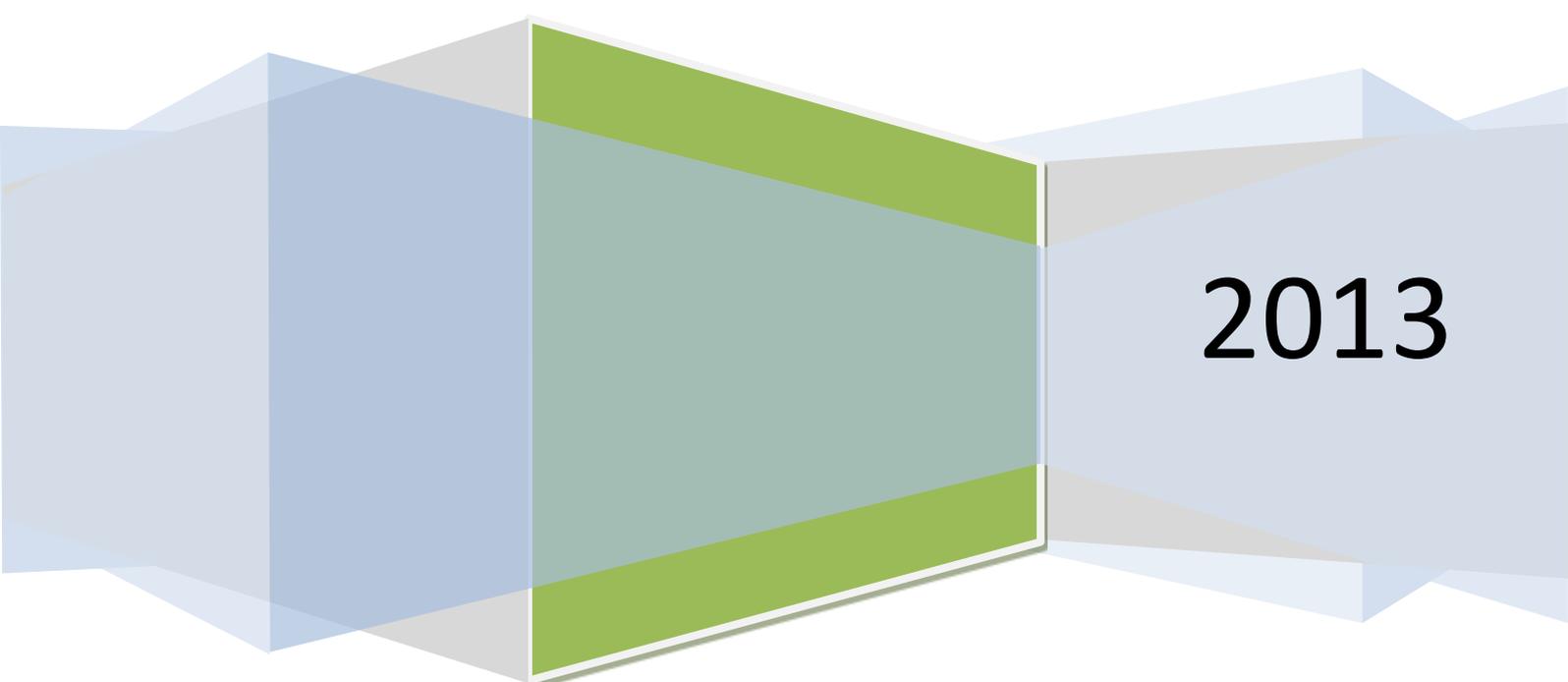


**FAO-EUFMD/EC/OIE
Tripartite Meeting on
control of FMD and other
exotic diseases in the
Southern Balkans**



2013

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FAO-EuFMD/EC/OIE Tripartite Meeting on control of FMD and other exotic diseases in the Southern Balkans

13th February 2013 Chania, Crete, Greece

Introduction

A meeting of the FAO EuFMD/EC/OIE “Tripartite” on the Control of FMD and other Exotic Diseases in the Southern Balkans was held in Chania, Greece, on 13th February 2013, with the participation of senior representatives from the State Veterinary Services of Bulgaria, Greece, Turkey, and Serbia, and from the EuFMD, FAO, EC and OIE (see Appendix 1 for list of participants).

The main objectives of the meeting were:

- To review and discuss surveillance and control activities for FMD and other exotic diseases in the common border regions of Greece, Bulgaria and Turkey in 2012, and planned for 2013.
- To discuss the outcomes of a workshop on risk-based surveillance for FMD in the common borders area and follow-up plans to develop this activity further.
- To discuss how co-operation in strengthening FMD emergency preparedness in the West and Southern Balkan countries might be organised in the future.

Relating to FMD

Conclusions

1. The meeting endorsed the Report of the Tripartite Surveillance Workshop on development of a risk based, continuous surveillance approach to maintain confidence in FMD freedom in the common border regions of Thrace.
2. The immediate notification system had operated well in 2012 and the Bulgarian and Greek representatives expressed satisfaction with the level of communications received on new outbreaks of exotic diseases in Thrace region.
3. The Meeting noted the major change in FMD vaccination policy in Turkey, in effect to regionalise the use of vaccination in Thrace and Western Anatolia. While appreciating the efforts and investment of Turkey and the EU to ensure Thrace region was included in campaign vaccination in large and small ruminants, and the focus of vaccination in Western/central Anatolia, they were concerned that the major change in policy had occurred with unclear consequences for risk from epidemics in unvaccinated eastern Anatolia.
4. The impact of FMD in Bulgaria and the duration of the loss of FMD-free status was noted, and it was concluded that other Balkan countries may be less prepared and might face greater difficulties for control if contingency plans are not well developed and practised.

Recommendations

1. That a memorandum of understanding be drawn up between EuFMD and each of the Tripartite countries covering the risk-based surveillance activities to be undertaken in 2013 in Thrace region.
2. That the proposal for developing a Balkan FMD emergency preparedness network, encompassing laboratory and epidemiology/contingency planning sub-networks, be put to the EuFMD executive committee at the 85th meeting, and an action plan developed further based on those discussions and consultations.
3. That the further attention and study be given to the regionalisation policy for vaccination in Anatolia, as means to achieve a higher health status in the regions identified for increased control; and that major changes in vaccination policy should be communicated in advance to the Tripartite, allowing an opportunity for reflection and possible policy assistance on the impacts of the management changes for the neighbourhood.
4. The studies to develop low cost surveillance methods for monitoring FMDV infection in wildlife be continued, and more attention given to develop the management support systems for continuous monitoring of outcome of the surveillance actions and for assessing the impact of change in FMD vaccination and other measures, upon risk to Thrace region and the Southern Balkans.

Relating to Other Diseases

Conclusions

1. Concern was expressed regarding whether the investigations into PPR outbreaks in Thrace were of a sufficiently thorough and detailed nature, and whether follow-up surveillance efforts were intense enough.

Recommendations

1. That Turkey conduct full and detailed investigations into the PPR outbreaks in Thrace, and summary reports be made available, as has been done for FMD investigations in Thrace region in the past.
2. That a generic standard operating procedure be developed for investigating exotic disease outbreaks in Thrace region as part of the risk-based surveillance program.

REPORT OF THE TRIPARTITE MEETING

The meeting was held at the Mediterranean Agronomic Institute, Chania, kindly hosted by the Greek Ministry of Rural Development and Food. The meeting was opened by Dr Spiros Doudounakis who welcomed all participants. Dr Keith Sumption then highlighted the value of these meetings, which had been taking place for about 50 years following the Tripartite actions to prevent SAT-1 incursions into the Balkans in 1962. He noted the increasingly good co-operation of the three countries on information sharing and the development of a common surveillance approach is a new and exciting stage for the Tripartite countries.

Item 1: Agenda

The agenda was adopted without further comment.

Item 2: FMD situation and surveillance in the Tripartite Thrace region

This session was chaired by Dr Keith Sumption, EuFMD.

The majority of this session dealt with the FMD situation in Anatolia and the implications for incursions into Thrace region.

2.1 Turkey: FMD situation, surveillance activities in Turkish Thrace, epidemiological trends and vaccination

Dr Naci Bulut gave a detailed presentation covering this subject. The situation in 2011-12 has been complex, with outbreaks due to FMD serotypes O, A and Asia 1 following the incursions of Asia-1 in 2011. Virus typing is used to follow the entry and circulation of FMDV, and most recent circulating lineages are:

- O: Panasia 2/Far-09
- A: Iran 05/Sis-10; Iran05/USK11; WES11; AMS12; BAB12. [Note that A Iran 05 HER10 is no longer considering circulating in Turkey].
- Asia 1: Sindh 08.

There were 2052 outbreaks reported in Turkey in 2012, all in Anatolia and none in Thrace region. In January 2013, there were 28 outbreaks (5 O, 15 A, 7 Asia 1, 1 untyped), including several in the area of Anatolia close to Istanbul (Figure 1). Although the number of Asia-1 outbreaks have seen a big decline since mid 2012, cases are still continuing and the epidemic is therefore not yet over.

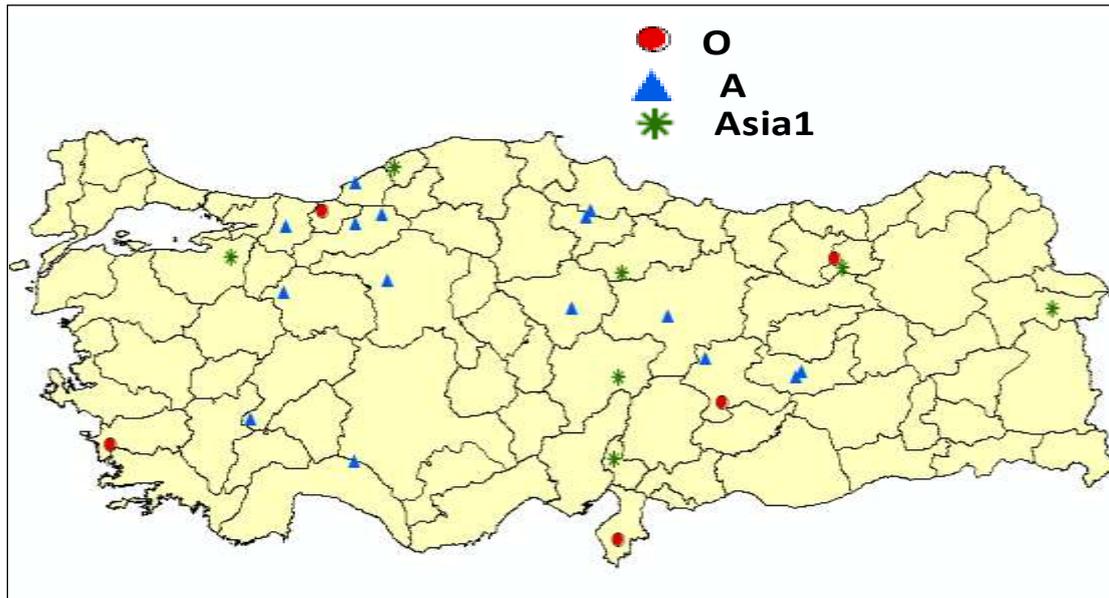


Figure 1: Location of FMD outbreaks reported in Turkey in January 2013.

The newest incursion detected was A Iran 05/Sis-10/BAB12, detected in November 2012 in Van (borders Iran); this lineage is closely related samples taken in Iraq in 2012 and sequenced in the SAP Institute, Ankara. The relationship between cattle and meat prices, currency devaluation in Iran, and FMD spread, was discussed and the usefulness of value chain analysis highlighted. One outbreak detected in December 2012 near Anatolian Istanbul was caused by this strain.

The vaccination strategy used in Anatolia in 2012 and proposed for 2013 was described. Due to insufficient doses of FMD vaccine, routine preventive (blanket) vaccination was not used in Anatolia in 2012, as had been the case in the previous years.

In Spring 2012, ring vaccination was used in response to outbreaks in most of Anatolia, while blanket vaccination was applied only in border provinces, including Thrace (Figure 2).



Figure 2: Anatolian FMD vaccination strategy used in Spring 2012.

In Autumn 2012, the reverse strategy was applied, with blanket vaccination using trivalent vaccine applied in Central and Western Anatolia, while ring vaccination in response to outbreaks was used in Eastern Anatolia and along the border (Fig. 3).

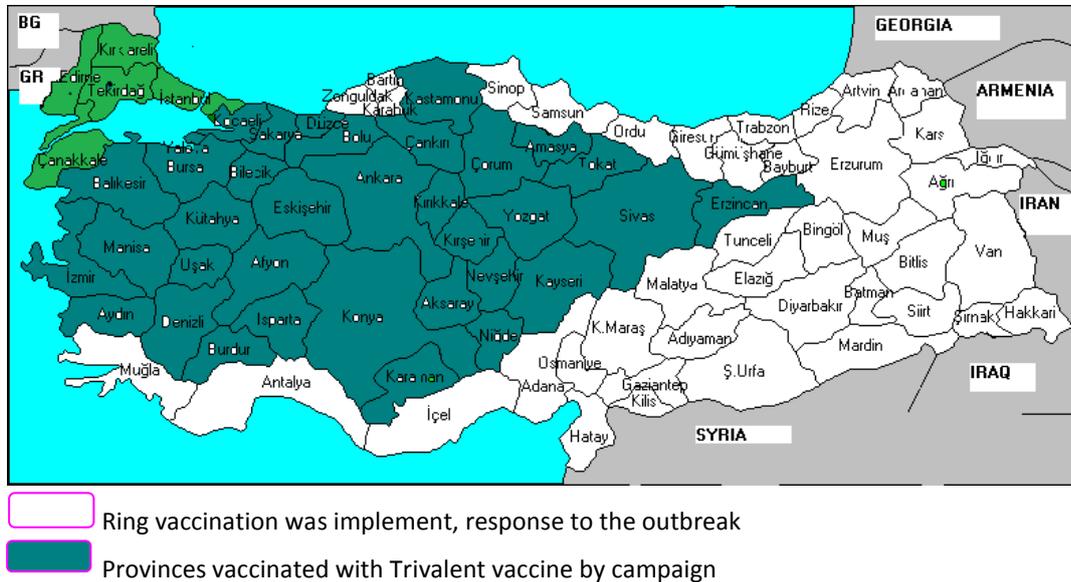


Figure 3: Anatolian FMD vaccination strategy used in Autumn 2012.

This is also the policy planned for Spring 2013 (Fig. 4).

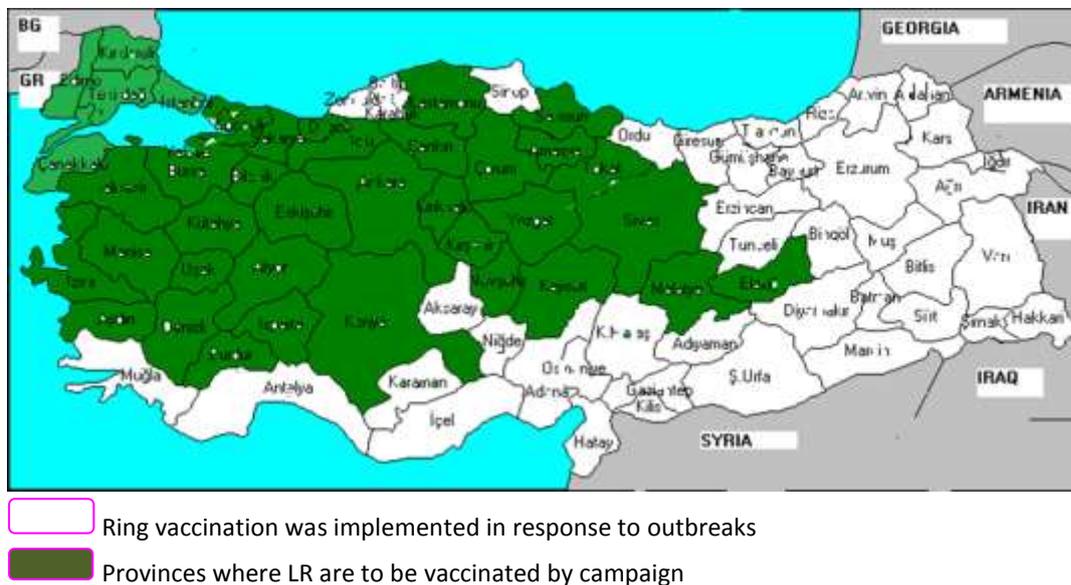


Figure 4: Anatolian FMD vaccination strategy planned for Spring 2013.

Dr Bulut was explained that the change in strategy was because of the higher coverage possible in the Western areas and also the higher impact when FMD occurs in Western and Central Anatolia than the Eastern regions.

Dr Füssel commented that this major change was a form of regionalisation, since Government policy on vaccination in effect created a difference in health status between vaccinated and non-vaccinated regions; he asked what controls were in place to separate the two regions?

Dr Yacicioglu indicated that moving an animal from “ring vaccination” areas to “blanket vaccination” areas required such animals to be vaccinated against FMD 21 days prior to movement, and movement must be accompanied by animal health certificates. Vaccination in such cases is conducted by private vets using imported vaccine. Dr Sumption commented that this is a profound change in policy that appeared to be driven by shortage of vaccine than an overall strategy, and the implications - benefits and risks – needed to be studied. An unvaccinated eastern region was a new development that has implications also for the TransCaucasus countries.

The effectiveness of movement restriction controls between the two zones was raised as an issue, as was the impact of a single dose of vaccine 21 days prior to movement (rather than two doses).

The results of the 2012 Anatolian serosurvey were presented. 64,300 sera were tested; 15% of large ruminant samples were positive, as were 23.5% of small ruminant samples; the higher SR prevalence has been a feature of most prior surveys.

Surveillance activities for FMD in Turkish Thrace were described. 17,000 sera were taken as part of the annual serosurveillance for 2012; 700 samples were followed up. Follow up investigations are triggered by NSP positives, and involve probang sampling and liquid phase blocking ELISA testing of sera. All follow-up samples were negative, and no evidence of virus circulation was detected.

2.2 Bulgaria: FMD surveillance activities

Dr Tsviatko Alexandrov presented details of the Bulgarian surveillance activities for FMD and other exotic diseases in the past year.

Bulgaria regained its FMD-free status from the OIE in August 2012, 17 months after the last FMD outbreak. Between April and December 2012, blood sampling and clinical examination of animals was conducted in 37 border villages (Fig. 5). In 2013 this was reduced to 21 villages, regarded as the most at risk. In each of these 21 villages, 20 blood samples were taken from small ruminants and clinical examination conducted every month. All results were reported as negative, and no evidence of virus circulation was detected.

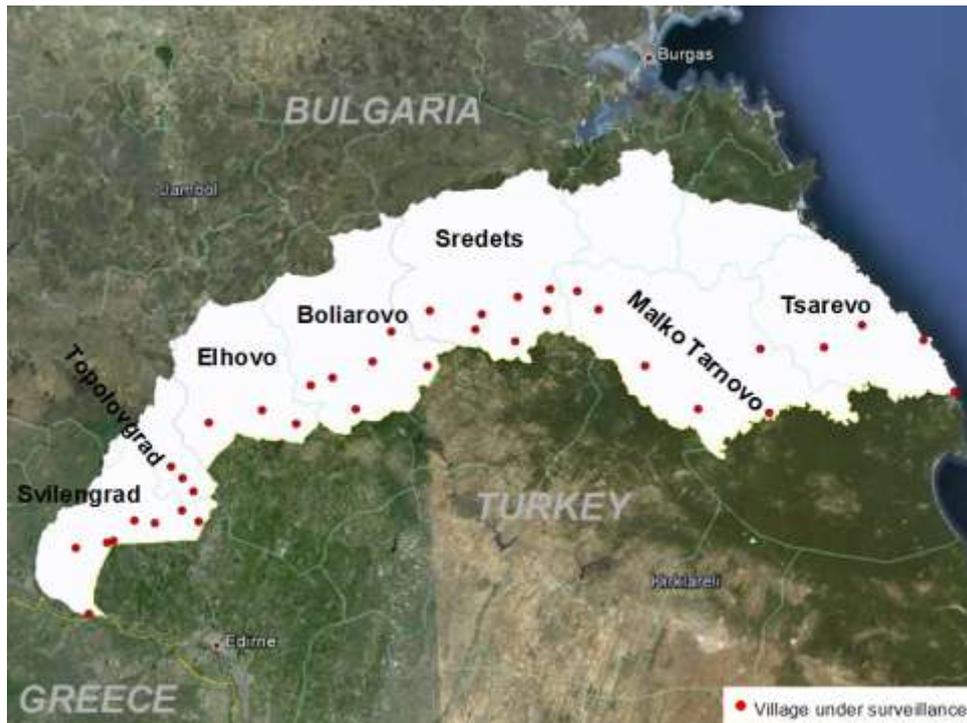


Figure 5: Locations of 37 villages where serological and clinical surveillance was conducted between April and December 2012.

Ongoing surveillance in wild boar was also conducted. In the 2012-13 hunting season, 1,095 wild boar sera were tested for FMD antibodies; all were negative. Bulgaria agreed to share the raw data from these tests to help establish test performance in uninfected wild boar.

2.3 Greece: FMD surveillance activities

Dr Eleni Chondrokouki presented the details of Greek FMD surveillance activities in 2012. In 2011, 8,980 serum samples had been tested for FMD as part of surveillance activities; in 2012, 1963 samples were tested (1,420 cattle, 540 small ruminants, 3 pigs, 0 wild boar). In 2011 there had been seven borderline samples, while in 2012 there were none.

Item 3: Development of a common surveillance approach for use in 2013.

In this session, recent activities to develop a common risk-based surveillance approach were reviewed and the issues for finalising an agreement, and implementation, were discussed.

This session was chaired by Dr Alf Füssel, European Commission.

3.1 Summary of the recommendations from the September tripartite workshop on surveillance

Eoin Ryan (EuFMD) presented a summary of the recommendations arising from the EuFMD workshop on risk-based surveillance held in Istanbul in September 2012, attended by two state veterinarians each from Greece, Bulgaria and Turkey. The report from this workshop was provided to all participants. The main recommendations were:

- There should be ongoing analysis of FMD surveillance data in Thrace region to estimate ongoing probability of freedom from FMD and to estimate reliability of early warning systems.
- Surveillance should be risk-based and use evidence from multiple activities.
- There is a need to improve data capture and management systems.
- Surveillance analysis should include all available sources of evidence in quantitative analysis of probability of freedom.

One of the key points was that surveillance activities which have a low sensitivity on an individual basis (such as abattoir surveillance) may still provide useful information if many data points are collected.

Another important issue was that the level of confidence in disease freedom based on serosurveys decreases over time if there is an ongoing risk of introduction. By incorporating data from ongoing activities such as clinical inspection, abattoir surveillance, etc, the level of confidence in disease freedom can be increased.

The goal of enabling early detection of possible future incursions is related to this; continual surveillance using a variety of methods (some of which may have low individual sensitivity) increases the probability of detecting an incursion earlier than would otherwise be the case.

3.2 Discussion on the recommendations from the September workshop.

The Chairman expressed his appreciation for this important work, on behalf of the European Commission. The Meeting then discussed this issue in further detail, including how this could be followed up. The Bulgarian authorities reported they plan in 2013 to conduct risk-based surveillance activities (serosurveillance and clinical inspection) in the area containing 21 villages which they regard as being at higher risk. In Turkish Thrace, cattle are vaccinated twice a year but must be clinically inspected prior to vaccination; in this way, clinical inspection is already carried out twice a year.

The issue of which zones are a higher risk was discussed. The consensus was that in Turkish Thrace, the districts in the Istanbul area of Thrace are at the highest risk of a new incursion; for Greece it is the area around the Evros river; and for Bulgaria, the area near the border where the selected 21 villages are located.

Parallel Session 1: Workshop on risk-based surveillance in Thrace region

A detailed report on this session is found in **Appendix 2**.

In summary, the working group reviewed existing surveillance activities which could be used to provide additional information to increase confidence in disease freedom, and discussed options for how additional risk-based surveillance activities could add further confidence and support early detection of incursions. This followed on from the September 2012 EuFMD workshop, and built on the discussions held earlier in the Tripartite meeting. Several recommendations were made, including the development of memoranda of understanding between EuFMD and the three Tripartite countries to set out specific actions to further develop risk-based surveillance in the Thrace region.

Parallel Session 2: Working Group on strengthening FMD emergency preparedness in the Balkans

A detailed report on this session is found in **Appendix 3**.

In summary, the working group discussed how to support improved FMD emergency preparedness and cooperation among the Balkan countries. It was generally agreed that the CVOs on the Executive Committee of the EuFMD from the Balkan region, and especially the Member representing Serbia, would be important for developing the action and co-ordination mechanisms. EU members bordering the Western Balkans are interested to participate particularly where cross-border issues, simulation exercises and FMD lab services would be discussed. A recommendation made to elaborate the proposal further in consultation with the Balkan CVOs, ensuring proposed activities are demand-driven and coordinated with other activities on Balkan-region exotic disease control.

Item 4: Other exotic diseases: Reports on surveillance findings for 2012 and plans for 2013 in the common border regions.

This session was chaired by Dr Antonio Petrini (OIE).

Greece

In 2012, bluetongue (BT) outbreaks were reported in Lesvos (3), Samos (12) and several islands of the South Aegean Sea (Dodecanese), namely Rhodes (37, 2 of those in sentinels), Kos (37), Kalymnos (1), and Halki (1). All outbreaks were due to BTV-4 except for 1 case of seroconversion in Rhodes (sentinel bovines) where both BTV-4 and BTV 16 were detected by Real Time PCR (April).

In April there was seroconversion in sentinel Bovines in Rhodes island while in September – October clinical outbreaks occurred in Kos and Rhodes islands and one clinical outbreak in Kalymnos island. In November seroconversion occurred in sentinel Bovines in Rhodes island, along with continuing clinical outbreaks in Kos and Rhodes, clinical outbreaks in Samos and Lesvos islands and

one clinical outbreak in Halki island while on December there were clinical outbreaks in Samos, Lesvos and Rhodes islands.

BT control measures in Greece include restrictive measures in infected holdings, euthanasia-destruction only of animals with very heavy clinical signs that are unlikely to recover, epidemiological investigation of outbreaks as well as establishment and maintenance of restriction zones already in place [Dodecanese prefecture (Rhodes, Kos, etc.), Samos prefecture, Lesvos island]. No vaccination is carried out against BT while only small ruminants destined for immediate slaughter are allowed to exit from the restricted areas to the rest of the country.

BT surveillance includes a network of sentinel bovines covering all restricted areas as well selected areas in the rest of the country, along with a network of vector surveillance (insect traps) in strategically selected prefectures. Random testing of imported animals (intra-community trade) is also carried out as well as investigation and sampling of all suspect cases.

Bulgaria reported on surveillance activities for BT, CSF and rabies. Previous Bulgarian BT outbreaks had been in the border regions to the South-East (1999) and West (2001). In 2012, 4,145 sera had been tested for BT; it is planned to test 4,550 sera in 2013.

An overview of CSF in Bulgaria was given, listing the outbreaks in commercial farms, backyard farms, wild boar and East Balkan pigs from 2002-2009. Current CSF control and eradication activities are structured according to the biosecurity level of the farm, and involve active and passive surveillance measures, surveillance in wild boar, and vaccination along the north and west borders. In 2012, 16,257 sera were tested for CSF and 73,897 clinical examinations conducted.

A breakdown of rabies cases in Bulgarian animals was given from 2002-2012. Only one case, in a fox, was detected in 2012. The Balkan mountains act as a natural barrier as most of the rabies cases during the past few years have been detected in North Bulgaria. Vaccination, using the Lisvulpen vaccine, is conducted in the North of the country, with an additional vaccination campaign along the South-West border in 2012.

Turkey provided an overview of the BT, PPR and sheep and goat pox situation. BT serotypes 4, 9 and 16 have been circulating in the Aegean and Mediterranean regions of Anatolia, but no data was provided. There have been 75 outbreaks of sheep and goat pox in Anatolia in 2012; no cases were detected in Thrace (Fig. 6). Nine of the 75 cases were in Anatolian Canakkale; part of Canakkale province is in Turkish Thrace, so on a provincial-level map of Turkey, this part of Thrace could be thought to have had a case; this misunderstanding was clarified by Dr Bulut. Only 64,684 small ruminants were vaccinated against sheep and goat pox in 2012; vaccination is driven by demand.



Figure 6: Province-level breakdown of the 75 cases of sheep and goat pox in Turkey in 2012. Part of Turkish Thrace is coloured yellow as that area is part of Canakkale province, most of which is in Anatolia. No sheep and goat pox cases have been detected in Turkish Thrace in 2012.

There were 59 reported outbreaks of PPR in Turkey in 2012, including three in Turkish Thrace (Fig. 7). Under the EU/Turkish PPR project, 52 million doses of vaccine have been provided for small ruminants. The reason for the three cases in Thrace was questioned; given that the EU/Turkish project on PPR has vaccinated all small ruminants in Thrace for the past three years, this raises questions about where the new cases came from. Participants pointed out that they represent either disease spread from Anatolia, or they are the result of continuous virus circulation in Thrace as a result of insufficient vaccination, and the Turkish authorities should investigate thoroughly to establish which is the likely cause.

Concern was expressed that the outbreak investigations carried out into these PPR outbreaks in Thrace had not been sufficient, and that more detailed and comprehensive investigations were needed to identify the origins of these cases and detect any further spread in a timely manner.

Addendum: On 28th February, an outbreak of sheep and goat pox was reported in the area of Turkish Thrace near Istanbul, reported to affect 10 sheep. This event highlights the importance of the issue of improved outbreak investigation and follow-up surveillance in Turkish Thrace discussed at the Tripartite meeting. The Turkish participants are encouraged to provide the results of such an investigation for the neighbouring countries and the Meeting Report.

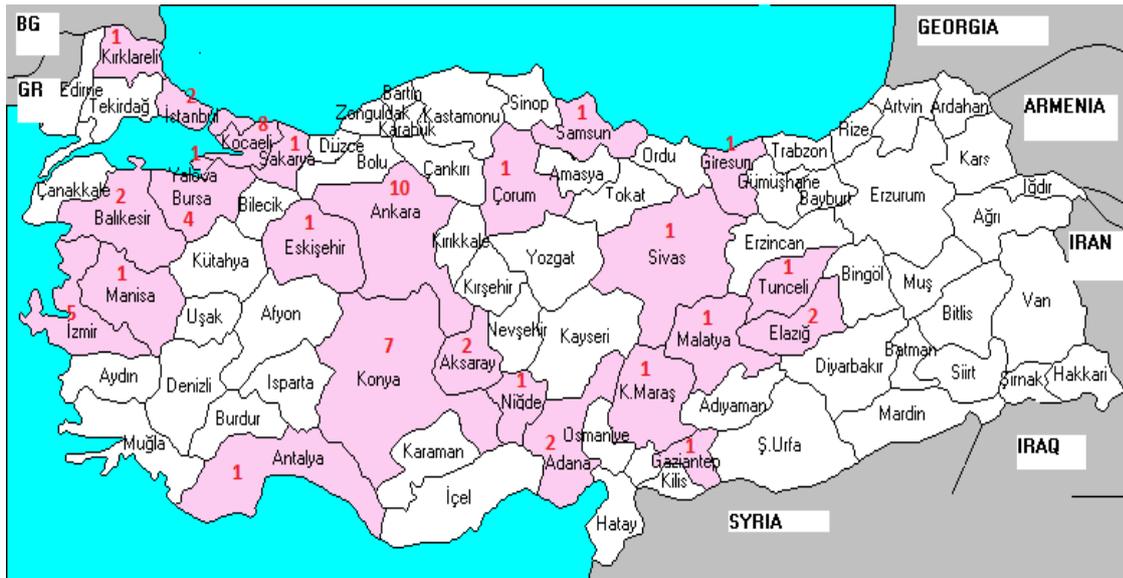


Figure 7: Provincial-level breakdown of the 59 cases of PPR detected in Turkey in 2012, including three cases in Turkish Thrace.

Item 5: Progress on the project on wild boar telemetry and non-invasive sampling.

Dr. Alexandrov presented the interim results of the ongoing EuFMD-funded project on wild boar surveillance, covering telemetry and non-invasive sampling. Telemetry studies were conducted in Strandzha (near the Turkish border) and Tutrakan (near the Romanian border). 14 wild boar have been collared, with excellent results from 10 of these 14. Data is collected in the form of hourly location reports using collars which can remotely report the location using GSM technology.

Work is also progressing on the development of non-invasive sampling methods. It was reported that the Friedrich Loeffler Institute, Germany, which had previously collaborated with this work, has withdrawn from the project and apparently plans to commercialise non-invasive sampling methods. The EuFMD non-invasive sampling project will proceed in any case, but will need to identify methods to evaluate how best to detect FMDV in non-invasive samples from infected animals.

Final discussion:

Dr Petrini suggested that the Agenda of the next Tripartite meeting should include other transboundary animal health problems, including zoonoses such as rabies and West Nile virus.

The Greek and Bulgarian representatives stated that they were satisfied with the functioning of the urgent communication mechanism, following the PPR cases in Turkish Thrace.

Appendix 1 Participants

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Appendix 2: Parallel session 1: Workshop to address the relevant issues in developing risk based FMD surveillance in 2013, for Thrace region

The purpose of this workshop was to address at a technical level how each country can engage with the process of risk-based FMD surveillance in the Thrace region, building on the initial discussions and work carried out at the September 2012 workshop on the subject.

Several activities which could provide additional surveillance information and that are already part of routine surveillance were identified for each country; the goal was to examine ways to capture this information for use in building confidence in disease freedom, and to improve the probability of early disease detection.

The participants were Eleni Chondrokouki, Achilleas Sachpatzidis and Marina Douka (Greece), Tsviatko Alexandrov (Bulgaria), Naci Bulut (Turkey), Eoin Ryan, Gregorio Torres and Dimitrios Dilaveris (EuFMD) and Juan Lubroth (FAO).

The workshop was facilitated by Eoin Ryan (EuFMD).

BULGARIA

Ongoing activities include:

- Serosurveillance performed routinely in the 21 villages regarded as being in the high-risk zone (20 sera per village every month) and accompanying monthly clinical inspections of cattle and pigs.
- Wild boar surveillance activities are ongoing as part of the EuFMD-funded research project into non-invasive sampling of wild boar.
- There is no abattoir in the area.
- The epidemiological unit of choice in this area is the village.

TURKEY

Turkey described several existing activities from which data could be captured for use in improving confidence in disease freedom in Thrace:

- An annual serosurvey is conducted in November.
- Vaccination is conducted biannually, in March/April and in September/October/November. All animals to be vaccinated are first clinically examined, and this information could be captured.
- A brucellosis vaccination campaign is also conducted, with clinical examination of animals.
- The high risk area for introduction of exotic diseases to Turkish Thrace was defined as the part of Thrace near Istanbul, consisting of 115 villages.
- There are abattoirs in this high risk area slaughtering local stock; ante- and post-mortem inspections of animals are performed.
- The epidemiological unit of choice in this area is the village.

GREECE

The high-risk area for exotic disease incursions was defined as being the area around the Evros river. It was acknowledged that some of the Greek islands near Anatolia area also at high risk, but the consequences of an incursion in those islands is far less serious, so they are not included in the area for risk-based surveillance.

Ongoing activities which can contribute to early detection and improved confidence in freedom include:

- Sera collected for routine surveillance purposes for bluetongue, sheep/goat pox (SGP), CSF, brucellosis and SVD, in addition to the sera collected for FMD surveillance. A selection of this sera, ideally those from the Evros region, could be transported to the Greek FMD NRL for serological testing.
- Abattoir surveillance: there is a pig abattoir in the Evros region killing roughly 300 pigs per day; there is also an abattoir in the neighbouring region which kills cattle and sheep from the Evros region. Data on ante- and post-mortem inspection of stock could be collected from these abattoirs.
- The epidemiological unit of choice in this area is the individual holding (farm).

RISK-BASED SEROSURVEILLANCE

The group then discussed how additional risk-based serosurveillance could be designed and conducted.

- For Bulgaria, risk-based serosurveillance is already being conducted (discussed above).
- For Turkey, the suggestion was that an additional 10 sera are randomly sampled from vaccinated cattle in each of the 115 high-risk villages (total 1,150 sera) every three months; this number is similar to that recommended in the September 2012 workshop. The collection of these sera would be accompanied by active clinical surveillance of the samples animals, with the potential to also clinically examine some cohort animals, thereby increasing information gained for little marginal cost.
- For Greece, the suggestion was that 1,500 sera be collected every three months from the Evros region. However, concerns were expressed that, in the initial phase, 1,500 sera may be too high given available laboratory resources. It was thought that a proportion of the 1,500 sera could come from other disease surveillance programs (as mentioned above) and some from the abattoirs mentioned. Further discussions are needed to agree how many sera should be collected by specific active surveillance visits, which could also involve active clinical inspection.

DATA CAPTURE AND ANALYSIS

All three countries agreed that they would share the results of the activities under discussion. The consensus from the tripartite countries was that, for the initial phase at least, the EuFMD secretariat should receive and analyse the relevant data as a service to the countries, to facilitate establishing the process.

The specific modalities of data capture are to be worked out by the secretariat and the country focal points. Initially, this is likely to consist of agreeing a standard data capture format, most likely an excel spreadsheet, to capture data on serology, active clinical inspection, and abattoir inspection.

Ideally, this should fit the input spread sheet for the risk-based disease confidence model developed for EuFMD for this purposes.

OTHER ISSUES DISCUSSED

Other issues discussed included:

- The need for a follow-up workshop, ideally including a data management element, in four months.
- The benefits of developing a web-based portal for entering data from surveillance activities. This is to be explored by the EuFMD secretariat.
- The importance of including other diseases (principally sheep/goat pox and PPR) in the program. Clinical inspection of small ruminants for FMD could also contribute to surveillance for SGP and PPR, while small ruminant sera being tested for FMD antibodies could also be tested for SGP/PPR antibodies.
- The benefits from including private veterinarians in the process. Private vets routinely visit the high risk areas, inspecting and treating stock for other purposes. Information about these visits could be captured and used as a form of negative reporting, adding to confidence in disease freedom. The mechanisms for this require more discussion, but an initial phase could involve a small number of private vets in high-risk areas reporting to the country focal points about villages or farms which they had visited in the preceding time period (weekly?) and where they had not seen clinical evidence of FMD, SGP or PPR.

FUNDING ISSUES

The estimated costs of these activities need to be further worked out. Key areas to address include:

- Laboratory costs: these include the direct costs of addition FMD serological kits (which could possibly be purchased directly by EuFMD) and the indirect costs of obtaining sera collected for other disease surveillance activities from the relevant laboratories and transporting them to the FMD laboratories for testing.
- Active surveillance costs: the costs of veterinary service staff visiting, inspecting and sampling stock in villages/holdings as part of the risk-based active surveillance.
- Data capture costs: It may be necessary to disburse funds in order for veterinary staff to record and submit data from activities such as abattoir ante- and post-mortem inspections, clinical inspections conducted in the course of vaccination campaigns, and recording inspection performed by private vets in the course of their routine activities.
- It was agreed that regular (six-monthly?) joint meetings would be useful to develop this area further, and that such meetings would include training and workshop elements.

ACTION POINTS:

Several action points were agreed for follow-up to start the process:

1. EuFMD secretariat to develop a memorandum of understanding with each country setting out the objectives of the program, the actions to be taken by EuFMD, the actions to be taken by the individual countries, and the framework within which the risk-based surveillance actions will be developed, including additional targeted sampling to further increase confidence in disease freedom.

2. EuFMD secretariat to develop standard data reporting template, in discussions with country focal points.
3. Country focal points to take the lead on capturing data from existing activities, as discussed below.
4. Greece:
 - (a) Capture ante-/post-mortem inspection data from abattoir in Evros (pigs) and near Evros (cattle/sheep). This may initially involve a proportion of stock, or stock slaughtered on one day a week, to get the process started.
 - (b) Identify sera taken for other surveillance purposes, transport to FMD NRL, arrange for FMD serological testing.
 - (c) Determine how many of these sera are from the Evros area; explore whether additional sera could be convenience-sampled from slaughtered stock in abattoirs.
 - (d) Provide cost estimates for these activities.
5. Bulgaria: Provide information being captured and analysed from the ongoing activities in the 21 high risk villages to EuFMD secretariat; this will include serology and clinical inspection. Wild boar activities also to be reported.
6. Turkey:
 - (a) Develop mechanism to capture clinical inspection data on stock in the 115 high-risk villages near Istanbul, which can be obtained during the March/April vaccination campaign. This should also be done for the next brucellosis vaccination campaign.
 - (b) Capture ante-/post-mortem inspection data from at least one abattoir in the high-risk area. This may initially involve a proportion of stock, or stock slaughtered on one day a week, to get the process started.
 - (c) Develop specific plan for conducting the agreed risk-based serosurveillance and clinical inspection in the high-risk area, which will involve 10 blood samples being taken from vaccinated cattle in each of 115 villages.
 - (d) Provide cost estimates for these activities.
7. EuFMD secretariat to provide technical support where needed in data capture and analysis.
8. EuFMD secretariat to organise follow-up tripartite workshop, which will include a data management component, to be held in approximately four months.

Appendix 3: Parallel session 2: Strengthening FMD emergency preparedness for the Balkans

This session was chaired by Dr Ulrich Herzog (President, EuFMD Executive Committee).

The purpose of this session was to discuss the interest and ideas of the State Veterinary services of Balkan countries represented (BG, GR, TUR, Serbia) in how to improve emergency preparedness for FMD, following the recent gap analysis missions undertaken by Pirbright in response to the limited capacity of laboratories in some of the 8 non-EU territories for FMD confirmation.

The progress of the gap ongoing laboratory capacity gap analysis being performed in the West Balkans and Moldova by the World Reference Laboratory, was reviewed by Jeff Hammond. All countries, except Moldova, had received visits and report would be provided to the EuFMD. Keith Sumption indicated that the Secretariat had been in close contact with the EC funded IFA project to strengthen CSF and rabies co-ordinated control in the Western Balkans; this programme had addressed some similar laboratory services issues, and should provide an important lesson for FMD crisis preparation. The consensus emerging is that laboratory strengthening through training and or diagnostic support would not address more fundamental problems where exotic diseases are low on the priorities for support, and significant contingency planning would be more likely when the leading national actors are convinced of the impacts relating to lack of preparedness. The focus therefore should be on emergency preparedness exercises, FMD simulations, and assessing the level of services need in emergencies and how these could be provided (national and bilateral emergency agreements).

This wider support program would be more likely to achieve its goal of building capacity to detect and control FMD if it addressed key areas identified by the countries themselves; in other words, a demand-driven process, and was coordinated with other ongoing EU-funded projects addressing other transboundary animal diseases (specifically rabies and CSF).

The initial proposal for an FMD emergency preparedness network was provided by the EuFMD secretariat but not discussed in detail. The basic idea is support a process that will ensure attention to contingency planning encompassing:

- A laboratory support sub-network covering:
 - (a) Regular network meetings and at least one animator
 - (b) Building laboratory capacity to detect FMD
 - (c) Supporting demand-driven solutions to issues relating to laboratory diagnosis of FMD.
 - (d) Working towards a goal of each country having the capacity to have a sample diagnosed as having FMD with 24 hours, although this may not necessarily involve laboratory diagnosis within the country itself.

- An epidemiology and contingency planning sub-network covering:
 - (a) Regular network meetings and at least one animator.
 - (b) Supporting the development of contingency plans for FMD.
 - (c) Building epidemiological capacity for FMD control, including a modelling element and the use of decision support tools where needed.

- (d) Assisting the holding of cross-border simulation exercises for FMD.
- (e) Supporting demand-driven solutions to issues arising.

The scope of the FMD emergency preparedness network was discussed; Serbia being the only Western Balkan country present, but considered the other West Balkan states would be interested to participate although other issues could be higher on the Agenda for immediate action. Moldova was suggested to be included, being a neighbour to Romania, and the EU neighbours were interested to know the cycle of meetings and may wish to participate in some, there being few current opportunities to meet the non-EU neighbours. It was agreed that not all activities at sub-network level would require the involvement of all parties. Some network members (EU members, for instance) may not require the level of support of others, and some may offer advanced facilities, for example Greece has the only laboratory licensed to handle live FMDV in the area.

The proposal was discussed and approved in general terms. The consensus was that further CVO-level discussions should be held to ensure the candidate members were interested and to offer them the opportunity to comment further. Potential opportunities for this will be a West Balkan CVO meeting to be held in Brussels on 7th March (organised by TAIEX), at the EuFMD general session in April, and the OIE General Assembly in May. It was noted that Serbia has offered to host a workshop on FMD modelling, contingency planning and epidemiology, and this generous gesture was gratefully acknowledged by the group.