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PRESS-RELEASE

IIT (ISM) Launches Water Sprinkler Technology Transfer Programme in Tribal Village of Jamtara

Marking a significant step toward research-driven rural transformation, IIT (ISM) Dhanbad successfully launched a **Water Sprinkler Technology Transfer Programme at Agoysarmundi Village, Fatehpur Block, Jamtara district, Jharkhand**. The initiative is part of the project titled **"Improving the Economic Well-Being of Scheduled Tribe Communities (ST) Using Game Theoretic and Operations Research Techniques in Jamtara District of Jharkhand State.**"

The project is supported by the **Department of Science & Technology (DST), Government of India**, under its **Science for Equity Empowerment and Development (SEED)** Division. The intervention has been conceptualized and scientifically guided by Prof. Rashmi Singh, Principal Investigator, and Prof. Niladri Das, Co-Principal Investigator.

The technology deployment is rooted in rigorous field research. Detailed primary surveys, questionnaire design, and analytical modelling using game theory and operations research techniques informed decisions regarding technology selection, scale, and distribution strategy. This evidence-based approach ensures that the intervention directly addresses local agricultural challenges and maximizes income benefits for tribal farming households.

Under the programme, water sprinkler irrigation systems worth approximately ₹3 lakh have been transferred to beneficiary households, with a total of 1,071 sprinkler units distributed for agricultural use. The systems are expected to enhance water-use efficiency, lower irrigation costs, improve crop productivity, and contribute to a sustainable rise in farm incomes. These outcomes align with analytical findings and field-level assessments conducted during the project.

The field implementation was supported by the project team—Nilesh Kumar, Sunny Kumar, Firdaus Ansari, Rohit Singh, and Sumana Banerjee—who coordinated demonstrations and farmer engagement activities. Hands-on training sessions and orientation programmes were conducted to ensure effective adoption and long-term sustainability, with active involvement of local community representatives and village leadership.

This initiative reflects IIT (ISM) Dhanbad's commitment to societal impact, responsible research translation, and inclusive development. By integrating advanced analytical techniques with grassroots engagement, the programme strengthens institute–community–government linkages while contributing to national goals of sustainable agriculture, tribal welfare, and rural economic resilience. The intervention stands as a model of how academic research can be transformed into practical, income-enhancing solutions with lasting community benefit.

Rajni Singh
Dean (Corporate Communications)