MEMORANDUM OF AGREEMENT

TO ESTABLISH

CENTRES FOR CAUVERY RIVER BASIN MANAGEMENT STUDIES IN THE STATES

OF

KARNATAKA & TAMIL NADU

BETWEEN



D/o WATER RESOURCES, RIVER DEVELOPMENT AND GANGA REJUVENATION, MINISTRY OF JAL SHAKTI (THROUGH NATIONAL RIVER CONSERVATION DIRECTORATE)

AND IIT KANPUR

AND

IISc Bengaluru & NIT Tiruchirappalli (Consortium Institutes)

February, 2024

Memorandum of Agreement between

Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, Government of India (through NRCD), IIT Kanpur and Consortium of IISc Bengaluru & NIT Tiruchirappalli to establish Centers for Cauvery River Basin Management Studies in the States of Karnataka and Tamil Nadu

This Memorandum of Agreement (herein after referred to as MoA) is signed between Department of Water Resources, River Development and Ganga Rejuvenation (D/o WR, RD & GR), Ministry of Jal Shakti, Government of India (through National River Conservation Directorate; hereinafter referred to as NRCD), IIT Kanpur, and Consortium of Indian Institute of Science, Bengaluru (herein after referred to as IISc Bengaluru or Consortium Institute, CI) having its registered office at Bengaluru, Karnataka & National Institute of Technology, Tiruchirappalli (herein after referred to as NIT Tiruchirappalli or Consortium Institute, CI) having its registered office at Thuvakudi, Tamil Nadu to establish Centres for Cauvery River Basin Management Studies in the states of Karnataka & Tamil Nadu with mandate of preparing Cauvery River Basin Management Plan [CRBMP] continual support in implementation and dynamic evolution of the Plan. IISc Bengaluru & NIT Tiruchirappalli shall be responsible for managing centres at Karnataka and Tamil Nadu respectively. For the consortium, IISc Bengaluru shall act as Lead Institute and NIT Tiruchirappalli shall be the Fellow Institute. IIT Kanpur shall participate through Centre for Ganga River Basin Management and Studies (herein after referred to as cGanga). Each of the consortium institutes will nominate a Faculty Member as Coordinator for the institute.

Whereas Head cGanga, IIT Kanpur or his/her nominee will execute the activities assigned to cGanga in this MoA. He/She and his/her team at IITK will execute the obligations of non-disclosure of Confidential Information received from NRCD and Consortium Institutes.

Whereas Coordinator of the Lead Institute will prepare and submit to cGanga and NRCD the responsibilities assigned to each CI in the first fortnight of every year.

Whereas Coordinator, IISc Bengaluru will be responsible for delivering and reporting on the activities assigned to IISc Bengaluru in this MoA. He/She and his/her team at IISc Bengaluru will execute the obligations of non-disclosure of Confidential Information received from NRCD and Consortium Institutes.

Whereas Coordinator, NIT Tiruchirappalli will be responsible for delivering and reporting on the activities assigned to NIT Tiruchirappalli in this MoA. He/She and his/her team at NIT Tiruchirappalli will execute the obligations of non-disclosure of Confidential Information received from NRCD and Consortium Institutes.

1. Preamble

The river Cauvery is of unique importance to India for geographical, historical, socio-cultural, and economic reasons. She has been facing serious threat due to

discharge of increasing quantities of sewage, trade effluents and other pollutants largely on account of rapid urbanization, industrialization and agricultural growth. The challenge is compounded by competing demands of river water and other river resources needed for healthy functioning of rivers on the one hand, and for irrigation, industrial usage, power generation, and domestic needs on the other hand.

There is, therefore, a need to ensure effective abatement of pollution and conservation of the river Cauvery by adopting a river basin approach to promote inter-sectoral coordination for comprehensive planning and management. It is equally important to maintain adequate flows of water, sediments and nutrients, stream power, and river space in river Cauvery and its tributaries with the dual objectives of preserving natural ecosystems and achieving sustainable development. The issues of concern and challenges are similar to those faced by the National River Ganga for which the collective efforts of the Central and State Government for effective abatement of pollution and conservation of the river Ganga were necessary, and a cogent management plan had to be evolved. Hence, a Consortium of 7 "Indian Institute of Technology's (IITC) led by IIT Kanpur was tasked with the preparation of the Ganga River Basin Management Plan.

The Ganga River Basin Management Plan (GRBMP-2015) was thus prepared by ITC in 2015, enabling the government to launch a systematic approach to restore and conserve River Ganga. Furthermore, in order to advice and provide continual scientific input to the government, IIT Kanpur was assigned the responsibility of identifying relevant persons from premier and national scientific and technology institutes and creating a Consortium of such institutes to provide continual scientific input for implementation and dynamic evolution of GRBMP through the Centre for Ganga River Basin Management and Studies. In select cases, international experts and organizations were also allowed to be invited on a case-to-case basis to contribute to the enhancement of the plan and its implementation. Given the unqualified success of this approach, a similar methodology is now being adopted to restore and conserve River Cauvery.

2. Objectives of the Cauvery River Basin Management

The objective of the integrated river basin management of River Cauvery is the restoration and maintenance of wholesomeness of the river system and improvement of its ecological health with due regard to resolution of conflict of interest in anthropogenic land and water uses in the entire river basin. This entails adequate provision for natural resources (e.g. soil, water, energy, flora and fauna) conservation and accommodating the requirements of increasing urbanization, infrastructure development, industrialization and agriculture while ensuring that the following fundamental aspects of the river system are protected:

- a) Continuous river flow (Aviral Dhara)
- b) Unpolluted river flow (Nirmal Dhara)

- c) Longitudinal and lateral connectivity
- d) Adequate space for all essential river functions
- e) Functioning of the river as an ecological entity

3. Mandate

The mandate of the Centers for Cauvery River Basin Management Studies is to collate and gather knowledge for preparing and dynamically evolving the Cauvery River Basin Management Plan that should provide Action Plans with specific projects to be taken up at different levels of priority, policy interventions and management actions along with financial implications. The Action Plans should include interventions for implementation in a phased manner delineating short term, medium term and long-term measures. The plan should containfinancial, social, economic and environmental implications including measurable and verifiable indicators for ascertaining beneficial and positive impact on the river system. The Action Plans will consist of many reports and database management system as per the Framework Document in **Annexure-I**. In addition, the Consortium Institutes may also be required to advise and assist the government in technical issues related to the particular river and in overcoming unforeseen difficulties in implementing the recommendations of the Plan.

The overall task will involve certain core activities given in <u>Annexure-II</u> for which the Consortium Institutes would be required to maintain a minimum infrastructure to meet assigned responsibilities. This will be supported by NRCD through a fixed annual grant for a period of 3 years. Certain other activities as given in <u>Annexure-III</u> may emerge on a need basis for which no financial support shall be provided by NRCD.

4. Duties & Responsibilities

The duties and responsibilities of different institutions will be broadly as under: -

D/o WR, RD&GR/NRCD

NRCD shall execute the responsibilities on behalf of the D/o WR, RD&GR in the Ministry of Jal Shakti. NRCD shall provide administrative support for obtaining information/secondary data as and when required for conducting the studies.

IIT Kanpur

IIT Kanpur shall be responsible for overall coordination with the Consortium Institutes and NRCD, and act as a secretariat for achieving and monitoring progress to ensure deliverables within the prescribed time frame. IIT Kanpur shall also be responsible for organizing meetings of the Stakeholder Advisory Committee (Annexure-IV), Scientific & Technical Steering Committee (Annexure-V), and Joint Review Committee (Annexure-VI) as per the scheduled timelines and for making payments towards travel/honorarium to members of the committees.

IISc Bengaluru & NIT Tiruchirappalli (Consortium Institutes)

Consortium Institutes shall nominate suitable faculty members, scientific/ technical staff and other officers as may be needed for accomplishing the tasks within the

stipulated period. They will also utilize the infrastructure and facilities such as libraries and laboratories as per requirements on payment basis if needed. They may also deploy competent Bachelor's, Master's and Doctoral scholars in the project, which will also help develop a pool of talented and qualified scientist and other specialists in the field of river conservation. The Institutes shall also be responsible for notifying the required actions, and achieving and monitoring their progress to ensure deliverables within the prescribed time frame. All scientific/technical analyses, report-writing and other knowledge-based activities will be carried out by the institutional members themselves, but sundry related works such as data collection, may be outsourced to competent external persons/organizations.

5. Disbursement of Financial Resources

NRCD shall release funds to the Consortium Institutes who will be responsible for utilizing funds for in-house requirements to carryout studies for preparing and dynamically evolving Cauvery River Basin Management Plan and for outsourced works, if any. The Consortium Institutes will submit Utilization Certificate (UC) to NRCD and place fresh demand for grants.

6. Support, Supervision & Monitoring

The work carried out by the Consortium Institutes will be supported, supervised and monitored through the following committees.

- a) Stakeholder Advisory Committee
- b) Scientific & Technical Steering Committee
- c) Joint Review Committee

The information for the meetings, agenda papers, proceedings, and circulation of progress report, etc. shall be coordinated by Member Secretary of respective committees with support from cGanga, IIT Kanpur.

7. Duration of the Agreement

The duration of this MoA will be for a period of 10 years from the date of its signing. However, NRCD is committed to release grants on annual basis for three years.

8. Modifications to the Agreement

The Agreement including its duration can be modified based on needs and through mutual consent of the Consortium Institutes, IIT Kanpur and the NRCD.

9. Limitation of Liability:

Neither Party, nor any of their affiliates nor their or their affiliates respective directors, officers, employees, subcontractors or agents shall be liable to the other Party for any special, incidental, indirect or consequential damages (including, but not limited to, contract, negligence and tort liability) in connection with or arising out of this MoA.

10. Achieving Self-Sufficiency

Consortium Institutes shall endeavor to reach a level of financial self-sufficiency to act as a knowledge center for the respective river basin within 10 years by generating income streams through knowledge and capabilities developed on River Science and Management.

11. Confidentiality

All parties shall observe confidentiality and secrecy of documents, information and other data while conducting the studies for the duration of this MoA.

12. Settlement of Problems

Any problem arising out of implementation of the studies shall be settled amicably through coordination or negotiation amongst all parties.

13. Seal of Parties

The parties have signed this agreement on the day of month of year

Director, NIT Tiruchirappalli - Fellow Institute Director, IISc Bengaluru - Lead Institute (for Consortium Institutes)

Director IIT Kanpur

Secretary
D/o WR, RD&GR
Ministry of Jal Shakti, Government of India