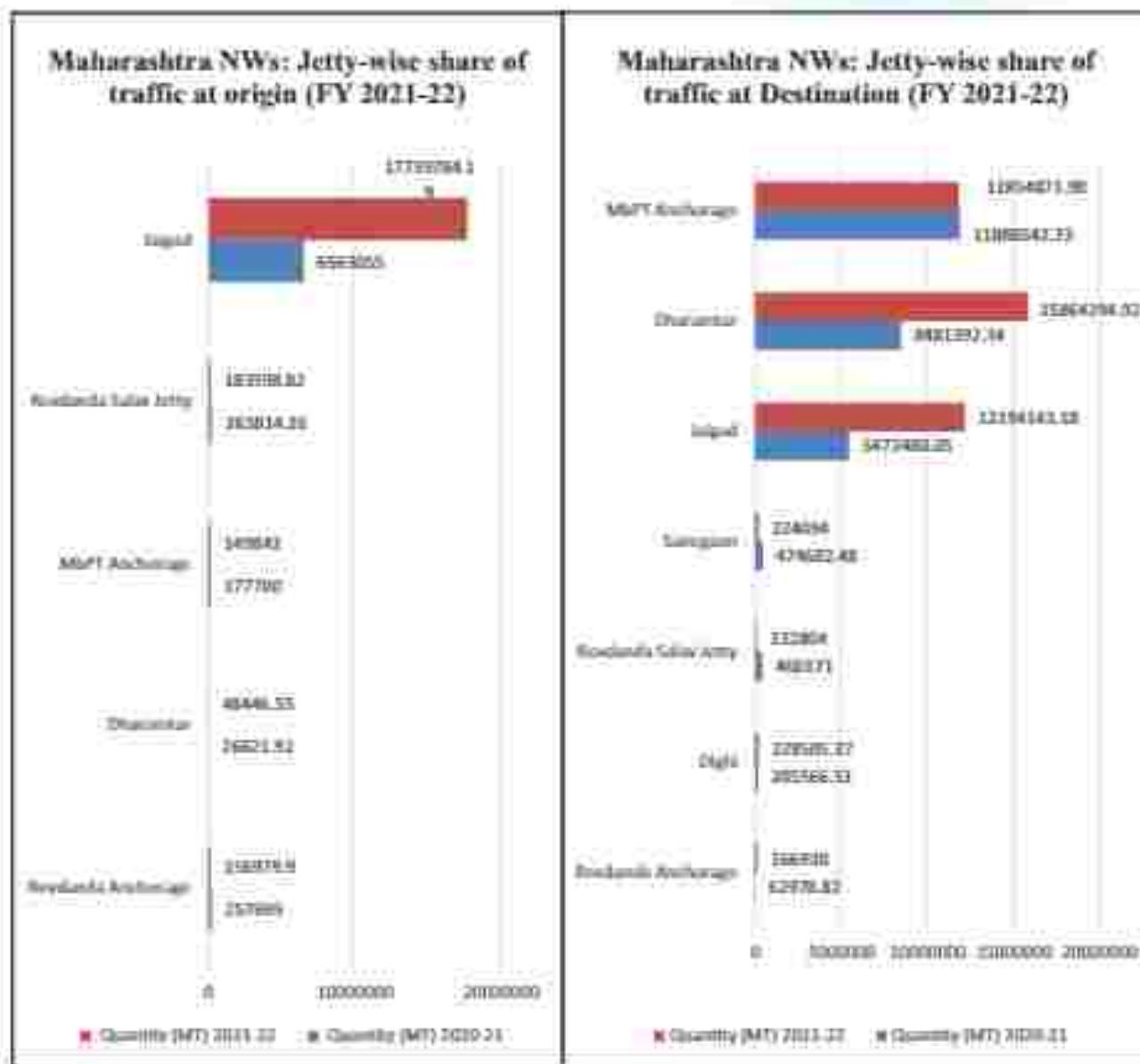


Figure 17: Maharashtra NWs: Traffic handling performance of jetties (FY-21 & FY-22)

It can be observed that Dhuramtar (on NW-10) handled majority of the unloaded traffic on the Maharashtra waterways i.e. 39% in FY-22 and 31% in FY-21 followed by Jaigad (30% in FY-22 and 20% in FY-21), whereas Jaigad (on NW-91) handled majority of the loaded traffic i.e. 96% in FY-22 and 94% in FY-21. Dhuramtar, Jaigad and Jaipud have shown an increase in 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.

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

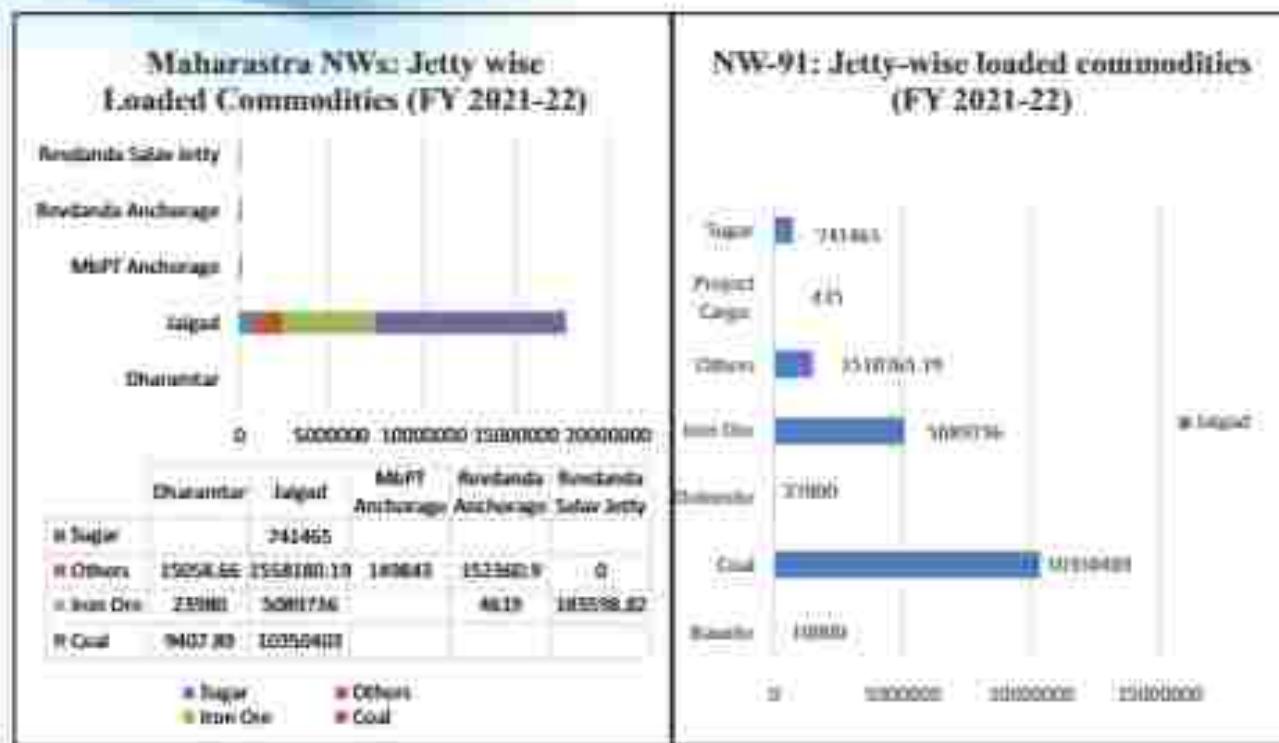


Figure 10: Maharashtra Waterways: Jetty wise loaded commodities (FY 22)

Among the jetties on the Maharashtra Waterways, Jaigad accounted for the highest share of loaded traffic. Coal accounted for majority of the traffic loaded at Jaigad followed by Iron Ore and these commodities were predominantly transported to Dharmantar port. Ruvlanda Salav Jetty has been mainly used as a loading point for Iron Ore fines shipments to Dharmantar port. Dharmantar port had limited traffic movements of Iron Ore to Ruvlanda, whereas Dighi and Samegam did not load any cargo in FY-22.

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

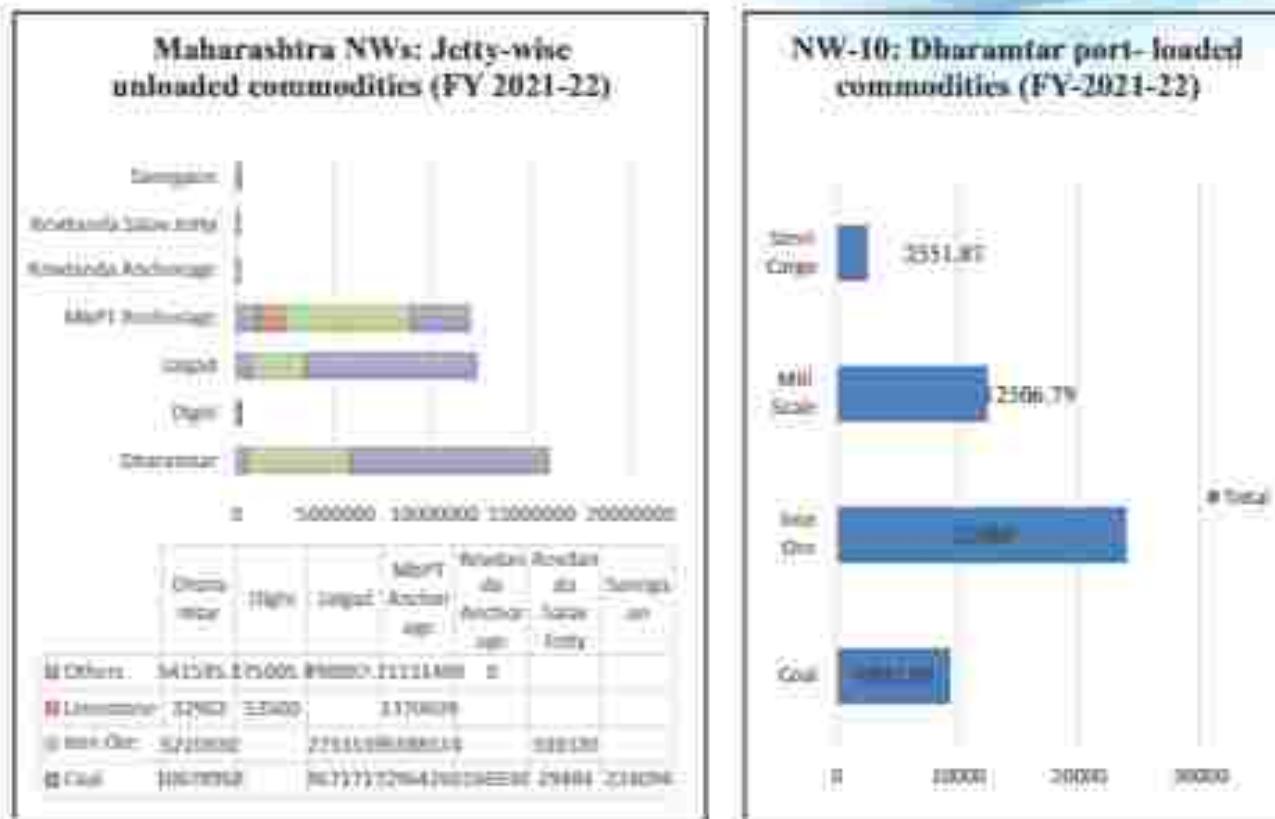


Figure 25: Maharashtra NWs: Jetty-wise unloaded commodities (FY-22)

In terms of the jetties used for unloading on the Maharashtra Waterways, Dharamtar followed by Jaigad 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. Jaigad 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.

8. Goa Waterways

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



Figure 40: Goa Waterways Operational NWs

With traffic movement of approx. 4.6 million tonne, the Goa waterways constituted approx. 4% of the total traffic on all NWs in FY-22. 57% (approx. 2.6 million tonne) of the total traffic on the Goa Waterways was handled on NW-68, whereas the remaining 43% (approx. 2.0 million tonne) was handled on NW-111. The graph below presents the month wise traffic movement on the Goa waterways in FY-22.

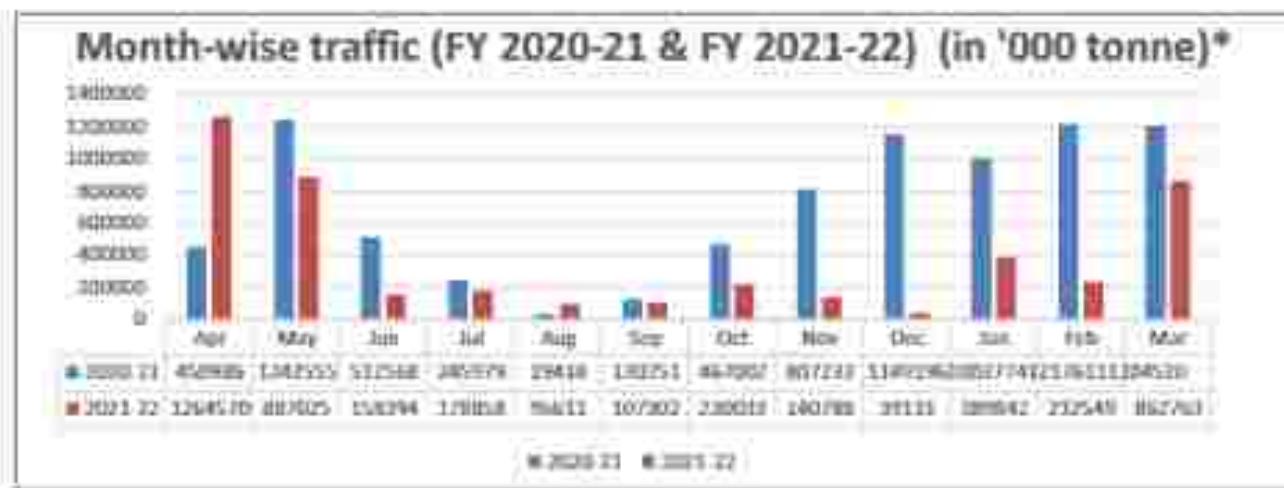


Figure 41: Goa NWs Month-wise traffic (FY 21 & FY 22)

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

Traffic on the Goa Waterways has decreased post the ban on iron ore mining in the state. The traffic declined from approx. 8.5 million tonne in FY-21 to approx. 4.6 million tonne in FY-22. 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-22.

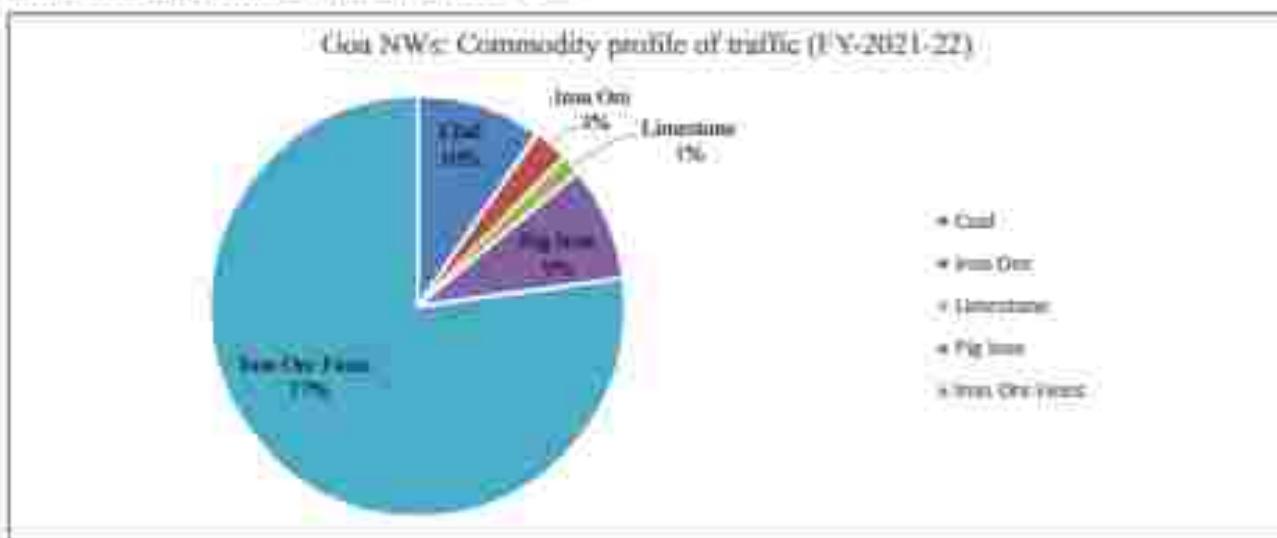


Figure 42: Goa NW: Commodity Profile of traffic (FY-22)

It can be observed that the top two commodities on the Goa Waterways are Iron Ore (80%) and Coal (10%). Most of the Iron Ore is exported to foreign countries from Mormugao Port, whereas coal is imported from foreign ports to Mormugao Port. Other commodities handled in Goa Waterways are Pig Iron (9%) and Lime Stone (1%).



Figure 43: Goa Waterways: Port in Ponda area

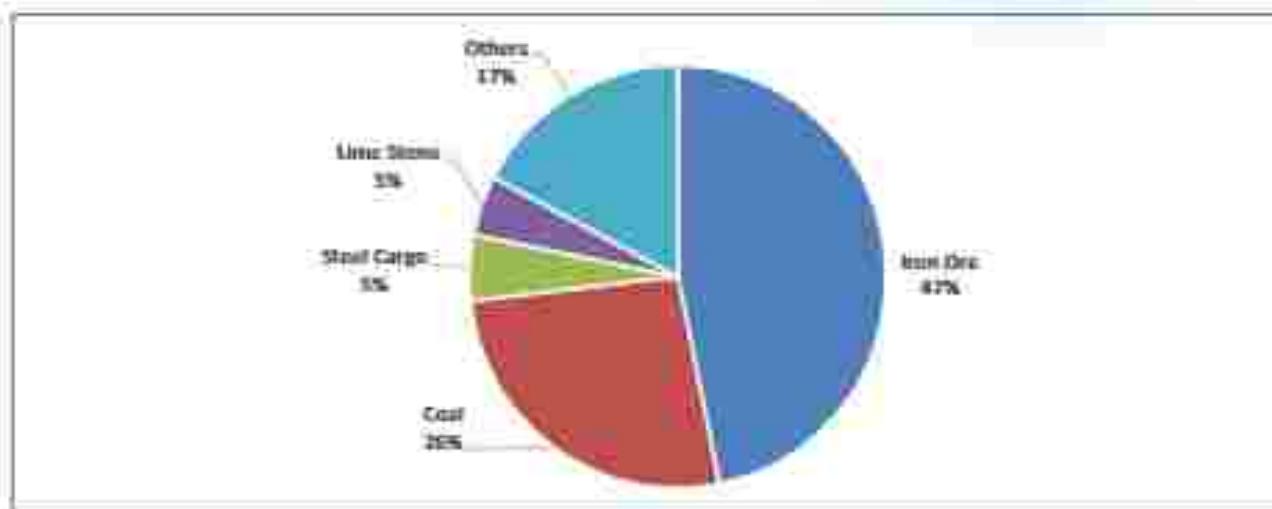
9 Gujarat Waterways

Gujarat has 2 operational National Waterways i.e. NW-73 (River Narmada) and NW-100 (River Tapi). With approx. 29.4 million traffic, the Gujarat waterways constituted 27% of the total traffic on all National Waterways in FV-22. Over 99% of the Gujarat Waterway traffic is handled on NW-100 (River-Tapi).



Figure 44: Gujarat Waterways (Operational NW)

Commodity Profile Gujarat Waterways



The graph below presents the month wise traffic movement on NW-100 (Tapi River) in FY-22.

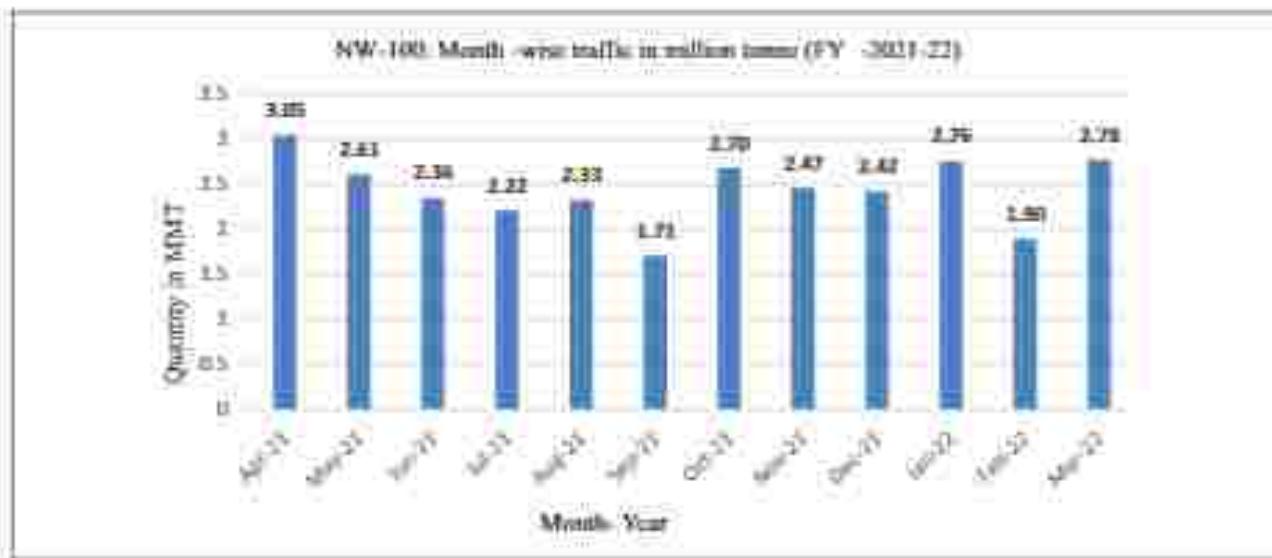


Figure 45: NW-100: Month-wise traffic in FY-22.

With total traffic of 29.32 million tonne in FY-22, NW-100 displayed a growth of 14% vis-à-vis traffic of approx. 25.63 million tonne in FY-21.

The graph below presents the month wise traffic movement on NW-73 (Narmada River) in FY-22.



**NW-73: Month-wise traffic in Tons
(FY-2021-22)**

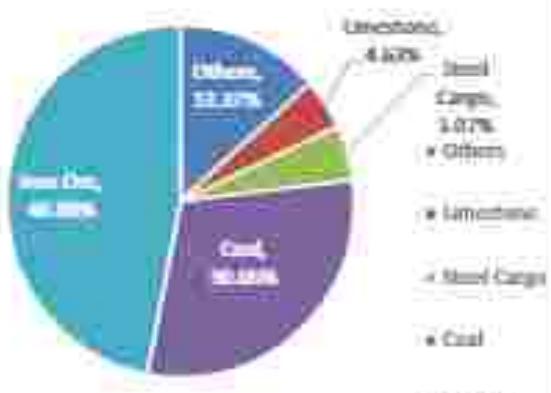


Figure 45: NW-73: Month-wise traffic (FY-22)

45,223 tonne of traffic was handled on NW-73 in FY-22, as compared to 82,311 tonne in FY-21, showing a decrease of 45% owing to restrictions on movement of iron ore.

The graph below presents the commodity profile of traffic on Gujarat Waterways in FY-22.

**NW-100: Commodity profile of traffic
(FY 2021-22)**



**NW-73: Commodity profile of traffic
(FY 2021-22)**

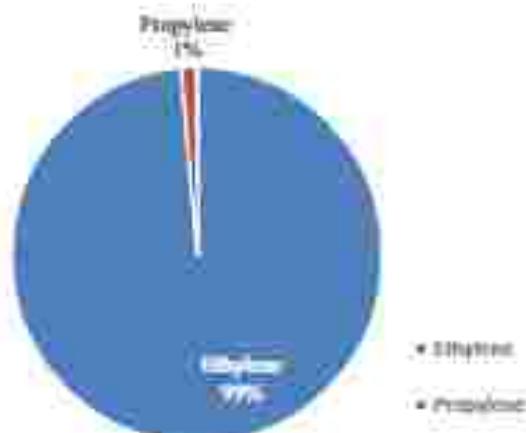


Figure 47: Gujarat Waterways Commodity profile of traffic (FY-22)

It can be observed that the top two commodities i.e. Iron Ore (47%) and Coal (30%) form 77% of the total traffic moving on NW-100 (Tapi River). These are followed by Steel Cargo and Limestone which account for 5% each. Other commodities moving on the NW-100 are Coke, Clinker, Cement etc.

Only 2 commodities were transported on NW-73 (Narmada River) in FY-22 of which Ethylene (99%) accounted for the highest share of the total traffic followed by Propylene (1%). 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.

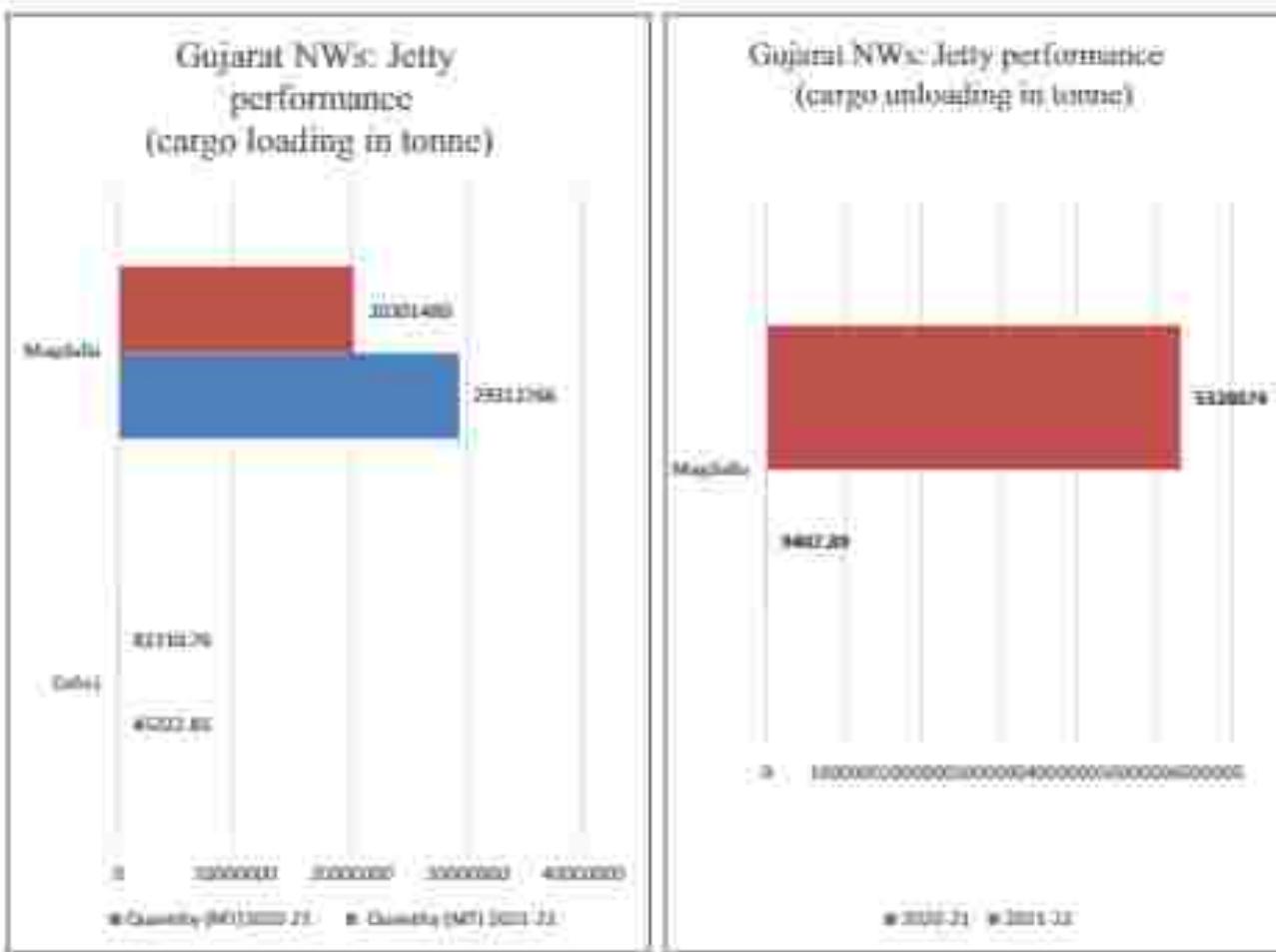


Figure 48: Gujarat NWs: Jetty handling performance of jetties (FY-21 & FY-22).

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-22, Magdalla based jetties have collectively seen an increase of 44% in

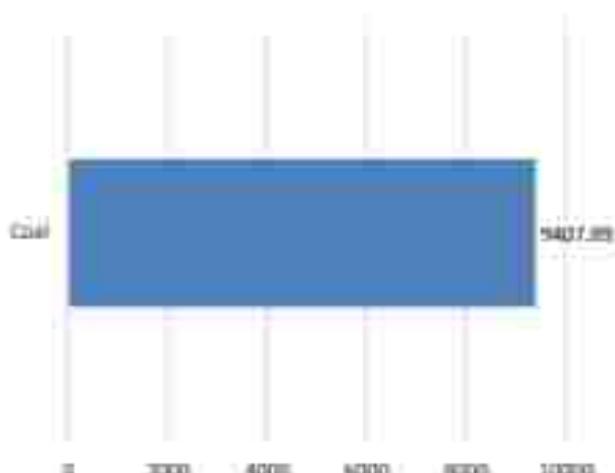
**NW-100: Magadala jetties- loaded commodities (FY 2021-22)****NW-100: Magadala jetties- unloaded commodities (FY 2021-22)**

Figure 49: NW-100: Merchantile jetties - Loaded and unloaded commodities (FY 21)

the loaded traffic handled. Similarly, Dabhej 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 Magadala based jetties. The graph given below shows the loaded and unloaded commodities handled on NW-100.

The major commodity loaded on NW-100 is Iron Ore, which is transported through coastal shipping route to multiple Indian ports.

The major commodity unloaded on NW-100 is Ethylene.

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

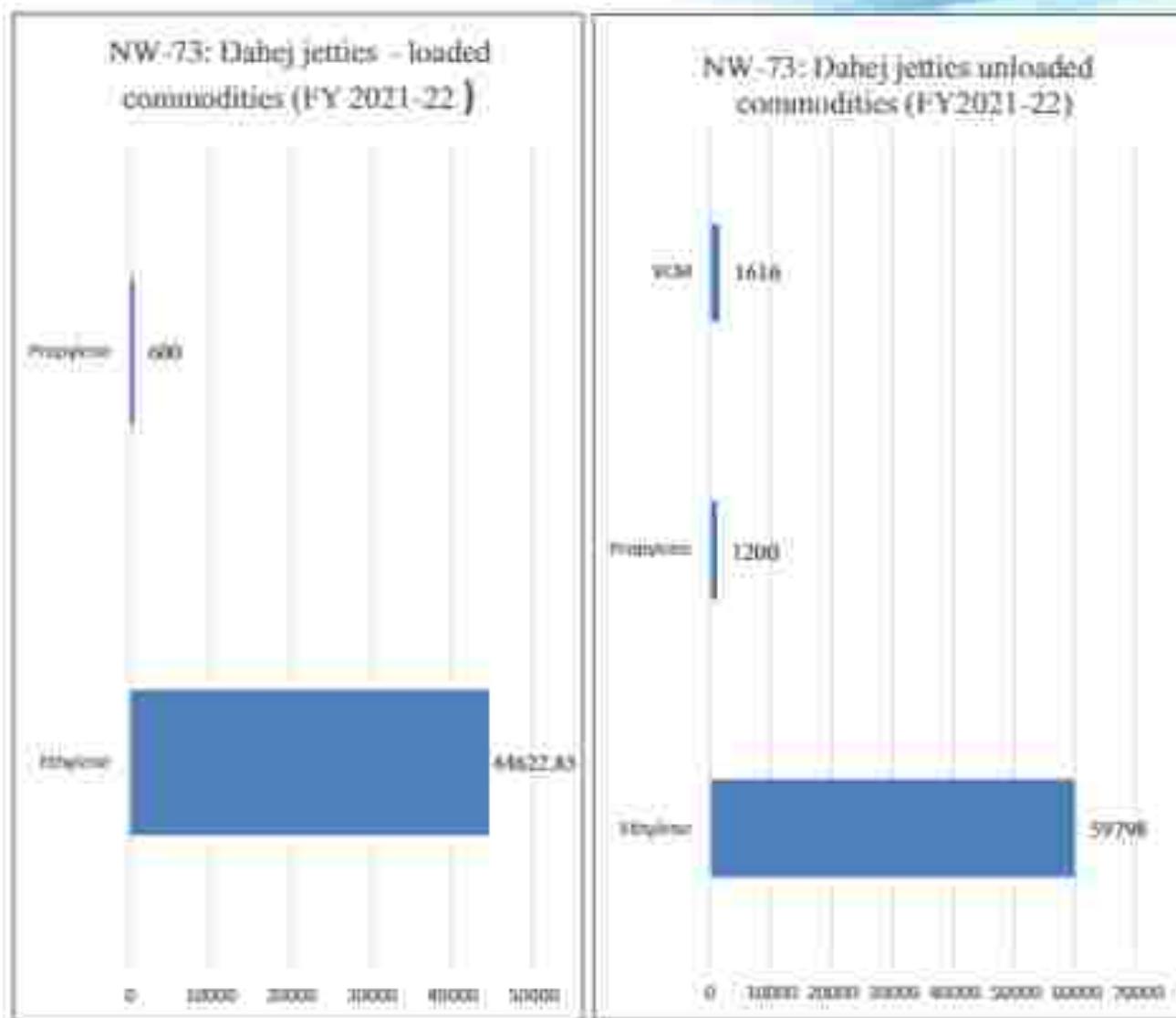


Figure 38: NW-73: Dahej based jetties - Loaded and unloaded commodities (FY 22)

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

10. Newly Operational National Waterways

The number of operational NWs has increased to 19 in FY-22 with the inclusion of traffic on NW-5 (East Coast Canal and Matai River/Brahmani-Kharsua-Dhamra Rivers/Mahanadi Delta Rivers) and NW-64 (River Mahanadi). The details of traffic on these newly included NWs are as follows:

1. NW-5 (East Coast Canal and Matai River/Brahmani-Kharsua-Dhamra Rivers/Mahanadi Delta Rivers): Movement of Gypsum have been started from IITCO Riverine Jetty (NW-64) to Paradip Port on NW-5. In FY-22, approx. 14,923 tonne of moved from NW-64 to NW-5.



2. NW-64 (River Mahanadi): Movement of Gypsum have been started from IFFCO Riverine Jetty (NW-64) to Paradip Port on NW-5. In FY-22, approx. 14,923 tonne of moved from NW-64 to NW-5.

11. 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 Daikhawa on protocol route No 1 & 2 and Ashuganj and Zikiganj 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), Sabrangunj (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 Gaighat (Purnia) 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 operational 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

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.

modal shift of cargo in favor of IWT.

4. **Digital portal for dissemination of information to IWT users:** As a step towards improving the efficiency and effectiveness of various activities being performed by IWAI and to ensure Ease of Doing Business, IWAI has developed digital solutions to enable stakeholders to have access to key information for National Waterways using integrated digital platforms. The solutions were identified and developed in consultations with Shippers, Vessel Owners, Industries, Central & State Ministries, Maritime Boards and other internal and external stakeholders for the IWT sector.

The key digital solutions developed by IWAI are:

A. CAR-D (Cargo Data) Portal – Web portal (<https://iwalcargoportal.nic.in>)

CAR-D is a web-based portal for collection & compilation, analysis and dissemination of all the cargo and cruise movement data for IWAI and its stakeholders. It captures the traffic data for cargo and cruise from different terminal operators, regional offices & sub-offices and further analysis the data against key performance indicators.

CAR-D helps in near real time capturing of cargo traffic and passenger traffic with the help of terminal operators, Maritime Boards and regional offices. It is accessible to the all the stakeholders and helps in understanding the traffic flow patterns, key commodities and potential, key logistics players in the sector and can facilitate cargo consolidation and promotion of potential of inland waterways transport.

B. PANI (Portal for Asset & Navigation Information) – web portal & Mobile Apps (<https://pani.iwalnic.in>)

PANI is an integrated solution bringing river navigation and infrastructure information on a single platform. It provides detailed information on various features of the National Waterways (NWs) and the assets on these NWs, such as fairway, infrastructure facility, cross river structures, connectivity at jetties, emergency services for facilitating transportation of cargo and other vessels through inland waterways. The GIS based Bharat Map portal also helps external stakeholders in voyage planning, leading to ease of business.

The open access platform brings transparency of information for timely decision making based on single source of truth and aims to facilitate transportation of cargo and other vessels through inland waterways. It also helps users in assessing the feasibility of transportation on an anticipated date of journey by simulating historical data against required draught, vertical and horizontal clearance.

C. IBP Permission Portal (<https://stagethree.ncog.gov.in/iwai>)

IBP Permission portal is an online application portal that has been developed for granting of permission (Inward/Outward) to vessels plying on IBP route. The platform allows agents registration, vessels registration which are subsequently used for Inward/Outward permission through an authority-based approval workflow.

This significantly reduces the processing time and manual interventions by bringing in transparency and standard operation procedures in a timely manner.



5. **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.
6. **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-Dhuliyan 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 Chilman (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.
7. **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.
8. **Ro-Ro/Ro-Pax Service Commenced in Various National Waterways**
The Operation of Ro-Ro / Ro-Pax vessels inaugurated by Hon'ble Prime Minister during

February 2021 for the following routes are running successfully:

Vessel Name	Ro-Ro / Ro-Pax Service between	Date of Inauguration by Hon'ble Prime Minister
MV Rani Gaidinliu & MV Sachin Dev Barman	Nearnati and Kamalabari (Meghal)	18.02.2021
MV JFR Jacob	Guwahati and North Guwahati	18.02.2021
MV Bob Khathing	Dhubri and Fakirganj (U/S Hatisangini)	18.02.2021
MV Adi Shankara & MV C.V. Raman	Wellingdon Island and Bolghatty	14.02.2021

9. **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. List of 23 new national Waterways found feasible for cargo movement is appended below:



S. N.	National Waterway (NW) No.	Details of Waterways	States	Status
1	NW-1	Ganga-Bhagirathi-Hooghly River System (Haldia - Allahabad)	Uttar Pradesh, Bihar, Jharkhand & West Bengal	Development taken up with Assistance from World Bank Jal Marg Vikas Project
2	NW-2	Brahmaputra River (Dhubri - Sadiya)	Assam	Development taken up as per approved SPC for FY 2020-21 to 2024-25
3	NW-16	Hansi River	Assam	
4	NW-3	West Coast Canal (Kottapuram - Kollam), Chempakara and Udyogmoundal Canals	Kerala	Mostly Operational Waterways and development and maintenance work taken up.
5	NW-4	Krishna River (Vijayawada - Muktyala)	Andhra Pradesh	
6	NW-5	Dharma-Paradio via Mangalgadhi to Pankopal	Odisha	
7	NW-8	Alappuzha-Changanassery Canal	Kerala	
8	NW-9	Alappuzha-Kottayam – Athirampuzha Canal	Kerala Alternate route: 11.5km	
9	NW-27	Cumberjua River	Goa	
10	NW-68	Mandovi River	Goa	
11	NW-86	Rupnarayan River	West Bengal	
12	NW-97	Sunderbans Waterway	West Bengal	
13	NW-111	Zuari River	Goa	
14	NW-10	Ariba River	Maharashtra	
15	NW-44	Ichurmai River	West Bengal	
16	NW-52	Kali River	Karnataka	
17	NW-57	Kopili River	Assam	
18	NW-73	Narmada River	Maharashtra & Gujarat	
19	NW-83	Rajputri Creek	Maharashtra	
20	NW-85	Revadanda Creek - Kundalika River System	Maharashtra	
21	NW-91	Shastri River - Jaigad Creek System	Maharashtra	
22	NW-94	Sone River	Bihar	
23	NW-100	Tapi River	Maharashtra & Gujarat	

12. Major Achievements During FY 2021-22

- * The Cargo movement on National Waterways encouraging during FY2022, 108.79 Million Ton has been achieved for FY-2021-22 against 83.61 Million ton last year recording 30.12 % increase.
- * Approx. 5.43 million tonnes of traffic moved on the IWP route in FY-2021-22 and displayed a growth of approx. 51.4 % over FY-2020-21.
- * 221 vessels loaded with 31068.34 MT Bhutanese Stone Aggregates have sailed from Dhubri to Chittagong in Bangladesh.
- * During 2021-22, M/s RINL brought 15 trainloads of 537813.048 MT TM Thar from Visakhapatnam.
- * Movement of 13 Over Dimensional Cargo (3810 MT) on NW-1 ,NW-86, IWP, NW-2, NW-5 & NW-64 Routes to destinations along NW-1, IWP, NW-2 & NW-64 (PowerGrid, HURL, BHEL etc.).
- 1. Notification of "Customs Area" at Tribeni (Bandel) Jetty. Vide Public Notice: 01/2021, dated 16/03/2021, Indian as well as Bangladesh Flag vessels/barges can be loaded at Tribeni (Bandel).
- 2. RoPax vessel MV Ishupon Hazarika handed over to Govt. of Odisha on 28/04/2021.
- 3. 247.50 decimals of land with 225 mtr river front for developmental works of Maia Terminal was acquired (on annual rent basis) by IWAI at Maia, Malda Dist, W.B.
- 4. IWAI have participated in India Russia Strategic Dialogue (IRSED) Meeting on 15.04.2021
- 5. IWAI have participated in a 2 hour regional consultation on "Indo-Bhutan-Bangladesh Consultation on Trade and Inland Waterways Navigation in the Brahmaputra Basin" organised by Oxfam India in collaboration with Oxfam Bangladesh and CUTS International on 12th April 2021.
- 6. IWAI Control room was operational at R.O., Kolkata from 25/05/2021, 06:00 hours to 27/05/2021, 17:00 hours for close monitoring the Vessels, Installation, assets, etc. during the Cyclonic Storm " YAAS". Monitored Wind speed, Temperature, Humidity, Wind Direction, Wind Pressure through IWAI RIS Stations and was in contact with IWAI RO and Ministry of PS & W by 6 hours interval basis. No major damages were reported due to cyclone " YAAS " from IWAI vessels, Bangladesh Flag vessels (pre cyclone period in Indian waters), IWAI Terminals and IWAI Assets in the stretch under IWAI Kolkata RO.
- 7. Three floating pontoons namely F.P. Krishna-I, F.P. Krishna-II and F.P. Krishna-III, to be handed over to the Government of Andhra Pradesh for deployment in NW-4 have been handed over after satisfactory tests and trials to IWAI by the Builders M/S Waterways Shipyard Pvt. Ltd, Gopalpur.
- 8. Inland Waterways Authority of India (Levy and Collection of fees and charges) (Third Amendment) Regulations, 2021 published in the Gazette on 10.06.2021.
- 9. Hon'ble Prime Minister dedicated two Ro-Pax vessels, viz., MV Swami Vivekanand and MV Sam Manekshaw to the Nation on 15.07.2021, which were handed over by IWAI to Government of Uttar Pradesh for operation in Varanasi on NW-1.
- 10. A Pilot movement of LPG bullet trucks from Haldia Dock Complex, Haldia to K.P. Dock, Kolkata by IWAI Ro-Ro vessel MV Shankardev by M/s. MOL-HALPG was successfully completed between 25th to 26th July 2021.
- 11. A stakeholders meeting for promotion of IWT was organised during the visit of Chairman (U/c), IWAI at RO, IWAI, Kolkata.



12. IWAJ signed an MoU with Numaligarh Refinery Limited (NRL) in presence of Hon'ble Union Minister for Ports, Shipping & Waterways for development of Dhemaji River (NW-31) for movement of over dimensional cargo (ODC) and project cargo of Numaligarh Refinery using Inland Water Transport on 26.08.2021.
13. IWAJ also signed another MoU with Hooghly Cochin Shipyard Limited (HSCL), a subsidiary of Cochin Shipyard Limited in presence of Hon'ble Union Minister for Ports, Shipping & Waterways for construction of Ship Repair Facility Project at Pando, Guwahati, Assam on 26.08.2021.
14. A stakeholder conclave on "Waterways as Engine of Growth" was held at Guwahati on 27.08.2021. Hon'ble Chief Minister, Assam, Hon'ble Union Minister for Ports, Shipping & Waterways, Hon'ble Minister of State for Ports, Shipping & Waterways among other dignitaries and stakeholders participated.
15. Hon'ble Minister of Ministry of Ports, Shipping & Waterways along with Chairman (I/c), IWAJ visited Haldia MMT Terminal on 06.10.2021.
16. Hon'ble Minister of Ports, Shipping & Waterways has Visited Bogibeel, Dibrugarh on 24/10/2021 and held meeting with IWAJ, NF Rly. and Govt of Assam for River Front Development of Tourist and cargo terminal facilities at Bogibeel.
17. A Virtual meeting was held on 28.10.2021 between Indian Tea Association, IWAJ officials and Stakeholders for the Pilot / Trial movement of cargo of Tea from Dibrugarh, Assam to Kolkata.
18. Barge movement from Travancore Cochin Chemicals Limited (TCC) Kochi to Kerala Minerals & Metals Ltd (KMMI), Chavara by KSINC owned barge "Amia" loaded with 130 MT Hydrochloric Acid between 07.10.2021 and 10.10.2021 covering a distance of 150 KMs successfully commenced in NW-3. The movement is expected to be regular.
19. Cruise vessel Ganges Voyager-II of M/s Heritage River Journeys Pvt. Ltd. completed one commercial round trip from Kolkata to Ganga Sagar, with 36 Passengers.
20. For the first time, 1437.54 MT of Cotton Bales were transported to Bangladesh through Indo-Bangladesh Protocol Route from Kolkata to Narayanganj. 1354 MT Sugar in 50 twenty foot Containers was also shipped from Kolkata to Pangaon through the same route during December 2021.
21. Hon'ble Minister of Ports, Shipping & Waterways has attended the North East Festival held at Guwahati between 7th to 9th Jan '22, in which IWAJ has participated with a stall and showcased various activities.
22. 1702.72 MT Raw Cotton Shipped from Kolkata to Moregaon/Narayanganj through NW-1 and IRP Route.
23. MV Lal Bahadur Shastri carrying 200 tonnes of food grains of PGI, flagged off from Patna to Pando by Hon'ble Minister of MoPSW Shri Sarbananda Sonowal and Hon'ble Minister of Consumer Affairs, Food and Public Distribution, Shri Piyush Goyal on 5th February 2022. The vessel will cover a distance of 2350 KM through NW-1, Indo-Bangladesh Protocol route and NW-2. The Vessel have reached Pando on 06.03.2022.
24. Hon'ble Minister Sh. Sarbananda Sonowal alongwith, Secretary, Shipping, Chairman, IWAJ & Chairman, SMPK flagged off MV Ram Prasad Bhatti with Dumb Barge API Abdul Kalim & Kalyma Chawla loaded with 1798.27 MT of Prime TMT Bars of M/s. Tata Steel Limited on 16.02.2022 at Haldia Dock complex. The flotilla reached Pando, Assam through Protocol on

Inland Water Transit & Trade Route on 15.03.2022:

25. For the first time, a trial run was conducted successfully with 990 MT of Gypsum from IPPCO Jetty to Panidip port through NW-64 and NW-5.
26. An MoU for O&M of Srimantapur Floating Jetty (Serumura) was signed among IWAI, LPAI, and Govt. of Tripura in the august presence of Hon'ble Minister PSW Sh. Sarbananda Sonowal and Hon'ble Chief Minister, Tripura Sh. Biplob Kumar Deb.
27. Cargo vessel MV Lal Bahadur Shastri loaded with Stone Boulder (300 MT), sailed to Bahadurabad Chandraseya (Ghoghomari) Ghat, Bangladesh from Dhubri, Guwahati on 26.3.2022.



13 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- 15m)	No covered storage facility. Space available for development of covered storage.	Two Mobile Harbour Cranes of capacity 50 MT each	
	Passenger Jetty (Floating jetties, length- 20m, Width- 10m)			
Ganghat, Patna	Low flood level RCC jetty (Length- 40m, Width- 15m)	Transit shed (length- 15m, breadth- 15m)	One rubber tyre mobile crane of capacity 70 MT and Two 30 MT rubber tyre mobile cranes	
	High flood level RCC jetty (Length- 30m, Width- 10m)			
Sahibganj MMT	RCC jetty (Length- 270m, Width- 25m)	Storage shed (132 m X 30 m), Stock yard development for stone chips & coal- 30,000 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- 90m)	Storage shed (7,396.5 sq. m.)	One Mobile Harbour crane, One Reach stacker	Customs Notified

National Waterway - 2				
Location	Jetty/ Terminal	Storage Facility	Equipment	Other Facilities
Pandu, Guwahati	Low level RCC jetty (Length- 30 m, Width- 20 m)	2 nos. Transit Sheds (25 m x 21 m each).	Two hydraulic shore cranes of 20 MT and 25 MT capacity,	A Railway Small Gauge (SG) siding
	High level RCC jetty (Length- 30 m, Width- 20 m)	Open storage area- 333.90 sq. m.	One Weigh bridge- 100 MT capacity	Customs Notified
Dhubri	Bhutan 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	Proposed Terminal	Storage Facility	Equipment	Other Facilities
Kottapuram	RCC jetty 30 m length	Covered storage 300 sqm, Open Storage 900 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
Aliara	RCC jetty 30 m length	Covered storage 300 sqm, Open Storage 1300 sqm	One Mobile hydraulic crane of capacity 18 MT, One forklift of capacity 3 MT	
CSEZ (Kakkumal)	Land only, Temporary berthing jetty 10 m length	Nil	Nil	
Maveli	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	
Varkala	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	
Thannermukkam	RCC jetty 30 m length	Covered storage 300 sqm, Open Storage 300 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	
Thrissurappuzha	RCC jetty 30 m length	Covered storage 300 sqm, Open Storage 300 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	
Chavakkad	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	
Bulgatty	Ro-Ro/Lu-Lu landing point	Nil	Nil	
Willingdon Island	Ro-Ro/Lu-Lu landing point	Nil	Nil	

National Waterway - 16

Terminal location	Jetty	Storage Facility	Equipment (proposed)	Other Facilities
Bardarpur	RCC jetty (Length 91 m, Width 11 m)	Covered storage (20.86 m x 10.97 m), Open stack space	One shore crane, One Beating position, One forklift	
Karimganj	RCC jetty (Length 136.5 m, Width 14.5 m)	Covered storage (85 m x 23 m), Open stack area of 531.90 sq. m.	One shore crane, One Beating position, One forklift	Customs Nodified



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

National Waterway	Location
NW-1	IWAJ Haldia Fly ash jetty, Haldia*
	HDC Fly Ash Jetty, Haldia*
	Budge Budge jetty, Kolkota*
	IWAJ JHSN Jetty, Kolkata*
	Kukudka Dock, Kolkata (KoPT)
	T.T. Shad, Kolkata*
	Neraji Saltbush Dock, Kolkata (KoPT)*
	Haldia Dock Complex, Kolkata (KoPT)*
	Mangalbari (Howrah)
	IWAJ HTPS Jetty, Bandel*
	Fulta Jetty (South 24 Parganas)
	Srimampur* (South 24 Parganas)
	Kurjani* (South 24 Parganas)
	Pahar (Purba) * (Muriabidih)
	Parikka Harbour Project (HLL & Terminal ghat)* (Murshidabad)
	KTPS, Kidderpore* (East Midnapur)
	Katwa (East Bardhaman) (Ra-Ra)
	Guptipara (Hooghly) (Ra-Ra)
	Dundhat (East Bardhaman) (Ra-Ra)
	Nakabbari (Muriabidih) (Ra-Ra)
	Katna (East Bardhaman) (Ra-Ra)
	Palasree (Nadia) (Ra-Ra)
	Shambpur (Nadia) (Ra-Ra)
	Matyam (Nadia) (Ra-Ra)
	Ranisagar (East Midnapur) (Ra-Ra)
	Buldhupur (Nadia) (Ra-Ra)
	Nriangchupur (Nadia) (Ra-Ra)
	Murukhata (Malda) (Ra-Ra)
	Mapujana (Muriabidih) (Ra-Ra)
	Munshari (Ra-Ra) (Kanpur) (Ra-Ra)
	Sundarpur (Sahibganj) (Ra-Ra)
	Garam Chai (Sahibganj) (Ra-Ra)
	Rupnath (Sahibganj)
	Tintanga (Bhagalpur)
	Gaphai (Purnia)
	Barguna*
	Durgapur (Nadia)
	Kamrupuri (Kaitna)
	Raghunath (Vaidika)
	Somnath (Nadia)

* Customs notified

National Waterway	Location
	Bogmili (Biharpur)
	Champi (Champi)
	Jangalpur (Bhagalpur)
	Sonegan (Chapai)
	Siphat* (Narayan)
	Rishabh Ghat (Bhawanibh)
	Dhubri
	Churni Ghat (Dhubri)
	Bhumaonari (Champi)
	Fasidpur
	Gurudih
	Kamalganj (Jorhat)
	Karen (Chapri (Dhemaji))
	Misamati (Jorhat)
	Phulbari (Nameri)
	Salmara (South Salmara Manikachar)
	Baghor (Barpeta)
	Hajiganj (Tinsukia)
	Chirchowa (Tinsukia)
	Chapar (Dibrugarh)
	Chamati (Gauhati)
	Dilgama (Cachar)
	Hatinimgamari (South Salmara Manikachar)
	Gazipur (Dibrugarh)
	Jaleswar (Goalpara)
	Kaderpura (Hansdih)
	Karikhali (Dibrugarh)
	Khamikhowa (Dibrugarh)
	Krishna Hailpura
	Majuri Char (Dibrugarh)
	Mammohar (Dibrugarh)
	Maimbari (Barpeta)
	Mandla (Dibrugarh)
	Panji (Gauhati)
	Phulbari (Cachar)
	Punesta (Dibrugarh)
	Rajadhar (North Gauhati)
	Singitnari (Nagaon)
	Tekchor (Dibrugarh)
	Umananda (North Gauhati)
	Maibyomikhanda (Kamrup)
	Margao (Barpeta)

* Customs notified

16. Jal Marg Vikas, National Waterway - I

16.1 Inland Waterways Authority of India, a statutory body under administrative control of Ministry of Ports, Shipping and Waterways is implementing Jal Marg Vikas Project for capacity augmentation of National Waterway - I (from Haldia to Varanasi stretch of 1380 km) with technical assistance and financial support of the World Bank.

16.2 The proposal for implementation of Jal Marg Vikas Project at an estimated cost of Rs. 5369.18 crores was appraised and recommended by the Public Investment Board, and it was also 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 i.e. (US\$ 375.00 million),
- (b) Government of India Counterpart Funds (budgetary allocation and proceeds from issue of infrastructure bonds: Rs.2,556.00 crores i.e. (US\$ 380.00 million) and
- (c) Private sector participation under PPP mode is Rs. 301.00 crores i.e. (US\$ 45.00 million)

16.3 After due negotiations between Government of India and the World Bank, the Board of Executive Directors of International Bank for Reconstruction & Development approved loan of USD 375 million for the project on 12.04.2017. Loan Agreement between the World Bank and Government of India and Project Agreement between the World Bank and Inland Waterways Authority of India were signed on 02.02.2018. The Loan Agreement and Project Agreement were effective since 23rd March, 2018.

16.4 After successful implementation of Jal Marg Vikas Project enabled Ganga-Bhagirathi-Hooghly River system for Inland Water Transport, that may provide an alternative, cost-effective, safe and environment-friendly mode of transport options and it would be nurturing entire logistics framework and support for strengthening industries, new startup & economic clusters along the hinterlands of NW-1. Logistic players in and around the project corridor enables socio-economic growth in region covering the states i.e., Uttar Pradesh, Bihar, Jharkhand and West Bengal.

16.5 The expected timeframe for implementation and completion of Jal Marg Vikas Project is December, 2023, the project has gained momentum, construction has progressed despite work being affected by the pandemic. IWAI has continuously made a headway in the project during COVID-19 pandemic period, despite lukewarm responses from the market pertaining to the procurement activities.

16.6 The Tripartite Project Review meeting & Project Review by PM GatiShakti have supported JMVP team have seamless implementation of project in the effective manner, inputs and advice received from World Bank enables JMVP team have better insights. As per the World Bank, the Jal Marg Vikas Project is first kind of project for river transport development in India, therefore it can be modelled for development of other National Waterways too. The World Bank advised that manpower and expertise working under JMVP have gained knowledge and have been trained in waterway sector and may become long term asset for the IWAI. The authority has to initiate action for retaining project manpower to best utilization of their institutional memory and knowledge in nation building. Presently waterway sector is at nascent stage and facing issues of inadequate trained professional and whole nation has lots of expectations from Inland Water Transport sector as a support engine for rapid economic growth.

16.7 Hon'ble Prime Minister of India chaired the first meeting of the National Ganga Council in Kanpur (Uttar Pradesh) on December 14, 2019, where it was urged for holistic development process for river Ganga. During that meeting, the concept of Arth Ganga being linked to IWT sector evolved. It is likely to impact more on socio-economic eco-system along the banks of NW-1. The Arth Ganga plans are afoot to energies economic activity along the corridors of National Waterway-1

16.8 Jal Marg Vikas Project Implementation have been decided in phased manner. The JMVP-I has responsibility for overall development of National Waterways where IWT infrastructure is being created, whereas, JMVP-II (Arth Ganga Program) targets the development of community

Jetty, Ro-Ro facility, rehabilitation of existing Navigational Lock Gate at Farakka and also develop cross section draft for smooth navigation etc. Both project phases (JMVP-I & JMVP-II) have been targeted to be completed by December 2023 and further development will be aligned to achieve Maritime India Vision 2030.

16.9 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, findings are under implementation with revised estimated cost of Rs. 4633.81 crores. The Jal Marg Vikas Project envisages to improve navigability of National Waterway-1 (NW-1) from Haldia to Varanasi (1380 Km) stretch along Ganga-Bhagirathi-Hooghly River system. The Mid-Term Review for Jal Marg Vikas Project was held during 8th to 21st December 2020 by the World Bank, where overall project development objective was rated as Satisfactory by the World Bank Group.

- (i) Fairway development: The project envisaging fairway development maintenance to provide navigable draft of 2.2 to 3 m at Haldia to Varanasi stretch, with bottom channel width of 35/45 meter, this component includes re-engineering of river bends, dredging, bundalling, and bank protection works; the River Information System (RIS) and Vessel Traffic Management System (VTMS) etc. and to provides navigational supports to the vessels plying along NW-1.
- (ii) Civil Construction Works: The construction logistics infrastructure such as MMT Varanasi and MMT Sahibganj was completed and remaining MMT Haldia, IMT Kalughat, New Navigational Lock Gate Farakka, 62 community jetties, Ro-Ro terminals at Rajmahal, Manikchak, Sundarghat, Manihari, Kuhalgao, Tintunga, Hasanpur, Bakhtiyarpur, Buxar and Saraikota, LAD development activities from Farakka to Kabelgaon, Suliangaj to Mahenderpur and Mahenderpur to Barh are ongoing under JMVP.
- (iii) Improvement of investment climate for vessel design and development of PPP framework & procurement for IWT: Marketing development efforts have been made continuously under this project by taking support from Asset Management expert & Consultants, the PPP framework is made for different asset class was envisaged, accordingly, tenders document was developed, marketing expert engaged has assisted during various tendering stages for attracting private sector participation and expected investment in IWT projects, the business development efforts has helped in harnessing private sector potential in development of ecosystem for Inland Water Transport in India. For promoting vessel construction industry in India, the project endeavor by developing 13 different standardization vessel design types concepts through consultant M/s DST- Germany, the authority has shared design on website for wider publicity to facilitate vessel construction activity.

16.10 The issues for requirement of environmental clearance for maintenance dredging in rivers were also resolved, the Ministry of Environment, Forest & Climate Change (MoEF&CC) conveyed their decision that maintenance dredging in rivers do not require prior environment clearance and thus cleared Jal Marg Vikas Project for implementation subject to compliance to the certain environment safety measures by the project proponent agency, prescribed by MoEF&CC. Further, the Hon'ble National Green Tribunal (Principal Bench), New Delhi, in their order dated 01.11.2018,

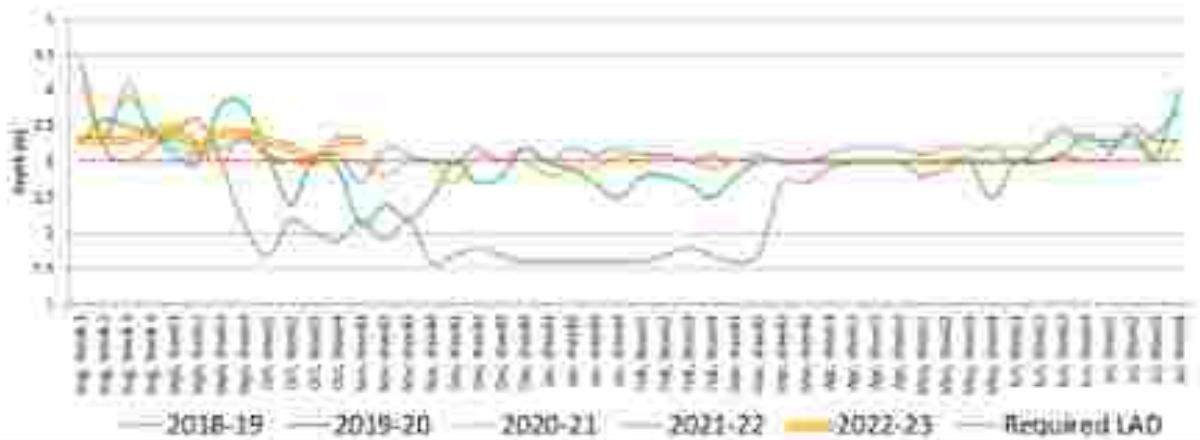
dismissed O.A. No. 487 of 2015 filed by Shri Bharat Jhunjhunwala & Ors. against IWAI & Ors. seeking a direction to the respondents to obtain prior environmental clearance for the Jal Marg Vikas Project under EIA Notification of 2006, as amended from time to time.

16.11 The progress achieved under each component of the Jal Marg Vikas Project is summarized below:

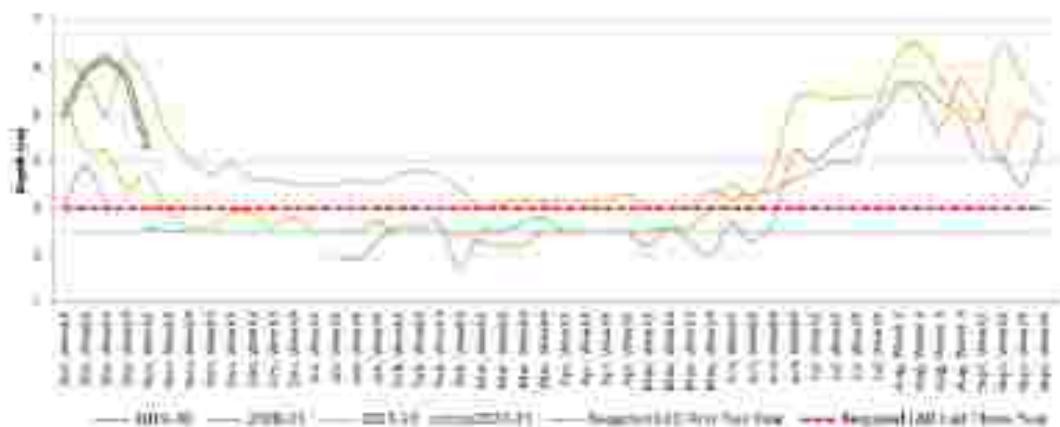
I. Fairway Development: Dredging Management Plan for National Waterway-I

- Dredging Management Plan and Strategy for NW-I was prepared in consultation of expert committee including NTCPWC, IIT Madras and DMP was approved by the IWAI Board in their 164th Board Meeting held on 02.06.2017, at agenda point 164.20 where board decision was taken up for the implementation of fairway development activities along NW-I
- Dredging management plan was reviewed and approved by IWAI board in their 172nd board meeting at agenda no. 172 on 08.09.2020.
- The contract for provision of maintaining Least Assured Depth (LAD) of 3 meter and bottom channel width of 35/45 meter from Farakka to Katalgaon (146 Kms stretch) on 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. The physical progress of 73.75% was achieved as on 31.03.2022. The contract will be completed on 23 July 2023.
- The Provision for maintaining LAD of 3 meter and bottom channel width of 35/45 meter on the Sultanganj to Mahendrapur (74 Kms stretch) and Mahendrapur to Barh (71 km stretches) on performance based assured dredging contracts was also awarded to M/s Adani Ports & SEZ Ltd. on 12.04.2019 at a cost of Rs. 159.30 crores and Rs. 182.90 crores respectively. The physical progress of 50.08% for dredging on Sultanganj to Mahenderpur and Mahenderpur to Barh stretch has been achieved as on 31.03.2022. The contracts will be completed on 27 September 2024.

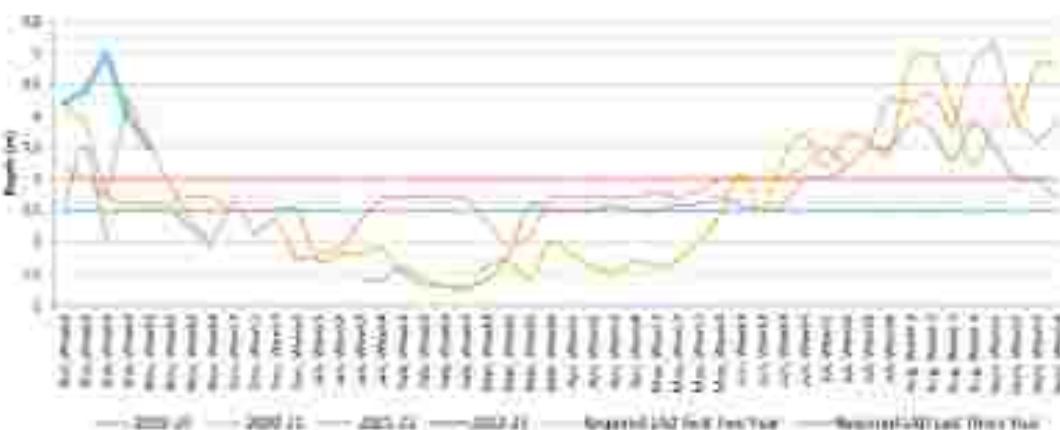
Dredging Performance Farakka - Katalgaon



Dredging Performance Sultanganj-Mahendrapur



Dredging Performance Mahendrapur-Barh



II. Navigational Aids & RIS

- 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 the vessels owned by IWAI were already equipped with Inland AIS system, short range radar and VHF.



III. Development of Major Sub Projects:

- (i) **Construction of the Multimodal Terminal at Varanasi:**
- The multimodal terminal Varanasi, (Phase-I) with terminal capacity of 1.26 MMTPA, constructed at Rallupur Khas, Ramnagar, Varanasi, Uttar Pradesh. The total land requirement for the development of MMT is 67.12 ha of land and 20.039 ha for Phase-I and Phase-II including road connectivity to NH-7 have been acquired and registered in the name of IWAI.
 - The civil construction work for Phase-I of the Multimodal Terminal Varanasi was awarded to M/s AFCONS Infrastructure Ltd. at a cost of Rs. 169.70 crores in May, 2016, and the construction of terminal was completed in the October, 2018.
 - MMT Varanasi was inaugurated by Hon'ble Prime Minister 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 Member of Parliament, Chandauli, Uttar Pradesh.
 - The work of MMT road connectivity to NH-7 was completed in December, 2018.
 - The Rail connectivity from the IWT terminal to Jeonpur Railway Station on the Eastern Dedicated Freight Corridor (EDFC) rail head connectivity is planned.
 - M/s EPHL and M/s Aarvez Associates, the consultant have submitted DPR for railway connectivity in March, 2018, approved by DCCCL. The Engineering scale plan submitted in March, 2019 approved by North Central Railway and DCCCL. 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 15.05.2017, had recommended grant of permission for movement and plying of inland vessels through Kushi Turtle Wild Life Sanctuary at Varanasi subject to IWAI undertaking standard mitigation measures prescribed by the Wildlife Institute of India and conditions prescribed by the State Chief Wildlife Warden. IWAI has complied mitigation measures as per the stipulations, further government has de-notified the Kushi Turtle Wild Life Sanctuary on 17.03.2020 and planned to shift the sanctuary to Prayagraj, Ibadpur and Mirzapur regions.
- (ii) **Construction of the Multimodal Terminal at Sahibganj:**
- The multimodal terminal, with a terminal capacity of 3.03 MMTPA, is being constructed in two Phases in Samdanala village at Sahibganj district. Hon'ble Prime Minister has laid the foundation stone of this multimodal terminal on 06.04.2017.
 - 192.37 acres of land requisitioned for development of terminal and connecting road from



husband and wife; plotting in the Paltanganj Resettlement Colony has been completed. The houses are to 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 42 houses is completed and 42 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 Larsen and Toubro on 27.10.2016 at a cost of Rs. 280.90 crores, with a targeted completion timeline of May, 2019, the achieved physical target of 99.50% and financial progress was Rs. 262.69 crores as on 31.03.2022. The construction of the terminal is scheduled to be completed by August 2022.
- 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, one of the alignment was found feasible, the same was also approved in principle by Malda Division of Eastern Railways on 19.09.2018. Ministry of Road Transport and Highways also conveyed in principal approval for the construction of ROB at NH-80, Sahibganj on 29.11.2018. The observations made by Eastern Railways, M/s RITES resurveyed the site and submitted layout plan along with cost estimate for alignment with and without bridge over nala. Layout has been approved by IWAI and feasibility and DPR 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 MMTPA, is being constructed in two Phases on a 61 acres land in the Haldia Dock Complex leased from the Kolkata Port Trust (KoPT) for 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 an original completion timeline of December, 2019, now in view of COVID-19 the revised completion timelines of is extended till May 2022 and achieved physical progress of 97.40% and financial progress of Rs. 498.64 crores as on 31.03.2022. The construction of terminal is scheduled to be completed by January 2023.



- MoEF&CC granted Coastal Regulation Zone clearance for the terminal on 06.11.2017 subject to IWAI taking prescribed standard mitigation measures. IWAI is complying 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 expected completion time line consider is FY 2022. Project has achieved physical progress of 91.40 % as on March 2022 and financial progress of Rs. 317.11 crores as on March 2022. The construction of lock is scheduled to be completed by March 2023.
- The existing Navigational lock gate at Farakka, along with land measuring 7.155 ha, was handed over to IWAI on 06.04.2018 by Farakka Barrage Project. IWAI has initiated action for its modernization and rehabilitation to synchronize with commissioning of new navigational lock gate.
- On completion of work, navigational locks will provide two-way passage to the vessels across Farakka Barrage, thereby facilitating smooth and seamless passage of the IWT vessels.



(v) Intermodal terminal at Kalaghata:

- The terminal is being constructed on a 5.159 ha (12.80 acres) land in Kalaghata, Saran district of Bihar, with road connectivity to NH-19.
- The construction work of this terminal, awarded to M/s Sanjay Constructions Ltd. on 10.09.2021 at a cost of Rs. 82 crores, with expected completion time line consider is December, 2023. The project has achieved physical progress of 01% as on March 2022.
- On completion of Intermodal Terminal, the Nepal bound container traffic will also handled here.



(vi) Ro-Ro terminals:

- Locations for development of five pairs of Ro-Ro terminals were identified at Rajmaha and Mamikchak; Samdighat and Munihari; Kahalgam and Tintanga; Hasnupur and

Bakhtiyarpur and Buxar and Surikota.

- As per initial DPR, the requirement of land for Ro-Ro facility was estimated as follows: Rajmahal - 1.764 ha; Manikchak - 2.288 ha; Samdighat - 19.2 ha; Manihari - 2.257 ha; Kalalgaoon - 2.376 ha; and Tintanga - 2.038 ha. And the cost estimate of construction was found higher.
- The low-cost feasible solution for development of Ro-Ro terminals being deliberated under Arth Ganga Program of Jal Marg Vikas Project-II

IV. Institutional strengthening and improving the investment climate; vessel design and procurement, asset management, market development and civil construction framework etc.

The following consultancies are ongoing and the procurement actions were also initiated under this component, the works progress being achieved substantially despite Covid-19 pandemic impact.

(i) Design of Inland Waterway Vessels

- M/s DST, Germany, the consultants engaged for developing design of Inland Waterway Vessels, submitted 13 designs of vessels prepared. These models were tested at the facilities of the Consultant in Nuremberg, Germany. The approved designs have been uploaded on IWAI website for public information, prospective vessel builders and stakeholders may use these designs for vessel construction.
- In the meantime, after due assessment of market conditions, IWAI has come to the conclusion to procure vessel to kick start the vessel construction activity and demonstrate their effectiveness to the private vessel builders/shippers for developing low draft carrier. Accordingly, the process for getting vessels constructed within India has been initiated by IWAI

(ii) Commercialization on NW-1

- M/s Hamburg Port Consulting, German Consultants was engaged to provide consultancy services for planning and implementation for commercialization on NW-1, had recommended arranging 20 pilot movements of cargo vessels on NW-1 by IWAI to kick start commercialization aspects for National Waterway-1. Out of these, 18 pilot movements were organized and successfully implemented, also demonstrate effectiveness of water transport for integrated supply chain.
- One of the historic pilot movements was witnessed in India, IWT vessel MV Rabindranath Tagore, since independence first time container movement on inland waterways, organized, the vessel has transported 16 containers (equivalent to 16 truckloads) of food and snacks transported from Kolkata to Varanasi. This container vessel was received by the Hon'ble Prime Minister of India Sh. Narendra Modi at Varanasi on 12th November, 2018.

(iii) Development of ferry services on NW-1

- M/s Thompson Design Group and Massachusetts Institute of Technology/IAI,



consultants provided consultancy services for development of ferry services on NW-1, the project has identified suitable locations for development ferry services at Varanasi, Patna, Munger, Bhagalpur, Kolkata and Haldia to decongest regional traffic of these cities.

- The detailed Project Report for Group-A City i.e Varanasi and Patna is completed and preliminary feasibility study and site analysis report for Group -B Cities i.e. Munger, Bhagalpur, Kolkata and Haldia is also completed.

(iv) Communications and Outreach Program

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

(v) Designing the JMVP website

- The website for JMVP designed by M/s. Compton Computers Pvt. Ltd, Kalkaji, New Delhi and website is live.

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

- M/s EQMS, who was engaged to carry out the study on 20.12.2017, submitted his report in July, 2018 and study is completed.

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

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

(viii) 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 Asset Management Framework for NW-1 on 13.02.2018 at a cost of Rs. 7.95 crores.
- The Consultant has assisted TWAI during development of PPP framework, bidding document and concession agreement for hiring of PPP concessionaire for the asset constructed by Jal Marg Vikas Project along NW-1.

Efforts for Operationalization of MMT Varanasi: Asset Management consultant has assisted in development of bidding documents and model concessions agreements etc. the following attempts have been taken in process of hiring of PPP concessionaire for MMT Varanasi.

First attempt

- RFQ for Operation, Management and Development (OMD model) of Varanasi MMT was

published on 11 July 2018.

- Four applications were received in response to the RFQ and found eligible for RFP stage.
- At the time of bid submission i.e. on 15 January, 2020 no bids were received.
- Second attempt
- The procurement process had been initiated again on Equip, Operate and Transfer (EOT) model.
- Last date for receiving bids for the RFP was 4th January 2021.
- Only a single bid had been received.
- As a single bid was received, with the approval of IWAI Board, the bids were reinvited.

Current Status:

- Based upon market feedbacks gathered during multiple stakeholders' conferences, the PPP model was changed from OMD to OMT. The draft project appraisal memo, draft bidding document, draft concession agreement was sent to MoPSW on 10.01.2022 for approval of competent authority. The tender process will be initiated after approval.
- Efforts for Operationalization of MMT Sahibganj: Asset Management consultant has assisted in development of bidding documents and model concessions agreements etc. the following attempts have been taken in the process of hiring of PPP concessionaire for MMT Sahibganj.

First attempt

- RFQ for Operation, Management and Development (OMD model) of Sahibganj MMT was published on 14th Aug 2019.
- Three applications were received in response to the RFQ.
- As only one application was found substantially responsive, re-tender process was initiated.

Second attempt

- RFQ was again invited with last date of submission as 30 March 2021.
- A single application was received.
- As a single application has been received at RFQ stage the tender was cancelled to ensure competitive price bid.

Third Attempt:

- The retendering was done again on 28.06.2021, where No bids were received.

Current Status:

- Based upon market feedbacks gathered during multiple stakeholders' conferences, the PPP model was changed from OMD to OMT, the draft project appraisal memo, draft bidding document, draft concession agreement were sent to MoPSW on 10.01.2022 for



approval of competent authority. The tender process will be initiated after approval.

Efforts for Operationalization of MMT Haldia: The Equip, Operate & Transfer Model of PPP was adopted for engagement of concessionaire for O&M of MMT Haldia for a period of 10+2 Years.

The tender for Haldia MMT EOT project had been published on 14.05.2020 and last date for submission of bids was 21.01.2021 where four bid was received.

The Letter of Award was issued to M/s IRC Natural Resource Pvt. Ltd (successful concessionaire) on 17.12.2021 for the same and concession agreement is expected to be signed soon.

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

- JV of M/s Egn India Consulting Engineers Pvt. Ltd & Egn France International was awarded the consultancy contract for technical support services for the civil works on the MMT Varanasi and MMT Sahibganj 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 Navigational Lock Farakka to MMT Haldia on 08.11.2017.
- M/s INROSS Leckner SE Germany appointed on 06.01.2020 as technical support consultant for supervision of dredging contract on NW-1, currently three ongoing dredging contracts i.e Farakka to Kahalganj, Sultanganj to Mahenderpur, Mahenderpur to Barh are being supervised.
- M/s Arkitechno Consultants (I) Pvt. Ltd, Bhubaneswar was awarded contract for technical support service consultancy for supervising construction activity of IMT Kalughat

(iii) 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 at advance stage for completing assigned work and accordingly they have submitted their report.

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

Consultancy for additional interventions ESIA, EMP and RAP of was awarded to M/s Eco-chem sales and services on 27.02.2019, the study is completed and report was submitted in February 2022.

(v) Environmental Safeguard Measures Taken Under JMVP

The Environment Management Plan (EMP) is being strictly followed for environmental safeguards measures taken at every project site of Jal Mary Vikas Project, the contractor ensured to follow compliances of environmental obligation on intervention i.e. regular monitoring for Ambient air quality/DG Stack emission monitoring, surface/drinking/ground water quality monitoring, noise monitoring, green belt development, river sedimentation and soil quality, aquatic ecology monitoring etc. are done regularly.

The environmental monitoring safeguard measures suggested by the World Bank being complied along with essential regulatory and statutory compliances. As per contract, the contractor has obtained essential regulatory permits to comply existing enactments on environmental protection and rules made thereunder, regulations, latest notifications and bye laws of the state/central government and local authorities etc.

Measures for Environment Safeguard:

- (1) Deployment of equipment for collection & transportation of solid & liquid waste at the terminal site:

- (a) Truck Mounted Sewer Suction Machine
- (b) Truck Mounted Oil Suction Machine
- (c) Ride-on Type Road Sweeping Machine
- (d) Truck Mounted Refuse Compactor
- (e) Garbage bins suitable for lifting by garbage tippers of 1100 liters
- (f) Garbage bins suitable for lifting by garbage tippers for (2X60) liters

- (2) Monthly/Quarterly environmental compliance report of each project site is submitted with respect to EMP and world bank environment safeguards which consists of the following:-

- (I) Statutory/Regulatory Requirements including standard operating procedure in accordance with EMP:

- (a) Tree felling permissions, if any.
- (b) Labour License
- (c) CTE & CTO for Batching Plant/Quarry if any
- (d) PUC for vehicles
- (e) Vendor agreement for waste collection
- (f) Permission for extracting/purchasing water
- (g) NOC for generation, storage & disposal of hazardous waste
- (h) Coastal Regulation Zone Clearance for the MMT Haldia
- (i) Wildlife clearance from Kosi Turtle Sanctuary
- (j) Environment monitoring report;
- (a) Air Quality (Ambient, DG set)
- (b) Water Quality (Surface water, Drinking water, Ground water)
- (c) Noise (day /night, max/min)
- (d) Soil (quality, texture, erosion)
- (e) Greenbelt development
- (f) Aquatic ecology study
- (g) Integrity of embankment





Ambient Air Monitoring at project site
(Near Navigational Lock, Paralka)



Dust Emission Monitoring at project site
(Near Navigational Lock, Paralka)



Ambient Noise Monitoring at project site
(Near Navigational Lock, Paralka)



Surface Water Monitoring at project site
(Near Navigational Lock, Paralka)



Monitoring of Hygiene & Sanitation



Drinking Water Monitoring at project site
(Near Navigational Lock, Paralka)



Safety training activity in progress at project sites

(xiii) Compliance of Social Management Plan: The Social Safeguard measures are well taken since from inception and continued the excellent works for taking social safeguards measures for project affected families, every project site has regular deployment of social development expert for addressing grievances of project affected families and workers working at every project site etc.

- Grievance register are available at every project site for registering social grievance, Toll free number is well displayed for public, the emergency contact number is also provided and project admin and ESII staffs are available at site for assistance etc.
- Labour camps ensured for having basic amenities and facilities such as restroom areas, drinking water facility, toiletries and hygiene facilities including basic healthcare facilities etc.
- Induction trainings provided to the project workers; for safety the fire extinguishers are appropriately placed at project site, for tackling health and medical requirement
- Tie up with local hospital are made where regular health check-ups of project workers being done and during course of for any emergency support taken from tie up hospitals. The first aid kits are always made available at project site.

(xiv) Management of Labour camp during lockdown due to Covid-19:

Jal Marg Vikas Project has ensured for management of covid 19 containment measures at ever project intervention area, the following activities are being regularly ensured and monitored by the Project Management Unit from Noida.

- Screening of the workers and followed quarantine measures.
- Washing of hand with hand wash and sanitizer.
- Placed information board regarding corona virus in the labour camp for awareness.
- Provision of Separate quarantine room are made available.
- Social distancing was maintained in the labor camp and workers splits in various groups to maintain hygiene.
- Provided essential commodities to the workers in the labour camp during lockdown period.

- No outsiders were allowed to enter into the labour camp and the workers are also not allowed to go outside of labour camp providing of any emergency.
- Regular visit of trained medical professional ensured in the labour camp and awareness regarding covid-19 were made among project workers and the query of workers relating to containment of COVID-19 are well addressed.
- Wearing face mask was made mandatory at project site.
- Non-essential visitors are discouraged during Covid time.
- Usage of Gutka, Tobacco and spitting inside the project site was prohibited.
- Compulsory thermal screening of all persons irrespective of cadre / status entering through gate.

(xv) R&R Social Infrastructure Developed by Jal Marg Vikas Project at Sahibganj



Construction of Primary School in Residential Site at Sahibganj



Community Hall in Residential Site at Sahibganj



Construction of Road in Residential Site at Sahibganj



Construction of House in Residential Site at Sahibganj



Construction of Boats in Rishikesh Ganga Model

16.7 Jal Marg Vikas Project JMVP-II (Arth Ganga)

- 16.7.1. The Hon'ble Prime Minister during the first meeting of the National Ganga Council in Kanpur (Uttar Pradesh) on December 14, 2019, urged for a holistic thinking process where 'Namami Gange' evolves to 'Arth Ganga'. Arth Ganga implies a sustainable development model with a focus on economic activities in and around the river Ganga.
- 16.7.2. The Jal Marg Vikas Project (JMVP) is aimed at developing river Ganges as a commercially sustainable and safe mode of navigation. Arth Ganga program is being developed under JMVP as JMVP-II and focuses on sustainable development and boosting economic activities. Since efficient logistics and transport systems are a critical enabler for sustaining and accelerating the economic growth along the river Ganga, JMVP has the potential to greatly channelize economic activities along the river Ganga, thus align with the aim of Arth Ganga program.
- 16.7.3. Besides being a transport modal for large cargo movement, River Ganga will also provide opportunity for small dairy farmers to transport their produce through waterways which is cost effective and environment friendly. IWAI's internal communications studies have found that products like Marigold from Karhi in Varanasi, vegetables from Ghazipur and Munger, Banana and Paan from Haridwar and fruits from Bhagalpur are transported in abundance in the nearby cities.
- 16.7.4. JMVP-II (Arth Ganga) aims at setting up of small jetties along the Ganga to boost the economic activities at the community level. The communities along the banks of Ganga are also availing skill development trainings for enhancing livelihood being facilitated by IWAI in coordination with State Livelihood Missions and other schemes like Pradhan Mantri Kaushal Vikas Yojana, Deen Dayal Gramin Kaushal Vikas Yojana, etc.
- 16.7.5. JMVP-II (Arth Ganga) will catalyze economic development in the Ganga basin to generate economic benefit to the locals, traders, boatmen, small scale industries, ferry operators etc. over the next 5 years. The project will also ensure large scale skill enhancement and public/private sector capability development.
- 16.7.6. JMVP-II (Arth Ganga) is being developed on an approach based on principles of



sustainable development model that focus on economic activities in and around the hinterland of NW-1 by providing opportunity to local communities to transport their goods and passenger (including tourist) movements through waterways as well as skill development and public / private sector capability developments to support the following:

Intended benefits of JMVP-II (Arth Ganga):

1.	Economic benefits to the farmers, traders and public living around the Ganga belt
2.	Growth of small-scale industries
3.	Employment opportunities
4.	Easy, cost-effective and environment-friendly transportation of cargo
5.	Improved logistics through small jetties
6.	Wider choice of logistics mode for cargo movement

16.7.7 The JMVP-II (Arth Ganga) is being undertaken at a total cost of Rs. 746 crores and is expected to be completed by December 2023. The progress of various components of Arth Ganga program is summarized under the sub-sections below.

16.7.7.1. Fairway Development

This component includes improvement and maintenance of river fairway aims at reducing the transit time and increasing the reliability of the usage of waterways. The fairway development components include comprehensive study for JMVP-II, river conservancy works, design and development of mechanization of pontoon bridge opening to facilitate faster and sustainable movement of vessels.

- (i) River conservancy works comprise of creation and maintenance of handailing and day navigational aids along multiple locations of NW-1 (Kolkata – Farakka, Kahalganj – Sultanganj, Barh Digha, Digha – Majhaura, Majhaura – Ghazipur and Ghazipur – Varanasi). The works are envisaged to be completed by December 2023.

The Centre for Inland and Coastal Maritime Technology (CICMT), IIT Kharagpur has been engaged for undertaking a detailed technical study for the mechanization of pontoon opening to create a system of mechanized pontoon swing bridges for easy and quick passage for the barges. The mechanization of the pontoon will reduce the transit time. The study completed & DPR submitted. The bidding document to float the NIT is under finalization.

- (ii) The fabrication and execution work for the pontoon opening shall be undertaken on completion of this technical study. The works are envisaged to be completed by December 2023.

16.7.7.2 Development of Community Jetties

This project component comprises of development and modernization of about 62 nos. of community jetties along the river Ganga to boost economic activities at the community level, at locations spread across Uttar Pradesh, Bihar, Jharkhand and West Bengal as mentioned in the table below.

Name of State	Community Jetties
Uttar Pradesh	15
Bihar	21
Jharkhand	3
West Bengal	23
Total:	62

The development of the community jetties will include offshore floating jetties and onshore terminal facilities. The study for finalization of sites and design of these is under progress. The jetties are envisaged to be commissioned by December 2023.

- (a) Offshore Floating Jetties – The offshore floating jetties will be located in the river and anchored/moored with a suitable arrangement to the riverbank. The offshore floating jetties will comprise of a floating pontoon of suitable material and a gangway connecting the pontoon to the onshore area/terminal. The vessels can berth at the floating jetty and the passengers can safely embark or disembark the vessel and reach the onshore terminal area via the gangway.
- (b) Onshore Terminal Facilities – The onshore facilities shall include a terminal developed on suitable land parcel adjacent to the offshore floating jetty. It shall have facilities such as waiting area, ticketing room, security office, administrative office space, pantry space, storage space public toilets, parking area based on location and site requirements. The terminal will be accessible by adequate road and required electricity supply, water supply and wastewater disposal system.

This development along the river Ganga in four states will improve facilities for the commuters and also bring down the logistics cost for farmers in the movement of local produce.

16.7.7.3 To facilitate smooth navigation of vessels, ecofriendly Channel Stabilization Works will be carried out for the maintenance of navigable channel under this project component. The bamboo submerged vanes/ bamboo permeable screen and bamboo jack jetty are resorted in order to deepen the main channel duly harnessing the energy of the river itself.

This would be done in two phases i.e., Phase I - 07 Locations and Phase -II - 17 locations. For the location identification, execution and monitoring and post execution output analysis of the work, IIT Roorkee has been engaged for technical assistance.

- * Phase I - IIT Indore conducted study on the EIA & EMP for Channel Stabilization works at 07 locations. The study has been completed and following 07 locations have been identified for carrying out the channel stabilization works:



S.no.	Locations (Uttar Pradesh)
1.	Mathura D/S Zamania
2.	Chhatarpur
3.	Raghunathpur
4.	Ghazipur-Khalilpur
5.	Arjunpur
6.	Srirampur
7.	Haldia

The work awarded in May 22 and executed during June & July 22.

- **Phase II** – The location identification of the 17 locations has been done and design finalization is under progress. The execution shall be done in the next pre-monsoon season. The works are envisaged to be completed by December 2022.

16.7.7.4. Ro-Ro Terminals

The establishment of RO-RO terminals on National Waterway -I under the Ardh Ganga program is to be undertaken with the objective of improving logistics, boosting economic activities and creating more employment opportunities within the local communities.

The below 10 locations are planned to be taken up for the development of Ro-Ro terminals:

- Buxar (Bihar) - Saraikota (UP)
- Bakhtiyarpur (Bihar) - Hasanpur (Bihar)
- Kahalganj (Bihar) - Tintanya (Bihar)
- Samdighat (Jharkhand) - Manihari (Bihar)
- Rajmahal (Jharkhand) - Manikchak (West Bengal)

The works shall be undertaken in two phases and are envisaged to be completed by December 2022.

16.7.7.5. Operation and Maintenance and Comprehensive Annual Maintenance Contract (CAMC) for River Information System (RIS) and Ship Stations on National waterway 1.

The work under this project sub-component consists of CAMC, operations & maintenance of 07 nos. of RIS stations in Sagar - Fatarella stretch of NW-1 and comprehensive Annual Maintenance of 30 nos. of Ship Stations awarded in May 2022.

16.7.7.6. Survey equipment and FRP & Inspection Boats

This project component includes various works such as services for water level discharge and monitoring stations, procurement of FRP & Inspection Boats, survey equipment, AIS equipment and carrying out bank to bank surveys. This are under various stages of tendering.

16.7.7.8 Modernization and renovation work of existing Navigational Lock at Farakka

The component includes preparation of Detailed Project Report (DPR) for modernization of existing navigational lock at Farakka and execution of the works based on the DPR. The preparation of the DPR is under progress and is expected to be completed by September 2023.



17. FINANCIAL PERFORMANCE

INCOME & EXPENDITURE

During the financial year 2021-22, a sum of Rs. 54430.00 lakh was received from the Government of India, Ministry of Shipping. A sum of Rs. 1182.34 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/Pilottage charges etc. The major scheme-wise expenditure is indicated below:-

Sl. No.	Name of the scheme	Expenditure (Rs. In Lakh)	
		Previous Year 2020-21	Current Year 2021-22
1	National Waterway No – 1		
(i)	River Conservancy/Fairway	2736.48	2295.53
(ii)	Construction & Maintenance of Terminals	2142.06	4733.91
(iii)	Safe 24hrs Navigation	583.27	679.13
(iv)	Installation of RIS System	15.09	0.00
(v)	Acquisition of RD-Pax/ R & M of Vessels	7.05	517.29
(vi)	NINI	205.53	204.49
(vii)	Cargo /WT Promotion Activities	94.43	348.68
(viii)	Freight Village	128.38	27.10
	Sub-Total	5912.29	8806.13
2	National Waterway No – 2		
(i)	River Conservancy/Fairway	1379.81	1671.01
(ii)	Construction & Maintenance of Terminals	400.93	743.45
(iii)	Development of IWT Terminal -Jogighopa	498.00	2800.00
(iv)	Acquisition of RD-Pax/R & M of Vessels	7.05	94.63
(v)	Safe 24hrs Navigation	432.70	588.16
(vi)	Information Technology Related Expenses	2.57	3.19
(vii)	Development of Protocol route	320.49	421.77
(viii)	Cargo vessels and IWT promotion activities	526.67	233.70
(ix)	TEF/DPR/CRZ/Studies for NWs (NIR)	45.87	0.00
(x)	Development of Ship Repair facility-Pandu	0.00	1247.80
	Sub-Total	3614.09	7803.72
3	National Waterway No. – 3		
(i)	River Conservancy/Fairway	415.62	232.56
(ii)	Construction of Terminals	7.39	541.60

(iii)	Construction & repairs of locks	861.66	166.88
(iv)	Acquisition of RO-Pax Vessels/R & M of Vessels	606.92	63.35
(v)	Safe 24hrs Navigation	260.67	78.31
	Sub-Total	2152.26	1082.91
4	National Waterway No. - 4		
(i)	Development work	295.75	307.85
	Sub-Total	295.75	307.85
5	National Waterway No. - 5		
(i)	Development work	212.57	257.96
	Sub-Total	212.57	257.96
6	Jal Marg Vikas Project		
(i)	Lease land Haldia	34.00	0.00
(ii)	Consultancy charges and incremental operating expenses	2355.94	3295.65
(iii)	Land Acquisition - Varansi	146.01	3577.45
(iv)	Fairway development in Farakka to Kahalganj, Sultanpur & Maheudrapur stretch	5841.86	6748.65
(v)	Construction of MMT- Haldia	5003.14	3546.32
(vi)	Construction of MMT - Sahibganj	1441.47	1968.73
(vii)	Construction of New Navigational Lock at Farakka	5982.54	3074.29
(viii)	Construction of IMT Terminal - Kalughat	600.14	749.30
	Sub-Total	21405.10	22960.40
7	IT activities expenses	80.07	114.11
8	Indian Institute of Technology Madras	330.65	0.00
9	IWT Promotional Activities	210.79	210.64
10	Establishment	4340.66	5094.31
11	Director of Ports & IWT	270.00	0.00
12	Bond Related exp.	7624.77	7634.91
13	Development of Jetties - MPT	0.00	703.17
14	Inco Mechel Pvt. Ltd	14.22	0.00
15	New National Waterways	339.93	296.40
	Sub-Total	13211.09	14054.53
	Grand Total	46803.15	55273.50



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 31-03-2022 39 Officers and 60 staff at the head office and 30 Officers and 157 staff in the field offices were in position.

ACKNOWLEDGEMENT

IWAI places on record its appreciation of the sincere effort 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 & other Agencies.

FOR AND ON BEHALF OF
INLAND WATERWAYS AUTHORITY OF INDIA



(SANJAY BANDOPADHYAYA)
CHAIRMAN



20. INLAND WATERWAYS AUTHORITY OF INDIA

BALANCE SHEET AS AT 31st MARCH 2022

(Amount in Ru.)

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) IWAFUND U/S 19 OF IWAI ACT		22,622,423,023.00	19,812,059,194.00
(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	763,537,557.00	766,153,575.00
(c) LONG TERM PROVISIONS	8	17,947,467.00	17,947,467.00
(v) CURRENT LIABILITIES & PROVISIONS			
(a) SHORT TERM BORROWINGS	9	250,966,575.00	250,966,575.00
(b) SUNDRY CREDITORS	10	614,966,044.00	645,446,716.00
(c) OTHER CURRENT LIABILITIES	11	507,451,093.00	547,893,429.00
(d) PROVISIONS	12	31,798,493.00	33,848,486.00
TOTAL		34,618,548,996.00	33,094,856,666.00
II. APPLICATION OF FUND			
(i) FIXED ASSETS	13		
(a) TANGIBLE ASSETS GROSS-BLOCK		17,860,273,911.00	17,151,740,311.00
LESS: DEPRECIATION		(3,986,739,660.00)	(3,600,228,019.00)
(b) INTANGIBLE ASSETS GROSS-BLOCK		13,873,532.00	14,811,743.00
LESS: DEPRECIATION		(14,084,017.00)	(13,373,790.00)
(c) CAPITAL WORK - IN - PROGRESS	14	15,521,854,717.00	13,315,537,060.00
(d) INTANGIBLE ASSETS UNDER DEVELOPMENT	14	-	-
(ii) NON CURRENT ASSETS, LOANS AND ADVANCES			
(a) NON CURRENT INVESTMENTS	15	125,608,484.00	125,608,484.00
(b) DEPOSITS, LOANS AND ADVANCES	16	2,674,908,442.00	2,981,738,717.00
(c) OTHER NON CURRENT ASSETS	17	173,935,635.00	83,162,116.00

(d) MISCELLANEOUS EXPENDITURE (to the extent not written off or adjusted)			
(ii) CURRENT ASSETS, LOANS AND ADVANCES			
(a) CURRENT INVESTMENTS	18	36,907,930.00	(1,679,181.00)
(b) INVENTORIES	19	20,650,418.00	20,575,481.00
(c) SUNDRY DEBTORS	20	138,986,780.00	151,082,029.00
(d) CASH AND CASH EQUIVALENTS	21	1,049,780,662.00	2,277,067,672.00
(e) DEPOSITS, LOANS AND ADVANCES	22	974,949,047.00	171,164,749.00
(f) OTHER CURRENT ASSETS	23	9,371,765.00	108,976,283.00
TOTAL		34,618,548,996.00	33,084,856,566.00
Note:			
(A) Significant Accounting Policy	1		-
(B) Notes to accounts forms an integral part of the financial statements	2		-

For and on behalf of the Authority

 (Jaiender Verma)
 CAO

 (Praveen Nandwana)
 Member (Finance)

 (Gurjeet Singh)
 Vice Chairman

 (Sisiray Bandopadhyaya)
 Chairman



21.

INLAND WATERWAYS AUTHORITY OF INDIA

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2022

(Amount in Rs.)

PARTICULARS	SCHEDULES	CURRENT YEAR	PREVIOUS YEAR
I. INCOME			
(a) REVENUE GRANTS-SUBSIDIES			
- FROM CENTRAL GOVERNMENT		1,27,37,53,679.00	1,17,62,30,000.00
- FROM STATE GOVERNMENT(S)			
- INTERNATIONAL ORGANIZATIONS			
- OTHERS (SPECIFY)			
(b) TRANSFERRED FROM IWAI FUND		38,26,59,229.00	37,79,71,573.00
(c) OTHER INCOME (NATURE TO BE SPECIFIED)			
TOTAL INCOME (A)		1,65,64,12,908.00	1,55,42,01,573.00
II. EXPENDITURE			
(a) OPERATIONAL & MAINTENANCE EXPENSES	24	1,18,31,05,089.00	1,15,66,70,460.00
(b) PERSONNEL & ADMINISTRATIVE EXPENSES	25	50,18,61,783.00	43,24,00,728.00
(c) FINANCE CHARGES	26	76,34,90,000.00	76,24,76,886.00
(d) DEPRECIATION	13	28,26,49,229.00	37,79,71,573.00
(e) SUBSIDIES		-	-
(f) EXPENDITURE ON GRANT, SUBSIDIES ETC		-	-
TOTAL EXPENDITURE (B)		2,82,11,17,157.00	2,72,96,13,357.00
EXCESS OF INCOME OVER EXPENDITURE (EXCESS OF EXPENDITURE - II IF EXCEEDS INCOME (A) - B)		(1,17,47,04,240.00)	(1,17,54,11,784.00)
ADD/LESS: PRIOR PERIOD ITEMS	27	37,00,638.00	(36,49,667.00)
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		(1,17,09,95,611.00)	(1,17,92,61,481.00)
Note:			
(A) Significant Accounting Policy	1		
(B) Notes to accounts form an integral part of the financial statements	2		

For and on behalf of the Authority

(Satinder Verma)
CAO

(Praveen Nandwana)
Member (Finance)

(Jayant Singh)
Vice Chairman

(Sunjay Bandopadhyay)
Chairman



22.

INLAND WATERWAYS AUTHORITY OF INDIA

RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st MARCH 2022

PARTICULARS	(Amount in Rs.)	
	Current Year	Previous Year
RECEIPTS		
(i) OPENING BALANCE		
(a) CASH IN HAND		
- INR	14,426.00	22,492.00
- FOREIGN CURRENCY	-	-
(b) STAMPS IN HAND	-	-
(c) CASH WITH BANK	(23,63,03,249.00)	13,81,95,608.00
(d) SHORT TERM DEPOSIT WITH BANK	2,49,04,61,667.00	2,57,16,93,930.00
(e) REMMITANCE IN TRANSIT	-	-
(II) GRANTS RECEIVED		
(a) FROM CENTRAL GOVERNMENT	5,44,30,00,000.00	5,31,12,30,000.00
(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	1,80,000.00	-
(c) FROM OTHERS (IWAI FUND & Other -)	1,84,23,16,400.00	2,67,34,37,171.00
(IV) INTERNAL RECEIPTS		
(a) RENT RECEIVED		
- RENTAL INCOME (BUILDING)	58,95,010.00	71,76,200.00
- RENTAL INCOME (OTHER TO BE SPECIFIED)	4,02,363.00	-
(b) INTEREST INCOME RECEIVED		
- INTEREST ON SHORT TERM DEPOSITS	4,70,61,799.00	7,16,55,703.00
- INTEREST ON STAFF ADVANCE	-	-
- INTEREST ON MOBILISATION ADVANCE	-	57,05,052.00
- OTHER INTEREST RECEIVED (TO BE SPECIFIED)	39,29,464.00	6,27,241.00
(c) OTHER INTERNAL RECEIPTS (NATURE TO BE SPECIFIED)		
- INCOME FROM INVESTMENTS	-	-
- CONSULTANCY CHARGES	-	-
- WATERWAY USES CHARGES	-	21,55,763.00
- BERTHINGE CHARGES	-	1,54,36,319.00
- TOWAGE CHARGES	-	-
- PILOTAGE CHARGES	-	6,01,591.00
- TERMINAL CHARGES	14,510.00	30,42,163.00

- TRANSIT SHED CHARGES		
- MOVEMENT OF OVER DIMENSIONAL CHARGES (ODC)	7,27,57,401.00	80,84,876.00
- CRANE (INCLUDING PONTOON CRANE) HIRE CHARGES	-	2,11,701.00
- CONTAINER CRANE CHARGES	-	-
- FORK LIFT CHARGES	-	-
- ELECTRIC SUPPLY TO THE VESSEL	-	-
- WHARFAGE	-	-
- DEMURRAGE	-	-
- SALE OF TENDER FORMS	2,29,037.00	1,00,119.00
- PROTOCOL FEES	100.00	27,97,600.00
- SALE OF NAVIGATION CHARTS	-	-
- VESSELS HIRE CHARGES	-	6,27,82,129.00
- HOSTEL ETC. CHARGES	-	4,04,391.00
- FUTON FEES	-	-
- UNIFORM CHARGES	-	-
- RECEIPTS ON SALE OF FIXED ASSETS	-	4,823.00
- SECURITY DEPOSITS RECEIVED	2,13,04,281.00	17,74,757.00
- FARNESI MONEY RECEIVED	14,04,687.00	20,77,016.00
- RECOVERY OF ADVANCES	-	14,81,051.00
- RECOVERY FROM DEBTORS	-	-
- RECOVERY FROM NPS TRUST	-	-
- MISCELLANEOUS RECEIPTS	43,67,803.00	8,91,077.00
- OTHER INCOME	10,97,677.00	5,96,108.00
TOTAL	9,69,78,53,193.00	10,28,42,43,564.00
PARTICULARS		
PAYMENTS		
(i) EXPENDITURES	Current Year	Previous Year
(a) OPERATIONAL AND MAINTENANCE EXPENSES		
(b) PERSONNEL EXPENSES		
(v) FINANCE CHARGES	3,06,35,61,554.00	3,69,56,53,403.64
(d) PRIOR PERIOD EXPENSES	22,80,52,698.00	25,64,56,391.40
	25,87,77,158.00	29,42,17,620.00
(ii) REPAYMENTS OF BORROWINGS	-	13,31,539.67
(iii) REPAYMENTS OF BOND/SECURITIES	-	-
(b) REPAYMENTS OF LOAN	-	-
(iii) INVESTMENTS & DEPOSITS MADE	-	-
(ii) OUT OF EARMARKED FUNDS	-	-
(b) OUT OF OWN FUNDS	-	-



(IV) EXPENDITURE ON FIXED ASSETS & CAPITAL WORK IN-PROGRESS	-	-
(a) PURCHASE OF FIXED ASSETS		
(b) EXPENDITURE CAPITAL WORK-IN-PROGRESS		
(c) FLOTTING JETTIES	23,35,40,089.00	5,75,340.00
INVENTORY	10,50,073.00	25,22,24,511.67
(V) PAYMENTS OF LOAN & ADVANCE	-	7,54,30,000.00
(a) HOUSE BUILDING ADVANCE	2,410.00	
(b) DEPARTMENTAL ADVANCE		
(c) TRAVELLING ADVANCE	18,14,939.00	40,16,023.00
(d) LTC ADVANCE	50,87,413.00	4,94,865.00
(e) MEDICAL ADVANCE TO STAFF	12,89,613.00	15,65,718.00
(f) PERSONAL COMPUTER (P.C) ADVANCE	4,45,671.00	4,04,767.00
(g) OTHER ADVANCE TO STAFF	2,72,000.00	3,25,113.00
(h) ADVANCE TO SUPPLIERS & CONTRACTORS	-	14,780.00
(i) PAYMENT ON GPF CONTRIBUTION	7,03,029.00	-
(j) PAYMENT OF VARIOUS RECOVERIES/CLAIMS	20,69,72,221.00	7,61,17,455.00
(VI) REFUND OF UNUTILISED GRANTS/SUBSIDY	-	
(a) TO THE GOVT. OF INDIA	34,65,223.00	
(b) TO THE STATE GOVT		
(c) TO OTHER PROVIDERS OF FUNDS	-	
(VII) OTHER PAYMENTS	-	
(a) REFUND OF SECURITY DEPOSIT	-	
(b) REFUND OF EARNEST MONEY		
(c) SECURITY DEPOSIT PAID	42,69,172.00	2,45,39,170.00
(d) DUTIES AND TAXES PAID	15,82,118.00	85,94,375.00
(e) PREPAID EXPENSES	19,49,98,646.00	3,79,66,663.00
(f) PAYMENT TO MINISTRY OF SHIPPING (INTERNAL RECEIPT)	21,95,71,884.00	16,61,37,330.00
(g) PAYMENT ON PENSION CONTRIBUTION	-	-
(h) PAYMENT ON BEHALF OF THIRD PARTY	4,90,97,740.00	15,40,94,408.00
(i) PAYMENT ON GPF CONTRIBUTION		-
(j) PAYMENT ON GPF ADVANCE RECOVERY		-
(k) PAYMENT OF WITHHELD TAXES	8,230,763.00	49,24,080.00
(l) PAYMENT TO SUPPLIERS & CONTRACTORS	-	-
(m) PAYMENT OF BOND RELATED EXPENSES	23,09,55,014.00	-
(n) PAYMENT OF VARIOUS RECOVERIES TO RELATED DEPARTMENTS	-	-
(o) PAYMENT FOR PROVISIONS	9,658.00	33,189.00
(p) PROTOCOL EXPENSES	-	44,34,761.00
(q) OTHER EXPENSES	5,05,48,645.00	51,18,990.00
(r) UNSPENT GRANT PAYABLE TO GOI	-	124,59,000.00
(s) INTEREST PAID	48,80,857.00	19,27,327.00



(VIII) CLOSING BALANCE	52,99,62,000.00	-
(i) CASH IN HAND	36,14,26,483.00	
- INR		
- FOREIGN CURRENCY		
(ii) STAMPS IN HAND	18,216.00	14,426.00
(iii) CASH WITH BANKS	-	-
(iv) SHORT TERM DEPOSIT WITH BANK	-	-
(v) REMMITANCE IN TRANSIT	30,16,03,235.00	(22,83,63,422.00)
(vi) CLOSING BALANCE H.O. WITH R.O.	34,81,97,427.00	2,57,54,36,667.00
TOTAL	-	
	2,98,43,19,448.00	2,39,30,55,816.98
	9,89,78,53,395.00	10,28,42,45,904.00

For and on behalf of the Authority

 (Balinder Verma)

CAO

 (Praveen Nahulwala)

Member (Finance)

 (Dayant Singh)

Vice Chairman

 (Sanjay Bandopadhyay)

Chairman

23. "SIGNIFICANT ACCOUNTING POLICIES"

SCHEDULE -I

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 reported otherwise. These accounting policies and standard have been consistently applied.

2. IWAI FUND U/S 19 of the IWAI Act, 1985:

Inland Waterways Authority of India Fund constituted under Section 19 of the Act. There shall be credited thereto-

- Any Grants received from Government (s) for acquiring assets, development and maintenance of infrastructure facility
- All fees and charges (all internal receipts) received by the Authority under the IWAI Act.
- All sums received by the Authority from such other sources as may be decided upon by the Central Government.
- Any other grants received.
- Any surplus of "Income and Expenditure Accounts"

There shall be debited thereto-

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

3. Government Grants:

Government grants related to revenue, i.e. for employee cost, general administrative expenses and any other grants specified as revenue grants shall be recognized in the "Income and Expenditure Accounts" as revenue grants.

Grants for acquiring assets, development and maintenance of infrastructure facility. In connection to the Government grants that are in relation to the acquisition of assets, development and maintenance of infrastructure and related activities shall be credited to IWAI fund, and Deferred Income Method of accounting of such grants has been adopted by the Authority.

4. Property, plant and equipment (Fixed Assets):

- Property, Plant and Equipment is initially measured at cost of acquisition/ construction including any cost directly attributable to bringing the assets to the location and condition necessary for it to be capable of operating in the manner intended by the management. After initial recognition, fixed asset is carried at cost less accumulated depreciation/amortization and accumulated impairment losses, if any.
- Property, Plant and Equipment have been capitalized on the date of transfer of ownership



- or date of put to use whichever is earlier.
- c. Capital Work-In-Progress (CWIP):
Cost of material, construction/erection charges and other expenses incurred for the construction of fixed assets are shown as CWIP based on progress of construction/erection work till the date of capitalization.
- Depreciation/Amortization:
 - Depreciation has been charged on straight line method of depreciation.
 - Depreciation has been provided at the rates and in the manner specified in Schedule II of the Companies Act 2013 using the useful lives and residual values as basis except where the useful life of the asset is defined by the IWA Board.
 - Depreciation is 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. Provision for decline, other than temporary, is made in carrying cost of such investments.
8. **Lease:**
Lease rental are expensed with reference to lease terms.
9. **Retirement benefits:**
Provision for all employee's benefits are created as per applicable Accounting Standard-15.
10. **Prior Period Items:**
Prior period items are income or expense (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. The nature and amount of prior period items, wherever applicable, are 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:**
Expenditure on hydrographic survey, studies (i.e. feasibility study, DPR, EIA, SIA etc.) handling, bottom-piping, dredging, operation and maintenance of terminals, temporary structure in channel marking and maintenance of vessels etc. is treated as revenue expenditure whereas

expenditure on creation of permanent structures in channel marking, terminal construction and land, cost of vessels, survey launches, tugs, barges, dredgers, etc. is treated as capital expenditure. Further, Salary, Wages & Other Administration Expenses incurred on various projects of waterways is allocated to each waterway as per deployment.

12. Provision for Bad or Doubtful Debts:

Provision for bad and doubtful debts is 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. Provisions, Contingent Liabilities and Contingent Assets:

A provision is 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 will be required to settle the obligation. Provisions are determined by the best estimate of the outflow of economic benefits required to settle the obligations at the reporting date. Where no reliable estimate can be made, a disclosure is made as contingent liability. A disclosure for a contingent liability is also made when there is a possible obligation or a present obligation that may, but probably will not, require an outflow of resources. 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 are accounted for at the exchange rates prevailing as on the date of the transaction.

For and on behalf of the Authority

(Jatinder Verma)
 CAO

(Proveen Nainwala)
 Member (Finance)

(Jyant Singh)
 Vice Chairman

(Sanjay Bandyopadhyaya)
 Chairman



**24. Notes to Accounts form Integral part of Financial Statements as on
31.03.2022**

Schedule-2

1. (ii) In F. Y. 2021-22, 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 Pissai	Chairperson	April 21 to June 21	1251643	56829	1308472
2.	Sh. Sanjay Bandopadhyay	Chairman	December 21 to March 22	1344767	95042	1439809
3.	Sh. Jayant Singh	Vice-Chairman	May 21 to March 22	3577480	455539	4031019
4.	Sh. Rajesh Kumar Pathak	Member (Finance)	April 21 to July 21	1625065	4800	1629865
5.	Sh. Ashutosh Gantam	Member (Technical)	April 21 to May 22	3978524	171481	4150005
6.	Sh. Praveen Nandwana	Member (Finance)	January 21 to March 22	603559	-	603559
Total				12581038	781691	13162729
Total (Previous Year)				15270946	1273678	16544624

- (ii) No member of IWAI Board has outstanding debts/ loans/ advances against her/him.
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 tuning 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 IWA 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. 2021-22 Authority has not raised any funds through extra Budgetary resource (EBR) and fund raised through EBRs has been fully utilized.

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-I (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 (IWA), 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 IWA Head Office is headed by the Vice Chairman as Project Director. Project Director is assisted by Member (Technical) as Dy. Project Director, Chief Engineer as Project Manager, Chief Accounts Officer and domain experts in Administration, Finance & Accounts, Engineering, Procurement, Marketing & Business Development, Environmental, Social Development and Communications.
- (ii) Project Oversight Committee consists of Chairperson and senior Officers of IWA, 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 are 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 same further revised to Rs.4633.81 crore in midterm review of the project. 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 etc. The revised project cost includes components of Arth Ganga costing Rs. 746 crore consist Fairway Development, River Training, Modernization of existing Farakka Lock, Ro-Ro Terminals, Community Jetties, Floating Terminals etc.



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

- (i) IBRD Loan of Rs. 2125.37 crore (US\$ 317.22 million).
- (ii) Government of India Counterpart Funds (budgetary allocation and proceeds from bond issue: Rs. 2207.58 crore (US\$329.49 million) and
- (iii) Private sector participation under PPP mode: Rs. 300.86 crore (US\$ 44.90 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. 5369.18 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. The estimated cost of the project was revisited during midterm review of the project and the revised estimated cost of Rs. 4633.81 Cr. was communicated to MoPSW on dated 11.06.2020. The MoPSW had forwarded the proposal to Department of Economic Affairs. Further, the revised cost proposal was send to World Bank by Department of Economic Affairs on dated 11.06.2020. The amendment of the loan agreement was send to DEA by World Bank on dated 03.09.2020. Under the active financing clause of the Loan agreement, JMVP has submitted a claim of Rs 863.02 crore to CAAA out of the same an amount of Rs.858.36 crores which includes retrospective and project preparatory advance has been credited in Consolidated Fund of India up to end of March, 2022. 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. 2021-22, Authority got sanctioned budget of Rs. 218.00 crores and same has been released by the Government of India through Ministry of Ports, Shipping & Waterways.

Major projects of JMVP, which are under execution during the current financial year are construction of 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; Inter-modal terminal at Kalighat at a cost of Rs. 82.48 crore. Besides this, LAD dredging contract at a cost of Rs. 150 crores, (excluding taxes), Rs.159.30 crores and Rs. 182.90 crores have been awarded for the stretch between Farakka-Kahalganj, Sultanganj – Mahendrapur and Mahendrapur - Barth respectively. Expenditure on the project have been treated as capital expenditure. Since the inception of the project total expenditure of Rs.21341.86 lakh (previous year Rs. 190453.46 lakh) has been incurred as of 31st March 2022 against which an expenditure of Rs.22960.40 Lakh (Previous year Rs. 21405.09 lakh) has been incurred in the financial year 2021-22. (Ref: Schedule-13, 14, 16 & 22)

4. A sum of Rs.4816.19 lakh (previous year Rs.4816.19 lakh) towards the cost of land for 11 terminals and land for widening of narrow canal made as advance to Government of Kerala. Out of above, 12.3589 hectares of land capitalized for Rs.2212.04 Lakh till 31.03.2022. For widening of canal, 21.5305 hectares land acquired at the cost of Rs. 1785.47 lakh (previous year Rs. 1783.47 lakh). An amount of Rs.1621.11 lakh has been charged to revenue expenditure since the land is sub-merged in water after widening of waterways up to 31.03.2022. 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.818.68 Lakh is available with various District Collectors in Kerala which included Rs.797.72 lakh deposited for land acquisition for new approach road to Maradu terminal. (Ref: Schedule-16 & 24)

5. A sum of Rs.3440.02 lakh (previous year Rs.3440.02 lakh) has been paid as advance to CPWD for construction of terminals. A sum of Rs.3288.41 lakh (previous year Rs.2679.38 lakh) has been capitalized (Terminals and Buildings) in the Current Financial Year and Rs.101.52 lakh have been shown as revenue expenditure till 31.03.2022. The expenditure incurred till date for Rs.214.98 lakh for the construction of Chavara approach road and Compound wall has been shown as Capital work in progress as on 31.03.2022, the Capital work in progress (Rs.389.00 lakh) shown in previous year for the construction of Kayamkulam terminal approach road has been capitalized (Terminals and Building) in the Current Financial Year. (Ref: Schedule-13)

6. A sum of Rs. 1660.00 lakh (Previous year Rs. 1660.00 lakh) paid as deposit to Cochin Port Trust for construction of Jetty at Bolgatty and Willington Island. Out of the same Rs. 1575.02 lakh has been Capitalized till date and balance 84.98 lakh available with CPT. (Ref: Schedule-16)

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, Asramam, Kollam Govt of Kerala for the construction of a single lane bridge across NW-3 at Kovilthottam, Chavara. (Ref: Schedule-16)

8. A sum of Rs.3800 lakh (previous year Rs.3300 lakh) has been released to Director, Inland Navigation Directorate, Kollam, Asramam Govt of Kerala for the reconstruction of Navigational Lock at Thrikkunnappuzha of NW-3. The expenditure incurred till 31.03.2022 Rs.1511.08 lakhs booked as Revenue Expenditure and an amount of Rs.224.91 lakh (up to previous year Rs.169.02 lakh) has been accrued as interest from the above deposit up to 31.03.2022 and Rs.2513.83 lakh is available with Director, Inland Navigation Directorate, Kollam, Govt of Kerala as on 31.03.2022. (Ref: Schedule-16 & 24)

9. (i) A sum of Rs.515 lakh (previous year Rs.515 lakh) has been released to M/s. KSEB Ltd towards the cost of shifting of HT lines across Champakkara canal of NW-3, up to 31.03.2022 an amount of Rs.417.06 (previous year Rs.259.97 lakh) lakh has been booked as Revenue Expenditure and balance of Rs.97.94 lakh is available with M/s. KSEB Ltd. (Ref: Schedule-16)

(ii) A sum of Rs.12.27 lakh has been released to M/s. Cochin Port Trust towards the cost of rectification of damage occurred in Ro-Ro Jetty at Bolgatty & replacing of damaged fenders in mooring of dolphins at Willington Island.

10. 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.2367.12 lakh) has been shown as liability for balance dues against the land taken over as on 31.03.2022. 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. 4216.51 lakh) shown as capital work in progress and



balance Rs.2550.71 lakh (previous year Rs. 2550.71 lakh) as advance. (Ref. Schedule-14)

11. 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. (Ref. Schedule-7)

12. 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.

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 2021-22 as assured to Audit the same has been included in Annual Accounts of IWAI for the F.Y. 2021-22 excluding capital reserve and fixed assets.

The Authority has received Rs.3387.04 lakh (previous year 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 up to 31.03.2022. In addition, there has been internal receipts of Rs.282.73 lakh (previous year Rs.271.95 lakh) which is mainly bank interest generated on the project till 31.03.2022. Out of the above, an expenditure of Rs.3202.05 lakh has been incurred. The final outcome will be reflected/adjusted in the Annual Accounts of the Authority, after completion/close of Project.

During F.Y. 2021-22, an amount of Rs.73.62 lakh (previous year Rs.143.11 lakh) has been



incurred as expenditure and an amount of Rs.10.78 lakh has been (previous year Rs. 15.91 lakh) received as internal receipt on the project.

No component of Assets & Liabilities and advances has been incorporated in the provisional financial statement of IWAI and the Annual Accounts of the Project has been Audited and certified by the Independent Chartered Accountants Firm and the same are attached as "Annex-A".

13. Authority has taken 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 31.03.2022, an amount of Rs.15465.00 lakh for Pension (previous year Rs. 16900.00 lakh), Rs.2277.69 lakh for Gratuity (previous year Rs. 1872.77 lakh) and Rs.1622.31 lakh for leave encashment (previous year Rs. 1324.78 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.15276.98 lakh and Rs.2277.69 lakh is available with the Trust for pension and gratuity respectively and Rs.1622.31 lakh is available with LIC for leave encashment fund. In F.Y. 2021-22, Provisions for Pension Rs.189.00 lakh has been provided. (Ref: Schedule-12)

For Actuarial Valuation, the assumptions are:

Mortality Rate	: IALM (2006-08) ultimate.
Withdrawal Rate	: 1% to 3% for all age.
Discount Rate	: 8% p.a.
Salary Escalation	: 6% p.a.

14. 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 290.25 lakh (previous year Rs. 232.01 lakh) as on 31.03.2022. In F.Y. 2021-22, an amount of Rs.87.28 lakh (previous year Rs. 52.54 lakh) has been provided on the same. (Ref: Schedule-12)

15. 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 Vivaala 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, Ms. 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.

16. There are five Arbitration cases pending before the Arbitrators having contingent liability upon IWAI and claim by IWAI as on 31.03.2022. These are (i) slipway work in NW-2, (ii) dredging work in NW-3, (iii) construction of vessels, (iv) dredging work in NW-5 and (v) dredging work in Barak. 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:-

Court	No. of Case	Liability upon IWAI	Claim by IWAI (Rs. in crore)
Hon'ble Supreme Court	02	-	-
NGT, Delhi	02	-	-
NGT Southern Zone, Chennai	02	-	-
NGT Kolkatta	01	-	-
Hon'ble High Court, Delhi	05	-	-
Hon'ble High Court, Kerala	13	-	-
Hon'ble High Court, Patna	07	-	-
Hon'ble High Court, Allahabad	16	-	-
Hon'ble High Court, Kolkata	05	-	-
Hon'ble High Court, Gauhati	08	-	-
Hon'ble High Court, Hyderabad	02	-	-
Hon'ble High Court, Madras	01	-	-
District Court, Varanasi	07	-	-
District Court/City Court Gauhati	02	-	-
CGT cum Labour Court, Gauhati	01	-	-
Office of ALC, Gauhati	02	-	-
Sub Court, Patna	01	-	-
City Court, Kolkatta	03	-	-
CGT cum Labour Court, Kolkatta	03	-	-
Additional District Judge, Visakhapatnam	01	-	-
Munsif Court, Kerala	04	-	-
Munsifate Court, Kerala	03	-	-
Commercial Court CH Nagar IWAI Vs Yesaka	01	4.73 (Awarded)	13.60
Arbitration between IWAI vs DDCL	01	-	-
Arbitration between IWAI vs M/s Neptune Maritime (opposite party was not appearing so long time and not traceable)	01	29.81	21.04
Arbitration between Keelar Dredging Limited JV Vs IWAI for NW-5	01	78.63	68.71
Arbitration between Keelar Dredging Barak SPV Private Vs IWAI	01	14.91	71.04
Sub Court, Kerala (LAR/LAA cases)	02	0.0667	0.00
Sub Court, Varanasi (LAR/LAA cases)	06	-	-
Total	104	126.14	124.19

17. Authority received funds of Rs. 54430.00 lakh from Govt. of India under different budget heads. During the year, capital expenditure of Rs. 30750.84 lakh and revenue expenditure of Rs. 24521.66 lakh was incurred by the Authority. During the year, Authority generated Internal Receipts of Rs. 1182.34 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-200177/2013-IWT dated 06.12.2013. Summarized details are as under:-

Abstract of Fund received and Expenditure in F. Y. 2021-22		(Figures in lakh)
Particulars		Total
Funds received		
(a) Plan/Other	54430.00	
(b) Deficit of F. Y. 2020-21	(3116.72)	51313.28
Less:- Expenditure incurred		
(a) Revenue expenditure	24521.66	
(b) Capital expenditure	30750.84	55272.50

18. In F. Y. 2021-22, Internal Receipts of Rs. 1182.34 lakhs (previous year Rs 1950.05 lakhs) has been generated. As per letter no. G-200177/2013-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:- (Ref: Schedule-3)

Sl. No.	Internal Receipts	Amount (in Rs.)
1	Piloting Charges	501430
2	Bidding Charges	19181850
3	Over Dimension Cargo facsimile	3072941
4	Protocol Fees	1494290
5	Misc. Receipts	186298
6	Rent Received Terminal	4156446
7	Sale of Tender Forms	233837
8	Sale of Navigation Chart	128000
9	Cougar Fee & Hostel Charges NIN	1312216
10	Dry Cargo	3330611
11	Pontoon Hire Charges	994366
12	Hiring of Vessels	25147346
13	Interest on Deposits/ Investment	48953750
14	Rent Building	4742290
15	Storage and handling charges	9348
16	Interest on HWA etc.	2506688
Total		118233029



19. The Lease Land has been acquired at Noida, MMT Haldia, Patikhauli Terminal Haldia and Princep Ghat Kolkata on upfront payment basis. The amount of lease rent pertaining to particular financial year is charged to revenue expenditure in respective financial year. (Ref: Schedule-13).
20. 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:

- (i) Shatrunjay Dam - Gujarat
- (ii) Sardar Sarovar Dam - Statue of Unity - Gujarat
- (iii) 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 received from AAI as advance for above work. In the intervening period of time, the Hydrographic Survey of 2 location i.e. Sardar Sarovar Dam and Sabarmati River Front was carried out. Additionally, the work of setting up floating jetties and navigational buoys i.e. Sardar Sarovar Dam and Sabarmati River Front al was delegated to Morenagao Port Authority (MPA) and the work of navigational buoys was entrusted DGLL on deposit work basis. An amount of Rs.928.69 lakh has been incurred (previous year Rs.833.91 lakh) under this project as on March 2022. The balance has been shown as advance received from AAI. (Ref: Schedule-11).

21. A work of Development of Jetties at nine main points of embarkation/d disembarkation of River Cruise on National Waterways no. 1 & 2 i.e. (i) Botanical Garden jetty (ii) Varanasi (iii) Allahabad-I (iv) Allahabad-II (v) Munger Terminal (vi) Nirmali, Jorhat (vii) Bishwanath Ghat, Sonitpur (viii) Silghat, Nagaon and (ix) Pandu Terminal, Pandu has been assigned by ID-Division, Ministry of Tourism, Government of India to execute work on deposit basis.

A sum of Rs. 700.76 lakh has been received as advance from Ministry of Tourism, Government of India being 25% of total CFA for above work. An amount of Rs.265.20 lakh has been incurred under this project as on March 2022. The balance has been shown as advance received from Ministry of Tourism, Government of India. (Ref: Schedule-11).

22. 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 Swarupganj, 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. (Ref: Schedule-16).

23. (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.

- (iii) The Authority has exempted under 12(A) of the Income Tax Act, 1961 w.e.f. 01.04.1998 by the Department of Income Tax and also got exemption certificate under section 10(23 C) (iv) from Central Board of Director Taxes from the A.Y. 1998 and onwards. Exemption has been extended to the Authority on 02.01.2022 for a period of 5 years i.e., A.Y. 2022-23 to A.Y. 2026-27 under clause (i) of first proviso to clause (23C) of Section 10.

24. The Authority has Rs.7481.97 Lakh as on 31.03.2022 (Previous year Rs. 25254.37) in Short Term Deposit (Saving cum Flexi Bank Account) out of Bank Balance Rs.10498.01 Lakh as on 31.03.2022 (Previous year Rs. 22970.73) (Ref: Schedule-21)

25. 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 were 6 ports of call in each country and 5 more ports of call and 2 extended ports of calls were added increasing to 11 ports of calls. The agreement is valid up to 2025 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 Ashtaganj and Sirajganj - Daikhuwa" 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. For the above work M/s WAPCOS has been appointed as PMC w.e.f 30.12.2020. The work has commenced on 31st March, 2019 and is in progress. Initial dredging in first 2 years completed by March-2021. Maintenance dredging will be in place from October-2021



(after monsoon) and will continue up to 2026. With the development of above protocol routes, there will be uninterrupted connectivity from Varanasi on NW-1 to NW-2 and through NW-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 (JWC), MoPSW, First Secretary, IIC Dhaka.

26. The liability on the Capital awarded contracts, to be executed, is expected to be Rs.61659.71 lakh at the end of March, 2022.
27. Bank Guarantee valued at Rs. 26363.81 lakh (previous year Rs. 29089.78 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 2022.
28. Details of location-wise Land/ Lease Land in the possession of the Authority as on 31.03.2022 is enclosed at "Annex-II".
29. Details of Fixed Assets along with depreciation thereon located in respective field offices as on 31.03.2022 is enclosed at "Annex-C".
30. Annual Accounts has been prepared as per Accounting Standards issued by the Institute of Chartered Accountant of India as far as possible.
31. Re-grouping and re-classification has been done where considered necessary.
32. All the figures are rounded off to the nearest rupee and figures in () indicate negative figures.

For and on behalf of the Authority

(Jatininder Verma)
CAO

(Praveen Nainwala)
Member (Finance)

(Jayant Singh)
Vice Chairman

(Sanjay Bandopadhyay)
Chairman



25. AUDITOR'S REPORTS (CHARTERED ACCOUNTS) (ANNEX-A)

**D S A & COMPANY**

(formerly known as ATUL K. GARG & CO.)

Chartered Accountants

Auditor's Report

1. We have audited the attached Balance Sheet of Inland Waterways Authority of India Kishanpur Project as at 31st March, 2022 and also the Income & Expenditure Account for the year ended on that date annexed thereto. Their 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 as 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 to 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.
 - (v) In the case of the Balance Sheet, of the state of affairs of the project as at 31st March 2022;
 - (vi) In the case of the Income & Expenditure Account, of the surplus/deficit for the year ended on that date.

Place: Noida
Date: -31-03-2022
UDIN: 23990328K37172



A. D. Garg
Partner
S. No. 4996352

LWAL-KALADDAN PROJECT
Balancer Sheet as on 31.03.2012

Annual Report 2011-12

Person Type	Liaibilities	Ceritfy by	Present Year	Ages	Balances		Current Year
					Due Dates	Due Dates	
1,51,190 1,29,321 3,20,511	Credit to Fund A/c Low - Depositor Deposit	1,02,190 1,11,013	1,52,110 1,29,802 1,21,511	1,52,110 1,29,802 1,21,511	1,02,190 1,11,013 1,02,110	1,02,190 1,11,013 1,02,110	1,02,190 1,11,013 3,20,511
43,31,106 3,67,37,764	Current Liabilities Liquor Product Sale - Liquor Bottling Rent from WEA (24th Nov 1) of Arrears (1)	1,61,001 103,75,616	71,25,10 1,24,010	71,25,10 1,24,010	71,25,10 1,24,010	71,25,10 1,24,010	71,25,10 1,24,010
4,20,94,019			1,11,619 4,08,74,196	1,11,619 4,08,74,196	1,11,619 4,08,74,196	1,11,619 4,08,74,196	1,11,619 4,20,94,019

Small (1) is off set by the amount of income

W.L.A.C Company

Owner Name : P. K. Patel
Pan No. 10049
Date : 30/03/2012
Phone : 011-45-2022

For and on behalf of W.L.A.C. Subsidiary Project



Ministry of Finance

Central Excise and Service Tax

D.T.S. Officer

Signature

Date : 29/03/2012
Place : New Delhi

THE CANADA PROJECT

Table 5. Population Growth Rates

Previous Year	Expenditure	Current Year	Previous Year	Current Year
2,15,320	Remuneration to officials	0	15,61,275	Max. Remun.
1,411,514	Complementary Charges	15,420	800	800
16,742	Traveling Expenses : Admin.	0	1,235,500	Max. Traveling
20,784	Accts fee	41,012	1,16,248	Complementary Champs
30)	Bus. Charges	2,200	1,66,100	Max. Accts fee
1,751	Depreciation	3,751	3,734	Realization of Assets in per unit
				Going by present value in per Centage
			21,45,584	1,43,143
				21,44,143

卷之三

DNA Company
Channel Nine
Parramatta



卷之三

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THE CASE OF TAIWAN

Schedule -1

**INLAND WATERWAYS AUTHORITY OF INDIA
KALADAN PROJECT**

SCHEDULE FOR FIXED ASSETS AS ON 31.03.2022

Sl. No.	Particulars	Gross Block as on 31.03.2021	Addition During the Year	Adjustment	Gross Block 31.03.2022	Depreciation		Net Block as on 31.03.2022
						Up to 31.01.2021	For the Year Depreciation	
1	Furniture & Fitture	1,01,334	0	0	1,01,334	83,159	3,771	66,910
2	Computers	2,43,452	0	0	2,43,452	2,31,275	0	2,31,275
3	Furniture Structure	15,384	0	0	15,384	15,384	0	15,384
Total	3,62,170	0	0	0	3,62,170	129,604	3,751	33,443
								28,997



Schedule - IINotes forming part of accounts as on 31.03.2022

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 10.07.2010 and supplementary agreements 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 on 31.03.2022 is as under:

Particulars	Amount (Rs.)
Opening Balance as on 01.04.2021	3,67,17,364
Add: Fund Received from MEA during the Year	0
Total Fund towards Consultancy Charges	3,67,17,364
Less: Utilized During the Year (Refer Note 2 below)	62,83,726
Balance of Advance From MEA	3,04,33,638

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 SLIM 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/exit.

As per our report of even date:
For D S A & Company

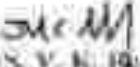
Chartered Accountants
(FRN 015668NY)

CA. D. D. Goenka
Partner
M. No. 090322
UDIN: 22000222AKRLU113173
Place: Noida
Date: 21-04-2022



For and on behalf of IWAI Kaladan Project


Jafender Verma
Chief Account Officer


S. V. K. Ruddy
Chief Engineer

26. Inland Waterways Authority of India

Office-wise details of Land as on 31/03/2022

No.	Location	Land category and area (sq.m.)	Land category and area (sq.m.)	Total area of land allotted (sq.m.)	Land allotted to Govt. (sq.m.)				
A. Details of the allotments									
1	Kolkata & Jalpaiguri	1000	1000	1000	1000	1000	1000	1000	1000
2	Chittagong & Dhaka	1000	1000	1000	1000	1000	1000	1000	1000
3	Brahmaputra & Meghna	1000	1000	1000	1000	1000	1000	1000	1000
4	Ganga & Brahmaputra	1000	1000	1000	1000	1000	1000	1000	1000
5	Godavari & Krishna	1000	1000	1000	1000	1000	1000	1000	1000
6	Cauvery & Tungabhadra	1000	1000	1000	1000	1000	1000	1000	1000
7	Indus & Sutlej	1000	1000	1000	1000	1000	1000	1000	1000
8	Other rivers	1000	1000	1000	1000	1000	1000	1000	1000
9	Total	1000	1000	1000	1000	1000	1000	1000	1000
B. Details of the leases									
10	Proposed 1st & 2nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
11	Proposed 3rd & 4th Phase	1000	1000	1000	1000	1000	1000	1000	1000
12	Proposed 5th & 6th Phase	1000	1000	1000	1000	1000	1000	1000	1000
13	Proposed 7th & 8th Phase	1000	1000	1000	1000	1000	1000	1000	1000
14	Proposed 9th & 10th Phase	1000	1000	1000	1000	1000	1000	1000	1000
15	Proposed 11th & 12th Phase	1000	1000	1000	1000	1000	1000	1000	1000
16	Proposed 13th & 14th Phase	1000	1000	1000	1000	1000	1000	1000	1000
17	Proposed 15th & 16th Phase	1000	1000	1000	1000	1000	1000	1000	1000
18	Proposed 17th & 18th Phase	1000	1000	1000	1000	1000	1000	1000	1000
19	Proposed 19th & 20th Phase	1000	1000	1000	1000	1000	1000	1000	1000
20	Proposed 21st & 22nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
21	Proposed 23rd & 24th Phase	1000	1000	1000	1000	1000	1000	1000	1000
22	Proposed 25th & 26th Phase	1000	1000	1000	1000	1000	1000	1000	1000
23	Proposed 27th & 28th Phase	1000	1000	1000	1000	1000	1000	1000	1000
24	Proposed 29th & 30th Phase	1000	1000	1000	1000	1000	1000	1000	1000
25	Proposed 31st & 32nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
26	Proposed 33rd & 34th Phase	1000	1000	1000	1000	1000	1000	1000	1000
27	Proposed 35th & 36th Phase	1000	1000	1000	1000	1000	1000	1000	1000
28	Proposed 37th & 38th Phase	1000	1000	1000	1000	1000	1000	1000	1000
29	Proposed 39th & 40th Phase	1000	1000	1000	1000	1000	1000	1000	1000
30	Proposed 41st & 42nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
31	Proposed 43rd & 44th Phase	1000	1000	1000	1000	1000	1000	1000	1000
32	Proposed 45th & 46th Phase	1000	1000	1000	1000	1000	1000	1000	1000
33	Proposed 47th & 48th Phase	1000	1000	1000	1000	1000	1000	1000	1000
34	Proposed 49th & 50th Phase	1000	1000	1000	1000	1000	1000	1000	1000
35	Proposed 51st & 52nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
36	Proposed 53rd & 54th Phase	1000	1000	1000	1000	1000	1000	1000	1000
37	Proposed 55th & 56th Phase	1000	1000	1000	1000	1000	1000	1000	1000
38	Proposed 57th & 58th Phase	1000	1000	1000	1000	1000	1000	1000	1000
39	Proposed 59th & 60th Phase	1000	1000	1000	1000	1000	1000	1000	1000
40	Proposed 61st & 62nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
41	Proposed 63rd & 64th Phase	1000	1000	1000	1000	1000	1000	1000	1000
42	Proposed 65th & 66th Phase	1000	1000	1000	1000	1000	1000	1000	1000
43	Proposed 67th & 68th Phase	1000	1000	1000	1000	1000	1000	1000	1000
44	Proposed 69th & 70th Phase	1000	1000	1000	1000	1000	1000	1000	1000
45	Proposed 71st & 72nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
46	Proposed 73rd & 74th Phase	1000	1000	1000	1000	1000	1000	1000	1000
47	Proposed 75th & 76th Phase	1000	1000	1000	1000	1000	1000	1000	1000
48	Proposed 77th & 78th Phase	1000	1000	1000	1000	1000	1000	1000	1000
49	Proposed 79th & 80th Phase	1000	1000	1000	1000	1000	1000	1000	1000
50	Proposed 81st & 82nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
51	Proposed 83rd & 84th Phase	1000	1000	1000	1000	1000	1000	1000	1000
52	Proposed 85th & 86th Phase	1000	1000	1000	1000	1000	1000	1000	1000
53	Proposed 87th & 88th Phase	1000	1000	1000	1000	1000	1000	1000	1000
54	Proposed 89th & 90th Phase	1000	1000	1000	1000	1000	1000	1000	1000
55	Proposed 91st & 92nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
56	Proposed 93rd & 94th Phase	1000	1000	1000	1000	1000	1000	1000	1000
57	Proposed 95th & 96th Phase	1000	1000	1000	1000	1000	1000	1000	1000
58	Proposed 97th & 98th Phase	1000	1000	1000	1000	1000	1000	1000	1000
59	Proposed 99th & 100th Phase	1000	1000	1000	1000	1000	1000	1000	1000
60	Proposed 101st & 102nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
61	Proposed 103rd & 104th Phase	1000	1000	1000	1000	1000	1000	1000	1000
62	Proposed 105th & 106th Phase	1000	1000	1000	1000	1000	1000	1000	1000
63	Proposed 107th & 108th Phase	1000	1000	1000	1000	1000	1000	1000	1000
64	Proposed 109th & 110th Phase	1000	1000	1000	1000	1000	1000	1000	1000
65	Proposed 111th & 112th Phase	1000	1000	1000	1000	1000	1000	1000	1000
66	Proposed 113th & 114th Phase	1000	1000	1000	1000	1000	1000	1000	1000
67	Proposed 115th & 116th Phase	1000	1000	1000	1000	1000	1000	1000	1000
68	Proposed 117th & 118th Phase	1000	1000	1000	1000	1000	1000	1000	1000
69	Proposed 119th & 120th Phase	1000	1000	1000	1000	1000	1000	1000	1000
70	Proposed 121st & 122nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
71	Proposed 123rd & 124th Phase	1000	1000	1000	1000	1000	1000	1000	1000
72	Proposed 125th & 126th Phase	1000	1000	1000	1000	1000	1000	1000	1000
73	Proposed 127th & 128th Phase	1000	1000	1000	1000	1000	1000	1000	1000
74	Proposed 129th & 130th Phase	1000	1000	1000	1000	1000	1000	1000	1000
75	Proposed 131st & 132nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
76	Proposed 133rd & 134th Phase	1000	1000	1000	1000	1000	1000	1000	1000
77	Proposed 135th & 136th Phase	1000	1000	1000	1000	1000	1000	1000	1000
78	Proposed 137th & 138th Phase	1000	1000	1000	1000	1000	1000	1000	1000
79	Proposed 139th & 140th Phase	1000	1000	1000	1000	1000	1000	1000	1000
80	Proposed 141st & 142nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
81	Proposed 143rd & 144th Phase	1000	1000	1000	1000	1000	1000	1000	1000
82	Proposed 145th & 146th Phase	1000	1000	1000	1000	1000	1000	1000	1000
83	Proposed 147th & 148th Phase	1000	1000	1000	1000	1000	1000	1000	1000
84	Proposed 149th & 150th Phase	1000	1000	1000	1000	1000	1000	1000	1000
85	Proposed 151st & 152nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
86	Proposed 153rd & 154th Phase	1000	1000	1000	1000	1000	1000	1000	1000
87	Proposed 155th & 156th Phase	1000	1000	1000	1000	1000	1000	1000	1000
88	Proposed 157th & 158th Phase	1000	1000	1000	1000	1000	1000	1000	1000
89	Proposed 159th & 160th Phase	1000	1000	1000	1000	1000	1000	1000	1000
90	Proposed 161st & 162nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
91	Proposed 163rd & 164th Phase	1000	1000	1000	1000	1000	1000	1000	1000
92	Proposed 165th & 166th Phase	1000	1000	1000	1000	1000	1000	1000	1000
93	Proposed 167th & 168th Phase	1000	1000	1000	1000	1000	1000	1000	1000
94	Proposed 169th & 170th Phase	1000	1000	1000	1000	1000	1000	1000	1000
95	Proposed 171st & 172nd Phase	1000	1000	1000	1000	1000	1000	1000	1000
96	Proposed 173rd & 1								



Number of Years	Actual Expenditure over the last 3 years (in ₹)	Estimated Expenditure for the current financial year (in ₹)	Estimated Expenditure for the next financial year (in ₹)
Health Sector (excluding Health Sector Capital Fund) (₹)			
Initial Estimate (Proposed Budget)	7,100	7,100	7,100

1. Health Sector Capital Fund (₹)	7,100	7,100	7,100	7,100	7,100	7,100
Health Sector (excluding Health Sector Capital Fund) (₹)						
1.1. Health Sector Capital Fund (₹)	7,100	7,100	7,100	7,100	7,100	7,100
1.1.1. Health Sector Capital Fund (₹)	7,100	7,100	7,100	7,100	7,100	7,100
1.1.1.1. Health Sector Capital Fund (₹)	7,100	7,100	7,100	7,100	7,100	7,100

27. INLAND WATERWAYS AUTHORITY OF INDIA

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Member (Finance)

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28. INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

(Amount in Ru.)

PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 3 "CAPITAL"		
1 CAPITAL U/S 11 (1)(c) OF IWAI ACT	94,37,244.00	94,37,244.00
2 IWAI FUND U/S 19 OF IWAI ACT		
OPENING BALANCE OF FUND	19,81,20,59,194.00	17,76,42,89,666.00
ADD:		
CAPITAL GRANTS RECEIVED FROM GOI	4,16,66,32,495.00	4,13,50,00,000.00
INTERNAL RECEIPTS (AS PER LIST)	11,82,33,829.00	19,50,05,446.00
OTHER GRANTS RECEIVED (NATURE TO BE SPECIFIED)		
OTHERS (NATURE TO BE SPECIFIED)		
LESS:		
AMOUNT PAYABLE TO GOI	(11,82,33,829.00)	(19,50,05,446.00)
UNSPENT GRANT PAYABLE TO GOI	(26,13,826.00)	(52,99,67,000.00)
TRANSFERRED TO INCOME & EXPENDITURE ACCOUNTS	(38,20,59,229.00)	(37,79,71,573.00)
BOOK VALUE OF FIXED ASSETS SOLD/WRITTEN OFF DURING THE YEAR	-	(35,450.00)
OTHERS (NATURE TO BE SPECIFIED)		
- ADJUSTMENT OF DEPRECIATION		-
ADD/LESS SURPLUS/DEFICIT TRANSFERRED FROM INCOME & EXPENDITURE ACCOUNTS	(1,17,09,95,611.00)	(1,17,92,61,451.00)
CLOSING BALANCE OF IWAI FUND	22,42,24,23,023.00	19,81,20,59,194.00
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/GRAATS	-	-
	INCOME FROM INVESTMENT MADE ON ACCOUNT OF FUNDS	-	-
	OTHER ADDITIONS (NATURE TO BE SPECIFIED)	-	-
	REDUCTION DURING THE YEAR	-	-
	CLOSING BALANCE	-	-
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	-	-
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	10,00,00,00,000.00	10,00,00,000.00
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	-	-
	INTEREST ACCRUED AND DUE	-	-
	CLOSING BALANCE	10,00,00,00,000.00	10,00,00,000.00
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)	10,00,00,00,000.00	10,00,00,00,000.00
SCHEDULE - 7 "OTHER NON-CURRENT LIABILITIES"		
1 SECURITY DEPOSIT RECEIVED	21,43,07,897.00	30,92,00,532.00
2 EARNEST MONEY RECEIVED	19,08,144.00	15,37,546.00
3 MARGIN MONEY RECEIVED	-	-
4 TAXES WITHHELD	3,50,51,288.00	22,70,23,977.00
5 LIABILITIES FOR EXPENSES	36,32,15,152.00	8,59,03,154.00
6 DUTIES AND TAXES PAYABLE	1,33,35,607.00	-
7 INTERNAL RECEIPT PAYABLE TO GOI	-	-
8 ADVANCE RECEIVED FROM CUSTOMERS	-	-
9 RETENTION MONEY	-	-
10 OTHERS		
- LIABILITIES FOR LEAVE ENCASHMENT	12,36,29,303.00	12,36,29,303.00
- CLAIM PAYABLE	1,30,90,166.00	1,88,59,063.00
TOTAL	76,55,37,557.00	76,61,53,575.00
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	1,79,47,467.00	1,79,47,467.00
TOTAL	1,79,47,467.00	1,79,47,467.00
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	-	-
	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	-	-
(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	25,09,66,575.00	25,16,27,916.00
	ADDITION, IF ANY, DURING THE YEAR	-	-
	REPAYMENTS MADE DURING THE YEAR	(25,09,66,575.00)	(25,16,27,916.00)
	INTEREST ACCRUED AND DUE	25,09,66,575.00	25,09,66,575.00
	CLOSING BALANCE	25,09,66,575.00	25,09,66,575.00
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)	25,09,66,575.00	25,09,66,575.00
	SCHEDULE - 10 "SUNDY CREDITORS"		
1	SUPPLIERS & CONTRACTORS	8,13,14,838.00	76,34,37,377.00
2	PROFESSIONALS	-	11,88,854.00
3	OTHERS	53,36,71,606.00	8,08,14,485.00
	TOTAL	61,49,86,444.00	84,54,40,716.00
	SCHEDULE - 11 "OTHER CURRENT LIABILITIES"		
1	SECURITY DEPOSIT RECEIVED	8,36,19,728.00	11,19,44,308.00
2	EARNEST MONEY RECEIVED	4,84,032.00	21,83,456.00
3	MARGIN MONEY RECEIVED	-	-
4	TAXES WITHHELD	13,08,582.00	5,07,51,134.00
5	LIABILITIES FOR EXPENSES	15,70,30,469.00	17,70,94,902.00
6	DUTIES AND TAXES PAYABLE	2,66,72,950.00	2,84,50,346.00
7	INTERNAL RECEIPT PAYABLE TO GOI	11,82,35,829.00	19,50,05,446.00
8	UNSPENT GRANT PAYABLE TO GOI	26,13,826.00	52,99,62,000.00

9	ADVANCE RECEIVED FROM CUSTOMERS	5,26,13,810.00	12,67,17,417.00
10	RETENTION MONEY	-	-
11	OTHERS (NATURE TO BE SPECIFIED)	6,48,84,667.00	2,48,94,420.00
	TOTAL	50,74,51,693.00	1,24,70,03,429.00
SCHEDULE - 12 "PROVISIONS"			
1	PROVISION FOR GRATUITY	-	49,81,469.00
2	PROVISION FOR LEAVE SALARY & PENSION CONTRIBUTION (FOR EMPLOYEES ON DEPUTATION)	2,32,451.00	38,00,860.00
3	PROVISION FOR PENSION CONTRIBUTION	1,89,00,000.00	3,13,42,784.00
4	PROVISION FOR LEAVE ENCASHMENT	-	88,48,965.00
5	PROVISION FOR NEW PENSION SCHEME	-	-
6	PROVISION FOR BONUS	15,88,802.00	16,20,502.00
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)	1,10,77,740.00	52,53,886.00
	TOTAL	3,17,98,993.00	5,58,48,466.00

For and on behalf of the Authority

 (Jatinder Verma)
 CAO

 (Praveen Nandwana)
 Member (Finance)

 (Jayant Singh)
 Vice Chairman

 (Sanjay Bandyopadhyaya)
 Chairman



29. INDIAN WATERWAYS AUTHORITY OF INDIA
SCHEDULE OF FIXED ASSETS AS ON 31st MARCH - 2022



30. INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

SCHEDULE 14: "CAPITAL WORK IN PROGRESS"						(Amount in Rs.)
No.	PARTICULAR	OPENING BALANCE AS ON 31.03.2021	ADDITIONS DURING THE YEAR 2021-22	ASSETS CAPITALIZED DURING THE YEAR 2021-22	CLOSING BALANCE (A) on 31.03.2022	
1	Noida Office					
1	M/s All Design Habit & Co.	Design, supervision of museum	3474805	0	0	3474805
2	M/s Enco Mechel Pvt. Ltd.	Supply of 2 nos. Pontoon of Semi-Vidur & Jagatpuri	8600247	0	0	8600247
3	M/s Mormugao Port Trust		12873434	98798500	0	111671934
	Total Noida Office		24948536	98798500	0	123747036
NW - I - Kolkata office						
2	M/s Cleggton Manufacturing Co. Limited	Knurlaying of steel pontoon	7726500	86981357	0	94297857
				1907485		1907485
	Total - Kolkata office		7726500	88888642	0	96015342
Jai Murg Valsar Project						
1	M/s Larsen & Toubro Ltd.	Construction of multimodal terminal at Satilaganj	2571594229	105068695	0	2766662924
		Commercial PCW navigation lock at Tamluk	2091150107	10,74,28,710	0	1106787027
2	M/s ITD Corporation India Ltd.	Construction of KMT at Haldia	4066918425	144632356	0	5021560791
3	M/s Adani Ports & SEZ Limited	LAD-Parsikha- Kahalganj	938395208	429229407	0	1367823615
4	M/s Adani Ports & SEZ Limited	LAD- Mahesndrapur- Barh	127368688	63876477	0	(9) 745161
5	M/s Adani Ports & SEZ Limited	LAD-Suhangaj- Mahesndrapur	172809167	145544203	0	318353376
6	CWIP-Operational & Maintenance	IMVP-PMU	1361441398	254701607		1616142997
7	Rehabilitation & Resettlement	CRADLE	191160	1804392		1965552

8	CWIP-Operational & Maintenance	Kolkata-FIU	72200018	50076174	0	1231K112
9	CWIP-Operational & Maintenance	Batum-FIU	12044419	3763045		15807464
10	D.C.Sarap	District Land Acq.Officer, Sarap, Assam Study for Kalanghat Terminal	737103	0	0	737103
11	CWIP-Operational & Maintenance	Vizianag-FIU	39455068	4516514	0	43971582
12	CWIP-Operational & Maintenance	Sahibganj-FIU	36609134	15607952		32217886
13	Executive Engineer of Varanasi	replacement cost of pump and system	39000000		0	39000000
14	District Land Acquisition Officer	R&R for Sahibganj Land	374419000		0	374419000
15	R&R-District Administration Sahibganj	R&R for Sahibganj Land	47232230	0		47232230
	M/s Afcon Infrastructures Ltd.	Construction of multimodal terminal at Vizianag		0		0
	M/s Sanjay Construction Company	Construction of PWT Terminal at Kalanghat		74930000		74930000
	Total - BMV/P		13352500056	1902979548	0	15254579904
	NW-2					
1	M/s Yojana India Pvt. Ltd	Construction of Slipway repair facility	4913806	0		4913806
2	IRS	supervision work for vessels	0	0	0	0
3	Executive Engineer, CPWD(Guwahati)	Deposit work	2796745	5376745	3700921	4954466
4	Land @ Jorbangal(103 acre)	Tokon Price	1	0	1	0
5	Land @ Jorbangal(103 acre)	Payable to I. Engineers- (134mmt) Rs. 36,73,000/- Pattades(46 nos)Rs. 1,46,65, 500/- 3.7mt (1.5Rs. #1,10,67 3/-	26451173	43400		26494573

6	Executive Engineer, (CPWD-Kerala)	Removal of existing Shore Facility at Karingal & Bathapur Terminal		4632000		4632000
			34153815	10552142	3709922	40996035
NW - 3						
1	CPWD-Kerala	Construction and Development of approach Road to IWT Terminal at Kayamkulam	3,69,00,616	0	38900616	0
2	CPWD-Kerala	Division of Public Road with Hedge and compound wall at IWT Terminal at Chavara, Kollam	2,14,98,057		21498057	0
Total - NW-3			6,03,98,653	0	6,03,98,653	0
NW - 4						
3	M/s Waterways Shipyards Pvt. Limited	Floating pontoon on river Krishna- NW-4	35809200	9378000	39872000	5916000
Total - NW-4			3,58,09,200	97,79,800	3,96,72,000	59,16,000
Grand Total			13,51,55,37,000.00	2,11,00,97,832.00	16,37,80,575.00	15,53,18,54,317

For and on behalf of the Authority



(Jatinder Verma)
CAO



(Proveen Nainwani)
Member (Finance)



(Jayant Singh)
Vice Chairman



(Sanjay Bandopadhyaya)
Chairman

INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

SCHEDULE IS: "NON-CURRENT INVESTMENTS"

(Amount in Rs.)

SC-Nos.	PARTICULAR	OPENING BALANCE	ADDITIONS DURING THE YEAR	DISPOSE OFF, WRITTEN DOWN DURING THE YEAR	CLOSING BALANCE
A INVESTMENT OUT OF EXCERIALIZED FUND					
1	IN GOVERNMENT SECURITIES	-	-	-	-
2	OTHER APPROVED SECURITIES	-	-	-	-
3	SHARES	-	-	-	-
4	DEBENTURES AND BONDS	-	-	-	-
5	SUBSIDIARIES AND JOINT VENTURES	3,00,000.00	-	-	3,00,000.00
6	OTHERS (TO BE SPECIFIED)	-	-	-	-
SUB-TOTAL (A)		3,00,000.00	-	-	3,00,000.00
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)	12,53,08,484.00	-	-	12,53,08,484.00
SUB-TOTAL (B)		12,53,08,484.00	-	-	12,53,08,484.00
TOTAL (A+B)		12,56,08,484.00	-	-	12,56,08,484.00

For and on behalf of the Authority

 (Jatinder Verma)
 CAO

 (Praveen Nainwala)
 Member (Finance)

 (Gaynor Singh)
 Vice Chairman

 (Sanjay Bandopadhyaya)
 Chairman

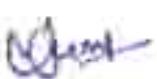


INLAND WATERWAYS AUTHORITY OF INDIA
SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

(Amount in Rs.)

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 16 "DEPOSITS, LOANS AND ADVANCES"			
1 ADVANCE TO CONTRACTORS & SUPPLIERS			
- CAPITAL ADVANCE		2606837903	2969582832
- REVENUE ADVANCE		17086010	13567942
2 ADVANCE TO STAFF		8848544	4943417
3 DEPARTMENTAL ADVANCE			
4 SECURITY DEPOSITS PAID		46912746	42540454
5 ADVANCE DUTIES AND TAXES PAID		0	8019227
6 INTEREST ACCRUED & DUE		221239	84865
7 OTHERS		0	
TOTAL		2679906442	2981738777
SCHEDULE - 17 "OTHER NON-CURRENT ASSETS"			
1 PREPAID EXPENSES		1054559	2974343
2 CLAIMS RECOVERABLE		170881076	81087773
3 OTHERS (NATURE TO BE SPECIFIED)			
TOTAL		133935635	83162116

For and on behalf of the Authority


 (Jatininder Verma)
 CAO


 (Praveen Nainwala)
 Member (Finance)


 (Gaynor Singh)
 Vice Chairman


 (Sanjay Bandopadhyay)
 Chairman

INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

SCHEDULE II: "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)	(16,79,181.00)	3,85,87,111.00		3,69,07,930.00
	TOTAL	(16,79,181.00)	3,85,87,111.00	-	3,69,07,930.00

For and on behalf of the Authority

 (Jatinlal Verma)
 CAO

 (Pramod Nanwani)
 Member (Finance)

 (Jayant Singh)
 Vice Chairman

 (Sanjay Bandopadhyaya)
 Chairman



INLAND WATERWAYS AUTHORITY OF INDIA
SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

(Amount in Rs.)

PARTICULARS		CURRENT YEAR	PREVIOUS YEAR
SCHEDULE - 19 "INVENTORIES"			
1	MARINE SPARE PARTS	2527016	1817383
2	PERMANENT STORES	773892	438971
3	CONSUMABLES & STATIONERY	1149225	734811
4	POL STOCK	25209185	17514316
5	OTHERS (NATURE TO BE SPECIFIED)		0
	TOTAL	29659418	20525481
SCHEDULE - 20 "SUNDRY DEBTORS"			
1	MORE THAN SIX MONTHS	124524540	131653083
2	OTHERS (= LESS THAN SIX MONTHS)	14461231	13428446
	TOTAL	138986780	141082229
SCHEDULE - 21 "CASH AND CASH EQUIVALENTS"			
1	CASH IN-HAND		
	- INR	18216	14426
	- FOREIGN CURRENCY		
2	STAMP IN-HAND		
3	CASH WITH BANKS		
	- CURRENT ACCOUNTS	13301466.67	-278539139
	- SAVING ACCOUNTS	168283553	50175718
4	SHORT TERM DEPOSIT WITH BANKS	748197427	292541667
5	REMITTANCE IN TRANSIT		0
	TOTAL	1049800663	1293087672
SCHEDULE - 22 "DEPOSITS LOANS AND ADVANCES"			
1	ADVANCE TO CONTRACTORS & SUPPLIERS		
	- CAPITAL ADVANCE	292635227	133633792
	- REVENUE ADVANCE	168518604	12551234
2	ADVANCE TO STAFF	2616309	5540559
3	DEPARTMENTAL ADVANCE	801407	907030
4	SECURITY DEPOSITS PAID	654731	4989391

5	ADVANCE DUTIES AND TAXES PAID	4073218	2403619
6	INTEREST ACCRUED & DUE	5649551	11729154
7	OTHERS (NATURE TO BE SPECIFIED)		
	TOTAL	1073949647	171764759

SCHEDULE - 23 "OTHER CURRENT ASSETS"			
1	INCOME ACCRUED	0	0
1A	ON INVESTMENTS		
1B	ON LOANS AND ADVANCES		
2	OTHER (INCLUDING CLAIMS RECOVREABLES)		
	- CLAIM RECOVREABLE	2823272	104644462
	- PREPAID EXPENSE	6546493	3431821
	TOTAL	9371765	108076283

For and on behalf of the Authority

(Jatinlal Verma)
CAO

(Prakash Nanuwana)
Member (Finance)

(Jayant Singh)
Vice Chairman

(Sanjay Bandopadhyaya)
Chairman

31. INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 2022

PARTICULARS	B.O.	N.W.T	B.W.3	B.W.4	B.W.5	NEW WATER WAYS	IW PROJECT	PAST WATER WAYS	IW PROJECT YEAR	CUMULATIVE YEAR	Amount in Rs.	
											MA MAGA YEA RS	PRO JECT YEAR
SCHEDULE - 34 THE NATIONAL AND STATEWATER WAYS												
(i) MAINTENANCE	1065329	2226242	221967	106608	5004122			0	122134400	121678800		
(ii) OPERATION	4960117	4703379	31462164	3144005	0				3064477100	141565991		
(iii) REASSESSMENT	42136406	3393256							11603614100	114234066		
(iv) ASSETS NON-REVENUE ITEMS	6631542	1800034	0			13766711			14344111700	136222334		
(v) TRANSACTIONS PARTITION	32110050	31001773	10637608	10440	318742			0	1201067100	114410922		
(vi) HONOR AND MANAGEMENT OF VISITORS	5141406	440672	1791000	16000	0				84010100	112215511		
(vii) NIGHT STAY AND TRAVEL	46222201	3916138	3701000						112369723100	1110161971		
(viii) PROTOCOL EXPENSES		43177107							42177107100	329460171		
(ix) RIVER BANK PROTECTION		0	16477107						106227100	1014897		
(x) TRANSPORT EXPENSES	3440051								3044005100	30557771		
(xi) CONSULTANCY CHARGES	13616664	0	0	0	4296100	2160100		0	40297600	1123408		
(xii) PROJECT MANAGEMENT CONSULTANCY CHARGES	10881797	0	807270	0	109044			0	301889200	25991166		
(xiii) RIVER RISKS PROJECT INVESTMENTS	0							0	0	0		0

INLAND WATERWAYS AUTHORITY OF INDIA



(a) Disbursements INCURRED DURING EXERCISE OF POWERS AND FUNCTIONS EXERCISED	₹1,000/-	₹1,000/-	₹1,000/-	₹1,000/-	₹1,000/-	₹1,000/-
1009 INLAND WATERWAYS TRUSTFUND PROVISIONS EXPENSES	₹100,000.00	₹100,000.00	₹100,000.00	₹100,000.00	₹100,000.00	₹100,000.00
1010 SALARY, WAGES & ALLOWANCES TO MEMBERS OF STAFF	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00
1011 OTHERS- DEPARTMENTAL EXPENSES	₹3,586,184.00	₹5,110,101.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00
1012 MAINTENANCE OF NATIONAL LOCK-GATES	₹10,000.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00
1013 DAMAK ADYATMACHA & GANDAK	₹14,466.28	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00	₹1,000.00
TOTAL	₹12,169.94	₹21,106.95	₹3,077,775.00	₹3,077,775.00	₹3,077,775.00	₹3,077,775.00

(b) Disbursements
INCURRED
DURING
EXERCISE
OF POWERS
AND
FUNCTIONS
EXERCISED

Sajay Bandopadhyay
 Chairman

Jayant Singh
 Vice Chairman

Praveen Nambiar
 Member (Finance)

Jitender Verma
 CAO



INLAND WATERWAYS AUTHORITY OF INDIA

SUPPLY SIDE QUADRUPLET INCOME EQUITY RULE IN THE MARKET

INLAND WATERWAYS AUTHORITY OF INDIA



(xx)	AMOUNTS RECEIVED	911007	70051	8	0	9242	100000		152940	103844
(xxii)	AMOUNTS RECEIVED & REVENUE	80000		0	0000	0000			00000	00000
(xxiii)	AMOUNTS RECEIVED	270000		0					270000	000000
(xxiv)	REBATES	161004		0					161004	000000
(xxv)	CONVEYANCE FEE RECEIVED	10477	5714	1752	0	6400	1000	27121	268155	
(xxvi)	TRAVELING								0	0
(xxvii)	- HOTEL	233342	107240	0	0	20241	20150		301270	300000
(xxviii)	- TRAVEL	0	0						0	30000
(xxix)	RENTAL & RENTAL & PURCHASE VALUE	10016	9016	3620	0001	17138	00001	51000	50000	
(xxx)	CHARTERED AIR	64356	17340	17321	0000	21104	10000	60000	592387	
(xxxi)	CHARTERED & WATER	0952070	224429	0	11862	30004	20000	500201	471714	
(xxxii)	LEGAL AND PROFESSIONAL CHARGES	1002962	11000	0000	0002	0	0	1001000	999999	
(xxxiii)	LEASED ASSETS								0	0
(xxxiv)	UNIFORMATION	24110	21100	0000	21794	2500		92000	200200	
(xxxv)	ADVERTISING & ADVERTISING	247700		404	000	404	000	344014	343844	
(xxxvi)	AUTOMOBILE RENTALS	10000				0			10000	9715
(xxxvii)	EXPENSES					20000		20000	19322	5000
(xxxviii)	BENT, RENTS & TAXES	600290	0000	0	0000	60257		100000	100000	
(xxxix)	WHITE CLOTH								0	0
(xli)	HARD HATS								0	0
(xlii)	SOFT-EXERCISE	60001	0000	00	0001	20001		100000	100000	
(xliii)	WATER BOTTLE	0							0	0
(xlv)	CHIBAIS (FOOD) HOUSEHOLD	0	0	0000	0	0	0	00000	000000	
(xlii)	ACQUIPMENT'S FEE	270000	00000	00000	00000	150000	00000	270000	270000	
(xliii)	TOTAL	66174046	3480000	331000	144000	150000	940000	0	0	31350000
(xlv)	GRAND TOTAL (A+B)	21629318	51120000	2061100	2061000	905772	1161312	0	0	30100000
(L)	BANK CHARGES	1100	1000	0001	0007	0000	0000	0000	0000	0000
(M)	DISCOUNTS/REDUCTION	70403407	70403407	0000	0000	0000	0000	0000	0000	0000
(N)	DISCOUNTS/REDUCTION	70403407	70403407	0000	0000	0000	0000	0000	0000	0000

Others	0	0	0	0	0	0	0
(a) Disbursements, 2021-22	0	0	0	0	0	0	0
Salaries	1807	229	730	66	6	0	0
Total	1807	229	730	66	6	0	0

Rs. thousand (Rs. '000)


 Jayender Verma
 Member (Finance)
 CAO


 Praveen Khandwala
 Member (Finance)
 Vice Chairman


 Subhay Bandopadhyay
 Chairman

32. INLAND WATERWAYS AUTHORITY OF INDIA

SCHEDULES FORMING PART OF THE BALANCE SHEET AS AT 31st MARCH 2022

SCHEDULE 27: "PRIOR PERIOD EXPENSES"		(Amount in Rs.)
PARTICULARS	CURRENT YEAR	PREVIOUS YEAR
Noida Office		
IWAI-Employee	236954	
M/s Span Communication -Advertisement	150883	
Sofit Solutions Pvt. Ltd	59000	
Amitabh Verma	(100000)	
Depreciation	(165991)	
IT refund	(7701866)	
NSDL CRA	732167	
Recification	(239403)	
Petty expenses	(387068)	
M/s ESLL	378274	
Depreciation	(136749)	
LIC Of India	453	3849667
Total (A)	(7167346)	
Kolkata Office		
Das Enterprises	(506201)	
Das Enterprises	(717033)	
Das Enterprises	(179258)	
GJP Enterprises	(417959)	
Oriental Insurance Company Ltd.	(2316008)	
	392020	
Total (B)	(3744439)	
Guwahati Office		
M/s Vinayak Shipping	1091	
M/s Electro Marine Services Pvt. Ltd	(15636)	
Total (C)	(14545)	



Kochi Office		
Taxes Withheld (Service Tax)	(297235)	
M/s West Coast Dredging Company-Dredging work-Kayamkulam	1533362	
Modernisation of 40 feet Navigational Lock Gate	(259006)	
Depreciation of Alappuzha Terminal, Kayamkulam Approach Road & Charvura	6255558	
Total (D)	7232679	
Vijaywada office		
M/s IMS Ship Management Pvt. Ltd.	(49998)	
Total (E)	(49998)	
Bhubaneswar office		
New Pension	35011	
	0	
Total (F)	35011	
Grand Total (A+B+C+D+E)	(3708638)	3849667

For and on behalf of the Authority

(Balinder Verma)
CAO

(Praveen Mandwana)
Member (Finance)

(Jayant Singh)
Vice Chairman

(Sanjay Bandopadhyaya)
Chairman

33. Audit Report of the Comptroller & Auditor General of India on the Accounts of Inland Waterways Authority of India for the year ended 31 March 2022

We have audited the attached Balance Sheet of Inland Waterways Authority of India (Authority) as at 31 March 2022 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, evidence supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting policies 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 & Expenditure Account/Receipt & Payment Account dealt with by this report have been prepared in the revised format of accounts notified (13 July 2020) by Ministry of Shipping, Government of India;
- (iii) In our opinion, 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;
- (iv) 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 between Sittwe and Palerwa in Myanmar.

IWAI is acting as the Project Development Consultant (PDC) for Kaladan Project. The PDC fee received as well as expenses incurred therefrom pertained to IWAI and hence needed to be included in accounts of IWAI. As per note no. 12 of Schedule-2 of notes to the financial statements, IWAI has received an amount of Rs. 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 upto 31 March 2022. In addition, there has been internal receipts of Rs. 2.83 crore including bank interest generated on the project till 31 March 2022. Out of the above, an expenditure of Rs. 32.02 crore has been incurred. The facts and figures of the above note cannot be vouched safe by



Audit as Authority prepares separate books of accounts of the Kaladan project for the year 2021-22 and no impact of transaction of above project has been included in the Accounts of Authority for the year 2021-22.

This issue was also raised during 2016-17 to 2020-21, but no corrective action has been taken by the Management yet.

- (v) Subject to our observations in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account/ Receipt & Payment Account dealt with by this report are in agreement with the books of account;
- (vi) 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 2022; and
 - b) In so far as it relates to the Income & Expenditure Account, of the deficit for the year ended on 31 March 2022.

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

(Atiورا سینھا)

Principal Director of Audit (Infrastructure)
New Delhi

Place: New Delhi

Dated: 01.2023

ANNEXURE

(To the Audit Report on the Accounts of Inland Waterways Authority of India for the year 2021-22)

1. Adequacy of Internal Audit System

The internal audit for the year 2021-22 was carried out by a firm of Chartered Accountants.

2. Adequacy of Internal Control System

The Internal Control system in IWAI seems adequate.

3. System of Physical verification of fixed assets

The Physical Verification of Fixed Assets has been carried out by IWAI. However, the Fixed Asset Register was not maintained as per the requirements of General Financial Rules.

4. System of Physical verification of inventory

Physical verification of inventory for the year 2021-22 has been conducted by IWAI.

5. Regularity in payment of statutory dues

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



34. Replies to The Audit Report of The Comptroller & Auditor General of India on The Accounts of Inland Waterways Authority of India for The Year Ended 31st March 2022.

Details of Audit Report	Replies to the Audit Report
<p>We have audited the attached Balance Sheet of Inland Waterways Authority of India (Authority) as at 31st March 2022 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, 1966 (IWAI Rules 1966). 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.</p> <p>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, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting policies 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.</p> <p>Based on our audit, we report that:</p> <ul style="list-style-type: none"> (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 & Expenditure Account/Receipt & Payment Account dealt with by this report have been prepared in the revised format of accounts notified (13.07.2020) by Ministry of Shipping, Government of India (GoI); (iii) In our opinion, 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; (iv) We further report that: <p>General</p> <p>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 implementation of multi-modal transit transport facility on Kaladan River between Sittwe and Palutwa in Myanmar.</p>	<p>Financial information.</p> <p>(i) No comments.</p> <p>(ii) No comments.</p> <p>(iii) No comments.</p> <p>(iv)</p> <p>General</p> <p>Factual position.</p>

Details of Audit Report	Replies to the Audit Report
<p>IWAI is acting as the Project Development Consultant (PDC) for Kaladan Project. The PDC fee received as well as expenses incurred therefrom pertained to IWAI and hence needed to be included in accounts of IWAI. As per note no. 12 of Schedule-2 of notes to the financial statements, IWAI has received an amount of Rs. 33.07 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 upto 31 March 2022. In addition, there has been internal receipts of Rs. 2.83 crore including bank interest generated on the project till 31 March 2022. Out of the above, an expenditure of Rs. 32.02 crore has been incurred. The facts and figure of the above note cannot be vouched safe by Audit as Authority prepares separate books of accounts of the Kaladan project for the year 2021-22 and no impact of transaction of the above project has been included in the Accounts of Authority for the year 2021-22.</p>	<p>Factual position. However, the IWAI has received Rs. 33.07 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 upto 31.03.2022. The fund for Service Tax & GST received from MEA has been deposited in the concerned department. Hence, the net receipts in the hands of IWAI were Rs. 30.04 crore for the above project. Accordingly, the expenditure incurred on the project till 31.03.2022 was Rs. 29.96 crore excluding taxes.</p>
<p>This issue was also raised during 2016-17 to 2019-21, but no corrective action has been taken by the Management yet.</p>	<p>Accordingly, considering the above facts, the Note to Schedule-2 of Notes to the financial statements will be updated in the annual accounts of the current year, i.e., in E.Y. 2022-23.</p>
	<p>Further, since receipts and expenditure on the above project is not a part of grants received by IWAI, the yearly surplus/deficit on the project cannot be taken in IWAI fund u/s 19 of the IWAI Act. Therefore, the income & expenditure and assets and liabilities relating to Kaladan project were not included in Annual Accounts of IWAI.</p>
	<p>If the same were included in IWAI accounts, it would only result in inflating figures on both side of Income & expenditure and Balance Sheet and no transfer of yearly surplus/deficit to IWAI Fund which is not advisable as per section 19 of the IWAI Act.</p>
	<p>Although, the issue was raised by Audit during 2016-17, 2017-18 and 2018-19, 2019-20 & 2020-21 the books of account of this project was maintained separately as stated above is not financially correct since the project accounts are part of annual accounts for audit and the same on Annexure - A of Notes to Accounts form integral part of Financial Statements Note No.12 of schedule 2 of the Annual Accounts for the F.Y 2021-22. The above observation was discussed with Audit team deputed by CAG 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</p>



Details of Audit Report	Replies to the Audit Report
<p>(v) Subject to our observation in the preceding paragraphs, we report that the Balance Sheet and Income & Expenditure Account/Receipt & Payment Account dealt with by this report are in agreement with the books of account.</p> <p>(vi) 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:</p> <ul style="list-style-type: none"> (a) In so far as it relates to the Balance Sheet, of the state of affairs of the Authority as at 31 March 2022; and (b) In so far as it relates to the Income & Expenditure Account, of the deficit for the year ended on 31 March 2022. 	<p>will not be in IWAI Fund under section 19. As assured the authority has incorporated all assets and liabilities components of Kaladan Audited accounts in Annual Accounts of F.Y. 2019-20 except Capital Reserve and Fixed Assets of Rs. 36000/- only. The reason for non incorporating is mainly due to the fact that it will affect fixed asset schedule and income & expenditure accounts.</p> <p>In spite of the above incorporation of the Assets & Liabilities the audit has not agreed on the same. In F.Y. 2021-22 the Authority has incorporated the whole accounting components of Kaladan Accounts except Fixed Assets & Capital Reserve under Liability. In draft annual accounts of this year during final Phase of audit the matter has been discussed with the audit party and after discussion the whole components has been taken out from the annual accounts of 2021-22.</p> <p>In view of the above facts, the PDC fees along with bank interest on the same received had been utilised for expenditure incurred to be incurred on account of project by IWAI since no grants is available with Authority for the above activity. On the above project the fund of Rs. 2.94 crore only available for the expected expenditure relating to project after considering expenditures incurred till date from the PDC fees along with bank interest received on the project.</p> <p>In addition to the foregoing position, it is to inform that the above financial position along with annual accounts of the project for F.Y. 2021-22 (and all earlier relevant years as well) are part of the annual accounts of F.Y. 2021-22 for audit on Annexure – A of Notes to Accounts which form an integral part of Financial Statements including Note No.12 of schedule 2 of the Annual Accounts for the Y(2021-22), along with copy of audited accounts of the project.</p> <p>(v) No comments.</p> <p>(vi) No comments.</p>
Annexure	

Details of Audit Report	Replies to the Audit Report
(To the Audit Report on the Accounts of Inland Waterways Authority of India for the year 2021-22)	
1. Adequacy of Internal Audit System	1. Adequacy of Internal Audit System
<p>The internal audit for the year 2021-22 was carried out by a firm of Chartered Accountants.</p>	<p>Factual position, no comments.</p>
2. Adequacy of Internal Control System	2. Adequacy of Internal Control System
<p>The Internal Control system in IWAI seems adequate.</p>	<p>Factual position, no comments.</p>
3. System of Physical verification of fixed assets	3. System of Physical verification of fixed assets
<p>The Physical Verification of Fixed Asset has been carried out by IWAI. However, the Fixed Assets Register was not maintained as per the requirements of General Financial Rules.</p>	<p>Instruction for maintenance of Fixed Assets Register as per the requirements of General Financial Rules has already been circulated to all concerned Wings, Regional Sub-Offices of IWAI.</p>
4. System of Physical verification of inventory	4. System of Physical verification of inventory
<p>Physical verification of inventory for the year 2021-22 has been conducted by IWAI.</p>	<p>Factual position, no comments.</p>
5. Regularity in payment of statutory dues	5. Regularity in payment of statutory dues
<p>No instance of delay in payment of statutory dues was noticed.</p>	<p>Factual position, no comments.</p>

