



INLEAD Workshop Charts Roadmap for Strengthening Livestock Disease Modelling in India

Bengaluru, June 25, 2025 – A two-day strategic workshop under the National Livestock Epidemiology and Disease Modelling (INLEAD) Program concluded on 25th June 2025, at ICAR-NIVEDI, Bengaluru, laying the foundation for a robust national framework to transform livestock disease surveillance and response systems in India.

Held under the theme “Strengthening Livestock Disease Epidemiology and Modelling in India,” the workshop brought together experts from leading Indian and global institutions, including Penn State University, the University of Warwick, IIT Mumbai, Indian Institute of Science (IISc), International Centre for Theoretical Sciences (ICTS), Institute of Mathematical Sciences (IMSc), National Institute of Epidemiology (NIE), IVRI, IAHVB and Manipal Academy of Higher Education (MAHE). The event was supported by the Gates Foundation. Deliberations focused on leveraging advanced modelling approaches, enhancing veterinary epidemiology capacity, and improving livestock disease data systems.

The workshop was inaugurated by Dr. Divakar Hemadri, ADG (Animal Husbandry), ICAR and Dr. J.P.S. Gill, Vice-Chancellor, GADVASU. Dr. Hemadri emphasized the need to modernize livestock health intelligence for timely disease control. Dr. Gill highlighted the importance of institutional investment in epidemiological training and research. Dr. B.R. Gulati, Director, ICAR-NIVEDI underscored INLEAD’s potential to serve as a transformative platform for data-driven decision-making in animal health.

Dr. Vivek Kapur from Penn State University presented the vision and structure of the INLEAD Consortium, outlining its goal to build an integrated modelling and decision-support system tailored to India's livestock health needs. Dr. Alkesh Wadhwani and Dr. Nicholas Juleff from the Gates Foundation reaffirmed their commitment to supporting India’s efforts in strengthening veterinary epidemiology and disease modeling capacity, emphasizing the importance of locally led, data-driven solutions.

Key sessions examined global and national modelling strategies for priority diseases such as Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), Lumpy Skin Disease (LSD), and Avian Influenza. Deliberations highlighted the need for improved digitization, data pipelines, and disease informatics platforms. The role of private sector innovation was also explored, with presentations on AI-based livestock analytics and integration of private data streams.

The workshop placed strong emphasis on capacity building, including structured training, fellowships, and institutional strengthening to support a new generation of epidemiologists and modelers. Breakout groups defined actionable research priorities and operational strategies to enhance surveillance, early warning, and outbreak response.

The INLEAD initiative marks a significant step toward positioning India as a global leader in predictive livestock epidemiology. By combining international expertise with national institutional strengths, it aims to enhance preparedness, protect farmer livelihoods, and bolster food and economic security.

