



Fourth Meeting of the South Asia Rabies Laboratory Network (SA-RABNET)

Wednesday, 29 October 2025, Zoom®, 3 PM Japan Time (GMT+9)

**(10:30 am Kabul; 11 am Islamabad; 11:30 am Colombo and New Delhi;
11:45 am Kathmandu; 12 pm Dhaka and Thimphu)**

MEETING REPORT



Photo credit: Kinzang Dukpa

Report prepared by: Kinzang Dukpa, WOAH RRAP (Secretariat of SA-RABNET)



SAFETY, RELIABILITY, AND INTEGRITY
SA-RABNET

SAFETY, RELIABILITY, AND INTEGRITY
SA-RABNET

Table of Contents

| | |
|--|----|
| SUMMARY..... | 3 |
| BACKGROUND..... | 4 |
| OUTCOME OF THE MEETING | 4 |
| OPENING REMARKS | 4 |
| Adoption of the Agenda..... | 5 |
| Adoption of the Meeting Report of the 2nd SA-RABNET | 5 |
| Members' updates on follow-up actions from 3 rd SA-RABNET and other recent actions/progress on rabies diagnosis, prevention and control activities | 5 |
| Updates from WOAH RRAP..... | 9 |
| Updates from KVAFSU..... | 9 |
| Technical presentations | 10 |
| Next Meeting of the SA-RABNET | 11 |
| Closing of the SA-RABNET Meeting | 11 |



SUMMARY

The World Organisation for Animal Health (WOAH) Regional Representation for Asia and the Pacific (RRAP) in collaboration with Karnataka Veterinary Animal and Fisheries Sciences University (KVAFSU), India, organized the Fourth Meeting of the South Asia Rabies Laboratory Network (SA-RABNET) on 29 October 2025. A total of 24 attendees, including 16 Network Members (see annexure 1) from seven South Asian Association for Regional Cooperation (SAARC) Members (Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka) attended the meeting. A series of presentations were made on topics such as updates from the Members on recent progress made in rabies diagnosis and surveillance since the last meeting. WOAH and KVAFSU also made presentations recent activities conducted including a technical presentation from WOAH Reference Laboratory (KVAFSU) on use of molecular epidemiological techniques to support rabies prevention and control.

Based on the challenges faced by the Members, the way forward would be for Members to participate in laboratory proficiency testing to strengthen quality of diagnostic services and the need for WOAH and partners to support Members in quality vaccine production/supply including accessing quality rabies vaccine virus strains.

Dr Barun Sharma from Nepal as the incumbent Chair, chaired the 4th Network meeting of SA-RABNET.



BACKGROUND

To achieve the global goal of elimination of dog-mediated human rabies by 2030, an important component to focus on is the surveillance of animal rabies to provide accurate data in countries for timely and appropriate control measures. Although rabies poses significant public health concerns in South Asia, there is a general lack of ground-level surveillance owing primarily to insufficient or total lack of rabies diagnostic capacity across the region.

Since 2020, to support capacity building for rabies diagnosis and surveillance in animals in South Asia, WOAH RRAP jointly with the KVAFSU-WOAH Reference Laboratory for Rabies in India organised [virtual training on brain sampling and diagnosis of rabies](#) in animals in 2020, [rabies serology in 2021](#) for the SAARC Member States.

As a follow up to the virtual trainings and as per the demands of the Members, WOAH and KVAFSU jointly organised a virtual workshop on "[Proposed South Asia Rabies Laboratory Network](#)" on 14 July 2022 to introduce the concept of establishing a sub-regional rabies laboratory Network for South Asia to strengthen rabies diagnosis, surveillance, and control. Further, as a follow up of the virtual workshop, WOAH RRAP asked the countries for nomination of two Members to initiate the activities of the Network in accordance with the proposed ToR. Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka have nominated Members of the Network. The first meeting of the Network was held on 6 April 2023 to formally launch the South Asia Rabies Laboratory Network and discuss the scope and activities to be implemented by the Network. Bhutan chaired the first three meetings of the Network supported by Nepal as the Co-Chair. At the Third Network Meeting held on 3rd March 2025, Nepal was selected as the Chair and Sri Lanka as the Co-Chair of the Meeting for a period of one year.

The 4th Meeting of SA-RABNET was held with the following objectives:

- Share Members' updates on recent progress and follow-up actions since the 3rd SA-RABNET meeting.
- Share information on molecular epidemiological techniques for rabies diagnosis and control provided by KVAFSU, the WOAH Reference Laboratory for rabies in India.

OUTCOME OF THE MEETING

OPENING REMARKS



Dr Kinzang Dukpa, Regional One Health Coordinator, WOAH RRAP, welcomed participants and introduced the meeting objectives and key topics to be covered. Dr Hirofumi Kugita, WOAH Regional Representative for Asia and Pacific in his keynote address appreciated the efforts made by the Members in keeping the forum alive and acknowledged some notable outputs from the from the Network activities. He also reminded the Members of the need to conduct ground level surveillance and to share data with relevant stakeholders in country and with WOAH to understand the true burden of rabies. Dr. Shrikrishna Isloor, WOAH Expert on rabies, shared that the activities of SARABNET are well appreciated at the global level at the WOAH RABLAB meetings and reiterated that KVAFSU will soon start providing proficiency testing support to the Members.

Adoption of the Agenda

The meeting agenda was adopted following introduction by the Chair.

Adoption of the Meeting Report of the 2nd SA-RABNET

Following the Chair's introduction of the topic, the [Meeting Report](#) for the 3rd Network meeting was adopted with no further comments from the Members.

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

The Chair invited the Members of the Network to share their country updates since the last Network meeting.

Afghanistan

Dr Hamidullah Tawfiq joined the meeting. Owing to connectivity issues, Dr Hamidullah could not share live presentation on updates but shared a copy of Afghanistan's presentation with WOAH. Despite challenges in terms of lack of diagnostic kits, Afghanistan reported testing of 2 dogs using lateral flow assays (LFA) and a cow tested with polymerase chain reaction (PCR) for rabies. No new brain sampling or rabies diagnostic techniques were introduced in the country since March 2025. The Central veterinary diagnostic laboratory trained zonal and provincial staff about how to collect rabies sample and information about positive results was shared with the public health ministry.

Afghanistan was supposed to contact WOAH via their WOAH Delegate with the request for support. They still need support for supply of rabies diagnostic kits such as conjugates for DFA kits and LFA kits.



Bangladesh

Dr. Md. Sohel Rana and Dr Md. Golam Azam Chowdhury joined the meeting. Dr Sohel Rana joined the meeting as an observer given his role as the national focal point for rabies at the Department of Livestock Services (DLS) of Bangladesh. He informed about the National Rabies Strategic Plan Bangladesh (2024-2030) that has been costed and ready for implementation. Bangladesh has also updated its National Guideline on Integrated Bite Case Management (IBCM), 2025 using One Health approach. During the WRD 2025, around 70,000 doses of rabies vaccines has been distributed across the country for vaccination by district and upazila livestock offices. The country is seeing declining animal rabies cases. The Central Disease Investigation Laboratory (CDIL) continues to provide diagnostic services to both animals and humans rabies diagnosis. Bangladesh is facing challenges with mass dog vaccination (MDV) due to pause in funding to the Ministry of Health. Animal rabies vaccine production has been stopped due to lack of quality master seeds. The DLS has proposed alternative funding for MDV to the government. The DLS plans to seek support from WOAH for vaccine production/supply.

On the query about use of oral rabies vaccination (ORVs), it was clarified that Bangladesh currently uses only parenteral vaccines but is interested in piloting of ORVs to explore potential for use in free roaming dogs.

Bhutan

Dr Lungten, Dr Nirmal Kumar Thapa and Dr Tshering Choden from the Department of Livestock (DOL) represented Bhutan. Dr. Lungten presented Bhutan's rabies control efforts, highlighting that six reported outbreaks in animals were reported since March 2025, located in southern districts bordering India. Bhutan initiated several activities including setup of direct fluorescent antibody testing (DFA) at two regional laboratories (South and Eastern part), interlaboratory proficiency testing for sub-national laboratories, hands-on training on Fluorescent Antibody Virus Neutralization (FAVN) tests by experts from National Institute of Infectious Diseases (NIID) of Japan, and in-country refresher course on rabies diagnosis, surveillance and control. Bhutan is continuing its MDV activities in high-risk areas and started the second phase of its nationwide dog population management programs (NADPM) focusing on sterilization and vaccination of cats and dogs to achieve zero rabies incidence and compliance to responsible pet ownership (through microchipping of pet dogs). With the success of first phase NADPM leading to reduced dog numbers, the country is seeing an increase in cat population in some areas. Special focus on rabies control is being made in the upcoming Gelephu Mindfulness City bordering the Indian State of Assam. Rabies cases are being recorded and notified via the laboratory information management system (LIMS) and veterinary information system (VIS). Bhutan seeks technical



support for molecular diagnosis, serological tests, wildlife rabies surveillance, proficiency testing and plans to include rabies in the upcoming PVS follow-up mission.

India

Dr Sharada, Dr Susan Abraham, Dr Isloor, Dr Kirthika, Dilip and other KVAFSU staff participated from India. Dr. Sharada shared updates since March 2025 and reported that 913 samples were tested with 584 positives, and that most laboratories conducted DFA and LFAs and few samples originated from wildlife in Kerala State. Two States (Maharashtra and Himachal Pradesh) reported testing of brain samples from dogs that died of other causes (other than rabies) to increase sensitivity of their surveillance system. Several trainings on animal brain sampling were held across India and rabies samples were submitted to State-level laboratories and the national laboratory at KVAFSU. Rabies surveillance in wild animals is also being undertaken with testing of foxes, jungle cats, jackals, monkeys, mongoose, tiger, deers, palm civets, and hyenas. Information about rabies diagnosis is being shared at various levels with the human health sectors especially from Tamil Nadu, Maharashtra, KVAFSU. ELISA, FAVN and RFFIT are currently being used for post-vaccination monitoring to certify pet travel purpose in various states.

Nepal

Dr Barun Sharma, Dr Pragya Koirala, Dr Anil Regmi and Dr Prerna Bhattarai joined from the Department of Livestock Services of Nepal. Dr Anil informed that their national strategic plan is yet to be approved and in 2023 they reported Arctic like lineage of rabies virus circulating in Nepal. They have one central, one provincial and 5 sub-national laboratories. The lateral flow assays are used in the peripheral laboratories and confirmation is done using DFA at the central laboratory which also has PCR facilities. Notable developments are the set up of DFA and PCR testing capacity at Dhangadi veterinary laboratory and DFA at Pokhara laboratory. Nepal is using the WOAH-recommended occipito-foramen brain sampling and conducted national training on sampling and rabies diagnosis. Awareness programs were conducted in schools and they are providing cascaded training in enhancing rabies surveillance. Since June 2023, DLS conducted training on WOAH-recommended brain sampling to 583 veterinarians and veterinary technicians. High positivity rates for rabies was detected in recent months. There is data sharing with human health sector and they use NAHIS and LIMS for reporting. Few dogs that died due to canine distemper were tested against rabies and detected positive to rabies. Nepal is currently facing challenges in dog vaccine production owing to issues with master seed virus and inability to monitor vaccine quality due to lack of capacity to test. Colorado State University had recently



conducted a training on rabies virus neutralisation training for DLS. Nepal is seeking support from WOAH for technical assistance in vaccine production and sourcing of rabies master seed virus.

Nepal wants to participate in proficiency testing and build capacity for RFFIT test, build capacity for quality testing of rabies vaccine, and establish DFA in all sub-national Laboratories.

Pakistan

Dr Muhammad Abubakar updated Pakistan's status of rabies control and progress. Pakistan reports annual human deaths between 2,000 and 5,000 with 99% originating from dog bites. The free-roaming dog population is large with cities reporting several dog bites in a day. Most rabies control activities are undertaken in cities whereas it is largely neglected in the rural areas. The animal health sector is relatively weak in terms of disease surveillance and vaccination. In Karachi city alone, in 2025, 21 human deaths were reported with daily average of 25-23 dog bite cases. There are diagnostic facilities in human health sector at Dow University in Karachi and the National Institute of Health in Islamabad. Major constraints include lack of one health approach, lack of sensitization of policy makers for animal rabies control, weak animal disease surveillance system, limited access to modern rabies vaccines and immunoglobulins, poor dog population management and reliance on culling, and limited budget for rabies control. Although awareness campaigns are being held especially during WRD events, there is big challenge in diagnosis and surveillance especially in animal sector.

Sri Lanka

Dr Pradeep Lakpriya, Dr E. R. R. Wimalasinghe and Dr W. M. A. D. Wanninayake (Anushika) attended the meeting. Dr Anushika informed that in Sri Lanka, rabies control at national level is being led by the Public Health Veterinary Services (PHVS) under the Ministry of Health in which awareness programs, mass dog vaccination and dog sterilisation are undertaken. Rabies diagnosis in animals is conducted at the Faculty of Veterinary Medicine at Peradeniya, Medical Research Institute (MRI) Colombo and Karapitiya Hospital whereas human rabies is diagnosed at MRI and Karapitiya. The Department of Animal Production and Health (DAPH) with support of Mission Rabies recently trained six veterinary investigation officers on occipital foramen brain sampling techniques and the use of lateral flow assays for rabies diagnosis. This is a landmark progress given that currently animal heads are sent to the laboratory for testing and that there is practically no diagnosis done at the field level in animals. Following this training, now even the veterinarians are sending brain samples to laboratories. Rabies diagnosis in wild animals were done in Indian otter, squirrels, Rats, Rock squirrel and gray mongoose. Positive animal rabies results were shared with human health sector in Sri Lanka. The support needed



from WOAH included capacity for disease diagnosis, training of workforce for MDV and surveillance, and proficiency testing of laboratories.

Updates from WOAH RRAP

Dr Kinzang Dukpa provided the following updates:

- [Information on Veterinary Vaccines and Vaccination](#): from science to action forum at the 92nd WOAH General Session held in May 2025 that is relevant for rabies vaccines and vaccination as well.
- Information on the recent publication from WOAH on the use of [lateral flow devices](#) (LFDs) for field application
- Joint external rabies programme review 2025, Sri Lanka, 8-15 September 2025, to assess **the progress, challenges, and sustainability of rabies elimination efforts** and **reinforce coordination and collaboration across sectors** applying a holistic One Health approach
- 2025 United Against Rabies Forum Stakeholder Meeting, 7-9 October 2025, Bangkok. Hybrid meeting attended by human and animal health sectors from several countries in Asia (Bangladesh, Bhutan, India, Indonesia, Nepal, Sri Lanka, Vietnam).
- World Rabies Day 2025: [Youth Against Rabies Webinar](#), Act Now: You, Me, Community. 29 September 2025. WOAH RRAP together with WHO and Nymat, a youth organisation organised a webinar titled "Regional Dialogue on Rabies Elimination".

Updates from KVAFSU

Dr Krithiga made the updates as follows:

1. Developed SOPs for sample submission and shared with members
2. Providing hands-on training to SAARC member countries & support transfer of technology and capacity building
3. Initiated support for proficiency testing schemes after accreditation as PT provider

There were several other activities undertaken by KVAFSU to support initiatives on rabies control in India including providing training, participating in academic seminars, research workshops, awareness programmes and advocacy using various platform. KVAFSU recently launched a project titled "Development of indigenous recombinant adenovirus vector-based oral rabies vaccine intended for free-roaming dogs (SN ID-16)" under funding from ICMR-



MoHFW, NOHM for 3 years. Several publications have been made by scientists and researchers from KVAFSU on rabies.

Technical presentations

Molecular epidemiological techniques to support rabies prevention and control - Dr Shrikrishna Isloor

Dr Isloor presented in detail the principles, methods, and types of molecular tests available for rabies diagnosis including the use of phylogenetic studies for molecular epidemiology of rabies. Molecular studies can be used to have rapid response plans for new outbreaks, for real-time surveillance tools to guide rabies elimination initiatives, and can revolutionize diagnosis and surveillance of rabies and have significant contribution in the ante-mortem detection of rabies. Examples were shown of how molecular studies can be done to understand the distribution of rabies virus and how that information can be used to guide for effective prevention and control of rabies. Molecular diagnosis and phylogenetic studies enable **faster diagnosis, lineage tracing, and targeted interventions**. KVAFSU laboratory is fully committed in supporting SAARC Members in enhancing their molecular diagnostic capacity.

Table 1. Key issues and follow up actions

| Topics/issues | Follow-ups |
|---|--|
| a. Sharing of resources and learning experiences | Bangladesh to share its IBCM guideline with the rest of the Members for information and usage (pending approval from steering committee) |
| b. Increasing incidences of rabies in wild animals | KVAFSU to support Members on rabies epidemiological studies in rabies cases in wild animals to understand if sylvatic cycle is present in South Asia. |
| c. Rabies as a transboundary issue and use of risk-based approaches for dog vaccination | Members to make use of disease epidemiology to focus mass dog vaccination based on risks. Example: Bhutan could continue focussing its MDV along the international border where disease incidence and incursion is high and also establish contacts with authorities in India for collaborative actions for joint vaccination and rapid information sharing. |



| | |
|--|---|
| d. Use of molecular techniques | KVAFSU to organise virtual training/consultations on specific molecular techniques with laboratory officials working on rabies diagnosis in South Asia. |
| e. Lack of diagnostic kits and reagents for DFA and LFA in Afghanistan | <ol style="list-style-type: none">Afghanistan to send formal request for support to WOAH RRAP through the WOAH DelegateKVAFSU to explore sending some conjugatesWOAH RRAP to explore for coordination with FAO/WHO in Afghanistan |
| f. Proficiency testing | KVAFSU to support Members in conducting proficiency testing (PT) for rabies diagnostic tests |

Next Meeting of the SA-RABNET

- ↳ The Network meeting will be held after six months, May 2026 (date TBC)
- ↳ The topic (s) of the next meeting will be decided after prior consultation with the Members

Closing of the SA-RABNET Meeting

The Chair, Dr Barun Sharma, closed the meeting by extending his appreciation to the Members of the Network for their active participation and support. He thanked WOAH RRAP and KVAFSU for the secretarial and technical support in steering the Network activities smoothly over the last few years. He extended his best wishes to all participants and urged Members to keep in communication for continued discussion on rabies control in South Asia.

MEETING MATERIALS

The agenda and presentations are available at the WOAH Regional Representation website at
[Third Meeting: South Asia Rabies Laboratory Network \(SA-RABNET\) - WOAH - Asia](#)



Annexures 1. Members who attended the 4th SARABNET

| Members | Name | Designation and Affiliation | Remarks |
|--|----------------------------|---|---------------------------|
| Participants from the countries of South Asia | | | |
| Afghanistan | Dr Mohammad Ibrahim Froten | Head of Epidemiology Department | Apologies |
| | Dr Hamidullah Tawfiqe | Head, Diagnosis Laboratory, General Directorate of Animal Health and Production | Attended |
| Bangladesh | Dr. Md. Mostofa Kamal | Director of Research, Training, and Evaluation at the Livestock Research Institute, Department of Livestock Services, Dhaka | Apologies |
| | Dr Md Golam Azam Chowdhury | Principal Scientific Officer Central Disease Investigation Laboratory Department of Livestock Services | Attended |
| | Dr Md Sohel Rana | Focal Point: One Health and Rabies Senior Scientific Officer & Staff Officer to DG Department of Livestock Services (DLS) | Attended (as an observer) |
| Bhutan | Dr Lungten | Officiating Program Director National Centre for Animal Health Department of Livestock | Attended (new Member) |
| | Dr Nirmal Kumar Thapa | Head, Laboratory Services Unit National Centre for Animal Health Department of Livestock | Attended |
| | Dr Tshering Choden | Laboratory Services Unit National Centre for Animal Health Department of Livestock | Attended (new Member) |
| India | Dr Jyoti Misri | Principal Scientist Indian Council of Agricultural Research (ICAR) Ministry of Agriculture and Farmers Welfare | Apologies |
| | Dr Swapna Susan Abraham | Deputy Director (Retired) State Institute for Animal Diseases, Animal Husbandry Department, Kerala | Attended |
| | Dr Durlav Prasad Bora | Department of Microbiology Assam Agriculture University | Apologies |
| Nepal | Dr Barun Kumar Sharma | Central Veterinary Laboratory | Attended |



| Members | Name | Designation and Affiliation | Remarks |
|---|---|---|---------------------|
| Pakistan | Dr Pragya Koirala | Senior Veterinary Officer, Central Veterinary Laboratory | Attended |
| | Dr Anil Regmi | Central Veterinary Laboratory | Attended |
| | Dr Prerna Bhattarai | Central Veterinary Laboratory | Attended |
| | Dr Sujan Rana | DLS (Observer) | Attended |
| Sri Lanka | Dr Khurshid Ahmad | Director General National Veterinary Laboratory | Apologies |
| | Dr Ali Raza Nizamani | Senior Research Officer (Virology) Central Veterinary Diagnostic Laboratory, Sindh Province | Apologies |
| | Dr Muhammad Abubakar | Senior scientific officer National Veterinary Laboratory, NARC Gate 2, Park Road Islamabad, Pakistan | Attended |
| Organisers | Dr E. R. R. Wimalasinghe | Veterinary Investigation Officer Department of Animal Production and Health | Attended |
| | Dr W. M. A. D. Wanninayake | Veterinary Research Officer Department of Animal Production and Health | Attended |
| | Dr Pradeep Lakpriya | Department of Animal Production and Health | Attended (observer) |
| Karnataka Veterinary Animal & Fisheries Sciences University | Dr Shrikrishna Isloor | Professor and Laboratory Director, WOAH Reference Laboratory for Rabies Veterinary College, KVAFSU | Attended |
| | Dr Sharada Ramakrishnaiah | Associate Professor and Quality Manager, WOAH Reference Laboratory for Rabies, Veterinary College, KVAFSU | Attended |
| | Dr Krithiga Dilip Other staff from KVAFSU | Veterinary College, KVAFSU, Bengaluru | Attended |
| WOAH | Dr Hirofumi Kugita | Regional Representative, WOAH RRAP | Attended |
| | Dr Kinzang Dukpa | Regional One Health Coordinator, WOAH RRAP | Attended |
| | Basilio Valdehuesa | Regional Communication Officer, WOAH RRAP | Attended |



Annexures 2. Agenda

| Topics | Speaker | Japan Time (+9 GMT) | Duration |
|---|---|---------------------|----------|
| Welcome | Dr Hirofumi Kugita, WOAH Regional Representative, WOAH RRAP Dr N.K. Shivakumar Gowda, Dean of Veterinary College, KVAFSU | 3 PM | 10 min |
| Adoption of agenda | Dr Barun Sharma, Chair, SA-RABNET | 3:10 | 5 min |
| Adoption of the Meeting Report of the 3 rd SA-RABNET | Chair, SA-RABNET | 3:15 | 10 min |
| Members' updates on follow-up actions from 3 rd SA-RABNET and other recent actions/progress on rabies diagnosis, prevention and control activities | All Members in alphabetical order (5 mins each x 7) Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka | 3:25 | 35 min |
| KVAFSU and WOAH's updates on follow-up from 3 rd SA-RABNET | Dr Krithiga, N, KVAFSU Dr Kinzang Dukpa, WOAH | 4:00 | 10 min |
| Discussion | Chair | 4:10 | 10 min |
| Health break/ Intermission | | 4:20 | 10 min |
| Molecular epidemiological techniques to support rabies prevention and control | Dr Isloor, KVAFSU | 4:30 | 15 min |
| Discussion | Chair | 4:45 | 10 min |
| AOB | Chair | 4:55 | 10 min |
| Discussion and wrap up | Chair | 5:00 | 5 min |

Note: KVAFSU – Karnataka Veterinary, Animal and Fisheries Sciences University (WOAH Reference Laboratory for Rabies in India); WOAH RRAP – World Organisation for Animal Health Regional Representation for Asia and the Pacific, Tokyo Japan.



Annexure 3. Meeting participants

