



## **Report on Guest Lecture on “Rebuilding Soil and Ecosystem Health: A Strategic Approach to Climate-Smart Farming”**

The Department of Agriculture, IIAST, Integral University successfully organized a guest lecture on “Rebuilding Soil and Ecosystem Health: A Strategic Approach to Climate-Smart Farming” on 4th April 2026 in the Seminar Hall of the IIAST building. The lecture was delivered by Dr. Mohammed Hasanain, Scientist, ICAR-Indian Agricultural Research Institute (IARI), Regional Station, Pusa, Samastipur, Bihar, who served as the distinguished speaker for the session. The programme aimed to enhance awareness and understanding of sustainable soil management and ecosystem restoration in the context of climate-smart agriculture.

The session commenced with a welcome address and introduction of the guest speaker. Dr. Hasanain delivered an insightful lecture focusing on the importance of soil health as the foundation of sustainable agriculture. He emphasized the need for restoring soil organic matter, improving soil biodiversity, and maintaining ecological balance to ensure long-term productivity. The concept of climate-smart farming was elaborated with special reference to soil resilience, carbon sequestration, and sustainable land management practices.

During the lecture, various strategies for rebuilding soil and ecosystem health were discussed, including conservation agriculture, integrated nutrient management, crop diversification, use of organic amendments, and reduced tillage practices. The speaker highlighted the role of microorganisms in maintaining soil fertility and stressed the importance of minimizing chemical inputs to protect soil and environmental health. Practical approaches for improving soil structure, water retention capacity, and nutrient cycling were also explained with relevant field examples.

The guest lecture significantly contributed to the advancement of multiple United Nations Sustainable Development Goals (SDGs), particularly **SDG 2 (Zero Hunger)** by promoting sustainable agricultural practices to enhance food security; **SDG 13 (Climate Action)** through emphasis on climate-smart farming, carbon sequestration, and resilience-building strategies; and **SDG 15 (Life on Land)** by advocating soil conservation, biodiversity enhancement, and ecosystem restoration. The focus on reducing chemical inputs and promoting ecological balance also indirectly supports **SDG 12 (Responsible Consumption and Production)**.

The session was highly informative and interactive, with active participation from students and faculty members. Participants engaged in meaningful discussions and raised queries related to soil management practices, climate resilience, and sustainable farming systems, which were effectively addressed by the speaker.

The programme was organized under the guidance of Prof. Mohd. Haris Siddiqui, Director, Department of Agriculture, IAST and Prof. Saba Siddiqui, Head, Department of Agriculture, IAST. The lecture was successfully coordinated by Dr. Zeeshan Ahmed Khan, Assistant Professor, Department of Agriculture, IAST. The event concluded with a formal vote of thanks expressing sincere gratitude to Dr. Mohammed Hasanain for delivering a highly informative and enriching lecture.

### **Glimpse**







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