

MAY 2025

Process documentation & Proceedings



ANIMAL HUSBANDRY TECH AI - 2.0 CONCLAVE

Towards Livestock Entrepreneurship, Fintech & Inclusive Growth





INTRODUCTION

The Animal Husbandry Tech AI 2.0 Conclave, held in Vijayawada on May 13–14, 2025, marked a significant milestone in the trajectory of livestock development in Andhra Pradesh and India. Organized by the Global Forum for Sustainable Transformation (GFST) in collaboration with the Department of Animal Husbandry, Government of Andhra Pradesh, the conclave brought together a diverse spectrum of stakeholders—including policymakers, researchers, community leaders, innovators, and entrepreneurs. The event was designed as a platform to chart the future of the livestock sector through policy, innovation, and digital empowerment.

This report documents the process, deliberations, and strategic resolutions emerging from the conclave, with an emphasis on building a resilient, inclusive, and technologically robust livestock economy for Andhra Pradesh.

PRE-CONCLAVE PROCESS AND PREPARATIONS

Strategic Planning and Agenda Design

The conclave was preceded by a thorough planning process led by Sri S.P. Tucker, former Chief Secretary to the Government of Andhra Pradesh and Vice-Chairman & Director, GFST. Through extensive consultations with sector experts, civil society partners, and officials from the Animal Husbandry Department, the agenda was shaped to align with real-world challenges and opportunities. This process included field diagnostics, thematic focus areas, and expert inputs on potential technological interventions.

Baseline Assessment and Sectoral Analysis

A comprehensive baseline assessment was conducted to establish the economic and social significance of the livestock sector in Andhra Pradesh. The sector contributes 11.23% to the state's Gross State Domestic Product (GSDP) and sustains over 4.2 million households, most of whom are small and marginal farmers. Andhra Pradesh ranks first in egg production, fifth in meat production, and seventh in milk production nationally. The sector saw impressive growth from ₹43,127 crore in 2014–15 to ₹91,633 crore in 2018–19, with a compound annual growth rate of 21% under the leadership of the previous government.

Technology Assessment and Readiness

Technical working groups evaluated existing and emerging technologies for livestock management. Criteria for selection included relevance to smallholders, ease of deployment, cost-effectiveness, and scalability. Key areas of focus included livestock traceability, disease detection, digital marketing, and common data infrastructure. The goal was to identify solutions that could be piloted and scaled across the state with policy and institutional support.





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CONCLAVE DELIBERATIONS: KEY THEMES AND WORKSHOPS

As part of the strategic planning process to transform Andhra Pradesh's animal husbandry sector, ten focused group meetings were organized under the leadership of the Global Forum for Sustainable Transformation (GFST) in collaboration with the Department of Animal Husbandry. Each group was assigned a specific thematic area critical to the sector's growth and modernization.

These meetings brought together experts, practitioners, policymakers, and stakeholders to discuss challenges, share innovative ideas, and propose practical solutions. The goal was to develop a forward-looking roadmap to support farmers, boost productivity, and ensure sustainable, technology-driven, and inclusive development.

Livestock Development Strategy Summary

1. Organisational Development and Capacity Building: Strengthening the Backbone

This initiative focuses on institutional reforms to improve livestock sector efficiency and accountability. Key elements include strengthening Farmer Producer Organizations (FPOs), Self-Help Groups (SHGs), and cooperatives while upgrading veterinary infrastructure. The strategy emphasizes deploying Animal Husbandry Assistants, improving governance, ensuring inclusive service delivery, and building capacity among women and youth. Digital integration through IoT and GIS technologies is recommended to create sustainable and resilient livelihoods.

2. Artificial Intelligence: Smart Farming

This technology-driven transformation leverages AI, IoT, blockchain, and AR/VR to revolutionize livestock management. Applications include disease prediction systems, automated feeding solutions, real-time monitoring capabilities, and comprehensive traceability. The approach advocates for establishing innovation hubs, implementing supportive policies, developing robust digital infrastructure including 5G networks, and creating smart data platforms. The ultimate goal is developing climate-resilient, technology-enabled farms that significantly enhance productivity and animal health.

3. Livestock Credit Plan: Financing the Future

A comprehensive ₹15,000 crore credit roadmap spanning five years aims to empower 100,000 livestock entrepreneurs and 2.5 million SHG women. The plan includes tailored credit solutions for dairy, poultry, small ruminants, and piggery sectors, supported by interest subsidies, credit guarantees, and insurance schemes. Partnerships with NABARD, AHIDE, and CSR entities are proposed, along with digitized monitoring dashboards to enhance transparency and delivery efficiency.

4. Entrepreneurship Development: From Farm to Fortune

This strategy promotes rural enterprise creation through cluster-based livestock startups and comprehensive support for SHGs and youth. Key components include establishing innovation centers, developing branding strategies, and facilitating funding access, particularly for women entrepreneurs. The plan emphasizes integrated farming systems, digital tools, and extensive skill development to transform 2 million SHG women into “Lakhpati Didis” through viable livestock-based enterprises.

5. Dairy Sector Transformation with Sex-Sorted Semen: The Game-Changer Technology

This revolutionary approach introduces Sex-Sorted Semen (SSS) technology to achieve over 90% female calf births, thereby boosting milk production and improving genetic quality. The strategy includes infrastructure expansion, technician training programs, and digital breeding

tools, all supported by targeted subsidies. By 2030, the goal is producing over 5.9 million female calves and doubling dairy productivity, contributing over ₹13,000 crore in annual milk revenues.

6. Feed and Fodder: Nourishing the Future

Addressing chronic feed shortages through expanded cultivation of high-yield, dual-purpose fodder crops, silage production, and Total Mixed Ration (TMR) infrastructure development. The strategy promotes precision agriculture, hydroponics, crop residue utilization, and SHG-led fodder cultivation across 300,000 acres. Community fodder banks, capacity building initiatives, and public-private partnerships ensure a reliable and sustainable fodder ecosystem.

7. Small Ruminant Development: Small but Mighty

Recognizing the potential of goats and sheep for tribal and landless households, this strategy focuses on breed improvement, enhanced veterinary care, and improved market access. Proposals include establishing decentralized breeding farms, creating feed banks, and developing tribal cluster models integrated with MNREGS and SHG systems. The aim is scaling small ruminant-based enterprises for inclusive rural income generation.

8. Poultry Development: Clucking Towards Sustainability

This comprehensive approach strengthens poultry resilience through enhanced biosecurity, disease prevention, and infrastructure development for both indigenous and commercial poultry. Initiatives include solar-powered poultry units, insurance schemes, feed linkage programs, and startup incubation support. The vision includes creating SHG poultry clusters and establishing Andhra Pradesh as a hub for safe, antibiotic-free poultry and value-added exports.

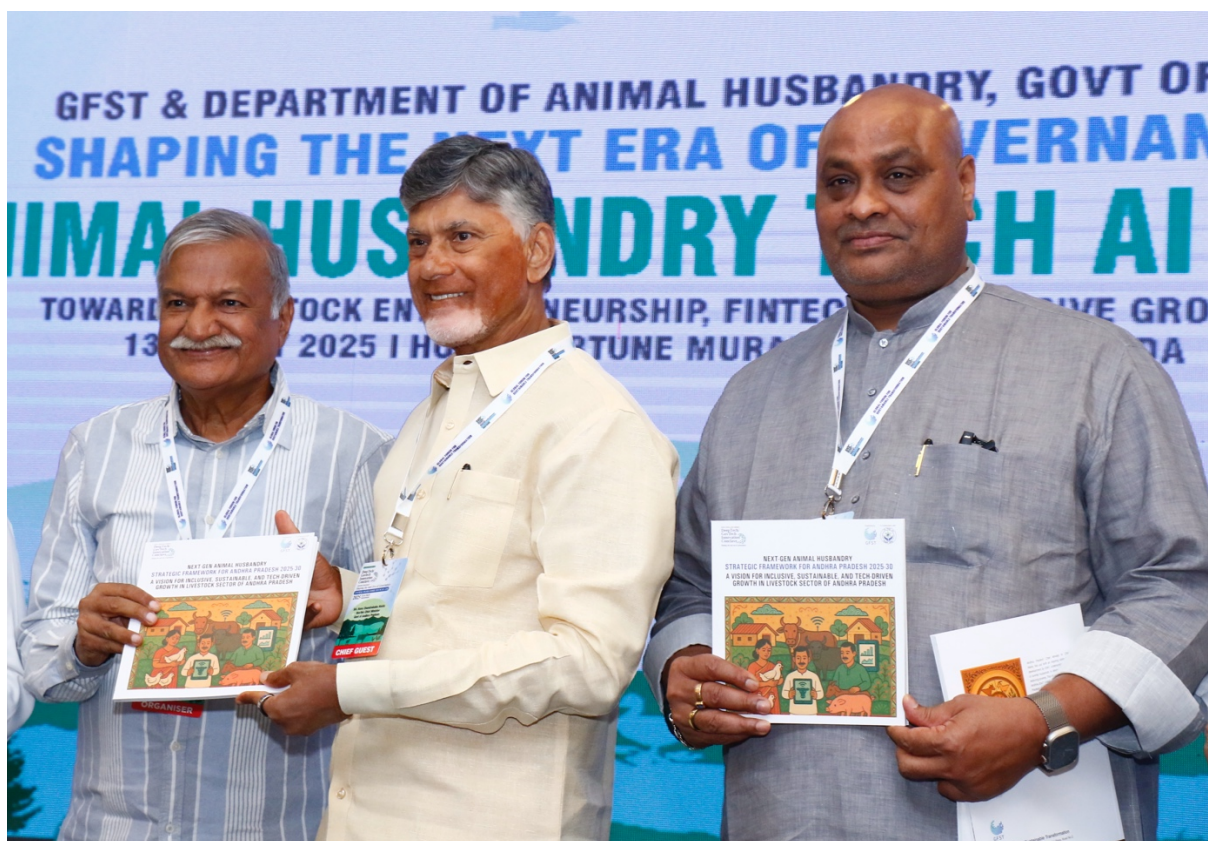
9. Market Linkages: Connecting the Dots

Bridging the farm-to-market gap through digital livestock marketplaces, comprehensive traceability systems, and strategic branding initiatives. The strategy encourages integration with e-commerce platforms, logistics networks, and cold chain systems, while establishing export zones and fair pricing mechanisms. These measures aim to increase farmer incomes, reduce wastage, and significantly scale up market access opportunities.

10. One Health Approach: Building Climate-Resilient Veterinary Services

Adopting a holistic One Health perspective that integrates animal, human, and environmental health considerations. Priorities include cross-sectoral disease surveillance systems, climate adaptation strategies, zoonotic disease control measures, and eco-friendly veterinary practices. Key proposals involve climate-smart shelter construction, sustainable waste management systems, and collaborative models with health and forest departments to build a biosecure and adaptive animal husbandry system.

Andhra Pradesh's livestock strategy presents a comprehensive and future-focused approach to rural development. By strengthening institutions, integrating technology, improving access to finance, and promoting entrepreneurship, the state aims to enhance productivity, sustainability, and incomes. A strong focus on market linkages, climate resilience, and the One Health framework ensures long-term impact. With coordinated execution, these initiatives can transform the livestock sector into a key driver of inclusive and sustainable growth.



Livestock Identification and Traceability

A session on livestock identification highlighted the progress of Godhaar's biometric tagging system, successfully piloted in Tirupati. With 25,000 animals tagged and 96% accuracy, the technology was considered suitable for phased statewide rollout. Its integration with health

records, subsidy platforms, and breeding databases was emphasized as a foundational reform for improved governance.

AI and IoT in Disease Surveillance

The use of AI and IoT in disease detection was another key area of discussion. The startup Livestockify presented a real-time disease surveillance system for poultry, capable of detecting bird flu within 30 minutes using avian vocal pattern analysis. This represents a breakthrough

over conventional methods that take 48–72 hours. The system was recommended for subsidized pilot implementation in poultry clusters.

Digital Market Integration and WhatsApp Chatbots

Participants also evaluated WhatsApp-based digital platforms for farmer engagement and trade facilitation. An indigenous chatbot developed by Mr. Mahesh of the Animal Husbandry Department demonstrated significant potential to simplify livestock trading. A preliminary rollout showed a 30% increase in transaction speed and better market price access for rural farmers.

Policy and Financial Innovations

Parallel policy discussions focused on enabling mechanisms for sectoral growth. Recommendations included property and house tax exemptions for dairy sheds, subsidies for solar-powered livestock infrastructure, custom credit products, and sector-specific insurance. A special session was held on post-pandemic recovery for the poultry sector, which has faced cumulative losses exceeding ₹200 crore due to avian flu. Proposals included expediting vaccine approvals, temporary SGST waivers, and dedicated protein fodder crop support.

Inclusive Growth and Gender Equity

Recognizing the role of women and traditional communities in livestock rearing, several inclusive strategies were discussed. These included the promotion of women-led micro-enterprises, mechanization support through tools like grass-cutters, and capacity-building for youth from traditional pastoral groups such as the Yadavs and Kurubas.

Data Governance and Knowledge Systems

A workshop on data systems proposed the development of a Common Livestock Data Stack, aligned with real-time governance protocols. This data stack would integrate field-level information with dashboards and traffic-light governance indicators to support evidence-based decision-making. Additionally, a student-farmer interface program was proposed to leverage knowledge from agricultural universities for ground-level transformation while preserving traditional practices.



Knowledge Framework and Blueprints:

Three flagship knowledge documents by GFST were formally launched by Chief Minister at the conclave:

1. Pathways to Prosperity: Leveraging Technology & Enterprise for Livestock-Led Development

Based on real-time situation analysis from over 140,000 livestock farmer interviews across Andhra Pradesh, this report identifies ground-level challenges and opportunities to transform the sector through technology, innovation, and enterprise-driven models for inclusive rural development.

2. Next-Gen Animal Husbandry: Strategic Framework for Andhra Pradesh

A forward-looking policy blueprint outlining actionable strategies to modernize Andhra Pradesh's animal husbandry sector through infrastructure upgrades, data-driven decision-making, and resilient value chains.

3. VisionAIry

A concept note on integrating artificial intelligence in animal health, breeding, and productivity enhancement, aiming to position Andhra Pradesh as a national leader in smart, tech-enabled livestock management.

These publications will serve as guiding frameworks for policy innovation, technological adoption, and inclusive development across the livestock value chain.



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STRATEGIC DIRECTIVES FROM THE HON'BLE CHIEF MINISTER

Policy Vision and Sectoral Priorities

Chief Minister Sri Nara Chandrababu Naidu addressed the conclave, reaffirming the state's commitment to transforming livestock-based livelihoods. Emphasizing the sector's contribution to both the economy and rural resilience, he announced a new growth target of ₹1.95 lakh crore for the livestock sector by 2025–26, building upon the strong foundation laid during the earlier TDP administration.

Announced Policy Measures

The Chief Minister made several immediate and actionable policy announcements:

1. Exemption of property taxes for dairy sheds in villages
2. Subsidized solar energy installations for livestock enterprises
3. Utilization of NREGS funds for water and fodder infrastructure
4. Chuffers (Grass-cutting machinery) to be distributed to rural women farmers
5. Appointment of Deputy Chief Minister Sri Pawan Kalyan as the nodal lead for the livestock roadmap
6. Temporary SGST waiver for poultry sector recovery

Technology Adoption and Scaling

The Chief Minister endorsed the deployment of select technologies presented during the conclave:

- Statewide rollout of Godhaar's biometric livestock ID system
- Pilot funding for Livestockify's AI-based disease detection in poultry zones
- Integration of the WhatsApp-based chatbot with the Manamithra platform
- Development of the Livestock Common Data Stack within a 90-day timeline

Closing Reflections on Inclusive Growth

In his concluding remarks, Chief Minister Naidu emphasized the human dimension of technological transformation:

"As we embrace these technological innovations and policy reforms, let us remain mindful that our ultimate objective is human development. The livestock sector's transformation must translate into tangible improvements in the lives of our farmers, particularly those from marginalized communities like the Yadav and Kuruba who have historically depended on livestock-based livelihoods.

The true measure of our success will not be in statistics or technologies deployed but in the smiles on the faces of farmers whose lives have been transformed. With the roadmap established today, Andhra Pradesh is poised to set a national benchmark in livestock sector development—one that is inclusive, sustainable, and technology-driven."

Conclusion

The Animal Husbandry Tech AI 2.0 Conclave signified a transformative shift in the development of the livestock sector, emphasizing technological innovation, policy reform, and inclusive growth. By convening a diverse assembly of stakeholders—including government officials, grassroots farmers, technical innovators, and traditional practitioners—the conclave established a holistic framework for sustainable development.

Under the strategic guidance of Hon'ble Chief Minister Sri Nara Chandrababu Naidu, and highlighted by the technological advancements presented by pioneering startups, Andhra Pradesh has positioned itself at the forefront of livestock sector modernization in India. The implementation of the initiatives delineated during the conclave is anticipated to not only improve economic metrics but also to significantly enhance rural livelihoods, empower marginalized communities, and establish a model that is exemplary at both national and international levels.

As suggested by the theme of the conclave, the future of animal husbandry in Andhra Pradesh is poised to be driven by technology, characterized by inclusivity and sustainability. This future envisions the fusion of tradition and innovation, paving the way for rural prosperity.

