

**College of Agricultural Engineering & technology,
Dr. Rajendra Prasad Central Agricultural University, Pusa, BIHAR**

Expert Lecture on Artificial Recharge Systems with Nature-Based Solutions for Safe and Climate-Resilient Groundwater Resources (2 June 2026)

An expert lecture by Prof. Prabhakar Sharma, Department of Agricultural Engineering and Technology, School of Engineering and Technology, Nagaland University, Kohima, Nagaland was organized by Department of Irrigation and Drainage Engineering, CAET, RPCAU, Pusa by (Hybrid Mode) on the topic "Artificial Recharge Systems with Nature-Based Solutions for Safe and Climate-Resilient Groundwater Resources" on **02 June 2026** at Dr. R. K. Rai conference Hall. Dr. R. Subbaiah, Dean of the college and Dr. Ravish Chandra Head, IDE , welcomed Dr. Prabhakar Sharma. The lecture started by giving importance to Groundwater resources, their overexploitation, climate variability, urbanization, and the growing presence of emerging contaminants in water systems. He talked about Artificial Recharge Systems, for better groundwater availability and long-term water security. This lecture focuses on the integration of Nature-Based Solutions (NbS) with artificial recharge systems for developing safe, sustainable, and climate-resilient groundwater resources. The lecture also discusses the role of engineered biochar and natural filtration systems in removing heavy metals, nutrients, organic pollutants, and emerging contaminants such as micro plastics from recharge pathways. The potential integration of artificial intelligence, smart monitoring tools, and sensor-based assessment for groundwater quality management will also be discussed. The lecture provided a multidisciplinary perspective on artificial recharge systems combined with nature-based treatment technologies for groundwater sustainability, pollution control, and climate adaptation in environmentally sensitive and water-stressed regions. The program was attended by Dean, Heads, Faculty Members, UG, PG and Ph. D students. More than 80 participants attended the programme. Vote of thanks was given by Dr. Sudershan Prasad , Associate Professor, IDE, CAET, Pusa

Some of the glimpses

