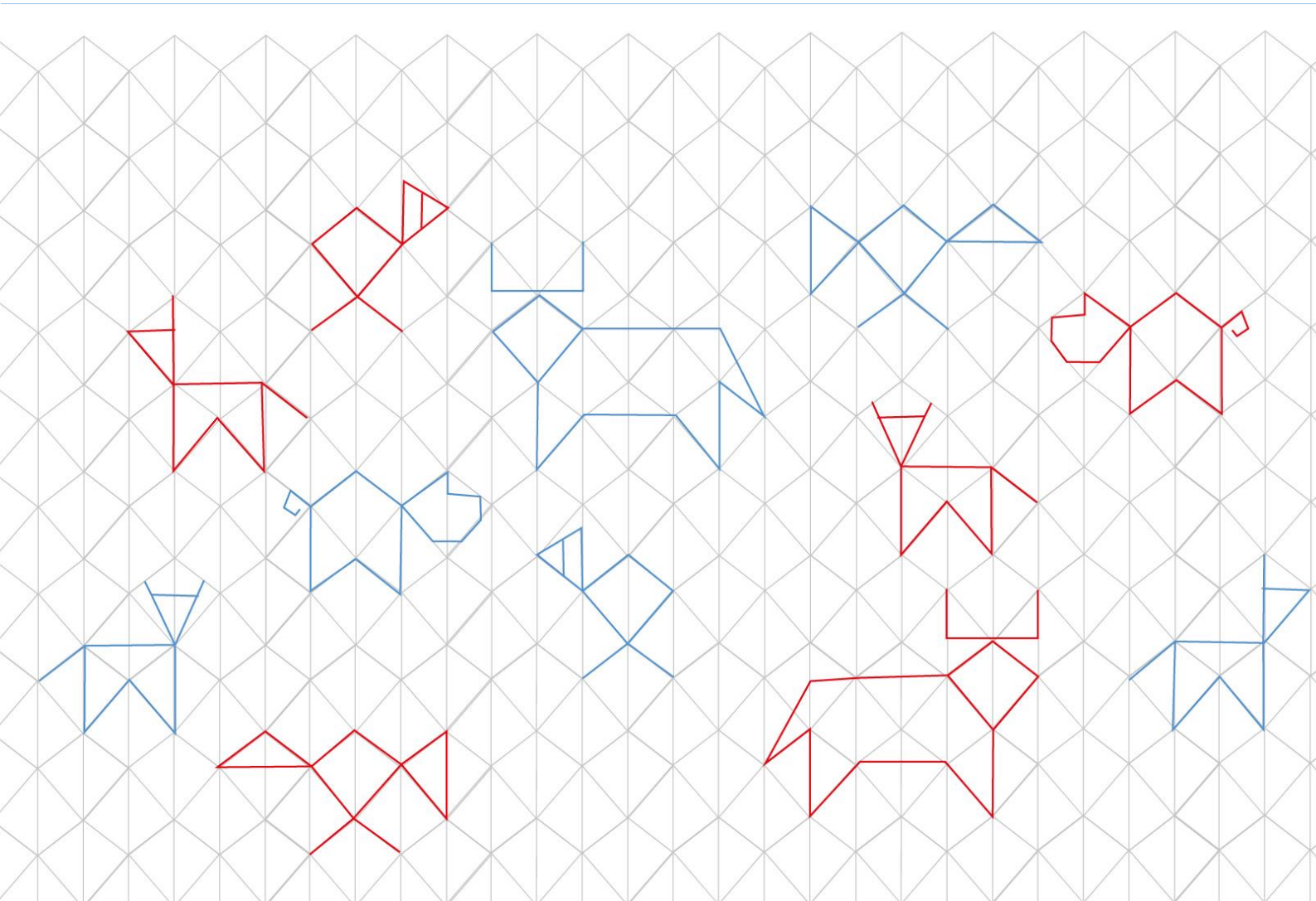
Food and Agriculture Organization of the United Nations

World Organisation for Animal Health

Joint PPR Roadmap for the Economic Cooperation Organisation (ECO) Region and the FMD Roadmap Meeting for the West Eurasia (WEA) Region

Report

11-13 November 2025



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Abbreviations

ARRIAH	Federal Centre for Animal Health
CVO	Chief Veterinary Officer
ECO	Economic Cooperation Organization
EpiNet	West Eurasian Epidemiology Network
EuFMD	European Commission for the Control of Foot-And-Mouth Disease
FAO	Food and Agriculture Organization of the United Nations
FAO REU	FAO Regional Office for Europe and Central Asia
FMD	Foot-and-mouth disease
FMD WG	FMD Working Group
GF-TADs	Global Framework for the Progressive Control of Transboundary Animal Diseases
OCP	Official Control Programme
PCP-FMD	Progressive Control Pathway for the control of Foot-and-Mouth Disease
PPR	Peste des petits ruminants
PMAT	PPR Monitoring and Assessment Tool
PVM	Post-Vaccination Monitoring
RAG	Regional Advisory Group
RBSP	Risk-Based Strategic Plan
SAT	PCP-FMD Self-Assessment Tool
TADs	Transboundary Animal Diseases
ToRs	Terms of Reference
VLC	FAO's Virtual Learning Center
WeINet	West Eurasian Laboratory Network
WOAH	World Organisation for Animal Health
WOAH SRR	WOAH Sub-Regional Representation
WRL-FMD	World Reference Laboratory for FMD, Pirbright Institute, UK

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Background

Transboundary animal diseases (TADs) including Foot-and Mouth Disease (FMD) and Peste des Petits Ruminants (PPR) continue to pose a serious and growing threat to livestock production, food security, rural livelihoods, and regional trade across West Eurasia and Europe. FMD and PPR illustrate the scale and interconnected nature of these challenges, as both diseases persist or expand due to common underlying drivers, including the circulation of multiple virus lineages, uncontrolled animal movements, gaps in surveillance systems, and insufficient vaccination coverage in certain areas.

FMD remains endemic in several countries of West Eurasia, where it causes recurrent outbreaks and sustained economic losses. New incursions reported during 2024–2025 highlight persistent weaknesses in prevention and control systems and demonstrate how rapidly the disease can re-emerge when biosecurity and vaccination efforts are inadequate. Beyond endemic regions, recent FMD outbreaks in parts of Europe have further underscored the vulnerability of countries previously considered at low risk. These events have resulted in emergency control measures, movement restrictions, and temporary trade disruptions, illustrating the constant threat of virus introduction through animal movements, trade, or indirect transmission routes. At both regional and global levels, the economic impact of FMD is substantial, with production losses and trade restrictions estimated at billions of US dollars annually, while at the European and West Eurasian levels the disease undermines market access, investment, and the long-term development of livestock value chains.

At the same time, PPR continues to **to inflict severe losses** on small-ruminant production and on the livelihoods of approximately 300 million of the world's poorest rural families, many of whom depend heavily on sheep and goats for income, food security, and resilience. More than 80% of the global sheep and goat population remains at risk of infection, with mortality rates exceeding 90% in exposed, unvaccinated animals. The disease causes estimated annual global losses of USD 1.4–2.1 billion, reflecting both direct production losses and wider socio-economic consequences.

The recent geographic expansion of PPR mirrors the ongoing risks observed with FMD. Over the past 15 years, PPR has spread rapidly into regions previously considered free, with outbreaks reported in Georgia and Mongolia in 2016, Bulgaria in 2018, and more recently in Georgia and Albania in 2024, followed by Kosovo in 2025. These outbreaks have had significant regional repercussions, leading to the suspension of official PPR-free status in several neighbouring countries, including Greece, Hungary, Romania, and Croatia, and increasing the risk of further spread through trade and animal movements.

Together, FMD and PPR highlight the persistent vulnerability of West Eurasia and Europe to transboundary animal diseases and the high costs of insufficient

preparedness and response. Without sustained investment in coordinated surveillance, risk-based vaccination, biosecurity, and cross-border collaboration, both diseases are likely to continue circulating and re-emerging, resulting in escalating economic losses, restricted market access, and deepening hardship for livestock producers and pastoral communities across the region.

Since the launch of the West Eurasia Roadmap for FMD control in 2008, under the Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs) of the Food and Agriculture Organization (FAO) and World Organisation for Animal Health (WOAH), countries have been progressively advancing along the Progressive Control Pathway for FMD (PCP-FMD). Following the first meeting in Shiraz, Islamic Republic of Iran, nine FMD roadmap meetings (2009, 2010, 2012, 2013, 2014, 2015, 2016, 2019, 2023) and three Epidemiology and Laboratory Network meetings (2017, 2021, 2022) for the West Eurasia region have been held. Regular roadmap meetings have enabled benchmarking of national progress, identification of technical gaps, and coordination of regional vaccination strategies. Nevertheless, sustained commitment is still needed to consolidate progress, harmonise approaches, and address remaining risk factors, including cross-border movements, limited laboratory capacities, and insufficient resources for field veterinary services.

Central Asia is home to approximately 190 million sheep and goats, representing around 8.5% of the world's small ruminant population and 12% of the population in PPR-infected or at-risk countries. The first PPR Roadmap meeting for Economic Cooperation Organization (ECO) countries was held in Almaty, Kazakhstan, in February 2016. In line with the PPR Global Control and Eradication Strategy (PPR-GCES), endorsed during the FAO–WOAH International Conference in Abidjan, Côte d'Ivoire, in 2015, participants adopted the regional roadmap for Central Asia, targeting eradication of PPR by 2030. Subsequent PPR roadmap meetings were held in Dushanbe, Tajikistan (2017), Tashkent, Uzbekistan (2019), and Baku, Azerbaijan (2023), supported by FAO, WOAH, the ECO Secretariat, and national governments. A Regional Advisory Group meeting in July 2024 helped reconstitute the RAG, clarifying roles and responsibilities.

The 10th Regional Meeting of the West Eurasia FMD and ECO PPR Roadmaps took place in Dushanbe, Tajikistan, from 11–13 November 2025, under the umbrella of GF-TADs and with the collaboration and support of EuFMD, the Committee for Food Security, the Government of the Republic of Tajikistan, the WOAH sub-regional representation for Central Asia, and the FAO Regional Office for Europe and Central Asia. The meeting was organised in two phases: a virtual preparatory phase one month prior to the in-person event to support country-level preparation, followed by the in-person regional meeting.

The objectives of the Dushanbe meeting were to review the FMD and PPR situations in the region, take stock of progress along both roadmaps, and support the efficient use of existing tools and guidelines. For FMD, the WEA roadmap region belongs to FMD virus Pool 3, with ten countries participating: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Türkiye, - and Uzbekistan. For

PPR, the meeting aimed to foster knowledge sharing and strategic planning, review previous recommendations, analyse evolving epidemiological situations, refine eradication strategies, support PMAT implementation and capacity building, and strengthen governance and regional coordination. Key outcomes included discussions on harmonised vaccination and surveillance strategies, self-assessment for WOAH recognition, and updates to the regional PPR roadmap to ensure alignment with eradication targets.

The event brought together Chief Veterinary Officers, laboratory and epidemiology experts from participating countries, representatives from the FAO–WOAH Reference Laboratory Networks, and technical experts. Presentations, resource documents, and tools from the PCP-FMD and PPR toolkits are available on the FAO Virtual Learning Centres platform.

Objectives

FMD Specific

I. Knowledge sharing and strategic planning

- Review recent changes in FMDV circulation across the West Eurasia ecosystems to inform risk-based control strategies.
- Share lessons learned from recent FMDV incursions (SAT1 & SAT2).
- Discuss socio-economic impact, cost-benefit analysis, and trade implications while progressing on PCP-FMD.
- Enhance early detection, rapid information exchange, and cross-border coordination.

II. PCP-FMD implementation and capacity building

- Strengthen country-level understanding and application of the PCP-FMD approach, including use of the Self-Assessment Tool (SAT-v2).
- Provide targeted technical guidance to improve surveillance, vaccination, and control strategies.

III. Progress review and Roadmap update

- Assess national progress in FMD prevention and control, and review past recommendations.
- Update the regional Roadmap until 2027, under the oversight of the Regional Advisory Group (RAG).

IV. Strengthening governance and regional coordination

- Promote epidemiology and laboratory networks to support evidence-based control measures.
- Reinforce the role of the RAG in monitoring implementation and providing technical guidance.

V. Gaps identification and resource mobilisation

- Identify technical and financial needs to strengthen surveillance, laboratory capacity, and vaccination programmes.
- Highlight priority areas where development partners and international organisations can provide support.

PPR Specific

I. Knowledge sharing and strategic planning

- Review recommendations from previous regional meetings and provide updates on the regional epidemiological situation.
- Analyse the evolving epidemiological situation and implications for eradication strategies.

II. PMAT implementation and capacity building in preparing dossiers to WOAH

- Support countries in completing the PPR Monitoring and Assessment Tool (PMAT) self-assessments.
- Strengthen capacity to analyse data and generate evidence for submitting dossiers to WOAH for official recognition of PPR-free status and endorsement of official PPR control programmes.

III. Progress review and roadmap update

- Review PMAT results with support from RAGs and technical experts.
- Update and adopt a revised PPR regional roadmap with concrete actions to achieve eradication by 2030.

IV. Strengthening governance and regional coordination

- Conduct country-specific technical discussions to identify weaknesses, gaps, and solutions.
- Harmonise vaccination and surveillance strategies across borders to improve coordination and consistency.
- Adopt the PPR regional strategy

V. Gaps identification and resource mobilisation

- Assess weaknesses in eradication activities and identify areas requiring technical or financial support.
- Mobilise international partners to address gaps and sustain eradication efforts.

Methodology

The GF-TADs FMD Working Group and PPR Secretariat engaged virtually with the invited countries in preparation for the joint roadmap meeting, so that the physical meeting discussions were focused on achieving expected results.

The countries were required to complete and submit the PCP-FMD self-assessment tool (SAT-v2), PPR Monitoring and Assessment Tool (PMAT), FMD and PPR situation questionnaires prior to the in-person meeting.

The meeting combined presentations, plenaries, and group discussions. International and regional organizations presented the global and regional perspective of FMD and PPR, opportunities that exist for FMD control and eradication of PPR, and possible support each organization may offer. A group discussion on the way forward based on the grouping of countries according to the epidemiology of FMD, PPR or other similar arrangements was organised to build consensus on interventions to be implemented in the coming few years.

Welcome, adoption of the agenda and meeting objectives

Mereke Taitubayev, WOAH Representative for Central Asia, on behalf of WOAH Director General and WOAH Regional Representative in Moscow, welcomed the participants of this three-day in-person meeting, and started by reminding the context of the meeting, acknowledging the presence of Member countries in the meeting.

Muhammadsaid Faizullozoda, Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan, Dr Viorel Gutu (FAO Assistant Director General, Representative for Europe and Central Asia and Mehrdad Fallahi (ECO Secretariat) provided their remarks on behalf of their respective organizations.

The meeting was officially opened by Muhammadsaid Faizullozoda, Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan.

The agenda and list of participants are in Annex 1 and 2, respectively.

Updated membership of the Regional Advisory Group (RAG) for West Eurasia (2025-2027)

Participants agreed to continue with the existing RAG members for next term (2025-2027).

The FMD RAG compositions is as follows:

Voting RAG Members:

- CVO Azerbaijan (Chairperson of the RAG)
- CVO Kazakhstan (Member)
- CVO Iran (Member)
- Satenik Kharatyan, EpiNet Leader from Armenia
- Abdulnaci Bulut, WelNet leader from Republic of Türkiye

Non-voting RAG Members:

- The FMD-WG members
- FAO and WOAH Regional Representatives
- The World Reference Laboratory for FMD (WRLFMD) representative

The PPR RAG composition is as follows:

Voting RAG Members:

- CVO/Delegate Uzbekistan (Chairperson of the RAG)
- CVO Georgia (Member)
- CVO Kyrgyzstan (Member)
- Coordinator of the regional PPR epidemiology network (currently not designated, but provided for in RAG ToR)
- Coordinator of the regional PPR laboratory network (currently not designated, but provided for in RAG ToR)

Non-voting Members:

- Can Aygul, Representative of ECO Secretariat
- PPR secretariat (FAO & WOAH)
- Two representatives from regional/sub-regional FAO and WOAH offices

FMD situation with emphasis on West Eurasia

David Paton by remote link, on behalf of Don King and colleagues at the WRLFMD and partners in the WOAH/FAO FMD Reference Laboratory Network (*www.foot-and-mouth.org*)

The WOAH/FAO FMD Laboratory Network that was formed in 2004 continues to monitor the international FMD situation, tracking the distribution and spread of different FMDV serotypes and strains. At their annual meeting in Istanbul, a week ago, they reviewed and updated regional threats and vaccine recommendations. Long-distance "trans-pool" movements of FMDV lineages are often unpredictable, but some key global connections are revealed from analysing the phylogenies constructed from the sequences derived from viruses submitted to the laboratory network partners. There is a continuing issue with under-reporting and analysis of FMD outbreaks, and some countries are not transparent about their FMD situation. A new FMD dashboard has been developed on behalf of the FMD Network by the WRLFMD. It is an online platform (openFMD.org) to display real-time information that enables users to analyse FMDV sequences and review surveillance data and the suitability of vaccine strains.

In West Eurasia, the FMD situation remains very dynamic due to the presence of both endemic serotypes and strains and the incursion of viruses from Southern and Central Asia and East Africa. Two strains of serotype O have been recorded in the region, O/ME-SA/SA-2018 and O PanAsia 2, having emerged at different times from Southern Asia. Each was also responsible for outbreaks in Europe in 2025, the first since 2011. The O/ME-SA/India 2001e strain previously recorded in the region continues to cause outbreaks in Southeast and East Asia. Since 2022, the Southern African Territories serotype viruses, SAT 1 and SAT 2 have caused major problems in the Middle East following multiple incursions from East Africa. These viruses may have been introduced through large-scale live animal imports, which would imply that quarantine measures have not been adequate. In recent years there have been few outbreaks due to serotypes A and Asia 1 in West Eurasia. Consequently, there will be low levels of immunity derived from infection and the populations may be at risk should such viruses re-emerge.

The serotype O incursions into Europe and the SAT serotype incursions into the Middle East are highly dangerous because the livestock present have little or no pre-existing immunity to the strains involved due to a lack of prior infection or vaccination. Whereas, European countries had access to vaccine reserves from antigen banks, these are not available in West Eurasia.

Using post-vaccination sera provided by vaccine manufacturers, the WRLFMD at Pirbright showed that several vaccines are able to induce significant neutralising antibody responses to the SAT 1 strain viruses associated with the most recent incursions. However, it is not known how well the vaccine formulations and vaccination regimens used to raise the sera for these studies represent commercial products and final usage in the field.

Recently recovered SAT 1 viruses from Türkiye and Iran* appear identical to a vaccine strain (BOT/1/77) which is within topotype III in contrast to topotype I that has been introduced from East Africa. This could have several explanations, such as a laboratory mix-up or contamination event, or the escape of a vaccine into the field either from a manufacturing site or an incompletely inactivated vaccine. This finding requires urgent investigation by the veterinary authorities in the affected countries.

** Information received shortly after the presentation*

Results of the PCP-FMD Self-Assessment and FMD situation and vaccination questionnaires

A total of 10 countries participated in the exercise by completing the PCP-FMD Self-Assessment Tool (SATv2), while 12 countries submitted information through the FMD situation questionnaire; the consolidated results were analysed and presented during the in-person meeting. Overall, the SATv2 findings indicated relatively strong performance in livestock population data, case definitions, passive surveillance systems, organizational structures, human resources, and regulation of FMD vaccines. However, the assessment also highlighted several critical areas requiring further strengthening, including value chain description and mapping, socio-economic impact assessment, stakeholder engagement, active surveillance, vaccine matching, data management, communication, animal movement control, vaccination strategies, early warning systems, and monitoring and evaluation of FMD control plans.

The FMD Situation Survey indicated that five countries reported FMD outbreaks during the past two years, affecting both large and small ruminants, while only one country shared corresponding laboratory confirmation results. Overall, most countries rely predominantly on passive surveillance, with active clinical and serological surveillance implemented in several countries mainly at border areas and in zones with high animal density, although the frequency of active surveillance varies considerably. Regular serological surveillance remains limited: Türkiye reported routine NSP and SP sero-surveillance, Georgia and Uzbekistan conduct annual NSP surveys, while Armenia, Azerbaijan and Kazakhstan undertook NSP sero-surveillance in 2024, and Tajikistan reported SP sero-surveillance in 2024. Socio-economic impact assessments were reported by only two countries, namely Kyrgyzstan and Pakistan, highlighting a major gap in understanding the broader impacts of FMD.

The survey identified substantial knowledge and evidence gaps constraining effective FMD prevention and control. Key epidemiological gaps include (i) limited understanding of FMDV strain diversity and virus circulation, (ii) insufficient antigenic and genetic characterization of emerging and exotic lineages, and (iii) incomplete knowledge of the roles of wildlife and small ruminants in disease maintenance and spread. In relation to vaccines and immunity, countries reported (i) inadequate vaccine matching and effectiveness data, (ii) challenges in vaccine availability, procurement, coverage, and security, (iii) limited immunity against exotic virus strains, and (iv) insufficient post-vaccination monitoring (PVM). Significant gaps were also noted in livestock movement and trade, including poor characterization of formal and informal

trade corridors, nomadic systems, and weak monitoring at markets, slaughterhouses, and inspection points, as well as limited analysis of key epidemiological interfaces (wildlife–livestock, small ruminant–cattle, and imported livestock). Furthermore, socioeconomic and behavioural evidence remains sparse, with few economic impact or cost-benefit studies and limited data on biosecurity practices. These challenges are compounded by weaknesses in the enabling environment, notably the absence of functional animal identification and traceability systems, weak inter-sectoral coordination among veterinary, trade, and border authorities, and limited capacity to analyse market-driven movements and high-density production systems.

The assessment also identified critical immediate gaps in FMD control, notably delays in early detection and reporting, limited early warning and rapid response capacity, inadequate diagnostic and virus characterization, weak data sharing, and the absence of digital disease information systems. These are compounded by weak cross-border and regional coordination, lack of a regional information-sharing platform, inconsistent control measures in neighbouring countries, and insufficient financial and human resources to support effective surveillance, vaccination, and outbreak response.

Eleven countries participated in the FMD vaccination survey. The highlights and conclusions of the survey are as follows.

Key highlights:

- 11 countries reported mass vaccination in large ruminants (LR) while 9 countries reported in small ruminants (SR)
- Targeted vaccination (n=4) and emergency vaccination (n-=7) was reported
- 10 countries reported different vaccination every six month
- 4 countries have a cost-sharing system between public and private sectors for FMD vaccination
- 3 countries stated that there were inadequate public funds available for their FMD control programme
- 2 countries indicated funds from international donors had been used to purchase vaccines (covering 85% - 100% costs)
- 6 countries stated that there was some form of public private partnership, or at least private involvement in providing FMD vaccines
- FGBI “ARRIAH”, Vetal, Boehringer Ingelheim, ŞAP INSTITUTE and Shelkovski, are main vaccine supplier in the region.
- 5/11 countries reported potency tests on vaccine prior to use
- 1/11 countries reported outbreaks in vaccinated animals

Conclusion:

- Majority of LR in responding countries are vaccinated
- Vaccines including serotypes O, A, Asia1 and SAT2 are used in the region
- More information needed about vaccine strains and matching
- Wider use of surveillance and PVM is needed to:
    - timely monitor the most common circulating strains (samples collection and submitting to reference laboratories)

- determine how well the vaccines protect against these strains (vaccine matching, small-scale immunogenicity studies, post-vaccination monitoring)
- monitor virus circulation and vaccination effectiveness
- plan FMD control activities at national and regional level

Panel Discussions

Panel 1: Early detection/diagnostics, cross-border coordination, risk monitoring and mitigation (movement control/contingency)

Context and Objectives of the Panel Discussion

The panel explored how to strengthen early detection, diagnostics, surveillance, and risk monitoring for FMD, using the spread of SAT1 into West Asia as a case study. Experiences from Central Asia and parallels with diseases such as PPR were used to identify practical lessons to improve preparedness, accelerate response, and enhance regional cooperation.

Discussion Rounds and Panelist Focus

Round 1 – Early Detection, Diagnostics, and Surveillance

- Dr. Bulut highlighted Türkiye's experience with SAT2 and SAT1, stressing that rapid response and confirmation are critical to limiting outbreak spread.
- Dr. Park focused on surveillance sensitivity, outlining key elements of effective early detection and advising countries on assessing and strengthening national surveillance systems.
- Dr. Nikiforov emphasized the need for serological and virological surveillance in both FMD-free and endemic settings to enable early virus detection and build confidence in disease status.
- Dr. Kharatyan reviewed progress since the SAT2 epidemic and identified remaining gaps in early warning, diagnostics, and coordinated regional response.

Round 2 – Cross-Border Coordination, Risk Monitoring, and Mitigation

- Dr. Karibayev described regional coordination mechanisms within the Eurasian Economic Union that support faster detection and response.
- Dr. Diallo shared lessons from GF-TADs and PPR coordination, demonstrating the value of structured regional and global initiatives.
- Dr. Bulut discussed requirements for effective regional cooperation, including country ownership and political commitment, aligned with the West Eurasia FMD Roadmap.
- Dr. Park outlined from a WOAH perspective, what international mechanisms exist and how they can better support national engagement in regional initiatives.

Final Round – Key Takeaway Messages

Panelists emphasized early detection, transparent reporting, and strong regional cooperation as the most critical factors for effective disease control.

Key Discussion Points

- Discussion of the SAT2 and SAT1 outbreaks highlighted how rapid disease confirmation influences FMD spread and the effectiveness of control measures.
- Surveillance was noted to vary by country according to capacity and risk profile, with early detection and reporting remaining central to regional situational awareness.
- Trust between countries was closely linked to transparency in reporting through WOAH and regional risk-information sharing platforms such as the EuFMD Statement of Intentions.
- Panelists emphasized the combined use of serological and virological surveillance, including wild susceptible species, to support cross-border confidence in disease status.
- The SAT2 experience highlighted the value of structured regional information exchange, with regular EuFMD and FAO coordination meetings improving response and shared risk understanding.

Recommendations

- Strengthen regional cooperation and preparedness through formal coordination mechanisms and information sharing.
- Apply lessons from other diseases and regions, including rinderpest eradication and FMD control in South America.
- Promote transparency and timely reporting of suspicions and outbreaks.
- Invest in early detection, readiness, and preparedness, including surveillance and laboratory capacity.

Panel 2: Vaccination, selection, sourcing vaccines, PVM and vaccine recommendations

Context and Objectives of panel discussion: Vaccination remains a key element of FMD control -whether in endemic settings, sporadic outbreaks, or preparedness plans. However, challenges persist due to multiple virus strains, repeated vaccination requirements, and diverse manufacturers. The panel aimed to identify technical needs and provide guidance for the region.

Each panellist was asked a question as per the table below, with questions taken from the floor:

Panellist	Question
Lasha Avaliani	What were the key drivers for vaccination success that enabled Georgia's progression to PCP Stage 3
Abdulnaci Bulut	What opportunities exist in the region to optimise links between sero-surveillance and vaccine selection?
Bolortuya Purevsuren	What are the main challenges you face in delivering deliver an appropriate vaccination programme?

Viktor Nikiforov	Would you be able to comment on the role of vaccine manufacturers in ensuring that appropriate vaccines in appropriate amounts are available? How could this role be optimised?
Otabek Isanov	What are the factors you consider when selecting a vaccine for use in your country, and how do you ensure it is performing as expected?

Key Discussion Points

- **Quality and Standards:**
  - Georgia's success linked to high-quality vaccines and strong regulatory frameworks with a preference for EU-produced vaccines for potency and compliance.
- **Surveillance and Data Sharing:**
  - Gaps in genotype-level surveillance; serotype data alone insufficient.
  - Post-vaccination monitoring critical but uneven across countries.
  - There are existing platforms for information sharing (EuFMD, WRLFMD OpenFMD), but they are underused or limited due to delayed reporting.
- **Cost of vaccines and financing:**
  - Financial constraints and there can be an overemphasis on price over cost-benefit analysis.
  - Private sector engagement limited; cost-sharing models emerging in Mekong region as an example but vary country by country.
- **Supply Chain and Manufacturer Role:**
  - Russia's model integrates state procurement, independent quality checks, and population immunity monitoring. Challenges include timely sample submissions.
  - In the region, ensuring adequate vaccine quantities when needed is a major issue. Long-term contracts are difficult due to evolving strains.
- **Standardization Needs:**
  - Harmonization of testing protocols are needed (example of testing heterologous titres using vaccine derived sera)
- **Regional Vaccine requirements:**
  - Advocacy for a list of vaccines available that are relevant to the region. The Prequalification system proposed by EuFMD was mentioned.
  - Vaccine bank proposed as a solution for supply issues but acknowledged as technically and financially complex.

Recommendations

1. **Improve Surveillance and Data Sharing**
   - Strengthen genotype-level monitoring and timely reporting via existing platforms.
   - Enhance communication between regional reference labs and national authorities.
2. **Harmonize Standards and Testing**
   - Develop regional protocols for vaccine performance evaluation and serological tests.
   - Promote standardization of heterologous titre assessments.

3. **Strengthen Supply Chain Coordination**
    - Foster dialogue between governments, manufacturers, and international bodies.
    - Investigate feasibility of regional vaccine bank and long-term procurement strategies.
4. **Enhance awareness of existing initiatives and platforms**
    - WOAH guidance

Updated PCP-FMD Stage Roadmap of West Eurasia (2008-2027)

	Validated Stages																		Provisional Stages (not validated)	
Countries	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**
Afghanistan *(absent)*	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-
Armenia	2	2	2	2	2	2	2*	2*	2	2	2	2	2	2	2	2	2	2	2	3
Azerbaijan	2	2	2	2	2	2	2*	2*	2	2	2	2	2	2	2	2	2	2	3	4
Georgia	1	1	2*	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4
Iran	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-
Kazakhstan**																				
6th Region (Former 5 northern regions)	1	1	1	1	1	1	2*	FnV	FnV	FnV	FnV	FnV	FnV	FnV	FnV	Status Lost			FwV	FwV
5 southern regions	1	1	1	1	1	1	2*	2*	2*	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV
Kyrgyzstan	1	0	0	0	1	1	2*	2*	2*	2*	2*	2*	4	4	4	4	4	4	FwV	FwV
Pakistan	0	1	1	1	1	1	2*	2	2	2	2	2	2	2	2	2	2	2	2	3
Tajikistan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		2
Türkiye																				
Thrace			FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FwV	FnV	FnV
Anatolia									2	2	2	2	2	2	2	2	2	2	2	3
Turkmenistan	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Uzbekistan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Assessed by RAG Middle-East (April 2025)																				
Iraq		1	1	1	2	2	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2	2
Syria		1	1	1	2	2	2*	2*	2*	2*	2*	2*	2*	-	-	-	-	1*	-	-

* provisional status given to the country (countries had six months to provide additional information including Control Plan; if no, they will be downgraded to the previous stage)
** country/zone having entered the OIE pathway for recognition of an FMD free zone with vaccination
FwV : Free with vaccination FnV : Free without vaccination

0	1	2	3	4	WOAH

Strengthening PPR Control: Surveillance, Diagnostics, and Vaccination

Despite the successful containment of PPR in affected EU countries, risks to West Eurasia remain significant due to proximity to affected areas. Neighboring countries such as Albania and Kosovo have initiated mass vaccination campaigns following isolated outbreaks in 2025. These measures reflect heightened concern over potential disease spread across borders. It is important to note that, under EU regulations, vaccination against PPR is generally prohibited except under emergency conditions. This policy underscores the reliance on strict surveillance, movement controls, and rapid response mechanisms within EU Member States to prevent introduction and spread of the virus.

The roadmap meeting followed a structured, two-stage approach, beginning with a virtual preparatory session dedicated to understanding each country's epidemiological situation and PMAT inputs. During this stage, the PPR Secretariat consolidated all country submissions and identified key weaknesses and challenges to guide expert input during the in-person discussions. The process culminated in the physical meeting in Dushanbe, which opened with a presentation on the global and regional PPR disease situation, outlining identified gaps, weaknesses, and emerging issues. This was followed by technical presentations addressing common gaps across the defined technical elements (further discussed below), with the objective of strengthening capacity and fostering greater national ownership of PPR eradication efforts. Interactive sessions enabled deeper engagement and understanding among participants. Country-specific discussions, facilitated by experts, were then held to confirm the PMAT stages, understand country-level aspirations and challenges, identify technical support needs, and agree on the PMAT forecasts for the next four years. The meeting concluded with the adoption of an agreed regional roadmap for PPR and a set of concrete actions to support progress toward PPR eradication.

Why the **episystems approach**? The PPR situation in many regions highlight significant challenges in surveillance, particularly due to limited resources available to monitor large and heterogeneous animal populations. Characterization of viral lineages has proved essential, as it allows for understanding relationships between isolates and delineating episystems, which are interconnected subpopulations that sustain transmission despite high overall immunity. The episystems approach emphasizes the need for epidemiologically linked surveillance rather than purely geographical monitoring.

On the topic of **post-vaccination monitoring (PVM)**, members were advised that sampling strategies must be adapted to the size and distribution of animal populations within epidemiological units. Parameters for surveillance can be adjusted using tools previously introduced under the GCES framework, ensuring flexibility and efficiency in monitoring efforts. A presentation was delivered on calculating sample sizes for surveillance and PVM based on epidemiological units and other relevant factors.

The experts discussing **PPR Diagnostics** indicated that rapid antigenic tests using nasal-ocular swabs offer high specificity but only about 70% sensitivity, meaning false

negatives are possible. They stressed that negative samples should still be submitted for laboratory confirmation to avoid missed cases. The current diagnostic methods, although updated, remain slow, and new protocols should be submitted to WOAH Reference Laboratories (RL) for validation. They stated that no diagnostic kit is 100% specific; therefore, positive results require confirmation either by retesting the same animals or using another validated method. Sero-neutralization tests can also be employed, and RLs play a critical role in confirming results, underscoring the importance of a strong network of reference laboratories. Hence the invitation for all members to engage with the WOAH PPR Reference Laboratory Network. Kazakhstan expressed interest in joining the WOAH PPR Reference Laboratory Network and was advised to contact CIRAD for further steps, noting that the country is already part of the EURL network.

The meeting emphasized the critical importance of **monitoring herd immunity**, noting that achieving and maintaining at least **70% vaccination coverage** is essential for effective PPR control. Countries currently implementing vaccination strategies shared their approaches and future plans. Türkiye reported that vaccination efforts in Anatolia are focused exclusively on newborn animals. Georgia announced its intention to discontinue vaccination next year (2026) and transition to a surveillance-based strategy. Kazakhstan highlighted its ongoing vaccination in high-risk zones and collaboration with FAO to develop a comprehensive control programme, with the goal of phasing out vaccine use.

The expert discussing **vaccine quality control** stated that a minimum of five tests (checking sterility/purity, safety, potency, identity, stability) should be conducted for each vaccine batch, and AU-PANVAC would avail the guidelines to WOAH for dissemination to Members. These tests require approximately four weeks to complete upon receipt of samples.

The discussion also underscored the value of the Epinet platform for sample and information sharing, encouraging its broader utilization to strengthen regional collaboration. This reinforces the need for regional epidemiological and laboratory focal points to facilitate coordination for PPR and complete the RAG composition as defined by the Terms of Reference.

Participants emphasized that accelerating progress toward PPR eradication requires stronger coordination among countries and stakeholders, coupled with enhanced transparency in reporting and information sharing. They highlighted the need for robust traceability systems to monitor animal movements and ensure safe trade practices. Early detection through improved surveillance and rapid diagnostic capacity was considered critical to prevent outbreaks from spreading. Additionally, participants stressed the importance of effective vaccination strategies, particularly in high-risk areas or under emergency conditions, to reduce residual infection and support long-term eradication goals.

PPR Country Overview

Officially free from PPR	Azerbaijan	• Following the successful acquisition of PPR-free status, Azerbaijan reported positive progress in strengthening its animal health services, particularly in enhancing surveillance systems. - To maintain this status and comply with WOAH requirements for annual reconfirmation, the country must continue implementing robust measures. These include the continued application of sanitary protocols, strict control of animal movements, and continuously enhancing its emergency preparedness and contingency planning. • Additionally, effective communication strategies and awareness campaigns targeting stakeholders are essential to ensure early detection and rapid response in case of any potential threat of disease introduction
Never Reported and not vaccinating against PPR	Armenia	• PPR cases have never been detected or reported. • No vaccination against PPR is conducted • Surveillance is in place, including inspection and document control at border checkpoints • Sero-monitoring is planned but not yet implemented due to lack of funding
	Uzbekistan	• PPR has never been reported. • Has never vaccinated against PPR • Conducting sero-surveillance to demonstrate freedom • The country recognizes PPR as a high-risk disease and includes it in its national control plans
Never Reported & Vaccinating against PPR	Kazakhstan	• PPR has never been reported. • Conducts preventive vaccination and risk-based surveillance, especially in buffer zones and high-density areas of small ruminants. • There is also active monitoring of wild susceptible species like saiga antelope

	Kyrgyzstan	• PPR has never been reported. • The country maintains active and passive surveillance, including clinical monitoring and serological testing. • Vaccination is conducted annually, targeting young animals. • In 2024, over 2.4 million animals were vaccinated across all regions. • Post-vaccination monitoring shows an average immunity level of 86%. • Vaccines are procured regularly and distributed with cold chain management in place
	Turkmenistan**	• PPR has never been reported. • The country conducts annual vaccination campaigns in buffer zones and high-risk regions, despite no historical outbreaks as part of the proactive control strategy

Reported PPR & Vaccination Conducted	Tajikistan	• PPR outbreaks were reported historically, with the first in 2004 and last clinical cases registered until 2013. There are no recent outbreaks.
		• The PPR situation was reported as stable and favorable, but passive surveillance continues. Passive surveillance is conducted with electronic tracking of animal movements.
		• ELISA and PCR diagnostics are available in-country.
		• Vaccination is conducted on annual basis.
		  ○ In 2023, 500,000 doses were procured by the government, and an additional 200,000 doses were imported by private entities.
		  ○ In 2024, 242,573 animals were vaccinated, covering about 35.2% of the target population. Vaccination focuses on young animals (from 3 months), with revaccination after 6 months.
		• Implementation of the national control plan is challenged by limited funding, weak coordination, and incomplete coverage

	Georgia	• The first outbreak was reported in 2016 (Tbilisi region); the second outbreak reported in 2024 (Kvemo Kartli region). • Molecular analysis links virus to Lineage IV strains from China, Mongolia, Pakistan, Iran, and Kurdistan. • Mass vaccination resumed in 2024 (870,000 animals) and 2025 (900,000 animals). No wildlife surveillance system. Priority is to enhance active surveillance post-vaccination. • Use EIDSS for disease reporting. • No legal basis for farmer compensation. • Gaps in vaccine quality control and contingency planning. • Coordination is led by National Food Agency (NFA) with multi-level stakeholder involvement. • Challenges limited control efforts include: o Weak enforcement of movement control; Incomplete animal ID and traceability system o Limited NGO/private vet participation o Low farmer awareness and weak communication
	Türkiye	• PPR Reports: First inclusion as notifiable disease: 1997. Subsequent outbreaks 2020: 53 outbreaks, 2021: 44 outbreaks, 2022: no outbreaks, 2023: 3 outbreaks, 2024: 19 outbreaks, 2025: 3 outbreaks • Last outbreak in Thrace was in 2013 • There is diagnostic capacity at the national and regional labs, which perform ELISA and RT-PCR. Sanger sequencing and full genome sequencing also available. All labs operate under ISO 17025 standards. The country participates in WOAH proficiency testing • Passive surveillance is conducted nationwide • Active surveillance conducted in Thrace since 2016. Sero-surveys in Thrace (2022–2024) showed zero seropositivity • Wildlife surveillance is conducted in some areas (e.g., moufflons in Afyon and Konya)

		• Movement control enforced via 5 operational road control stations • Mass vaccination was done in Anatolia: from 2022 to 2024. Post-vaccination monitoring was conducted annually • Vaccination ceased in Thrace in 2021 to pursue PPR-free status • The legislation supports compulsory vaccination, movement control, animal identification and traceability, emergency response and funding • Joint surveillance was organized with Greece and Bulgaria in Thrace • Country plans to reapply for PPR-free status in Thrace, pending scientific guidance on safe movement during festivals
	Iran**	• PPR was first reported in 1995. PPR is endemic in Iran, with outbreaks reported between 2005–2011, but recent control efforts have significantly reduced cases • Mass vaccination campaigns are conducted annually; Estimated 2024 vaccination covers: ~71 million small ruminants • Future vaccine need estimated at ~150 million doses • Diagnostics using ELISA and PCR available; genome sequencing ongoing. • Active and passive surveillance conducted, but gaps remain • Legal framework recognises PPR as notifiable and vaccination is compulsory. • The limitations including the national strategy is not yet endorsed, weak cross-border enforcement • The country was encouraged to engage with the reference laboratory
	Iraq**	• PPR first outbreak in 1997. PPR is endemic, especially in northern and northeastern governorates (Nineveh, Erbil, Dahuk, Sulaymaniyah) • Vaccination campaigns were conducted annually; 2023 coverage: estimate 85% (mass vaccination) • PCR and serology available • Active and passive surveillance is ongoing with improvements underway • The country has a National PPR Task Force and engages in mechanisms for cross-border collaboration with Syria, Turkey, and Iran

		• Challenges affecting PPR national efforts include incomplete coverage, resource constraints, security issues, weak enforcement of existing legislation and weak stakeholder engagement
	Syria	• PPR outbreaks were reported near Turkish border in 2016. The first sero-surveillance was conducted in 2019 • Vaccination started in 2020 and continues annually • There has been no virus isolation, the reactivation of the central laboratory is planned • Passive surveillance also needs reactivation and expansion • Challenges: Financial constraints, weak lab capacity, weak enforcement of existing legislation (vaccination is voluntary) and low coordination with neighbors
	Pakistan	• First recognized in early 1990s; lab confirmation in 1994 and now endemic • Outbreak frequency increased from 2000–2020 due to Improved diagnostics and surveillance, high animal movement and inadequate vaccination coverage • It has been reported in wildlife species (Mouflon sheep, Sindh Ibex) • Surveillance and diagnosis ongoing • Strategic vaccination was conducted supported by existing project. • The country has capacity for local vaccine production, also imports (ARRIAH) and has a supportive legal framework • Challenges include limited resources, impacts of climate change on disease control efforts and limited artnerships.

** countries that did not attend the physical meeting.

Progress and Updated Implementation of the PPR Roadmap for West Eurasia/ECO Countries (2019–2030)

	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Armenia	1	1	1	1	1	1	1	1	1	>4	>4	>4
Azerbaijan	2	2	2	2	2	>4	>4	>4	>4	>4	>4	>4
Georgia	2	2	2	2	3	3	3	4	4	>4	>4	>4
Iran*	2	2	1	1	1	1	1#					
Kazakhstan	3	3	3	3	3	3	3	4	4	>4	>4	>4
Kyrgyzstan	3	3	3	3	3	3	3	3	3	4	4	>4
Russia		>4	>4	>4	>4	>4	>4	>4	>4	>4	>4	>4
Tajikistan	1	1	1	1	1	1	1	2	3	4	4	>4
Türkiye – Anatolia	3	3	3	3	3	3	3	3	3	4	4	4
-- Thrace	3	4	4	4	4	4	4					
Turkmenistan*	1	1	1	1	1	1	1#					
Uzbekistan							1	1	4	>4	>4	>4
**Syria ** **	2	2	2	2	2	2	2#	2	2	3	3	
**Pakistan ** **	2	2	2	2	2	2	2#	2	3	3	3	4

 # Subject to submission of updated PMAT

*Turkmenistan and Iran did not attend the meeting and PMAT Stage 1 were maintained by default.

**Observer in PPR West Eurasia/ECO RMM; According to PPR GEP, Syria is assessed in Middle East roadmap while Pakistan is assessed in South Asia roadmap.

Recommendations of the 10th West Eurasia FMD & 6th ECO PPR Regional Roadmap Meeting

Considering

- The low budgetary allocations, persistent lack of investments and limited resources to strengthen animal health systems and prevention and control of Transboundary Animal Diseases (TADs) including Foot and Mouth Disease (FMD) and Peste des Petits Ruminants (PPR) in some West Eurasian countries;
- That surveillance information is required to quantify the impact of FMD and PPR in the region and to identify circulating FMD strains for vaccine matching;
- That surveillance information and socio-economic assessments are required for targeted vaccination and adoption of the episystem approach;
- That FMD and PPR outbreak hotspots have been identified in many of the countries;
- That few countries have progressed along the Progressive Control Pathway for FMD control (PCP-FMD) and PPR Monitoring and Assessment Tool (PMAT) stepwise approach in the last decade;
- The importance of having a Regional Advisory Group (RAG) to provide leadership for countries to engage in and progress along the PCP-FMD and PMAT stepwise approach;
- That information sharing, stakeholder engagement, coordination and collaboration are critical to achieve FMD control and PPR eradication, and that this can be supported by epidemiology and laboratory networks;
- That socio-economic data is necessary to advocate for more resources for FMD control and PPR eradication;
- That use of quality-assured vaccines is critical for the control of FMD and the eradication of PPR;
- The availability of low cost conventional PPR vaccines providing long-term immunity and thermostable vaccines;
- The introduction and spread of FMDV serotypes exotic to the West Eurasia region (SAT1 and SAT2);

Participating countries:

10 countries: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Türkiye, and Uzbekistan, agreed:

The countries agree to:

1. Re-elect the RAG for the West Eurasia region for a 3-year term (2025-2027) as follows:

FMD RAG:

- Chair: CVO/Delegate of Azerbaijan
- Members:
  - CVO/Delegate of Kazakhstan
  - CVO/Delegate of Iran
  - EpiNET Coordinator: Armenia

- WelNET Coordinator: Türkiye

PPR RAG:

- Chair: CVO/Delegate of Uzbekistan
- Members:
  - CVO/Delegate of Georgia
  - CVO/Delegate of Kyrgyzstan
- ECO Secretariat

2. Include members of GF-TADs FMD Working Group and PPR Secretariat, representatives from FAO Regional Office for Europe and Central Asia (REU) and WOAH Sub-regional office for Central Asia, PCP-FMD and PPR experts as non-voting Members of the RAG;

3. Use the assessments of the 10th West Eurasian regional FMD Roadmap Meeting (Dushanbe, 2025) as a basis to update the Roadmap for the West Eurasia FMD Roadmap Members for the period 2025-2028.
4. Use the country self-assessment, using PMAT as a basis, to update the 6th Roadmap for the West Eurasia/Economic Cooperation Organisation (ECO) PPR Roadmap Members, for the period 2025-2028.

The participants of the FMD and PPR Roadmap meeting identified the following recommendations:

<u>Overarching recommendations that apply to both FMD and PPR activities:</u>

A) To foster an enabling environment for FMD control, and PPR eradication, and emergency management:

1. To ***continue the roadmap process for West Eurasian countries*** to work towards freedom from clinical FMD in West Eurasia by 2027 and eradication of PPR by 2030; the next meeting is proposed to be held in 2027;
2. ***Sub-regional FMD & PPR meetings be organised among neighbouring countries*** under the GF-TADs umbrella to ensure (i) the harmonisation objectives and modalities of vaccination strategies; (ii) the improvement of information sharing on outbreaks, animal movements/migration routes and hot spots, market prices, to gain a clear understanding of FMD & PPR situation in the sub-region;
3. ***Advocate for increased investment*** in FMD prevention and control and PPR eradication, effectively communicating to decision makers through policy briefs and other means, supported by socio-economic studies when key evidence gaps are identified.
4. ***Increase the awareness of stakeholders along the value chain*** (including livestock owners, transporters, traders, private sector and consumers) about FMD and PPR, and their control and eradication strategies, respectively. This is needed to enhance disease reporting, engage with national and regional disease strategies, strengthen biosecurity measures and ensure compliance with control measures and vaccination.

5. Continuously ***improve capacity in technical expertise*** (surveillance, laboratory, epidemiology, economic analysis, emergency management and vaccination) and improve infrastructure, employing virtual platforms as well as cascading knowledge at national and regional levels.
6. ***Harmonize systems across neighbouring and epidemiologically linked countries*** including health certification systems (cross-border movements and trade), laboratory protocols, surveillance, disease reporting, epidemiological methods and vaccination to enhance compliance, regular communications and streamline procedures and improve understanding of results.

B) To achieve Sustainable and Coordinated Vaccine Supply Chains and Quality Systems

7. ***Establish a regional system for vaccine procurement and quality assurance to support sustainable vaccination programs***. This includes harmonized procurement procedures, cold chain management, and mechanisms for prequalifying vaccine suppliers.

C) To enhance surveillance to provide the information needed to control FMD and eradicate PPR

8. Investigate the constraints on **sample collection and shipment** and develop solutions to facilitate the collection and transport (national and international), of samples to laboratories for laboratory confirmation of outbreaks and virus characterization. Countries are encouraged to work with the Reference Laboratories, which have resources to assist with sample shipment.
9. Develop mechanisms to ***enable accurate and timely testing of FMD and PPR samples and reporting of results*** including improving the availability of reagents, strengthening regional leading laboratories and participation in proficiency testing and inter-laboratory comparison.
10. ***Develop or adopt a platform to analyse and disseminate information*** about transboundary disease outbreaks in general and circulating serotypes and strains of FMD and lineages of PPR specifically, for veterinary services and veterinary laboratories.

D) To improve FMD control and PPR eradication through strong biosecurity and movement controls

11. Develop ***best biosecurity practices*** for farms, livestock markets and transporters, and encourage their adoption, following the FAO Progressive Management Pathway for Terrestrial Animal Biosecurity (FAO-PMP-TAB).
12. Improve awareness and understanding to ***reduce the risks associated with animal movements at regional level, including uncontrolled and informal movements***, by consolidating existing movement information and strengthening cross-border collaborations (for example, through Memorandums of Understanding, wider engagement of stakeholders).
13. Improve livestock identification systems to ***enable traceability*** which will facilitate movement controls, designing effective surveillance and vaccination programmes, and post-vaccination monitoring.

Recommendations that are specific to FMD control

14. Countries that have not progressed from PCP-FMD Stage 1 since the beginning of the Roadmap process, to be encouraged to ***develop their RBSP to reach at least Stage 2 of the PCP-FMD by 2027***;
15. Strengthen the ***prevention, preparedness and response capacity for exotic FMD strains***, through early warning, risk assessment, strengthening quarantine, biosecurity, contingency planning and enhancing the protocols for safe trade with source countries.
16. ***Strengthen the West Eurasia Epidemiology (EpiNet) and Laboratory (WelNet) networks*** to share data and information on FMD in the region and to identify needs for improved FMD surveillance and control and reduce the risk of disease; priority support should be given to countries in PCP-FMD Stage 1 and Stage 2, where a range of technical areas should be strengthened;
17. Establish and maintain ***regional virus monitoring and vaccine-matching systems***:
    - Regularly ***collect and sequence field isolates*** to monitor genetic and antigenic evolution of circulating FMDV strains.
    - Collaborate with reference laboratories to perform ***testing to determine the antigenic match between field strains and vaccine strains*** (heterologous titres and determination of r1 value).
    - Use this data to guide vaccine selection and update national/regional vaccine banks accordingly.
18. Implement ***structured post-vaccination monitoring and sero-surveillance***, to:
    - Measure population immunity and coverage in vaccinated zones
    - Detect immunity gaps by age group or location to adjust vaccination strategy
    - Support progression along the Progressive Control Pathway for FMD (PCP-FMD) using serological evidence.

Vaccine recommendations, based on FMD virus lineages circulating in the region

WOAH/FAO Reference Laboratories and WelNet recommend that Veterinary Services ensure that the vaccines used are appropriate for the viruses circulating in the region and are in line with WOAH standards. Based on data recently collated by the WOAH/FAO FMD Reference Laboratory Network (https://www.foot-and-mouth.org), the following FMD virus lineages are circulating in the region and should be considered for a vaccine tender, based on risk assessment:

- O/ME-SA/PanAsia-2
- O/ME-SA/SA-2018
- A/ASIA/Iran-05
- A/ASIA/G-VII
- Asia-1/Sindh-08
- SAT2/XIV
- SAT1/I

Additional considerations for vaccine selection:

1. To help select the most appropriate vaccine, it is suggested that countries examine recent vaccine-matching data reported by FMD Reference Laboratories, and also request that vaccine manufacturers provide empirical data to demonstrate the efficacy of their products against the circulating FMD virus lineages in the target host species (either as individual monovalent components, or after formulation of a multivalent product sold to the market).
2. The potency of vaccines should be at least 3PD50 (50% protective dose), but countries may wish to consider the significant benefits of a higher potency vaccine (6 PD50 or higher) for increased effectiveness. Please note that we recommend that Asia1 Shamir vaccine should have a minimum potency of 6PD50.
3. While selecting vaccines, countries should also consider epidemiological risks posed by FMD virus circulation in neighbouring regions.

Recommendations that are specific to PPR eradication

For infected countries

19. Conduct epidemiological studies aiming to adapt the surveillance and vaccination for PPR to an episystem (epidemiologically) based approach.
20. Rationalize vaccination strategies by intensifying efforts to achieve high coverage in targeted populations, systematically evaluating campaign effectiveness through post-vaccination monitoring, including seroprevalence surveys. Use these findings to adjust vaccination intervals and address immunity gaps.
21. Implement activities to progress along the PMAT stepwise approach and utilise the mechanism for endorsement of official PPR control programmes by WOAH.
22. Encourage the involvement of private actors and networks in delivering PPR vaccination campaigns, particularly in hard-to-reach or underserved areas. The national Veterinary Services should ensure PPR vaccines are available including thermostable where applicable, and of assured quality with certification provided by mandated independent institutions, and that delivery partners are adequately trained and supervised.
23. Establish a regional PPR strategy where feasible:
    - Coordinate surveillance and movement control in cross-border areas of low-risk.
    - Establish harmonised vaccination and surveillance policies with neighbouring countries
24. Countries progress in PPR eradication and support final eradication steps through outbreak investigation and virus tracing. This includes conducting full epidemiological investigations for any residual PPR outbreaks and applying molecular epidemiology to trace introduction pathways and distinguish between endemic circulation and new incursions. For the last stages of eradication, countries to implement stamping out and ring vaccination in residual hotspots if appropriate.

For countries that have not detected PPR in recent years that are vaccinating

25. Enhance surveillance systems, including sero-monitoring, and develop a transition plan to phase out vaccination.
26. Obtain robust evidence confirming the absence of circulating PPR virus infection and initiate the formulation of a dossier for official recognition of PPR-free status, in alignment with the requirements of the *Terrestrial Animal Health Code* (*Terrestrial Code*).

For countries that have not detected PPR in recent years that are not vaccinating

27. Countries that have never reported PPR, or not reported PPR in recent years, should implement activities required for official recognition of their PPR-free status by WOAH.
28. Develop or update contingency plans and conduct simulation exercises to test emergency preparedness at both national and multi-national levels.

13 November 2025 (validated on the 19th of December 2025)

Annex-I Agenda

Draft Agenda

Joint Workshop of the GF-TADs West Eurasia for Foot and Mouth Disease and Peste des Petits Ruminants Regional Roadmaps

11-13 November 2025

Dushanbe, Tajikistan

Day 1 (FMD): 11 November 2025		
Time	**Topics**	**Speaker**
08:00-08:30	Arrival and registration	All
08:30-09:00	Welcome remarks	Mr. Muhammadsaid Faizullozoda, Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan Dr Mereke Taitubayev, WOAH SRR for CA Dr Viorel Gutu, FAO RR for Europe and Central Asia *(online)* Mr. Mehrdad Fallahi, ECO Secretariat *(online)*
09:00-09:15	Meeting objectives, climate setting	Dr Mereke Taitubayev, WOAH SRR for CA
09:15-09:30	Outcomes of 1st GF-TADs Conference of Europe	Dr Vasili Basiladze, WOAH RR for Europe
09:30-10:00	**Group Photo and Tea Break**	
Session 1	**FMD virus situation at global and regional levels**	**Chair: Dr Mustafo Muminzoda, Deputy Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan**
10:00-10:10	Recap of the FMD Global Strategy, its implementation & Governance mechanism - state-of-play	Dr Min-Kyung Park, GF-TADs FMD WG
10:10-10:30	Overview of global and regional FMD situation, circulating serotypes and topotypes and vaccine recommendations	Dr David Paton, WRL-FMD *(online)* Dr Viktor Nikifirov, ARRIAH

10:30-10:50	Recap of PCP-FMD implementation in WEA: tools available, previous meetings, recommendations and progress	Dr Galib Hummat Abdulaliyev, FMD RAG Chair, CVO of Azerbaijan
10:50-11:00	EU vigilance and experience against FMD	DG-SANTE *(online)*
Session 2	**Country updates and coordination of control interventions**	**Chair: Dr Galib Hummat Abdulaliyev, FMD RAG Chair, CVO of Azerbaijan**
11:00-11:30	Results of the FMD situation questionnaires and PCP-FMD Self-Assessment	Drs. Muhammad Javed Arshed & Polly Compston, GF-TADs FMD WG
11:30-11:45	Experience in developing and implementing an FMD control strategy	Dr Galib Hummat Abdulaliyev, FMD RAG Chair, CVO of Azerbaijan
11:45-11:55	Discussion/questions for presenters	All
11:55-13:00	**Panel Discussion 1:** Early detection/diagnostics, cross-border coordination, risk monitoring and mitigation (movement control/contingency)	Dr Viktor Nikiforov, ARRIAH Dr Min-Kyung Park, GF-TADs FMD WG Dr Satenik Kharatyan (Epi Leader), Dr Adama Diallo, PPR expert Representatives of Türkiye and Kazakhstan Facilitator: Dr Carsten Poetzsch, EuFMD
13:00-14:00	**Lunch Break**	
Session 2 cont.	**Country updates and coordination of control interventions**	**Chair: Dr Galib Hummat Abdulaliyev, FMD RAG Chair, CVO of Azerbaijan**
14:00-14:40	RAG roles and responsibilities and composition review	GF-TADs FMD WG, CVOs/WOAH Delegates, Facilitator: Dr Min-Kyung Park, GF-TADs FMD WG
14:40-15:00	Risk of FMD virus serotype SAT1/SAT2 introduction and spread in countries in the Near East and West Eurasia	Dr Nick Lyons, GF-TADs FMD WG
15:00-15:15	Experience of how the Statement of Intention agreement between neighbouring countries in the region has assisted the response to SAT2	Dr Carsten Poetzsch, EuFMD
15:15-15:30	**Health Break**	

15:30-17:30	**Closed meeting** with individual countries to assess PCP-FMD stages and PPR PMAT in parallel *(4 panels; 3 countries per panel)*	GF-TADs FMD WG, PPR Secretariat, Regional representatives, Experts
17:30	End Day 1	
18:30	Official dinner hosted by Tajikistan	

Day 2 (FMD & PPR): 12 November 2025		
Time	**Topics**	**Speaker**
08:00-08:45	Finalization of individual country interviews	
08:45-09:00	Debrief of Day1	Dr Mark Hovari, FAO REU
Session 3	**Vaccine selection, vaccination strategies and post-vaccination monitoring**	**Chair: Dr Galib Hummat Abdulaliyev, FMD RAG Chair, CVO of Azerbaijan**
09:00-09:15	Country experiences in FMD control with specific focus to incursion of new serotypes in the region	Representative of Türkiye
09:15-10:15	**Panel Discussion:** Vaccination, selection, sourcing vaccines, PVM and vaccine recommendations	ARRIAH (FAO/WOAH FMD Reference Lab), CVO Georgia, CVO Iran, Dr Nick Lyons (FAO) Dr Abdulnaci Bulut, (Lab-Network Leader) Facilitator: Dr Polly Compston, FMD WG
10:15-11:00	**Group Work:** - Epidemiology and Laboratory Networks workplans - FMD - RAG meeting (in parallel)	Dr Satenik Kharatyan (Epi-Network Leader) Dr Abdulnaci Bulut, (Lab-Network Leader) RAG & FMD WG + Regional representatives
11:00-11:30	**Health Break**	
11:30-12:30	**Group Work:** Regional approach of FMD's control strategy; challenges and opportunities of implementation at the regional and national levels - Improved understanding of FMD and its control - Strengthening regional coordination & collaboration - Greater capacity for FMD prevention and control	Breakout groups to formulate SMART recommendations Facilitators: GF-TADs FMD WG, FAO/WOAH Regional experts
12:30-13:30	**Lunch Break**	

Session 4	PPR disease updates and governance	Chair: Representative of PPR RAG Chair, Uzbekistan
13:30-13:45	Objectives of the meeting	Dr Mereke Taitubayev, WOAH SRR for CA
13:45-14:15	Overview of the PPR Global and Regional situation • Overview of PPR Global and Regional situation • Regional activities FAO & WOAH	Dr Viola Chemis, PPR Secretariat Dr Mereke Taitubayev, WOAH SRR for CA Dr Mark Hovari, FAO REU
14:15-14:40	Presentations of pre-survey results and insights from country presentations given during pre-meeting webinar	Drs. Sara Lyshom and Viola Chemis, PPR Secretariat
14:40-15:00	EU experience against PPR	DG SANTE *(online)*
15:00-15:30	**Health Break**	
Session 5	**PPR vaccine, vaccination and diagnostics**	**Chair: Dr Mereke Taitubayev, WOAH SRR for CA**
15:30-15:50	Surveillance in vaccinated vs unvaccinated populations	Dr Javier Guitian, PPR Secretariat (*online*)
15:50-16:10	PPR diagnostic support from FAO/WOAH Reference Centre to countries in Central Asia	Dr Arnaud Bataille, CIRAD Dr William Dundon, FAO/IAEA Joint Division Centre (*online*)
16:10-16:30	Formulating effective vaccination strategies for the eradication of PPR	Dr Adama Diallo, PPR Expert
16:30-16:50	PPR Vaccine quality control at procurement and during vaccination monitoring	Dr Charles Bodjo, AU-PANVAC (*online*)
16.50-17:20	Discussion session with pre-determined questions on surveillance, vaccines and vaccination strategies	Facilitator: Dr Adama Diallo, PPR Expert
17:20-17:35	Wrap-up of Day 2	Representative of PPR RAG Chair, Uzbekistan
18:30	Dinner provided by the organizers	

Day 3 (FMD & PPR): 13 November 2025		
Time	**Topics**	**Speaker**
Session 6	**Country PMAT discussions**	**Chair: Dr Mustafo Muminzoda, Deputy Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan**

09:00-09:30	Closed meeting RAG and PPR Secretariat to wrap up the discussion on country PMATs, provisional roadmap and concrete actions identified on Day 1	WOAH SRR for CA PPR RAG Chair, Uzbekistan PPR Secretariat
09:30-09:50	Recap of PMAT implementation in the region: tools available, previous meetings, recommendations and progress	Representative of PPR RAG Chair, Uzbekistan
Session 7	**PPR ECO Strategy**	**Chair: Representative of PPR RAG Chair, Uzbekistan**
09:50-10:10	Proposed for adoption: ECO Regional Strategy for the control and eradication of PPR	Dr Duriya Charypkhan, PPR Secretariat
10:10-10:30	Feedback, Q&A and potential adoption of regional strategy	Dr Duriya Charypkhan, PPR Secretariat
Session 8	**Official PPR-free status and endorsement of PPR Control Programme by WOAH**	**Chair: Dr Mustafo Muminzoda, Deputy Chairman of the Committee for Food Security under the Government of the Republic of Tajikistan**
10:30-11:00	Sensitization on the procedures and requirements for Official recognition of PPR-free status, Endorsement of official PPR control programmes, and Questionnaire to demonstrate maintenance of free status	Dr Sara Lysholm, PPR Secretariat
11:00-11:20	Azerbaijan's journey to official recognition of PPR-free status or national strategy for the eradication programme	Dr Galib Abdulaliyev, CVO of Azerbaijan
11:20-11:40	**Health Break**	
11:40-12:10	WAHIS update on FMD and PPR reporting in the region	WAHIAD *(online)*
12:10-12:40	Focusing on Actions Taken and Impact: Launch of the First-Ever PVS Self-Assessment Annual Report	Dr Jennifer Lasley, WOAH *(online)*
12:40-13:40	**Lunch Break**	
Session 9	**Regional support and PPR surveillance**	**Chair: Dr Mark Hovari, FAO REU**
13:40-14:00	Presentation on the updates from the 6th PPR Vaccine Producers Meeting	Dr Duriya Charypkhan, PPR Secretariat
14:00-14:15	Partner activities in support to countries for FMD & PPR, Partners:	Partners

	WRL, ARRIAH, ANSES, Financial & Economic Unions	
14:15-14:35	How to strengthen passive surveillance and early warning systems for PPR; importance of zero-reporting & stakeholder engagement in surveillance	Dr Javier Guitian, PPR Secretariat (*online*)
14:35-15:00	Designing serological surveys to demonstrate PPR absence	Dr Marion Bordier, CIRAD (*online*)
15:00-15:30	**Health Break**	
Session 10	**Presentation of draft RMM and Meeting recommendations**	**Chair: Dr Mereke Taitubayev, WOAH SRR for CA**
15:30-16:30	Presentation and discussion of the Regional Roadmap for validation	RAGs
16:30-17:30	Presentation of draft recommendations	GF-TADs FMD WG PPR Secretariats
17:30-17:50	Next steps and way forward	WOAH SRR for CA
17:50	Closing remarks	

Annex-2 List of Participants

Country/ Organisation	Name	Surname
Armenia	Hayk	Sargsyan
Armenia	Artur	Melikyan
Armenia	Satenik	Kharatyan
Azerbaijan	Galib	Abdulaliyev
Azerbaijan	Natig	Javadov
Georgia	Tengiz	Chaligava
Georgia	Irakli	Tsikhelashvili
Georgia	Lasha	Avaliani
Kazakhstan	Valikhan	Shokubassov
Kazakhstan	Talgat	Karibayev
Kazakhstan	Yerlan	Yeginbayev
Kyrgyzstan	Adilet	Sotovaldiev
Kyrgyzstan	Abdumalik	Mamyrov
Kyrgyzstan	Asylbek	Sabirov
Pakistan	Syed Murtaza Hassan	Andrabi
Pakistan	Abdul	Razzaq
Syria	Nabeel	Alhallak
Syria	Ahmad	Alasaad
Tajikistan	Muhammadsaid	Faizullozoda
Tajikistan	Mustafo	Muminzoda
Tajikistan	Abdulvakhob	Avgonov
Tajikistan	Shahrom	Aliev
Tajikistan	Anis	Shirinov
Tajikistan	Shuhrat	Saimurodov
Tajikistan	Jahongir	Salimov
Tajikistan	Sulaymon	Nazrullozoda
Turkiye	Abdulnaci	Bulut
Turkiye	Sena	İnel Turgut

Country/ Organisation	Name	Surname
Turkiye	Sabri	Hacioğlu
Uzbekistan	Otabek	Isanov
Uzbekistan	Abdurauf	Yusubakhmedov
Uzbekistan	Sabitdjan	Tulyaganov
ARRIAH	Viktor	Nikiforov
Boehringer-ingelheim	Nicolas	Denormandie
DolIvet	Sinan	Aktaş
EuFMD	Carsten	Poetzsch
FAO	Muhammad Javed	Arshed
FAO	Nicholas	Lyons
FAO	Duriya	Charypkhan
FAO	Marina	Kichinebatyrova
FAO	Mohammad	Nazem Shirazi
FAO	Mark Harald	Hovari
FAO	Tolibjon	Khakimov
IOFS	Bakdaulet	Yerkhanov
PPR Expert	Adama	Diallo
QazBioPharm	Yergali	Abduraimov
QazBioPharm	Kairzhan	Baizhanov
WOAH	Min-Kyung	Park
WOAH	Bolortuya	Purevsuren
WOAH	Viola	Chemis
WOAH	Sara	Lysholm
WOAH	Mereke	Taitubayev
WOAH	Aigerim	Zhorgabayeva
WOAH	Vasili	Basiladze
WOAH	Myriam	Ispa

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