

Operational Guidelines of Livestock Health and Disease Control Program (LHDCP)

Livestock Health Division

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Department of Animal Husbandry and Dairying

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List of Abbreviations

ACS	Additional Chief Secretary	LH	Livestock Health
AH	Animal Husbandry	MVU	Mobile Veterinary Unit
A-HELP	Animal Health and Extension of Livestock Production	NADCP	National Animal Disease Control Programme
AMR	Anti-Microbial Resistance	NADRES	National Animal Disease Referral Expert System
AVD	Actual Vaccination Date	NDLM	National Digital Livestock Mission
BVO	Block Veterinary Officer	NE	North-East
CBO	Community Based Organization	NIFMD	National Institute on Foot and Mouth Disease
CoA	Certificate of Analysis	NGO	Non-Government Organization
CSS	Centrally Sponsored Schemes	NIVEDI	National Institute of Veterinary Epidemiology and Disease Informatics
CSSNIAH	Chaudhary Charan Singh National Institute of Animal Health	NSP	Non Structural Protein
CS	Cooperative Societies	OIE	Office International des Epizooties
CVE	Continuous Veterinary Education	PED	Professional Efficiency Development
DAHD	Department of Animal Husbandry and Dairying	PLA	Program Logistic Agency
DDG	Deputy Director General	PM-KSK	Pradhan Mantri Kisan Samridhi Kendra
DDL	Disease Diagnostic Laboratory	PRI	Panchayati Raj Institutions
DFZ	Disease Free Zone	QC	Quality Control
DIVA	Differentiation between Infected & Vaccinated Animal	SIA	State Implementing Agency
DMU	District Monitoring Unit	SMU	State Monitoring Unit
EC-FMD	Empowered Committee on Foot and Mouth Disease	SNA	State Nodal Agency
FMD	Foot and Mouth Disease	SOP	Standard Operating Procedures
GLP	Good Laboratory Practices	ToT	Training of Trainers
GMP	Good Manufacturing Practices	TAD	Transboundary Animal Diseases
GOI	Govt, of India	TAC	Technical Advisory Committee
HOD	Head of the Department / Division	UC	Utilization Certificate
HQ	Headquarters	UID	Unique Identification
IA	Implementing Agency	ULB	Urban Local Body

ICAR	Indian Council of Agricultural Research	UT	Union Territory
IEC	Information, Education and Communication	VCI	Veterinary Council of India
IP	Indian Pharmacopoeia	VNT	Virus Neutralization Test
IVRI	Indian Veterinary Research Institute	VS	Veterinary Services
LH&DC	Livestock Health & Disease Control		

1. Scheme Overview

1.1. Introduction

The Livestock Health and Disease Control Program (LHDCP) is a vital initiative in India that focuses on safeguarding the health of the country's large livestock population. With one of the largest livestock populations in the world, maintaining their health is crucial not only for the well-being of the animals but also for India's economy, food security, and the livelihoods of millions of animal farmers. The program emphasizes on disease prevention, control, and management, contributing significantly to the productivity and efficiency of the animal husbandry sector.

Implemented by the Department of Animal Husbandry & Dairying (DAHD), under the Ministry of Fisheries, Animal Husbandry & Dairying, Government of India, the LHDCP, a Centrally Sponsored Scheme (CSS) aims to mitigate risks to animal health through vaccination, enhanced veterinary services, improved disease surveillance, and better veterinary infrastructure. The program's major activities include vaccination against diseases like Foot and Mouth Disease (FMD), Brucellosis, Peste des Petits Ruminants (PPR), and Classical Swine Fever (CSF), operationalisation of MVUs for last mile delivery of veterinary services at farmers' doorstep, providing assistance to States for controlling economically important, exotic, and zoonotic diseases and establishment of Pashu Aushadhi Kendras to facilitate availability of Generic Veterinary Medicines through PM – Kisan Samridhi Kendras (PM-KSKs) and Cooperative Societies.

1.2. Scheme Objectives

- To control and eradicate Foot and Mouth Disease (FMD) by 2030
- To control Bovine Brucellosis with Vaccination
- To control and eradicate Peste des Petits Ruminant (PPR) by 2030
- To control Classical Swine Fever (CSF) by vaccination
- To provide veterinary services at the farmers' doorstep through Mobile Veterinary Units (MVUs)
- To control economically important, zoonotic, exotic and emergent diseases by assisting States/UTs as per their priorities under Assistance to States for Control of Animal Diseases (ASCAD)
- To facilitate availability of Generic Veterinary Medicines including Ethno-Veterinary Medicines at affordable price in rural areas through PM – Kisan Samridhi Kendras (PM-KSKs) and Cooperative Societies.

1.3. Components of the scheme

The scheme has three components as depicted below.

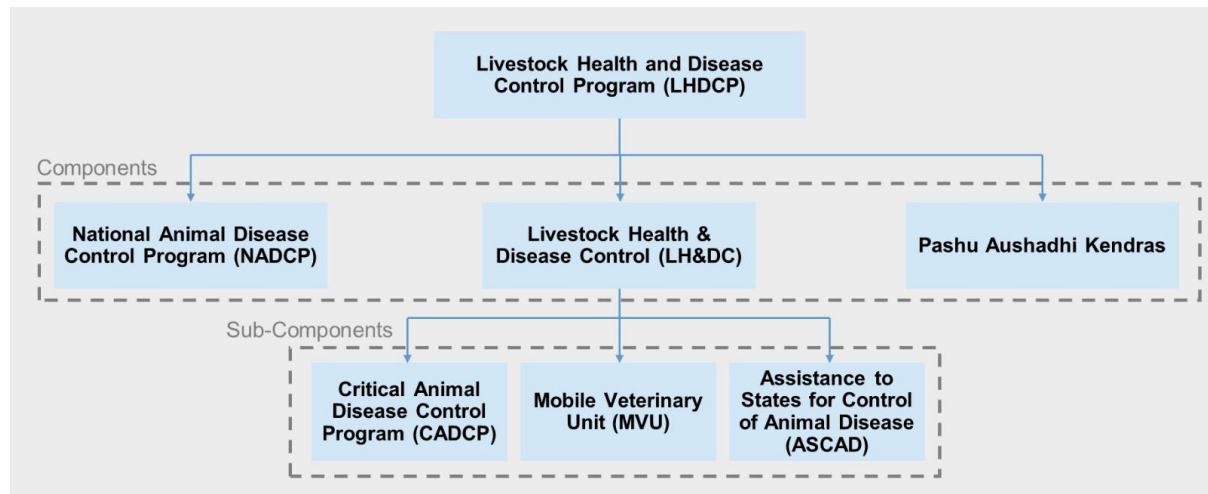


Table: Component and Subcomponent of LHDCP Scheme

1.3.1 National Animal Disease Control Program (NADCP)

NADCP aims to control and subsequently eradicate Foot & Mouth Disease (FMD) in cattle, buffaloes, sheep, goat and pigs and also for control of Bovine Brucellosis, with vaccination.

1.3.2 Livestock Health & Disease Control (LH&DC)

LH&DC aims to improve the animal health sector by control of economically important, zoonotic, exotic and emergent diseases by prophylactic vaccination, capacity building, disease surveillance and strengthening of veterinary infrastructure. The scheme has three sub-components as follows:

- Critical Animal Disease Control Programme (CADCP)
- Establishment and Strengthening of Veterinary Hospitals & Dispensaries - Mobile Veterinary Units (ESVHD-MVU)
- Assistance to States for Control of Animal Diseases (ASCAD)

A. Critical Animal Disease Control Program (CADCP) is aimed to control and eradicate Peste des Petits Ruminants (PPR) disease in sheep and goats and control Classical Swine Fever (CSF) disease in pigs, with vaccination. This sub-component has two activities i.e. PPR-EP and CSF.

- **Peste des Petits Ruminants Eradication Programme (PPR-EP)**

PPR is a contagious viral disease of small ruminants (sheep & goat) causing 70-90% mortality in small ruminant flocks. This aims for control and eradication of Peste des Petits Ruminants by development of herd immunity through prophylactic carpet vaccination of all eligible sheep and goat population.

Migrants' /flocks animals will also be covered under the vaccination programme.

- **Classical Swine Fever Control Programme (CSF)**

CSF is an enzootic viral disease of pigs causing huge mortality in pig herds and causing huge loss to the piggery industry and small farmers.

This aims for control of CSF in pigs by development of herd immunity through prophylactic vaccination.

B. Establishment and Strengthening of Veterinary Hospitals & Dispensaries - Mobile Veterinary Units (ESVHD-MVU)

ESVHD-MVUs are envisaged for delivery of veterinary services at the farmers' doorstep through operationalisation of Mobile Veterinary Units (MVUs).

C. Assistance to States for Control of Animal Diseases (ASCAD)

Under ASCAD financial assistance is provided to States & UTs for reducing risk to animal health by prophylactic vaccination against the diseases of zoonotic importance, exotic, emergent & re-emergent diseases of livestock and poultry and other state prioritized economically important diseases other than the diseases covered under NADCP & CADCP.

ASCAD also covers strengthening of animal disease diagnostic laboratories at blocks, districts and State level. The financial assistance is also provided for strengthening of biological production units on sharing patterns. Under this support is also provided for control of emergent and exotic diseases by providing financial assistance for control & containment operations like surveillance, and compensation to farmers for culling of animals. This activity includes surveillance and related activities to check ingress of exotic diseases as well as emergent/re-emergent livestock/poultry diseases. Under ASCAD, assistance is also provided for research & innovation, Publicity, awareness, training and allied activities.

1.3.3 Pashu Aushadhi

The Pashu Aushadhi component of LHDCP is incorporated to facilitate availability of affordable Generic Veterinary Medicines including Ethno-Veterinary Medicines (EVM) through PM – Kisan Samriddhi Kendras (PM-KSKs) and Cooperative Societies. This component will be implemented in association with Department of Pharmaceuticals and Ministry of Cooperatives.

1.4. Expected outcomes of LHDCP

a. Prevention and Control of Animal Disease

- Control and eradicate major economically important livestock diseases such as FMD, Brucellosis, PPR and CSF.

b. Creation of FMD free zones/State

- Creating Foot and Mouth Disease (FMD)-free zones/states.
- Improved pre and post vaccination Serosurveillance

c. Employment Generation

- Creation of jobs through expanded veterinary services, vaccination drives, and disease management programs, providing employment opportunities in rural areas.

d. Reduced risk to human health

- Minimize the chance of transmission of zoonotic diseases, reducing the risk to human health and improving public health outcomes.

e. Enhanced Veterinary Services at farmers' doorsteps

- Through operation of MVUs and Call Centre, enhanced veterinary services at farmers' doorsteps.

f. Availability of Generic Veterinary Medicines including Ethno-Veterinary Medicines

- Availability of quality veterinary medicines at affordable prices i.e. Generic Veterinary Medicines including Ethno-Veterinary Medicines for livestock farmers.

2. National Animal Disease Control Programme(NADCP)

2.1. Salient features

In this component Government of India, centrally procure and supply FMD and Brucellosis vaccines and ear tags to States & UTs after quality control testing to ensure uniform quality.

In addition to above, 100% financial assistance is provided to States for the following: -

- Procurement of Vaccination accessories
- Providing remuneration to vaccinators for vaccination and ear tagging and uploading the data on Bhart Pashudhan Portal;
- Conducting awareness campaign;
- Creation and maintenance of adequate cold chain infrastructure for vaccine storage and transportation
- Strengthening of international and inter State animal check posts for animal movement control

State Animal Husbandry Departments acts as the implementation agency of the programme and implement the vaccination drive in field.

Assistance is also provided to ICAR-NIFMD and 32 State FMD Network Laboratories for seromonitoring and serosurveillance activities of FMD control programme. Similarly, assistance is provided to ICAR-NIVEDI for seromonitoring and serosurveillance activities of Brucellosis control programme.

2.2. Strategies

- i. Biannual vaccination of all eligible livestock with quality tested trivalent FMD vaccine
- ii. Booster vaccination of first-time vaccinated calves after one month
- iii. Preferably 30 – 45 days vaccination campaign in a State or UT
- iv. Interval between two successive rounds should be less than 6 months or 180 days
- v. One time vaccination against Brucellosis in 4 to 8 months old female bovine calves.

- vi. Regular seromonitoring and serosurveillance for assessing vaccination efficiency as per structured sampling plan
- vii. NSP% positivity should eventually be reduced to less than 1%.
- viii. Regulated animal movement through check posts.
- ix. Strict disease surveillance, prompt outbreak investigation followed by outbreak management by ring vaccination, barrier vaccination and animal movement control.
- x. Regular matching of vaccine strain with circulating strain for effective prophylaxis
- xi. Mandatory record keeping through Bharat Pashudhan - Animal traceability and digital vaccination record-keeping through Bharat Pashudhan Portal
- xii. Synchronisation of vaccination with neighbouring states.

2.3. Funding pattern

Under NADCP 100% funding (100:0 sharing pattern) from the central government is provided for conducting vaccination program against FMD and Brucellosis along with associated activities like serosurveillance, seromonitoring, animal movement control etc.

Detailed cost norms component/sub-component wise is attached as **Annexure-1**.

2.4. Major Activities

2.4.1. Quality Control of vaccine

India is self-sufficient in FMD and Brucellosis vaccine production. Multivalent killed FMD vaccine and freeze dried S-19 Brucella abortus vaccine developed by indigenous technology is produced by Indian vaccine manufacturers.

After production of the vaccine by empanelled manufacturer, its quality is tested following prescribed SOPs for safety, sterility and potency in designated laboratories of Central Government. The quality complied vaccine is centrally procured by DAHD and distributed to all States and UTs strictly maintaining cold chain.

SOP of Vaccine Quality testing is enclosed as annexure I as prescribed by technical committee.

2.4.2. Cold chain infrastructure & vaccine distribution

For storage and distribution of FMD and other animal vaccines, dedicated cold chain infrastructure is created in all States and UTs up to block or village level by 100% central government assistance.

Walk in cold (WIC) rooms are established at district level for bulk storage of vaccine. Before vaccination campaign, vaccine from district level is delivered to sub-district level (sub-division, taluka, block) through refrigerated vans or Active Cooling Boxes (ACB) and then stored in Ice Lined Refrigerators (ILR) maintaining desired temperature. During vaccination drive, the vaccine is carried to place of vaccination in vaccine carriers maintaining cold chain with ice gel packs.

The States regularly conduct cold chain audit and gap assessment for strengthening of the cold chain infrastructure. The requirement is submitted to DAHD as a part of Annual Action Plan and fund is released after getting the approval of National Steering Committee (NSC) as per the Operational Guidelines of LHDCP.

2.4.3. Procurement of vaccination accessories

Various vaccination accessories like syringe, needle, gloves etc are procured by the States and UTs with 100% central government assistance prior to the vaccination campaign and supplied to the vaccinators.

2.4.4. Awareness creation

Prior to each vaccination round, awareness program is essentially carried out at village, block, district and State level to ensure proper understanding and participation from the community, particularly farmers and livestock owners. The State in association with local administration, Panchayati Raj Institutions (PRIs) and Urban Local Bodies (ULBs) shall focus on educating farmers about the importance of vaccination, the process involved, and the benefits of controlling outbreaks of FMD, Brucellosis, PPR and CSF. States shall prepare detailed village wise vaccination schedule at least one month in advance to the vaccination program along with the name and contact details of the vaccinator which shall be uploaded on their website and copy of the same shall be shared with the DAHD as well as local administration, PRIs, ULBs, etc.

2.4.5. Animal registration in BPP portal

Before vaccination, the animal owner is registered on Bharat Pashudhan Portal by entering his/her personal details like name, address, Aadhar number, mobile number etc.

Then all individual cattle and buffalo eligible for vaccination is ear tagged for providing a unique identification number and the unique id along with animal details like age, sex, species etc is registered on Bharat Pashudhan portal. The owner registration and animal

registration is authenticated by providing an One Time Password (OTP) sent to the farmer's mobile number.

In case of sheep, goat and pig, flock registration is followed instead of individual identification. In flock registration, a whole flock or herd of sheep/goat /pig is identified by assigning minimum one Ear Tag bearing a unique identification number to the flock. SOP of flock registration is enclosed as annexure II.

Both the large animal and small animal ear tags are largely procured centrally. Remuneration to vaccinators shall be provided for tagging, vaccination and data uploading by 100% Central Government funding only after uploading of the data on Bharat Pashudhan Portal. Cost norms of remuneration are enclosed as Annexure VI.

2.4.6. Vaccine administration & uploading in Bharat Pashudhan Portal

After owner and animal registration, proper dose of FMD vaccine (2 ml in bovines and pig, 1 ml in sheep and goat) is administered in animal by deep intra-muscular injection preferably into the neck muscle (in the triangular area between the shoulder, spinal cord and jugular groove).

Minimum eligible age of FMD vaccination in bovine is 4 months. A booster dose needs to be administered to first time vaccinated calves after one month of primary FMD vaccination. All bovines except calves below 4 months of age, sick animals and advance pregnant animals should be vaccinated during the vaccination campaign.

A mopping vaccination drive may be arranged after one month of primary vaccination campaign to vaccinate left out unvaccinated animals due to age, health condition, pregnancy or other reasons. All animals need to be vaccinated at six month interval for maintaining the immunity including the migratory animals of pastoralist communities and stray animals.

For control of bovine brucellosis, 1ml live attenuated Brucella S-19 vaccine is administered subcutaneously (under the skin preferable in the neck region) in 4 to 8 month old female bovine calves.

After administration of vaccine, the vaccination is recorded in Bharat Pashudhan portal against the particular animal.

The State Animal Husbandry Department needs to do the necessary micro-planning including assigning vaccination teams/vaccinators to all villages and arrangement of sufficient accessories, logistics, awareness campaigns etc well before vaccination campaign.

2.4.7. Seromonitoring and serosurveillance

To measure the efficacy of the vaccination programme and assessing level of protective immunity in the vaccinated animal population, State wise sampling plan is developed by ICAR-NIVEDI. The stratified sampling plan defines the number of samples to be collected from each age group and each species of animals in each village (epidemiological unit).

For FMD seromonitoring, pre and post vaccination serum samples are collected by State as per the sampling plan and send to respective FMD network laboratories. The FMD network laboratories assess the immunity level by ELISA kit developed by ICAR-NIFMD and upload the data in SSM portal for further monitoring. Centralized testing is facilitated by ICAR-NIFMD Bhubaneswar in case of any hindrance and to states with no FMD network laboratories.

Serosurveillance is conducted by detecting presence of Non-structural viral Protein (NSP) in animal sera to estimate extent of circulating virus.

For Brucellosis seromonitoring, post vaccination serum samples are collected by State as per the sampling plan and send to ICAR-NIVEDI for serological testing.

2.4.8. Disease Outbreak Reporting

Local Veterinary Officer reports to the District Veterinary Officer the incidence of suspected outbreak noticing symptoms. In case of FMD, samples are sent to State FMD network laboratory for ELISA based diagnosis and ICAR-NIFMD for confirmatory diagnosis and serotyping.

Suspected Brucellosis samples are sent to State and Central Disease Diagnostic Laboratories for testing for confirmatory diagnosis.

The State Animal Husbandry Department should report the suspected outbreak immediately to DAHD, as mentioned in Appendix I of Annexure IV.

Upon confirmation of outbreak, the State AH department should immediately report the outbreak to DAHD in the WOAHA reporting format (Appendix II of Annexure IV), with a copy to ICAR-NIFMD Bhubaneswar. The disease incidence will be communicated to WOAHA by DAHD with permission of WOAHA delegate for India (i.e. Secretary, DAHD). No other agency will report the FMD and Brucellosis outbreak incidence to WOAHA except DAHD.

The State Animal Husbandry Department takes necessary steps to contain the spread of the infection by ring vaccination, bio-security measures and animal movement control. Depending upon the location of the outbreak, the neighbouring States may need to perform barrier vaccination to prevent disease ingress in their State.

2.4.9. Establishing inter-State and international check post

To control movement of unvaccinated animal with potential of disease spread from one State to another inter-State check posts is to be established/strengthened at appropriate places. This will help in creation of Disease Free Zones by preventing disease ingress from the neighbouring states/infected areas.

Sufficient manpower and infrastructure is to be allocated to each check post for checking the animals entering the State for FMD vaccination records and any symptoms of FMD (fever, lesions/vesicles in mouth, feet or udder), Brucellosis or other important diseases.

Unvaccinated animals will be vaccinated and either sent back or quarantined for minimum 10 days. After quarantine, these animals will be screened clinically for any disease symptoms before allowing entry in the State. If any animal is presented in the check post with clinical symptoms of FMD, Brucellosis or any other important diseases, the animal will be isolated and tested for confirmatory diagnosis.

In similar line, international check posts will be created in international land borders of India and neighbouring countries to prevent entry of unauthorised animals from other countries to India.

2.5. Role of other Stakeholders

2.5.1. Panchayati Raj Institutions and Urban Local Bodies

The Panchayati Raj System play a crucial role in controlling major animal disease viz. Foot and Mouth Disease (FMD), Brucellosis, PPR, and CSF by leveraging its grassroots structure to engage local communities. PRI shall have the following responsibilities:

Raising Awareness: Educating the local community about FMD, Brucellosis and other disease symptoms, transmission, prevention (vaccination, biosecurity), and the importance of isolating affected animals.

Reporting and Data Collection: Establishing a network for reporting suspected FMD, Brucellosis and other disease cases and gathering data on livestock health and disease outbreaks with the help of local veterinarians and animal health workers.

Coordinating Vaccination Drives: Facilitating vaccination efforts in remote areas with limited veterinary services.

Mobilizing Volunteers: Organizing local volunteers to assist with logistics, information dissemination, and vaccination coverage.

Promoting Preventive Practices: Encouraging practices like disinfection, waste disposal, and controlling animal movement, and organizing cleaning of shared grazing areas.

Ensuring Communication: Acting as a liaison between rural communities and higher authorities during outbreaks, facilitating the swift distribution of resources.

Managing Quarantine: Assisting in the isolation and humane treatment of infected animals and preventing the movement of livestock.

2.5.2. Department of Forest and Wildlife

- i. Assisting in organisation of intensive FMD, Brucellosis and other disease vaccination campaigns in domestic animals at forest interfaces to prevent disease transmission to susceptible wild animals.
- ii. Assisting in awareness creation in tribal/rural communities residing near forest borders to increase community involvement

2.5.3. Milk Federations and Dairy Cooperatives

- i. Awareness creation among members symptoms, transmission, prevention methods of FMD, Brucellosis and other disease
- ii. Educating members regarding the importance of isolating affected animals and disease reporting.
- iii. Assisting creation of vaccinators by selecting efficient human resources among the animal handlers

2.5.4. NGOs, CBOs and private veterinarians

Non-governmental organizations (NGOs), community-based organizations (CBOs), and private veterinarians may assist in spreading awareness about FMD, Brucellosis and other disease control efforts.

Act as facilitators to bring together various stakeholders for joint programs on FMD prevention, veterinary training, and awareness initiatives.

2.6. Role of Laboratories in major disease Control Activities

ICAR and DAHD laboratories like ICAR-NIFMD, ICAR-NIVEDI, ICAR-IVRI and CCS-NIAH Baghpat contributes widely in FMD, Brucellosis, PPR & CSF vaccine quality control, vaccine strain matching, disease diagnosis & surveillance, seromonitoring and serosurveillance and major animal diseases research. Their contributions encompass a wide range of scientific and technical functions, essential for informed decision-making and successful implementation of control programs.

- **Quality Control testing of Major diseases vaccine:** Three laboratories namely CCS-NIAH, Baghpat, IVRI, Bengaluru and NIFMD, Bhubaneshwar are designated laboratories for FMD vaccine QC testing. Brucellosis vaccine quality testing is

done in three laboratories namely CCS-NIAH, Baghpat, IVRI, Izzatnagar, and IVRI, Mukteshwar .

- **Development of seromonitoring plan:** ICAR-NIVEDI is responsible for developing seromonitoring plan for each State and UT for each round. Villages are considered as epidemiological units. The double stratified sampling plan defines the number of samples to be collected from each age group and each species of animals in each village (epidemiological unit).
- **Seromonitoring:** Pre and post vaccination serum samples shall be collected by State Animal Husbandry Department as per the sampling plan and send to respective FMD network laboratories. The FMD network laboratories assess the immunity level by ELISA developed by ICAR-NIFMD and upload the data in SS-SM portal for further monitoring. The name and contacts of FMD network laboratories are enclosed as Annexure VII.

For Brucellosis seromonitoring, post vaccination serum samples are collected by State as per the sampling plan and send to ICAR-NIVEDI for serological testing.

- **Serosurveillance:** It is conducted by detecting presence of Non-structural viral Protein (NSP) in animal sera to estimate extent of circulating virus in the livestock population by DIVA testing kit developed and produced by ICAR-NIFMD.
- **Disease Surveillance and Diagnosis:** The state FMD network laboratories provide preliminary diagnostic service by ELISA. Confirmatory diagnosis is done by ICAR-NIFMD, Bhubaneswar through real time PCR, conventional/gel based PCR, virus isolation and ELISA.
- **Virus Typing and Strain Identification:** NIFMD-Bhubaneswar shall determine the serotype and strain of the FMD virus present in affected animals.
- **Vaccine Strain Matching:** Antigen used in the vaccine should always match the circulating virus strain. It is a critical demand of vaccine efficiency. NIFMD, Bhubaneswar continuously assess the circulating FMD virus strains in India and ensures that the antigen used in vaccine provides adequate protection against all circulating FMD virus strain. Accordingly, if required ICAR-NIFMD, Bhubaneswar advises DAHD for replacement of existing vaccine strain.
- **Vaccine Development and Evaluation:** ICAR-NIFMD-Bhubaneswar conducts research for development of new FMD vaccines (such as thermostable vaccines) or improving existing ones as per its official mandate.
- **Genetic Surveillance and Evolution of the Virus:** ICAR-NIFMD, Bhubaneswar conducts genetic sequencing and analysis of FMD viruses to study their mutation

rates and evolution. This helps in predicting potential changes in the virus and the emergence of new strains.

- **Training and Capacity Building:** ICAR-NIFMD, Bhubaneswar provides training to officers of FMD network laboratories on FMD seromonitoring techniques, diagnostic techniques and laboratory procedures. They also provide training for capacity building of field veterinarians for disease prevention including sample collection for Probang testing.

ICAR-NIFMD, Bhubaneswar shall periodically conduct workshop for harmonisation of vaccine Quality testing for vaccine manufacturers and quality testing laboratories.

2.7. Role of State Cattle Farms & University Cattle farms

For quality control testing of each batch of FMD vaccine, 12 seronegative cattle calves of age between 6 to 12 months are required. State Cattle Farms & University Cattle farms provide the availability of 6- to 12-month-old, FMD unvaccinated calves to DAHD. The designated laboratories collect serum samples and conduct testing to assess the Sero negativity status.

2.8. National Animal Disease Referral Expert System

The National Animal Disease Referral Expert System (NADRES v2) is an initiative towards Livestock Disease Forecasting benefiting farmers and policymakers. It is an advanced early warning system developed by the Indian Council of Agricultural Research's National Institute of Veterinary Epidemiology & Disease Informatics (ICAR-NIVEDI). Leveraging Artificial Intelligence (AI), NADRES v2 analyses various data sources to predict livestock disease outbreaks up to two months in advance, enabling proactive measures to safeguard animal health.

Key Features of NADRES (v2):

- **AI-Driven Disease Forecasting:** Utilizes machine learning models to predict the occurrence of diseases such as Foot-and-Mouth Disease, Haemorrhagic Septicaemia, and Peste des Petits Ruminants.
- **Timely Alerts:** Issues SMS alerts to veterinarians and farmers, providing forecasts and recommended actions. For example, in March 2025, approximately 24 lakh SMS alerts were sent to farmers in Karnataka, empowering them with timely information.
- **Risk Mapping:** Offers state-wise and district-wise risk maps, aiding in the identification of disease hotspots and facilitating targeted interventions.

- Comprehensive Data Integration: Combines disease outbreak data with climatic and non-climatic factors, enhancing the accuracy of predictions.

The Livestock Disease Forecasting can be accessed at the official website of DAHD <https://dahd.gov.in/>.

3. Livestock Health & Disease Control (LH&DC)

LH&DC is a component of LHDCP to improve the animal health sector by control of economically important, zoonotic, exotic and emergent diseases by prophylactic vaccination, capacity building, disease surveillance and strengthening of veterinary infrastructure. The scheme has three sub-components as follows:

- i. Critical Animal Disease Control Programme (CADCP)
- ii. Establishment and Strengthening of Veterinary Hospitals & Dispensaries - Mobile Veterinary Units (ESVHD-MVU)
- iii. Assistance to States for Control of Animal Diseases (ASCAD)

3.1. Critical Animal Disease Control Programme (CADCP)

3.1.1. Objective

To eradication of *Peste des petits ruminants* (PPR) in small ruminants and control of Classical Swine Fever (CSF) in pigs by developing herd immunity through carpet vaccination.

It has following two activities:

- i. Eradication of Peste des petits ruminants (PPR-EP)
- ii. Control of Classical Swine Fever (CSF)

3.1.2. Salient features

Under this component Government of India, centrally procure and supply PPR and CSF vaccines and small animal ear tags to States & UTs after quality control testing to ensure uniform quality.

In addition to above, 100% financial assistance is provided to States for the following:-

- Procurement of Vaccination accessories
- Providing remuneration to vaccinators for vaccination and ear tagging (flock registration) and uploading the data on Bhart Pashudhan Portal;
- Conducting awareness campaign;

State Animal Husbandry Departments acts as the implementation agency of the programme and implement the vaccination drive in field.

Assistance is also provided to ICAR-NIVEDI for seromonitoring and serosurveillance activities of PPR eradication and Brucellosis control programme.

3.1.3. Funding pattern

For CADCP 100% funding is provided by the Central Government.

3.1.4. Primary Functions

- i. **Central Procurement and Quality testing of vaccines:** The PPR and CSF vaccines are centrally procured, quality tested and supplied to States & UTs for administration in animals. The Quality testing is done in IVRI-Izzatnagar, IVRI-Mukteshwar and CCSNIAH-Baghat.
- ii. **Vaccine Administration:** Under PPR-EP, entire sheep and goat population of India, including migrant flocks are vaccinated by live attenuated PPR vaccine to establish herd immunity for eradication of PPR.
- iii. Under CSF, entire pig population is vaccinated by CSF vaccine for control of Classical Swine Fever.
- iv. **Animal Identification:** Sheep and goat flocks will be identified using ear tags and registered in the Bharat Pashudhan Portal. Vaccination details of the flocks will be recorded against this flock registration. SoP of Flock Registration is enclosed as Annexure-14
- v. **Surveillance & Reporting:** Clinical cases will be mandatory reported by State Animal Husbandry Department to DAHD. Confirmatory diagnosis is done by ICAR-NIVEDI and the same is reported to State Government, who will convey the same to DAHD.
- vi. **Awareness Programs:** Awareness campaigns will be conducted by States & UTs to educate farmers on the risks of PPR& CSF, the importance of vaccination, and biosecurity measures to prevent disease spread.
- vii. **Sero Surveillance & Seromonitoring:** States collect pre and post vaccination samples as per sampling plan devised by ICAR-NIVEDI and send the samples to ICAR-NIVEDI for testing, analysis and reporting. After analysis, the report is shared by ICAR-NIVEDI to the State AH Department and DAHD for further necessary action.

3.2. ASCAD

3.2.1. Objective

The objective of the ASCAD (Assistance to States for Control of Animal Diseases) scheme is to strengthen the control and prevention of economically important livestock and poultry diseases, including zoonotic diseases, through targeted vaccination, de-worming, and disease surveillance. It aims to contain exotic and emergent diseases through proactive measures such as serosurveillance, ring vaccination, and culling operations. The scheme also seeks to enhance the capacity of disease diagnostic laboratories and State vaccine production units, raise awareness about disease control among farmers, and organize animal health camps. Additionally, it supports research, innovation, and training in veterinary health to improve disease management and ensure the sustainability of animal health interventions.

3.2.2. Salient features

Vaccination Against State-Prioritized Diseases: To reduce the risk of animal health issues by supporting prophylactic vaccination for economically important livestock and poultry diseases, including zoonotic diseases. This includes diseases like Goat Pox, Lumpy Skin Disease, Anthrax, Rabies, and other state-prioritized diseases.

De-worming of Livestock: To ensure optimal immune response, regular de-worming of livestock populations (cattle, buffalo, sheep, goat, and pig) before vaccination, ideally a month prior to vaccination campaigns.

Control and Containment of Exotic & Emergent Diseases: To prevent the entry and spread of exotic and emergent diseases through activities like serosurveillance, ring vaccination, culling operations, and mock drills. The focus is on diseases like Avian Influenza, BSE, Glanders, PRRS, Nipah and any other Emergent Exotic Disease.

Surveillance and Monitoring of Livestock Diseases: To maintain the freedom status from diseases such as CBPP and BSE, regular surveillance activities like village search and stock route searches are conducted. Surveillance also involves the collection and dispatch of samples for lab testing, ensuring disease freedom status is maintained.

Strengthening Disease Diagnostic Laboratories: To enhance veterinary disease diagnostic infrastructure by supporting the strengthening of Disease Diagnostic Laboratories (DDLs) and improving the facilities for the early and accurate diagnosis of livestock and poultry diseases.

Support for State Vaccine Production Units: To strengthen State Biological Production Units to meet the Good Manufacturing Practices (GMP) standards for the production of

quality vaccines for economically important diseases, ensuring effective vaccination programs across states.

Awareness and Livestock Health Camps: To raise awareness among farmers regarding disease control programs and zoonotic risks, and to organize Animal Health Camps for providing services like vaccination, health checks, and disease prevention.

Control of Mastitis: To minimize mastitis incidences through awareness creation and screening of sub-clinical cases.

Research, Innovation, and Training: To provide financial assistance for research, innovation, and training in the field of veterinary health, ensuring the continuous development of better disease control methods and health management practices. ICAR Institutes/Other institutes will be provided financial support to carry out desired activities under research and innovation in the field of animal health. It also includes financial support for Continuous Veterinary Education (CVE) programmes for training of veterinarians, para veterinarians, others/training of trainers, training of laboratory diagnostic specialists.

Training of Pashu Sakhi or community resource persons for Animal Health and Extension of Livestock Production (Animal HELP): This initiative aims to enhance animal health and welfare by skilling of community resource persons. The initiative will involve 16 days training of Pashu Sakhis with specialised training on Animal Health and welfare. The skilling will be done under ASCAD with (centre-state/UT sharing pattern of 60:40 and 90:10 (NE & Hilly State/UTs). The States may prepare budget through their Annual Action Plan within the allocated funds under ASCAD in appropriate proportion. Preferably, not more than one Pashu Sakhi from one village will be trained for coverage of larger areas and involvement of the community resource person as a vaccinator for that village and nearby villages. Actual numbers of Pashu Sakhis trained may be decided from time to time as per availability of funds.

There is already provision of training of Veterinary Doctors and Para-Veterinarians. Using the said provision, the Training of master trainers (ToT) may be organised by the State/UT Animal Husbandry Departments (AHDs) in collaboration with NDDB, Anand.

The cost norm of 16 days skill upgradation training programme of Pashu Sakhis for AHELP is enclosed in Annexure 6.

Camps may be organised by the respective states with the help of Pashu Sakhi trained for AHELP at the prevailing wage rates of the states for skilled persons.

Consultant's Engagement: Five numbers of consultants will be engaged at HQ for assisting in implementation of LH & DC programme and monitoring of the scheme.

3.2.3. Funding pattern

- This sub-component shall have a 60-40 Central-State fund sharing pattern for all States and 90-10 Central-State fund sharing pattern for NE & Himalayan States along with 100% funding for UTs for procurement of vaccine, accessories for vaccination, procurement of raw material for vaccine production to meet the State Government's own requirement for vaccine production, de-wormer, strengthening of animal disease diagnostic laboratories, vaccine production Institutes of State Governments for GMP, sero-surveillance & sero-monitoring, HELP training etc.
- Compensation against culling of birds/animals under control & containment of livestock & poultry diseases and destruction of feed / eggs as per advisory and operational costs etc. **(Central: State sharing @ 50:50)**
- Research & Innovation, Training of Veterinary Professionals, Continuous Veterinary Education (CVE), Animal Health Camps, Awareness Camps, Other publicity media, Engagement of Consultants etc. **(100% Centrally Funded)**
- Further, provision for hiring consultants, professional services and advertisement and publicity would be made with 100% central assistance under this sub-component.

3.2.4. Major Activities

- a. It will have activities for vaccination against economically important diseases of livestock and backyard poultry duly prioritized by the State / UT as per the disease(s) prevalence and losses to the farmers. Due importance shall also be given to vaccination against zoonotic diseases like anthrax and rabies for which assistance shall be given to the States / UTs as per proposals received from them.
- b. Another activity that has been prioritized is 'Control of Emergent and Exotic Diseases'. This activity includes surveillance and related activities to check ingress of exotic diseases as well as emergent / re-emergent livestock / poultry diseases. Assistance shall also be given for ring vaccination to inhibit the spread of the diseases (in cases of disease outbreaks) as well as towards payment of compensation to farmers for culling of poultry birds, elimination of infected animals, destruction of poultry feed /eggs, including operational costs.
- c. A third activity under the ASCAD component is 'Research & Innovation, Publicity & Awareness and Training & allied activities. While Publicity & Awareness and Training, etc. are existing activities under the extant ASCAD component, 'Research & Innovation' is a newly proposed activity. Under this it is envisaged that funds may

be released to recognized private / public Institutions, other Ministries / Departments, etc. for collaborations in research & innovations / training / capacity building / crisis management and mock drills, etc.

- d. Grant-in-aid to Veterinary Council of India (VCI), expenses for election, legal, etc. in respect of VCI would continue to be funded under this component.
- e. Hiring Consultants, professional services, advertisement and publicity at the headquarters of DAHD.
- f. The AHELP training shall be implemented as an activity for training under the ASCAD.

3.2.5. Stakeholders (Work/ Role of the Institutes)

- States / UTs / SIAs to send their respective Annual Action Plan (AAP) before the start of Financial Year in the prescribed format Annexed as Annexure- 7 - 12.
- State/UT Governments to ensure that previous released amount has been utilized as per Approved Annual Action Plan and submission of Utilization Certificate (UC) for the same has been done.
- States/UTs to ensure that all mandatory requirements for release are completed on PFMS system like utilization of funds, deposit of interest and no deficit errors are pending.
- State /UT will ensure that Physical & Financial Progress Reports (PPR) are enclosed with the AAP essentially, as in absence of the PPR, the proposal may not be considered.
- States Government will ensure timely availability of corresponding States share within the prescribed timeline.
- States / UTs shall arrange for logistics like vaccine procurement / vaccine receipt (in case of central procurement) and onward distribution at the field level ensuring cold chain continuity
- Procure accessories on time as per their action plans.
- Undertake de-worming wherever applicable
- Ensure vaccination on-field
- Coordination with other Implementing Agencies (IAs) like ICAR Institutes /laboratories concerned to draw up proposals for surveillance and collection of samples

- Recording / regulating animal movements through temporary quarantine I check-posts
- Creation of an emergency response team during outbreaks; coordinate in investigation, virus isolation and characterization during outbreaks
- Submit financial / physical performance report along with outcome & output, indicating disease outbreak status during the year.

3.3. Establishment and Strengthening of Veterinary Hospitals and Dispensaries (ESVHD) – Mobile Veterinary Units (MVU)

3.3.1. Objective

The main objective ESVHD-MVU is to deliver veterinary services at the farmers' doorstep for emergency treatment of the animals on toll free phone calls from farmers.

3.3.2. Salient features

- i. These MVUs are customised/fabricated vehicles for veterinary healthcare with equipment for diagnosis, treatment & minor surgery, audio visual aids and other basic requirements for treatment of animals.
- ii. The vehicle would preferably be a four-wheeler van with enough space to accommodate the required equipment for diagnosis (microscope etc., wherever required), medicines, surgical equipment, sample collection and animal handling paraphernalia, working space for **1 veterinarian, 1 para-veterinarian and a driver-cum-attendant** along with necessary equipment. A detailed indicative list of such support is given at Annexure 2C. However, depending upon the terrain, the State/UT may propose alternate vehicles which suit the outreach.
- iii. Veterinary & public awareness paraphernalia - the MVU will have equipment for sample collection like vials, vacutainers, syringes, a small refrigerator/ vaccine carrier / active cool box and medicines for treatment - including lifesaving drugs, antibiotics etc., cotton, bandages and minor surgery equipment and audio-visual aids like microphones, amplifiers, charts / photographs / slides of diseases and importance of prevention and pamphlets announcing the vaccination campaigns, a small projector / OHP, screen, if required.
- iv. Each MVU will have one Veterinarian, one para veterinarian and one driver-cum-attendant

- v. The Mobile Veterinary Unit could run on PPP mode with the Government providing the infrastructure like procurement of medicines & surgical items etc. for treatment of animals, POL & maintenance of vehicles but manpower is outsourced by the Implementing Agency. The service charges for outsourcing of service provider will be paid as applicable per Government of India.
- vi. These MVUs will provide veterinary services at the farmers' doorstep on the basis of phone calls received at the Call Centre from farmers of respective State / UT. The MVUs need to be positioned at strategic locations in order to minimize travel time and to provide service within the targeted time.
- vii. A State / UT level Call Centre should also be set up / aligned with the existing Call Centre in each State / UT. Such Call Centres should be under the control of the State / UT Animal Husbandry Department with a Nodal Officer nominated by the State.
- viii. The Call Centre should function as the pivot whilst rendering Mobile Veterinary Services. It should receive calls from livestock rearers / animal owners and transmit them to the Veterinary doctor at the Call Centre. The decision of directing the MVU would be on the emergent nature of the veterinary case as decided by the Veterinary doctor at the Call Centre. The Call Centre should also be responsible for monitoring the movement and use of the MVUs. The Call Centre should also confirm actual services rendered through the UID and mobile number of the animal owner and share the data with the State concerned. The Call Centre should also be responsible for communication with the local Veterinary Surgeon for follow up treatment and registered local AI technician for AI. MVUs should also provide extension service through audio-visual aids contained in the MVUs to the local population so as to spread awareness of animal diseases, their prevention and control, requisite bio- security measures, economic advantages of livestock farming and efforts of the Government in this direction.
- ix. Each State level Call Centre unit shall constitute 1 veterinarian and 3 call executives for up to 20 MVUs. For up to 100 MVUs, there will be 2 veterinarians along with 6 Call Executives and for each additional one hundred MVUs, 1 veterinarian & 3 Call Centre executives will be required.
- x. The recurring cost of running the MVUs is pegged at @ Rs.19.452 lakh / MVU and the Office expenses of running a Call Centre will be @ Rs.5000/- pm for having a Call Centre consisting of 1 veterinarian & 3 Call Executives and an additional Rs.2000 pm for each addition of 1 Veterinarian & 3 Call Executives.

3.3.3. Funding pattern

For ESVHD-MVU, the sharing pattern between Centre and State is @ 90:10 for hilly & NE States, 100% for UTs and 60:40 for all other States.

3.3.4. Major Activities

Customised/Fabricated Vehicles: MVUs are custom-built vehicles equipped with diagnostic tools (microscopes etc.), surgical equipment, medicines, and other necessities for animal care. The vehicles will have adequate space for 1 veterinarian, 1 para-veterinarian, and a driver-cum-attendant. SoP for Fabrication of MVUs, Logo editable formats, and tentative medicines and machines to be place in the MVUs are Annexe as Annexure-5.

Veterinary & Public Awareness Tools: Each MVU will be equipped with sample collection tools (vials, vacutainers, syringes), vaccines, lifesaving drugs, minor surgery equipment, and audio-visual aids to raise awareness on diseases, prevention, vaccination campaigns, and biosecurity measures.

Staffing: Each MVU will have a dedicated team consisting of one veterinarian, one para-veterinarian, and one driver-cum-attendant to ensure smooth operation and delivery of services.

Monitoring of Vehicle: Logbook shall be maintained. Vehicle number of each MVU to be maintained. One veterinarian to be tagged to each MVU.

Public-Private Partnership (PPP) Model: The MVUs may operate under a PPP model where the government provides infrastructure, medicine, equipment, POL maintenance for vehicles etc, while only manpower may be outsourced by the implementing agencies.

The outsourcing of the Service Providers will be only for manpower (Veterinarians, Para-veterinarians, Driver cum Attendants, Call Executives) on service charge basis though tender/Gem following procedure as per GFR. The other items of expenditure like running cost including maintenance cost, procurement of medicine, surgical items, diagnostic kits, office expenditure in call centres etc will be as per actuals or maximum up to the indicated cost norms.

Service Delivery: MVUs will provide veterinary services at farmers' doorsteps based on calls received on 1962 toll free number at a State/UT-level Call Centre. The units will be strategically placed to minimize travel time and meet service targets.

Call Centre Integration: A State/UT-level Call Centre will receive calls from farmers and coordinate the movement of MVUs. The Call Centre will decide the urgency of cases and ensure follow-up treatment, coordinating with local veterinary services.

Call Centre Staffing: Each Call Centre will be staffed with veterinarians and call executives to handle the calls, monitor MVU services, and share data with the State Animal Husbandry Department.

Flexibility in Funding: The scheme allows flexibility in transferring funds between components/Sub-component based on requirements, with costs subject to tender rates.

3.3.5. Stakeholders (Work/ Role of the Institutes)

State Government/ State Implementing Agency (SIA) / Livestock Development Board / other Implementing Agencies (IAs) are the key stakeholders.

- States / UTs / SIAs to send their respective Annual Action Plan (AAP) before the start of Financial Year in the prescribed format Annexed as Annexure- IA.
- State/UT Governments to ensure that previous released amount has been utilized as per Approved Annual Action Plan and submission of Utilization Certificate (UC) for the same has been done.
- States/UTs to ensure that all mandatory requirements for release are completed on PFMS system like utilization of funds, deposit of interest and no deficit errors are pending.
- State /UT will ensure that Physical & Financial Progress Reports (PPR) are enclosed with the AAP essentially, as in absence of the PPR, the proposal may not be considered.
- States Government will ensure timely availability of corresponding States share within the prescribed timeline.
- States / UTs shall arrange for logistics like vaccine procurement / vaccine receipt (in case of central procurement) and onward distribution at the field level ensuring cold chain continuity
- Procure accessories on time as per their action plans.
- Undertake de-worming wherever applicable
- Ensure vaccination on-field
- Coordination with other Implementing Agencies (IAs) like ICAR Institutes /laboratories concerned to draw up proposals for surveillance and collection of samples
- Recording / regulating animal movements through temporary quarantine / check-posts

- Creation of an emergency response team during outbreaks; coordinate in investigation, virus isolation and characterization during outbreaks
- Submit financial / physical performance report along with outcome & output, indicating disease outbreak status during the year

4. Pashu Aushadhi Kendra

Pashu Aushadhi is included as new component under LHDCP for facilitation of sale of Generic Veterinary Medicines through PM – Kisan Samriddhi Kendras (PM-KSKs) and Cooperative Societies. The entrepreneur driven component is aimed at facilitating sale of quality Generic Veterinary Medicines, Ethno-Veterinary medicines, Feed Supplements, Livestock Health Accessories, etc. through PM-KSK & CS so as to make them available to dairy farmers at affordable price. This will result in considerable improvement in animal health care system in the rural areas, assist in increasing productivity and promote rural entrepreneurship. The broad objectives of Pashu Aushadhi are as follows:

- To make available quality veterinary medicines and supplements.
- To provide easy access to quality veterinary medicine and accessories.
- To create awareness regarding livestock healthcare.
- Incentivisation sale of generic veterinary medicine through PM-KSKs and Cooperative Societies by encouraging the entrepreneurs in rural areas.
- Availability of Ethno-Veterinary Medicines

The Department will provide one-time grant to the PMBI, DoP for procurement of Generic Veterinary Medicines and their provisioning at PM-KSKs and Cooperative Societies. Appropriate incentive mechanism will be developed to facilitate opening and operation of Pashu Aushadhi Kendra by the PM-KSK & CS.

A committee will be constituted to advice the Central Government on Generic Veterinary Medicines, Ethno-Veterinary Medicines, Feed Supplements, Livestock Health Accessories, etc.

Of the Rs. 75 Crore earmarked for the Pashu Aushadhi, around Rs. 65 Cr is set aside for initial purchase of veterinary medicine, Rs. 5.00 Cr for incentivising the entrepreneurs and rest Rs. 5.00 Cr for Advertisement and Publicity activities to be taken up at various levels.

The States/UTs are advised to take necessary action for prescribing of generic veterinary medicines. They are also advised for procurement of generic veterinary medicine.

Further, the Department will notify comprehensive Operational Guidelines for the Pashu Aushadhi component of LHDCP, framed after consulting Ministry of

Cooperation, Ministry of Panchayati Raj, Department of Pharmaceuticals and States/UTs etc.

5. Monitoring of the LHDCP

5.1. National Level

- a. Monitoring of the scheme shall be done by the National Steering Committee (NSC) headed by Secretary, Department of Animal Husbandry and Dairying (DAHD). NSC will comprise the following:

Secretary, Department of Animal Husbandry & Dairying, Government of India	Chairperson
Additional Secretary & Financial Advisor, Department of Animal Husbandry & Dairying, Government of India	Member
Animal Husbandry Commissioner, DAHD	Member
Deputy Director General (Animal Science), ICAR	Member
Joint/Additional Secretary (Livestock Health), DAHD	Member
Principal Secretary / Secretary, Department of Animal Husbandry from participating States	Member
Director, CSSNIAH, Baghpat	Member
Joint Commissioner (LH)	Member Secretary

- b. NSC will oversee activities of the LHDCP Scheme, give overall direction and guidance, monitor and review its progress and performance.
- c. As and when required, NSC will recommend for any amendments to operational guidelines, other than those affecting the financing pattern.
- d. NSC will approve the activities of the proposed State Action Plans for funding under the LHDCP received from IA/States/UTs. Projects will be appraised by DAHD officials before putting them to NSC for approval.

- e. NSC would have powers to modify physical and financial targets based on review, approve inclusion and change eligibility criteria for Implementing Agencies and other guidelines including project area, composition of NSC, component structure and re-appropriation proposals. NSC will be fully empowered to make changes and delegate powers necessary for smooth implementation of the Programme.
- f. NSC can co-opt members time to time as per requirement .
- g. This Committee will meet twice a year or as frequently as may be required. The Chairman of NSC will have powers to approve the aforementioned conditions and adjustments to the scheme in anticipation of approval of NSC, in case the next meeting of NSC is delayed.

5.2. Technical Advisory committee

The Technical Advisory Committee (TAC) would be headed by Animal Husbandry Commissioner, DAHD and shall comprise of the following members:

Animal Husbandry Commissioner, DAHD	Chairperson
Assistant Director General (Animal Health), ICAR	Member
Director, ICAR-NIFMD Bhubaneshwar	Member
Director, ICAR-NIVEDI, Bengaluru	Member
Director, CCS-NIAH, Baghpat	Member
Head of Standardization Division, ICAR-IVRI Izzatnagar	Member
Director, Animal Husbandry Department of two States on rotation basis as selected by Secretary, DAHD	Member
Joint Commissioner (LH)	Member Secretary

The committee shall meet at least once quarterly. The committee can co-opt members time to time as per requirement.

The roles and responsibilities of the Technical Advisory Committee shall be advisory in nature on the following:

- i. Evaluation and updation of vaccine quality testing procedure

- ii. Technical guidance for vaccine quality control and quality assurance
- iii. Examining all technical matters relating to disputes on use and quality of vaccines
- iv. Prescribing sampling plans and providing technical guidance regarding seromonitoring and serosurveillance
- v. Screening proposals received from ICAR institutes under NADCP/CADCP and research and lab strengthening proposals received from any institutes under ASCAD and providing recommendation to NSC
- vi. Prescribe the standards and parameters for Control and Eradication of FMD
- vii. Any other issue referred by JS (LH) or higher authority

5.3. State Level Committee

A State level committee will be constituted under the chairpersonship of ACS / Principal Secretary / Secretary of the Department of Animal Husbandry of the State / UT concerned with the following members:

ACS / Principal Secretary / Secretary of the Department of Animal Husbandry	Chairperson
Chief Wildlife Warden	Member
Directors of the Panchayati Raj Institute	Member
Directors of the Urban Local Bodies	Member
PI/COPS of concerned state FMD network laboratories	Member
Central Nodal Officer of the respective State	Member
One scientist as nominated by Director, ICAR-NIFMD	Member
Director, Department of Animal Husbandry	Member Secretary

The State monitoring committee shall meet at least once every two months and shall oversee the overall activities of the FMD control program at the respective State/ UT that include following:

- Strategic vaccination plan for successful implementation of FMD vaccination campaign in the State

- State preparedness for conducting upcoming FMD vaccination campaign timely and effectively
- Vaccination microplanning up to village level one month in advance
- Awareness campaign at State, district, block and village level before vaccination campaign to increase community participation
- Availability of adequate vaccine doses up to last cold chain point before and during vaccination campaign
- Availability of adequate number of trained vaccinators, vaccination accessories (tags, applicators, syringe, needle etc) and logistics required for vaccination campaign
- Cold chain audit of the State and formulating action plan for fulfilling the deficiency, if any
- Progress and performance of the FMD vaccination in the State
- Emergency FMD vaccine bank at State level for managing disease outbreak.
- Seromonitoring and Serosurveillance activities as per sampling plan
- Implementation of disease surveillance activity in the State/UT including developing laboratory capacity
- Outbreak investigation and prompt and effective outbreak management to contain the spread of the disease in case of a disease outbreak
- Disease notification in case of a disease outbreak
- Report on outbreak, vaccination campaign and seromonitoring, serosurveillance to DAHD in a timely manner
- Animal movement control through establishment of inter-State and international check posts including issuing necessary notifications.
- Uploading of animal registration and vaccination data of State in Bharat Pashudhan Portal
- Disposal of all used or waste materials, including biomedical waste (syringe, needle, gloves, cotton, vaccine vials etc) generated during the vaccination process.
- Coordination with neighbouring States for conducting vaccination campaign at similar time
- Review of internal monitoring report of State/UT AHDs.

- Committee can co-opt members time to time as per requirement.

5.4. District Level Monitoring Committee

A district level monitoring committee will be formed under the chairpersonship of District Magistrate of the district concerned with the following members:

District Magistrate	Chairperson
District level officer of Panchayati Raj Institute	Member
District level officer of the Urban Local Bodies	Member
District Level Animal Husbandry/ Veterinary Officer	Member Secretary
Co-opt any other member with permission from chair	Member

The district level monitoring committee shall oversee the overall activities of the FMD control program at the respective district and shall have the following functions:

- Preparation of strategic vaccination plan for successful implementation of FMD vaccination campaign in the district
- Preparedness of the district for conducting upcoming FMD vaccination campaign timely and effectively
- Preparation and evaluation of vaccination micro-planning up to village level in respective district
- Awareness campaign at district, block and village level before vaccination campaign to increase community participation
- Availability of adequate vaccine doses up to last cold chain point of the district before and during vaccination campaign
- Availability of adequate number of trained vaccinators, vaccination accessories (tags, applicators, syringe , needle etc) and logistics required for vaccination campaign in the district
- Cold chain audit of the district and formulating action plan for fulfilling the deficiency, if any
- Progress and performance of the FMD vaccination in the district

- ix. Seromonitoring and Serosurveillance activities in the district as per sampling plan
- x. Disease surveillance activity in the district
- xi. Outbreak investigation and prompt and effective outbreak management to contain the spread of the disease in case of a disease outbreak
- xii. Uploading of animal registration and vaccination data of District in Bharat Pashudhan Portal
- xiii. Appropriate disposal of all used or waste materials, including biomedical waste (syringe, needle, gloves, cotton, vaccine vials etc) generated during the vaccination process.
- xiv. Submitting detailed report of outbreak and vaccination campaign to State Level Monitoring Committee in a timely manner
- xv. Managing animal movement control through check posts
- xvi. Review of district level internal monitoring report of AHD
- xvii. Committee can co-opt members time to time as per requirement

5.5. Block level Monitoring Committee

The Block level Monitoring Committee will be constituted with the following members:

Block Development Officer	Chairman
Block Veterinary Officer	Member Secretary
Range officer of Forest situated in the block	Member
Block level officers of the Panchayati Raj Institute	Member
Block level officers of the Urban Local Bodies	Member
One progressive dairy farmer from the block	Member

The block level monitoring committee shall oversee the overall activities of the FMD control program at the respective block and shall have the following functions:

- i. Preparation of field vaccination plan for successful implementation of FMD vaccination campaign in the Block

- ii. To ensure preparedness of Block for conducting upcoming FMD vaccination campaign timely and effectively
- iii. Preparation and evaluation of vaccination micro-planning up to village level
- iv. Ensuring awareness campaign at block and village level before vaccination campaign to increase community participation
- v. Ensuring availability of adequate vaccine doses up to last cold chain point before and during vaccination campaign
- vi. Ensuring availability of adequate number of trained vaccinators, vaccination accessories (tags, applicators, syringe , needle etc) and logistics required for vaccination campaign
- vii. Performing cold chain audit of the Block and conveying the same to District level monitoring committee
- viii. Managing, monitoring and reviewing progress and performance of the FMD vaccination in the Block up to the last mile
- ix. Ensuring implementation of seromonitoring and serosurveillance activities as per sampling plan
- x. Ensuring implementation of a robust disease surveillance activity in the Block
- xi. Supervising Outbreak investigation and ensuring prompt and effective outbreak management to contain the spread of the disease in case of a disease outbreak
- xii. Conveying requirements in manpower, accessory, logistics, cold chain etc to District level monitoring committee in a timely manner
- xiii. Ensuring uploading of animal registration and vaccination data of Block in Bharat Pashudhan Portal
- xiv. Ensuring the appropriate disposal of all used or waste materials, including biomedical waste (syringe, needle, gloves, cotton, vaccine vials etc) generated during the vaccination process.
- xv. Submitting detailed report of outbreak, vaccination campaign and seromonitoring, serosurveillance to District level monitoring committee in a timely manner
- xvi. Review of internal monitoring report at the block level
- xvii. Committee can co-opt members time to time as per requirement

6. Internal Monitoring

Every State/UT AHD to formulate a three level/tier internal monitoring mechanism at block, district and state level to ensure effective implementation of the LHDCP scheme.

7. Reporting Mechanism

The State will ensure reporting of vaccinations of FMD, Brucellosis, PPR and CSF through NDLM portal as soon as possible after vaccine administration.

Disease outbreaks will be reported by State at real time through dedicated module of NDLM portal.

The FMD Network laboratories and ICAR-NIFMD will report the seromonitoring and serosurveillance test report mandatorily through SS-SM portal.

8. Hiring of Consultants for Strengthening and Monitoring of the Program

Hiring of Consultants (Technical, Legal, Finance, Managerial, Contract Management etc.) shall be done at the centre level for the implementation and monitoring of LHDCP shall be headed by the Joint/Additional Secretary (LH), DAHD. The responsibilities of the PMA shall include collection, collation and analysis of the Annual Action Plans for LHDCP for NADCP (FMD-EP, Brucella-CP), CADCP (PPR-EP, CSF) from the States /UTs for consideration of sanction of funds by the NSC to the central and state agencies.

The Consultants shall appraise the plan of operation of LHDCP components in the States /UTs that includes manpower requirement and deployment, their training, cold-chain infrastructure management at different levels in the States, districts and blocks, availability and distribution of vaccines, ear tags and tag applicators and suggest measures for alleviation of hurdles. Besides, the consultants shall be responsible for the overall monitoring of the programme including planning of public awareness programmes and trainings and management of the database at the central level (NDDDB), those generated online (dashboard, etc.) and those through the Call Centre set up at the Centre.

9. Hiring of Program Logistics Agency (PLA)

A Program Logistics Agency (PLA) shall be engaged for procurement of vaccines, ear tags and tag applicators centrally and shall undertake the following activities in this regard -

- a. PLA shall coordinate with central Programme Management Agency (PMA) to assess the requirement of vaccine dosages, tags and applicators, schedule of vaccination and supply of vaccines
- b. PLA shall prepare tender document in consultation with DAHD, call for tenders, scrutinize the bid documents for vaccine suppliers, tags and applicators and finalize suppliers through competitive bidding
- c. Evaluation Based on the merit (technical and financial) of the bidder, the suppliers will be identified by PLA. The items will be as per specifications, terms & conditions in the bid.
- d. For vaccines, there shall be prior testing for quality through ICAR/CCSNIAH to check for eligibility as per specifications. PLA shall co-ordinate with the Institutes and the vaccine manufacturers for this purpose
- e. PLA shall plan the delivery schedules including identification of various suppliers for specific destination well in advance to ensure that manufacturer supplies the vaccine and ear tags etc. at the district level maintaining cold-chain for the vaccines, based on the requirements as per the State Action Plans
- f. PLA shall carry out pre-dispatch physical verification of vaccines and ear tags with applicators at the manufacturers' end. This will include expiry of the vaccines through the Temperature loggers, etc. PLA will also obtain the quality check reports done by the manufacturer before dispatch of the vaccines. PLA shall further ensure random quality testing of vaccine batches prior to dispatch of vaccine in coordination with IVRI/ CCSNIAH as per the SoP prescribed by the technical committee constituted by the department
- g. PLA shall ensure that the States/ UTs receiving the materials checks the contents of the packages and record the number of vaccines received at the destination as well as expiry of the vaccines through the Temperature loggers, etc. Batchwise traceability of vaccines used under NADCP is to be maintained by PLA in coordination with State Governments / UTs
- h. Random check at field level shall also be done for verifying receipt of vaccines, ear tags and applicators as well as expiry of the vaccines through the Temperature loggers, etc.
- i. PLA shall release payment to vaccine suppliers and ear-tags including applicator suppliers on receipt of acceptance certificates from the respective State Animal Husbandry Departments regarding quantity and quality of each components including results of seromonitoring concerning the vaccines supplied

- j. PLA shall obtain necessary approval from DAHD from time to time for meeting various expenditure of the activities such as, placing of orders on the selected suppliers, release of money to the suppliers, etc.
- k. PLA shall ensure that the GFR of Ministry of Finance shall be followed and strictly adhered to while dealing with matters of financial nature. The PLA shall adhere to the checklist for verification and payment of bills in connection with purchase of vaccines, ear tags and tag applicators
- l. A separate account shall be opened in a Bank by PLA for NADCP and record of the funds shall be maintained meticulously
- m. PLA shall intimate DAHD on all the activities undertaken on a regular basis

10. Evaluation of the Scheme

Mid-term and End- term Evaluation of the programme of the scheme would be carried out by an independent third-party agency. The programme shall also be subject to audit as per extant Government of India procedures.

11. Annexures

Annexure-1: NADCP-FMD Cost Norms

Sl. No	Particulars	Approved Rate per unit
1	Vaccination Accessories	Rs 3.00/- per animal
2	Remuneration for vaccination of large Animal including Pig	Rs 5.00/- per animal
3	Remuneration for vaccination of small Animal	Rs 4.00/- per animal
4	Awareness per block	Rs 10,000/- per block / Per Annum for two Rounds
5	Ear Tagging and registration in Bharat Pashudhan NDLM Portal for large Animal including Pig	Rs 5.00/- per animal
6	Ear Tagging and registration in Bharat Pashudhan NDLM Portal for small animal	Rs 3.00/- per animal
7	Establishment/Strengthening of Check post (State/UT to bear the cost of manning the check post and other recurring expenditures)	Rs 10/- lakhs per check post

Annexure-2: NADCP- Brucellosis Cost Norms

Sl. No	Particulars	Approved Rate per unit
1	Vaccination Accessories	Rs. 6.5/- per animal
2	Remuneration for Vaccination of large animals including pigs	Rs. 5.00/- per animal
3	Awareness programme at Block level	Rs. 5000/- per block
4	Ear tagging and registration in BHARAT PASHUDHAN NDLM PORTAL for large animals including pigs	Rs. 5.00/- per animal
5	Strengthening of ELISA laboratory in each State/UT	Rs.30.00 Lakh for one time assistance to State/UTs
6	Expenditure on consumables for 36 ELISA laboratories	Rs 20 Lakhs/ annum
7	Conducting village level screening	Rs. 5/- per sample

Annexure-3: Pest des Petits-Ruminants (PPR-EP) Cost Norms

Sl. No	Particulars	Approved Rate per unit
1	Vaccination Accessories	Rs. 3.00/-per animal
2	Remuneration for Vaccination of large animals including pigs	Rs. 4.00/-per animal
3	Awareness programme at Block level	Rs. 5000/- per block

Annexure-4: Classical Swine Flu (CSF) Cost Norms

Sl. No	Particulars	Approved Rate per unit
1	Vaccination Accessories	Rs. 3.00/-per animal
2	Remuneration for Vaccination	Rs. 5.00/-per animal
3	Awareness for the States	Rs. 5.00 Lakhs per State
4	Funding for strengthening of laboratories	Rs10.00 lakh for non-recurring cost and Rs. 3.00 lakh for recurring cost per State / UT annual

Annexure-5: MVUs Cost Norms

Recurring Cost of MVUs / Year (Rs. in Lakhs)				
Sl. No	Component	No. of MVU	Rate/Unit/ Month	Cost per year/per MVU
1	Outsourcing of Veterinarians	1	0.561	6.732
2	Outsourcing of Para - Vet	1	0.20	2.4
3	Outsourcing of Driver- cum-Attendant	1	0.18	2.16
4	Procurement of Medicines, Surgical material etc.	1	0.35	4.20
5	Fuel (Petrol/Diesel Oil / Lubricant etc)/ Maintenance of Vehicles/ Toll free, Internet, GPS, Publicity etc	1	0.33	3.96
	Total		1.621	19.452

Note:-Annual Increase @ of 3% for outsourced Veterinarians, if continuing for next year .

Recurring cost _ Call Centre / Year (Rs. in Lakhs) for 20 MVUs

Sl. No.	Activity	No of personnel	Rate per month	Cost / year
1	Outsourcing of veterinarian	1	0.561	6.732
2	Outsourcing of Call executive	1	0.15	0.18
	Total		0.711	6.912

- Each State level Call Centre unit shall constitute 1 veterinarian and 3 call executives for around every 20 MVUs. For 100 MVUs, there will be 2 veterinarians along with 6 Call Executives and for each additional one hundred MVUs, 1 veterinarian & 3 Call Centre executives will be required.
- The Office expenses of running a Call Centre will be @ Rs.5000/- pm for having a Call Centre consisting of 1 veterinarian & 3 Call Executives and an additional Rs.2000 pm for each addition of 1 Veterinarian & 3 Call Executives. These will be on a Centre-State sharing basis as applicable (60-40 for all other States / 90-10 for NE & Himalayan States / 1 00% for UTs)

Annexure-6: ASCAD Cost Norms

State/UT governments may purchase vaccine through state tender after following all the due processes and the procurement guidelines of GFR/GEM as per their requirements by accessing their local strategies and annual vaccination timeline. The procurement rates may be proposed tentatively on the basis of last three years rates for all vaccines.

Research and Innovation, Publicity & Awareness, Training, etc. (100%) (Rate in Rs.)		
Sl. No.	Indicators	Rates (maximum)
1	Block Level Camp	5000
2	District Level Camp	15000
3	Vet Training	12500
4	Para-vet Training	7500
5	Workshop/Seminar State level	2,00,000/workshop
6	Printing /Publication	50,000/District
7	Research	As per requirement / subject to approval of NSC
8	National/ International level workshop seminar/Conference	As per requirement / subject to approval of NSC

1	State Level Lab	Rate for all States/UTs Cost/Per Laboratory	Remarks
a	Renovation /Alteration	20 Lakh	Once in five years
b	Equipment	10 Lakh	
c	Disease reporting system		
c	Recurring	1 Lakh	Yearly
2	District Level lab	Rate for all States	Remarks
a	Renovation /Alteration	20 Lakh	Once in five years
b	Equipment		
c	Disease reporting system		
d	Recurring	1 lakh /district	Yearly
3	Block Level lab	Rate for all States	Remarks
a	Renovation /Alteration	10 Lakh	Once in five years
b	Equipment		
c	Disease reporting system		
d	Recurring	25000/block	Yearly

Strengthening of Biological Production Unit (60:40/90:10/100 UT's) (Rate in Rs.)		
Stare Level lab		Rate for all States/UTs
a	Renovation /Alteration	60 Lakh/BPU
b	Equipment	
c	Recurring	

Establishment/ Strengthening of Labs (60:40) (90:10) (100 UT's)		
Sl. No	Indicators	Remarks
1	Establishment /Strengthening of BSL I, II	A Committee at central level for its technical evaluation on its output and subject to availability of fund, approval of technical evaluation committee & approval of NSC

*** Subject to comply with Good Manufacturing Practices for (State Biological units) & Good Laboratories Practices (GLP) for Disease Diagnostic laboratories .**

PAYMENT FOR COMPENSATION TO FARMER FOR CULLING (50:50) (Rate in Rs.)		
i	ASF (African Swine Fever)	Given as per demand & report submission in 50:50
ii	AI (Avian Influenza)	
iii	Glanders	
CONTROL OF EMERGENT AND EXOTIC DISEASES (60:40)/ (90:10)/100% UT's		
i	Routine collection of serum/sample materials for surveillance work and activities against exotic and emergent diseases including Avian Influenza, LSD, Glander etc	1 Lakh /district

Cost Norms for training of Pashu Sakhi for AHELP:

Component	Unit Cost (Rs.)	Duration-Days/No.	Amount (Rs.)
Training for AHELP and other allied activities	2,000	16	32,000
Procurement of Kit	2,000	1	2,000
Travel (To & Fro)	600	1	600
Stipend per day	350	16	5,600
Total Cost for AHELP training per head			40,200/-
Training of Master Trainers (to the Veterinary Doctors) for imparting training for AHELP to Pashu Sakhi (Through NDDB)			On actuals within prescribed rates for vet training

Annexure-7: NADCP (FMD) – Templates for Annual Action Plan

STANDARD TEMPLATE FOR ANNUAL STATE ACTION PLAN FOR NATIONAL ANIMAL DISEASE CONTROL PROGRAMME (NADCP) FOR

Foot and Mouth Disease

- Name of the Implementing Agency-
- Address -
- Telephone No. and fax No. -
- Email ID of the HOD -
- Nodal officer (Name/Post /Mobile/Email id)–

1. Animal Population: (Species-wise (Nos.) and District-wise)

Sl. No.	Name of District	Cattle	Buffalo	Sheep	Goat	Pig
	Total					

2. FMD Vaccination report

SL_No	Name of the districts	Total vaccine doses received	Total Vaccinated Animals (NDLM)	Start date	End date	No. of doses utilized for booster doses vaccination	Wastage	TOTAL vaccine utilized (4+7+8)	vaccine left with the state (3-9)
1	2	3	4	5	6	7	8	9	10

3. FMD Outbreaks reported during last year (details of outbreaks District-wise for the last year)

	Epicenter
	District name
	Date of outbreak reporting
	No. of outbreaks
	No. of susceptible animals
	No. of cases
	No. of deaths
	Name of testing lab
	Date of confirmation
	Sero type
	Measures taken
	Outbreak resolved
	Date of resolution
	Cause

4. Proposed vaccine requirement and vaccination schedule district wise

Sl. No	Name of District	No. Of doses require for one round							Expected Vaccination Start date	Expected Vaccination end date
		Cattle	Buffalo	Bovine calves for booster vaccination after primary vaccination	Goat	Sheep	Pig	Total		

*Bovine calves should be given booster one month after primary vaccination (first time vaccination since birth)

@Dosage for goat and sheep is half of that in bovines and pigs

5. Tagging requirement and tagging schedule district wise

Sl. No.	District	No. of tags and applicators required (100%)						No. of tags & applicators available	Balance requirement of tags & applicators	Expected start date* of tagging	Expected end date of tagging
		Cattle	Buffalo	Sheep	Goats	Pigs	Total				

6. Activities to be taken up for public awareness (Details of proposed awareness programmes, viz., Wall writing / banners / Posters / Audio-visuals / Radio advertisement, etc. at State / District / Block / Village level)

	Wall writing	Audio-visuals including films	Radio advertisement	Posters	Banners / Hoardings	Public Announcements and distribution of pamphlets
State	1 month before AVD	15 days before AVD and Throughout vaccination	15 days before AVD and Throughout vaccination	1 month before AVD on State transport buses, etc	1 month before AVD	-
District	-do-	15 days before AVD	-	1 week before AVD	15 Days before AVD	-
Block	-do-	-do-	-	-do-	-do-	2 days before AVD
Village	-do-	-do-	-	-do-	-do-	-

7. Infrastructure plan for cold chain maintenance for FMD vaccine in districts / blocks under NADCP

Sl	District/State Name	Type of the Cold Chain facility (District/Taluka/Block level)	Location of the Cold Chain facility	Type of equipment (Cold Chain) available - WIC, ILR, Cold Cabinet,	Year of procurement /installation	Status (Working/ Non-Working)	Capacity (in liters)	Requirement (in liters)	Available (in liters)	Shortage	Remarks
WIC - Walk In Cold Room ILR - Ice Line Refrigerator											

8. Details of Seromonitoring Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for seromonitoring))

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)		
			0 day (Pre-vac)	30 day (Post-vac)	Total

9. Details of Serosurveillance done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for serosurveillance)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)

10. Monitoring and Supervision Plan for FMD (Details of plans to monitor vaccination, cold chain maintenance at the field level)

- Monitoring by State Nodal Officer for each district (during and after vaccination - at least 2 visits during vaccination)
- Vaccination to be supervised by Block Veterinarian/Hospital level Veterinarian
- Vaccinators to register name, UID (Aadhar no.) / Mobile no. of animal owner at the time of vaccination

11. Proposed Financial Requirement (Item wise) as per approved Guidelines for NADCP-(Actual financial requirement for each item within the prescribed cost.)

Annexure-8: NADCP (Brucellosis) – Templates for Annual Action Plan

STANDARD TEMPLATE FOR ANNUAL STATE ACTION PLAN FOR NATIONAL ANIMAL DISEASE CONTROL PROGRAMME (NADCP) FOR

Brucellosis

- Name of the Implementing Agency-
- Address -
- Telephone No. and fax No. -
- Email ID of the HOD -
- Nodal officer (Name/Post /Mobile/Email id)–

1. Animal Population (Species-wise (Nos.) and District-wise)

Sl. No.	Name of District	Cattle	Buffalo	Sheep	Goat	Pig
	Total					

2. Brucellosis Vaccination report.

SL_No	Name of the districts	Total vaccine doses received	Total Vaccinated Animals (NDLM)	Start date	End date	No. of doses utilized for booster doses vaccination	Wastage	TOTAL vaccine utilized (4+7+8)	vaccine left with the state (3-9)
1	2	3	4	5	6	7	8	9	10

3. Brucellosis Outbreaks reported during last year (details of outbreaks District-wise for the last year)

Epicenter	District name	Date of outbreak reporting	No. of outbreaks	No. of susceptible animals	No. of cases	No. of death	Name of testing lab	Date of confirmation	Sero type	Measures taken	Outbreak resolved	Date of resolution	Cause
			Total	Total	Total	Total							

4. Proposed vaccine requirement and vaccination schedule district wise

Sl. No.	Name of District	No. of doses required	Vaccination Schedule					
			Month with dates	Month with dates	Month with dates	Month with dates	Month with dates	Month with dates

5. Identification and Registration of animals for Brucellosis Vaccination (Tagging already done under NADCP-FMD / NDLM, which will be used for Brucellosis vaccination records)

6. Activities to be taken up for public awareness (Details of proposed awareness programmes, viz., Wall writing / banners / Posters / Audio-visuals / Radio advertisement, etc. at State / District / Block / Village level)

	Wall writing	Audio-visuals including films	Radio advertisement	Posters	Banners / Hoardings	Public Announcements and distribution of pamphlets
State	1 month before AVD	15 days before AVD and Throughout vaccination	15 days before AVD and Throughout vaccination	1 month before AVD on State transport buses, etc	1 month before AVD	-
District	-do-	15 days before AVD	-	1 week before AVD	15 Days before	-
Block	-do-	-do-	-	-do-	-do-	2 days before AVD
Village	-do-	-do-	-	-do-	-do-	-

7. Details Seromonitoring Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for seromonitoring)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)		
			0 day (Pre vac)	30 day (Post-vac)	Total

8. Details Serosurveillance Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for serosurveillance)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)

9. Monitoring and Supervision Plan for Brucellosis (Details of plans to monitor vaccination, cold chain maintenance at the field level)

- Monitoring by State Nodal Officer for each district (during and after vaccination - at least 2 visits during vaccination)
- Vaccination to be supervised by Block Veterinarian/Hospital level Veterinarian
- Vaccinators to register name, UID (Aadhar no.) / Mobile no. of animal owner at the time of vaccination

Annexure-9: CADCP (PPR) – Templates for Annual Action Plan

STANDARD TEMPLATE FOR CENTRAL SECTOR COMPONENT OF LHDCP FOR

Pest des Petits-Ruminants (PPR-EP)

- Name of the Implementing Agency-
- Address -
- Telephone No. and fax No. -
- Email ID of the HOD -
- Nodal officer (Name/Post /Mobile/Email id)–

1. Animal Population (Species-wise (Nos.) and District-wise)

Sl. No.	Name of District	Cattle	Buffalo	Sheep	Goat	Pig
	Total					

2. PPR Vaccination report.

SL No	Name of the districts	Total vaccine doses received	Total Vaccinated Animals (NDLM)	Start date	End date	No. of doses utilized for booster doses vaccination	Wastage	TOTAL vaccine utilized (4+7+8)	vaccine left with the state (3-9)
1	2	3	4	5	6	7	8	9	10

3. PPR Outbreaks reported during last year (details of outbreaks District-wise for the last year)

Epicenter	District name	Date of outbreak reporting	No. of outbreaks	No. of susceptible animals	No. of cases	No. of death	Name of testing lab	Date of confirmation	Sero type	Measures taken	Outbreak resolved	Date of resolution	Cause
			Sheep + Goat = Total	Sheep + Goat = Total	Sheep + Goat = Total	Total							

4. Proposed vaccine requirement and vaccination schedule district wise

S. No	Name of District	No. Of doses require			Expected Vaccination Start date	Expected Vaccination end date
		Goat	Sheep	Total		

5. Identification and Flock Registration for PPR Vaccination (as per NDLM)

6. Activities to be taken up for public awareness (Details of proposed awareness programmes, viz., Wall writing / banners / Posters / Audio-visuals / Radio advertisement, etc. at State / District / Block / Village level)

	Wall writing	Audio-visuals including films	Radio advertisement	Posters	Banners / Hoardings	Public Announcements and distribution of pamphlets
State	1 month before AVD	15 days before AVD and Throughout vaccination	15 days before AVD and Throughout vaccination	1 month before AVD on State transport buses, etc	1 month before AVD	-
District	-do-	15 days before AVD	-	1 week before AVD	15 Days before	-
Block	-do-	-do-	-	-do-	-do-	2 days before AVD
Village	-do-	-do-	-	-do-	-do-	-

7. Details Seromonitoring Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for seromonitoring)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)		
			0 day (Pre vac)	30 day (Post-vac)	Total

8. Details Serosurveillance Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for serosurveillance)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)

9. Monitoring and Supervision Plan for PPR (Details of plans to monitor vaccination, cold chain maintenance at the field level)

- Monitoring by State Nodal Officer for each district (during and after vaccination - at least 2 visits during vaccination)

- Vaccination to be supervised by Block Veterinarian/Hospital level Veterinarian
- Vaccinators to register name, UID (Aadhar no.) / Mobile no. of animal owner at the time of vaccination

Annexure-10: CADCP (CSF) – Templates for Annual Action Plan

STANDARD TEMPLATE FOR CENTRAL SECTOR COMPONENT OF LHDCP FOR

Classical Swine Flu (CSF)

- Name of the Implementing Agency-
- Address -
- Telephone No. and fax No. -
- Email ID of the HOD -
- Nodal officer (Name/Post /Mobile/Email id)–

1. Animal Population (Species-wise (Nos.) and District-wise)

Sl. No.	Name of District	Cattle	Buffalo	Sheep	Goat	Pig
	Total					

2. PPR Vaccination report.

SL No	Name of the districts	Total vaccine doses received	Total Vaccinated Animals (NDLM)	Start date	End date	No. of doses utilized for booster doses vaccination	Wastage	TOTAL vaccine utilized (4+7+8)	vaccine left with the state (3-9)
1	2	3	4	5	6	7	8	9	10

3. CSF Outbreaks reported during last year (details of outbreaks District-wise for the last year)

Epicenter	District name	Date of outbreak reporting	No. of outbreaks	No. of susceptible animals	No. of cases	No. of death	Name of testing lab	Date of confirmation	Sero type	Measures taken	Outbreak resolved	Date of resolution	Cause
			Pig Total	Pig Total	Pig Total	Pig Total							

4. Proposed vaccine requirement and vaccination schedule district wise

S. No	Name of District	No. Of doses require	Expected Vaccination Start date	Expected Vaccination end date

5. Identification and Flock Registration for CSF Vaccination (as per NDLM)**6. Activities to be taken up for public awareness** (Details of proposed awareness programmes, viz., Wall writing / banners / Posters / Audio-visuals / Radio advertisement, etc. at State / District / Block / Village level)

	Wall writing	Audio-visuals including films	Radio advertisement	Posters	Banners / Hoardings	Public Announcements and distribution of pamphlets
State	1 month before AVD	15 days before AVD and Throughout vaccination	15 days before AVD and Throughout vaccination	1 month before AVD on State transport buses, etc	1 month before AVD	-
District	-do-	15 days before AVD	-	1 week before AVD	15 Days before	-
Block	-do-	-do-	-	-do-	-do-	2 days before AVD
Village	-do-	-do-	-	-do-	-do-	-

7. Details Seromonitoring Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for seromonitoring)

Sl. No.	District	No. of villages selected for sample collection	Previous year No. of samples to be collected (Sent to designated lab)		
			0 day (Pre vac)	30 day (Post-vac)	Total

8. Details Serosurveillance Plan done in previous financial year (details of collection of samples, preservation at field level, transportation to State laboratory, storage facility at state laboratory and finally to the Laboratory for serosurveillance)

Sl. No.	District	No. of villages selected for sample	Previous year No. of samples to be collected (Sent to designated lab)

9. Monitoring and Supervision Plan for CSF (Details of plans to monitor vaccination, cold chain maintenance at the field level)

- Monitoring by State Nodal Officer for each district (during and after vaccination - at least 2 visits during vaccination)

- Vaccination to be supervised by Block Veterinarian/Hospital level Veterinarian
- Vaccinators to register name, UID (Aadhar no.) / Mobile no. of animal owner at the time of vaccination

Annexure-11: ASCAD – Templates for State Proposal

Proposal: Annual Action Plan (Year-)

Name of the State: -

Nodal officer Name and Contact details

Name: -

Designation: -

Contact Details: -

3.	Proposed Annual Action Plan for current financial year		
Project Cost	Central Share + State Share	Action required	Action Taken (Yes/No)
Rs.....	Rs..... + Rs.....	Proposal is to be Annexed as Annexure 1	Yes/No

(Rs. In Lakh)

4.	Last three-year Utilization certificate (ASCAD)					
Sr. No.	Year	Fund Released	Fund Utilized	USB	Action: Copies of UC to be Annexed (As per GFR Rule)	Action Taken (Yes/No)
1	2022-23				Annexure 2	Yes/No
2	2021-22				Annexure 3	Yes/No
3	2020-21				Annexure 4	Yes/No

5.	Last three year Physical & Financial Progress Report (P&FPR)		
Sr. No	Year	Action: Copies of Physical Financial Progress Report to be Annexed (item wise funds, targets and achievements)	Action Taken (Yes/No)

1	2022-23	Annexure 5	Yes/No
2	2021-22	Annexure 6	Yes/No
3	2020-21	Annexure 7	Yes/No

6.	Action: Undertaking to be Annexed as per prescribed Proforma	Action Taken (Yes/No)
1	To be Annexed as Annexure-8	Yes/No

7.	Action: Additional Check list to be Annexed: as per prescribed Proforma	Action Taken (Yes/No)
1	To be Annexed as Annexure-9	Yes/No

(Rs. In Lakh)

8.	Interest deposit certificate (ASCAD)			
Year	Interest occurred (Rs. In Lakh)	Deposited Date	Action: Status for Certificate Submission to be Annexed	Action Taken (Yes/No)
2022-23			Annexure 10	Yes/No
2021-22			Annexure 11	Yes/No
2020-21			Annexure 12	Yes/No

9.	SNA SPARSH Account Details		
Sharing Pattern	Details require	Action: Status for Scan copy of Bank details to be Annexed	Action Taken (Yes/No)
60:40	Account Name:- Account No. IFSC Code:- Bank Name	Annexure 13	Yes/No
50:50	Account Name:- Account No. IFSC Code:-	Annexure 14	Yes/No

	Bank Name		
100%	Account Name:- Account No. IFSC Code:- Bank Name	Annexure 15	Yes/No

10	Action Write-up in detail for current requirement and last year's achievements to be attached	Action Taken (Yes/No)
1	Annexure-21	Yes/No

11.Any other relevant information

Attach as Annexure 22

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ASCAD FOR 2023-24 (RS. IN LAKH)

60: 40 for other states, 90: 10 (Northeastern and Himalayan states and 100% for UTs

S. No.	ITEMS	PROPOSED ACTION PLAN FOR CURRENT FINANCIAL YEAR						
		REQUIREMENT (Nos.)	UNIT COST	TOTAL AMOUNT REQUIRED	CENTRAL SHARE	STATE SHARE	Timeliness for Activity	Justification for requirement
1	PROCUREMENT OF VACCINE DOSES							livestock population, to be covered under vaccination
	DEWORMING PLAN PRIOR VACCINATION							
i	No. Of Doses Required for Large Animals Prior To Vaccination							
ii	No. Of Doses Required for Small Animals Prior To Vaccination							
	TOTAL							
2	PROCUREMENT OF LIVESTOCK VACCINE DOSES							
i	HS							
ii	BQ							
iii	Goat Pox							
iv	LSD							
v	Enterotoxaemia							
vi	Theileria							
vii	Blue Tongue							
viii	Taenia Solium/Cysticercosis							

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ASCAD FOR 2023-24 (RS. IN LAKH)

60: 40 for other states, 90: 10 (Northeastern and Himalayan states and 100% for UTs

S. No.	ITEMS	PROPOSED ACTION PLAN FOR CURRENT FINANCIAL YEAR						
		REQUIREMENT (Nos.)	UNIT COST	TOTAL AMOUNT REQUIRED	CENTRAL SHARE	STATE SHARE	Timeliness for Activity	Justification for requirement
ix	Sheep Pox							
x	Others							
	TOTAL							
3	PROCUREMENT OF ZOONOTIC DISEASE VACCINE DOSES							
i	Anthrax							
ii	Rabies							
iii	Others							
	TOTAL							
4	PROCUREMENT OF POULTRY VACCINE DOSES							
i	RD F1							
ii	RD R2B							
iii	Fowl Pox							
iv	Duck Plague							
v	IBD							
vi	Duck Pasteurella							
vii	Marek's Disease							
viii	New Castle							
ix	Duck Cholera							
x	Others							
	TOTAL							
5	PROCUREMENT OF ACCESSORIES FOR LIVESTOCK VACCINATION Viz.....							
i								
ii								
	TOTAL							

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ASCAD FOR 2023-24 (RS. IN LAKH)

60: 40 for other states, 90: 10 (Northeastern and Himalayan states and 100% for UTs

S. No.	ITEMS	PROPOSED ACTION PLAN FOR CURRENT FINANCIAL YEAR						
		REQUIREMENT (Nos.)	UNIT COST	TOTAL AMOUNT REQUIRED	CENTRAL SHARE	STATE SHARE	Timeliness for Activity	Justification for requirement
6	PROCUREMENT OF ACCESSORIES FOR POULTRY VACCINATION Viz.....							
i								
	TOTAL							
7	STRENGTHENING OF DISEASE DIAGNOSTIC LABORATORIES (DDLs)							
i	Alteration/renovation/modification							
ii	Equipment with details							
iii	Recurring on glassware, reagents, diagnostic kits and other required materials etc							
iv	Disease reporting system							
	TOTAL							
8	Strengthening of Biological Production Units							
i	Alteration/renovation/modification							
ii	Equipment with details							
iii	Recurring on glassware, reagents, diagnostic kits and							

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ASCAD FOR 2023-24 (RS. IN LAKH)

60: 40 for other states, 90: 10 (Northeastern and Himalayan states and 100% for UTs

S. No.	ITEMS	PROPOSED ACTION PLAN FOR CURRENT FINANCIAL YEAR						
		REQUIREMENT (Nos.)	UNIT COST	TOTAL AMOUNT REQUIRED	CENTRAL SHARE	STATE SHARE	Timeliness for Activity	Justification for requirement
	other required materials etc							
iv	Disease reporting system							
	TOTAL							
9	Control of Emergent and Exotic Diseases							
i								
	TOTAL							
10	Surveillance & Monitoring of important livestock & poultry diseases							
i								
ii								
	TOTAL							
	Grand Total							
100% Assistance from Central Share for all the States								
1	Research & Innovation, Training, Publicity & Awareness (100%)							
i	Number of Training required for Veterinarians							
ii	Number of Training required for Para Veterinarians							
iii	Number of Training required for Continuous Vet Education (CVE)							

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ASCAD FOR 2023-24 (RS. IN LAKH)

60: 40 for other states, 90: 10 (Northeastern and Himalayan states and 100% for UTs

S. No.	ITEMS	PROPOSED ACTION PLAN FOR CURRENT FINANCIAL YEAR						
		REQUIREMENT (Nos.)	UNIT COST	TOTAL AMOUNT REQUIRED	CENTRAL SHARE	STATE SHARE	Timeliness for Activity	Justification for requirement
iv	State Level Awareness Camp / Workshop / Seminar							
v	District Level Awareness Camp							
vi	Block Level Awareness Camp							
vii	Others							
	TOTAL							
	Grand Total							
50:50 Assistance from Central Share and State Share								
1	Payment of Compensation to Farmer							
i	ASF							
ii	AI							
iii	Glanders							
	Grand Total							

Annexure-12: MVU Annexure State Proposal Format

Proforma for Submission of AAP under ESVHD- MVU for FY 2025-26

1. Name of the State: -

2. Nodal officer Name and Contact details

Name: -

Designation: -

Contact Details: -

(Rs. In Lakh)

3.	Proposed Annual Action Plan for current financial year		
Project Cost	Central Share + State Share	Action Required	Action Taken
Rs.....	Rs.....+ Rs.....	Proposal is to be Annexed as Annexure 1	Yes / No

4.	Last two-year Utilization certificate (ESVHD-MVU)					
Sl	Year	Fund Released	Fund Utilized	USB	Action: Copies of UC to be Annexed (As per GFR Rule)	Action Taken (Yes/No)
1	2022-23				Annexure 2	Yes/No
2	2021-22				Annexure 3	Yes/No

5.	Last three year Physical & Financial Progress Report (P&FPR) under (ESVHD-MVU)		
Sl	Year	Action: Copies of Physical Financial Progress Report to be Annexed (Item wise funds, targets and achievements)	Action Taken (Yes/No)
1	2022-23	Annexure 4	Yes/No
2	2021-22	Annexure 5	Yes/No

6.	Action: Undertaking to be Annexed as per prescribed Proforma	Action Taken (Yes/No)
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1	To be Annexed as Annexure-6	Yes/No
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7.	Action: Additional Check list to be Annexed: as per prescribed Proforma	Action Taken (Yes/No)
1	To be Annexed as Annexure-7	Yes/No

8.	Interest deposit certificate (ESVHD-MVU)			
Year	Interest occurred (Rs. In Lakh)	Deposited Date	Action: Status for Certificate Submission to be Annexed	Action Taken (Yes/No)
2022-23			Annexure 8	Yes/No
2021-22			Annexure 9	Yes/No

9.	A. SNA SPARSH Account Details		
Sharing Pattern	Details require	Action: Status for Scan copy of Bank details to be Annexed	Action Taken (Yes/No)
60:40, 90:10, 100 %	Account Name:- Account No. IFSC Code:- Bank Name	Annexure 10	Yes/No
	B. TSA Details		
Sharing Pattern	Details require	Action: Status for Scan copy of Bank details to be Annexed	Action Taken (Yes/No)
100% in case of MVUs Non-recurring Cost	Account Name:- Account No. IFSC Code:- Bank Name	Annexure 11	Yes/No

10.	Action Write-up in detail for current requirement and last year's achievements to be attached	Action Taken (Yes/No)
1	Annexure-17	Yes/No

11. Checklist for MVUs status (To be Annexed as Annexure-18)

SI	Particulars	Progress
1.	No of MVUs Sanctioned	
2.	Whether state has procured the MVUs or not	
3.	Whether branding is completed or not as per DO	
4	Whether Call Centre is functional or not	
5	Whether 1962 is functional or not	
6	Whether state is going for operation of MVUs for PPT mode or will be self-managed by the state department	
7	Name of the Service Providing Agency	
8	Service provider outsources for : Manpower only or for complete operation	
9	Whether state is submitting Monthly Progress Report or not	
10	Pattern of delivery of veterinary services by the State: On phone calls/On fixed routes/Camps & Extension Services	

13. Annual Progress of MVUs (To be Annexed as Annexure-19)

SI	Item	Cumulative (For the year 2022-23)	Remarks
1	No. of MVUs in operation		
2	Establishment of Call centre		
3	Manpower requirement at call centre		
4	Manpower availability at call centre		
5	Manpower deployed by Department		
6	Manpower outsourced		
7	Total No. of veterinarians		
8	Total No. of Para veterinarians		
9	No. of Driver cum attendant		

SI	Item	Cumulative (For the year 2022-23)	Remarks
	Pattern of delivery of veterinary services by the State:		
10	On phone calls/On fixed routes/Camps & Extension Services		
11	Shift timing of call centre and duration		
12	Any alternate arrangement for the leaves taken by the executives		
13	No. of incoming calls received		
14	No. of calls attended for extending services		
14.1	Advise on phone		
14.2	Referring nearby hospital or dispensary or AI Technician etc.		
14.3	No. of advisory services provided on call (Total)		
14.4	Follow up last attended case		
15	Total cases attended by MVUs at doorstep		
16	Total Kilometres run by MVU		
17	No. of Livestock owners provided services		
17.1	On phone calls		
17.2	On doorstep		
18	No. of satisfactory Feedback from farmers for delivery of services		
19	No. of dissatisfactory feedback from farmers for delivery of services		

SI	Item	Cumulative (For the year 2022-23)	Remarks
20	No. of vehicles services in time		
21	No. of vehicles pending for services		
22	Registration of data on BHARAT PASHUDHAN NDLM PORTAL (Yes/ No)		
23	Toll-Free Services Bill		
24	Progressive Expenditure on medicine		
25	Progressive Expenditure on Fuel & Service		
26	No. of surgical cases attended		
27	No. of gynecological cases attended		
28	No. of samples taken for laboratory tests		
29	No. of laboratory tests reports delivered to farmers		
30	Any disease outbreak		
31	Measures taken for outbreaks		
32	Reporting of outbreaks		
33	Status of regular disinfection of MVUs (Yes/ No)		
34	Any other		

AADHAR NO OF THE USER

Any other relevant information (Success Stories (Write-up or Video Clips), Any recognition / appreciation at Gram Panchayat Level/ Block Level/ District level/ State level)

(to be Attached as Annexure 20)

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ESVHD-MVU FOR 2023-24 (RS. IN LAKH)
60: 40 for GEN, 90: 10(North-eastern and Himalayan states) and 100% for UTs

S I	ITEMS	Detail for last release								Proposed action plan for current financial year						
		Central share received	Corresponding state share	Physical target	Physical achievement	Amount utilized from central share	Amount utilized from state share	Unspent balance with the state- (utilization certificate to be enclosed)	If any deviation from Physical/Financial Targets, Justifications	Requirement (nos.)	Unit cost	Amount required	Central share	State share	Timeline for activity	Justification for requirement
1	Recurring expenditure for running of MVUs															
i	Outsourcing of veterinarian															
i	Outsourcing of Para-vet															
i	Outsourcing of Driver-cum-attendant															
i	Procurement of Medicines, Surgical material etc.															
v	Maintenance & Fuel (Petrol / Diesel / Oil / Lubricant etc.)															
	Total															
2	Recurring expenditure for running of call Centre at state level															
i	Outsourcing of veterinarian															

TEMPLATE FOR ACTION PLAN PROPOSAL UNDER ESVHD-MVU FOR 2023-24 (RS. IN LAKH)
60: 40 for GEN, 90: 10(North-eastern and Himalayan states) and 100% for UTs

S I	ITEMS	Detail for last release								Proposed action plan for current financial year						
		Central share received	Corr espo nding state share	Phy sic al tar get	Physic al achiev ement	Am oun t utili zed fro m cent ral share	Am oun t utili zed fro m stat e share	Unsp ent balan ce with the state- (utiliz ation certif icate to be enclo sed)	If any devi atio n fro m Phy sica l/Fin anci al Targ ets, Justi ficat ions	Req uire men t (nos .)	Unit cost	Am oun t req uire d	Ce ntr al sh are	Sta te sh are	Tim elin e for acti vity	Justifi cation for requir emen t
i i	Outsourcing of call executives															
i i i																
	Total															
3	Office Expenses for Call Centre															
i i i																
	Total															
4	Tendered Cost (If state is going for PPP mode, with cost break up in detail)															
i																
i i																
	TOTAL															

Annexure-13: SOP of Vaccine Quality testing

1. Role of Program Logistic Agency (PLA) on behalf of Department

The PLA sources the FMD Vaccines from empanelled vaccine manufacturers having a valid license from the Drug Licensing authority and wherein the vaccines meet the quality requirements specified in the current edition of Indian Pharmacopoeia and the standards mentioned in the technical specifications in the Request for Proposal (RfP). All provisions of the Drugs & Cosmetics Act, 1940 as amended till date and Rules made there under is applicable

2. Responsibility of manufacturer

- a. If revalidation of the drug license has been applied for, the buyer (i.e., PLA) and the Department should be informed accordingly. A copy of the application to the licensing authority must be submitted along with a certificate stating that the renewal application was made within the timeframe as per the Drugs & Cosmetics Act, 1940, as amended to date, and that it has not been deleted by the licensing authority.
- b. Manufacturers should submit the CoA (detailing sterility, safety, and potency results) along with the vaccine samples. The format of the CoA is enclosed in the relevant Annexure and appendices.
- c. A Temperature Monitoring Card shall be provided in each box by the manufacturer to assess cold chain maintenance.
- d. Serum samples (2.0 ml/animal) from animal potency tests shall also be submitted along with vaccine samples and the CoA, as mentioned above. Matters related to the CoA are to be discussed only with the technical persons from the manufacturers, if required.
- e. Any information regarding the vaccine, if necessary, shall be made available to the Purchaser/DAHD.

3. Responsibility of Programme Logistics Agency and ICAR-IVRI Standardization Division:

- a. Ten vials of every batch of FMD vaccine produced by the manufacturers will be collected on a random basis out of the whole lot of each batch by the officials authorized by the DAHD/Programme Logistics Agency. The vaccine manufacturer will

facilitate such collection of vaccine samples and ensure the maintenance of the cold chain for transportation. Samples of all the batches collected by an officer will be submitted to the designated testing laboratory.

- b. The sample vials will be coded, and any one out of every five batches will be randomly selected (as per the directions of the Division of Biological Standardization, IVRI, Izzatnagar) and sent (without any preference) to any of the testing laboratories designated by DAHD for testing of the FMD vaccine. Further, out of the 10 vials sampled, only 7 vials will be sent to QC/vaccine testing labs, and 3 vials will be retained by the Standardization Division, ICAR-IVRI, Izzatnagar.
- c. Based on the passed QC testing report and the delivery order issued by DAHD, the purchase order/supply order will be placed by PLA to the manufacturer.
- d. **Storage Temperature; Cold Chain Maintenance:** The vaccine shall be stored and/or transported between +2°C and +8°C and must not be frozen. The cold chain maintenance of the vaccine supply shall be ensured by the seller up to the designated destination. The Division of Biological Standardization, IVRI, Izzatnagar, and the designated laboratories will confirm whether the vaccine vials are received with proper cold chain maintenance upon arrival.
- e. **Package Dose Size:** The liquid vaccine should be packed in a bottle of 100 ml (i.e., 50 doses of 2 ml each for large animals OR 100 doses of 1 ml each for small animals).

4. Role of designated testing laboratories

- a. Each designated testing laboratory for testing will undertake testing of FMD vaccine as under:
 - i. **Sterility:** Sterility testing of each batch of vaccine will be conducted as per Indian Pharmacopoeia (IP).
 - ii. **Safety:** Safety testing of each batch of vaccines will be conducted as per Indian Pharmacopoeia (Vet).
 - iii. **Potency:** The in vitro serotype-based alternate assay VNT will be used for testing the potency of the FMD vaccine under NADCP for FMD. The personnel of the respective designated testing laboratories will vaccinate the animals and collect pre- and post-vaccination serum samples at 0 and 28 days post-vaccination.
 - iv. The vaccine manufacturers will submit the certificate for **NSP freedom** along with details of the test and results before the vaccines are supplied to States for administration in animals.

- b. The vaccines shall induce an SN50 antibody titre as mentioned in the technical specifications of the RfP. The vaccine complies with the test if the geometric mean of the antibody titre in cattle is not lower than the pass level.
- c. The result of testing will be communicated by the designated testing laboratory to ICAR-IVRI (Division of Biological Standardization). Whether the vaccine is compliant or non-compliant will be conveyed to the Department/PLA, with a copy sent to the respective manufacturer.

The performance of the vaccine manufacturers will be evaluated based on the quality of the vaccine supplied by them. If any vaccine batch manufactured by vaccine manufacturers with proven consistency (i.e., for which last three consecutive FMD vaccine batches complied with DAHD criteria) fails to meet the standard, the testing laboratory will test the second batch (out of the five batches sampled), starting with immunization. If the batch passes the tests, all the remaining four batches will be cleared. However, if the second batch fails, the entire five batches will be rejected.

The above, including but not limited to mechanisms/SOPs germane to vaccine quality testing, shall be followed. The SOP for laboratory VNT testing is separate. This mechanism/SOP is liable to be modified from time to time depending on practical application and for continual improvement of FMD vaccine quality control, with the approval of the competent authority.

5. Appendix – I

Name of the Manufacturer

.....

CERTIFICATE OF ANALYSIS

1. Batch number :
2. Date of filling and number of vials filled :

Batch/Lot number	Date of filling	Number of vials filled

3. Potency test [Appendix] :
4. Safety test [Appendix] :
5. Sterility test [Annexure/Appendix] :

Foot-and-mouth disease vaccine batch number meets current IP standards and DAHD tender specifications and hence declared as passed.

HEAD, QUALITY CONTROL

Date:

HEAD, QUALITY ASSURANCE

Date:

6. Appendix – II

ANIMAL POTENCY TEST RESULT

Name of Manufacturer:

Batch number :

Date of vaccination :

Number of animals :

Date of bleeding : 0 D 28 DPV

Date of initiation of testing:

Date of completion of VNT:

Number of animals inoculated	VNT Geometric Mean Titre		Standard as per tender document	Remarks	
	0	28 DPV		Passed	Failed
	FMDVO		45		
	FMDVA		32		
	FMDV Asia 1		32		

Animal Tag Number	VN Titre					
	0 D			28 DPV		
	O	A	Asia 1	O	A	Asia 1
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
Geometric mean titre						
Unvaccinated Control 1						
Unvaccinated Control 2						
Back titre of virus in TCID ₅₀ /50 microlitre						

The batch passes/fails the potency test.

Operator :
Date :

Supervisor :
Date :

7. Appendix – III

Format for Safety Test of FMD Vaccine

Batch no:	Date of testing:	Date of completion:
Breed:	Route of Administration:	Dose:

Observation Report

Calf no.....	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Rectal temperature(°C)															
Anaphylactic reaction															
Local reaction															
Signature:															
Rectal temperature(°C)															
Anaphylactic reaction															
Local reaction															
Signature:															

Anaphylactic reaction

Local reaction

1 NR No reaction 0 None

2

3

Little
Moderate
Severe

Result: Vaccine showed / not showed untoward effect

Immunized by:

Name:

Date:

Observed By:

Name:

Date:

Approved By:

Name:

Date:

Annexure-14: SOP of flock registration

Standard Operating Procedure for flock registration of small animal (Sheep, Goat, Pig) in Bharat Pashudhan Portal

A. Registration of Owner

(Existing procedure for owner registration will be followed)

- i. The vaccinator logs into Bharat Pashudhan Portal and selects vaccination campaign created for him.
- ii. The vaccinator fills up owner details (i.e., Name, Gender, Address, Mobile number, Aadhar number) and click “proceed”.
- iii. OTP will be received on mobile number of owners filled up in owner details.
- iv. Owner shares the OTP with the vaccinator.
- v. Vaccinator will fill up OTP in required field and click “submit”.
- vi. Owner registration process is complete.

B. Registration of Flock

- At present, there is provision to “Add Animal” under owner, wherein individual animal is added.
- Flock Registration will be an alternate flow to add Flock.
- One flock will be added for one species.
- There will one tag Id for identification of the flock.
- For small animals, a new provision, “Add flock”, is added and in Add Flock the following details are captured:
 - i. **Species name (dropdown)** - In this step, vaccinator will register the small animal flock of the owner. He/ She will select species of the animal (sheep /goat/pig).
 - a. Provision for adding rows is available for adding any number / type of species.
 - b. Sub Species / breed- if required, breed name may be added
 - c. Total number of animals in the flock/ herd
 - d. Adult/ Breeding male (number)
 - e. Breeding female (number)
 - f. Lambs/ kids / piglets- animals below 3 months of age(number)
 - g. Grower animals

- ii. All data are editable by the user
- iii. At least one breeding male (ram/buck/boar) will be physically ear-tagged (principal representative of the flock) with small animal ear tag and the ear tag number is recorded in portal.
- iv. If it is a small flock (<15 animals) and no breeding ram/buck/boar is present, then no animal will be tagged physically but a representative ear tag will be assigned and its number recorded and the tag can be kept with the owner.
 - a. The vaccinator will click submit and a unique 'Flock Identification Number' will be generated for that flock.
 - b. The owner will receive an OTP sent to his/ her mobile number
 - c. Owner shares the OTP with the vaccinator.
 - d. Vaccinator will fill up OTP in required field and click "submit".
 - e. Flock registration process is complete
 - f. If the ear tag is changed/lost Ear tag Functionality will be used

C. Recording vaccination

While vaccinating the flock user will be able to search by the flock id or tag id of the animal.

- i. Before vaccination, the user will be able to modify the flock details like number of animals in different age groups.
- ii. The vaccinator shall vaccinate all eligible animals (above 3 months of age) as per prescribed dosage and route of the particular vaccine.
- iii. The number of the vaccinated animal in different age group and different gender group (sex) will be filled up by the vaccinator.
- iv. System will validate the number of animals vaccinated.
- v. System will throw the error to the user if number of animals vaccinated is greater than number of animals registered in flock.
- vi. A photograph of the owner/family member present with the flock will be captured and uploaded on portal.
- vii. The vaccinator will click "submit" and the vaccination record will be uploaded on the portal.
- viii. The tag number will be linked only for the data purpose on the portal and will capture the complete vaccination status of the flock (total number of animals)

Process followed in next vaccination/ visit of veterinarian/ para-veterinarian / veterinary service provider etc.

- i. The number of animals in a flock is a variable data and every time a vaccinator or other service provider visits, he/ she should edit the number (Old data will be stored at backend for MIS dashboard)
- ii. The vaccinator will select the 'Flock Identification Number' and click edit button.
- iii. The flock ID can be searched by the owner's name or Aadhar number or Mobile number of the owner
- iv. The changes in the flock composition (number of animals in different age groups and different gender groups) should be filled up.
- v. After vaccination of all eligible animals, number of vaccinated animal (age group & gender wise) should be recorded and a photo will be uploaded as described in step C above.

D. Sale, Culling or change of hand of representative animal

In the event of sale, culling, change of hand of representative animal (physically ear tagged)

- i. In these events, during next visit of the vaccinator/ veterinary service provider, another Ram/Buck/ Boar should be physically ear tagged and the tag number should be aligned with the existing flock ID. The number of earlier ear tag will be removed.
- ii. For seromonitoring and serosurveillance the animals from which blood/serum is collected will be identified by tagging.

E. Verification of vaccinated animals

The vaccinated animals can be identified visually by colouring and branding them with locally available colour, dye, inks, dung clay etc. The vaccine will mark the vaccinated animal with colour/ dye for visual identification. The marking of the vaccinated animals may be done as per the prevalent practice in the particular state or region of a state and a group picture with the marking can be uploaded on the portal.

- i. For seromonitoring and serosurveillance the animals from which blood/serum is collected will be identified by tagging, where tag number will be assigned instead of physical ear tagging and kept with owner and the number uploaded on SS-SM Module

- ii. Similarly, for treatment provided to individual animal by MVU, tag number may be assigned to the animal for purpose of record
- iii. Likewise, for any other service provided to individual, tag number will be assigned.

Annexure-15: List of FMD network laboratories

S. No.	Centre Name	Location	Principal Investigator	Co-Principal Investigator	Office mail
1	Agartala	Officer-in-charge, FMD Collaborating Center, Animal Resource Development Department, State Disease Investigation Laboratory, Abhoynagar, Agartala, Tripura - 799005	Dr Jyotirmoy Roy Deputy Director jyotibul66@gmail.com 9436124525	Dr. Bina Saikia binasaikia17@gmail.com 8731069076	ardd.tripura@gmail.com sdil.ardd@gmail.com
2	Ahmadabad	Office of Deputy Director of Animal Husbandry, FMD Collaborating Center First Floor, "A" wing, Pashuplan Shankul Makarba, Ahmedabad Gujarat380051	Dr. Amit Kanani Deputy Director amit_kanani@hotmail.com 9824021874	Dr. Vartika Chandra chandra.vartika@gmail.com 9727784001	dy-fmd-ahd@gujarat.gov.in
3	Aizwal	Officer-in-Charge, FMD Collaborating Center, Disease Investigation Officer, Directorate of Animal Husbandry & Veterinary Services, Khatla, Aizwal Mizoram796001	Dr. Esther Lalzolianai esralte0185@gmail.com	DrZohlima drzohlima@gmail.com 7005148162	directorvetymiz@gmail.com mizahvety@gmail.com ahlhdc Miz@gmail.com
4	Ayodhya	Officer-in-Charge, FMD Collaborating Center Department of Veterinary Microbiology Collage of Veterinary Science and AH Acharya Narendra Deva University of Agriculture & Technology, Kumarganj, Ayodhya	Dr. R K Joshi Prof & Head Deptt of Vet Microbiology rkjoshivet26@gmail.com 9554114826	Dr Namita Joshi Prof & Head Deptt of VPH DrVibha Yadav Assistant Prof	

S. No.	Centre Name	Location	Principal Investigator	Co-Principal Investigator	Office mail
		Uttar Pradesh 224 229		Deptt of Vet Microbiology	
5	Bangalore	Officer in Charge, FMD Regional Center, Institute of Animal Health & Veterinary Biologicals, Hebbal, BENGALURU Karnataka 560024	Dr Raveendra Hegde ravihegde63@gmail.com 9448358705	Dr Dharanisha NK drdharanivet@gmail.com Mob: 8073891542	fmdrciahbng@gmail.com diriahvb@gmail.com
6	Bhopal	Principal Investigator, FMD Regional Center, Disease Investigation, State Disease Investigation Laboratory, Veterinary Hospital Campus, Jehagirabad , Jail Road, Bhopal Madhya Pradesh 462008	Dr. Sunil Parnam drparnam@gmail.com 9425929096	Dr T Lokhande drtlokhande@gmail.com 8839841304	piobhopalunit@gmail.com dirveterinary@mp.gov.in
7	Cuttack	Officer-in-Charge, FMD Regional Center, Animal Husbandry & Veterinary Services, Animal Disease Research Institute, At/P.O. - Phulnakhara, Distt. Cuttack Odisha754001	Dr Manoj Patnaik dr.manoj2patho@gmail.com	Dr (Mrs) Pratima Behera rina8617@gmail .com 9437827279	adri.odisha1@gmail.com
8	Guwahati	Officer in Charge, FMD Regional Center, Department of Microbiology, College of Veterinary Science, Assam. Agril University, Khanapara, Post Box- 06, Guwahati Assam781022	Dr. R. K. Sharma rajeev.sharma@aau.ac.in dr.sharmark@rediffmail.com 9435064887	Dr. Pankaj Deka pankaj.deka@aau.ac.in drpankajaau@gmail.com 6900627690	rrcghyemd@gmail.com

S. No.	Centre Name	Location	Principal Investigator	Co-Principal Investigator	Office mail
9	Hisar	Officer in Charge, FMD Regional Center, Department of Veterinary Microbiology, CCS, Haryana Agri University, HISAR-125001 (Haryana)	Dr. Swati Dahiya swatidahiya@luvas.ed u.in swatidahiya@yahoo.c o.in 8607537608	Dr. Anshul Lather anshul.lather08@gmail. com 9416545290	fmdhisar@luvas.edu.in
10	Hyderabad	Dy. Director (AH) & Officer-in-charge FMD Collaborating Centre Disease Investigation Veterinary Biological & Research Institute, Shantinagar, Hyderabad Telangana 500028	Dr G Sunitha JD, VBTSRI	Dr. K. Vijaya Praveen 9989998025 rvijayapraveen@ gmail.com	fmdvbrihyd@gmail.co m
11	Imphal	Officer-in-charge FMD Collaborating Centre Disease Investigation Laboratory, Directorate of Veterinary & Animal Services, Imphal Manipur 795001	Dr. Sabitri Maibammaib amsabitri@gmail. com 9774014506	Dr. Ch. Amita Devi muhindrovvet@g mail.com 8575465386	
12	Itanagar	Officer-in-charge FMD Collaborating Centre Disease Investigation Laboratory, Department Of Animal Husbandry & Veterinary, Nirjuli, Itanagar, Arunachal Pradesh 791111	Dr Badal Biswakarma	Dr G B Garam niyango@gmail.c om 8471812963	dioarunachalpradesh@g mail.com
13	Jaipur	Officer-in-Charge, FMD Collaborating Center, State Disease Diagnostic Centre, Department of Animal Husbandry, Gopinath Marg	Dr. Hari Krishan Khatri Joint Director SDDC, Jaipur Mob. 9414262718	Dr Lenin Bhatt leninbhatt@gma il.com 9829791073	ddpathologistraj@gmail. com

S. No.	Centre Name	Location	Principal Investigator	Co-Principal Investigator	Office mail
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Annexure-16: Summary of Major Livestock Diseases, Vaccination Schedule, and Their Effects

Sl. No.	Disease Name	Susceptible Animals	Frequency of Vaccination	Effects of the disease
1	Foot and Mouth Disease (FMD)	<ul style="list-style-type: none"> • Cattle • Buffalo • Sheep • Goat • Pig 	<ul style="list-style-type: none"> • Every 6 months • Primary Vaccination to Calves at 4-5 months, Booster after 4 weeks • Presently, as per the technical advise, vaccination is done to Cattle and Buffalo. Additionally, some of the states having Goats and Sheep migratory flock are vaccinated 	Very contagious and economically damaging
2	Brucellosis	<ul style="list-style-type: none"> • Cattle • Buffalo 	<ul style="list-style-type: none"> • Only once in a lifetime • Only female Calves 	Zoonotic (spreads to humans); no revaccination needed
3	<i>Peste des Petits Ruminants</i> (PPR)	<ul style="list-style-type: none"> • Sheep • Goat 	<ul style="list-style-type: none"> • Annual 	Highly contagious; affects flock productivity
4	Classical Swine Fever	<ul style="list-style-type: none"> • Pigs 	<ul style="list-style-type: none"> • Booster after 3–4 weeks, then every 6–12 months 	Causes mass pig deaths if not prevented
