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

Istanbul, Turkey

22nd November 2013
Contents
Introduction ............................................................................................................................................. 3
Relating to FMD ....................................................................................................................................... 3
Conclusions ......................................................................................................................................... 3
Recommendations .............................................................................................................................. 4
Relating to other exotic viral ruminant diseases ..................................................................................... 4
Conclusions ......................................................................................................................................... 4
Recommendations .............................................................................................................................. 5
Report of the Tripartite Meeting ............................................................................................................. 6
Item 1: Adoption of the agenda .......................................................................................................... 6
Item 2: Review of the THRACE risk-based surveillance program ........................................................ 6
Item 3: FMD situation and surveillance in the Tripartite region ......................................................... 7
  Turkey (Thrace region) .................................................................................................................... 7
  Turkey (Anatolia) ............................................................................................................................ 8
  Bulgaria ......................................................................................................................................... 10
  Greece ........................................................................................................................................... 10
Item 4: Sheep and goat pox situation and surveillance in the Tripartite region ..................................... 11
  Bulgaria ......................................................................................................................................... 11
  Greece ........................................................................................................................................... 11
  Turkey ........................................................................................................................................... 11
Item 5: Other exotic diseases (PPR, BT, CSF): reporting on surveillance findings in 2013, plans for 2014 in common border regions ...................................................................................................... 12
Item 6: Future developments under the Thrace risk-based surveillance project .................................... 13
Final discussion and conclusions ....................................................................................................... 14
Appendix 1: List of participants ........................................................................................................ 15
Appendix 2: Report of the technical meeting for national focal points on the THRACE risk-based surveillance project ........................................................................................................................... 16
  Introduction: ..................................................................................................................................... 16
  Participants: ....................................................................................................................................... 16
  Item A: Review of progress under program and current state of web-based data entry and analysis ..................................................................................................................................................... 16
  Item B: Update on programme activities from each country, including data collected .................... 17
  Item C: Proposed developments within the THRACE RBS programme ........................................... 18
  Item D: Agreed suggestions to be put to the Tripartite meeting ....................................................... 19
Introduction

A meeting of the FAO EuFMD/EC/OIE Tripartite on the Control of FMD and other Exotic Diseases in the Thrace region of Turkey, Greece and Bulgaria was held in Istanbul, Turkey, on 22nd November 2013, with the participation of senior representatives from the State Veterinary Services of Bulgaria, Greece and Turkey, and from the EuFMD, 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 Foot and Mouth Disease (FMD). Since the FMD surveillance can be combined with the surveillance for other major contagious diseases and in coherence with the component 3 “Prevention and control of other major diseases of livestock” of the FMD Global Control Strategy, the review of other exotic diseases in the common border regions of Greece, Bulgaria and Turkey in 2013, and planned for 2014 could also be proposed;

- To discuss the progress of the Thrace risk-based surveillance project (component 1.3 of the EuFMD work programme).

The Tripartite meeting was preceded by a technical meeting on the 21st November for national focal points for the THRACE (Transboundary High Risk Area Coordinated Epidemi-surveillance) risk-based surveillance program and EuFMD secretariat staff, covering implementation and development of this EuFMD work component. The report of this technical meeting is given in Appendix 2.

The presentations from the meeting are available on the EuFMD website (http://www.fao.org/ag/againfo/commissions/eufmd/commissions/eufmd-home/reports/regional-fmd-meetings/en/)

Relating to FMD

Conclusions

1. The tripartite group acknowledged the contribution of the EuFMD Thrace risk-based surveillance program and endorsed the suggested plans to develop this further, as described in Component 1.3 of the EuFMD workplan.

2. The new ten year Turkish FMD control plan, including a national risk based strategic plan developed with EuFMD, was welcomed and its significance recognized by the Tripartite group.

3. The Sap Institute has significantly expanded its vaccine production capacity and is now producing vaccines at a standard potency of 6 PD50; the effects of this change have not been analyzed but it is a very positive development.

4. Data from control measures relating to pre-movement NSP testing and quarantine of Anatolian animals moving to the Istanbul metropolitan area for Kurban may provide useful information on FMD dynamics in Turkey.
Recommendations

1. Turkey is requested to provide the data on testing of animal groups as part of the *Kurban* movement control system, including the number and percentage of batches that were tested and rejected; and overall number and percentage of animals that tested positive.

2. To consider if the risk-based surveillance system could replace the annual survey for freedom that is currently used for retention of OIE freedom. If it could be demonstrated that the resultant confidence level in disease freedom is higher than that gained by an annual survey, this might be useful to pursue.

3. Consider whether the newly established Turkish FMD epidemiological unit could look at the risk factors pertaining to Asia1 outbreaks and how they differ from those relating to types A and O.

4. Turkey is requested to publish/release the national risk-based strategic plan for others to see, and the operational instructions for 2014.

5. EuFMD to take action to follow up the specific recommendations from the technical session on the Thrace risk-based surveillance project.

6. Greece and Bulgaria wish to use the risk-based surveillance excel models for exploring a mechanism to change the monthly risk parameter based on changes observed in FMD patterns in Anatolia or other disease events; EuFMD to jointly develop a system for agreeing when the risk has increased.

Relating to other exotic viral ruminant diseases

Conclusions

1. The ongoing sheep and goat pox (SGP) outbreaks in Greece are costly and control efforts are resource-intensive; the specific ways in which the multiple incursions occurred have not been identified. The SGP outbreaks in Bulgaria have occurred near the Turkish and Greek borders, but the mechanisms of spread have not been identified.

2. There have been 38 SGP outbreaks in Turkish Thrace in 2013; data on outbreaks which occurred in June and July were not entered in ADNS until August.

3. One outbreak of PPR occurred in Turkish Thrace and 15 outbreaks in Anatolia in 2013, a sharp reduction from previous years.

4. Clinical surveillance on small ruminants in Thrace region could provide useful surveillance data related to SGP, PPR and FMD, if captured and analyzed in the context of the Thrace risk based surveillance program, and positive results reported promptly in ADNS. This is very much in line with the OIE FAO GF TADs Global Control Strategy which includes one component entitled “Prevention and control of other major diseases of livestock” which addresses the possibilities and interest of combining measures against other diseases than FMD.
**Recommendations**

1. That Turkey develop a surveillance plan for SGP under the risk based surveillance program. EuFMD should involve one of the three OIE reference centers for SGP (Pirbright) in this process.

2. Turkey should enter SGP and PPR outbreaks into ADNS within 24 hours, and inform Greece and Bulgaria directly if there are confirmed cases in Thrace.

3. That Turkey should conduct surveillance for evidence of PPR freedom in context of the Thrace risk-based surveillance program.

4. Turkey should record data on SGP vaccination use in Turkish Thrace, including the dates of vaccination campaigns, the locations, and the numbers (absolute and percentages) of stock vaccinated in each province. This data should then be summarized and shared through the tripartite mechanism.

5. The reference centers in the EU and Turkey, in cooperation with the EuFMD, OIE and FAO (GF TADs Working Groups on FMD and on PPR), should assess the evidence for whether vaccines for SGP, PPR and FMD can be administered to animals at the same time. If gaps in evidence are found, this should be highlighted as an area for further research.
Report of the Tripartite Meeting

Item 1: Adoption of the agenda

Chair by Ulrich Herzog.

Dr Nahit Yazıcıoğlu opened the meeting and welcomed the participants. He emphasized the importance to Turkey of the status of Thrace of FMD free with vaccination, while recognizing that FMD control in Turkey must also involve activities in other regions to reduce and mitigate the risks. Risk assessment is an essential part of this, for instance in identifying the importance of control actions in Eastern Turkey. A national risk-based strategic plan has now been developed for Turkey with assistance from EuFMD, linked to a ten year national FMD strategy. He noted that it is difficult for a single country to take action on FMD control alone; international and regional coordination are essential components for effective FMD control.

The agenda was adopted without changes.

Item 2: Review of the THRACE risk-based surveillance program

Chair by Ulrich Herzog.

The EuFMD mandate covers FMD issues but in some occasions the FMD surveillance can be combined with the surveillance for other major contagious diseases. This is very much in coherence with the component 3 “Prevention and control of other major diseases of livestock” of the OIE FAO FMD Global Control Strategy”. Combining FMD control activities including surveillance with other major contagious diseases activities may have several advantages such as economies of scale or better crossed sensibilization of all stakeholders. As discussed during the last 86th EuFMD Executive Committee in Lyon, the EU representative explained that if a disease like SGP if present in Thrace, is important to the EU to be urgently informed. Explanation regarding the incursion of such diseases from Anatolia indicates conditions for FMD incursions or other infections may exist. The Tripartite (TPT) historically looked at some other major diseases as well since there needs to be a functioning surveillance system not only for FMD but for the major TADS that the group agrees upon. This does not mean that EuFMD will work outside the region on other diseases.

Eoin Ryan presented a summary of the activities undertaken since the last Tripartite meeting (February 2013) under the Thrace risk-based surveillance program. This program is now managed as component 1.3 of the EuFMD workplan, which was approved at the 86th Executive Committee meeting in October 2013.

At the first joint meeting related to the program (April 2013, Rome), the participating countries agreed the outline plan and nominated one national focal point each. Over the following period, EuFMD responded to needs identified by the focal points in order to provide a demand-driven service. Program activities began in May 2013, with the funding of a workshop in Istanbul for 48 vets from Turkish Thrace on the subject of implementing risk-based surveillance. This was followed by the procurement of laboratory reagents for FMD diagnosis for the national reference labs in each of the three countries (tailored according to particular needs) and the recruitment of two national consultants for Greece and five for Bulgaria, again in response to identified national needs.
Surveillance activities, both serological and clinical, have been conducted in each of the three countries since June, following the risk-based surveillance plan agreed in April.

A web-based method of entering surveillance data was set up by EuFMD, such that Greece and Bulgaria have separate databases accessible only to the relevant country and the Secretariat. The data entered in this database can be used to estimate the level of confidence in disease freedom, using the model developed for EuFMD.

Program activities have been reported by Bulgaria and Greece to have significantly contributed to SGP detection/control, thus fulfilling part of its original aims.

The program can now be considered to be operational, with further development work to be done as planned in the EuFMD component 1.3 workplan, in consultation with the national focal points and the EC.

**Item 3: FMD situation and surveillance in the Tripartite region**

*Chaired by Keith Sumption*

**Turkey (Thrace region)**

Naci Bulut delivered a presentation covering surveillance and control activities in Turkish Thrace, including activities related to the risk-based surveillance project.

Under the vaccination program, cattle are vaccinated twice a year and small ruminants once a year. 500,000 Merial trivalent vaccines have been delivered for the autumn campaign for cattle. Small ruminants had received their annual vaccination in spring.

Animal movements from Anatolia to Thrace are strictly controlled by checkpoints at bridges and harbors. Annual serosurveillance is carried out; for 2013, 12,693 sera (3,648 from LR and 9,055 from SR) were collected from 194 villages during October and November. The results of the serological analysis are not yet available, but the intention is to provide the results to OIE by mid-December.

Under the risk-based surveillance program, two surveillance cycles have been carried out. In the first cycle (July-September) 1,259 sera were collected from cattle, sheep, goat and water buffalo (different number of sera from different species) in 115 villages located in Istanbul area. Two weak NSP positives were detected, collected from Akşemsettin (Eyüp) and Ömerli (Arnavutköy); these were subjected to retesting and follow up investigations. In total 172 sera, 153 from Ömerli (119 from cattle and 34 from sheep) and 19 from Akşemsettin respectively were collected and tested. In addition serology, epidemiological inquiries were also carried out. No evidence to support virus circulation in either village was found. In addition to serosurveillance, clinical inspections were conducted on 6,900 cattle in the 119 high-risk villages, and another 11,933 inspections were conducted on cattle in 198 villages in the other parts (outside Istanbul) of Turkish Thrace.

Under the second cycle (which is still ongoing) 1,304 sera from 119 villages have been collected so far. This cycle should be complete by mid-December.

The issue of control of animal movements during the *Kurban* festival was discussed. Control measures are reportedly those outlined in the OIE chapter 8.5.32:

- Nominee Animals are identified six months before the festival;
• Active clinical surveillance applied by regular visits;
• One month quarantine applied;
• NSP testing based on population applied;
• Allowed only two weeks before to specific temporary animal markets;
• Not allowed moved to other place, slaughtered attached temporary slaughterhouses.

The modalities of the population-based NSP testing were discussed; 25,000 NSP tests were done for this purpose; 30% of batches of animals were rejected (due to at least one of the group testing positive). If the batch tests positive, the owner is told and this can avoid the cost of putting the animals in quarantine.

Turkey was requested to provide more detailed information on the numbers and percentages of animals and batches which tested NSP positive. Action point: Turkey.

In response to a request from the OIE representative, it was confirmed that no wildlife surveillance is conducted for FMD in Turkish Thrace.

**Turkey (Anatolia)**

Naci Bulut presented the FMD situation and control policies in Anatolia.

In 2013, there have been 962 FMD outbreaks: 388 type O, 368 type A, 46 Asia1 and the rest are untyped. The circulating lineages are O PanAsia2 (Agr12, Gum13 and Far09 sublineages), A Iran05 (Ams12, Sis10 and Bab12) and Asia1 Sindh08. After a peak in the number of outbreaks in May, the monthly totals have decreased month on month. Based on the phylogenetic analysis of circulating viruses, no evidence has been found for any new incursions into Anatolia this year. It is thought that this may relate in part to the changing animal trade patterns in 2013, whereby animals are moving from Syria to Iraq and from Turkey to Iran, driven by price differentials. Different distribution patterns were observed for Asia1 than for A and O outbreaks.

The vaccination policy for Anatolia was described. For the spring 2013 campaign, large ruminants (> two months old) were vaccinated twice a year in western and central Anatolia (see figure 1) using 5 million trivalent doses. In the other areas (the east and south-east), there is ring vaccination in the surveillance zone around outbreaks using 1 million doses of trivalent vaccine, and targeted vaccination in hotspots where extended ring vaccination against type A is considered necessary, using monovalent type A vaccine. The trivalent vaccine used in Anatolia contains O Tur07, A Tur06 and Asia1 Tur11.

The autumn vaccination campaign has started, with three phases:

1. North-East Anatolia and Thrace, started 15 September.
2. South, South-East and Central Anatolia, started 1 October, using bivalent A and O vaccine.
3. West Anatolia: started 15 November, using bivalent A and O vaccine.

10,324,250 doses vaccine have been delivered for Anatolia, and another 500,000 doses for Thrace. 2,447,000 doses were trivalent (1,947,000 and 500,000 (for North Eastern Anatolia and Thrace respectively) and 8,377,250 doses bivalent.
Tripartite Group Meeting on FMD and other exotic diseases in the Southern Balkans Nov 2013

Figure 1: Vaccination policy in Spring 2013 in Anatolia. Green areas have twice-yearly vaccination of large ruminants. White areas have reactive ring vaccination.

Figure 2: Vaccination policy in Autumn 2013 in Anatolia. Green: trivalent, phase 1. Blue: bivalent, phase 2. Yellow: bivalent, phase 3.

The future direction of the FMD control policy in Turkey was described. Turkey has adopted a ten year plan for FMD control, including a national risk-based strategic plan developed with EuFMD. The assistance of EuFMD was regarded as very useful.

The goal of the RBSP is to contribute to the development of the livestock sector by achieving OIE status of FMD free with vaccination by 2023. The strategic objectives (2014-2018) are:

- Maintain disease freedom with vaccination in Thrace
- Complete PCP Stage 2 in Marmara, Aegean and Black Sea regions and prepare to enter PCP Stage 3 by 2018 (plan for eradication of FMD)
- Reduce the impact of FMD through progression in PCP Stage 2 in the rest of the country.
Specific elements of the RBSP described were:

Booster vaccination for primo-vaccinated animals will be implemented in high risk area (identified in the plan) and risk exposure area in next campaign:

- To better monitoring of the RBSP and risk analysis, a epidemiology and monitoring unit will be established in different levels of the veterinary service: Headquarter; Institutes and provincial directorates;
- To the extent permitted by the national budget, all activities and studies will be initiated by 2014 for development of the infrastructures in order to apply the RBSP;
- Some research and field studies identified in RBSP will be conducted for more effective application;
- Technical assistance and collaboration have been initiated with EuFMD for implementing of the RBSP, particularly for creating Epi/Monitoring Unit;
- Turkey is very keen in establishing an early warning system in the West Eurasia region as a part of component objective of the RBSP. Expected support from International organizations for this purpose.

The Sap Institute has significantly increased its vaccination production capacity recently; it can now produce 40 million trivalent doses per year, a threefold increase in capacity. In addition, vaccines are now produced at 6 PD50 potency, whereas previously they had been 3 PD50.

**Bulgaria**

Tsviatko Alexandrov described the FMD surveillance activities ongoing in Bulgaria; these are conducted under the EuFMD risk-based surveillance project and relate to clinical surveillance and serology in the 21 villages identified as being in the high-risk area, with the work carried out by five part-time national consultants. It was stated that the program activities made a significant contribution to the early detection of SGP in Bulgaria.

Under the Thrace program, 3,859 serological samples have been taken from small ruminants and 1,697 clinical examinations of cattle performed, in the designated high risk area. In addition, 116 wild boar have been tested serologically and virologically for FMD in 2013.

It was considered that part of the changing FMD risk for Bulgaria relates to refugee movements from Turkish Thrace into Bulgaria.

**Greece**

Dimitrios Dilaveris described FMD surveillance activities in Greece. These are in two parts: one part relates to the EuFMD risk-based surveillance project in Evros, the other to serology performed on samples collected for other purposes from other regions of Greece.

In 2013 there were no clinical suspect cases reported in Greece. Serological tests were performed on 1,164 cattle sera, 2,329 small ruminant sera (2,122 from Evros, 207 from elsewhere) and 4 pig sera. 1,577 clinical inspections were conducted on cattle in Evros.

The EuFMD excel model to estimate confidence in disease freedom was used for the Greek data, showing an increase in confidence in freedom as the program developed.
Item 4: Sheep and goat pox situation and surveillance in the Tripartite region

Chaired by Stanislav Ralchev.

Bulgaria

Tsviatko Alexandrov described the SGP situation in Bulgaria. SGP was detected in Bulgaria for the first time since 1996 in September 2013, in Stoilovo, Burgas. Seven sheep out of a susceptible population of 38 sheep and 74 goats were found to have clinical signs; three were sampled and tested positive by PCR. This was followed by two more outbreaks in October, both in Kochan. In all three cases, control measures included stamping out of susceptible stock in the affected epidemiological units. The routes of infection are not known.

Control measures in the protection and surveillance zones include a movement standstill, clinical examinations on daily basis, and ban of movement of susceptible animals and products. In the south border regions of Burgas, Yambol, Haskovo, Kardjaly, Smolyan and Blagoevgrad the control measures are regular clinical examinations, a ban of susceptible animal movements, except for immediate slaughter, a ban of markets for sheep and goats and raised information campaigns and awareness.

Bulgaria expressed its gratitude to Greece for the prompt and active communications regarding the SGP outbreaks in Evros and the positive approach to ongoing coordination. The importance of the EuFMD Thrace project was also acknowledged, as the ongoing work of the project national consultants had contributed significantly to the early detection of SGP.

Greece

Dimitrios Dilaveris described the SGP situation in Greece. Since the first outbreak this year was detected in north Evros region in August, there have been multiple incursions into Evros, Thesalon and Lesvos; there have now been 47 outbreaks. Strict control measures have been enforced in the affected areas.

Joint coordination meetings on SGP were held between Greece and Bulgaria on 17 & 18 October.

It was reported that secondary outbreaks have been observed in 10km zones up to 45 days after the original outbreak; this is in contrast to the EU requirements for restrictions only up to 21 days after the original outbreak. It was speculated that in the case of repeated year-on-year outbreaks in past SGP epidemics in central Greece, some form of over-wintering could have taken place. However, it may also be the case that the risk factors which led to a farm being infected once may still be present subsequently, so repeated introductions could also explain these observations.

Greece expressed its gratitude to Bulgaria for the prompt communication regarding the Bulgarian outbreak in Kochan (near the Greek border) and for the ongoing cooperation in this regard.

Turkey

Cihangir Gümüştepe presented the situation regarding SGP in Turkish Thrace. Throughout Turkey, there has been an increase in SGP cases over the past years: in 2010 there were 13 outbreaks, in 2011 34, in 2012 74 and in 2013 so far there have been 148 (figures refer to all Turkey). In Turkish Thrace there have been 38 SGP outbreaks in 2013.

Control measures for SGP include movement restrictions, quarantine, ring vaccination, and cleaning and disinfection on outbreak areas. In 2013, 583,215 small ruminants were vaccinated throughout
Thrace (note: there are 800,000 small ruminants in Turkish Thrace); this started as reactive ring vaccination, but in August a decision was taken to move towards mass vaccination. In 2014, all small ruminants in Thrace will be vaccinated.

The EC expressed concern about the delays in entering data relating to SGP outbreaks in Turkish Thrace into the ADNS system; information relating to outbreaks in June and July was only entered after the first Greek cases in August.

Bulgaria emphasized the need for prompt notification on disease outbreaks, and requested more effective communication in this regard.

Greece requested that it be notified of the vaccination schedule for SGP in Turkish Thrace.

Two technical questions were posed: (Action points: EuFMD)

(a) Is there a way to distinguish outbreaks caused by live vaccines from outbreaks caused by wild virus?
(b) Can SGP and PPR (and FMD) vaccines be co-administered?

The representatives of Turkey offered to provide their SGP vaccine strain (live vaccine) to the SGP OIE reference laboratory (Pirbright Laboratory, UK) for molecular analysis and comparison with the SGP strains from the current SGP epidemics in Greece and Bulgaria.

Item 5: Other exotic diseases (PPR, BT, CSF): reporting on surveillance findings in 2013, plans for 2014 in common border regions
Chaired by Alf Füssel.

Turkey:
Nahit Yazıcıoğlu described the situation for PPR and BT in Turkey. PPR is controlled by routine control measures in case of disease outbreak (movement restrictions, quarantine, ring vaccination, sampling, diagnosis). An EU-funded project on the tagging and vaccinating of sheep and goats was started in 2010; 30 million small ruminants have now been ear tagged and registered. 9.5 million lambs and kids have been vaccinated for PPR in 2013; this will continue next year. Vaccination coverage in Turkish Thrace was reported to be over 90%.

16 PPR outbreaks have been recorded in Turkey in 2013 (down from 218 in 2011), including one in Thrace, in Kirklareli.

It was observed by the EC that full vaccination coverage has not been achieved under this project, as had been originally planned.

Regarding post-vaccination monitoring, a serological survey to check immunity levels was suggested; this could also link to a survey on seroconversion in cattle, which seroconvert at roughly 20% the rate of small ruminants if virus is circulating.
Bluetongue virus serotypes 4, 9 and 16 are circulating in Turkey (Aegean and Mediterranean regions). There is a suspicion that other serotypes may be circulating; results of virus characterization are pending.

The use of live vaccines near Lesvos or Thrace was questioned by the EC, since it may pose a risk of spread.

Given the fact that currently live BT-4 vaccines are being used in Turkey, and Greece experienced outbreaks of the same serotype in 2012, the representatives of Turkey offered to provide their BTV – 4 live vaccine strain to the EU BT reference laboratory (Pirbright Laboratory, UK) for molecular analysis and comparison with the BTV – 4 field strains detected in 2012 in Greece.

**Greece**

Dimitrios Dilaveris described the situation in Greece. Greece has been free of CSF since 1985, but still conducts serosurveillance, testing 3,023 porcine sera in 2013. Nine samples from small ruminants have been tested for PPR as part of differential testing in the context of the SGP outbreaks, all negative.

Since 2008, Greece has had outbreaks of BTV 1, 4, 8 and 16, with BTV 16 the most common. All these outbreaks were in islands in the eastern Aegean Sea, close to Anatolia. In 2013, there have been no BT outbreaks detected.

**Bulgaria**

Tsviatko Alexandrov described the situation in Bulgaria. For PPR, clinical surveillance is carried out. For BT, serosurveillance is carried out in cattle and goats; in 2013, 3,315 sera were tested, all negative.

The last CSF outbreak in pigs in Bulgaria was in 2008, with 8 outbreaks detected in wild boar in 2009; a CSF control program is continuing. Vaccination is limited to the north and west border areas. In 2013, 4,248 sera were tested and 18,204 clinical examinations conducted for CSF, all negative.

**Item 6: Future developments under the Thrace risk-based surveillance project**

*Chairied by Ulrich Herzog.*

Eoin Ryan summarized the discussions from the technical meeting held the previous day and demonstrated how the data collected from project activities can be entered in the online database via a sharepoint, then used as inputs into a Bayesian model to estimate confidence in disease freedom. The key points from the technical meeting regarding future developments were:

- The program activities should be expanded to cover SGP and PPR surveillance; these are already specifically mentioned in the letter from DG SANCO authorizing the use of EC funds for enhanced surveillance in Thrace region, but thus far only FMD surveillance activities have been specifically planned.
- The draft Memorandum of Understanding (MoU) should be discussed with a view towards updating the text to make it simpler and more flexible; this revised version can be drafted by the EuFMD and circulated for discussion prior to signing.
- The national focal points requested a training workshop be provided by EuFMD on data management and mapping techniques.
The tripartite agreed to the suggestion to expand the activities to cover SGP and PPR, and also agreed to the idea of revising the draft MoU so that it is less specific and more descriptive of the agreed workplan for component 1.3. The revised text should be shared with the Chairman of the EuFMD Standing Technical Committee for review. **Action points: EuFMD**

Greece made a request for more funds to be allocated to the Thrace project (component 1.3). The Chairmen of the Executive Committee pointed out that discussions regarding budget allocations are a matter for the Executive Committee, and that revising the arrangements only a few weeks after they have been approved (at the 86th Executive Committee meeting in October) is probably not necessary at the present time. Proposals to change the budget should be received before the next Executive Committee meeting in April.

**Final discussion and conclusions**

*Chaired by Ulrich Herzog*

Bulgaria offered to host the next tripartite meeting; this could be in 12 months, as it may be possible to hold one in April back-to-back with the Executive Committee meeting. The possibility was raised of a teleconference before then. **Action point: EuFMD**

The EC noted the positive way in which the tripartite arrangement has been working and called on the participants to ensure that the opportunity for communication which it presents is fully used.

Turkey was congratulated on its ten year FMD plan; the significance of this development was appreciated by all.
Appendix 1: List of participants

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<th>Name</th>
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<td>Marko Potocnik</td>
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Appendix 2: Report of the technical meeting for national focal points on the THRACE risk-based surveillance project

Introduction:
The THRACE risk-based surveillance project was developed to provide confidence in disease freedom and to improve the capacity for early disease detection in the Thrace region. A meeting was held in Rome in April 2013, during the 40th EuFMD General Session, to agree the program, attended by representatives from the three countries, the EC and EuFMD. The program activities were started in May 2013 and developed over the following months.

This meeting was the first full technical meeting of all participants since the program activities began. The objectives were to review the progress to date and the activities carried out by each country under the program, and to discuss future progress and developments.

The presentations from the meeting are available on the EuFMD website (http://www.fao.org/ag/againfo/commissions/eufmd/commissions/eufmd-home/reports/regional-fmd-meetings/en/).

Participants:

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Item A: Review of progress under program and current state of web-based data entry and analysis

Marko Potocnik reviewed progress since May under the project. Risk based surveillance activities have been carried out in all three countries, with data from Greece and Bulgaria entered into the web-based database using a dedicated sharepoint. National consultants have been recruited in Greece and Bulgaria; a workshop for vets in Turkish Thrace has been held in Istanbul; and laboratory supplies have been provided to each country.

The main issues with data entry which have arisen so far relate to incorrect data entered, missing data (particularly clinical surveillance data), and not entering the herd size.

Problems identified by the national focal points were:

(a) Difficulties with obtaining the correct coordinates for field data in Turkish Thrace
(b) Difficulties accessing the data stored in the online database; this is accessible by the national focal points, but it had not been made sufficiently clear to them that they had access, nor the pathway by which it can be downloaded.
(c) The lack of a mapping capacity. The geocoordinates are collected for each surveillance point, but thus far these have not been used to generate maps.

Web-based data entry using SharePoint has been developed and implemented for Bulgaria and Greece; a tailored version should also be developed for Turkey, based on the needs identified by the national focal point. **Action point: Turkey and EuFMD jointly**

**Item B: Update on programme activities from each country, including data collected**

**Greece:**
The Greek activities under the program have been affected by the outbreak of SGP in Evros. Greece has two national consultants under the project: one covering field surveillance activities, and one covering laboratory activities. Both have been involved in supporting the SGP control activities, in addition to the FMD activities, through risk-based surveillance in the field and testing additional samples in the lab; these activities are in addition to the activities carried out by the Greek veterinary services to control SGP.

In the first surveillance cycle (June to September), 1,299 serological samples were taken from 227 epidemiological units; clinical examinations were performed on 1,095 cattle in 85 epidemiological units. During the second cycle (up to early November) 823 sera from 169 units were taken, and 482 clinical examinations from 36 holdings were performed.

Issues raised were:

(a) The need to generate summary statistical reports using the surveillance data; it would be very helpful to disease managers if EuFMD could develop a template for this and regularly (weekly?) provide such reports. **Action point: EuFMD**

(b) The need to evaluate the effect of substituting serological surveillance for clinical surveillance. This could be done through using the Angus Cameron model and seeing how the level of confidence is affected by having less clinical surveillance data and more serological data; this would provide a useful estimate of the effect. The EuFMD should pursue this. **Action point: EuFMD**

(c) The need to revise the data entry system to incorporate clinical surveillance of small ruminants, so that the data can be used for SGP and PPR, as well as FMD. **Action point: EuFMD**

(d) The need to ensure Greece and Bulgaria (as EU members) clearly state that the program activities would not take place without the program and that there is no duplication with surveillance/disease control activities which are eligible for EU financial support under the EU veterinary fund entitlements; EuFMD to notify EC of any new program activities to ensure full clarity.

(e) A request was made by Greece for increased funding for the program; the EC view was that was not sufficiently justified at this point, given the program has only recently started and that there is a co-funding arrangement in place covering SGP control in Greece.

**Bulgaria:**
Bulgarian activities focus on clinical surveillance and serology in the 21 villages identified as being in the high-risk area, and are carried out by five part-time national consultants. It was stated that the
program activities made a significant contribution to the early detection of SGP in Bulgaria; this contribution by the program has been acknowledged by Bulgaria at SCOFCAH.

Under the Thrace program, 3,859 serological samples have been taken from small ruminants and 1,697 clinical examinations of cattle performed, in the designated high risk area. In addition, 116 wild boar have been tested serologically and virologically for FMD in 2013.

It was suggested that the check-list data for animal movements in the cordon sanitaire could be added to the database as an additional source of information, to increase confidence in disease freedom. **Action point: Bulgaria and EuFMD jointly**

**Turkey:**

During the July-September surveillance cycle, 1,259 sera were collected from cattle, sheep, goat and water buffalo (different number of sera from different species) in 119 villages located in the high-risk Istanbul area in the period between July and August. Two of these sera were weakly NSP positive; these results were followed up with epidemiological investigations and sampling of the villages; no evidence of virus circulation was found. 6900 cattle were clinically examined in the Istanbul area (119 villages); another 11,933 cattle were clinically examined in 198 villages from Edirne and Tekirdağ.

During the next surveillance cycle (October-December) 1,304 sera have been received from 119 villages in the Istanbul area. This surveillance work is ongoing, and is expected to finish in mid-December.

In addition, details of the annual Turkish Thrace serosurveillance to substantiate freedom were provided: 12,693 sera (3648 from LR and 9,055 from SR) were collected from 194 villages; the results have not yet been analysed.

Under the project, a workshop was held in May in Istanbul for 48 vets from Turkish Thrace, to introduce them to the program and the requirements for implementing risk-based surveillance.

It was requested that the EuFMD data entry system be amended to allow classification of water buffalo; these are currently entered as cattle as there is no water buffalo option. The data entry system should also be modified to include all the villages in Turkish Thrace, so that data collected from those villages outside the Istanbul area can be entered. **Action points: EuFMD.**

No wildlife surveillance is included in the current program, due to the costs and logistical problems associated with shooting wild boar in Turkish Thrace.

**Item C: Proposed developments within the THRACE RBS programme**

(a) Including SGP and PPR in the program.

This was agreed in principle by all participants as something technically feasible and desirable. A key point is that if vets are checking animals for FMD or blood testing sheep and goats, they are therefore in a position to see if these animals have SGP or PPR clinical signs (acknowledging the different sensitivities of clinical examination for detection of the three diseases). The goal should be to capture this information as far as possible, so that it can add to the calculations of confidence in disease freedom.

Greece and Bulgaria are already collecting SGP clinical surveillance data, but the current Thrace project data entry system has not yet been adapted to enable entry of this data.
Turkey is in favour of adding clinical surveillance for SGP and PPR to the program in principle, but the technical details must be worked out and it will require a specific component of the program to identify the objectives and activities. Currently, 9,000 small ruminant sera from 155 villages are collected for the annual serosurveillance, meaning that these sheep and goats are all looked at by a vet during the blood sampling; this data could be captured and used if a suitable system is developed. Similarly, in Turkish Thrace there should be clear records available of which animals were vaccinated and when; this data could also be useful.

(b) A proposal was made by Greece to introduce a system of an “automatic transboundary response” whereby the three countries agree that an outbreak of FMD, SGP or PPR in one border area should prompt immediate detailed surveillance measures across the border in the neighbouring territory. The consensus was that existing measures already prompt a response if a disease surveillance zone crosses a border.

(c) A proposal was made by EuFMD to develop improved data analysis tools for the surveillance data collected, including mapping, real-time analysis capacity, and better estimation of risk factors for model input parameters. This was supported by all, and an additional request was made to the EuFMD to develop a standard summary report format which could be easily generated and provided to national focal points. This could be done monthly or even weekly, and contain summary statistics and maps.

(d) A proposal was made by Greece to revise the draft memorandum of understanding covering the project; this MoU is still unsigned, so there is an opportunity to update it before signature. The national focal points agreed to this, and the consensus was that this be a recommendation from the meeting put to the Tripartite meeting for decision. The EC suggested that the revised MoU be sent to the EuFMD Standing Technical Committee for review, which was agreed to by all.

Item D: Agreed suggestions to be put to the Tripartite meeting
The group agreed to suggest the following for consideration at the Tripartite meeting with respect to the THRACE programme:

(d) The program activities should be expanded to cover SGP and PPR surveillance; these are already specifically mentioned in the letter from DG SANCO authorizing the use of EC funds for enhanced surveillance in Thrace region, but thus far only FMD surveillance activities have been specifically planned.

(e) The draft MoU should be discussed with a view towards updating the text to make it simpler and more flexible; this revised version can be drafted by the EuFMD and circulated for discussion prior to signing.

(f) The national focal points requested a training workshop be provided by EuFMD on data management and mapping techniques.