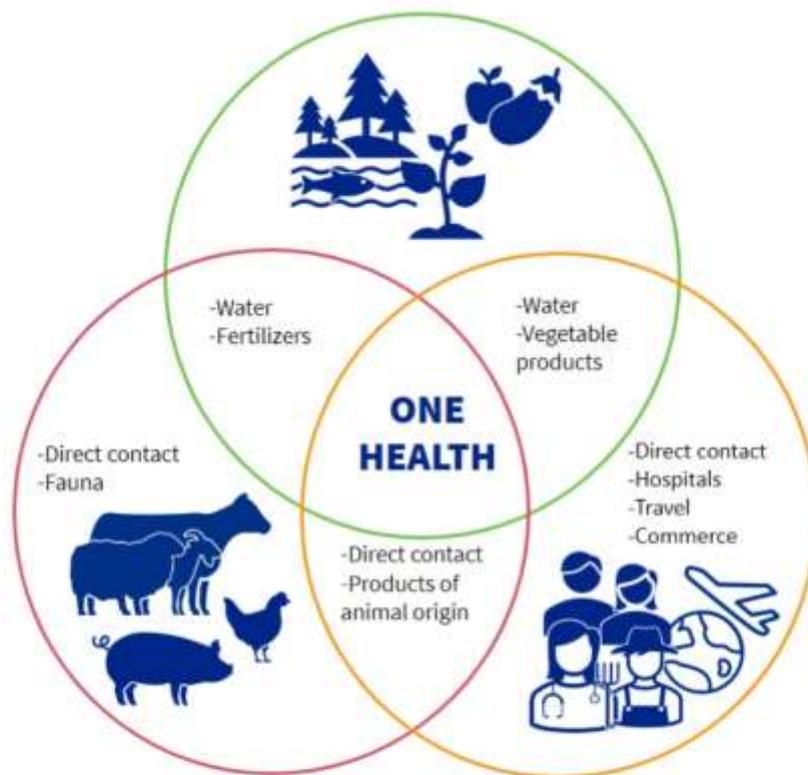Two Days Training Program on

Strengthening Veterinary Preparedness for Disaster Risks:
One Health Approach

In Collaboration with
Directorate of Animal Husbandry (DAH)

BACKGROUND AND RATIONALE

Livestock constitutes a critical component of Gujarat's agrarian economy, contributing substantially to rural livelihoods, food & nutritional security, and income diversification. As per the 21st Livestock Census (2019), Gujarat possesses a livestock population of approximately 26.8 million, with projections from the 22nd Livestock Census (2024) indicating continued growth, particularly in buffalo, goat, and poultry populations. The State has developed an extensive veterinary service delivery system comprising 33 Veterinary Polyclinics, 702 Veterinary Dispensaries, 275 Mobile Veterinary Units, 730 First Aid Centres, and 18 Disease Investigation Offices.

Despite this institutional infrastructure, the livestock sector in Gujarat remains highly susceptible to natural, climatic, and biological hazards, including floods, cyclones, heatwaves, and infectious disease outbreaks. The impacts of events such as the 2017 Banaskantha floods, Cyclone Vayu (2019), and recurring conditions in Kutch and Saurashtra (2022) revealed systemic vulnerabilities related to fodder availability, animal health infrastructure, disease surveillance, emergency veterinary services, and inter-agency coordination.

Empirical evidence suggests that livestock losses may constitute up to 60 percent of total agricultural losses during disaster events, disproportionately affecting smallholder farmers, pastoral communities, and livestock-dependent households. These risks are further amplified by climate change, which is influencing disease epidemiology, increasing heat stress, expanding vector habitats, and elevating the likelihood of zoonotic disease emergence. In this context, veterinary preparedness assumes significance not only from an animal health perspective but also in relation to public health, environmental sustainability, and livelihood resilience, thereby necessitating adoption of a One Health approach.

POLICY AND INSTITUTIONAL CONTEXT

In recognition of the vulnerability of the livestock sector to disaster risks, the Department of Animal Husbandry and Dairying (DAHD), Government of India, formulated the Disaster Management Plan for Animal Husbandry (2016). The Plan emphasizes preparedness, mitigation, coordinated response, epidemiological surveillance, biosecurity measures, carcass disposal, and post-disaster recovery through trained human resources and effective communication mechanisms.

At the State level, Gujarat has initiated several measures to integrate livestock considerations within the broader disaster risk management framework, including:

- Incorporation of animal husbandry components in the State Disaster Management Plan (SDMP);

- Establishment of Veterinary Emergency Response Units (VERU) under Kamdhenu University;
- Development of Standard Operating Procedures (SOPs) for animal rescue, carcass disposal, and disease containment;
- Establishment of fodder banks and deployment of mobile veterinary units;
- Promotion of One Health and zoonotic disease surveillance frameworks; and
- Integration of livestock-related disaster risk reduction measures in District Disaster Management Plans (DDMPs).

The proposed training programme seeks to enhance the operationalization of these policy instruments by strengthening institutional and field-level veterinary capacities.

ALIGNMENT WITH NATIONAL AND GLOBAL NETWORKS

Hon'ble Prime Minister's 10-Point Agenda for DRR reinforces India's leadership in disaster resilience and integrates climate, environment, and livelihood protection. The DRM for Livestock training particularly aligns with the following key points:

PM's Agenda Point	Relevance to Livestock DRM
1. All development sectors must imbibe the principles of disaster risk management	Incorporating DRM into Animal Husbandry and livestock-based livelihood schemes
2. Risk coverage must include all, starting from poor households to livestock and assets	Inclusion of animal insurance, fodder protection, and health contingency plans
3. Women's leadership and participation must be central to disaster risk management	Engaging women dairy farmers and SHGs in livestock preparedness and risk communication
4. Invest in risk mapping and early warning	Integration of animal disease forecasting and weather-based livestock advisories
5. Leverage technology to enhance risk management	GIS-based disease tracking, e-Governance, and digital livestock census systems
6. Develop a network of universities and training institutions	Partnership among GIDM, Kamdhenu University, and DAH for continuous learning
7. Bring together various stakeholders – government, private sector, and communities	Collaboration among DAH, NGOs, Dairy Cooperatives, and Disaster Authorities
8. Use international cooperation to share best practices	Adoption of global best practices from FAO, OIE, and World Animal Protection
9. Build local capacities and resilience	Training of veterinary officers, para-vets, and panchayat-level staff

10. Ensure that the opportunity to "Build Back Better" is used post-disaster	Promoting resilient livestock housing, fodder systems, and disease-resistant breeds

With the advent of **Sendai Framework for Disaster Risk Reduction (SFDRR 2015 – 30)**, there has been a paradigm shift from '**Managing Disasters**' to '**Disaster Risk Management**'. Along with this, the 2030 Agenda for Sustainable Development (Sustainable Development Goals) is steering our world towards sustainable development as an overarching agreement amongst all the Nations. GIDM, through its capacity building programs, is fostering the concerted ideology of Risk Informed Planning and Disaster Resilient Sustainable Development.

While institutional frameworks, infrastructure, and policy instruments for livestock disaster risk management are in place, effective implementation is contingent upon the technical competencies and preparedness of veterinary professionals at various administrative and field levels. Veterinary officers play a pivotal role as first responders during livestock emergencies, particularly in early disease detection, risk communication, coordination with disaster management authorities, and post-disaster rehabilitation.

This training programme is designed to address existing capacity gaps by strengthening knowledge, skills, and coordination mechanisms related to livestock disaster risk management, with specific emphasis on the One Health interface between animal, human, and environmental health systems.

OBJECTIVES

To strengthen veterinary preparedness for disaster risks affecting livestock through a One Health–based disaster risk management framework. Under this, the following specific objectives will be pursued -
* To enhance understanding of disaster risk management concepts, frameworks, and terminologies relevant to livestock systems;
* To examine linkages between climate change, animal health, zoonotic diseases, and livelihood security;
* To assess disaster risks in livestock systems using livestock census data, hazard mapping, and vulnerability analysis;
* To strengthen preparedness measures related to fodder security, biosecurity, and vaccination strategies;
* To enhance operational competencies in rapid damage assessment, animal rescue, emergency first aid, and carcass disposal;
* To promote inter-sectoral coordination in alignment with the Sendai Framework and the Prime Minister's 10-Point Agenda; and

- To contribute to the development of a State-level Livestock Disaster Risk Management framework and training roadmap.

TARGET PARTICIPANTS

The target group for this program will be Veterinarians/Para-Veterinarians from the five costal districts of Gujarat, namely, Junagadh, Amreli, Gir Somnath, Porbandar and Devbhumi Dwarka (around 40 nos.).

METHODOLOGY

- Structured lectures by subject matter experts;
- Interactive technical sessions and moderated discussions;
- Case studies based on disaster experiences in Gujarat;
- Group exercises on livestock contingency planning and application of SOPs;
- Practical demonstrations on animal rescue, emergency veterinary care, and biosecurity measures;
- Panel discussions on institutional coordination and One Health integration;
- Use of audio-visual aids and participatory learning tools.

EXPECTED OUTCOMES

- Improved understanding of disaster risk management frameworks and national policy instruments;
- Strengthened institutional coordination between animal husbandry and disaster management agencies;
- Enhanced technical skills in risk assessment, disease surveillance, and emergency veterinary response;
- Development of a trained pool of professionals capable of supporting veterinary emergency response mechanisms;
- Generation of actionable recommendations for integrating livestock disaster risk management into SDMPs and DDMPs.