

Country Updates : Nepal

Members' updates on follow-up actions from 3rd SA-RABNET and other recent actions/progress on rabies diagnosis and surveillance

4th South Asia Rabies Laboratory Network (SA-RABNET) Meeting

29 October 2025, 3 PM Japan time (Zoom)

Dr. Anil Regmi
Veterinary Officer
Central Veterinary Laboratory, Nepal

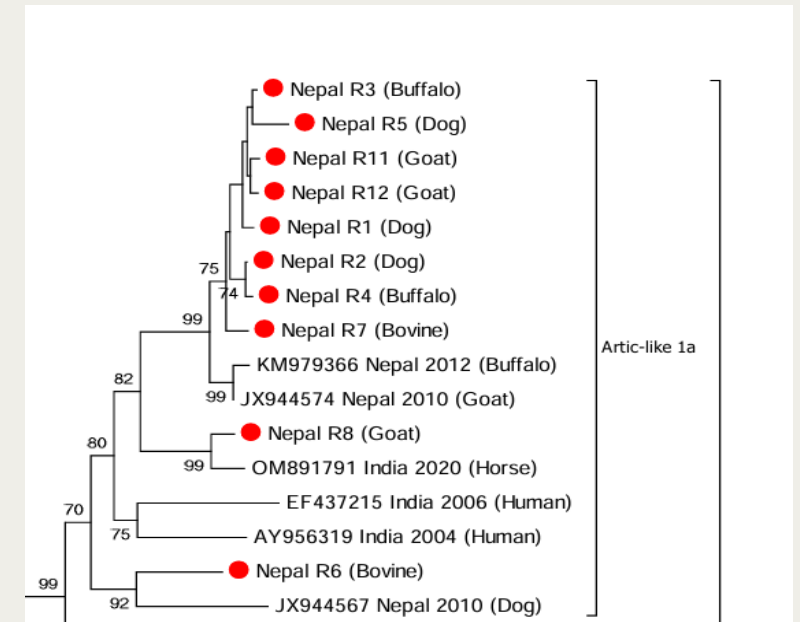
- Rabies - Endemic in Nepal.
- Notifiable disease in Animal Health
- Rabies Control Strategy drafted; yet to be approved.
- Department of Livestock Services is responsible for rabies control in animals (co-ordination with three tiers of government).

Genetic Characterization

Arctic-like lineage 1; **2003**

An Indian subcontinent clade and two different Arctic-like sub-clades within the Arctic-related clade (AL1, AL3); **2013**

Only Arctic-related clade (Arctic like 1a); **2023**



Diagnostic Facilities

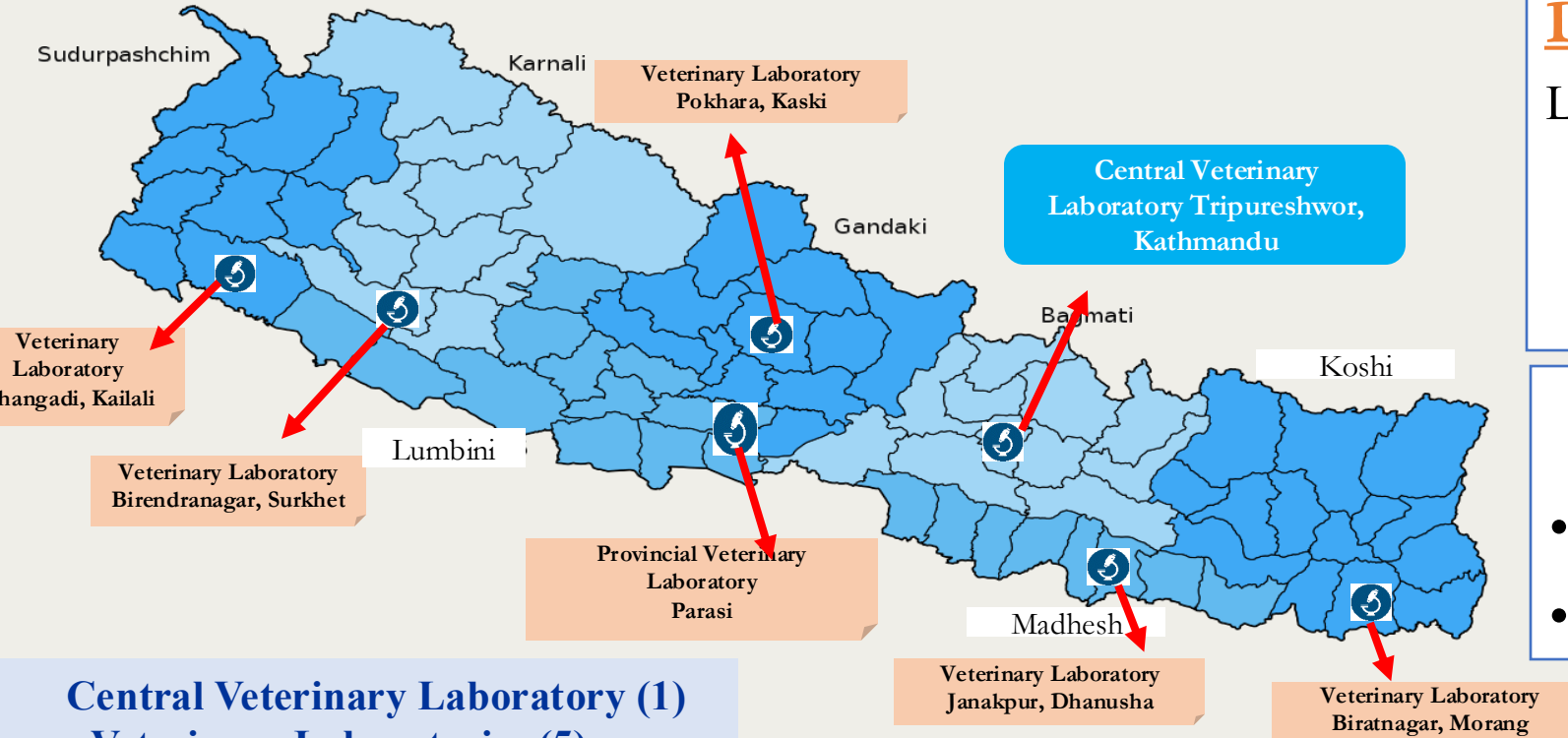
Diagnostic Algorithm (CVL)

LFA (Screening) → FAT (Confirmation)

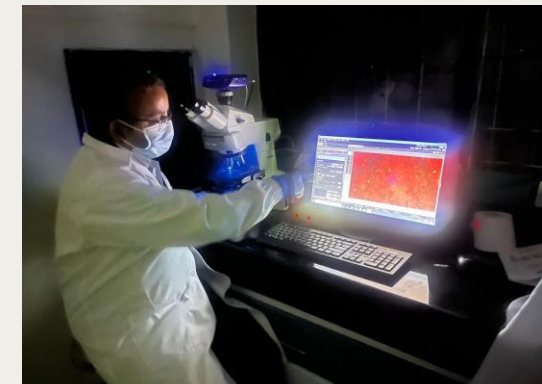
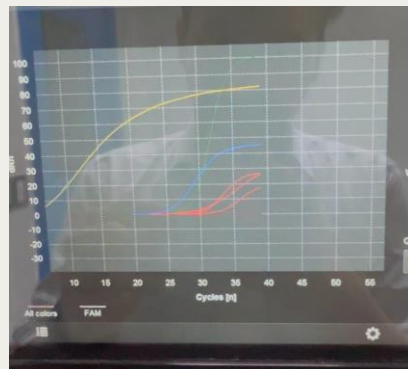
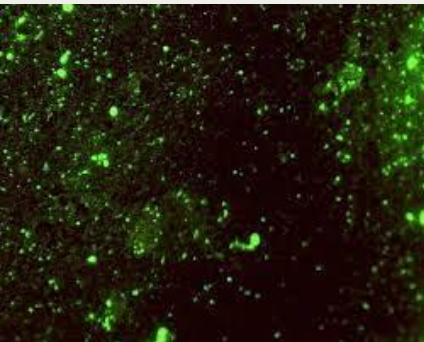
RT-PCR (if LFA and FAT Result differ

Diagnostic facilities setup in Sub-national Level

- FAT and PCR in VL Dhangadi
- FAT facilities in VL Pokhara.

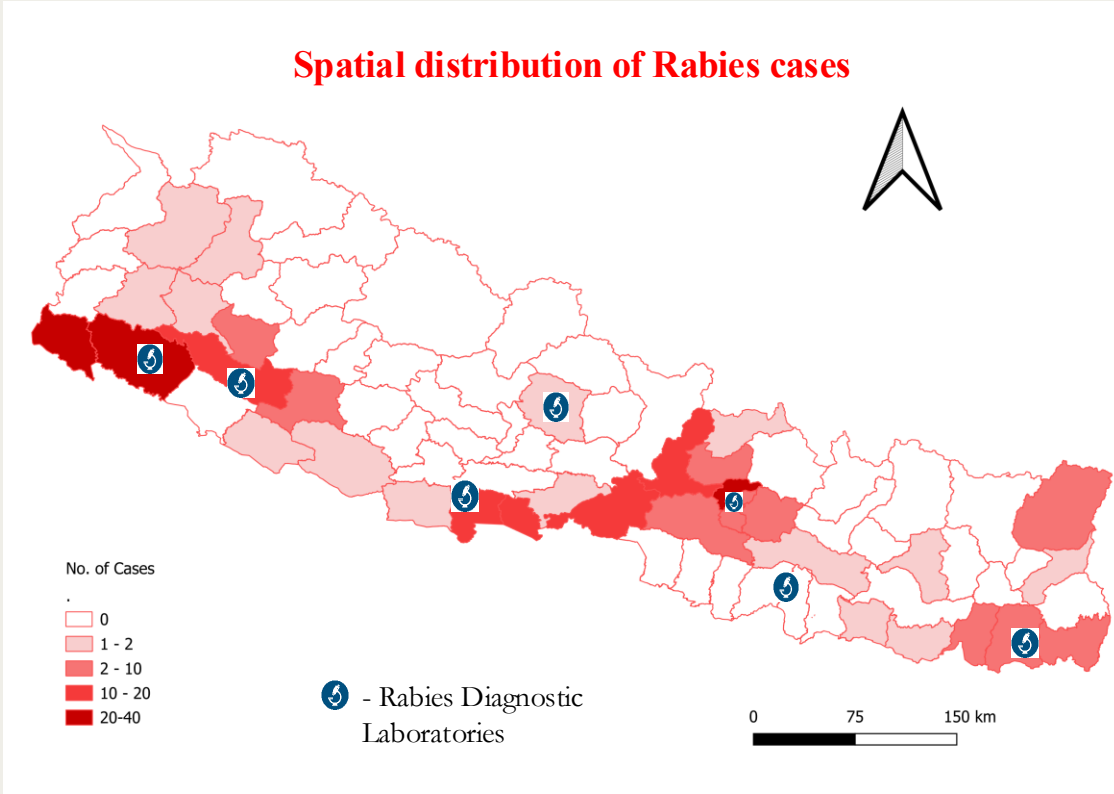
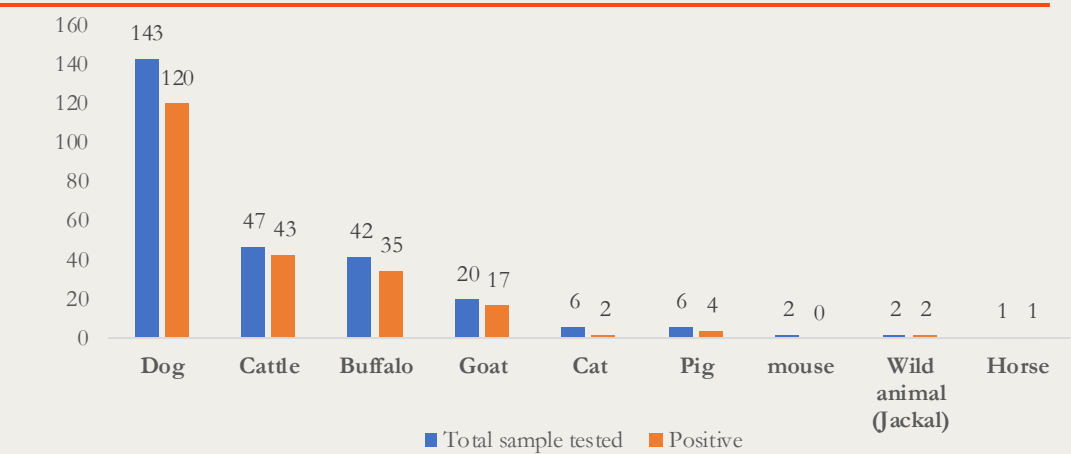


Central Veterinary Laboratory (1)
Veterinary Laboratories (5)
Provincial Veterinary Laboratory (1)



Diagnostic activities since March 2025

Month	Species	No of sample tested	Type of tests	No of positives
April	Dog, Buffalo, Cat, Cattle, Goat	45	LFA, FAT and PCR	45
May	Dog, Buffalo, Pig, Cattle, Goat	42	LFA and FAT	35
June	Dog, Buffalo, Pig, Cattle, Goat, Horse	50	LFA, FAT and PCR	39
July	Dog, Buffalo, Pig, Cattle, Goat	49	LFA and FAT	41
August	Dog, Buffalo, Cattle	38	LFA, FAT and PCR	28
September	Dog, Buffalo, Cattle, Goat, Wild animal	28	LFA and FAT	23
October	Dog, Cattle, Goat, Wild animal	17	LFA and FAT	13
Total		269		224



Rabies related activities since March 2025

5

Sample collection technique: Occipital Foramen

Capacity Building :

- Training of Brain sample collection and Dispatch – 91 participants from 85 local level
- MTOT on Spaying and castration
- TOT on Cold chain management
- Training on Rabies diagnosis using FAT and PCR at VL Dhangadi
- Training of Virus titration and Virus Neutralization test

School awareness programme- 40000 students from 700 school

ABC programme – CRVH at central level, VHLSEC at provincial and Livestock service section at local level

Post vaccination seromonitoring : 266 serum sample from dog, 40 sample from Bovine and 41 sample from mouse using ELISA



Collaboration with Human health sector: regular data sharing, joint interaction programs, and testing of human CSF samples for rabies.

Reporting Mechanism: NAHIS for field reporting and LIMS for Laboratory reporting

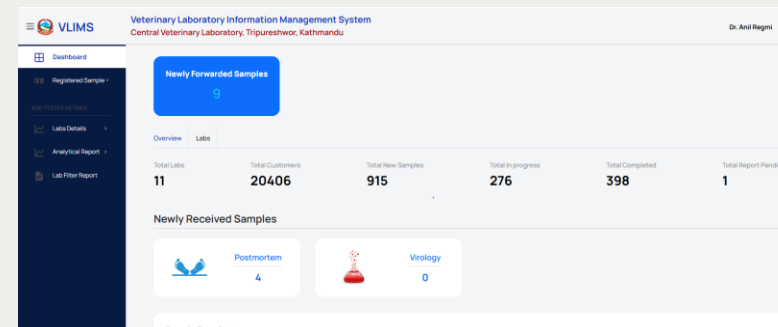
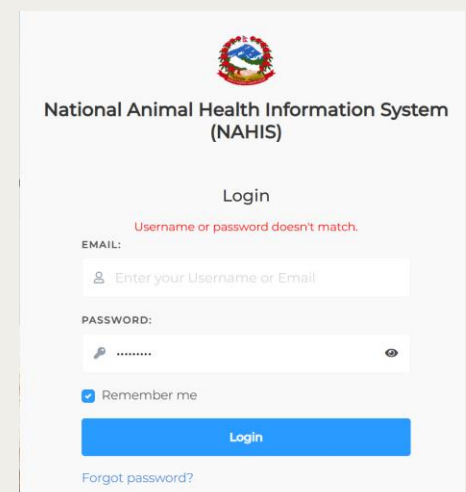
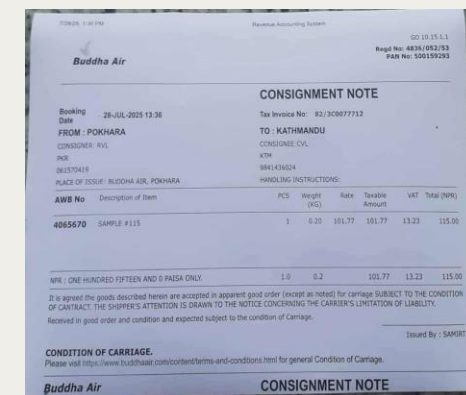
Sample Submission from field: Samples from nearby areas are delivered directly to the laboratory, while those from distant areas are sent by air, with pickup facilities provided at the airport.

Testing of brain samples from dogs that died of diseases other than rabies or died due to accidents – some positive cases detected.

External support:

FAO: Pandemic fund - Equipments, consumables, Capacity building in sample collection and Diagnosis

FAO/IAEA : ZoDIAC – Equipments, consumables and Capacity building



1. Institutional Framework

- One Health Section in DLS
- Functioning laboratory system of Nepal for rabies diagnosis and surveillance.
- National Vaccine Production laboratory
- Veterinary Standard and Drug regulatory Lab. – to test vaccine quality
- Planning for a Rabies Disease Reference Centre

2. Policy and Legal Framework

- One Health Strategy.
- Final draft of the National Rabies Control Strategy prepared.
- Rabies listed as a notifiable disease under the Animal Health Act and in Public health sector

3. Programs

- Animal Birth Control programs, MTOT on Spaying and castration
- Brain sample collection and dispatch training – 91 Participants from 85 local level
- School and community awareness – 40000 students from 700 school were aware
- Regular World Rabies Day celebrations
- Anti-rabies vaccination campaign
- Outbreak Investigation
- Post vaccination seromonitoring
- Interaction programme with human professionals

4. Others

- Vaccine support: 6,000 doses from FAO.
- 30 thousands doses in national purchase process
- NAHIS for field reporting, LIMS for Lab Reporting
- Testing human CSF sample for Rabies diagnosis



- Increasing and large forest cover area – increased wild domestic interface (Wild animal oriented rabies)
- Overpopulation of community dog with frequent wild interface
- Dog census conducted only in limited area, nationwide database yet to be developed
- Low vaccination coverage, Vaccine Insufficiency
- Capacity to test the quality of vaccine is inadequate
- No clear chain of command between three tiers of government, Under reporting
- Exposure to Bat recorded in some events of rabies outbreak however source of rabies in those cases not yet established
- Management of Cold chain of vaccine : from production/import upto use

- Participation in Proficiency testing
- RFFIT capacity building at central level (Training, CVS-11, Positive control, Protocol for RFFIT)
- Capacity building of official veterinary services for quality testing of in country produced and imported vaccine
- Vet lab. Dhangadhi to be established as a reference lab in sub national level for rabies diagnosis
- Establish FAT Diagnostic Facility in all sub national Laboratories
- Increase Rabies Surveillance with outbreak investigation including wildlife and bat rabies reservoirs.
- Increase Dog vaccination coverage (>70% population)

MOALD

DLS

Veterinary Laboratories

VHLSEC

Local Level

WOAH

FAO

IAEA

thank you!