

# Epidemiology and Control of Peste des Petits Ruminants in East and West Africa (ECo-PPR)

Training workshop on building capacity of field veterinary officers on national diseases surveillance systems and participatory diseases surveillance



5–9 April 2021

International Livestock Research Institute

Workshop report



# Epidemiology and Control of Peste des Petits Ruminants in East and West Africa (ECo-PPR)

Training workshop on building capacity of field veterinary officers on national diseases surveillance systems and participatory diseases surveillance

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# Background

Peste des petits ruminants (PPR) is one of the key diseases hampering the development of the small ruminant production sector and jeopardises livelihoods of millions of smallholder farmers in many African and Asian countries. The Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) launched the global eradication program for PPR in 2017. The global control and eradication strategy was endorsed by more than 200 countries with the vision of a PPR-free world by 2030.

The International Livestock Research Institute (ILRI) is implementing the Epidemiology and Control of Peste des Petits Ruminants (ECo-PPR) research project to support ongoing global PPR control and eradication efforts in east (Kenya, Tanzania and Ethiopia) and west (Senegal, Mali and Burkina Faso) Africa. ILRI has received funding from the European Commission (EC) through the International Fund for Agricultural Development (IFAD) to implement this research project.

The project is working to generate evidence to support surveillance and control actions in selected countries with emphasis on high-risk areas that are difficult to reach with vaccination campaigns and may become pockets of infection. The project also supports facilitation of cross-border control through coordination with regional and global control efforts. It closely coordinates activities with other PPR projects to generate meaningful synergies and avoid duplication. To this end, the ECo-PPR project is working closely with Ethiopian Livestock and Fishery Sector Development Project (LFSDP), the national PPR control and eradication program, the Oromia Livestock Development Agency and the Yabello Regional Veterinary Laboratory. The project is implemented in Borena zone of Oromia region, which shares a border with Kenya where pastoralists from both countries share grazing lands, watering points and markets.

This report documents the training supported by the ECo-PPR project on participatory diseases surveillance to build capacity of field veterinary officers working within the national disease surveillance systems in Borena and Guji (West and East) zones of Ethiopia.

# General objective of the training workshop

The general objective of the workshop was to provide training on national animal diseases surveillance (NADS) and participatory disease surveillance for field veterinary officers from Borena and Guji (West and East) zones.

## Specific objectives

The training was provided for field veterinary officers with the following specific objectives:

- Provide overview of national PPR disease control and eradication program.
- Give the highlights of the ECo-PPR project for training participants.
- Provide training on Animal Disease Notification and Investigation System (ADNIS)
- Provide training on Disease Outbreak and Vaccination Activity Reporting (DOVAR)
- Provide participatory diseases surveillance (PDS) training.

# Workshop methodology and process

The face-to-face training was conducted from 5–9 April 2021 in Rori Hotel, Hawasa, Ethiopia. An interactive, participatory format was adopted to actively engage participants in a learning process. The training workshop brought together animal health professionals who work in animal diseases surveillance activities from three zones. The training had both theoretical and practical sessions. The participants were also allowed to share their experiences, knowledge and results through either an oral presentation or through the backburner (parking lot) method.

To conduct the meetings in a safe manner under the current COVID-19 pandemic situation, participants observed prescribed health measures including social distancing, wearing masks, frequent handwashing/sanitization and avoidance of group refreshments/meals.

# Welcome and opening remarks

Golo Debasas, director of the Yabello Regional Veterinary Laboratory, welcomed the participants and delivered an opening speech. He set the context for the training workshop and explained the need to provide training on NADS and PDS. He explained how this training will improve disease surveillance in operational areas. He also highlighted the importance of integrating the ECo-PPR project with other projects including the LFSDP to boost efforts towards PPR eradication by 2027, which is the goal set by the Ethiopia government. Finally, he explained the purpose of the training workshop, which was to give an overview of ongoing PPR eradication activities in Ethiopia, train veterinarians who work in epidemiology in NADSS and to provide hands-on training on PDS. He also pointed out that it was important for participants to share their experiences and practices in using surveillance tools and familiarize themselves with the ongoing PPR eradication program and initiatives towards national PPR eradication.

# PPR disease control and eradication program

The first presentation was by Asmamaw Duresa, National PPR Control and Eradication program coordinator, Ministry of Agriculture. He shared on the following: Global and regional strategy for the progressive control of PPR, the Intergovernmental Authority on Development (IGAD) Regional PPR Progressive Control and Eradication Strategy, the Ethiopian National PPR Control and Eradication Strategy; and on implementation: an update on the PPR roadmap and overview of the five-year action plan.

## Overview of ECo-PPR project

The second presentation was by Gezahegn Alemayehu from ILRI, the ECo-PPR project focal person in Ethiopia. He introduced the objective of the project, target countries for ECo-PPR project implementation, challenges addressed by the project, how the project integrates with national and global PPR eradication programs and the expected outputs and how they are aligned to the global PPR control roadmap.

## Animal disease surveillance

In this section, the definition, use and types of surveillance, and OIE reporting systems were presented. The OIE perspective and animal disease surveillance in Ethiopia were introduced to participants by Gashaw Beyene, senior animal health expert, DOVAR focal point, Epidemiology Directorate, Ministry of Agriculture.

## National animal diseases surveillance system—ADNIS

A session on the Animal Disease Notification and Investigation system (ADNIS) was also presented. The topics included real time disease notification, system overview and operation, implementation modality, response and feedback, lessons and challenges. This session of the training was offered by Tewodros Asmare, national ADNIS focal person, Epidemiology Directorate, Ministry Agriculture. It was followed by a practical session that demonstrated downloading and installing the ODK app, inserting the ADNIS form hub address (URL) and downloading of ADNIS form and zero report. Also included was an outdoor activity for recording GPS location—XY coordinates, N-web demonstration (admin/user) including disease map visualization, notifications, individual records, IMEI recording and demonstration on N-collect ODK manipulation, N-Alert/6423/ that included purpose, alert generation and communication with exercise. Finally, three participants volunteered and presented on how to collect simulated information on selected disease (foot-and-mouth disease, PPR) and in turn they got feedback from trainers and workshop participants.

## National animal diseases surveillance–DOVAR II

After obtaining the recap of day one, training continued on day two on the Disease Outbreak and DOVAR II. The objective, information flow, management, report timeliness and completeness, disease status distribution, DOVAR-II web interface and reporting performance of 2020 and DOVAR format utilization guide and description were shared by Gashaw Beyene from the Epidemiology Directorate, Ministry of Agriculture. Additionally, DOVAR and other surveillance activities at regional level were shared by Gerade Abduljami, focal person for DOVAR-II at the Yabello Regional Veterinary Laboratory (RVL). A through discussion was made on how to improve DOVAR reports that had poor quality. Finally, a DOVAR practical session was performed to develop a case scenario with trainees, which was filled on the paper format that was also demonstrated. Selected trainees presented on the use of paper format recordings and got feedback from participants.

## Participatory diseases surveillance (PDS)

From day 3 to 5, PDS training was jointly coordinated by Guru Lolo, of the branch coordination office for PPR eradication and control program at Yabello RVL; and Tewodros Asmare and Gashaw Beyene, both of the Epidemiology Directorate, Ministry of Agriculture. All the trainers received training of trainers (TOT) certificates on PDS. Training was provided on introduction to participatory epidemiology, interviewing approaches, visualization or observational tools, ranking and scoring tools, timelines, and seasonal calendar and mapping. In addition, practical sessions were conducted on interviewing tools development and how to conduct interviews, outbreak investigation by using a timeline, ranking and scoring tools, seasonal calendars and mapping. Finally, PDS for PPR, which includes syndromic surveillance, pneumoenteritis syndrome, identification of PPR and differential diagnosis, PPR investigation and sample collection, planning for PDS and PDS data recording and reporting were delivered by Asmamaw Duresa, national PPR eradication and control program; and Garu Lolo, PPR of the branch coordination office at Yabello RVL.

## Conclusion and the way forward

The training highlighted global and national PPR control and eradication program and provided participants with skills on animal diseases surveillance including PPR. The trainees received updated web address to enable them upload disease information from their areas in the portal/website in addition to the training. Follow-up using key informant interviews will be done in the course of implementation of ECo-PPR project field activities to assess the effectiveness of the training and to document the impact of this activity on PPR surveillance in Borena and Guji (West and East) zones of Ethiopia.

## Annexes

### Annex I: Training on animal health surveillance: NADSS (DOVAR and ADNIS) and PDS for Yabello RVL operational areas

#### 5–9 April 2021, Hawasa

Time	Topic/subject	Responsible
Day 1, 5 April 2021		
8:30 - 8:40	Registration	Facilitators
8:40 - 8:50	Welcome remarks - Introducing objective and agenda of the training - Setting ground rules	Geru Lalo, PPR BCO, Yabello RVL
8:50 - 9:00	Opening speech	Golo Debesa, Head of Yabello RVL
9:00 - 9:10	Self-introduction	All
9:10 - 9:20	Pre-training test	MoA and Yabello RVL
9:20 - 9:40	PPR disease control and eradication program - Strategic pillars/components - Achievements and progress	Asmamaw Duresa, national PPR CEP coordinator/
9:40 - 10:10	Overview of ECO-PPR project	Gezahegn Alemayehu, ECo-PPR/ ILRI
10:10-10:30	Health break	Eco- PPR/ILRI
10:30 - 11:20	Animal disease surveillance: - International OIE standards - NADSS	Gashaw Beyene, MoA
11:20 - 12:00	ADNIS: Real time disease notification - System overview and operation, implementation -modality, response and feedback - Lessons and challenges	Tewedros Asmare MoA
12:00 - 12:30	ODK app: app description and use - Downloading the app and installing - Inserting ADNIS form hub address (URL) and downloading ADNIS form	
12:30 - 1:30	Lunch break	Eco- PPR/ILRI
1:30 - 2:30	N-collect/ADNIS form/ filling with demo - Introducing the form, Data collection, editing and sending	Gerade, Yabello RVL
2:30 - 3:00	Identifying IMEI and adding phone number on ODK with demo	Tewedros Asmare
3:00 – 3:30	Practical session: Demonstrate the case scenario: Zero report and case report - Simulation exercise with selected disease (FMD, PPR) - zero report - outdoor activity for recording GPS location- XY coordinates	Trainees
3:30 - 4:00	Health break	Eco- PPR/ILRI
4:00 – 4:20	Demonstration on N-collect ODK manipulation	Randomly selected Trainees
4:20 – 4:30	N-web demonstration (Admin/user): Disease map visualization, Notifications, individual records, IME recording	Tewedros Asmare
4:30 - 4:45	N-Alert/6423/: purpose, alert generation and communication with exercise	
4:45 – 5:30	Discussion, feedback and recommendation	ALL

<b>Day 2, 6 April 2021</b>		
8:30 - 9:00	Recap of day one	Trainees
9:00 - 10:30	NADSS: DOVAR - Objective, information flow, management - Disease distribution and reporting performance of 2020 - Report timeliness and completeness	Gashaw Beyene MoA
10:30-11:00	Health Break	ECo-PPR/ILRI
11:00 - 12:00	DOVAR and other surveillance activities at regional level - Surveillance activities at Yabello RVL - DOVAR data collection, disease distribution and reporting in 2020 - DOVAR Reports with poor quality at Yabello RVL	Gerade Abedulejib, Yabello RVL
12:00 - 12:30	Case definition and syndromic surveillance for common TADs	Gerade Abedulejib, Yabello RVL
12:30 - 1:30	Lunch break	ECo-PPR/ILRI
1:30 - 2:30	DOVAR format utilization guide and description - Background, Outbreak summary and Detail OB recording form - DOVAR Reports with poor quality	Gashaw Beyene , MoA
2:30 - 3:30	DOVAR Practical session - Develop case scenario with trainees - Filling the case scenario on the paper format	Gerade Abedulejib and Gashaw Beyene
3:00-3:30	Health break	ECo-PPR/ILRI
3:30 - 4:00	DOVAR practical continued-filling the format	
4:00 - 4:30	Practical: - presentation of individual work - Review of the filled forms, discussion and feedback	Trainees
4:30- 5:30	Overall discussion on the sessions	All

<b>Day 3, 7 April 2021</b>		
8:30 - 9:00	Recap of day two	Trainees
09:00 - 10:30	Participatory Epidemiology/PE/ - Definition, importance, types of PE tools, methods - Overview of participatory approach, how to handle communities - Developing a checklist and good interviewing practices, Identifying the target groups	Geru Lolo
10:30-11:00	Health break and group photo	ECo-PPR/ILRI
11:00 - 12:30	Interviewing Approaches: - Semi-structured interviews (SSI) and open-ended questions - Practical sessions on interviewing tools development and practice	Gerade Abedulejib
12:30 - 1:30	Lunch break	ECo-PPR/ILRI

1:30 - 2:30	Visualization or observational tools Direct observation; transect walks, seasonal calendars, timelines, participatory mapping. - Practical exercise of outbreak investigation by using a timeline	Geru Lolo
3:00-3:30	Health break	Eco- PPR/ILRI
3:30 - 4:30	Ranking tools: Simple ranking and pairwise ranking	Gashaw Beyene
4:30 - 5:30	Ranking tools: - Proportional piling	Geru Lolo
<b>Day 4, 8 April 2021</b>		
8:30 - 9:00	Recap of day three	Trainees
09:00 - 10:30	Ranking tools: - Matrix scoring	Gashaw Beyene
10:30-11:00	Health Break and group photo	ECo-PPR/ILRI
11:00 - 12:30	Timeline, seasonal calendar and mapping: exercises	Geru Lolo
12:30 - 1:30	Lunch break	ECo-PPR/ILRI
1:30 - 2:30	Practical exercise Ranking and scoring tools	Geru Lolo/Gashaw Beyene
3:00-3:30	Health Break	ECo-PPR/ILRI
3:30 - 4:30	Practical: Calendar and mapping	Geru Lolo /Gashaw Beyene
4:30 - 5:30	Group presentation	Trainees
<b>Day 5, 9 April 2021</b>		
8:30 - 9:00	Recap of day four	Trainees
09:00 - 10:30	PDS for PPR Syndromic Surveillance: - Pneumoenteritis syndrome Identification of PPR and differential diagnosis	Asmamaw Duresa / Tewdros Asmare
10:30-11:00	Health break	ECo-PPR/ILRI
11:00 - 12:30	PPR Investigation and Sample collection	Geru Lolo
12:30 - 1:30	Lunch break	ECo-PPR/ILRI
1:30 - 2:30	Planning for PDS	Asmamaw Duressa
3:00-3:30	Health break	ECo-PPR/ILRI
3:30 - 4:30	PDS data recording and reporting	Geru Lolo
4:30 - 5:10	Discussion	All
5:10 - 5:20	Closing	Golo Debesa

## Annex II: List of trainers and facilitators

S.N	Participant Name	Organization	Position
1	Birhanu Teshome	Oromia Livestock Development Agency	Senior veterinarian
2	Gashaw Beyene	Ministry of Agriculture	National DOVAR focal person
3	Tewodros Asmare	Ministry of Agriculture	National ADNIS focal person
4	Asmamaw Duresa	Ministry of Agriculture	PPR national control and eradication program coordinator
5	Golo Debasa	Yabello RVL	Head of Yabello RVL
6	Garu Lolo	Yabello RVL	PPR BCO, Yabello RVL
7	Gerade Abduljami	Yabello RVL	DOVAR focal person, Yabello RVL
8	Mohamed Dawea	Yabello RVL	ADNIS focal person, Yabello RVL

## Annex III: List of participants who received ADNIS, DOVAR and PDS training

S.N.	Name	Zone	District
1	Wario Soro	Borena	Miyu
2	Ahmed Mohamed	E/Guji	Quchi
3	Getamesay Tadele	W/Guji	Bulehora
4	Eyasu Bali	E/Guji	Wadera
5	Duba Huko	Borena	Dhas
6	Dida Dima	Borena	Mayale
7	Ashebire Beyene	W/Guji	Abaya
8	Solomon Tarkegn	E/Guji	Bore
9	Alemayehu Wako	E/Guji	Dama
10	Guluma Wako	Borena	Yabello
11	Dulo Jogo	E/Guji	Negele
12	Chala Midegdu	E/Guji	G/dola
13	Girma Abdisa	W/Guji	Shakiso
14	Abduba Jeldesa	E/Guji	Leben
15	Mesfine Samuel	E/Guji	Giraja
16	Chemirew Arega	W/Guji	D/Dawa
17	Boru Dida	Borena	Moyale
18	Guyo Arero	Borena	Dilo
19	Matiwos Hatesa	W/Guji	Abaya
20	Godana Jarso	Borena	Arero
21	Dugo Udo	W/Guji	M/sode
22	Soud Mohamed	Borena	Teltele
23	Chala Shanko	W/Guji	M/ Soda

#### Annex IV: List of participants who received ADNIS training only

S.N	Name	Zone	District
	Nuguse Jarso	E/Guji	H/wanana
	Golicha Robe	Borena	Teltele
	Gutema Berchu	E/Guji	Aga Wayu
	Were Shuge	E/Guji	S/ Boru
	Loko Guyo	Borena	Moyale
	Yosef Tariku	W/Guji	Birbirsa
	Chome Ore	Borena	Yabello
	Kadija Rameto	Borena	Gomole
	Ahmed Mohamed	Borena	Quchi
	Miessa Banete	W/Guji	Kerecha

## Annex V: Training workshop process in pictures



Photo credits: ILRI/Gezahegn Alemayehu, Yebello RVL (Garu Lolo and Mohamed Dewea).

