Annexure

Procedure for the Departmental Summit:

I. Concept Note on the sub-theme will be circulated by the Nodal Ministry / Department within a week's time to the States / UT Governments.

II. This will be followed by a Workshop by the Nodal Ministry / Department of the sub-theme with the officers of State / UTs and other stakeholders. This workshop will undertake a brain-storming session of particular theme and Concept Note and also highlight importance of engaging grassroot level functionaries of the Department for obtaining feedbacks / suggestions on the way forward in the sector.

III. Subsequently the feedback / notes by States / Divisional/ District level departmental officers, District Collectors, CEOs of District Panchayats and IAS officers posted in the concerned departments (Additional Chief Secretaries, Principal Secretaries, Secretaries, Special Secretaries, Commissioners, Directors etc.) associated with the sub-theme will be obtained within two weeks' time on the prescribed format (which has been attached). Efforts should be made to ensure that maximum departmental & District level officers, provide their feedback notes in given time. This may be personally monitored by the State Secretary and Head of Departments concerned.

IV. Based on the feedbacks received, a State specific note will be provided to the Nodal Ministry / Department of the sub-theme.

V. A comprehensive note will be prepared by the Nodal Ministry / State and shared with the State / UTs which will be used during the National Level Summit.

Ministry of Agriculture and Farmers Welfare
Department of Agriculture and Farmers Welfare
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Timelines for Departmental summit for the theme (Transforming India's Agriculture, Horticulture, Dairy, Fisheries in processing through technology and innovation)

The Ministries/ Department wise sub-themes will be as follows:

Sl. No.	Ministry/ Department	Sub-theme	Nodal Officer in charge
1.	Department of Agriculture and Farmers Welfare	Value chain development of fruits and vegetables in cluster approach.	Priya Ranjan, JS (Mob.- 9968696061)
		Innovative application of AgriStack.	Pramod Kumar Meherda, JS (Mob.- 9437022770)
2.	Department of Agriculture Research and Education	Transforming food, land and water systems in a climate crises.	A.K. Nayak, DDG (NRM) (Mob.- 9777591282)
3.	Ministry of Food Processing Industries	Technology and innovation to transform the food and processing sector.	Devesh Deval, JS (Mob.- 9910926978)
4.	Department of Animal Husbandry and Dairying	Modernizing the livestock sector for high quality production	Varsha Joshi, AS (Mob.- 9971006525)
5.	Ministry of Fisheries	Harnessing innovation and technology in aqua culture	Sagar Mehra, JS (Mob.- 9868937771)

Overall Coordination from DA&FW- Maninder Kaur Dwivedi (AS) & P. Anbalagan (JS- Policy)

Proposed timelines for Organization of National level summits.

Sl. No.	Activites	Targeted Week
1.	Concept note circultated by Nodal Ministry	By 27th June, 2025
2.	Workshops by Nodal Ministry with States and UTs and other stakeholders	By 4th July, 2025
3.	Feedback notes by State/ District level departmental officers & Secretary/ HoDs	By 18th July, 2025
4.	States specific notes by States/ UTs to be sent to the Nodal Ministries	By 31st July, 2025
5.	Comprehensive note prepared by Nodal Ministry & shared with States/ UTs	By 15th August, 2025
6.	Organization of national level summit at IARI Pusa.	1st to 5th September, 2025 (2 days as decided by competent authority at IARI Pusa)

Documents to be Prepared

Sl No	Document	Description
1	**Concept Note**	i. ~3 to 4 pages ii. Broadly highlights: Introduction, Current Situation, Challenges, Possible Solutions, Way Forward and Issues for Deliberation iii. Nodal Ministry to circulate to States and UTs
2	**Feedback Note**	i. ~2 pages (Template 2) ii. Prepared by all IAS officers and State Department officers on any of the sub-themes iii. Covering Policy gaps & challenges, potential solutions, best practices iv. Vetted summary of these notes, shared by states with Nodal Ministries
3	**State Specific Note**	i. ~5 pages (Template 1) ii. Prepared by States, based on: a. Two Pager Feedback Note; b. State-specific inputs obtained from workshop with stakeholders and experts iii. The State Specific Note to be shared by States/UT with Nodal Ministries/Departments
4	**Comprehensive Final Note**	i. ~40 pages (Template 1) ii. Prepared by Nodal Ministries based on: a. Compilation of all State Specific Notes as per Template 1; b. Inputs of experts, academia, various stakeholders & overall theme nodal

Template 1: State Specific Note & Background Note

National Summit
Theme:
Template: State Specific Note

Template 1: State Specific Note

I. Introduction

(Why is this topic important for the States/ UTs? Highlight the data evidence to support the same)

II. Current Situation

(Current policy landscape, programmes, schemes and their progress)

III. Challenges

(Major policy, programmatic and capacity building gaps affecting the working of the States/ UTs Administration)

IV. Possible Solutions

(Proposed ideas, actions that can be undertaken by different stakeholders. Scope for convergence with other schemes/ programmes)

National Summit
Theme:
Template: State Specific Note

V. Best Practices

(International (if any), Major Initiatives undertaken by States/ UTs Administration. May also include initiatives for training and capacity-building that have been taken for effective implementation; Strategic communication campaigns undertaken to disseminate the programme; convergence; new technologies used for effective implementation)

VI. Priority Areas

(Selected for implementation by the States in the next 5 years)

VII. Way Forward – Strategy for Implementation

(Modality for implementation – Legal, Administrative, Technological, Budgetary reforms required for implementation)

Instructions for writing the State Specific note:

1. References:
   - In-text citing as well as the listing of all the references used for compiling the data and information.
   - Hyperlinks can be added in the document
2. Documentation style:
   - Microsoft Word - Paper Size A4 with one inch margin from all four sides

Template 2: Feedback Note by Officers

National Summit
Theme:
Template: Feedback Note

Feedback Note (by all IAS officers / State Department Officers)

Section 1: Officer Name and Details:

- Name:
- Designation:
- Batch:
- Current Posting:

Section 2: Feedback for Summit on <Theme name>

1. Name of the sub theme
(Choose from the sub theme of the summit)

2. Policy Gaps and Challenges
(Current policy challenges, administrative and implementing challenges with respect to the sub theme selected)

3. Potential Solutions
(Can potentially highlight new technology solutions, scope for convergence with other schemes/ programmes etc.)

National Summit
Theme:
Template: Feedback Note

4. Best Practices

(Highlights the practices, which are sustainable, replicable, scalable, monitorable etc. Can also highlights the block/district/ State level practices)

Instructions for filing feedback note:

1. References:
   - In-text citing as well as the listing of all the references used for compiling the data and information.
   - Hyperlinks can be added in the document
2. Documentation style:
   - Microsoft Word - Paper Size A4 with one inch margin from all four sides
   - Font: Times New Roman
   - Font Size: Title 14 pt; Section Heading - 12 pt; Body Text 11 Pt;
   - Line Spacing: 1.25
   - Use additional spacing for section heading with spacing (After) - 6 pt

Style Guide for preparation of Notes by the Nodal Ministries/Department

1. Font: 12 point Times New Roman font
2. Single spacing between lines
3. Pictures/ Images if used, should be clear & understandable.
4. Use 'z' rather than 's' and '-ize' rather than '-ise'. For example: 'organization' not 'organisation'; 'standardize' not 'standardise'.
5. Capitalizations, italicizations, and abbreviations (might need to be expanded on first occurrence but not afterwards).
6. Dates: house style that is 15 August 1947 with no commas separating the day, month and year to be used.
7. Names of government schemes must not be italicized or put in quotes.
8. Do not use '&' in place of 'and' except in an abbreviation. Thus, Jammu and Kashmir not Jammu & Kashmir, but J & K, not J and K.
9. Organizational or institutional names like DRDO, PMO, SAIL, TELCO, etc. should be spelt out on first appearance.
10. 0 to 99 will be spelt out as zero to ninety-nine.
11. Numbers beyond twenty will be hyphenated, e.g. 'fifty-one' z Numbers from 100 onwards will be written in figures.
12. Commonly understood words from Hindi and other major Indian languages should not be italicized; they should be integrated into the text and not made to stand out.

CONCEPT NOTE: MODERNIZING INDIA'S ANIMAL HUSBANDRY SECTOR FOR QUALITY PRODUCTION

INTRODUCTION

India's animal husbandry sector is a vital component of its agrarian economy, contributing 5.5% to GDP and supporting over 80% of rural households, with 20.5 million people directly dependent on livestock for livelihoods. Livestock sector apart from contributing to national economy in general and to agricultural economy in particular also provides employment generation opportunities, asset creation, coping mechanism against crop failure and social and financial security. India leads globally in milk production (239.30 million tonnes in 2023-24) and buffalo meat exports, ranks second in goat meat and egg production, and 4th in overall meat production. Despite this, low productivity (e.g., Average milk yield of 2079 kg/animal/year vs. Global average of 2,700 kg/animal/year), inadequate infrastructure, and disease outbreaks like lumpy skin disease hamper quality and scalability. Modernization is essential to enhance productivity, ensure quality, and meet growing domestic and export demands while aligning with sustainability goals.

OBJECTIVE

To modernize India's animal husbandry sector by integrating advanced technologies, improving genetic stock, strengthening infrastructure, and fostering sustainable practices to achieve high-quality production, increase farmer incomes, and enhance global competitiveness.

CURRENT SITUATION

Economic Growth: Value of output of livestock sector is Rs 17.25 lakh crore (205.81 billion US dollars) at current price during 2022-23. Value of output of milk alone is more than Rs.11.16 lakh crore (133.16 billion US$) which is the highest of the agriculture produce. Modernization can amplify farmer incomes and rural employment, especially for women (90% of livestock labor in states like Punjab).

Nutritional Security: Quality livestock products address protein deficiencies, with per capita milk availability at 471 g/day (2023-24).

Export Potential: Animal product exports reached $4,543.52 million in 2023-24, led by buffalo meat ($3,740.53 million). Modernization can tap premium markets demanding organic and antibiotic-free products.

Sustainability: Eco-friendly practices like biogas and rotational grazing align with India's climate commitments.

CHALLENGES

Low Productivity: Low productivity of indigenous cattle. Limited use of advanced breeding techniques and insufficient genetic improvement of indigenous livestock. Limited use of technology in monitoring animal health and productivity.

Infrastructure Gaps: Dairy processing plants and cold chain logistics should be more strengthened. Insufficient facilities for livestock health and disease control.

Health and Disease Management: Vulnerability to diseases like Foot and Mouth Disease (FMD), Peste des Petits Ruminants (PPR), and Lumpy Skin Disease. Disease surveillance systems should be more strengthened.

Feed and Fodder Shortages: Only 5% of cultivable land in the country is used for fodder production, leading to a 30-40% fodder deficit. Lack of innovation in alternative feed sources.

Climate Change and Sustainability: Rising climate variability and its impact on livestock productivity. Need for better waste management and circularity in livestock sector.

Market Linkages and Value Addition: Lack of efficient supply chain infrastructure and market access. Limited focus on value-added products for premium markets.

POSSIBLE SOLUTIONS

Genetic Upgradation :

Expand artificial insemination (AI) and use of assisted reproductive technologies like in-vitro fertilization (IVF), embryo splitting, synthetic embryos, cloning etc. to enhance milk production and productivity of indigenous livestock breeds.

Use genomic selection and gene editing for enhancing disease resistance and productivity of livestock. Expanding use of Gau Chip and Mahish chips for livestock breeding to improve herd quality in multiple traits including production and productivity. Focus on development of genomic chip for other livestock species including sheep, goat & pig.

Developing Minimum Standard Protocol (MSP) for all aspects of livestock breeding and evaluation and grading of livestock breeding infrastructure available in the country.

Precision Livestock Farming (PLF)

Deploy IoT sensors and smart collars to monitor vital signs (heart rate, temperature) and optimize feeding/milking. Use IoT to track milk yield and predict lactation patterns, to boost efficiency by 15-20%.

Implement blockchain for supply chain transparency, ensuring traceability of dairy and livestock products. For instance, Badri & Pahari ghee traceability in Uttarakhand and Gir ghee traceability by Mother dairy implemented under National Digital Livestock Mission.

Use drones for pasture monitoring and pastoral animals. Automated milking systems in large dairy farms, reducing labor costs by more than 30%.

Urban and peri-urban dairy planning to make available quality products.

Geographical indicator (GIs) for livestock products across the country to protect domestic consumers and promoting exports.

Feed and Fodder Development

Strengthen fodder seed chains under the Sub-Mission on Feed and Fodder Development, incentivizing silage and bailing units. Only 5% of cultivable land is under fodder, causing a 30-40% shortage.

Promote hydroponics for year-round green fodder, as piloted in Gujarat, increasing milk yield by 10-15%.

Develop fortified feeds using agro-industrial byproducts (e.g., mustard cake, de-oiled rice bran), reducing costs by 20%.

Rejuvenation of common Pasture land through community fodder cultivation.

Healthcare and Disease Control

Elimination of economically important diseases like FMD and PPR by 2030 with vaccination. In a country where climate poses a challenge to increased livestock production via exotic and cross breeds, vaccination against economically important livestock diseases becomes the order of the day. Availability and access to vaccination come as challenges. These are being dealt with along with understanding appropriate disease epidemiology and adopting appropriate risk management.

Strengthening livestock disease surveillance and diagnostic capability. Address diagnostic capability of laboratories at the state level. Further, make them at least ISO17025 to recommended bio-containment levels and NABL accreditation. Besides infrastructure, the capacity building of laboratory personnel will also be focussed upon.

Expanding scope of community awareness for disease prevention, support community level investments to ensure enhanced biosafety and biosecurity practices, and strengthen links and coordination mechanisms between animal, human and wildlife health system in the country, increasing awareness and community engagement to reduce the risk of zoonotic diseases outbreaks.

Encouraging use of generic veterinary medicine and ethno-veterinary medicines: With an objective to make common veterinary medicines available at affordable prices, a new component of ‘Pashu Aushadhi’ is proposed for sale of generic veterinary medicines through KSKs and cooperatives under LHDCP.

Innovations in disease traceability: Clinical and molecular epidemiological techniques with surveillance techniques are required to be strengthened. Further, the Artificial Intelligence tools can be used for tracing the source of infection.

New techniques on vaccine administration and innovative animal identification techniques. Focus will also be on research and development of novel vaccine platforms.

Increase the scope for telemedicine and increase outreach of veterinary services.

Promote drives and diagnostics like indigenously developed kits.

Address antimicrobial resistance (AMR) by regulating antibiotic use and also focus on tackling zoonotic diseases. DAHD is working in close collaboration with other Ministries like Ministry of Health & Family Welfare, Ministry of Environment, Forests & Climate Change etc. has secured $25 million from the competitive G20 Pandemic Fund for the "Animal Health Security Strengthening in India for Pandemic Preparedness and Response" project. This will strengthen our initiative on working on One Health approach.

Biosecurity for disease control

Biosecurity for livestock involves implementing measures to prevent the intrusion and spread of diseases within animal populations, protecting animal health, public health, and the environment. It encompasses various practices like bio-exclusion, bio-containment, and bio-management, focusing on preventing disease introduction, spread within a facility, and minimizing environmental contamination.

Infrastructure Modernization

Upgrade dairy processing and cold chain logistics through interest subvention and project loans.

Modernize slaughterhouses and carcass utilization plants to meet FSSAI and export standards, reducing waste by 25%.

Build climate-resilient sheds with solar-powered cooling, as piloted in Tamil Nadu, improving animal comfort and productivity.

Promoting establishment of non-bovine milk processing infrastructure

Market Linkages and Value Addition

Strengthen cooperatives and Farmer Producer Organizations (FPOs) with soft loans under Dairy Processing & Infrastructure Development Fund (DIDF).

Promote e-marketplaces like e-NAM and digital platforms for direct sales, reducing transaction costs (15-20% of sale price).

Encourage value-added products (cheese, yogurt, sausages) for premium markets, as seen with whey protein powders.

Development of cluster based production system specifically for poultry, sheep and goat.

Skill Development and Extension Services

300,000 trained dairy workers by 2030. Training and equipping 1 lakh A-Help workers for extension and supporting Animal Husbandry services including livestock health, artificial insemination, ration balancing etc.

Enhance livestock extension services, currently underfunded, to bridge knowledge gaps.

Engage women and youth via entrepreneurship programs, offering interest subvention for breed multiplication farms, dairy farms and farms for other livestock species.

Sustainability and Waste Management

Promoting circular economy in Animal Husbandry Sector.

Promote organic and antibiotic-free production for export markets, aligning with EU and US standards. Developing disease-resistant livestock to reduce the need for antibiotics.

Implement rotational grazing to prevent overgrazing, as practiced in Rajasthan's camel conservation efforts.

Animal Welfare

Modernization of Animal Welfare linking it with safe food production and disease control.

Promoting Smart Enclosures and Automated Environments, Temperature, humidity, and light controls in shelters to ensure optimal living conditions.

Development of Apps for pet, adoption services, reporting abuse, or tracking stray animals.

Development of new technology for stray animal population control

Promote Artificial Intelligence to analyze behaviour and health data to predict and prevent disease outbreaks or identify suffering animals quickly.

Policy and Financial Support

Simplify export regulations and align with OIE standards to boost poultry and meat exports to 57 countries (e.g., $184.58 million in poultry exports, 2023-24).

Offer Kisan Credit Cards (KCC) to 30 million AHD farmers by 2026, building on 27.65 lakh sanctioned KCCs.

Research and Data Systems

National Digital Livestock Mission for real-time productivity and health monitoring.

Fund R&D for climate-resilient breeds and feed additives, collaborating with ICAR and state universities.

WAY FORWARD

Productivity: Increase milk yield by 50% (to ~3000 kg/animal/year) and egg/meat output by 30% by 2030.

Income: Double farmer incomes through value addition and exports, with cooperatives ensuring fair pricing.

Quality: Achieve 100% compliance with FSSAI and export standards, reducing adulteration (e.g., milk adulteration tackled via SOPs).

Sustainability: Promote circularity in dairy sector.

Employment: Generate 5 million new jobs in processing, tech, and logistics by 2030.

One Health: Reduce the incidences of zoonoses and help in saving both livestock and human lives and costs of treatment.

ISSUES FOR DELIBERATION

1. How can we incentivize farmers to adopt modern breeding and technology solutions to enhance livestock productivity?
2. What are the best strategies for strengthening disease surveillance and creating an early warning system for livestock diseases?
3. How can climate-resilient infrastructure be integrated into existing farms to mitigate the effects of climate change on livestock production?

4. What policies can ensure better access to affordable and quality feed and fodder for livestock farmers?
5. How can technology such as AI, blockchain, and IoT be integrated seamlessly into smallholder farms, especially in rural areas?
6. What are the best methods to encourage value addition in the sector, especially in the export market, while maintaining food safety and quality standards?

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