

Progress Report for the Project:

Decision Support System for Water Resource Management

(File No.: 1C-11011/3/2023-TECH4 NMCG)

(जल संसाधन प्रबंधन के लिए निर्णय समर्थन प्रणाली)

of the period:

01st Jan, 2025 to 31th Jan, 2025

1. Project Title:	Decision Support System for Water Resource Management
2. PI (Name & Address):	Prof Anurag Ohri , Professor, Department of Civil Engineering, IIT (BHU), Varanasi Dr. Pramod Soni , Assistant Professor, Department of Civil Engineering, IIT (BHU), Varanasi
3. Broad area of Research:	This project focuses on developing a decision support system (DSS) for effective water governance, integrating statistical and simulation models to optimize decision-making and support Sustainable Development Goals (SDGs). It employs a socio-hydrological approach to analyze hydrodynamic, hydrochemical, and socio-economic dynamics at a small river basin scale, enhancing stakeholder engagement and policy flexibility.

4. Major Objectives of the Proposal: <ol style="list-style-type: none"> Development of a Data Management Framework Development of Integrated Hydro-Computational Modelling Framework Development of a System Dynamic Modeling Framework Development of a Graphical User Interface Framework 	
5. Recruitment of the Project Staff:	1. IIT (BHU): <ul style="list-style-type: none"> 1 Young Professional 1 Research Associate 1 Junior Research Fellow 1 Project Assistant 2 Administrative Assistant 2. IIT Madras: <ul style="list-style-type: none"> 1 Research Associate 3. IIT Bombay: <ul style="list-style-type: none"> 1 Project Consultant Grade I 1 Project Scientist II 4. IIT Delhi: <ul style="list-style-type: none"> 1 Young Professional
6. Work Done	IIT (BHU) Varanasi: <ul style="list-style-type: none"> First draft of the population forecasting web-module First draft of the water demand module <p><i>(Note: Status attached in Annexure-1)</i></p>
7. Work in progress	1. IIT (BHU) Varanasi: <ul style="list-style-type: none"> Preparation of the sewage generation module. <i>(Note: Status attached in Annexure-1)</i> Presently literature review is being carried out in order to finalise the database and methodology for the treatment plant priority and suitability sub-modules. Developing the database, methodology and web-module for the STP priority and suitability module.

	<ul style="list-style-type: none"> • Database preparation for the Managed Aquifer Recharge (MAR) site selection. <p>2. IIT Madras: Field visit at IIT BHU and started a desk review of all relevant documents to identify historical trends on key variables to understand the data gaps as well as develop specific ideas to proceed further.</p> <p>3. IIT Bombay: Initial literature survey being done and community contact initiated.</p> <p>4. IIT Delhi: Working together with IITB and IITM and have developed a plan. All teams have been meeting every 2 weeks and steadily progressing.</p>
8. Fund Transfer Status	<p>1. IIT (BHU) Varanasi:</p> <p>2. IIT Madras: PFMS portal status - Please see attachment, IITM's limit is still "Zero" as per PFMS Portal.</p> <p>3. IIT Bombay: Rs 7.6 lakh received on 30/01/2025.</p> <p>4. IIT Delhi: The TSA mapping is complete. Today the account flagging will be requested with IIT BHU.</p>