

2015

- Foot and Mouth Disease – Simulation Exercises in the Balkan countries



**- Foot and Mouth Disease –
Simulation Exercises in the Balkan countries**
EuFMD workplan 2013-2015
Component 1.4



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Component 1.4 of EuFMD workplan (BALKANS): programme for improving the emergency management capacity in case of the occurrence of FMD in the Balkan region

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Executive summary

Within the EuFMD workplan 2013-2015, EuFMD has assisted the Balkan countries to improve the emergency management capacity and the level of preparedness in case of the occurrence of Foot and Mouth Disease (FMD) in the region. A specific activity was dedicated to support the beneficiary countries to self-assess their level of preparedness against FMD and to identify the strengths and weaknesses of their contingency plans.

In this framework a desktop simulation exercise and a desktop-field simulation exercise were organized respectively in January and June 2015 with the assistance of DEMA (Danish Emergency Management Agency) and DVFA (Danish Veterinary and Food Administration).

The exercises were good instruments to assist the countries for the development of specific technical operations not well defined in the contingency plan, to better highlight the importance of general aspects such as communication, coordination, information sharing and simultaneously to improve the capacity to self-assess the level of preparedness achieved. They also showed that general knowledge of the national and regional contingency plans is necessary and imperative.

Background

The European Commission for the control of Foot-and-Mouth Disease (EuFMD) operates a broad programme to strengthen the capacity of veterinary services in Europe to improve contingency planning capacity for rapid response to Foot-and-Mouth Disease (FMD) outbreaks before the virus can spread from infected farm to neighboring herds or further afield.

Within the EuFMD workplan, a specific programme (component 1.4 of EuFMD workplan) was developed and implemented with the aim of improving the emergency management capacity in case of the occurrence of FMD in the Balkan region. This programme was adopted by the EuFMD General Session in 2013 and financially supported by DG-SANTE of the European Commission.

The first phase of the programme finished in 2015 and it was aimed to support the development of FMD emergency capacity in the Balkan region through the improvement of national contingency plans, the development of a regional FMD diagnostic capacity and to facilitate the co-ordination framework between veterinary services of the different countries in the area.

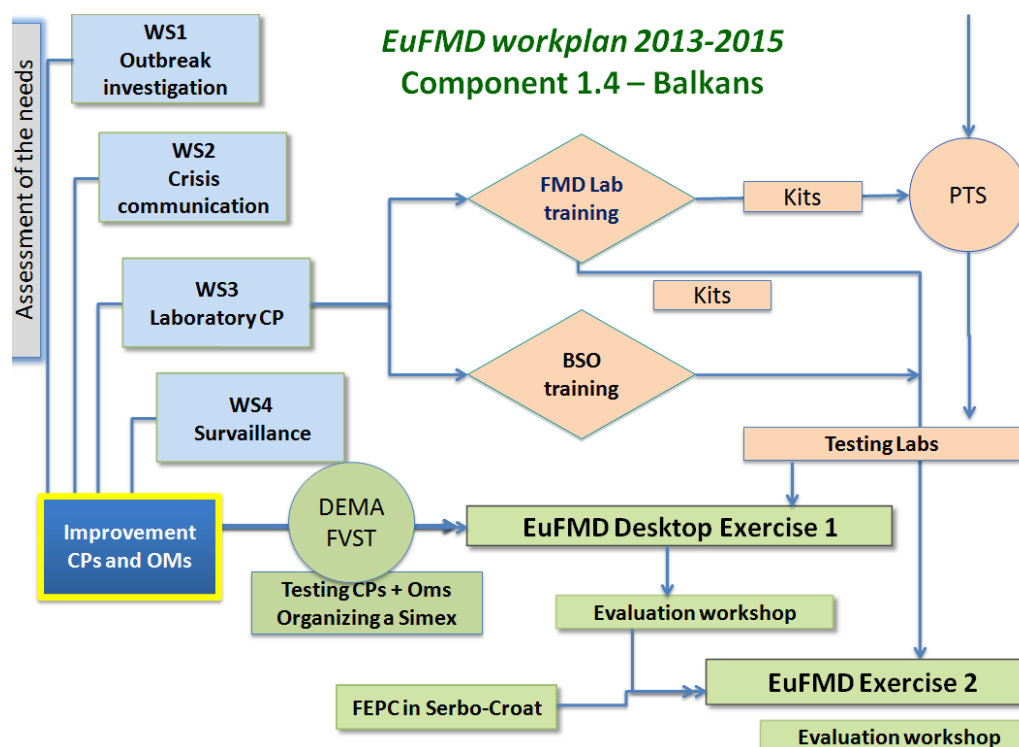
The beneficiary countries and territories involved and participating in this programme were either EuFMD Member States (Bulgaria, Serbia, FYR of Macedonia, Croatia, Bosnia and Herzegovina, Albania, and Greece) and EuFMD Non-member states and territories (Montenegro, Kosovo and Moldova).

In order to assist the above mentioned countries to self-assess their level of preparedness against FMD and to identify the strengths and weaknesses in their contingency plans, a desktop simulation exercise and a desktop-field simulation exercise were organized by EuFMD respectively in January and June 2015

with the assistance of DEMA (Danish Emergency Management Agency) and DVFA (Danish Veterinary and Food Administration).

To prepare for these exercises and to assist contingency plans improvements, the EuFMD organized in 2013-2014, a series of workshops on different parts of the emergency response including FMD outbreaks management and field investigation, crisis management and communication, laboratory contingency planning and biosafety and surveillance systems. A specific activity was oriented to the laboratories of the Balkan area with the aim of improving the laboratory expertise and capacity, and facilitating the mutual support between countries. Workshops on laboratory emergency management, biosecurity and training on diagnostic methodology were organized and regular assistance was provided for the participation to the proficiency tests organized by the FMD WRL.

The activity implemented in 2013-2015 within component 1.4 of EuFMD workplan is summarized in the flow chart below.



Note: WS=workshop; CP=contingency plan; BSO=Biosecurity officers; PTS=Proficiency test; FEPC=FMD Emergency Preparedness Course (e-learning)

Aim of the exercises

The overarching aims of the exercises were to support the beneficiary countries with capacity building regarding:

- veterinary preparedness, including analysis of operational procedures planned in the contingency plans, with specific focus on biosecurity, epi-investigation, culling, disposal, cleansing and disinfection;
- development, implementation and evaluation of simulation exercises;

The exercises allowed facilitating the improvement of the disease outbreak management at regional, local and farm level and the development of a national and regional expertise for organizing simulation exercise according to the needs.

Objectives

The objectives of the exercises were identified according to the level of emergency preparedness present in the hosting countries and were slightly different between the two exercises.

The desktop exercise (January 2015) was implemented at central level and more focused on challenging the veterinary services of the countries on:

- Activation and maintenance of central crisis management organization;
- Information management and information exchange within crisis management organization and with external agencies and organizations;
- Coordination of actions and resources;
- Preparation and coordination of crisis communication;

The second simulation exercise (carried out at desktop and field level) was implemented at local level and it was more focused on:

- Establishment and management of Local Disease Control Centre (LDCC);
- Cooperation between LDCC and National Disease Control Centre (NDCC);
- Planning the relevant activities and demonstrate their implementation;
- Preparation and planning of the local response.

Participants and locations

The exercises were carried out in Bulgaria, FYR of Macedonia, and Serbia. The veterinary services of these countries were actively involved in the preparation and implementation of the events and representatives of other countries participated as observers with the specific task to reflect on their level of preparedness and capacity to implement of similar exercises in their respective countries.

Participating countries and observers were divided as indicated in the tables below.

Desktop simulation exercise (Jan 2015)

	<i>Date: 27-29 Jan 2015 Location: Sofia</i>	<i>Date: 27-29 Jan 2015 Location: Skopje</i>	<i>Date: 27-29 Jan 2015 Location: Belgrade</i>
Participants	Bulgaria (EU)	FYR of Macedonia	Serbia
Observers	Bosnia and Herzegovina	Croatia (EU)	Greece (EU)
Observers	Kosovo	Montenegro (*)	Moldova
Observers	Albania (*)		

Note: () Countries that couldn't attend the exercise*

Desktop-field simulation exercise (Jun 2015)

	<i>Date: 23-24 June Location: Kyustendil</i>	<i>Date: 18-19 June Location: Ohrid</i>	<i>Date: 15-16 June Location: Nis</i>
Participants	Bulgaria	FYR of Macedonia	Serbia
Observers	Greece	Serbia	Croatia
Observers	Kosovo	Moldova (*)	Bulgaria
Observers	Albania	Montenegro (*)	FYR of Macedonia
			Bosnia and Herzegovina (*)

Note: () Countries that couldn't attend the exercise*

Planning phase

Specific attention was dedicated to the preparation phase in order to improve the skills of the countries for the organization of emergency exercises. All the activity connected with the preparation of the exercise was carried out together with EuFMD, DEMA, DVFA and focal points of beneficiaries countries.

In order to ensure that the exercises supported the specific veterinary requirements of the beneficiary countries and were tailored to their level of preparedness, each of the focal points was asked to identify:

- Aims and objectives of the exercise;
- Level of participation;
- Scale of the exercise;
- Schedule and duration;
- Responsibility.

During the planning phase a number of skype and physical meetings were held in order to coordinate and assist the planning process.

The documentation produced during this phase for the exercise and translated into Serbian and Bulgarian included:

- Exercise directive: description of the exercise with aim, objectives, number of participants, location, general scenario, programme.
- Instruction manual: more detailed description of the exercise with comprehensive scenario, list of participants, tasks of directing staff and participants, routes of communication, rules for playing, detailed timeline, contacts.
- List of injects: series of situations/queries/events presented to participants during the exercise and aimed to challenge different aspects of preparedness.
- Scenario: description of the initial situation presented to the participants.
- EpiScheme: epi-questionnaire prefilled with relevant information of the outbreaks and connected with the scenario.

A webinar, with translation in Serbian and English, was held with all participants in order to define well in advance the context of the exercise, the rules of participants and the expected outcomes.

An e-learning training on FMD Emergency Preparedness (FEPC) was organized in Serbian and Croatian for all the countries involved as participants or observers. The training covered different topics related to the FMD etiology and pathogenesis, clinical diagnosis and lesion ageing, FMD epidemiology and outbreak investigation, biosecurity

The following table describes the participants invited to attend the training.

Country	Trainees
Bosnia and Herzegovina	20
Croatia	15
FYR of Macedonia	20
Kosovo	15
Montenegro	15
Serbia	20
TOTAL	105

Implementation phase

The desktop simulation exercise, carried out in January 2015, was held simultaneously in Bulgaria, Serbia and FYR of Macedonia and an outbreak of FMD was simulated in the border area between the three countries. This exercise did not include any field activity.

A scenario was presented to the national veterinary level and the local veterinary level. As the suspicion on FMD was confirmed NDCC (National Disease Control Centre) and LDCC (Local Disease Control Centre) were established and injects were regularly submitted to the different level of the chain of command (e.g. request from EU commission, request from local milk company, request from citizen, etc).

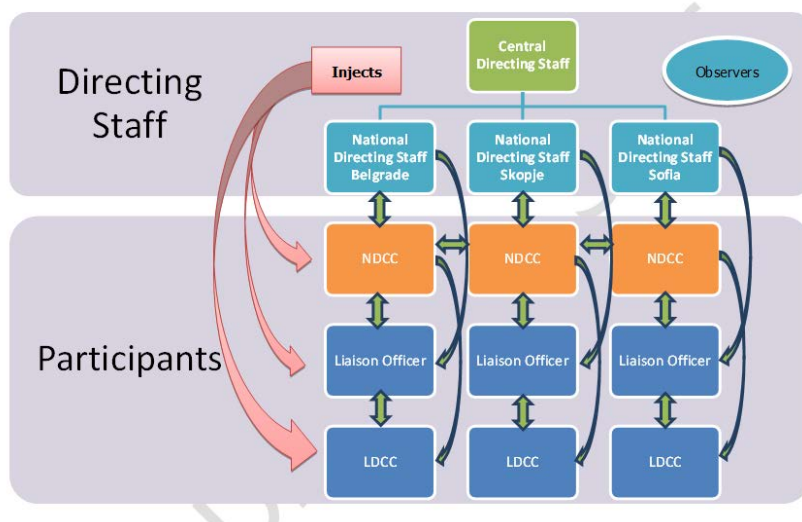


Fig: Scheme of the desktop exercise

EuFMD, DEMA and DVFA experts acted at directing staff for the coordination, coaching and facilitation of the exercise. Central Directing staff was coordinating the whole exercise while other National Directing staff was focused on the exercise development at national level. A liaison officer was appointed in each country and physically located at the central level (NDCC) with the purpose to facilitate the communication between the National Directing staff and the Local Disease Control Centre.

Interaction with the exercise participants was performed by email and phone with the assistance of the liaison officer in order to overcome language barriers. During the exercise the central directing staff coordinated the progress of the exercise in each of the participating countries via regular “skype-meetings”.

During the first event, a parallel exercise for the laboratories was proposed to the three countries involved to test their diagnostic capacity. A panel of samples was sent to each country and results of the ELISA NSP and ELISA SP carried out by the lab, simultaneously to the desktop exercise, were collected and analyzed.

The second simulation exercise was sequentially carried out in the three countries with a combination of a desktop exercise and field or practical exercises. Only few stakeholders were involved in this exercise (e.g. Regional Epizootic Commission in Bulgaria).

Injects were regularly played by Directing staff with reactions from the participants and in case of lack of actions the Directing staff intervened for coaching the proper response.

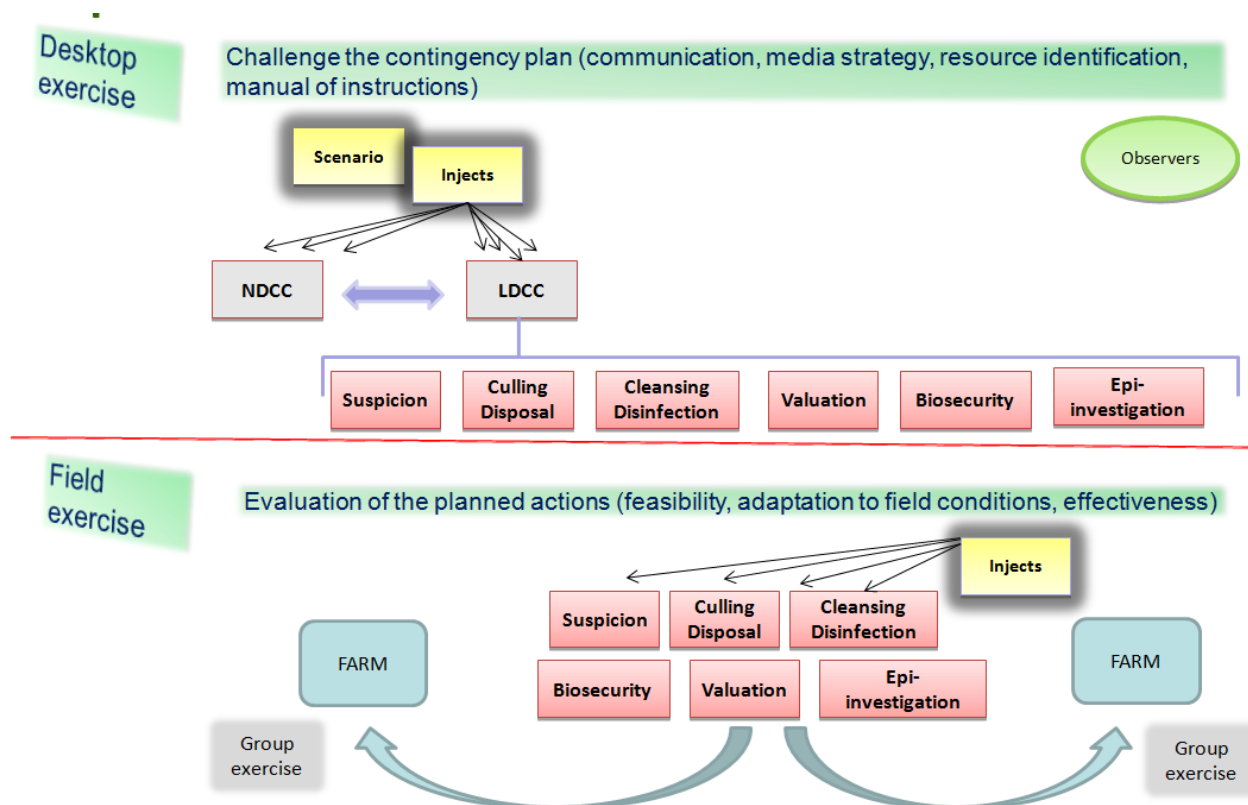


Fig: Scheme of the desktop exercise implementation

In the field part of the exercise the equipment available and the technical expertise to carry out operations on the field was tested. The personnel was divided into different groups, according the contingency plan, and all procedures carried out or discussed in the premises (biosecurity, epi-investigation, suspicion visit with sampling, package and shipment of samples, valuation, culling, disposal, disinfection)

An official press release was issued after each exercise and can be found in **annex 2**.

Evaluation phase

A meeting was held with all the participants and observers at the end of each exercise in order to discuss the main outcomes and share feelings, difficulties felt by participants during the exercises.

In order to gather the lessons learnt, a questionnaire was distributed to the participants with the purpose to identify the main strengths and weaknesses.

The questionnaire covered the following aspects:

- Activation and management of the crisis management organization;
- Information management;
- Coordination;
- Crisis communication;
- Operational response;
- Follow up.

The results were used by the directing staff to organize the evaluation workshop that was held 1 month after the desktop exercise with the purpose to discuss with a representative of the countries:

- 1) Lessons learnt in terms of implementation of a simulation exercise and assessment of the contingency plan;
- 2) Good practices in disease outbreaks management;
- 3) Achievements expected for the next simulation exercise;

A report was produced by DEMA and DVFA with the outcomes observed in both exercises, conclusions and recommendations for further activities to focus upon in order to further improve the emergency preparedness. The main issues were connected to:

- Coordination and cooperation during multi-tier and interagency operations;
- Staff management and work within a disease control/crisis center (LDCC and NDCC);
- Command and control of veterinary activities on infected premises;
- Development of country-specific baseline requirements for an efficient and effective veterinary preparedness.

Outcomes

The exercises were assessed by participants and observers. It was stated that it was a good and valid activity to assess the:

- a) chain of command,
- b) communication between/within NDCC and LDCC,
- c) capacity of identify resources needed (human, equipment, vehicles, and funds),
- d) information flow to other institutions/ countries/ stakeholders;

Furthermore it was as well an effective event to practice procedures described in the contingency plans, and an important test for pressure / stress management.

Participants understood the importance of skills and tools not always considered in the contingency plans (which would affect the success of an emergency activity) such as:

- Documenting of decisions/actions taken;
- Written planned actions
- Always having a picture of the situation;
- Availability of an organigram within the contingency plan to assign duties according proper expertise and knowledge;
- Coordination and communication capacity.

The response of the participants during the exercises showed that the level of response capacity was different in the three countries. These differences may be due to the respective experiences of the countries with disease outbreak management.

There are common areas that can be focused upon in order to further improve the response preparedness e.g.:

- Coordination, communication and cooperation during multi-tier and interagency operations.
The exercises were focused on the veterinary response to an outbreak and gave the participants an opportunity to practice coordination and cooperation between the national and regional/local level and between the regional/local level and the field. During the exercises the participants demonstrated that they have an understanding of the technical procedures and skills related to coordination and cooperation of multi-tier and interagency operations. It was also seen that these understandings and skills can be improved.
- Staff management, reporting capacity and work within a disease control centre (LDCC and NDCC).
During the three exercises the participants carried out their specific roles and responsibilities in the disease control centers at national and local/regional level with varying degrees of efficiency and effect.
- Command and control of veterinary activities on infected premises.
During the three exercises “basement/practical exercises” regarding the veterinary activities on infected premises were carried out. Furthermore Serbia and Bulgaria also carried out on-site discussion exercises. While these exercises showed that the participants had a good understanding on how to carry out the various on-site activities, they did not give the participants an opportunity to fully demonstrate their skills regarding command and control of on-site activities.
- Development of country-specific baseline requirements for an efficient and effective veterinary preparedness.
Currently the beneficiary countries are in a process of developing their respective veterinary preparedness. While the exercises showed that there are understandings and technical skills that can and need to be developed further, the exercises also showed that there is a need to discuss and formulate what country-specific levels of understanding and skills regarding disease outbreak management are good enough and this can be used as baseline targets that the respective countries should aim to achieve through contingency planning, procurement and maintenance of equipment, stocks etc. and especially training and exercise activities
There is a requirement for establishing a competence system for sharing an developing competencies throughout the organization.
- Media response.
During the exercise the participants the participants were required to give press statements and respond to media requirements. This was done to some degrees, but it was not clear whether the veterinary services had a clear media policy or whether this policy was disseminated to the local/regional level.

Lessons learnt by directing staff

Directing staff has identified important lessons as well which should be considered in the implementation of future simulation exercises.

The process of developing, implementing and evaluating the exercise with staff of beneficiary countries, assisted by experts, was essential to guarantee the capacity building and for the sustainability of the activity implemented.

The planning process and the subsequent execution of the three exercises showed that planning and conducting simulation exercises:

- Takes time;
- Requires a common understanding of exercises as such including an understanding of the various elements of an exercise and relationship between these elements;
- Requires that ideally the number of participants, their organization and the tasks they are asked to carry out during the exercise corresponds with the intentions of the exercise. If this is not the case this should be taken into account in the organization of the participants and the tasks issued during the exercise;
- Requires a cultural awareness about the environment in which the exercises are carried out.

Specific elements should be considered in the framework of a simulation exercise:

- ✓ Lessons learnt. It is very important to discuss with beneficiary countries how to establish a system that ensures, that “the lessons learnt” by participants are implemented in the contingency plan.
- ✓ Establishing an exercise culture. The countries should try to run an exercise in smaller scale at local or regional level, which include written plans as an exercise outcome.
- ✓ Fit for purpose exercises. The exercise framework should mirror the level of emergency preparedness present in the country. In parallel the Contingency Plan should mirror the real situation present and not be a copy paste of the European legislation.
- ✓ Language barriers. It was difficult to follow the evolution of the process during the exercises. It might be a problem for the directing staff to understand and react if the exercise is not running properly. Maybe it would be useful to have further support from the country (Focal point dedicated to run the exercise with injects and another person to help the Distaff in following what is happening).
- ✓ Normal duties. It was difficult to take out participants from their normal duties. Maybe a good solution would be to take the participants out from their offices.
- ✓ Involvement of observers. Difficulties were encountered in the active involvement of observers since only some of them were actively participating. It might be useful to have more detailed, accountable and dedicated tasks for the observers.
- ✓ Exercise instructions. Not all the participants/observers were aware of the instructions. It would be beneficial to improve the description of the exercise and capture the interest of the participants. They shall be written in a concise way.
- ✓ Procedures tested. The self-assessment was done in some cases on procedures only described in paper but never implemented in practice.
- ✓ Involvement of (NR) Laboratories. Although a laboratory exercise parallel to the first simulation exercise was conducted a deeper involvement of the labs should be considered with special attention to the contents of the laboratory contingency plans.

Conclusions

The exercises organized were a good instruments to assist the countries for the development of specific technical operations not well defined in the contingency plan, to better highlight the importance of general aspects such as communication, coordination, information sharing and simultaneously to improve the capacity to self-assess the level of preparedness achieved.

The approach adopted for design, implement and evaluate the exercises can be reproduced now at national and local level by the countries involved, even at smaller scale, to improve single operations in specific areas and as well increase the capacity to test the operational manuals at central, regional and local level.

Annex 1

Directing staff

Name	Affiliation (at the time of the exercise)	Email (present email)
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Annex 2

Keeping foot-and-mouth disease under control in the Balkans

Veterinary services test preparedness in simulated disease outbreak exercise



FMD, which affects most cloven-hoofed mammals, can seriously undermine meat and milk production.

9 February 2015, Rome – The European Union and FAO have stepped up efforts to assist countries to prepare for any possible outbreaks of devastating foot-and-mouth disease (FMD) in cattle, sheep, goats and other animals, including in the Balkans.

The European Commission for the control of Foot-and-Mouth Disease (EuFMD), the Secretariat of which is based at FAO, operates a broad programme to strengthen the capacity of veterinary services in Europe, given that even a single outbreak of FMD has massive economic implications for the countries and for Europe as a whole.

While not dangerous to human health, the disease causes serious production losses and is a major constraint for international trade. It can also have an impact on rural activities such as tourism. A FMD outbreak in the UK in 2001 cost the country \$16 billion and resulted in 10 million sheep and cattle being culled in order to halt further spread of the virus.

In recent years EuFMD has trained around 500 veterinarians across Europe in immediate response capabilities, has established an emergency training course for vets for crisis situations, has established a network for its member states for contingency planning and a knowledge bank to share experience for improved simulation exercises.

Where the disease lurks

FMD is a viral disease of cloven-hoofed animals, such as cattle, buffaloes, pigs, sheep, goats and deer. While EU member states are virus free, the virus currently circulates in parts of in the European neighbourhood and in around 100 countries in Africa, the Middle East, large parts of the Eurasian landmass and some areas in South America.....



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NEWS RELEASE

Food and Agriculture Organization of the United Nations
for a world without hunger

Bulgaria undertakes animal disease outbreak simulation Exercise aims to keep Foot-and-Mouth disease virtual



Photo: ©FAO/Yanne Golev

24 June 2015, Konyavo, Bulgaria – First the bad news: animal health experts visiting a Bulgarian cattle farm confirm the suspicion: the animals have been infected. Now the good news: it's not real. The experts are here this week for a simulation exercise on Foot-and-Mouth disease, being conducted in Balkan countries.

A group of 60 people – veterinarians, animal health experts, and animal health service staff – continue their exercise at the farm, rapidly and thoroughly executing the required coordinated actions to manage a case of Foot-and-Mouth disease. They are in the midst of a two-day simulation exercise, within a full-scale training series organized by the European Commission for the Control of Foot-and-Mouth Disease (EuFMD), whose secretariat is based at FAO headquarters in Rome, with the assistance of the Danish Emergency Management Agency and the Danish Veterinary and Food Administration.

This is part of an EU-supported effort to help the Balkan countries bolster their capacities for responding to a possible outbreak of Foot-and-Mouth disease, one of the most contagious animal diseases and one with severe economic consequences. Although Western Europe is officially virus-free, the disease still persists in the surrounding area (Southern Mediterranean, Middle East, parts of Eastern Europe).

"Simulation exercises are an effective means to identify weaknesses that could result in disastrous consequences in a real crisis," said EuFMD animal health officer Fabrizio Rosso, "and to bring attention to the need for investment in preparedness in an area constantly at risk of FMD incursion."

The simulation exercise challenges participants, in their roles with the national or regional veterinary offices, to respond correctly to a possible outbreak of the disease. In addition to coordinating local actions and control measures, the veterinary offices are constantly challenged by