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Approved by the decision (#01/2025) of the Republican Emergency Commission against Epizootics dated July 2, 2025.

FOOT AND MOUTH DISEASE RISK MANAGEMENT GUIDELINES IN THE REPUBLIC OF AZERBAIJAN

(RİSK BASED STRATEGIC PLAN)

Baku – 2025

CONTENTS

Abbreviations

AFSA – Food Safety Agency of the Republic of Azerbaijan
AFSI – “Azerbaijan Food Safety Institute” Public Legal Entity
ASA – Agrarian Services Agency next to the Ministry of Agriculture of the Republic of Azerbaijan
MENR – Ministry of Ecology and Natural Resources of the Republic of Azerbaijan
CCEDI – “Center for Control of Especially Dangerous Infections” Public Legal Entity
CVL – Central Veterinary Laboratory of AFSI
RCC – Republican Crisis Center
RCHE – “Republican Center for Hygiene and Epidemiology” Public Legal Entity
WOAH – World Organisation for Animal Health (WOAH)
LCC – Local Crisis Center
FAO – Food and Agriculture Organization of the United Nations
MES – Ministry of Emergency Situations of the Republic of Azerbaijan

Basic concepts

The key terms used in the foot-and-mouth disease risk management guideline have the following meanings:

- **Infection zone** – a control zone established within a 3 km radius from a farm where foot-and-mouth disease has been detected.
- **Observation zone** – a control zone established within a 10 km radius from a farm where foot-and-mouth disease has been detected.
- **Individual farms** – farm entities where various types of animals are kept in household plots for personal consumption.
- **Commercial livestock enterprises** – farm entities, regardless of form, engaged in breeding and selling animals for commercial purposes, as well as the production, processing, and sale of animal-origin products and raw materials.
- **Zoonotic diseases** – infectious diseases caused by bacteria, fungi, viruses, and parasites that can be transmitted from animals to humans or from humans to animals.
- **Virus strain** – a virus type belonging to a virus family according to systematic classification but differing in antigenic composition.
- **Biosecurity** – a system of measures aimed at preventing the infection of humans, animals, and the environment by various disease agents.
- **Suspected cases of foot-and-mouth disease** – the occurrence of clinical signs of the disease in animals with symptoms, without official confirmation of the disease.

1. Introduction

Foot-and-mouth disease is a highly contagious, transboundary viral disease that adversely affects animal health and international trade. Cloven-hoofed domestic and wild animals (cattle, sheep, goats, pigs, buffalo, camels, deer, gazelles, giraffes, etc.) are susceptible to foot-and-mouth disease, while horses and birds are not susceptible. Besides causing economic losses, the disease results in decreased milk and meat productivity, impaired reproductive function, and death of animals. The costs of control measures against the disease, including restrictions on the export and import of animals, animal-derived products, and raw materials, cause significant damage to the national economy.

The “State Program for Ensuring Food Safety in the Republic of Azerbaijan for 2019–2025” approved by the Decree No. 1143 of the President of the Republic of Azerbaijan dated April 29, 2019, highlights ensuring the population’s access to safe and quality animal-origin products as one of the main responsibilities of the Food Safety Agency of the Republic of Azerbaijan. Therefore, within the framework of food safety requirements, measures are taken to ensure the health of animals against particularly dangerous diseases that harm human and animal health, as well as the environment, to achieve safe production of animal-origin food products.

FMD is included in the "List of Infectious Animal Diseases Subject to Quarantine and Restriction Measures," approved by the Decree No. 228 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 19, 2006; the "List of Specially Dangerous Diseases Threatening Animal and Public Health," approved by the Decree No. 167 of the Cabinet of Ministers dated July 7, 2006; and the "List of Specially Dangerous Animal Diseases Funded from the State Budget for Prevention, Diagnosis, and Eradication in the Veterinary Sector," approved by the Decree No. 65 dated March 7, 2006.

Furthermore, the exotic types of this disease are included in the "List of Specially Dangerous and Quarantine Animal Diseases for Which Material Damage Compensation is Provided," established in accordance with the "Rules on the Application of Quarantine Regime and Eradication of Harmful Organisms, Prevention, Diagnosis, Treatment, and Eradication of Specially Dangerous Animal Diseases and Compensation of Material Damage to Legal and Physical Persons," approved by the Decree No. 120 of the Cabinet of Ministers dated April 18, 2023.

The “Guidelines for Risk Management of FMD” (hereinafter referred to as the Guidelines) encompass the coordinated activities of relevant authorities and agricultural entities to implement organizational, administrative-economic, health, and veterinary measures necessary for assessing the epizootiological risk factors of FMD, detecting the disease, and carrying out its eradication through appropriate preventive actions.

The Guidelines aim to develop a unified nationwide strategy against FMD, organize zones and compartments based on the disease status, prevent the introduction of the pathogen into the country, and implement proactive measures for early detection of the disease.

2. History, General Characteristics, Epizootic Situation, and Control Strategy of FMD

2.1. History of the Disease

FMD (Latin: Aphthae; English: Foot and Mouth Disease) is an acute contagious viral disease of cloven-hoofed domestic and wild animals, characterized by vesicular lesions (aphthae – blisters) on the mucous membranes of the gastrointestinal tract, primarily the oral cavity, and erosions on hairless areas of the skin.

The disease was first described in animals by the Italian physician D. Fracastro in 1546. The viral nature of FMD was established by German scientists F. Loeffler and P. Frosch in 1897. In 1922, French scientists H. Valle and H. Carre identified two different virus types that did not create cross-immunity and named them after the locations where they were isolated – type “O” (Oise) and type “A” (Allemagne).

In 1926, German scientists O. Waldmann and K. Trautwein discovered a new virus type “C” through cross-infection experiments between cattle and Indian pigs. Later, in 1948, scientists from the United Kingdom’s The Pirbright Institute identified three more types – “SAT-1,” “SAT-2,” and “SAT-3” (Southern African Territories) from material originating in South Africa. In 1954, the “Asia-1” type was detected in Pakistan.

Information about FMD in Azerbaijan dates back to scientific sources from 1890. Epizootics of the disease occurred sporadically between 1900 and 1916. However, since virus typing was not performed previously, only from 1957 to the present has the presence of the “O” type variant “O-1,” “SAT-1” type, “A” type variants “A-22” and “A-7,” as well as the “Asia-1” type been identified in Azerbaijan.

2.2. Causative Agent of the Disease

The causative agent of the disease is a small (20-25 nanometers), RNA-containing virus belonging to the genus *Aphthovirus* of the family *Picornaviridae*. The virus has a complex antigenic structure and is divided into 7 serological types based on antigenic properties: A, O, C, SAT-1, SAT-2, SAT-3, and Asia-1. Each type has a varying number of subtypes. Currently, there are 32 subtypes of type “A,” 13 of type “O,” 5 of type “C,” 7 of type “SAT-1,” 3 of type “SAT-2,” 4 of type “SAT-3,” and 2 of type “Asia-1.”

The causative agent of FMD is quite resistant to chemical disinfectants and belongs to the second group of resistance. The virus is resistant to ether, chloroform, and carbon tetrachloride. Its resistance increases when directly separated from the walls of the vesicles (aphthae). It can remain viable in dried pasture plants until the next year. In stagnant waters, the virus can survive up to 103 days in cold months, 21 days in summer, and up to 49 days in autumn.

The virus can survive in wool for up to 4 weeks, in milk at room temperature for 25-30 hours, in refrigerated milk for 9-12 days, in unsalted butter from 4 to 25 days, and in sausage products for up to 50 days. The virus can live in frozen meat for more than one year. During pasteurization of milk, the virus is destroyed within 30 minutes, and during boiling, within 5 minutes. Environments with high acidity quickly inactivate the pathogen.

Sodium hydroxide is considered a more effective disinfectant against the virus. During disinfection measures against FMD, a 2% formalin solution inactivates the virus within 10 minutes, while 1-2% hot solutions of sodium and potassium hydroxide neutralize the virus within 10-30 minutes.

2.3. Epizootiology of FMD

In addition to single-hoofed animals, FMD affects domestic and wild cloven-hoofed animals belonging to 14 orders, 33 families, and 105 species. The high contagiousness of the disease, prolonged virus carriage in animals, the virus’s ability to survive for a long time in the external environment, and the diversity of virus types and variants contribute to its persistence in nature and the recurrence of the epizootic process.

The spread of FMD is facilitated by farm and economic-trade relations, the frequency of human migration, and the conditions of procurement and storage of animal-derived products and raw materials. The introduction of the disease to a region is possible through imported animals. The occurrence of FMD in regions practicing nomadic livestock farming often coincides with migration periods.

Key epizootological features of FMD include the diversity of transmission routes of the infectious agent, the short incubation period that accelerates virus circulation among animals and leads quickly to new sources of infection, the presence and potential contact of susceptible domestic and wild animal species in the area, the release of large amounts of virus into the environment during infection, as well as the existence of multiple immunological types and numerous variants of the virus.

Susceptible animal species

The disease is found in more than 100 species of domestic and wild cloven-hoofed animals. Cattle and pigs, as well as goats, sheep, buffaloes, yaks, reindeer, and sometimes camels, are the most susceptible. Young animals (2-3 months old) are more sensitive to the disease and tend to suffer from more severe forms. Cases of infection have also been recorded among humans.

Sources and natural reservoirs of the FMD virus

Animals in the incubation period of the disease act as virus carriers (for more than 400 days) and become sources of the infectious agent. The reservoir of the infectious agent can be wild cloven-hoofed animals such as deer, cattle, wild boars, elk, etc. In Azerbaijan, buffaloes play a significant epidemiological role in the spread of FMD, differing from other large cattle species in that they sometimes show no clinical signs (such as high temperature, loss of appetite, etc.) despite being infected.

Routes of infection and mechanism of transmission of the pathogen

The pathogen is spread into the external environment through respiratory secretions, saliva, milk, nasal and eye discharges, semen, urine, feces, aphthae (vesicular fluid), and other means. The dissemination of the infectious agent is facilitated by untreated products and raw materials obtained from sick animals, as well as feed, water, floors, animal care equipment, work clothing, and transport vehicles contaminated with secretions from infected animals.

Animals that are not susceptible to FMD — such as dogs, cats, horses, and domestic birds — can act as passive intermediate carriers of the virus and mechanical transmitters outside epizootic foci when they come into close contact with sick animals or virus-contaminated environments. Rodents such as rats and mice, as well as insects like flies and ticks, play a secondary role as mechanical vectors in the spread of the disease.

Infection in animals mainly occurs through the mucous membranes of the oral cavity. Susceptible animals become infected through contaminated feed, water, or milk, and also via airborne transmission when kept together with animals that have lesions on their muzzle and feet.

Intensity of the epizootic process occurrence

The sporadic occurrence of FMD is characteristic of countries where systematic vaccination is conducted. The disease usually spreads in the form of an epizootic and sometimes as a panzootic.

Seasonality and periodicity of FMD

FMD occurs in all seasons, mainly in spring and autumn. In Azerbaijan, due to the nomadic nature of animal husbandry (especially sheep farming), the risk of infection is higher in spring and autumn. Because of migration and extensive animal movement, the virus can pass through the animals' organisms several times during their close contact within a small area, leading to more severe clinical manifestations. In endemic unhealthy regions, if vaccination is not performed, epizootics may recur every 5 to 10 years.

Factors causing the occurrence and spread of FMD

The transmission mechanism and the activity of sources of infection are closely related to human farming activities. Infection of pigs and buffaloes with the FMD virus often results in mild disease due to low virus quantities in their bodies and the frequent absence of aphthae, which poses a significant threat to susceptible large and small ruminants. Sometimes, in sheep, the disease is accompanied by elevated body temperature without aphthae, but the virus carrier state can persist for a long time.

Incidence and mortality

When the disease occurs, infection rates in susceptible populations can sometimes reach 100%. Mortality ranges from 1-5% in mild cases and between 20-80% in acute forms. Recently, due to widespread vaccination, vaccinated animals generally experience mild illness and mortality rates have decreased. However, mortality can be very high among young animals such as calves, lambs, and piglets. In some cases, death in animals results from secondary infections occurring alongside foot-and-mouth disease.

2.4. Pathogenesis of the disease

The foot-and-mouth disease virus enters the body via the respiratory tract, the mucous membranes of the gastrointestinal tract, and the skin. Initial replication occurs in the mucous membranes of the nasal cavity, lymph nodes of the head and neck, and tonsils. Primary aphthae form at the site of virus entry. The virus enters the bloodstream through the lymphatic system and spreads to organs of the lymphoid-macrophage system. Clinically, this phase is marked by fever, followed shortly by the appearance of secondary and widespread aphthae on hairless skin areas (such as the nose, nostrils, muzzle, sometimes the scrotum and skin at the base of the horns) and mucous membranes (oral cavity, esophagus, rumen, vagina, between the hooves, and the soft parts of the hoof).

2.5. Course and clinical signs of the disease

Foot-and-mouth disease is an acute, highly contagious disease of cloven-hoofed animals, characterized by high fever and the formation of aphthae (vesicular lesions) on the mucous membranes of the mouth, as well as on the hooves and muzzle (see Figure 1). One of the distinctive features of foot-and-mouth disease infection is the sequential progression through stages (incubation, prodromal, and clinical phases), which ultimately results in either recovery or death.

The incubation period in all animals averages 2-7 days, but in some cases can last 12-14 or even 14-21 days. In large ruminants, the average incubation period is 1-3 days, rarely extending to 21 days.

In large ruminants, foot-and-mouth disease manifests in two forms. In the acute course, animals initially exhibit reduced appetite, slowed rumination, and increased salivation. Body temperature then rises to 40.5–41.5°C. Animals stop eating, become lethargic, pulse and respiration rates increase, and rumination ceases completely. Two to three days after the onset of fever, aphthae appear on the mucous membranes of the mouth, tongue, and around the nostrils. After 12-36 hours, these aphthae rupture, mixing the lymph contained within with saliva and appearing as mucous discharge hanging from the mouth. At the sites of ruptured aphthae, irregular erosions form. In most cases, the lesions heal within 6-8 days. If complications occur, the healing process is prolonged (see Figure 2).

The acute form of the disease often results in the death of calves. Although typical symptoms appear initially, the condition of the animals worsens after 7–10 days, with a second rise in temperature observed, along with weakness, increased pulse rate, muscle tremors, and convulsions. The animals die due to heart paralysis.

In affected sheep, lesions on the limbs, hooves, and sometimes the oral cavity are characteristic. If preventive measures are not taken against the lesions in the mouth, stomatitis or other secondary infections develop, which negatively affect the course of the disease. In sick animals, lethargy, refusal to eat, and lameness are observed. Body temperature rapidly rises to 41–42°C. The cessation of rumination is also notable in sick sheep. In lambs, the disease manifests in the form of gastroenteritis and myocarditis, leading to mass mortality. The primary process in sheep occurs in the legs. Initially, redness, swelling, and painful areas develop in the hoof skin and the soft tissues around the hoof. Then aphthae form in these areas, and after the aphthae rupture, erosive lesions develop, resulting in lameness (Figures 3a and 3b).

In goats infected with the foot-and-mouth disease virus, lesions are usually observed on the mucous membrane of the oral cavity, limbs, and sometimes on the hooves. The animals produce a slight amount of saliva from the mouth. In mild cases, recovery in affected animals occurs within 10–14 days. Occasionally, an acute form of the disease is also seen in goats.

In pigs infected with foot-and-mouth disease, general weakness, loss of appetite, and a rise in temperature to 41–42°C during the formation of aphthae are recorded. Later, aphthae develop on the hooves, hooves' soft tissues, and around the nose. Piglets are more susceptible to the disease, with mortality rates reaching nearly 100% (see Figure 1).

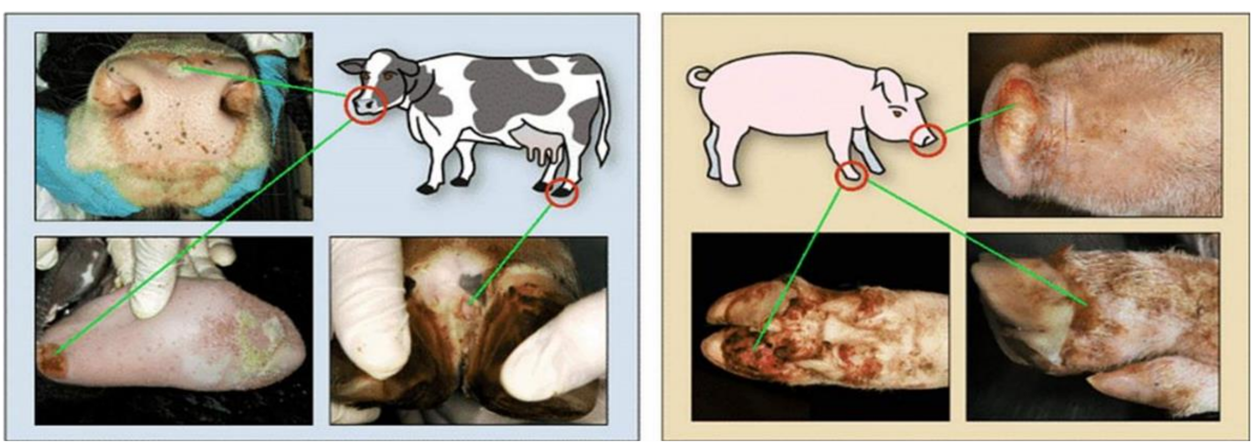


Figure 1. Formation of aphthae on the mucous membranes of the mouth and on the hoof

Figure 2. Aphthae on the mucous membranes of the mouth and on the hoof in large ruminants, with irregular erosions forming at the sites of ruptured aphthae.

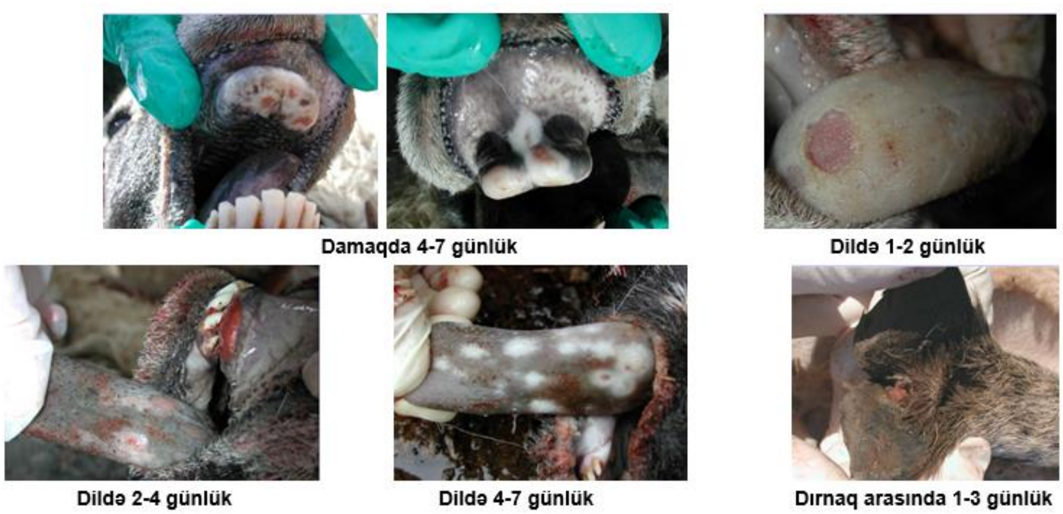


Figure 3a. Aphthae on the mucous membranes of the mouth and on the hoof in small ruminants, with irregular erosions forming at the sites of ruptured aphthae.

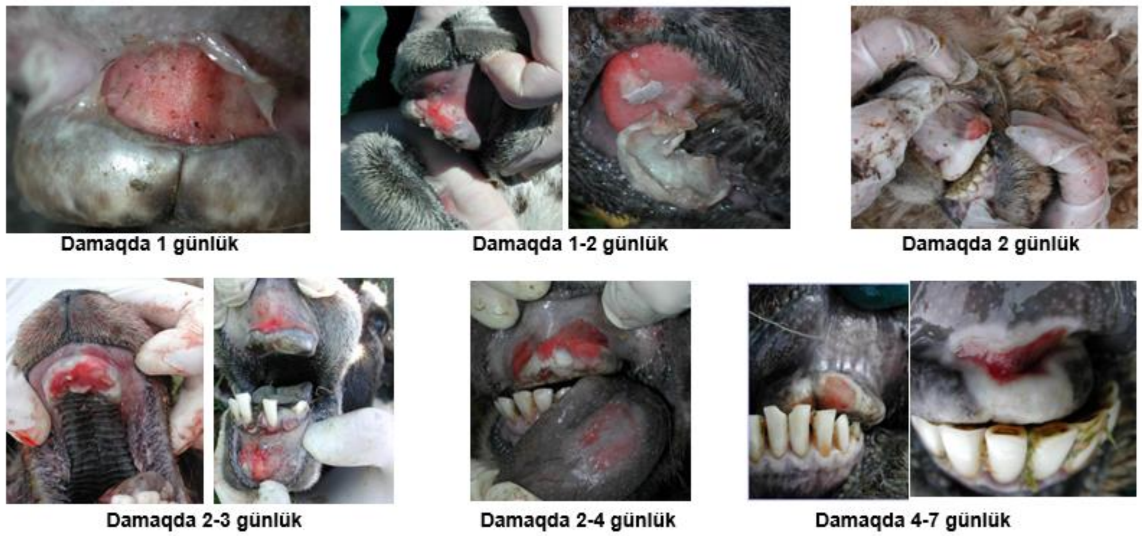


Figure 3b. Aphthae on the mucous membranes of the mouth and on the hoof in small ruminants, with irregular erosions forming at the sites of ruptured aphthae.

2.6. Pathology anatomical changes in animals during the disease

During the disease, animals exhibit exanthema and aphthae in the oral cavity, interdigital space, and hoof area; accumulation of transudate in the pericardial sac; in young animals, a striped pattern in the heart muscle (“tiger skin” syndrome); and dystrophic calcification of the heart muscle in pigs. Occasionally, emphysema of the lungs, inflammation of the pancreas, brain, and spinal cord is also observed.

2.7. Diagnosis of the disease

When diagnosing the disease, its epizootological characteristics and clinical signs are taken into account, along with the use of laboratory tests. For laboratory diagnosis, at least 1 gram of aphthous material is collected from intact aphthae on the tongue of large ruminants; from the nose or interdigital space of pigs; and from the edentulous part of the upper jaw in sheep and goats. The samples are placed in a special preservative medium and sent to a veterinary laboratory.

As a preservative, a mixture of equal parts chemically pure glycerin and phosphate-buffered saline is used. Various methods such as ELISA, RT-PCR, CF, VN, etc., are employed to examine the pathological samples received by the laboratory.

2.8. Differential diagnosis of the disease

The diagnosis of the disease is finalized within 3 days. The disease must be differentiated from vesicular stomatitis, smallpox, necrobacteriosis, viral diarrhea, malignant catarrhal fever, and plague.

Necrobacteriosis is differentiated based on the identification or isolation of the microbe through bacteriological examination. During necrobacteriosis, aphthae do not form in the oral cavity (no aphthous lesions), only tissue necrosis is observed.

In contagious ecthyma, the incubation period is 8-10 days, whereas in foot-and-mouth disease it is 2-6 days. In ecthyma (pustular stomatitis), initially, red spots appear on the mucous membrane of the oral cavity, followed by vesicles and erosive lesions; vesicular-pustular changes, necrotic foci, and ulcers are recorded on the lips, head, and limbs.

In smallpox, the stages of pustular rash formation are characteristically expressed as roseola, papule, vesicle, pustule, and crusting.

Mycotic dermatitis is caused by filamentous fungi. When smears from the affected tissue are stained by the Romanowsky-Giemsa method and examined microscopically, hyphae and mycelia appear clearly as dark blue structures.

2.9. Disease Prevention

The basis of the fight against foot-and-mouth disease in the territory of the republic is the vaccination of susceptible cloven-hoofed animals with vaccines containing relevant strains, along with other preventive measures, depending on the epizootic situation. Vaccination and epizootic monitoring against the disease are carried out by the Agrarian Services Agency under the Ministry of Agriculture in accordance with the “Plan of Preventive and Diagnostic Measures against Epizootics,” which is approved annually by the Food Safety Agency of the Republic of Azerbaijan for the upcoming year.

The procurement of vaccines and diagnostic tools is conducted by the relevant departments of the Ministry of Agriculture. According to the plan, large ruminants are vaccinated twice a year, while small ruminants are mainly vaccinated once a year. However, if a risk of infection arises, vaccination is carried out twice a year in selected areas.

When preparing the technical specifications for the procurement of vaccines, experience gathered in previous years, as well as periodic data from the World Organization for Animal Health (WOAH) and the Food and Agriculture Organization (FAO), are taken into account.

In 2023, due to the increased risk of infection with the SAT-2 strain in the region, a vaccine reserve for this strain was established and intended for use in risk zones (especially in border districts neighboring other countries) in the following years.

2.10. Measures to combat the disease

When foot-and-mouth disease occurs, the epizootic situation, geographical conditions, the country’s socio-cultural development level, and other factors are taken into account. Based on these considerations, control measures in different countries can be divided into four main approaches:

- Radical eradication method (“stamping out”): All sick, suspected, and potentially exposed susceptible animals are immediately slaughtered, and no vaccination is carried out. This method is applied in developed countries when the disease appears for the first time and allows for the complete elimination of foot-and-mouth disease at the initial outbreak site.
- No preventive vaccination of susceptible animals: Susceptible animals in the outbreak area are destroyed or slaughtered, and vaccination is conducted only in the surrounding area.
- Preventive vaccination in high-risk zones: Susceptible animals are vaccinated preventively in danger zones. When the disease occurs, infected animals are slaughtered (destroyed), and ring vaccination is carried out around the infection focus.

- Comprehensive control measures: Sick and suspected animals are slaughtered (culled), while all healthy susceptible animals are actively vaccinated, and sanitary-quarantine measures are implemented. Quarantine is imposed on the affected area, and all animals in the danger zone are included in vaccination. This approach is considered more effective because it covers all processes of the epizootic chain.

3. Analysis of the International epizootiological situation for foot and mouth disease

3.1. Progressive Control Pathway (PCP)

A unified international platform has been established worldwide for combating foot-and-mouth disease and eradicating the disease.

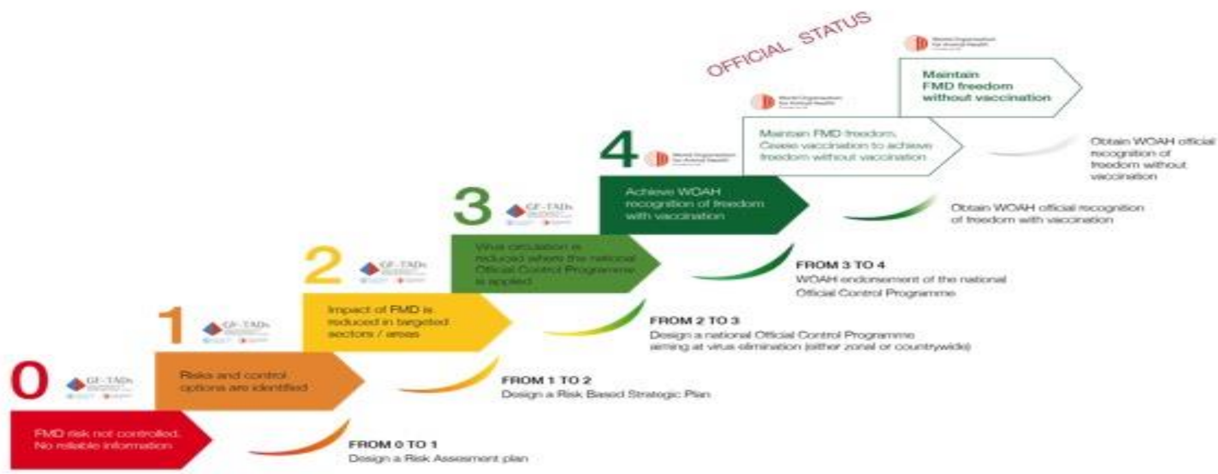


Figure 4. Stages of the Progressive Control Pathway (PCP) roadmap

The concept and criteria of the "Progressive Control Pathway for Foot-and-Mouth Disease" (PCP), accepted as a strategic roadmap, have been developed through FAO projects in West Eurasia (EUFMD and GTFS / ITA / 907 / ITA Commission) with the aim of advancing the surveillance and control level of foot-and-mouth disease in countries not yet free from the disease. The main components of this concept consist of a five-level activity framework for controlling foot-and-mouth disease, which helps countries gradually improve disease control.

According to the "Foot-and-Mouth Disease Roadmap" concept, the status of the Caucasus countries was assessed in 2008 at the West Eurasia Roadmap meeting in Shiraz (Iran), and subsequently in Istanbul (2009, 2010, 2011, 2012), Baku (2013, 2023), Astana (2014), and Almaty (2015).

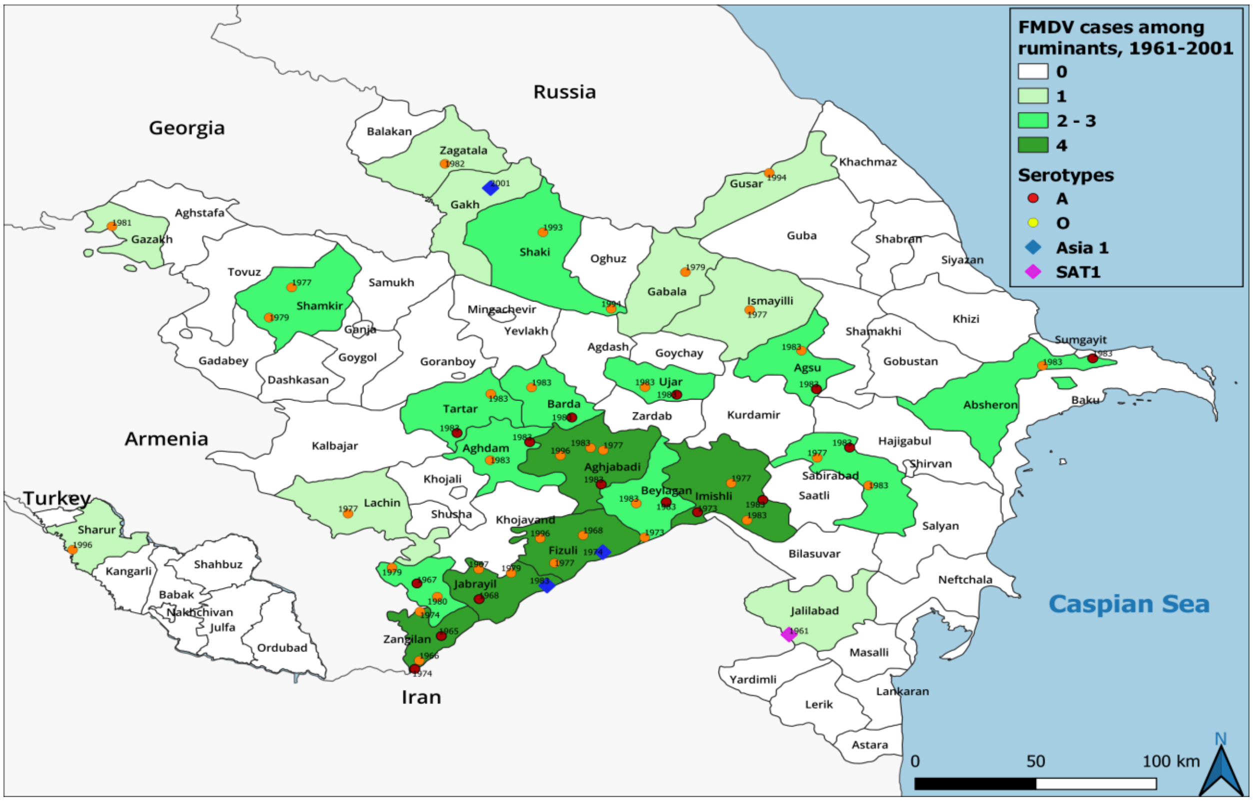
The Progressive Control Pathway (PCP), adopted to strengthen foot-and-mouth disease control, holds global and strategic importance (Figure 4). Currently, Azerbaijan is at the 2nd stage of the PCP (Appendix 1). The Risk-Based Strategic Plan developed for controlling foot-and-mouth disease is based on disease risk assessment, implementation of vaccination, and serological monitoring results. The main identified risks for foot-and-mouth disease are related to the movement of animals both within the country and across borders. Additionally, the lack of a complete animal identification and disease surveillance system further increases the risk of disease spread.

There are 7 known serotypes of the foot-and-mouth disease virus: “O,” “A,” “Asia-1,” “SAT-1,” “SAT-2,” “SAT-3,” and “C,” along with numerous serological variants. An animal infected with one serotype can also become infected with another serotype. Foot-and-mouth disease is endemic in many countries across Africa, the Middle East, and Asia. Of the seven existing serotypes, six have been recorded in Africa (O, A, C, SAT-1, SAT-2, SAT-3), four in Asia (O, A, C, Asia-1), and three in South America (O, A, C). Globally, about 70% of foot-and-mouth disease outbreaks are caused by the “O” serotype. Europe, North and Central America, New Zealand, Greenland, Iceland, Asia-Pacific, and Caribbean countries have been officially declared free of foot-and-mouth disease (without vaccination) by WOAH (Table 1).

List of countries officially free from foot-and-mouth disease without vaccination			
1	**2**	**3**	**4**
USA	Estonia	Costa Rica	Poland
Albany	Eswatini	Cuba	Portugal
Germany	Philippines	Guyana	Romania
Australia	Finland	Guatemala	San Marino
Austria	France	Latvia	Serbia
Belarus	Haiti	Lesotho	Singapore
Belgium	Netherlands	Lithuania	Slovakia
Belize	Honduras	Luxembourg	Slovenia
Bulgaria	Croatia	Hungary	Suriname
Bosnia and Herzegovina	Ireland	Madagascar	North Macedonia
United Kingdom	Iceland	Malta	Ukraine
Brunei	Spain	Mexico	Vanuatu
Czech Republic	Sweden	Montenegro	Japan
Chile	Switzerland	Nicaragua	New Caledonia
Denmark	Italy	Norway	New Zealand
Dominik	Canada	Panama	Greece
El Salvador	Cyprus	Peru	
List of countries officially free from foot-and-mouth disease with vaccination			
Paraguay		Uruguay	
List of zones officially free from foot-and-mouth disease without vaccination			
Argentina	Brazil	Colombia	Namibia
Bolivia	China Taiwan	Malaysia	Russia
Botswana	Ecuador	Moldova	

Table 1. Countries with FMD free status

Analysis of materials from the WOAH and FAO shows that despite the measures taken in recent years, the epizootic situation of foot-and-mouth disease worldwide remains quite tense. According to the modern classification of FAO and WOAH, based on the genetic relationships of circulating foot-and-mouth disease virus strains, the world's foot-and-mouth disease-endemic areas are divided into 7 regional zones (regions): East Asian countries (Zone/Region 1), South Asian countries (Zone/Region 2), Middle East and Central Asian countries (Zone/Region 3), African countries (Zones/Regions 4-6), and South American countries (Zone/Region 7) (Map 1).



Map 1. Distribution of different FMD serotypes in country

The disease causes significant economic losses (such as reduced meat and milk production among animals, slowed growth, mortality, etc.) and leads to restrictions on international trade and cross-border tourism. In the event of a foot-and-mouth disease outbreak, the export of animal-origin products between countries is restricted, and it takes a long time to restore these connections once the country is declared disease-free. The distribution of foot-and-mouth disease by serotypes across countries is reflected in Table 2.

Country name	Serotype of the disease	Type of infected animal	Number of infected animals (heads)
1	2	3	4
Benin	Not determaind	Cattle/Sheep	10.696
UAE	O	Cattle/Sheep/Gazelle/Deer	671
Botswana	SAT 2	Cattle	240
Bhutan	O	Cattle	6

SAR	SAT 2, SAT 3 and others	Cattle/Sheep/Wild Africa Buffalo	8411
Chine	O	Cattle/Swine	36
Ethiopia	A, O, SAT 1, SAT 2	Cattle	6.100
Afganıstan	A, O, Asia 1	Cattle/Sheep	158
Algeria	O	Cattle/Sheep	112
Palestine	O	Cattle/Sheep	151
India	O and others	Cattle	338
Indonesia	O	Cattle/Sheep/Pig	67150
Jordan	O, SAT 2	Cattle	11495
Irak	O, SAT 2	Cattle/Sheep	29780
Israel	O	Cattle/Sheep	4901
Cambodia	O and others	Cattle	1227
Comoros	SAT 1	Cattle	63
Kenya	O, SAT 1, SAT 2 and others	Cattle	70
Congo	A, O, SAT 1, SAT 2	Cattle	215
Korea	O	Cattle	33
Libya	O	Cattle/Sheep	1126
Malawi	O and others	Cattle	1056
Malaysia	A, O and others	Cattle/Sheep/Pig	212
Egypt	A,O and others	Cattle	149
Mongolia	O	Sheep	55
Mozambique	O, and others	Cattle	1167
Namibia	O, SAT 1, SAT 2	Cattle	3251
Nepal	A, O, Asia 1	Cattle/Sheep/Pig	252415
Niger	O	Cattle	1739
Nigeria	O and others	Cattle/Sheep	14278
Pakistan	O	Cattle	352
Kazakhstan	O	Cattle	2
Rwanda	Not determaind	Cattle	197
Saudi Arabia	A	Cattle/Sheep	662
Somali	Not determaind	Cattle	2
Shri-Lanka	O	Cattle/Sheep	2608
Sudan	Not determaind	Cattle	408
Tailand	A, and others	Cattle	504
Tunis	O	Cattle/Sheep	484
Türkiye	O, SAT 2 and others	Cattle/Sheep	4312
Uganda	O, C and others	Cattle	158
Vietnam	O and others	Cattle	1288
Zambia	A, O, SAT 1, SAT 2, SAT 3	Cattle	22
Zimbabwe	SAT 2 and others	Cattle	918

Table 2. Information on countries reporting foot-and-mouth disease in the WOAH WAHIS system during 2022-2023

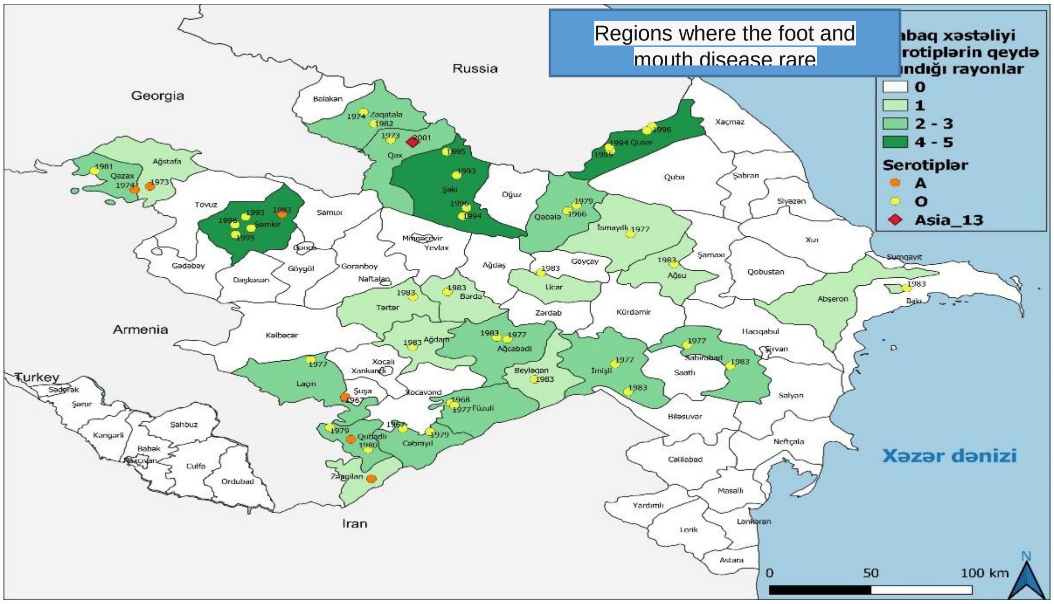
3.2. Spread of Foot-and-Mouth Disease in the Republic of Azerbaijan

Foot-and-mouth disease was last recorded in the territory of the Republic of Azerbaijan in 2001. During the last 23 years, serological monitoring carried out among animals did not register any clinical manifestations of the disease. Nevertheless, due to the geographical and climatic characteristics, there is still a risk of virus circulation in Azerbaijan. Since 1957 up to the present time (statistics before 1957 were not maintained), four serotypes of the virus have been recorded in the country — “O”, “A” (serological variants A-7 and A-22), “SAT-1”, and “Asia-1” (Table 3). The “SAT-1” serotype of foot-and-mouth disease was observed during 1961-1962 but has not been detected in subsequent periods. The “Asia-1” serotype was first recorded in 1974, with a high infection risk observed in 1983, and the last epizootic caused by this serotype in the republic was registered in 2001.

Years when the disease occurred	**Names of serotypes and serological variants**	**The area where the disease occurred**
1961	SAT-1	Jalilabad District
1965	Tip-A-100 «Aİ»- 94	Zangilan District
1966	Tip «O»-19	Gabala District
1967	Tip «Aİ»- 36, «O»- 4	Jabrayil District
1968	Aİ-57,O-8	Fuzuli District
1973	«O194»-51, «A22»-27	Qakh District
1974	«O194»-14, «A22»-9	Zagatala District
1977	«O194»-1	Ismayilli, Lachin, Shamkir, Agjabadi, Imishli, Fuzuli and Sabirabad District
1979	«O194»-1	Jabrayıl, Gabala, Gubadlı və Shamkir District
1980	«O194»-3	Area not registered
1981	«O194»-1	Gazakh District
1982	«O194»-3	Zagatala District
1983	«O194»- 48, «A48»-53	Absheron, Agjabadi, Aghdam, Agsu, Beylagan, Barda, Imishli, Sabirabad, Tartar and Ujar district
1993, 1994, 1995, 1996	«O194»-1	Gusar və Shaki district
2001	«Asiya» 13	Gakh distirct

Table 3. Distribution of FMD virus serotypes in Azerbaijan from 1961 to 2001

The disease was recorded at four sites located in three border regions of the republic, where 75 heads of Cattle were infected. Therefore, for Azerbaijan, the “C” serotypes of the pathogen are considered exotic, while the “A”, “O”, and “Asia-1” serotypes are regarded as endemic serotypes (Map 2).



Map 2. Distribution of FMD by administrative districts from 1957 to 2001

Systematic diagnostic and surveillance measures against the disease are being carried out in the republic, and recent progress has been achieved in this area. A specialized operational group’s associative-simulation training for managing crisis situations related to particularly dangerous diseases was organized on November 16-17, 2022. The training was held to ensure the management of crisis situations in the country in case of foot-and-mouth disease and other highly contagious diseases, to conduct mobile laboratory diagnostics, to improve the professionalism of personnel working in this field, and to raise the country’s preparedness for crisis situations. Experts and staff from relevant institutions participated in the event, and all activities related to the eradication of the disease by the involved agencies were tested.

Protecting the country’s territory from foot-and-mouth disease, as well as eliminating disease outbreaks, is part of the state security system and is characterized by the implementation of legal, organizational, economic, epizootic control, veterinary-sanitary, and other comprehensive measures. The instruction covers the implementation of a general strategy nationwide against the mentioned dangerous infection and includes joint control measures that must be carried out by the relevant agencies for the eradication of the disease.

According to the “Charter of the Food Security Agency of the Republic of Azerbaijan,” approved by the Decree No. 1681 of the President of the Republic of Azerbaijan dated November 13, 2017, it is the responsibility of the Food Security Agency of the Republic of Azerbaijan to take measures to protect the population from diseases common to humans and animals, as well as to protect the territory of the Republic of Azerbaijan from infectious diseases that may be transmitted from foreign countries. Therefore, in order to ensure the production of animal-origin food products in accordance with food safety requirements, measures are being implemented to maintain animal health against particularly dangerous zoonotic diseases.

To prevent foot-and-mouth disease, healthy animals are regularly vaccinated, and epizootological (serological) monitoring is conducted regularly to accurately assess the spread of the disease in the country. Necessary veterinary-sanitary measures are carried out on farms to prevent the spread of the disease, and newly introduced animals are kept in quarantine for the appropriate period. Vaccination against foot-and-mouth disease in animals is carried out using mono- and polyvalent vaccines.

The national strategy for combating foot-and-mouth disease is based on risk assessment, vaccination, and the results of serological monitoring. The main identified risks for foot-and-mouth disease are related to the movement of animals both within the country and across borders. It should be noted that districts bordering neighboring countries (Russia, Iran, Armenia, Georgia, and Turkey), animal markets, and seasonal migration routes of animals are considered high-risk areas in our country.

3.3. Legislative Acts and International Documents Applied for the Implementation of the Foot-and-Mouth Disease Risk Management Guidelines

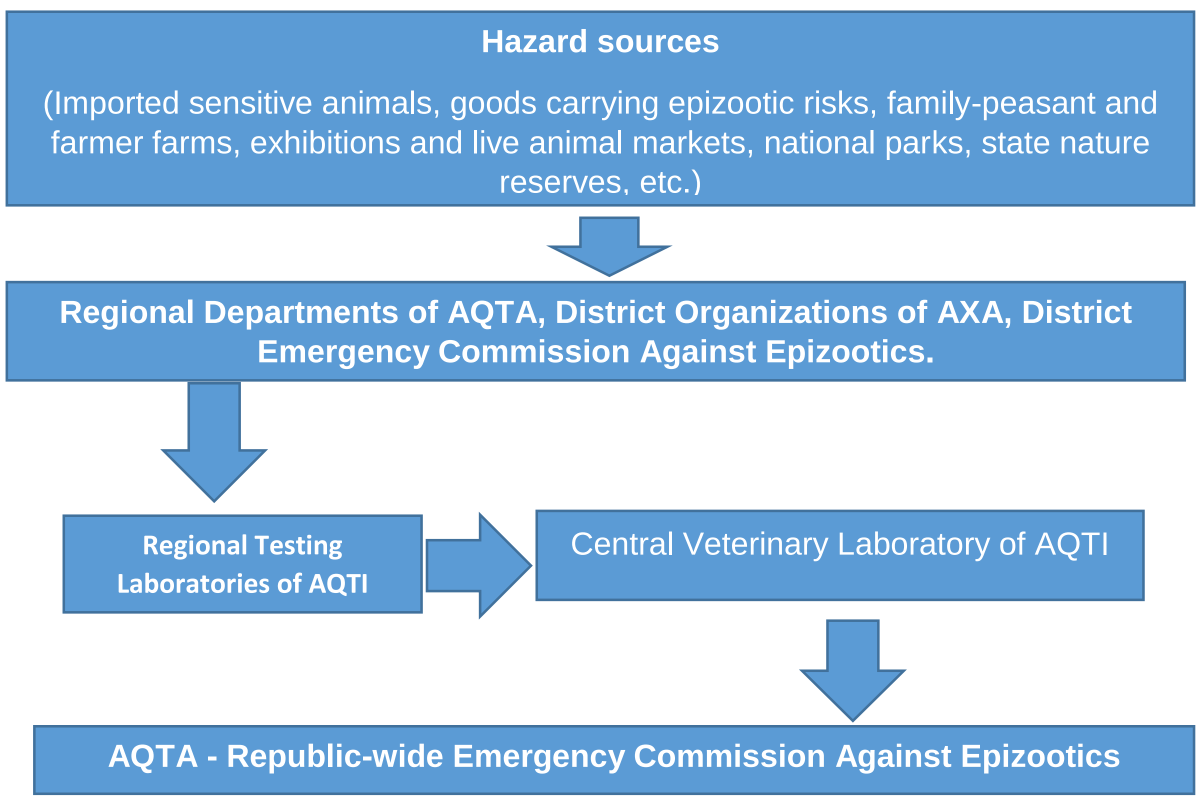
The main legislative acts of the Republic of Azerbaijan related to foot-and-mouth disease and the documents adopted by the Food Security Agency of Azerbaijan (AFSA) are as follows:

- The Law of the Republic of Azerbaijan No. 922-IIQ dated May 31, 2005, "Veterinary Law";
- The List of Particularly Dangerous Diseases of Animals Funded from the State Budget for Prevention, Diagnosis, and Eradication in the Field of Veterinary Medicine, approved by the Decree No. 65 of the Cabinet of Ministers of the Republic of Azerbaijan dated March 7, 2006;
- The Rules and Duration for Quarantine of Animals Imported from Other Countries to Determine Their Health Status, approved by the Decree No. 11 of the Cabinet of Ministers of the Republic of Azerbaijan dated January 23, 2007;
- The List of Infectious Animal Diseases Subject to Quarantine and Restrictive Measures, approved by the Decree No. 228 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 19, 2006;
- The List of Particularly Dangerous Diseases That Pose a Threat to Animal and Public Health, approved by the Decree No. 167 of the Cabinet of Ministers of the Republic of Azerbaijan dated July 7, 2006.
- - The “Rules for Compensation of Material Damage to Legal and Natural Persons during the Implementation of Quarantine Regime or Eradication of Harmful Organisms, Prevention, Diagnosis, Treatment, and Eradication of Particularly Dangerous Animal Diseases,” approved by the Decree No. 120 of the Cabinet of Ministers of the Republic of Azerbaijan dated April 18, 2023;
- - Annex No. 1 to the above-mentioned Rules, “List of Particularly Dangerous and Quarantine Diseases for Animals and Humans for Which Compensation of Material Damage is Provided,” approved by the Decree No. 120 of the Cabinet of Ministers of the Republic of Azerbaijan dated April 18, 2023;
- - The “Rules on the Number and Placement of Joint Quarantine Police and Veterinary Control Posts to Maintain the Isolation Regime in the Disease-Infected Zone,” approved by the Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007;
- - The “Rules for Sampling, Destruction, or Mandatory Disposal, Processing, or Recycling without Sampling of Animals Infected with Diseases Dangerous to Animal and Public Health, as well as Their Products and Raw Materials, Depending on the Degree of Hazard,” approved by the Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007.

- The “List of Veterinary Services Funded from the State Budget and Provided by State Order for the Prevention, Diagnosis, Treatment, and Eradication of Particularly Dangerous Animal Diseases,” approved by the Decree No. 321 of the Cabinet of Ministers of the Republic of Azerbaijan dated September 3, 2020;
- The “Rules on Preventive Strip and Veterinary-Sanitary Regime at the State Border of the Republic of Azerbaijan,” approved by the Decree No. 560 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 16, 1992;
- The “Rules on Sanitary Protection of the Territory of the Republic of Azerbaijan,” approved by the Decree No. 140 of the Cabinet of Ministers of the Republic of Azerbaijan dated March 9, 1993;
- The “Annual Plan of Preventive and Diagnostic Measures against Epizootics”;
- The “Terrestrial Animal Health Code” developed by the World Organisation for Animal Health (WOAH);
- The “Manual of Diagnostic Tests and Vaccines for Terrestrial Animals” developed by the World Organisation for Animal Health (WOAH).

4. Organization of Related Activities for the Detection and Reporting of Foot-and-Mouth Disease

The provision of initial information about the disease in sources of danger causing foot-and-mouth disease and other areas is defined as shown in Scheme No. 1.



Scheme 1. Flowchart of Coordinated Activities for Detection of Foot-and-Mouth Disease

4.1. Measures Taken by Entities Importing Epizootic Risk Goods Related to Foot-and-Mouth Disease into the Country

Susceptible large and small ruminants and genetic materials (semen, embryos, etc.) transported play a role in the spread of foot-and-mouth disease. Vehicles leaving or passing through infected areas also contribute to the spread of the virus. The import and export of these consignments must comply with the requirements of Chapter 14.7 of the World Organisation for Animal Health's (WOAH) "Terrestrial Animal Health Code."

In accordance with Article 14 of the Law of the Republic of Azerbaijan "On Veterinary Medicine," the import of goods posing a risk of foot-and-mouth disease is carried out by obtaining prior information from the Food Security Agency of the Republic of Azerbaijan regarding the epizootic status of the exporting country, as well as veterinary (veterinary-sanitary) regulations that exclude the spread of animal disease pathogens.

To ensure compliance with these requirements, the relevant entities:

- Submit preliminary information about the planned imported goods and their countries of origin in advance to the regional division of AFSA via the Automated Food Security Information System;
- After obtaining the relevant approval from AFSA, carry out the import of the goods and assist in implementing the corresponding food safety control;
- Provide for the quarantine placement of animals after import and facilitate veterinary supervision of the animals during the quarantine period.

4.2. Measures to Prevent the Spread in Case of Suspected Foot-and-Mouth Disease

4.2.1. Family, Village, and Farmer Farms

If there are suspected cases of foot-and-mouth disease or if illness or death occurs in animals near residential areas or individual farms, the owners of these farms must:

- Immediately notify the veterinary specialist serving the residential area, the regional division of AFSA, the relevant local bodies of the Animal Health and Veterinary Services Center of the State Veterinary Service (ASA), and the local executive authorities about the issue;
- Prevent entry of unauthorized persons and vehicles into the farm or yard, except for farm workers and veterinary specialists;
- Stop movement of animals and transportation of products from the site where the suspected case was detected to other farms or yards;
- Isolate the animals and prevent their free roaming, grouping, or relocation to other farms;
- Prohibit removal of all types of animals, animal products, feed, manure, equipment that had contact with suspected animals, and other items from the farm;
- If necessary, ensure proper disposal of animal carcasses within the farm territory or in an area immediately adjacent to it.

4.2.2. Commercial Livestock Enterprises

In cases of suspected anthrax, the head of the enterprise and veterinary specialists must:

- Immediately notify the regional division of the Food Safety Agency (AFSA), the relevant local authorities of the Animal Health and Veterinary Services Center (AHVSC) of the State Veterinary Service (ASA), and the local executive authorities;
- Prevent entry of unauthorized persons and vehicles into the enterprise, allowing access only to staff serving the enterprise, workers involved in veterinary measures, and veterinary specialists;
- Restrict the movements of personnel attending to suspected animals within the enterprise and limit their contact with other animals and caretakers;
- Comply with biosecurity measures aimed at preventing the spread of the pathogen from the suspected outbreak site, including changing clothes and footwear, installing disinfection barriers at farm entrances, refraining from leaving the workplace in work clothes, disinfecting vehicles, and other relevant requirements;
- Organize proper disposal of sick animals and collect and safely dispose of waste that could contribute to virus spread;
- Establish a secured area within the enterprise premises for the proper disposal of animal carcasses;
- Prohibit the movement of animals within the enterprise as well as the removal of animal products, feed, equipment, tools, and waste from the premises;
- Conduct disinfection procedures inside the enterprise (including disinfection when animals are present), surrounding areas, and internal roads;
- Provide workers with personal protective equipment and arrange daily medical examinations for personnel who have had contact with suspected infected animals until diagnosis is confirmed.

4.2.3. Animal Markets

In cases of suspected foot-and-mouth disease, the heads of animal markets and the veterinary doctor must:

- Immediately inform the relevant regional office of the Food Safety Agency of the Republic of Azerbaijan (AFSA), the respective local units of the Animal Health and Veterinary Services Center of the Agrarian Services Agency (ASA), and the local executive authorities about the suspected case;
- Suspend animal trading activities;
- Ensure that no animals, equipment, containers, feed and feed additives, tools, as well as manure and other waste, are removed from the premises until the diagnosis is confirmed;
- Conduct ongoing disinfection activities;
- Allocate an area for the proper disposal of animal carcasses in accordance with the established procedure.

4.2.4. Animal Slaughterhouses

In cases of suspected anthrax, the head of the facility and the facility's veterinary doctor must:

- Immediately notify the regional division of the Food Safety Agency (AFSA), the relevant local authorities of the Animal Health and Veterinary Services Center (AHVSC) of the State Veterinary Service (ASA), and the local executive authorities where the facility is located;
- Suspend the removal of products (meat, by-products, raw materials, etc.) from the facility;
- Identify the geographic location and addresses of the entities that have brought animals to the facility for slaughter;

- Prevent unauthorized persons and vehicles from entering the facility;
- Prohibit the removal of equipment, tools, and slaughter waste from the facility;
- Install disinfection barriers (disobariers) at the entrance of the facility, ensure employees do not leave the workplace in work clothes, and regularly disinfect vehicles;
- Store products from animals suspected of infection separately in designated warehouses and refrigerators until the diagnosis is confirmed;
- Allocate a designated area for the proper disposal of animal carcasses and slaughter waste;
- Provide personal protective equipment to employees, and organize daily medical examinations for those who have been in contact with suspected infected animals until the diagnosis is confirmed.

4.2.5. National Parks, Reserves, State Nature Protected Areas, and Hunting Enterprises

If clinical signs and deaths consistent with anthrax are observed in wild cloven-hoofed animals (such as wild goats and sheep, gazelles, roe deer, red deer, wild boars, etc.) in natural areas, the head of the entity (or authorized person) must:

- Immediately notify the authorized representative of the administrative territorial unit where the site is located (e.g., executive representative, municipality, etc.), the regional division of the Food Safety Agency (AFSA) for the district (city), the relevant local authorities of the Animal Health and Veterinary Services Center (AHVSC) of the State Veterinary Service (ASA), as well as the head of the management (institution) to which the site belongs;
- Assist in the implementation of necessary veterinary measures;
- Stop hunting of the affected animals within the site area;
- Place warning signs at the entrances and exits of the site;
- Isolate and monitor the sick animals;
- Collect animal carcasses and ensure their proper disposal in specially designated locations;
- Additionally, take appropriate measures to send pathological material to a reference laboratory for confirmatory diagnosis.

4.2.6. Regional divisions of AFSA, relevant local bodies of ASA’s Animal Health and Veterinary Services Center, and private or individual veterinary specialists operating in the area

The specialists of the regional structural division must conduct regular epizootological investigations throughout the year in the area they serve and collect information about various animal diseases. At the same time, the specialists must carry out the following measures in order to timely detect cases of foot-and-mouth disease and prevent the spread of the disease:

4.2.6.1. Veterinary Inspectors

When a suspected case of foot-and-mouth disease arises, veterinary inspectors in the area shall:

- issue mandatory instructions for the implementation of necessary measures aimed at preventing the spread of the disease;
- regularly collect information on the mortality of cloven-hoofed domestic and wild animals in the area;
- immediately report any suspicion of the disease to the regional division of AFSA and the relevant local bodies of ASA's Animal Health and Veterinary Services Center;
- carry out measures to inform and instruct the public and owners of various types of livestock farms about the possible disease;
- conduct epizootiological investigations within their capacity in the affected area to identify possible sources of the disease, routes of entry, and related establishments;
- issue mandatory instructions prohibiting the movement and grouping of animals within the establishment, as well as the removal of animals and animal products from the establishment;
- implement all possible measures to prevent the spread of the infection.

4.2.6.2. Private or individual veterinary specialists

When a suspected case of foot-and-mouth disease arises, private veterinary specialists of livestock farms shall:

- investigate every case of death among animals in the farm and prepare the relevant reports;
- immediately inform the regional division of AFSA, the relevant local bodies of ASA's Animal Health and Veterinary Services Center, and the farm owner if there is a suspicion of infection;
- instruct the farm staff, trading partners of the farm, and entities engaged in livestock farming in the surrounding area about the possible disease;
- implement all possible measures within their capacity to prevent the spread of the infection.

4.2.6.3. District Epizootic Emergency Commission

The District Epizootic Emergency Commission, established by the Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007, acts as the Local Crisis Center (LCC) in the event of foot-and-mouth disease outbreak. The LCC performs the following functions:

- supporting the preparation and implementation of control measures in coordination with the RCC (Regional Branch Management);
- maintaining regular communication with national and local expert groups;
- coordinating with the RCC to determine the scale of the infected and surveillance zones and demarcate the boundaries of these areas;
- urgently assessing the number of animals in the infected and surveillance zones, conducting control measures in the infected areas — imposing quarantine, evaluating the susceptibility of animals to the disease, disinfecting livestock yards, and carrying out sanitation works;
- closing live animal markets located within the infected and surveillance zones and ensuring control over the movement of susceptible animals in cooperation with local executive and internal affairs authorities;

- establishing communication with the local expert group to determine the number of susceptible animals in high-risk areas and preparing recommendations for the culling of potentially infected animals;
- recording data collected during epizootic monitoring, permitting animal movements, mobilizing staff and equipment, and maintaining records of incidents in infected farms;
- determining measures to mobilize workforce, machinery, etc., for the implementation of veterinary-sanitary activities;
- coordinating with local executive authorities and municipalities to ensure controlled use of disinfectants for carcass disposal and prevention of environmental contamination.

4.2.6.4. Chief Veterinary Officer (CVO) of the Republic

Upon receiving information about a suspected case of foot-and-mouth disease, the CVOr of the Republic shall organize the dispatch of authorized representatives and specialists to the infection site for diagnosis confirmation, prevention of disease spread, and implementation of eradication measures. For this purpose, the CVO shall:

- make a preliminary diagnosis based on epizootic data and clinical signs observed in animals;
- immediately notify the AFSA leadership about the suspected case (by phone or email);
- organize a meeting of the Republican Epizootic Emergency Commission to discuss the outbreak;
- issue mandatory instructions to the heads of livestock entities or owners of animals of the same species regarding movement restrictions of animals, grouping of animals within the establishment, and prohibition of removal of animals and related products from the establishment due to suspicion of foot-and-mouth disease;
- arrange for the collection of pathological materials from sick and suspected animals and their delivery to the regional diagnostic laboratory or the CVL for examination;
- define the boundaries of the outbreak focus, the infected spot, and the danger zone;
- issue instructions for veterinary control over enterprises potentially related to the infection based on epizootic analysis results;
- immediately upon confirmation of the disease in the establishment, issue instructions to establish a protection zone with a radius of at least 3 km and a surveillance zone with a radius of at least 10 km around the establishment;
- organize disinfection works at the establishment, farms, and adjacent areas;
- supervise the disposal of animal carcasses at the outbreak site;
- without delay, inform the District Epizootic Emergency Commission and veterinary inspectors of neighboring districts (cities) about the suspected disease.

4.2.6.5. Central and Regional Laboratories of AQTI

Pathological material suspected of foot-and-mouth disease must be examined in the laboratory according to the relevant protocol. The laboratory director shall immediately report the results of the examinations to AFSA and AFSA’s regional division in the area.

4.2.6.6. Republican Epizootic Emergency Commission

The Republican Epizootic Emergency Commission, established by Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007, acts as the

Republican Crisis Center (RCC) in the event of a foot-and-mouth disease outbreak. The RCC performs the following functions:

- preparation of disease eradication measures and strategic plans in accordance with relevant instructions;
- collection and analysis of information on the epizootic situation at the national and international levels;
- preparation of data reflecting the current status of experts, equipment, and facilities;
- leadership and supervision of the Local Crisis Center’s (LCC) activities according to instructions;
- identification of training needs and development of training programs;
- determination of financial requirements;
- maintaining an accurate register of personnel and auxiliary resources;
- establishing contacts with authorized bodies to define veterinary and ecological safety activities;
- collection of information from the LCC, local expert group, and CVL, and submission of data to the national expert group for analysis;
- coordination of relations with other groups involved in emergency measures;
- preparation and distribution of initial essential supplies, including vaccines and other biological products if vaccination is needed.

4.2.6.7. Role of Other Interested Parties

Farmers' public associations, milk collectors and milk collection points, representatives of animal slaughter and processing enterprises, and other interested parties are informed and their opinions are sought. Appropriate conditions are created for discussing the problems they face, and information support, awareness-raising, and other promotional activities are carried out for these entities.

5. Management of Foot-and-Mouth Disease Control Measures and Responsibilities of Relevant Authorities

The epizootiological characteristics of foot-and-mouth disease, including its rapid spread causing serious economic losses and hindering international trade, as well as the threat it poses to human health and environmental safety, necessitate its eradication in the shortest possible time.

Considering the differences in the genetic makeup of the disease agents, their rapid mutation into other forms, and the fact that vaccination against one serological variant does not confer immunity against another, control measures against foot-and-mouth disease must be carried out by the relevant authorities in a timely, large-scale, and comprehensive manner. The communication among relevant authorities during a foot-and-mouth disease epizootic is described in Diagram No. 2.

After diagnosis is completed and the disease is confirmed, the implementation of comprehensive measures for disease eradication begins. Central and local bodies of the involved structures shall perform their duties and exercise their powers within their respective scopes, as well as in accordance with the procedures outlined in this document, for the implementation of preventive and control measures against foot-and-mouth disease.

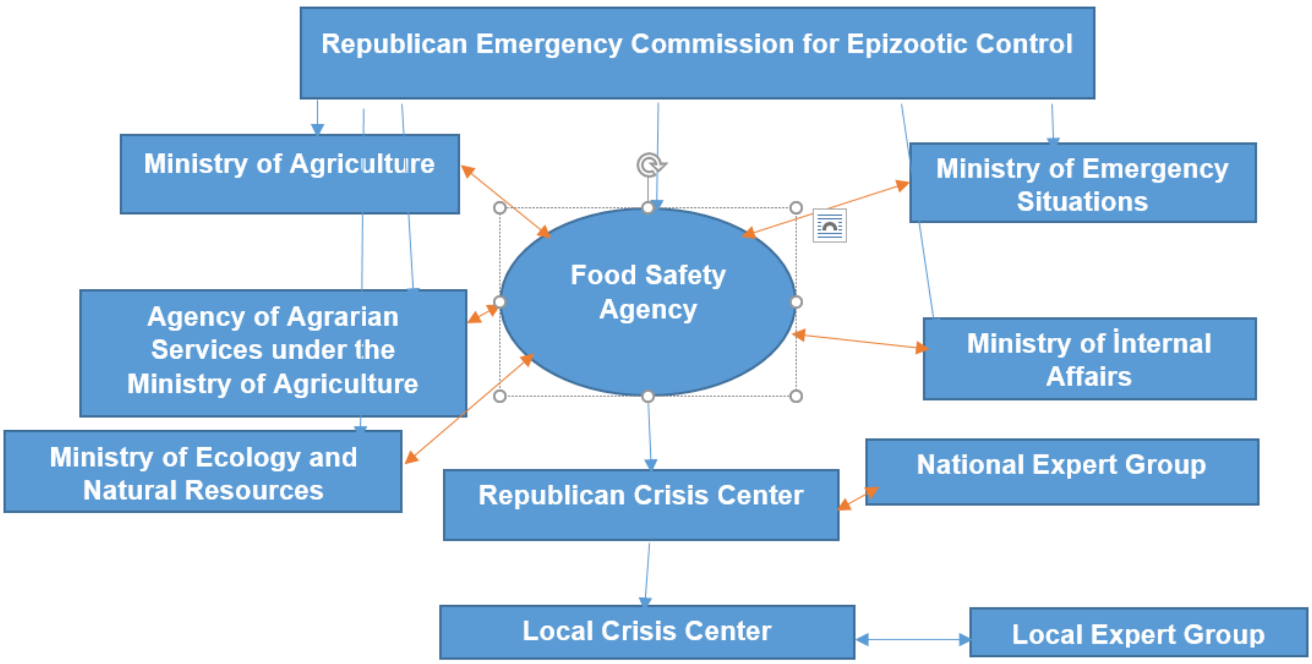


Diagram 2. Coordination among Relevant Authorities during a Foot-and-Mouth Disease Epizootic

5.1. Food Safety Agency of the Republic of Azerbaijan

The Food Security Agency of the Republic of Azerbaijan is the main body responsible for planning special veterinary measures during a foot-and-mouth disease epizootic, organizing quarantine and restriction procedures in zones at risk of disease spread in accordance with legislation, and coordinating the implementation of these measures.

To eradicate the disease, AFSA must carry out the following actions:

- ensure leadership and coordination of response activities in areas where the disease has been recorded;
- inform the relevant local and international bodies about the outbreak;
- obtain necessary information from state and local self-governing bodies, as well as individuals and legal entities, for managing the epizootic;
- control the use of necessary medicines, treatment, and disinfectants in areas where the disease is recorded;
- inform the public through mass media, establish a “Call Center” for rapid reception of information and transmission to the relevant structural division;
- organize the diagnosis of the disease in laboratories accredited in accordance with the Law of the Republic of Azerbaijan “On Accreditation in the Field of Conformity Assessment”;
- provide relevant structural divisions with disinfectants, diagnostic tools, medicines, personal protective equipment, etc.
- Conducting epizootiological monitoring and research to study the characteristics of disease spread and to identify risk zones within the republic’s territory;
- Enhancing the professional training of specialists, preparing various training programs, and assisting in the conduct of training sessions;

- Ensuring the implementation of measures in accordance with the recommendations of relevant international organizations;
- Conducting risk analysis, assessment, management, and information dissemination related to the epizootic risks;
- Defining the procedures for implementing protective quarantine, special veterinary measures, and other related actions connected with the disease, including imposing restrictions and warning measures in accordance with the law in zones at risk of disease spread;
- Making mandatory decisions on the slaughter or destruction of animals, disposal of relevant raw materials, veterinary medicines, feed, and feed additives in infected areas;
- Preparing and approving an anti-epizootic action plan;
- In cases of a severe epizootic threat, to prevent the spread of the disease in the republic, the importation of veterinary medicines produced abroad without state registration in the Republic of Azerbaijan is regulated by the “Rules on the Approval, Expertise, Testing, State Registration, and State Registry of Veterinary Medicines in the Republic of Azerbaijan, Their Production, Import, Storage, Transportation, Sale, and Use,” approved by the Cabinet of Ministers of the Republic of Azerbaijan on April 16, 2007, Decision No. 66;
- Taking measures related to the preservation of virus strains isolated from tests, in accordance with the “Rules on the Establishment and Operation of the National Collection of Strains of Microorganisms and Parasitic Disease Agents,” approved by the Cabinet of Ministers of the Republic of Azerbaijan on May 22, 2007, Decision No. 80.

5.2. Ministry of Agriculture of the Republic of Azerbaijan

The Ministry of Agriculture of the Republic of Azerbaijan shall carry out the following measures to eliminate the disease:

- Organize the protection and treatment of animals against the disease within the territory of the Republic of Azerbaijan through its subordinate relevant bodies;
- Through relevant bodies, organize measures aimed at breeding high-yielding, genetically stable purebred animals in breeding farms, preserving the gene pool, and resolving potential problems related to the production of genetic materials;
- Coordinate measures to ensure the efficient use of feed reserves through the relevant bodies.

Agrarian Services Agency under the Ministry of Agriculture of the Republic of Azerbaijan

The Agrarian Services Agency (ASA) is the responsible body for implementing measures related to the prevention and eradication of the disease during the anthrax epizootic. The following measures shall be carried out by ASA to combat the disease:

- Implementation of specific preventive measures;
- Coordination of the activities of animal health and veterinary service centers involved in combating the disease;
- Provision of necessary examination, treatment, prevention, as well as disinfection, disinsection, and deratization services to protect animal health;

- Equipping the personnel involved in the implementation of specific preventive measures with disinfectants, personal protective equipment, and transportation vehicles;
- Participation in informing the public and business entities about the disease.

5.3. Ministry of Internal Affairs of the Republic of Azerbaijan

The Ministry of Internal Affairs of the Republic of Azerbaijan assists in the implementation of quarantine measures at police and veterinary control posts established at the local police level in the infection zones to maintain isolation during the fight against the identified disease.

5.4. Ministry of Emergency Situations of the Republic of Azerbaijan

The Ministry of Emergency Situations assists in providing additional personnel and equipment required for the implementation of isolation, quarantine, veterinary-sanitary, sanitary-hygienic, and other protective measures to combat the identified disease, and participates in the execution of neutralization measures.

5.5. Ministry of Ecology and Natural Resources of the Republic of Azerbaijan

The Ministry of Ecology and Natural Resources shall carry out the following measures to eliminate the disease:

- Detection of infection in susceptible wild animals and providing necessary information about the implemented control measures to relevant authorities;
- Supplying relevant authorities with information regarding migration routes and habitats of the said animals;
- Conducting ecological monitoring in the infection and surveillance zones;
- Participating with relevant authorities in assessing the epizootic situation;
- Regulating hunting of animals in accordance with the instructions of the Republic Epizootic Emergency Commission.

5.6. State Customs Committee of the Republic of Azerbaijan

The State Customs Committee of the Republic of Azerbaijan shall carry out the following measures to eliminate the disease:

- Ensuring the prompt implementation of customs procedures for the import of necessary items for investigation, diagnostics, and response measures (medicinal preparations, personal protective equipment, laboratory supplies, materials for sample preservation and packaging, specialized equipment, devices, etc.) in accordance with the legislation;
- Organizing the expedited customs clearance of diagnostic samples sent to international laboratories in accordance with the legislation in the event of a crisis situation;
- Enforcing established restriction measures on the import and export of risk-carrying goods;
- Implementing relevant measures regarding decisions on restriction measures adopted by the Food Safety Agency (AFSA) to protect the country from diseases that may enter from other countries;

- Ensuring veterinary, phytosanitary, and sanitary control at the state border checkpoints of the republic in coordination with the relevant structural divisions of AFSA in accordance with the legislation.

5.7. State Border Service of the Republic of Azerbaijan

The State Border Service of the Republic of Azerbaijan shall carry out the following measures to eliminate the disease:

- In case of encountering sick or cloven-hoofed animal carcasses in the border strip of the state border of the Republic of Azerbaijan (hereinafter referred to as the border strip), immediately inform the regional division of the Food Safety Agency (AFSA) responsible for that area, as well as the relevant local state and self-government bodies;
- Facilitate the access of representatives from AFSA's regional division and, if necessary, representatives of the relevant local state and self-government bodies to the border strip to conduct epizootic monitoring and veterinary-sanitary measures, while applying the border regime rules established by the legislation.

5.8. Republican Crisis Center

In the event of an outbreak of anthrax within the country, the Republic Emergency Commission Against Epizootics, established in accordance with the Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007, acts as the Republic Crisis Center (RCC) to prevent the spread and eliminate the disease. Depending on the epizootic situation, additional representatives from relevant agencies and specialists in the respective fields may be included in the Crisis Center.

The RCC, under the general coordination of the Chief State Veterinary Inspector of the Republic of Azerbaijan, is responsible for implementing the disease control strategy and organizing discussions with the agencies represented in the Commission by preparing a draft special action plan aimed at rapid disease containment.

The RCC must ensure the implementation of the following measures:

- Preparation of a disease eradication action plan in accordance with relevant guidelines;
- Collection and analysis of epizootic data at both national and international levels;
- Preparation of information on the availability of specialists, equipment, and facilities in the infection zone;
- Providing methodological guidance and supervision over the activities of local crisis centers;
- Identifying training needs and developing appropriate training programs for specialists;
- Submitting proposals to the relevant state authorities for the allocation of financial resources necessary for fulfilling assigned tasks;
- Establishing communication with authorized bodies to define activities related to biological safety for humans, animals, and the environment and preparing relevant recommendations;
- Collecting data from local crisis centers, local expert groups, and the Central Veterinary Laboratory, analyzing it jointly with relevant agencies, and preparing the corresponding report;
- Coordinating the activities of other groups involved in control measures;

- Overseeing the preparation, procurement, and distribution of essential initial supplies, including vaccines if vaccination is required.

The composition of the Republic Crisis Center is formed as follows:

Head of the RCC:

- The Chairperson of the Republican Emergency Commission Against Epizootics

Members of the RCC:

From the Food Safety Agency:

- Chief Veterinary Officer of the Republic;
- Deputy Chairperson of the Board of the “Azerbaijan Food Safety Institute” Public Legal Entity;
- Director of the Central Veterinary Laboratory;
- Head of the Food Safety Department;
- Representative of the Press Service.

From the Ministry of Agriculture:

- Deputy Chairperson of the Agrarian Services Agency for Veterinary Affairs;
- Head of the Animal Health and Veterinary Service Center;
- Director of the Veterinary Scientific Research Institute;
- Representative of the Press Service.
- Representative of the Ministry of Health;
- Representative of the Ministry of Emergency Situations;
- Representative of the Ministry of Ecology and Natural Resources;
- Representative of the Ministry of Internal Affairs;
- Representatives of local executive authorities from areas where the disease has been detected.

Local Crisis Center

According to the "Rules for the Establishment and Operation of the Emergency Commission Against Epizootics," approved by the Decree No. 156 of the Cabinet of Ministers of the Republic of Azerbaijan dated October 5, 2007, the district (city) Emergency Commission Against Epizootics acts as the Local Crisis Center in the event of an outbreak of foot-and-mouth disease.

The following measures are carried out by the Local Crisis Center for the eradication of foot-and-mouth disease:

a) Regarding preparedness:

- Preparation and periodic updating of local emergency plans;
- Implementation of preparedness measures locally in accordance with the instructions of the Republic Crisis Center (RCC);
- Sending operational information about the disease to the RCC;

- Methodical supervision of disease control measures at the local level;
- Establishing coordination with other state bodies regarding staffing and equipment provision;
- Organizing the disposal of animal carcasses, virus-contaminated equipment, and materials;
- Preparing proposals related to compensation payments.

b) Regarding management of the crisis situation in the district:

- Assisting in the preparation and implementation of control measures in coordination with the RCC;
- Conducting discussions with central and local expert groups about the current situation;
- Coordinating with the RCC to determine the scale of infection and observation zones and demarcate their boundaries;
- Determining the number of susceptible animals in infection and observation zones, implementing control measures in infected areas, imposing quarantine, disposing of carcasses and virus-contaminated products, including organizing final disinfection work;
- Implementing measures to close animal markets located within infection and observation zones and ensuring control over animal movements together with local executive authorities.

5.9. Expert Groups

Central Expert Group

In the event of detection of foot-and-mouth disease, a Central Expert Group is established under the Republic Crisis Center (RCC). The expert group ensures the implementation of relevant requirements in respective fields for assessing the current situation and developing the strategy for disease eradication. Members of the Central Expert Group must have the appropriate theoretical and technical knowledge about the diagnosis, prevention, and eradication of foot-and-mouth disease, as well as experience in assessing the risk of infection. Regular training courses are held to improve the knowledge and experience of the group members. Other specialists may be involved in the group's work to ensure accurate assessment of the situation.

The composition of the Central Expert Group is formed as follows:

- Specialist-epizootologist from AFSA – Group Leader;
- Specialist in epizootic risk assessment from AFSI;
- Specialist-epizootologist from ASA;
- Representative of RCHE;
- Representative of Center on Special Dangerous Infections;
- Representative of MENR;
- Representative of MES;
- Specialist from Veterinary Scientific Research Institute;
- Virologist, pathoanatomist, and carcass disposal specialists from CVL;
- Specialists from scientific research institutes in the relevant field.

The Central Expert Group carries out the following activities:

- Analyzing the epizootic situation;

- Assessing the risk level of disease spread and environmental damage at various stages;
- Preparing proposals for measures adapted to geographical, meteorological, and other conditions;
- Analyzing data on the clinical condition of susceptible animals in the infection zone and epizootic monitoring, and preparing reports;
- Collecting relevant information on the source of infection, date of infection, risk of disease spread, and probability of transmission, and sending it to the Republic Crisis Center (RCC);
- Preparing proposals on sample collection, examination, biosafety, and mandatory vaccination, among other issues.

Local Expert Group

If the presence of foot-and-mouth disease is confirmed in the Republic, a local expert group is formed by the Local Crisis Center (LCC) from specialists in relevant fields to assess the current situation at the local level and provide proposals that may contribute to the preparation of a disease eradication strategy.

The composition of the local expert group is as follows:

- Epizootologist from the Animal Health and Veterinary Services Center of the district/city Agrarian Services Agency – group leader;
- Representative of the local branch of the Institute of Veterinary Sanitary Expertise;
- Representative of the local branch of the Ministry of Emergency Situations;
- Representative of the regional testing laboratory of the Food Safety Institute;

The local expert group carries out the following activities:

- Visiting locations with suspected cases, analyzing the epizootic situation in unhealthy points that are sources or potential sources of infection, determining species and headcount of susceptible animals, the size, location, communications, and management form of the farms, identifying relationships with other farms, and assessing the role of the subject in the spread of the disease;
- Conducting an epizootic risk assessment;
- Investigating the possibility of human infection;
- Evaluating suspected animals and the initial circumstances of the disease outbreak;
- Providing methodological assistance in collecting and sending pathological material samples from clinically ill animals and carcasses;
- Establishing communication with the central expert group and inviting additional specialists for necessary research;
- Analyzing and evaluating monitoring reports;
- Submitting information to the Local Crisis Center (LCC), the Republic Crisis Center (RCC), and the central expert group.

6. Vaccination and Epizootic Control Measures

Vaccination against the disease and epizootic monitoring are carried out by the relevant bodies of the Ministry of Agriculture of the Republic of Azerbaijan in accordance with the "Plan of Preventive and Diagnostic Measures against Epizootics," which is approved annually by the

Food Safety Agency of the Republic of Azerbaijan for the following year. Similar to other diseases funded by the state budget, the purchase of vaccines and diagnostic tools against foot-and-mouth disease is also carried out by the Ministry of Agriculture. In preparing the specifications for vaccine procurement, experience collected from previous years as well as periodic reports from the World Organization for Animal Health (WOAH) and the Food and Agriculture Organization (FAO) are taken into account.

6.1. Conducting Monitoring for Epizootic Control

To regularly monitor the epizootic situation regarding the disease, active and passive epizootic monitoring is conducted in family and individual livestock farms as well as in natural areas.

For active observation and research, based on information received from the WOAH and depending on the epizootic situation in neighboring countries, epizootic monitoring is organized annually in designated locations according to the plan. The monitoring plan also includes serological examinations. For passive monitoring, pathological materials taken from areas suspected of infection during suspected cases of the disease are examined at the Republican Veterinary Laboratory (RVL), and relevant reports are prepared and analyzed. The coordinates of the locations where monitoring will be conducted are determined using Geographic Information Systems (GIS), and the collected data is analyzed using the electronic program “Epicollect 5” (https://five.epicollect.net/more-collect).

7. Compensation Payments

Compensation for damage caused to animal owners is stipulated in Article 24 of the veterinary Law of the Republic of Azerbaijan.

Compensation payments are regulated by the "Rules on Compensation for Material Damage Caused to Legal and Physical Persons During the Implementation of Quarantine Regimes or the Elimination of Harmful Organisms, Prevention, Diagnosis, Treatment, and Eradication of Especially Dangerous Animal Diseases," approved by the Decision No. 120 of the Cabinet of Ministers of the Republic of Azerbaijan dated April 18, 2023.

Annex 1. Confirmed Stages of Foot-and-Mouth Disease in Azerbaijan and Neighboring Countries (9th Meeting Dedicated to Foot-and-Mouth Disease in Central Asia (April 25-27, 2023, Baku, Azerbaijan))

Countries	Approved Stages																Müvəqqəti mərhələlər			
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	**2023**	2024	2025	2026	2027
Afganistan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**1**				
Armania	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**	3	3	4	4
Azerbaijan	2	2	2	2	2	2	2*	2*	2	2	2	2	2	2	2	**2**	3	3		
Georgia	1	1	2*	2	2	2	2*	2*	2	2	2	2	2	3	3	**3**				
İran	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	**2**	2	3	3	3
Kazakhstan																				
Northern Region 9	1	1	1	1	1	1	2*	Vfc	Vfc	Vfc	Vfc	Vfc	Vfc	FnV	FnV	**FnV**				
Southern Region 5	1	1	1	1	1	1	2*	2*	2*	Fvc	Fvc	Fvc	Fvc	FwV	FwV	**FwV**				
Kyrgyzstan	1	0	0	0	1	1	2*	2*	2*	2*	2*	2*	4	4	4	**4**				
Pakistan	0	1	1	1	1	1	2*	2	2	2	2	2	2	2	2	**2**				
Tajikistan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**1**				
Turkey																				
Trakya			Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	Fvc	FwV	FwV	**FwV**	FwV	FwV	FnV	FnV
Anatolia									2	2	2	2	2	2	2	**2**	2	3	3	4
Turkmenistan	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	**1**				
Uzbekistan	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	**1**				
Adopted by the Regional Advisory Group for the Near East (2021)																				
Iraq		1	1	1	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*							
** Temporary Stages Assigned to the Country (countries have six months to provide additional information, including a Control Plan; if not provided, they will be downgraded to the previous stage)																				
** Country/Zone Enrolled in the WOAH Progressive Control Pathway to Achieve Foot-and-Mouth Disease Free Zone Status through Vaccination																				
Vfc : Vaccination Free Country/Zone																				
Fvc: Free without Vaccination Country/Zone																				

0	1	2	3	4	**WOAH**