





ICAR-NIANP and NICRA
Jointly Hosts
International Conference cum Workshop



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Climate Resilient Livestock Production: Emerging Concepts and Technologies for Sustenance

November 23rd and 24th, 2025



ICAR-National Institute of Animal Nutrition and Physiology Adugodi, Bengaluru - 560 030



The ICAR-National Institute of Animal Nutrition and Physiology (ICAR-NIANP), in collaboration with the National Innovations in Climate Resilient Agriculture (NICRA), invites you to its International Conference on "Climate Resilient Livestock Production: Emerging Concepts and Technologies for Sustenance", scheduled to be held on November 23rd and 24th, 2025 at Bengaluru, India.

Livestock production currently faces growing challenges due to changing climate patterns. Rising temperatures, prolonged heat waves, limited water resources, and shifting disease risks are increasingly affecting animal's performance, health, and farm productivity. These pressures are making it harder to maintain efficient and sustainable livestock systems.

To meet these challenges, there is a need to adopt new policy ideas and practical strategies that can strengthen the ability of livestock to cope with various climatic stressors. These may include promoting climate-adapted breeds, improving feeding and housing practices, enhancing animal health care, and applying region-specific technologies. Special emphasis would be given to cover topics for animal health targeting one health approach. Advances in climate-smart nutrition, precision livestock farming, and stress-mitigation practices are opening new avenues to support animal well-being and productivity under environmental stress.

In addition, reducing enteric methane emissions from ruminants remains a critical goal in the journey toward sustainable livestock systems. As a major source of agricultural greenhouse gases, methane contributes significantly to global warming. Approaches such as nutritional modulation, rumen microbiome management, genetic selection, and refined husbandry practices are being developed to reduce emissions without affecting productivity. Together, these interventions aim to lower the environmental impact of livestock while supporting long-term climate resilience.

In today's context, artificial intelligence is revolutionizing real-time monitoring of animal health, behaviour, and environmental variables. With tools like machine learning algorithms, automated sensors, and smart decision systems, livestock farming is becoming increasingly precise and responsive to changing climatic conditions. These technologies enable early detection of stress, timely interventions, optimized resource use, and better animal welfare outcomes, paving the way for more resilient and efficient livestock production.

This conference is being organized to bring together recent insights, emerging approaches, and practical solutions for improving livestock sustainability. It aims to create a space for sharing experiences, discussing challenges, and exploring the way forward for building climate-resilient livestock production systems.

We welcome your participation in this timely and important event.



Bengaluru, the capital city of Karnataka, is a dynamic metropolis located in southern India. Known as the "Silicon Valley of India", it is the country's leading hub for information technology, innovation, and startups. Nestled on the Deccan Plateau at an elevation of 920 meters, Bengaluru enjoys a pleasant climate throughout the year, making it one of the most livable cities in India. The city seamlessly blends tradition and modernity, with colonial-era architecture, serene gardens, and towering tech parks coexisting in harmony.

Rich in history and culture, Bengaluru was once known as the "Garden City of India" due to its lush green spaces like Lalbagh Botanical Garden and Cubbon Park. **Lalbagh Botanical Garden** is one of Bengaluru's most iconic green spaces, known for its rich botanical diversity and stunning glasshouse modeled after London's Crystal Palace. Spread over 240 acres, the garden houses more than 1,800 species of plants, ancient trees, a serene lake, and seasonal flower shows that draw large crowds. Not far from the city center is **Cubbon Park**, another lush retreat spread across 300 acres, offering walking trails, statues, and museums - a peaceful escape amidst the city's hustle.

For those seeking nature and adventure, **Nandi Hills** lies about 60 km from Bengaluru and is a favorite spot for trekking and watching the sunrise over the misty valley. Equally captivating is the **Bannerghatta National Park**, just 22 km from the city, offering a rich wildlife experience through its safari rides, butterfly park, and zoo. Visitors can spot lions, tigers, elephants, and more in a natural forest setting. Another popular spiritual and architectural marvel in the city is the **ISKCON Temple**, a massive and beautifully constructed shrine dedicated to Lord Krishna, offering a peaceful environment and cultural programs.

For those interested in governance and architecture, **Vidhana Soudha** stands as a grand symbol of Karnataka's legislative power. Built in a neo-Dravidian style, this majestic building is one of the largest legislative buildings in India. Just 150 km from Bengaluru lies Mysuru, a city famous for its royal heritage, especially the magnificent **Mysore Palace**, Chamundi Hills, and Dussehra celebrations. Mysuru can be reached in about 3 - 4 hours by road or train and makes for a perfect weekend getaway with its blend of tradition, art, and grandeur.





ICAR-National Institute of Animal Nutrition and Physiology, Bengaluru is an internationally recognized research organization functioning under the Indian Council of Agricultural Research, Department of Agricultural Research and Education, Ministry of Agriculture and Farmers Welfare, Government of India. The main mission of the Institute is to enhance efficiency and profitability in livestock and poultry farming by performing fundamental and strategic research on the nutritional and physiological aspects. The institute possesses a range of advanced laboratories that are furnished with state-of-the-art facilities. These laboratories are dedicated to performing research on emerging issues related to nutrient translation and uncovering the underlying mechanisms involved. ICAR-NIANP has strong collaborations with many national and international agencies, including DBT, DST, State Veterinary Universities, BARC, University of Melbourne, University of Queensland, European Union, CIRAD, CSIRO, IAEA, INRA, Shinshu University, National Institute of Livestock and Grassland Science, Japan Gottingen University, University of Kassel, Germany and ILRI. In just 30 years since its establishment, the institute has been recognized as the best among all ICAR institutes and has received the prestigious Sardar Patel Best Institution Award twice. The institute has also been awarded the Swachhta Award by the ICAR.





Session - 1	Climate driven variations in livestock productivity and product composition	
Session - 2	Innovative tools for assessing climate resilience in livestock	

Session - 3 Multidisciplinary approaches for enhancing sustainability in livestock product
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Session - 5	Managing climate-centric disease emergence in livestock
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Session - 6 Plenary session on climate smart livestock farming

Session - 7 Student's concept papers presentations on emerging concepts in climate resilient livestock production



International Speakers



Prof. Frank R. DunsheaThe University of Melbourne
Australia



Prof. John B. GaughanThe University of Queensland
Australia



Prof. Michael FriendCharles Sturt University
Australia



Dr. Christopher BrowneCompassion in World Farming
International, United Kingdom



Dr. Stephan LeuUniversity of Adelaide
Australia



Prof. Never AssanZimbabwe Open University
Zimbabwe



Dr. Angela LeesThe University of Queensland
Australia



Abstracts

The Organizing Committee of the ICAR-NIANP and NICRA Joint International Conference cum Workshop invites members, scientists, faculty, and students to submit abstracts of original and high-quality research.

- ❖ Abstracts must be limited to 500 words. The formatting guidelines: A4 size paper, using Times New Roman, font size 12, with 1.25 line spacing. The authors should strictly restrict their abstract to a maximum of one page
- Each abstract should include:
 - o Title in ALL CAPITAL LETTERS
 - o Author names (last name followed by initials)
 - o Affiliation and e-mail address of the presenting author
- The content of the abstract should be covered in the following subheadings: Background, Objectives, Materials & Methods, Results, Conclusion and Reference (maximum of three references)
- The presenting author's name must be underlined
- The presenting author must register for the conference
- ❖ A maximum of two abstracts per presenting author is allowed
- Abstracts should be submitted via email to nianpclimatecon2025@gmail.com latest by 15th October 2025



The concept paper should adhere to the following guidelines:

- * The students must choose the research area for their concept paper from the theme of the conference
- Each concept paper should be restricted to a maximum of one A4 size page
- * The concept paper should have the following components Title, Hypothesis & Objectives, Technical design, Outcome and Practical/Scientific utility
- The concept paper should be typed using Times New Roman, font size 12, with 1.25 line spacing
- Each student can submit only one concept paper and no additional concept paper will be allowed
- No co-authors will be allowed in concept paper
- All students submitting concept papers will receive certificate of appreciation
- The top three concept papers selected by the screening committee will receive a cash award of Rs. 10,000/-, Rs.5000/- and Rs.3,000/- respectively
- The concept papers should be submitted via email to nianpclimatecon2025@gmail.com latest by 15th October 2025



Registration Fees

1. Scientists and Professors	Rs. 8000/-
2. Students	Rs. 4000/-
3. Technicians, RAs, SRFs, JRFs, Research Scholars & YPs	Rs. 5000/-
4. Accompanying Persons	Rs. 5000/-
5. Foreign Delegates	US \$ 300



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