

MEMORANDUM OF UNDERSTANDING

BETWEEN

INLAND WATERWAYS AUTHORITY OF INDIA (IWAI) (Ministry of Ports, Shipping and Waterways, Government of India)

AND

CENTRAL WATER COMMISSION (CWC) (DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION (DoWR, RD & GR), Ministry of Jal Shakti, Government of India)

FOR COLLABORATIVE RESEARCH, TECHNICAL CONSULTANCY, AND CAPACITY BUILDING IN RIVER REJUVENATION, WATER RESOURCES MANAGEMENT, AND ECOLOGICAL SUSTAINABILITY

This Memorandum of Understanding (hereinafter referred to as "MoU") is made and entered into on this 17th Day of October, 2025

BY AND BETWEEN:

- I. **INLAND WATERWAYS AUTHORITY OF INDIA (IWAI)**, an autonomous body under the Ministry of Ports, Shipping and Waterways, Government of India, established under the Inland Waterways Authority of India Act, 1985, having its Head Office at A-13, Sector-1, Noida - 201301, Uttar Pradesh (hereinafter referred to as "IWAI", which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns);

AND

- II. **CENTRAL WATER COMMISSION (CWC)**, an attached Office under the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, Government of India, having its principal office at Sewa Bhawan, R.K. Puram, New Delhi - 110066 (hereinafter referred to as "CWC" which expression shall, unless repugnant to the context or meaning thereof, include its successors and assigns).

(IWAI and CWC are hereinafter collectively referred to as "the Parties" and individually as Party).

WHEREAS:

- A. IWAI is the statutory body responsible for the development, maintenance, and regulation of Inland waterways for shipping and navigation in India, with a mandate to ensure adequate navigational depths and safe passage, particularly on National Waterway-1 (NW-1) on the River Ganga.
- B. DoWR, RD & GR is responsible for laying down policy guidelines and programs for the development and regulation of the country's water resources, inter-state river regulations, river development, and the rejuvenation of the Ganga and its tributaries, including the flagship "Namami Gange" program.
- C. Central Water Commission is a premier Technical Organization of India in the field of Water Resources and is entrusted with the general responsibilities of initiating,

coordinating and furthering in consultation of the State Governments concerned, schemes for control, conservation and utilization of water resources throughout the country, for purpose of Flood Control, Irrigation, Navigation, Drinking Water Supply and Water Power Development.

- D. The River Ganga, constituting NW-1, is a vital economic artery and holds immense cultural, environmental, and ecological significance, requiring holistic and integrated management.
- E. Both Parties recognize that the sustainable development of the Inland Water Transport (IWT) sector and the maintenance of a healthy river ecosystem are mutually interdependent and require synergistic efforts, integrating navigational needs with river rejuvenation, comprehensive water resources management, and ecological sustainability.
- F. The modernization of IWT infrastructure and operations must be undertaken in a manner that minimizes environmental impact, supports river health, and aligns with national water resource policies.
- G. Both parties recognise that under the provision of para 8.1 of Hydro-Meteorological Data Dissemination Policy, 2018 of Ministry of Jal Shakti; IWAI has already been provided with the facility of free sharing of hydro-meteorological data vide Central Water Commission (CWC) Letter. No.T-100013/4/2023-RD-II DTE/I/125691/2023(4) dated 23.02.2023.
- H. The Parties desire to enter into this MoU to establish a collaborative framework to leverage their respective mandates, expertise, and resources to achieve common objectives of sustainable river health, efficient water resource utilization, and environmentally responsible development of IWT.

NOW, THEREFORE, THE PARTIES HEREBY AGREE AS FOLLOWS:

1. **PURPOSE AND OBJECTIVES:** The primary purpose of this Mol is to foster a strategic partnership between IWAI and CWC to ensure the sustainable development of the Inland Water Transport (IWT) sector through collaborative research, technical consultancy, and capacity building, integrated with holistic river health management. The key objectives are:
 - a) To promote comprehensive river rejuvenation efforts, leading to cleaner waters, healthier river ecosystems, and stable hydrological regimes that also support sustainable navigability.
 - b) To facilitate effective water resources management, ensuring optimal water availability and flow distribution that balances navigational requirements with other critical water demands (e.g., irrigation, drinking water, ecological flows) while mitigating potential conflicts.
 - c) To ensure ecological sustainability in IWT development and operations by minimizing adverse environmental impacts, protecting riverine biodiversity, and promoting green technologies and practices.
 - d) To enhance knowledge, technical capabilities, and human resources in both organizations through joint research, expert consultations, and targeted training programs, fostering a scientific and data-driven approach to river and waterway management.
2. **SCOPE OF THE MoU:** This MoU outlines the framework for collaboration between IWAI and CWC on various aspects related to river rejuvenation, water resources management, and ecological sustainability, particularly concerning NW-1. The scope includes, but is not limited to, the following areas:

- a) **River Rejuvenation and Water Quality:**
- i. Collaborative monitoring and assessment of water quality parameters, especially in navigation channels and around IWT infrastructure.
 - ii. Joint identification of sources of pollution and development of strategies to mitigate pollution from IWT activities (e.g., vessel waste management, oil spills).
 - iii. Sharing best practices for riverfront development and ecological restoration in areas impacting or adjacent to inland waterways.
- b) **Water Resources Management:**
- i. Sharing of real-time hydrological data (water levels, flow rates, sediment loads, morphological changes) and meteorological forecasts crucial for both navigation advisories and water resource planning.
 - ii. Joint studies and technical consultancy on the impact of IWT infrastructure (e.g., barrages, locks, terminals) and dredging activities on upstream and downstream water availability, flow regimes, and water abstractions.
 - iii. Collaboration on developing strategies for optimal water utilization and regulated flows that support both navigational requirements and other water resource demands.
- c) **Ecological Sustainability and Environmental Impact:**
- i. Undertaking joint Environmental Impact Assessments (EIAs) and Strategic Environmental Assessments (SEAs) for major IWT projects, particularly for navigation infrastructure development and maintenance.
 - ii. Research and consultancy on biodiversity conservation in riverine ecosystems (e.g., aquatic life, wetlands, riparian zones) affected by IT activities, and development of mitigation and compensatory measures.
 - iii. Promoting and developing green vessel technology, cleaner fuels, and environmentally friendly operational practices within the IWT sector.
 - iv. Sustainable sediment management, including beneficial use of dredged material and minimizing ecological disturbance from dredging operations.
- d) **Collaborative Research and Technical Consultancy:**
- i. Joint identification of research priorities and undertaking sponsored or collaborative research projects on river dynamics, sediment transport, water quality modelling, river training works, and climate change impacts on NW-1.
 - ii. Providing expert technical advice, design reviews, and problem-solving support for complex river engineering, water management, and environmental challenges related to IWT.
- e) **Capacity Building and Knowledge Sharing:**
- i. Organizing joint training programs, workshops, seminars, and exchange programs for personnel from both organizations on topics such as integrated river basin management, environmental regulations, hydraulic modelling, remote sensing, and sustainable IWT practices,
 - ii. Developing and sharing knowledge products, guidelines, and manuals for integrated river and waterway management.
- f) **Resource sharing:**
- i. IWAI shall:
 - a. Provide suitable vessels with necessary safety and operational support to CWC, as and when requested, particularly during high flood situations or extreme flow conditions.
 - b. Installation of supporting equipment (e.g., wrench mechanism for current meters and depth counters, etc) on its vessels for deployment of hydrological observation instruments like current-meter with fish-weight.

- c. Extend logistical support at the designated locations mutually identified by both parties.
- ii. CWC shall:
 - a. Inform IWAI in advance (as feasible) about the requirement of vessel deployment, specifying location, timing, and duration.
 - b. Ensure that any equipment temporarily installed on IWAI vessels does not cause structural or functional damage.
 - c. Be responsible for the installation, operation, and removal of the equipment, ensuring proper safety and compliance with operational norms.
- iii. Financial Implications
 - a) No party will charge each other for providing services / equipment.

3. TERMS AND REVIEW

- a) This MoU shall come into effect from the date of its signing and shall remain in force for a period of five (5) years, unless terminated earlier in accordance with the provisions herein.
- b) The MoU may be extended for further periods upon mutual written agreement of both Parties, based on a review of its effectiveness and continued relevance,
- c) The Parties shall review the progress and implementation of this MoU annually through the Joint Working Group.

4. **AMENDMENT:** This MoU may be amended or modified at any time by mutual written agreement of both Parties. Any such amendment or modification shall form an integral part of this MoU.

5. TERMINATION:

- a) This MoU may be terminated by either Party by giving six (6) months prior written notice to the other Party, without assigning any reason.
- b) This MoU may be terminated by either Party immediately if the other Party commits a material breach of any of the terms and conditions of this MoU and fails to remedy such breach within ninety (90) days of receiving written notice of such breach.
- c) Notwithstanding termination, any liabilities or obligations incurred prior to the effective date of termination shall remain binding on the respective Parties.

6. **DISPUTE RESOLUTION:** Any dispute, difference, or question which may arise between the Parties concerning the construction, meaning, or effect of this MoU, or the rights or liabilities of the Parties hereunder, shall be resolved amicably through mutual discussions and negotiations. If no amicable resolution is reached within sixty (60) days, the dispute shall be referred to the Chairman, IWAI, and the Chairman, CWC for their joint intervention and resolution.

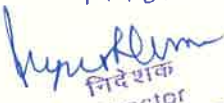
7. **GOVERNING LAW AND JURISDICTION** This MoU shall be governed by and construed in accordance with the laws of India. The Courts in New Delhi shall have exclusive jurisdiction to entertain any suit or proceeding arising out of this MoU.

8. GENERAL PROVISIONS

- a) **Non-Binding Nature:** This MoU represents the mutual understanding and intent of the Parties and is not intended to create any legally binding financial obligations beyond the express provisions outlined herein. It serves as a framework for a more detailed project-specific agreements.

- b) **Confidentiality:** Both Parties agree to maintain confidentiality of any proprietary or sensitive information shared during the course of this collaboration.
- c) **Severability:** If any provision of this MoU is held to be invalid or unenforceable, the remaining provisions shall remain in full force and effect.
- d) **Force Majeure:** Neither Party shall be held liable for non-fulfilment of their obligations under this MoU if such non-fulfilment is due to a Force Majeure event (acts of God, war, natural calamities, pandemic, etc.), provided prompt notice is given to the other Party:

IN WITNESS WHEREOF, the Parties hereto have executed this Memorandum of Understanding on the date first above written.

For & on behalf of Inland Waterways Authority of India (IWAI):  Arun Kumar Mishra Chief Engineer & Project Manager (JMVP) Inland Waterways Authority of India, Ministry of Ports, Shipping & Waterways Government of India +91-8400544388	For & on behalf of Central Water Commission(CWC):  Davendra Pratap Mathuria Chief Engineer Planning & Development Organisation Central Water Commission Department of Water Resources, River Development & Ganga Rejuvenation Ministry of Jal Shakti Government of India +91-9911725111
Witness: 1.  KAROK SINGH BY. DIRECTOR(JMVP)	Witness: 1. PIYUSH KUMAR  निदेशक Director केन्द्रीय जल आयोग Central Water Commission नई दिल्ली / New Delhi DIRECTOR (M&C), P&DO, CWC, NEW DELHI
Witness: 2.  DR. PRAKRITIK MISHRA SR. CONSULTANT (JMVP)	Witness: 2. PANKAJ KR SHARMA  पंकज कुमार शर्मा PANKAJ KUMAR SHARMA निदेशक/Director केन्द्रीय जल आयोग/C.W.C. भारत सरकार / Govt. of India नई दिल्ली / New Delhi DIRECTOR (M&C), P&DO, CWC, NEW DELHI