



Food and Agriculture
Organization of the
United Nations



European neighbourhood EuFMD Pillar II

Report on significant FAST disease events and information

October-December 2022

European Commission for the Control of Foot-and-Mouth Disease

EuFMD's programme, tools and initiatives

FAST

Foot-and-mouth And
Similar Transboundary
animal diseases

Dt

EuFMD Digital
transformation

vlearning

EuFMD Virtual learning

microLearning

EuFMD Micro learning

Tom

EuFMD Training
management system

SimExOn

Simulation exercises
online

KnowBank

EuFMD Knowledge bank

GetPrepared

Emergency preparedness toolbox

RiskComms

Risk communications

SQRA

A method for spatial qualitative
risk analysis applied to fmd.

Pragmatist

Prioritization of antigen management
with international surveillance tool

EuFMDiS

EuFMD Spread model

RMT-FAST

Risk monitoring tool for foot-and-mouth
and similar transboundary animal diseases

Vademos

FMD Vaccine demand
estimation model

GVS

Global vaccine
security

PQv

Vaccine
prequalification

PCP

Progressive control
pathway

PSO

Pcp practitioner
officers

VPP

Veterinary
paraprofessionals

PPP

Public private
partnership

Sustainable Development Goals, UN-SDGs. EuFMD's programme has a focus on



Together against wasting resources, think twice before printing.

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Acronyms and abbreviations

ELISA	Enzyme-linked immunosorbent assay
FAST diseases	Foot-and-mouth and similar transboundary animal diseases
FMD	Foot-and-mouth disease
LR	Large ruminants
LSD	Lumpy Skin Disease
NSP	Non-structural proteins
OIE	World Organization for Animal Health
PCP-FMD	Progressive control pathway for Foot-and-Mouth Disease
PCR	Polymerase chain reaction
PD ₅₀	Protective dose of 50 percent (a measure of vaccine potency)
PPR	Peste des petits ruminants
RVF	Rift Valley fever
SGP	Sheep and Goat Pox
SP	Structural proteins
SR	Small ruminants
WAHIS	World Animal Health Information System

Introduction

The European Commission for the Control of Foot-and-Mouth Disease (EuFMD) risk reduction program in the European neighboring regions of North Africa, Middle East, and South East European Neighborhood is delivered within the Hold-FAST strategy. This strategy continues the focus upon FMD risk reduction and extends the scope of preparedness and risk reduction activities to similar transboundary animal diseases which pose an immediate threat to the EuFMD Member Nations.

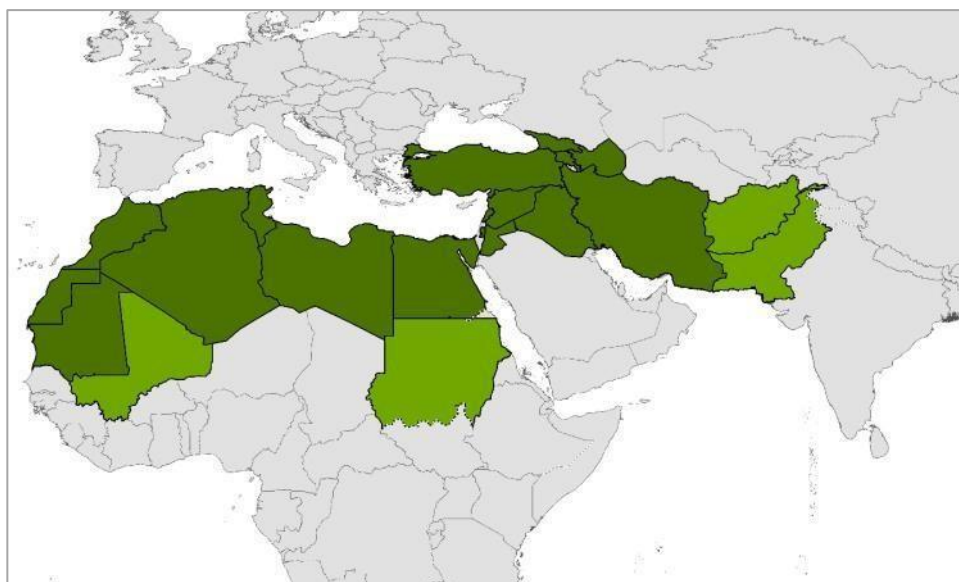
The program focuses on the control of Foot-and-mouth And Similar Transboundary animal diseases (FAST) in the neighboring regions through the improvement of prevention, surveillance, and control. In this context, the FAST quarterly report of significant events provides relevant and regular risk information to risk managers operating in EuFMD Member Nations and neighboring countries.

The constant monitoring of the epidemiological situation together with information on the implementation of control and surveillance strategies increases awareness of major transboundary animal disease threats for Europe and the regions of North Africa, the Middle East, and South East European Neighborhood (SEEN).

The European neighborhood

The neighborhood of the current 39 EuFMD Member Nations is made up by non-EuFMD Members that either have land borders with EuFMD Members, are members of the Mediterranean animal health network (REMESA), or whose animal health status provides an early warning for FAST disease spread to the neighborhood of Europe. The activity of Pillar II includes EuFMD Member Nations in the European neighboring region (Republic of Türkiye, Georgia) (Figure 1).

Figure 1. Countries included in the activities of the EuFMD Pillar II



Source: United Nations Geospatial. 2020. Map of the World.

www.un.org/geospatial/file/3420/download?token=TUP4yDmF

EuFMD Member Nations in European neighboring region: Republic of Türkiye, Georgia.

Having land borders with EuFMD Member Nations: Armenia, Azerbaijan, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, Lebanon, Palestine, Jordan, and Egypt.

Non-EU Members of REMESA: Jordan, Lebanon, Egypt, Libya, Tunisia, Algeria, Morocco, and Mauritania.

Countries significant for epidemic spread of FAST diseases to the above countries: Sudan, Mali, Afghanistan, and Pakistan.

The boundaries and names shown and the designations used on these map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers and boundaries. Dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Significant events and information

The data reported to the World Organization for Animal Health (WOAH), and mentioned in this publication, have been sourced from the World Animal Health Information System (WAHIS) and refer to the period between 1st October and 31st December 2022. Other information has been obtained through the EuFMD activities and networks in the European neighborhood. Information referring to the period before 1st October might be reported when relevant or not previously reported.

Foot-and-mouth disease (FMD)

Middle East

Country	FMD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Egypt	Throughout 2022, 94 outbreaks of FMD were confirmed.	A/AFRICA/G-IV & A/Euro-S America		Mass vaccination campaigns are conducted 3 times per year		Data shared by the country
Palestine	Between October and December 2022 there were 4 outbreaks in SR (Hebron and Jenin) and 1 outbreak in cattle (in Hebron).	O/ME-SA/PanAsia-2 ^{ANT-10}	-	Between October and December 2022, 286,825 SR (28.2% of SR population*) and 20,797 LR (56.3% population).	-	Data shared by the country
Jordan	In December 2022 there were 3 outbreaks.	O/ME-SA/PanAsia-2 ^{ANT-10}	A post-vaccination monitoring study is being conducted on two farms in goat and sheep. ELISA SP & NSP are being performed.	The first national campaign against FMD was launched on the 1st of October 2022. More than 60,000 cattle (>75% LR population*) and 3,600,000 (95.5% SR population*) heads of sheep and goats vaccinated (O1 Campos vaccine strain).	-	Data shared by the country

South East European Neighborhood (SEEN)

Country	FMD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Republic of Türkiye	26 FMD outbreaks were recorded in this quarter.	Most outbreaks are due to O/PanAsia-2 ^{Qom15} . Only two viruses were characterized as the O/PanAsia-2 ^{ANT-10} .	Clinical surveillance was achieved in 337 epi-units out of 394 in the buffer zone area. In total of 26,960 animals were examined in this surveillance	The Autumn vaccination campaign has been performed and was finalized on 20 th November. A quadrivalent vaccine (O Panasia2,		Data shared by the country, National Database system, VETBIS.

			for FMD.	A/Asia/GVII; A/Asia/IRAN05 and Asia1/SINDH08) with at least 6PD ₅₀ is used for vaccination.		
Azerbaijan	-	-	Active and passive surveillance,	899,624 cattle (28.7% of population*) and 2,599,163 small ruminants (24.8%*) were vaccinated in October-December 2022. 761 samples from LR and 763 samples from SR were collected within the sero-monitoring campaign.	-	Data shared by the country - National Veterinary Authority
Armenia	-	-	Passive surveillance. Active surveillance has been conducted. NSP sero-surveillance (main surveillance and follow up) has been conducted, in total 4,400 samples (2,383 LR samples and 1,951 SR samples) have been tested. 991 samples (675 LR and 316 SR) have been tested for SP. Results of which are pending.	865,324 large ruminants (complete coverage of LR population) and 3,649 small ruminants (0.5%*) were vaccinated.	-	Data shared by the country – figures are for the period 01 September – 31 December 2022.
Georgia	-	-	4,500 samples collected for NSP sero-surveillance; testing and analysis of results is in progress.	Autumn vaccination campaign completed; 320,967 LR (30.2% population*) and 414,449 SR (50.3%*) were vaccinated during the reporting period.	-	Data shared by the country

Iraq	32 outbreaks reported (1 in Baghdad, 31 in Diyala; susceptible: 2,229, cases: 935, deaths: 9), most cases in buffalos and cattle, not all outbreaks were confirmed in the laboratory, some were based on clinical signs. Outbreaks also occurred in other provinces without formal reporting.	Serotypes O and A	-	The vaccine was unavailable, so no vaccination has been conducted in 2022. The last vaccination campaign took place in June 2021.	-	Data shared by the country (report does not include the Kurdistan Region).
Iran (Islamic Republic of Iran)	21 outbreaks were reported in LR and 7 in SR this quarter.	O/PanAsia-2 ^{Ant-10} A/Iran-05 ^{Far-11}	Passive surveillance and risk based active surveillance and enhanced active surveillance is ongoing.	1,290,995 LR (24.8% LR population*) and 12,047,242 SR (21.4%*) were vaccinated against FMD with trivalent vaccines (O, A, Asia1) which were either locally produced or imported. In the new vaccination strategy, vaccination for villagers was free (phase one, ended this quarter). In the future industrial farms will also be offered free vaccination.	-	Data shared by the country
Pakistan	A total of 103 outbreaks were recorded (25 in Punjab province, 9 in KPK and 69 in Sindh).	Outbreaks were due to Serotypes O (n=11), A (n=18), Asia 1 (n = 44). The remainder were undefined.	-	-	-	Data shared by the country

Peste des petits ruminants (PPR)

North Africa

Country	PPR Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Morocco	There were 20 new cases of PPR reported in November 2022, in Skhirat Témara. 17 in goats and 3 in sheep, resulting in 15 deaths.	-	-	-	-	WAHIS: 158117

South East European Neighborhood

Country	PPR Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Georgia	-	-	-	Georgia completed the annual vaccination against PPR in the spring.	-	Data shared by the country
Azerbaijan	-	-	Passive and active surveillance for disease free status. 1,021 samples were collected and investigated within the sero-monitoring campaign for disease free status.	No vaccination applied.	-	Data shared by the country
Armenia	-	-	Passive surveillance and data collection for preparation of the dossier for disease free status.	No vaccination applied.	-	Data shared by the country.
Iraq	No outbreaks reported this quarter.	-	-	Vaccination (2M doses) in September (preventive and outbreak response).	-	Data shared by the country (report does not include the Kurdistan Region)
Iran (Islamic)	10 outbreaks reported this quarter.	-	Passive surveillance and risk based active surveillance is ongoing.	3,102,206 sheep and goats (59.6% of SR population*)	-	Data shared by the country

Republic of Iran)			Post vaccination monitoring was performed in two sero-surveys and results are being analysed.	were vaccinated to increase the coverage and respond to PPR outbreaks.		
Pakistan	Several hundred outbreaks, especially in Punjab and Sindh provinces	-	-	5.6 million sheep and goats vaccinated between June and December 2022 (5.0% of SR population*).	-	Data shared by the country

Lumpy skin disease (LSD)

Middle East

Country	LSD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Egypt	In the past year 6, outbreaks were confirmed	-	-	Massive vaccination of cattle annually and ring vaccination of unvaccinated, newly born, and purchased animals depending on suspicion.	-	Data shared by the country

South East European Neighborhood (SEEN)

Country	LSD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Azerbaijan	-	-	Passive surveillance	160,271 cattle (5.1% of LR population*) were vaccinated in October-December 2022.	-	Data shared by the country
Armenia	-	-	Passive surveillance	464 LR (0.07% of population*) were vaccinated in high-risk areas.	-	Data shared by the country.

Georgia	-	-	Passive surveillance is in place.	9,141 animals (0.9% LR population*) were vaccinated in the high-risk areas.	-	Data shared by the country.
Iraq	No outbreaks reported this quarter.	-	-	-	-	Data shared by the country (report does not include the Kurdistan Region)
Iran (Islamic Republic of Iran)	-	-	-	The new vaccination campaign of started in this quarter. 865,059 LR (16.6% of LR population*) were vaccinated with a homologous vaccine (Neethling vaccine). Vaccination is free of charge for villagers and nomadic farmers, while payment is required for animals of large-scale dairy farms.	-	Data shared by the country

Rift Valley fever (RVF)

North Africa

Country	RVF Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Mauritania	The number of confirmed cases of RVF has reached 305 by November 2022, in 8 wilayat (regions). Human cases have also been also identified.	-	1567 samples have been collected (19.4% positivity).	-	-	WAHIS (woah.org) - 54962

Sheep and goat pox (SGP)

South East European Neighborhood (SEEN)

Country	SGP Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Azerbaijan	-	-	Passive surveillance	3,409,644 SR (32.5% of population*) vaccinated in October - December 2022.	-	Data shared by the country
Armenia	-	-	Passive surveillance	252,159 SR (37.8% of population*) were vaccinated high risk regions during reporting period of 2022.	-	Data shared by the country
Republic of Türkiye	35 outbreaks reported.	-	-	-	-	Data shared by the country
Iraq	23 outbreaks reported in the districts of Anbar (5), Naajaf (5), Babil (2), Dhiqar (2), Ninawa (1), Wasit (1) and Salahaddin (7).	-	-	-	-	Data shared by the country (report does not include the Kurdistan Region)

*Vaccination coverage was estimated using predicted livestock population sizes for the year 2022 in the EuFMD Vaccine Demand Estimation Model of Foot-and-Mouth disease (FMD), VADEMOS found at <https://www.eufmd.info/vademos>.

Summary

Foot and mouth disease

Foot and mouth disease continues to circulate in Palestine, likely due to the spread of sublineage O/ME-SA/PanAsia-2^{ANT-10}. Jordan began its national vaccination campaign, the sublineage O/ME-SA/PanAsia-2^{ANT-10} continues to circulate in the country.

Outbreaks were reported in Egypt, reportedly due to serotype A (A/AFRICA/G-IV & A/Euro-S America). The competent authority informed that vaccines used in the country have been modified to confer protection against these emerging strains.

In the South East European neighbourhood, O/ME-SA/PanAsia-2^{Qom15} continues to circulate in the Republic of Türkiye, with 26 outbreaks reported. O/PanAsia-2^{ANT-10} was also reported in the Republic of Türkiye and Iran, with A/Iran-05^{Far-11} also reported in Iran. Both Pakistan and Iraq reported outbreaks due to serotypes O and A, but lineage information was not available. Asia 1 was also reported in Pakistan. Many of the SEEN countries reported vaccination campaigns against FMD with varying coverage.

No information for FMD could be collected for North Africa this quarter.

Surveillance data needs to be improved in many countries, especially in the Middle East and North Africa. The collection of samples from outbreaks and their shipment to FAO/WOAH Reference Laboratories is particularly important, so that phylogenetic and vaccine matching analysis can be performed. This can assist in providing evidence on the origin of the virus and on the efficacy of vaccines. There is a need to ensure that vaccines in use are protective against the correct circulating strains.

Peste des petits ruminants

Outbreaks were reported in Morocco and Iran this quarter. Iran reported vaccinating almost 60% of the small ruminant population against PPR. Iraq also reported vaccination against PPR.

Lumpy skin disease

Outbreaks of lumpy skin disease were reported in Egypt during the last year; however, no information was obtained for any outbreak in the other countries this quarter. Vaccination was reported in Iran, Armenia, Azerbaijan, and Georgia, with varying coverage.

Rift Valley Fever

Mauritania reported outbreaks of Rift Valley fever this quarter.

Sheep and goat pox

Iraq and the Republic of Türkiye reported outbreaks of sheep/goat pox this quarter. Azerbaijan and Armenia reported vaccination against sheep and goat pox.

Reports of important disease incidents since the end of the reporting period

A new incursion of FMDV serotype SAT 2 has been reported in Iraq, notified from Jordan and Tripartite meetings are organized for Middle East involving Israel and Palestine to provide EuFMD assistance.

Sheep and Goat Pox has been reported in Azerbaijan, for the first time in more than ten years.

More information will be provided in the next FAST report (January – March 2023).

EuFMD Committees

Executive Committee, Standing Technical Committee (STC), Special Committee for Surveillance and Applied Research (SCSAR), Special Committee on Biorisk Management (SCBRM), Tripartite Groups.

Hold-FAST tools

AESOP. Assured emergency supply options; EuFMDiS, FMD spread model; GET PREPARED toolbox. Emergency preparedness; GVS. Global Vaccine Security; Online Simulation Exercises; Outbreak Investigation application; Pragmatist. Prioritization of antigen management with international surveillance management tool; PCP-FMD. Progressive Control Pathway for foot-and-mouth disease; PCP-Support Officers; SAT. PCP Self-Assessment Tool; RTT. Real Time Training; SMS Disease reporting; SQRA toolkit. A method for spatial qualitative risk analysis applied to FMD; Telegram; TOM. EuFMD training management system; Global Monthly reports; VADEMOS. Vaccine Demand Estimation Model; VLC. Virtual Learning Center. Microlearning.

United Nations Sustainable Development Goals (UN-SDGs)

EuFMD's programme has a main focus on



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