



**Indian
FMD
Laboratory
Network**

भा.कृ.अनु.प. -राष्ट्रीय खुरपका और मुंहपका रोग संस्थान

**ICAR - National Institute on Foot and
Mouth Disease**

FMD Case Study Series-2025

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Case Study Number:	02/2025
State involved:	Odisha
Area/District:	Ranasinghpur, Sijua, Bhubaneswar
Month/Year:	March/2025
Primary Species affected:	Cattle (People For Animal, Gaushala)

A case study of Foot-and-Mouth Disease (FMD) Outbreak at PFA Gaushala, Ranasinghpur, Sijua, Bhubaneswar



Location of FMD outbreak



Affected cattle showing lameness and hoof lesions

1. Case History: An episode of Foot-and-Mouth Disease (FMD) was observed at the People For Animals (PFA) Gaushala (animal shelter) in Ranasinghpur, Sijua (20.2296° N, 85.7744° E), within the Bhubaneswar block of Khurda district, Odisha state. On 29 March 2025, eleven cattle being illegally trafficked were seized by local authorities and transferred to the People For Animals (PFA) Gaushala, a cattle rescue centre. The vaccination status of these animals was unknown at the time of entry into the facility. The index case of Foot-and-Mouth Disease (FMD) was observed on 31 March 2025, indicating a possible introduction of the virus through the newly transported animals.

2. Field Investigation and Epidemiology: The close temporal association between the arrival of illegally trafficked cattle on 29 March 2025 and the detection of the first FMD case on 31 March 2025 strongly suggests the introduction of FMDV through unverified and potentially infected animals.

3. Laboratory Diagnosis: Clinical samples were collected by the office of the Joint Director, Animal Disease Research Institute (ADRI), Phulnakhara, Cuttack, Odisha. Samples were dispatched to ICAR-NIFMD on 05 April 2025. A total of 10 samples (serum, vesicular tissue, and saliva) from clinically

affected cattle were received at ICAR-NIFMD on 07 April 2025. The clinical samples were screened for FMDV serotype using Sandwich ELISA and multiplex reverse transcription PCR. All samples tested positive for FMDV serotype O. Serum samples were further analysed for the presence of non-structural protein (NSP) antibodies using a DIVA ELISA.

4. Socioeconomics of FMD outbreak: According to available information, the Government of Odisha provides a one-time capital grant of Rs. 16.00 lakh for establishing a shelter house with a minimum capacity of 50 animals. In addition, the private Gaushalas are supported through an annual grant of around Rs. 16 lakhs per annum for maintaining 100 adult cattle. Unwarranted disease episodes such as FMD substantially increase the operational and maintenance costs of gaushalas, primarily due to expenditure related to treatment and additional care of sick animals. Moreover, an infected gaushala can potentially act as a source of infection for livestock in the surrounding region, thereby exacerbating economic losses arising from morbidity, reduced milk production, mortality, weight loss, infertility/abortions, mastitis, treatment cost and distress sale. However, in the present case, with timely diagnosis and prompt implementation of control measures, the outbreak was restricted within the gaushala and did not spread to the surrounding region, thereby preventing further economic losses.

5. Control Measures and Recommendations: A gaushala cannot be managed in the same manner as a conventional cattle farm, where the animal introduction can be strictly regulated. By design, gaushalas serve as rescue shelters and are required to admit animals in distress due to disease or injury. Consequently, unlike a commercial farm, the number, timing and health status of newly introduced animals cannot be fully controlled. This inherent operational limitation results in a persistent risk of introduction and transmission of infectious diseases within gaushalas.

Mandatory Quarantine:

- All animals brought to rescue centres or Gaushala facilities must undergo a quarantine period of at least 21 days.
- Clinical examination and testing for FMDV and other diseases should be carried out immediately upon introduction and repeated before they mix with resident animals.
- Only animals that have undergone pre-entry health screening (temperature, history, signs of FMD, HS, BQ, mastitis, parasitism, etc.) must be introduced.
- The source, transport, and previous health status of new animals must be recorded, as far as information is available.
- Deworming, ectoparasite control, and vaccination during quarantine must be carried out.
- Preferably, a veterinary fitness certificate must be issued before introduction into a Gaushala.

Vaccination and Biosecurity:

- Strengthening of biosecurity practices within rescue centres must be done diligently.
- Proper recording of vaccination, health status and visitors must be maintained to trace any disease occurrence.
- Regular vaccination of resident animals in accordance with state/central FMD control programs must be strictly followed.
- Mandatory vaccination of newly introduced animals must be done preferably during the quarantine period.
- Restriction on visitor access must be there, and only essential entry should be allowed.
- Staff should be assigned to specific zones; avoid moving between sick and healthy animal areas.
- Farm hygiene, disinfection and ventilation, etc., must be strictly maintained.

Laboratory Testing:

- As early as possible, clinical samples should be submitted to an **authorised FMD diagnostic laboratory** for confirmation before integration.
- Irrespective of the fact that the animal may be found negative in the test report, the quarantine period must be completed.

Routine Health Monitoring

- There must be daily observation for the health status of animals, which includes clinical signs like fever, salivation, nasal discharge, wounds, lameness, diarrhoea, and respiratory distress.
- Immediate isolation of sick animals must be done.

Strict Regulation of Animal Movement:

- Illegal trafficking of cattle, buffaloes, or any FMD-susceptible species poses a **high biosecurity threat**. Such movements must be strictly monitored, documented, and controlled by appropriate authorities.
- An episode of FMD in a Gaushala must be traced back to the site of origin, and appropriate control measures must be implemented.

6. Conclusion: The rescue of stray, illegally trafficked, injured and unclaimed bovines is an important issue in urban, semi-urban and even some rural parts of India. Such interventions are necessary for animal welfare, road safety and urban traffic maintenance, and also for the broader yet underexplored dimension of One-Health. To maintain this noble cause, substantial investments are being made by the government in India. Various Animal Rescue Centres and ‘gaushala’ (literally meaning “cattle shelters”) are the point of salvation for such animals. Unlike conventional livestock farms, animal rescue centres and gaushalas have limited control over the number, timing and health status of animals being introduced. In the present scenario of India, the introduction of new animals in a gaushala is almost continuous. Consequently, rescued animals, however, may be harbouring diseases which may get access to the gaushala. The present case study exemplifies such a scenario and underscores the critical importance of disease prevention and control measures to mitigate outbreaks not only of FMD but also of other diseases of veterinary and One-Health significance. Therefore, Gaushalas require continuous attention for FMD vaccination, as they are high-risk premises under the National FMD Control Programme.