

REPORT

West EurAsia FMD Control - Roadmap 2020 4th Regional Progress Review Meeting

**Report of a Meeting
held in Baku, Azerbaijan**

April 2-4, 2013

Vision for the West Asia Roadmap for FMD Control

Regional cooperation among Eurasian countries for the progressive control of FMD through public and private partnerships leading towards freedom of clinical disease by 2020 for regional economic development, food security, and poverty alleviation.

Vision for the West Asia Roadmap for FMD Control

Региональная кооперация между Евразийскими странами в целях прогрессивного контроля ящура через общественное и частное партнерство ведет к свободе от клинического проявления болезни к 2020 г. для экономического развития и снижения уровня бедности.

Abbreviations

CVO	Chief Veterinary Officer
EC	European Commission
EUFGMD	European Commission For The Control Of Foot-And-Mouth Disease (An Inter-Governmental Commission Based In The Fao)
FAO	Food And Agriculture Organisation Of The United Nations
FMD	Foot-And-Mouth Disease
GF-TADS	Global Framework For The Progressive Control Of Transboundary Animal Diseases
OIE	World Organization For Animal Health
PCP	Progressive Control Pathway
RAG	Roadmap Advisory Group
SAT2	Southern African Territories Type 2 Strain Of Fmd
USDA	United States Department Of Agriculture
WELNET	West Eurasia Laboratory Network
WRLFMD	The World Reference Laboratory For Foot And Mouth Disease

Table of Contents

SUMMARY	4
OUTCOME AND OUTLOOK.....	5
ACKNOWLEDGEMENTS.....	5
WEST EURASIA FMD CONTROL ROADMAP TO 2025	6
REVISED DURING THE 2013 ROADMAP MEETING (PROVISIONAL)	6
RECOMMENDATIONS OF THE 4 TH REGIONAL MEETING TO REVIEW PROGRESS.....	7
WEST EURASIA FMD CONTROL - ROADMAP 2020.....	7
DAY BY DAY REPORT OF THE MEETING: WEST EURASIA FMD CONTROL - ROADMAP 2020	12
4 TH REGIONAL MEETING TO REVIEW PROGRESS	12
DAY 1: SESSION ON PCP STAGE CRITERIA, INDICATORS AND ASSESSMENT PROCEDURES	13
DAY 2: INFORMATION SESSION ON FROM LABORATORY AND EPIDEMIOLOGY NETWORKS.....	14
DAY 2: GF-TADS NATIONAL PROJECT PROPOSALS SEMINAR	14
DAY 2: WEST EURASIA ROADMAP – PLENARY SESSION	16
DAY 3: WEST EURASIA ROADMAP – PLENARY SESSION	17
DAY 3: WEST EURASIA ROADMAP – PLENARY SESSION “SITUATION AND PROGRESS IN REGIONS BORDERING WEST EURASIA”	19
DAY 3: WEST EURASIA ROADMAP – REPORT FROM ADVISORY GROUP AND ELECTIONS, ROUNDTABLE DISCUSSION, DRAFT RECOMMENDATIONS AND CLOSING REMARKS	21
APPENDIX 1: SURVEYS CONDUCTED IN THE CONTEXT OF THE WEST EURASIA ROADMAP MEETING	23
APPENDIX 2: REPORT OF THE GF TADS SEMINAR ON NATIONAL PROJECT PROPOSALS	27
APPENDIX 3 LINKS TO PRESENTATIONS.....	29
LIST OF PARTICIPANTS.....	30

Summary

1. The 4th Regional Meeting to review the progress of the West Eurasia FMD Roadmap was held in Baku, Azerbaijan in April 2013 in the framework of the FAO OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (OIE FAO GFTADs), with the collaboration of the OIE and with the support of the European Commission for the Control of FMD (EuFMD), European Commission (DG-SANCO), and FAO-EMPRES.
2. The meeting was hosted by the State Veterinary service, Azerbaijan, and organized by FAO as a GF-TADs event in collaboration with the OIE and with the EuFMD providing the Secretariat.
3. Invitations were sent by FAO, on behalf of the FAO and OIE, to the Chief Veterinary Officers (CVOs) and to the FAO national consultants on FMD (EuFMD or GTFS projects). In total, 10 countries in West EurAsia were represented.
4. The Objectives of the Meeting were:
 - a. To review the progress along the Regional Roadmap towards the vision identified at the Shiraz Meeting in 2008 of a “West Eurasia region free of clinical FMD by 2020”;
 - b. To share information on FMD virus circulation within the West Eurasia FMDV ecosystem to assist planning of vaccination and other preventive measures in the short-term;
 - c. To support countries to prepare national project proposals for investment in FMD control in relation with regional component.
5. The WEST Eurasia Roadmap Advisory Committee was re-elected with Turkey retaining the Presidency and Azerbaijan and Pakistan providing members. Naci Bulut (Turkey) was re-elected for the WELNET Network, and for the Epi-Network, Dr Naser Rasouli (Iran).
6. The progress of FMD control since the Istanbul meeting in 2012 was reviewed and a provisional revised Roadmap to 2025 developed for the 10 countries (Azerbaijan, Georgia, Irak, IR of Iran, Kazakhstan, Kyrgyzstan, Pakistan, Syria, Tajikistan, Turkey) that participated in the 2013 West Eurasia FMD Roadmap review plus two further countries (Afghanistan, Armenia) that submitted the annual PCP assessment checklists.
7. The progress in the fourth year was considered to be good. Of the 10 countries participating in the 2013 Roadmap meeting:
 - a. ALL countries were considered to remain at the same PCP stage as in 2012, based on the evidence presented at the meeting.
 - b. Four countries may progress from Stage 1 to 2 upon receipt of the risk-based control strategy (Iraq, Kazakhstan, Georgia, and Syria).
 - c. Two countries must submit a risk-based control strategy by the end of May 2013 to remain in PCP Stage 2 (Azerbaijan, Turkey).
8. The Roadmap remains on track to achieve the vision of freedom from clinical cases of FMD being achieved by the year 2020. Although several participating countries foresee that their country would be in PCP Stage 3 in 2020, this Stage involves aggressive control of FMDV circulation and clinical cases are expected to be increasingly rare as the Stage progresses.
9. It is increasingly recognised that significant advancement of FMD control in the region will only be accomplished with improved biosecurity and control of animal movements. Increasing the

potency and quantity of vaccine available, as well as ensuring that the vaccines used are well matched to circulating strains, will also be key to regional progress in FMD control.

10. It was recognized that to progress along the pathway to control and eradicate FMD at the regional level there is, as a prerequisite, a need to first focus efforts at the national level and to ensure increase national investment in FMD control.

Outcome and outlook

11. The realisation of the Roadmap vision will require a co-ordinated set of national efforts under an overall framework of progressive risk reduction, supported by regional services and sharing of information, technical knowledge, and possible donor support, between countries within the region and which are beneficiaries of the action.
12. Three FMDV serotypes continue to circulate in the region (A, O, Asia-1), each with genetically distinct lineages that have been identified largely through PCP-related activities and with the ongoing evolution of strains within these serotypes.
13. There is a constant risk of the incursion of new serotypes and strains from other virus pools, particularly SAT2 from North Africa and also virus strains circulating in Pool 1 (E. Asia).
14. All countries in the region are in PCP Stage 1 or above, and most continue to invest heavily in FMD vaccination programmes. Therefore, effective use of vaccine, including regular assessment of vaccine matching with local field strains, is extremely important.
15. The international organisations have demonstrated support for the Roadmap process in West Eurasia. From 2011-2013, USDA through FAO is providing major support for FMD control in Pakistan. EuFMD has supported FMD control in the TransCaucasus countries and Iran under the 2009-2013 agreement with the EC. New Regional Support is currently being discussed by OIE and FAO with consideration to the support by EuFMD.
16. Considering the necessity to increase investment in FMD control at national levels FAO and OIE are committed to support countries to prepare national project proposals for investment in FMD control in relation to the regional context and designed according to the FAO-OIE Global FMD Strategy adopted in Bangkok (June 2012).
17. A Secretariat remains necessary to provide co-ordination of the supportive services, particularly to promote the laboratory network and services, and the epidemiology and risk monitoring, and for monitoring and communication of progress.

Acknowledgements

The financial support for travel and allied costs, from the EC (SANCO) and Italian Co-operation (GTFS/INT/907/ITA) is gratefully acknowledged.

WEST EURASIA FMD CONTROL ROADMAP TO 2025

revised during the 2013 Roadmap meeting (PROVISIONAL)

Table 1 indicates the assessment of the country Stage position for 2013, together with the expected progression to 2025. The progression from 2014 to 2025 is based on self-assessment completed during the meeting.

Countries are given until May 30, 2013 to produce an evidence-based request for this provisional status to be changed.

Table 1: Preliminary assessment of country Stage position for 2013, together with the expected progression to 2025. If the number is not written in a cell, it indicates that the PCP Stage was not assessed that year and the Stage from the previous assessment is maintained.

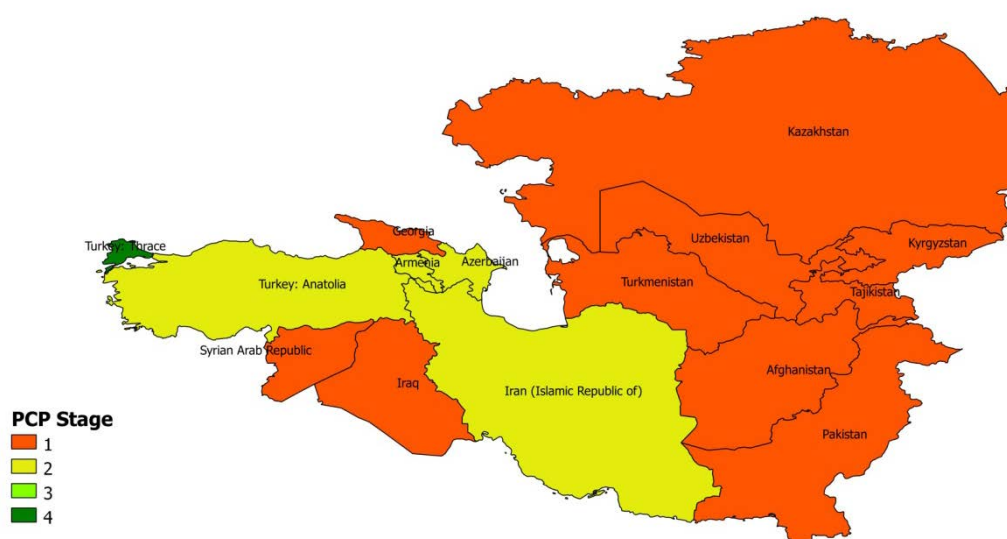
	2008	2009	2010	2011†	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Kazakhstan	1	1	1		1	1*	2	2	3	3	4	4	5	5	5	5	5	5
Kyrgyzstan	1	0	0		1	1												
Tajikistan	0	1	1		1	1	2	2	2	3	3	3	3	3	3	3	3	3
Turkmen	0	0	0		1													
Uzbekistan	0	1	0		1													
Afghanistan	0	1	1		1	1												
IR of Iran	2	2	2		2	2	2	2	3	3	3	3	4	4	4	4	4	4
Pakistan	0	1	1		1	1	2	2	3	3	3	3	4	4	4	4	4	4
Turkey - Anatolia	1	2	2		2	2**	2	2	2	2	3	3	3	3	3	4	4	4
Syria	3	1	1			1*	2	3	3	3	4	4	4	5	5	5	5	5
Iraq	1	1				1*	2	3	3	3	3	3	4	4	4	4	4	4
Armenia	2	2	2		2	2**												
Azerbaijan	2	2	2		2	2**	2	2	3	3	3	3	4	4	4	4	4	5
Georgia	2	1	1		1	1*	2	2	3	3	3	4	4	4	4	5	5	5

† No Roadmap Meeting was held in 2011, therefore 2010 Stages maintained

* To move to Stage 2 pending receipt of Control Strategy

** Will be changed to Stage 1 unless copy of control strategy received by end May 2013

Figure 1: Map of countries that participate in WEST Eurasia Roadmap, and provisional PCP Stage (2013)



Recommendations of the 4th Regional meeting to review progress West EurAsia FMD Control - Roadmap 2020

The 10 countries here represented agree the following:

Considering

1. That countries in the West Eurasia region have demonstrated their commitment to the **Progressive Control Pathway** for Foot and Mouth Disease (PCP-FMD) and Roadmap process by undertaking activities and actively participating in the annual progress review meetings;
2. Several projects involving international support for FMD control in the region have recently ended, further support is sought but not yet secured;
3. That many countries of the West Eurasia roadmap remain in Stage 1 of the PCP-FMD, and that economic and socio-economic studies to evaluate the impact of FMD are among the typical activities countries should carry out in this Stage;
4. That, when moving into Stage 2 of the PCP-FMD, countries are required to formulate a strategic risk-based control plan aimed at controlling FMD in target production systems or target areas, and that such strategic plan should possibly describe several options available for national decision making;
5. That strengthening Veterinary Services remains a crucial component for successful implementation of FMD control strategies and that the PCP includes reference to the appropriate PVS critical competencies related to the prevention and control of diseases;
6. That countries consider that socioeconomic impact assessment of FMD in livestock production, livelihoods and food security have to be carried out as well as cost/benefit analysis of FMD control options, among other priorities for project proposal preparations;
7. Three FMDV serotypes continue to circulate in the region (A, O, Asia-1), with the ongoing evolution of strains within these serotypes. Of particular concern are the O/PanAsia2/Ant-10 and Far-09 sublineages, the A/Iran/05 sublineages Afg-07, Her-10 and Sis-10, and Asia1 Sindh-08 sublineage.
8. Type A viruses from the SEA-7 lineage and type O viruses from the PanAsia lineage were detected in Eastern Russia, highlighting the threat of incursions of viruses originating in East and South East Asia. The circulation of exotic sub-Saharan viruses (serotypes SAT2, O and A) in Egypt and Libya poses an ongoing threat of spread into the West Eurasia area.
9. There has been a high demand for virus typing in 2012, and clear demonstration of the need for additional laboratory capacity in the Regional and national laboratories in order to provide rapid FMDV typing and vaccine matching services for the countries concerned;
10. Vaccine matching results and vaccine effectiveness studies indicate that vaccines currently used are not protective against all circulating viruses, particularly against serotype Asia-1 and some strains of A Iran 05, and that, in the case of Asia-1, higher potency vaccines (≥ 6 PD50) are expected to provide better protection;
11. FMD vaccines being used in the region are of generally low potency (3 PD50), include vaccines which are not purified in respect of NSP, and are produced by a range of suppliers whose adherence to the quality standards of the OIE and European Pharmacopoeia are uncertain;
12. Diverse vaccination schedules are applied in the region, and in some cases a booster vaccination is not applied to primo-vaccinates which is contrary to the recommendations of most manufacturers;

13. Preventive vaccines of 3PD50 potency cannot be expected to prevent all outbreaks, and that additional measures targeted at critical control points will be needed if disease and viral circulation is to be prevented;
14. Progression along the PCP-FMD requires a comprehensive understanding of FMD, including epidemiology, virological and socio-economic aspects, and the practical application of this knowledge to develop a control strategy; and countries have requested support to improve their capacity particularly in epidemiology and socio-economics;
15. That the GfTADS National Project Proposals Seminar illustrated
 - that there is need to increase investment in FMD control in the majority of countries in the West Eurasia region;
 - that most countries of the West Eurasia roadmap have expressed the need to better advocate for support for FMD control with national political decision makers and their development partners;
 - the importance to consider national control strategies in the context of regional and global approaches;
 - that many countries deemed it necessary to receive assistance when formulating project proposals. The issue is of particular relevance in the West Eurasia region, with most of the countries being in Stage 1 of the PCP-FMD and moving to Stage 2 which requires a good understanding of FMD epidemiology and the preparation of a risk-based control program;
 - that it is important to harmonize strategies and the preparation of national project proposals for FMD control in the region as much as possible, which will facilitate the understanding amongst potential donors that such national plans are prepared in the context of the regional situation and vision.

Recommend:

On the overall Roadmap approach and PCP-FMD

1. Endorsed the approach and recommended continuation of the Roadmap process, with an annual survey to monitor progress;
2. Encouraged OIE/FAO to further develop the guidance on PCP-based project proposals that could assist national authorities to obtain greater national and international investment in FMD control;
3. Welcomed the participation of the Russian Federation in the meeting and encouraged their indication of the support for the Roadmap principles and vision;
4. That countries receive technical support and assistance from International bodies to conduct socioeconomic impact assessments of FMD in livestock production, livelihoods and food security and to conduct cost/benefit analyses of FMD control options;
5. Recommended that countries are provided with the necessary assistance and training to develop national strategic FMD control plans;
6. Recommended that countries that wish to be recognised as being in Stage 2 or above should submit the documentation required for formal review of the evidence for completion of the

previous Stage, and of the risk based control plans coherent with PCP guidelines, and with evidence of the programme implementation required;

7. Recommended that more support be given to national partners to progress on the PCP, and greater emphasis in 2013 on training and guidance on the PCP approach, and strategy development long term planning;
8. Recommended that each country identify an FMD Roadmap focal point for communication and that the Roadmap Secretariat send a request to each participating country on this point;
9. Recommended that countries get involved actively in the OIE PVS Pathway to be in compliance with the OIE international standards on quality of Veterinary Services and that Governmental Authorities support the development of an 'Enabling Environment', of which the reinforcement of Veterinary Services is an integral component.

On virus circulation

10. Veterinary Services should reconsider their vaccination plans for the coming year, taking note of the continuing epidemic of serotype Asia -1 in Turkey, Iran, Pakistan and Afghanistan, and of serotype A Iran 05 and O Panasia II in at least these same countries;
11. Veterinary Services develop contingency plans for the possible introduction of exotic FMDV from other virus pools, including the risk of spread of serotype SAT2 from infected parts of the Middle East, and FMDV strains from Pool 1 (China/East Asia) against which vaccines in common use may not protect.

On vaccine recommendations

12. Veterinary services should ensure that vaccines used are appropriate for the viruses circulating in the West Eurasia region; the most appropriate vaccines for current risk in the region and recommended for use in 2013 are: for type O, PanAsia2 or O Manisa in combination with O 4625/O 3039; for type A, A Tur06, A Iran 05, A22 Iraq; for Asia 1, Tur11 or Shamir at a PD50 of 6 or greater. Greater use should be made of the vaccine matching services offered by Pirbright and FGBI-ARRIAH as FAO/OIE Reference Centres for the region.
13. Vaccines used by countries in the region should comply with the OIE Manual of Standards and in particular, the potency of the vaccines should be selected based on a consideration of the level of protection required against the main circulating viruses;
14. EuFMD should assist countries to draw up tenders for national vaccine purchase through the provision of a template for tenders that include the recommendations from the Roadmap Meeting, including vaccine strain selection;
15. The WELNET should thoroughly review the minimum potency requirements for vaccines for use in West Eurasia and provide a recommendation to the next meeting. This analysis should take production capacity and costs into account;
16. In 2013, Asia-1 Shamir vaccine should only be used with a potency of ≥ 6 PD50;

17. Vaccination schedules and the use of booster vaccination should be reviewed in all countries where FMD cases continue to occur in vaccinated populations; assistance with the design of monitoring in vaccinated populations can be provided by the international organisations;

On the FMD monitoring and early warning activities

18. Recommends far greater effort to achieve the rapid sharing of laboratory information on FMD between the main countries of Pakistan, Iran, Afghanistan and Turkey, through support to the WELNET and to reference laboratories providing vital services to the Roadmap;
19. Greater communication on a regular basis to the 14 countries in the Roadmap, plus their international partners, through a newsletter, bulletins or other means to bring attention to new findings/threats to FMD control.

On progress along the Roadmap since 2009

20. That the international organisations, and national stakeholders, take note of the progress achieved in parts of the region since 2008, with progress of several countries along the pathway;
21. That the 2013 Roadmap be finalized before the *end of May*, after allowing another month for the missing information to be provided.

Recommendations of the West Eurasia FMD Lab Network (WELNET)

22. Support is provided to WELNET in 2013 to better plan activities and achieve regular communication between the reference and national laboratories in the region;
23. In particular, guidelines should be developed on selection of samples for further characterization by genotyping and vaccine matching, support should be given to sending virus samples from WELNET member states to the SAP Institute, Pirbright and ARRIAH for detailed characterization and rapid result reporting; and to proficiency testing and improved the networking and communication;
24. Data sharing within the region should be encouraged, including the use of the EMPRES-i database to assist prioritizing laboratory activities, risk management and early threat detection.

Recommendations of the Epi-Network

25. To organize a second round of training courses in **Practical Epidemiology for Progressive Control (PEPc)** in 2013, to be organised by EuFMD in consultation with FAO and OIE, open to countries and projects in the West Eurasia region according to funding;
26. That the Epi-Network produces a comprehensive review of the epidemiology of FMD in West Eurasia, to summarise the findings and lessons learnt in the first 5 years (since 2008);

27. That a review of vaccination strategies against FMD, covering the range of current programmes in use in the region, be developed and a training workshop(s) organised in vaccination programme development, monitoring and evaluation.

Recommendations of the GfTADS National Project Proposals Seminar

28. On Advocacy: International and regional organizations (also in light of the Global FMD Strategy document) assist to any possible extent national veterinary authorities in their effort to advocate FMD control as one of the priority issues in the livestock sector;
29. On Support for formulation of project proposals: that countries receive adequate assistance from international bodies when approaching such strategic issues and that national project proposals should be formulated in an harmonized manner. The use of a tool such as the Logical Framework approach could be a possible guide although it is recognized that appropriate flexibility is necessary in order to adjust with national uses and needs.

Day by day report of the Meeting: West EurAsia FMD Control - Roadmap 2020

4th Regional meeting to review progress

Opening

The meeting was opened by **Dr. Bahram Aliyev**, the Deputy Minister of Agriculture in Azerbaijan. He warmly welcomed all participants to the meeting, and reminded them of the importance of FMD control and the role that it plays in ensuring food security in Azerbaijan and the wider region.

Dr. Mehraban, animal health officer from the FAO Subregional Office for Central Asia, welcomed participants on behalf of FAO. He said that the meeting was not only about FMD, but also important in a wider sense of cooperation.

Dr. Monique Eloit, Deputy Director General of the OIE, then took the floor and greeted participants. Referring to the launch of the GfTADs Global Strategy for FMD Control, she said that now is the time to move forward with national and regional projects for FMD control. She also reaffirmed OIE's commitment to support its members in strengthening the Veterinary Services.

Dr. Siala Rustimova, Chief Veterinary Officer of Azerbaijan, gave remarks affirming the commitment of Azerbaijan to FMD control generally and specifically the Roadmap process. She thanked international organisations for their support in the past, and reminded all about the ever present risk of FMD.

Dr. Keith Sumption from EuFMD, as Secretariat for the Roadmap, thanked the Ministry of Agriculture for hosting the Meeting and all the practical assistance to ensure all arrangements were in place; he reflected on the increasing role taken by countries within the region in providing assistance to each other and direction to the initiative. The region invests heavily in FMD control and previous meetings have called for greater assistance in economics of FMD management. This will be an important area for future work.

Finally, **Dr Nahit Yazıcıoğlu**, President of the Roadmap Advisory Group (RAG) and Head of the Animal Health Department, GDFC, Turkey, thanked participants for attending the meeting, and reaffirmed statements from previous speakers.

Organization of the Meeting

The Meeting was structured as follows:

Day 1 (2 April 2013):

- Following the Opening, there was a session on PCP Stage Criteria, Indicators and Assessment procedures. This took the form of introductory presentations, followed by individual country interviews between the Meeting's PCP Assessment committee and country representatives. Concurrently, each country charted their expected progress along the PCP to 2025;

Day 2 (3 April 2013)

- The second day began with a series of 3 technical presentations on topics relevant to all countries in PCP Stages 1 & 2.

- Following this, OIE and FAO held a special seminar concerning the development of national project proposals and advocacy for increasing investment to control FMD in countries.
- The afternoon included a series of talks that set the context for the participants. The Progressive Control Pathway and its relationship with the Roadmap was reviewed, and links and distinctions to the FMD Global Strategy and OIE procedures (official recognition of control programmes, FMD freedom, and PVS pathway) were described. Other important talks described the current FMD situation in the region and globally and summarised FMD vaccination in the region.
- The Roadmap advisory group (RAG) met in the evening to discuss issues related to the PCP Stage assessment and the future of the Roadmap.

Day 3 (4 April 2013)

- In the morning session, each country gave a brief report on their progress along the PCP pathway. This was followed by the results of the questionnaire on animal identification and registrations systems and brief statements about the FMD situation in bordering regions, as well as a presentation proposing technical support to FMD management.
- In the afternoon, the provisional results of the PCP Assessment were presented. The meeting closed with the reading of draft Recommendations and Roundtable remarks by all country and international organization representatives.

Summary of presentations

Day 1: Session on PCP Stage Criteria, Indicators and Assessment procedures

This session began with a presentation by **Dr. Chris Bartels** (EuFMD) reviewing PCP Stage Criteria, Indicators and Assessment procedures. This presentation summarized the background to the PCP and summarized some key issues about PCP Stages 1-3. Following this, the bulk of the presentation concerned PCP Stage Assessment, and presented some key 'Indicators' for each stage. He suggested specific documents or evidence, that countries should have available to support their PCP Stage Assessment. An environment that enables FMD control to progressively improve is a key principle to the PCP. Strengthening the Veterinary Services is a key component of this, which is why the OIE's Performance of the Veterinary Services (PVS) Pathway is an integral component of the Global Strategy for FMD.

Dr. Monique Eloit from the OIE presented "The PVS Evaluation and Convergence of PVS-PCP". This presentation explained the PVS pathway and related assessment procedures. This pathway defines 46 Critical Competencies (CC's), of which 33 are of particular relevance to the prevention and control of FMD. A correspondence table has been developed to link each PCP Stage with the compliance level required for each of these 33 CC's relevant to FMD control.

Following these presentations, country representatives met with the Meeting's PCP Assessment teams to discuss their country's PCP Stage assignment. Prior to the meeting, each country had completed and submitted a self-assessment checklist. During the meeting, the results from that checklist were discussed and countries were given the opportunity to share evidence supporting the answers provided in the checklist. Prior to and following their meeting, country representatives charted their expected progression along the PCP through to 2025, and informally discussed issues of regional concern related to FMD control with colleagues and international experts.

Day 2: Information Session on from laboratory and epidemiology networks

Dr. Klaas Dietze (FAO) gave a presentation on the current status of the West Eurasia Database. Hosted within Empres-i, this database was developed in response to recommendations stemming from previous Roadmap meetings, namely to facilitate information sharing between countries, as well as communication and the development of epidemiological tools to support management at country and regional level. The database captures information on FMD outbreaks, vaccination and surveillance activities. These data are integrated with data from other sources (eg animal density data). Automated analysis tools allow the user to easily produce tables and maps of the data. Users have a wide range of options to visualise and analyse data from their own countries, and basic options to visualise the data from participating neighbours.

Drs. Melissa McLaws (EuFMD) and **Darab Abdollahi** (Iranian Veterinary Organization) described the 'Practical Epidemiology for Progressive Control (PEP-C)' training course that was run for the first time in autumn 2012. The course was held in Istanbul over the course of 4 weeks (1 week/month). Trainees from 6 countries (Armenia, Azerbaijan, Egypt, Georgia, Iran and Turkey) participated in the course, which was very well received. The course focussed on materials critical to PCP Stages 1 and 2, in which countries are developing, implementing and monitoring risk-based FMD control strategies.

Dr. Naci Bulut, from the SAP Institute in Ankara and leader of WELNet presented "Regional Vaccine matching results and recommendations regarding sample submission for upcoming year". As well as presenting results, Dr. Bulut explained some of the theory behind vaccine matching and its application in the selection of strains to include within the vaccine. He summarized the vaccine matching results from the region (WRL and SAP Institute) for each of the 3 circulating serotypes. Vaccine matching results and vaccine effectiveness studies indicate that vaccines currently used are not protective against all circulating viruses, particularly against serotype Asia-1 and some strains of A Iran 05, and that, in the case of Asia-1, higher potency vaccines (≥ 6 PD50) are expected to provide better protection. The importance of a balanced strategy for collecting and analysing samples for vaccine matching was discussed, as well as some current gaps related to the shipment and handling of samples. Finally, the presentation concluded with considerations that improper vaccine use may stimulate increased viral antigenic diversity which in turn complicates control. Therefore, improvement of surveillance regarding vaccine matching and standardization of existing technologies is an important area of FMD control.

Day 2: GF-TADS National Project Proposals Seminar

The objectives of this seminar were to encourage the preparation of national project proposals within the regional context; and to present an overview of the Logical Framework Approach and discuss it as a possible model for the preparation of national project proposals.

Dr. Joseph Domenech (OIE) opened the seminar with a presentation that provided an overview of key concepts. The key messages for advocacy regarding FMD control are that 1) FMD causes more damage worldwide than is often thought; 2) FMD will have favourable and lasting collateral effects through improvements of the Veterinary services and other disease control programs and 3) FMD control is possible with today's means and methods and with a good global return on investment. He reviewed the Global Strategy and the role of PCP and PVS as key components within this strategy. The definition and structure of the Logical Framework approach were discussed. He outlined the steps required to prepare a project proposal: background, participatory workshops with the outcomes summarized in problem and objective trees, project description (intervention

logic), project sustainability, logframe matrix (which includes objectively verifiable indicators and means of verification both to be used for monitoring and evaluation, assumptions and risks), Action plan, Budget and conclusion and overall benefits. **Dr. Samia Metwally (FAO)** then introduced topics for group discussion, and divided country representatives into two groups.

Within the groups, countries shared their experiences in developing proposals while considering the following issues:

- 1) Summary of the major issues and challenges which were addressed by the countries during the PCP assessment sessions and identification of major priorities in terms of investment;
- 2) Possibilities to prepare a dossier for submission to OIE for endorsement of a national control programme (PCP stage 3) or national or zonal disease recognition (PCP stage 4 and/or 5);
- 3) Possibilities to prepare an FMD control project proposal to be presented to governments and development partners. The purpose was not to start preparing a project proposal but to know what the participants think about the possibilities to define such a list of key elements when preparing a project proposal such as major national investment priorities, FMD impact assessment and cost of the national strategy advocacy;
- 4) Expected support from regional and international organisations;
- 5) Format of national project proposals and conclusions on the need to harmonise the national project proposal formats within the region to better show the importance and relevance of a regional approach;
- 6) Regional axes to be included in national project proposals (such as Coordination, leading laboratories, vaccine banks, control of transboundary animal movements...);
- 7) Conclusions and the way forward: preparation of national and regional project proposals (how, when?).

The participants outlined two major points:

- 1) the necessity to strengthen the advocacy to governments and their development partners in their countries (without forgetting the national and global levels). In light also of the Global FMD Strategy document, they called on International and regional organizations to assist national veterinary authorities in their effort to advocate for FMD control as a priority issue in the livestock sector as much as possible;
- 2) the advantage of adopting a harmonised template for national project proposal preparation (with the Logframe approach being among the best structured and popular method, although it is recognized that appropriate flexibility is necessary in order to adjust with national uses and needs). A summary report of the breakout session is in **Appendix 2**.

Day 2: West Eurasia Roadmap – Plenary Session

Dr. Keith Sumption (EuFMD) started this session with a presentation on “Roadmap History, progress and Assessment Procedures.” Looking back over Roadmap meetings and events in the region from 2008-2013, he noted some important changes. Vaccine used has increased, from 92 million doses in 2008 to 178 million in 2010. There has been increased attention paid to vaccine matching, to monitoring and reporting and to vaccine management and cold chain. The use of serosurveys for monitoring vaccination and estimating virus circulation has also increased across the region. Epidemic events (O-PanAsia2, A-Iran05 and Asia1) have been detected at an earlier stage with improved monitoring. While countries increasingly use the PCP to identify gaps and improve FMD control, important problems remain. These problems include high volumes of uncontrolled animal movements, insufficient government support for enforcement and limited data and information sharing. In the region, there is recognition that countries should manage their own risks with their own resources; the PCP process assists countries to develop sustainable strategies. New tools for PCP Assessment were developed in 2011, and used in 2012 and 2013 Roadmap meetings. As PCP assessment is evidence-based, countries must supply documentation to progress to the next PCP Stage; in PCP Stages 1 and 2 this takes the form of an FMD control strategy document. The West Eurasia Roadmap has been funded by FAO projects and EuFMD; whereas almost all FMD control efforts are nationally funded. Support after 2013 must be sought through international support; it must be secured as the work is very important.

Dr Joseph Domenech and Dr Samia Metwally presented the Global FMD Control Strategy and the state of play after the Bangkok Conference. They reminded the participants what was presented and discussed during the Bangkok Conference on Global FMD Control in June 2012, the headlines of the joint FAO/OIE Global FMD Control Strategy with its 3 components (1. FMD control, 2. Strengthening veterinary services and 3. Control other major diseases of livestock), the underlying principles and key tools to be used (among them are the PCP monitoring tool, the OIE PVS Pathway, the laboratories and surveillance teams and systems at national and international levels, the vaccines...), the action plan and the costing of the strategy. The activities being carried out after the meeting in Bangkok were described including the organization of several regional meetings, GF TADs FMD Working Group meetings, OIE Scientific Commission and Ad Hoc Group on FMD status meetings, development of a post monitoring vaccination guide, preparation of a project proposal to support the Global Laboratory network and FAO direct support to several countries and regions. The first workshop on regional coordination for FMD surveillance, diagnostic and control for the Middle East and North Africa was organized in Cairo December, 2012. During this meeting, FAO presented the first draft of the FMD control strategy for the region. FAO is leading a technical coordination project for cross border trade and TAD risk reduction between China-Mongolia and Russia with the aim to identify the risk of incursion of FMD across the borders and to develop a long term control strategy.

Dr. Nahit Yacicioglu, president of the Roadmap Advisory Group and Head of the Animal Health and Quarantine department in Turkey, presented insights and perspectives on recent developments in the region, and the outlook for the future. An important recent development in the region includes the course in Practical Epidemiology for Progressive Control (PEP-C). Further attention to WELNet is needed to ensure timely detection of new threats. In the region, there are more susceptible animals than vaccine available. Thus, there is a need to further develop strategies on the best use of the vaccine, as well as to work together to ensure that resources are available for campaigns in the future. There is expertise in disease control in the region however it

is scattered and would benefit from improved organization and networking. Whilst recognising that FMD is a national responsibility, he welcomed the support of international organizations in developing project proposals and securing financial support in line with the Global Strategy.

Dr. Eoin Ryan (EuFMD) summarized WELNet activities and presented the vaccine recommendations for the region. Given the results from the laboratories in the region, including sequencing and vaccine matching results, the most appropriate vaccines for current risk in the region and recommended for use in 2013 are: for type O, PanAsia2 or O Manisa in combination with O 4625/O 3039; for type A, A Iran 05, A Tur 06, A22 Iraq; for Asia 1, Tur11 or Shamir at a PD50 of 6 or greater. Greater use should be made of the vaccine matching services offered by Pirbright and FGBI-ARRIAH as FAO/OIE Reference Centres for the region.

Dr. A.V. Mischenko, Head of Reference Laboratory for Foot-and-Mouth Disease FGBI “ARRIAH”, summarized the regional FMD situation and trends in virus circulation. He described the results available for each country in the region. Serotype A is currently the dominant serotype in circulation in the Western countries of the region (Iran and Turkey), whereas serotypes O, A and Asia-1 have been detected in other countries of the region. Virus characterization demonstrates that some viruses isolated in the Russian Federation and Kazakhstan are closely related to viruses circulating in Pool 1 (SE Asia). Therefore, spill over from Pool 1 to Pool 3 occurs, and is a threat to the region.

In the final presentation in the session, **Dr. Carsten Potzsch (EuFMD)** summarised the results from the survey on vaccine use in the region.

Day 3: West Eurasia Roadmap – Plenary Session

In this session, each country gave a short report on the progress along the PCP and the FMD situation in the country over the previous 12 months, according to a template provided.

Azerbaijan: Azerbaijan was in Stage 2 at the 2012 Roadmap meeting. Since then, they have updated their FMD control strategy. Projects on animal identification and a national reporting system are being implemented. Progress has been made on mitigating risks due to animal movements, first through a study of movement and marketing patterns and then strategically strengthening control on animal movements during religious holidays. There is mass vaccination of large ruminants twice yearly, and small ruminants once per year. NSP and SP serosurveys have been performed annually between 2010-2012. In 2012, approximately 6% of both large and small ruminants were NSP seropositive.

Georgia: Georgia was in PCP Stage 1 at the 2012 Roadmap meeting. Over the past 12 months, FMD control has been strengthened considerably. A control strategy has been developed to mitigate the high risk areas identified which are at border regions and along migration routes. Serological surveys (NSP and SP) were done in 2012. Overall, 4.8% samples from large ruminants (LR) and 7.6% of samples from small ruminants (SR) were NSP positive. Mass vaccination of large ruminants was carried out in autumn 2012. 100,000 small ruminants were also vaccinated. In 2013, vaccination of the entire LR and SR population is planned, as well as serosurveys. On the

basis of these activities, country representatives believe that Georgia is in PCP Stage 2, based on a self-assessment.

IR of Iran: Iran was in PCP Stage 2 at the 2012 Roadmap meeting. There were 1,298 outbreaks reported in 2012, from a population of >85,000 epidemiological units. In the past 12 months, Iran has developed an FMD control strategy document based on the Global FMD Control Strategy, with EuFMD help. There has been mass vaccination of large and small ruminants. Veterinarians from the state veterinary services have participated in epidemiology training courses in Istanbul (PEP-CV) and Tehran (5-months training course initiated by Iranian Veterinary Organisation (IVO) and conducted by Tehran University). A network of subnational laboratories has been developed, with training in quality assurance. There has also been training concerning vaccine potency evaluation.

Iraq: The FMD control strategy in Iraq is based on compulsory mass vaccination of large and small ruminants twice annually, and restriction of movements of animals and animal products. A tri-valent (A-Tur06, OPanAsia-2, Asia1 Shamir) 6 PD50 vaccine is used. Dairy farms, live animal markets and intensive fattening units have specialised vaccination protocols. NSP and SP serosurveys have been done; overall 28% of cattle and buffalo were NSP positive in 2012. Gaps identified include uncontrolled animal movements, insufficient cooperation with private veterinarians and with the Kurdish in Northern Iraq and difficulties in sending samples to the laboratory. There is also a need to develop awareness campaigns and better estimate the number of livestock in the country.

Kazakhstan: Kazakhstan was in PCP Stage 1 at the 2012 Roadmap meeting. In 2012, outbreaks caused by serotypes O and A were reported in the eastern part of the country. There have been extensive NSP and SP serosurveys. Vaccination and controls of animal movements are important components of the control strategy.

Kyrgyzstan: Kyrgyzstan was in PCP Stage 1 at the 2012 Roadmap meeting. In 2012, 37 outbreaks were reported. There was vaccination of cattle in 2012 and 2013, using a trivalent vaccine (A, O, Asia-1). Informal, cross-border animal movements have been identified as an important risk. An FMD prevention and control strategy has been developed in collaboration with FAO. In this strategy, the Kyrgyz Republic is divided into two zones according to risk. NSP and SP serosurveys were done in 2012.

Pakistan: Pakistan was in PCP Stage 1 at the 2012 Roadmap meeting. A project is underway to improve FMD surveillance by increasing awareness and covering the expenses of sample collection and shipping. In 2012, 1088 FMD outbreaks were detected involving O (533), A (103) and Asia-1 (147) serotypes. Multiple serotypes were detected in 74 outbreaks. Thus far in 2013, 512 outbreaks have been detected; serotype O is still dominant. Samples were submitted to WRL for genotyping and vaccine matching. There is research collaboration with Plum Island to understand the epidemiology of FMDV strains circulating in Pakistan. Projects are also underway studying vaccination in dairy cattle and yaks.

Syria: In 2012, no cases of FMD have been reported. Vaccination is performed twice annually in cattle and once per year in sheep, using a tri-valent vaccine (A, O, Asia1). NSP and SP serosurveys were done. There were no NSP-positive results reported.

Turkey: Anatolia was in PCP Stage 2 in the 2012 Roadmap meeting. Turkey has recently changed its vaccination policy in response to insufficient vaccine to provide nationwide coverage. Thrace and

the eastern part of the country had a mass vaccination campaign in the spring, with ring vaccination around outbreaks implemented in the rest of the country. This policy was changed substantially in the autumn campaign, in which mass vaccination was in Western parts of Anatolia with ring vaccination employed in E. Anatolia. A similar policy to the autumn campaign is planned for spring 2013. An NSP serosurvey was done in autumn 2012, and a questionnaire survey on socio-economic impact and animal movement was undertaken in conjunction with serum sample collection. In 2012, 1038 outbreaks were reported in Anatolia, and Asia-1 was the most common causative serotype. In 2013, 131 outbreaks have been detected up to 20 March 2013, caused by type O (53%), A (46%) and Asia-1 (14%). The NSP serosurvey revealed that 15.8% of all large ruminants sampled were NSP-positive, and 24% of small ruminants, with the highest sero-prevalence in the east of the country. Workplans include the launch of a sample management system under TURKVET, further measures on control of animal movement and trade, and epidemiology training for field veterinarians.

Russia: Russia is not currently within the WEST Eurasia Roadmap, however it borders many Roadmap countries. The presentation described the Russian FMD prevention and control strategy. Serotypes O, A and Asia-1 have been detected in Russia. Most outbreaks were in the southern part of the country. FGBU "ARRIAH" is the OIE Regional Reference Laboratory for FMD for the countries of Eastern Europe, Central Asia and the Caucasus. There has been a project on "Cross-border trade and reduce the risk of transboundary animal diseases between China, Mongolia and Russia (TCP/RAS/3306 B04).

Following the country presentations, **Dr. Mehraban**, Livestock Development Officer from FAO-SEC presented the results of a survey on Livestock Identification and Registration among the WEST Eurasian countries. The results of this survey are summarized in Appendix 1.

Dr. Melissa McLaws (EuFMD) described a proposal from EuFMD to better support FMD management planning and decision making, through technical support particularly in national FMD strategy development, in epidemiology and economics, as needed to complete the national planning processes of the PCP. Regional support to countries on economics and on WELNet was also recommended by previous Roadmap Advisory Group meetings, and the future priorities of the EuFMD under its four year Strategic Plan 2013-17 would focus on the demands of member states such as Turkey and would be coherent with GfTADS Strategy at Global and Regional level. Support to Turkey and its neighbours (Armenia, Azerbaijan, Georgia and Iran) to improve FMD management would be discussed at the 40th Session of the EuFMD in April in Rome.

Day 3: West Eurasia Roadmap – Plenary Session “Situation and Progress in Regions bordering West Eurasia”

Dr. Ghazi Yehia (OIE) described the FMD situation in the Middle East and North Africa. The Middle East is at the centre of international transportation due to its location at a cross-road of international shipping routes. This puts it at increased risk for the introduction of new FMD serotypes and strains. There is a need to establish an FMD buffer zone in the Middle East to minimize its role as a ‘mixing vessel’ for FMD viruses from the Far East and African countries. This is best accomplished with activities at the country level, with collaboration and support at the regional and international levels.

Dr Joseph Domenech (OIE) presented the situation in North Africa, where FMD outbreaks were reported in Libya (serotypes O and SAT2) and Egypt (SAT 2 and others) in 2012. Algeria, Morocco and Tunisia have not reported FMD outbreaks since 1999. OIE officially endorsed their control programs in 2012, and these countries are currently engaged in the procedure for official recognition of FMD freedom. In the future, activities may be planned within the context of Mediterranean Animal Health Network (REMESA). The establishment, mandates and activities of REMESA,; a network of the veterinary services/CVOs of 6 countries of Northern Africa (Maghreb plus Egypt) and 4 countries of the Southern part of the European Union (Spain, Portugal, France, Italy) were explained.

Dr Andriy Rozstalnyy (FAO) provided overview on FAO support to cross-border cooperation between China, Mongolia and Russian Federation under TCP/RAS/3306 baby 04. The project aims to support a regional approach to this issue and to create a forum of exchange of information to ultimately harmonize disease surveillance and control protocols between China and Mongolia. The third project meeting took place at the Federal Centre for Animal Health (FGBI "ARRIAH") in Vladimir, Russian Federation on 22-25 January 2013. During the first part of the meeting, Chief State Veterinary Inspectors of the Russian Federation (EA Nepoklonov), China (Dr. Zhang Zhongqiu) and Mongolia (Mongolian chief epizootologist Dr. Purevkhoo Tsendenkhuu) presented strategies for prevention and control of FMD in their countries. The second part of the meeting was devoted to practical exercises. Participants developed a model of the situation and coordinating measures taken in cases of infectious diseases in the border areas of a State. The meeting also considered the question of the role of wild cloven-hoofed animals in the spread of foot and mouth disease prevention of other TADs (ASF and HPAI). To conclude, an agreement of intent between the Office of Veterinary Services, Ministry of Agriculture of China, Department of Veterinary and Breeding Executive Agency of the Government of Mongolia and the Federal Service for Veterinary and Phytosanitary Surveillance of Russia was signed. The agreement provides for increased information and communication of the participating countries in the prevention and control of highly dangerous diseases.

Progress along the WEST Eurasia Roadmap

Preliminary results from the 2013 PCP Assessment were presented by Chris Bartels and Melissa McLaws (EuFMD). PCP Stage assignments were based on results from the self-assessment checklist that were submitted by countries, by interviews with individual countries (day 1 of the meeting), discussion with the Roadmap Advisory group and the country presentations to the meeting. The assessment team relied on evidence presented at the interviews and during the country presentations to validate the answers given in the checklist.

Further, as recorded in the 2012 Roadmap meeting report, in order for a country to progress from Stage 1 to Stage 2, a dossier must be provided that describes the FMD control strategy which clearly reflects and addresses the outcomes of Stage 1. Countries already in Stage 2 must also provide this dossier in order to remain in Stage 2.

The WEST Eurasia Advisory group met in the evening of day 2 and discussed these requirements. It was decided that, whilst 4 countries have completed Stage 1 and are ready to move to Stage 2, these countries will remain in Stage 1 pending receipt of the dossier described above. Of the countries currently in PCP Stage 2, only 1 has submitted a risk-based control strategy document. The other 2 countries must submit their strategy in order to remain in Stage 2.

Therefore, all countries provisionally maintain the same PCP Stage as 2012, while 4 countries may progress from Stage 1 to 2 upon receipt of the FMD control strategy document.

Day 3: West Eurasia Roadmap – Report from Advisory Group and Elections, Roundtable Discussion, Draft Recommendations and Closing Remarks

The advisory group consists of 3 national veterinary service representatives (currently Pakistan, Turkey and Azerbaijan); Network representatives (Naci Bulut (WELNET) and Naser Rasoli (Epi-Network)) and representatives from EUFMD and from international organizations (FAO, EC and OIE). The group met after the session on day 2. Key points from this meeting were:

PCP-FMD assessment

Currently, the assessment is based on PCP self-assessment questionnaire, interview with countries individually, country presentations during regional roadmap and supporting documents. Countries must submit their documented risk-based control strategy to progress to Stage 2. A new PCP Assessment Tool is currently being prepared between EUFMD, FAO and OIE as well as a methodology to evaluate the plans. These new two documents will be distributed when ready. As described above, the Advisory group recommended that countries currently in Stage 1 must submit the control strategy document prior to being recognised in Stage 2. Countries currently in Stage 2 must submit the control strategy document in order to remain in this stage.

Planned activities for 2013/2014

EuFMD, as a component of its four year Strategic Plan, is considering how to respond to the request of member states including Turkey for greater assistance in FMD management planning and decision making; technical expertise and support for Socio-economic impact studies, development of national control strategies and appraisal of control options, and regional laboratory networking are being considered. EuFMD funding is expected to be limited to Turkey and its neighbours, but involvement of other countries such as Pakistan and Afghanistan etc could occur through FAO or other sources of funding. Further PePC courses, with input from OIE on the critical competencies (PVS) may be the way ahead. An OIE FMD unit is planned to be located in Kazakhstan for the Central Eurasia region. FAO is interested in joining OIE to widen this scope and address other major diseases such as brucellosis and PPR. Also, OIE will open a sub-regional representation in Moscow.

Roadmap Advisory Group

A call was made for proposals for new members to be elected to the Advisory group. A proposal came from the floor to maintain the current Advisory group as they are performing well. This was supported in the meeting, and no other nominations were made. Therefore, the current Advisory group will stand.

Reading of the draft Report

The Draft Report was printed provided to institutional participants, Roadmap advisory Group members in advance and provided on screen to the Meeting. Comments were noted and a revised Draft of the Recommendations will be sent by e-mail to all participants after the Meeting, with the Draft Report.

Closing Remarks

Delegates of the 10 countries, observers, EUFMD and the international organisations (FAO, OIE) gave closing remarks. The remarks were, without exception, positive on the outcome of the Meeting. Participants expressed their commitment to the Roadmap process and to improving FMD control in the region. There was a request for increased translation of documentation into the Russian language that was widely supported by representatives at the meeting. It was suggested that more time should be allotted to country presentations, and that they should be given earlier in the schedule to allow time for discussion of the content between representatives. The importance of the Roadmap as a framework for increasing action against FMD in the region was emphasized, as well as stimulating investment and achieving greater impact of national and regional efforts. Many themes that had already arisen over the course of the meeting were stressed, particularly the importance of a regional coordination and broad support for the PCP approach.

Appendix 1: Surveys conducted in the Context of the WEST Eurasia ROADMAP MEETING

Participating countries received, two questionnaires prior to the meeting, one regarding vaccination against Foot-and-Mouth Disease in the West Eurasia Region (2012-2013), and another on livestock identification, registration and movement control systems

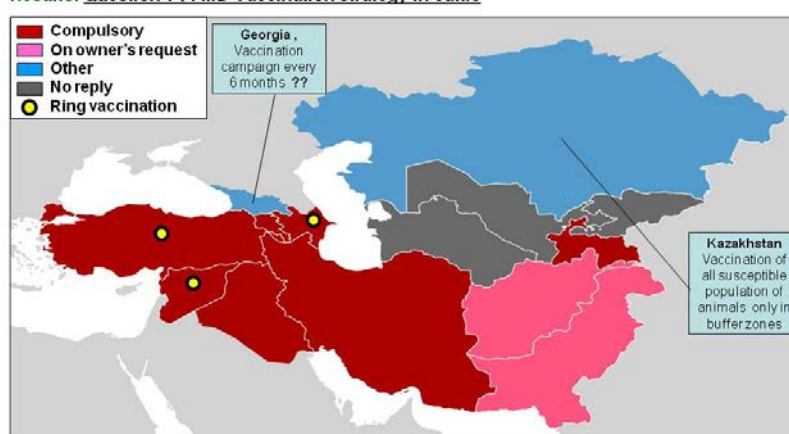
Vaccination against FMD in West Eurasia (in 2012 +/- early 2013)

(replies received from 11 out of 14 countries, namely Afghanistan, Armenia, Azerbaijan, Georgia, Iran, Iraq, Kazakhstan, Pakistan, Syria, Tajikistan and Turkey)

Results

The FMD vaccination strategy varied a lot between countries ranging from compulsory vaccination to voluntary, with more emphasis put on the vaccination of cattle rather than small ruminants (see relevant maps). Only 4 out of 11 countries pass some cost of the vaccination to the livestock owners (vaccination fee +/- vaccine). A large number of countries applied risk-based vaccination (7/11) and in most cases (7-8/11) there is some follow up of the vaccination programme (serology).

Results: Question 7. FMD Vaccination strategy in cattle

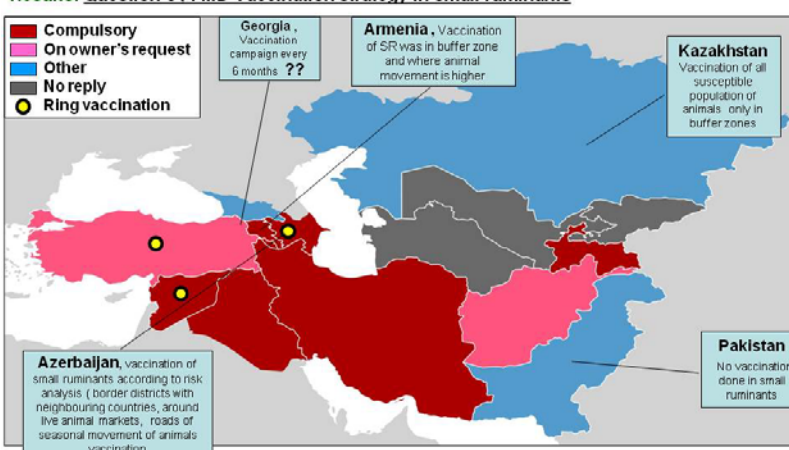


The vast majority of vaccines used¹ were trivalent (A/O/Asia 1), yet their composition (strains) varied greatly, even between neighboring countries. It is worth noting that within the same country up to 6 different vaccines may be available for use (each with its own unique combination of strains).

In addition vaccine matching was reported only for 5/11 countries (2 of those in the WRL and the rest in national laboratories).

Vaccination, in most cases, was reported to occur twice per year for cattle and once per year for small ruminants (campaigns around spring & autumn).

Results: Question 8. FMD Vaccination strategy in small ruminants



¹ About 45 million doses in cattle and 72 million doses in small ruminants (total doses delivered in 2012 in all countries that replied to the questionnaire).

In general vaccination coverage reported was higher in cattle (average 65%) than Small ruminants (average 38%).

However it is of note that theoretical vaccination coverage (estimate based on the total vaccine doses delivered vs total cattle /small ruminants present in the area) was much lower (42,5% in cattle and 27,7% in small ruminants, 32.1 % in total).

Results: Question 14. FMD vaccination schedule for 2012 (9/10: 2ce LR & 1ce SR)

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Afghanistan	?	?	?	?	?	?	?	?	?	?	?	?
Armenia			LR/SR	LR/SR						LR	LR	
Azerbaijan			LR	LR						LR/SR	LR/SR	
Georgia				LR	LR			LR	LR	LR/SR	LR/SR	
Kazakhstan			LR/SR	LR/SR					LR/SR	LR/SR		
Iran *				LR/SR	LR/SR	LR/SR				LR/SR	LR/SR	LR/SR
Iraq	LR/SR			LR	LR	LR					LR/SR	LR/SR
Pakistan												
Syria												
Tajikistan				LR/SR	LR/SR					SR	SR	
Turkey												

* In different areas (~ 1/3 of the country) in successive months

Note

Iran: Industrial holding cattle vaccinated every 4 months

Pakistan: No fixed schedule, on demand of farmer, repeat after 6 months

Turkey: No vaccine in Eastern Black Sea and mediterranean Regions. Eastern borderline vaccine on Spring /Western -Inner Anatolia vaccine on Autumn. Thrace: vaccination campaign 2ce per year all ruminants.

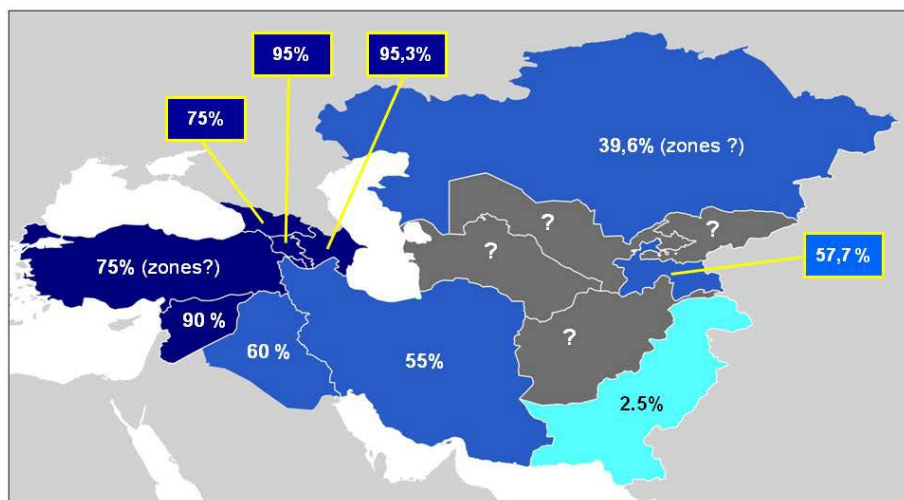
Conclusions

The survey demonstrated a large variation in FMD vaccination practices in West Eurasia and identified a number of areas for improvement/assistance such as:

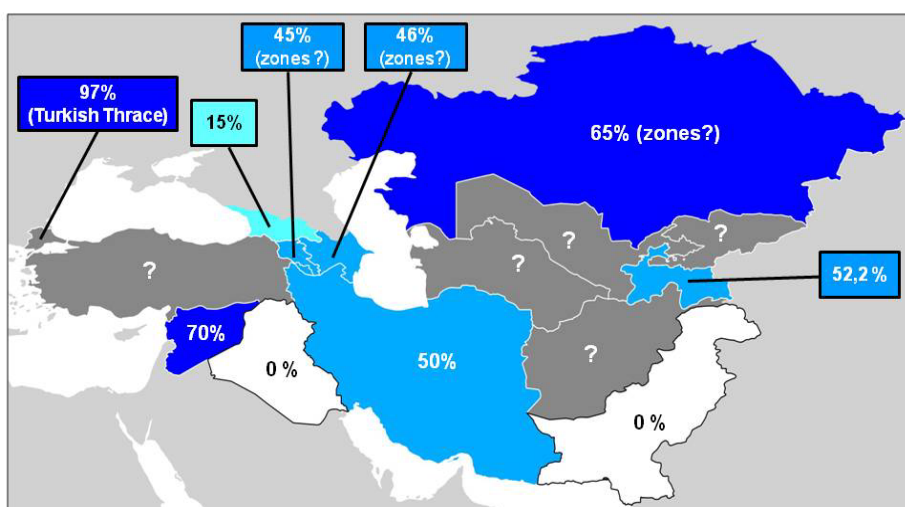
- Selection of FMD control policies / vaccination strategies (particularly those based on risk assessments).
- Vaccine matching –strain selection
- FMD vaccines procurement procedures (perhaps a need to draft templates for vaccine selection & tender requirements, to ensure delivery of appropriate/effective vaccines).

-Improvement of international cooperation in the area.

Results: Question 16 . approximate coverage of FMD vaccination in cattle in 2012.



Results: Question 16. approximate coverage of FMD vaccination in small ruminants in 2012.



Livestock identification, registration and movement control systems

(replies received from 10 out of 14 countries, namely Afghanistan, Armenia, Azerbaijan, Georgia, Iran, Iraq, Kazakhstan, Syria, Tajikistan and Turkey)

Questions were restricted to FMD susceptible species (cattle, sheep/goats, pigs) though replies received were more relevant for ruminants than pigs (half the countries included no pig replies or reported a very small pig population).

Results

Husbandry practices in place

- Cattle are either kept indoors / grazing outdoors (reported by 70% of the countries) and rarely subject to seasonal movements.
- In small ruminants the majority of countries (80%) reported nomadic systems/seasonal movements as the most likely practices.
- Pigs, an apparently less significant population, are either kept indoors or part of a few industrial holdings in some countries.

Livestock Registration Systems *(lists of list of all the holdings, or farms or villages keeping livestock at national level (for the entire country) or at local level)*

All countries have national lists of cattle(10/10) and sheep goats(9/10), but only a few for pigs (3/10)

The National Lists of cattle and small ruminants usually include lists of owners, farms and villages and in 60% of the countries they are electronic. They are usually filled by the National Veterinary Authorities of each country and in most cases, updated once per year (some countries reported update every 1-6 months or up to 36 months).

Most countries (80%) also keep Local Lists of cattle /small ruminants with more or less the same information as the relevant national lists. These are kept by the Local Veterinary or other Authorities and updated at the same frequency.

Livestock identification systems: (individual animal identification)

These are present for cattle in 50% of reporting countries (mandatory only in 3 countries). Furthermore, in most countries where cattle identification is present, it is estimated that only 10% or less of the animals bear individual identification (mostly eartags) although a couple of countries reported high levels (above 90%) of individual identification among all ruminants. In 1-2 countries identification systems were reported for small ruminants and pigs too. Records of livestock identification (where applicable) are mostly paper based (some electronic records reported too) and usually filled by Government Veterinarians

Movement controls /tracing (within country but also internationally)

At national level

In the majority of countries (80-90%) movements of Cattle and Sheep/Goats are subject to authorisation (health certificate ±movement permit) granted usually by the Veterinary Authorities. Some movement control is reported in pigs too (authorisation required in 40% of the countries) . Livestock movement records were reported to exist in 7/10 countries (paper or electronic) and official controls to detect unauthorised livestock movements are carried out jointly by the Veterinary Authorities and the Police. Approximately half of the countries reported that unauthorised movements of ruminants/pigs may occur sometimes.

Internationally (imports-exports)

In all countries imports – exports of live animals are authorised by the Veterinary Authorities. In most cases border controls are carried out by the Veterinary Authorities and/or Customs, sometimes assisted by the Police. Unauthorised imports of livestock were reported to occur sometimes (30%) or rarely (30%) while unauthorised exports less frequently (sometimes 20%, rarely 10%). The number of Border Inspection Posts per country is usually around 10-15, although a couple of countries reported more than 20 or 30.

Movements of animals in case of FMD

In most countries (80% or more), legislation is in place to impose movement restrictions in case of FMD suspicion or confirmation. In most cases these apply for 21 days after the last case of FMD (50% of the countries) and within a 10km zone around the outbreak.

Conclusions

Livestock registration (owners, farms, villages) is in place to some extent among the West Eurasia countries for cattle as well as small ruminants, at variable levels. Individual animal identification, on the other hand, is very low in most countries and essentially present only in cattle. The presence of nomadic sheep / goat populations in many countries poses an extra challenge for FMD control in West Eurasia. Movement restrictions in case of FMD may vary significantly between countries (in some cases they do not even apply). Most countries reported plans to improve their animal movement control systems (particularly for ruminants) both within their territory as well as for exports/imports. Any progress in this sector, along with improvement of livestock registration/identification systems could greatly contribute in FMD control in the area.

Country	No of Border Inspection Posts
Afghanistan	9
Armenia	9
Azerbaijan	11
Georgia	13
Iran	41

Country	No of Border Inspection Posts
Iraq	14
Kazakhstan	34
Syria	23
Tajikistan	17
Turkey	8

Appendix 2: Report of the GF TADs Seminar on National Project Proposals

The objectives of the seminar were to highlight the importance for individual countries to prepare FMD national project proposals within the context of regional virus pools. The basis document on which national programmes can be prepared and presented to governments and donors is the GF TADs Global Control Strategy presented and supported at the FAO/OIE Global Conference on FMD Control (Bangkok June 2012) and the major monitoring, evaluations and support tools of the Global Strategy's component one (on FMD Control), the PCP FMD, and of the transversal component two (Strengthening Veterinary Services) the PVS Pathway.

In order to facilitate a more thorough discussion participants were divided into two groups: Group 1 included: Azerbaijan, Georgia, Kazakhstan, and Tajikistan (Russian Federation attended as observer). Group 2 included: Iran, Iraq, Pakistan, Syria and Turkey.

Group 1 discussion was led by J. Domenech (OIE) while in group 2 was led by S. Metwally (FAO).

The direct involvement of countries as initial originators of project proposals has been proposed as an essential element for donors advocacy for more investment in controlling FMD. An overview of the Logical Framework approach was presented and discussed as a possible model for the preparation of national project proposals. The key messages for advocacy are that FMD causes worldwide and in developing countries much more damage than is often thought, that FMD control will have favourable and lasting collateral beneficial effects through improvement of VS and other disease control programmes and that better FMD control is possible with today's means and methods; the global return on investment is not difficult to show.

The Logical Framework approach was presented as a widely used planning procedure for complete project cycle management. It is an approach which takes into account the views of all stakeholders supposed to agree on the criteria (indicators) for project success and lists the major means of verification and assumptions.

This participatory methodology involving all interested stakeholders (participatory exercises at the early stages of the preparation of the project document particularly with regard to problem identification and solutions to the problems: participatory workshops to define the so called "Problem tree" and "Objective tree") has been proposed as a key element for successful design and implementation of project proposals. The Logframe approach is particularly powerful with regard to monitoring progress made in delivering outputs and activities and in evaluating impact of Programme outputs 'e.g. progress in achieving purpose and goal.

The intervention logic was presented with its cascade of sections which structures the project documents: Goals (the higher level objectives), Purposes (or Outcomes: the effects/benefits which are expected to be achieved as the result of the project, Outputs (or Expected results: the results/products that the project management is able to guaranty/that the activity will deliver), Activities (the activities that have to be undertaken by the project in order to produce outputs), Objectively Verifiable Indicators and their means of verification, Assumptions and risks (hypothesis made about important events, conditions or decisions which are outside the direct control of the project which could affect the achievement of the goal, the production of outputs, the success of the activity or the start of the project. It continues with sections on Project sustainability, Implementation / management structure / governance, Action plan and timetable, Budget and Conclusion and overall benefits.

During the discussion, a list of questions were proposed to the participants: 1) Summary of the major issues and challenges which were addressed by the countries when invited to make their presentation during the PCP assessment sessions and identification of major priorities in terms of investment, taking into account PCP stage, PVS Gap Analysis (if available) and what is already financed in the country; 2) Possibilities to prepare a dossier for submission to OIE for endorsement of a national control programme (PCP stage 3) or

national or zonal disease recognition (PCP stage 4 and/or 5); 3) Possibilities to prepare an FMD control project proposal to be presented to governments and development partners (The purpose was not to start preparing a project proposal but to know what the participants think about the possibilities to define such a list of key elements when preparing a project proposal such as major national investment priorities, cost of the national strategy advocacy); 4) Expected support from regional and international organisations; 5) Format of national project proposals and conclusions on the need to harmonise the national project proposal formats within the region to better show the importance and relevance of a regional approach; 6) Regional axes to be included in national project proposals (such as Coordination, leading laboratories, vaccine banks, control of transboundary animal movements...); 7) Conclusions and the way forward: preparation of national and regional project proposals (how, when?).

Regarding the question 1 and in order to highlight what was said during previous sessions, participants expressed some concerns in the following areas that represent a stumbling block in national and regional advances in PCP; 1) Animal movement across borders requires an immediate analysis to incorporate in the national and regional control programs; 2) Vaccine availability, quality control testing and post vaccination monitoring; 3) Delays in obtaining laboratory test results from the WRL; 5) Shipping samples to testing laboratories; and 6) Needed support to develop a regional project proposal to support regional training on epidemiology, vaccination strategy and to surge capacity to laboratory and epidemiology networks.

The participants outlined two major points: (i) the necessity to strengthen the advocacy to governments and their development partners in their countries (without forgetting the national and global levels) and called on International and regional organizations (in light also of the Global FMD Strategy document) to assist to any possible extent national veterinary authorities in their effort to advocate FMD control as one of the priority issue in the livestock sector; (ii) the advantage to adopt an harmonised templates for national project proposal preparation (with the Logframe approach being among the best structured and popular method although it is recognized that appropriate flexibility is necessary in order to adjust with national uses and needs).

Based on the above two specific recommendations were prepared to be added in the report of the West Eurasia Road Map meeting. Two additional recommendation were also proposed by the seminar groups which will be included among the overall recommendations of the meeting and not specifically to the seminar: i) One related to the necessity for countries to get involved actively into the OIE PVS Pathway and to develop an enabling environment for the control of FMD of which the reinforcement of VS is an integral component; ii) Another related to the need to receive support to conduct socio-economic impact assessment of FMD in livestock production, livelihoods and food security and to conduct cost/benefit analysis of FMD control options. The latter was seen as an additional essential element to further strengthen advocacy especially in developing countries where impact of FMD is usually not measured if not neglected at all.

Appendix 3 Links to Presentations

<http://wwwWestslideshow.net/FAOoftheUN/tag/west-eurasia-roadmap>

<http://www.fao.org/ag/againfo/commissions/eufmd/commissions/eufmd-home/reports/regional-fmd-meetings/en/>

- [PCP FMD stage descriptions, indicators and assessment, C.Bartels](#)
- [The PVS evaluation and convergence PVS-PCP, M.Eloit](#)
- [The Westeurasia database, K.Dietze](#)
- [Practical epi for progressive fmd control course, M.Mclaws](#)
- [First PePC graduated comments, D.Abdollahi](#)
- [Regional vaccine matching results and recommendations, N.Bulut](#)
- [Gftads project proposal seminar, J.Domenech](#)
- [History of the Roadmap up to now, K.Sumption](#)
- [The global fmd control strategy and its application to regional initiatives, J.Domenech](#)
- [Fmd Turkey, recent developments in the region and outlooks, N.Yacicioğlu](#)
- [Overview of regional FMD situation and trends in virus circulation, A.Mischenko](#)
- [I.R of Iran, N.Rasouli](#)
- [Republic of Iraq, B.K.Abood](#)
- [Kazakhstan](#)
- [Progressive control of fmd in Pakistan, Afzal & Syed](#)
- [Syria](#)
- [FMD situation in Turkey, A.Bulut](#)
- [Livestock identification registration among the W.Eurasia countries livestock survey, A.Mehraban](#)
- [Regional fmd management support functions and proposals, M.Mclaws](#)
- [What is happening in bordering W.Eurasia regions, G.Yehia](#)
- [PCP Assessment results](#)

List of Participants

Country		First Name	Name	Title	e_mail
Azerbaijan	Dr.	Nuraddin	Abbasov	Epidemiologist Epid. Unit SVS	Sector-umu@vet.gov.az
	Ms.	Tamilla	Aliyeva	RC	Tamilla_aliyeva@list.ru
	Dr.	Kliment	Asadov	Chief of the Epid. Department	sector-umu@vet.gov.az
	Dr.	Eldar	Hasanov	Chief of the Epid. Department	eldar_gasanov@rambler.ru
	Dr.	Mahira	Vatani	Virologist RVL	sector-umu@vet.gov.az
	Ms.	Shalala	Zeynalova	Virologist RVL	zeynalova.shelale@rambler.ru
	Ms.	Tarana	Bashirova	Fao Officer Azerbaijan	tarana.bashirova@fao.org
	Dr.	Bahram	Aliyev	Deputy Minister	no direct mail
	Dr.	Emin	Shahbazov	Deputy CVO	sector-umu@vet.gov.az
	Dr.	Fizuli	Gurbanov	Epidemiologist Epid Dept.	sector-umu@vet.gov.az
	Dr.	Mazahir	Shixiyev	Epidemiologist expedition of sv	shixiyevmazahir@rambler.ru
	Ms.	Aynur	Askerova	RVL	aynurqasanova@mail.ru
	Ms.	Siala	Rusthamova	CVO	Sector-umu@vet.gov.az
Georgia	Dr.	Zurab	Rukhadze	Ministry of Agriculture National Food Agency	zurab.rukhadze@fao.org
	Dr.	Levan	Dumbadze	Acting head of International Relations Department (NFA)	levan.dumbadze@nfa.gov.ge dumbadze@outlook.com
IRAN	Dr.	Abdolamir	Rezaei	general director of the office for surveillance and combating animal diseases	Abdolamir.rezae4@gmail.com
	Dr.	Naser	Rasouli Beirami	National Project Co-Ordinator	beirami40@hotmail.com
	Dr.	Darab	Abdollahi Biron	Iran Veterinary Organization (IVO)	darababdollahi@yahoo.com
IRAQ	Dr.	Barraq Kamel Abood	Al-Azzawi	Head of the Iraqi FMD controlling Program	Barraq1000@yahoo.com

Country		First Name	Name	Title	e_mail
	Dr.	Salah Fadhil	Abbas	Director General - Iraqi state Company for Veterinary Services	iraq_vet2010@moagr.org
Kazakhstan	Dr.	Yerbol	Kamsayev	Chief Specialist of Republican Veterinary Laboratory	kamasaev@MAIL.RU gu.nzmr@mail.ru
	Dr.	Tursyn	Kabduldanov	Chief Expert Of the Committee	kabduldanov.t@minagri.gov.kz
Kyrgyzstan	Dr.	Mamarsul	Toroev		toroev_mamarsul@mail.ru
	Dr.	Zholdosbek	Osmonaliev		depvet01@mail.ru
	Dr.	Ashirbai	Jusupov		ashirbai.j@mail.ru
Pakistan	Dr.	Syed Muhammad	Jamal	Assistant Animal Husbandry Commissioner	jamal115@yahoo.com
Syria	Dr.	Mazen	Dib	Ministry Of Agriculture	drmazein@yahoo.com
Tajikistan	Dr.	Muzafarbek	Anoyatbekov	Director Science and Industrial Enterprise "Biological preparation"	muzafarbek@mail.ru
	Dr	Sharipov	Murodali	Director National Epizooti center , Tajikistan	Sharipov-50@mail.ru
Turkey	Dr.	Nahit	Yazicioglu	Head of Animal Health and Quarantine Department	nahit.yazicioglu@tarim.gov.tr nahit.yazicioglu@gmail.com
	Dr.	Cihangir Gultekin	Gúmústepe	Section Coordinator of Combat Animal Disease	Cihangir.GUMUSTEPE@tarim.gov.tr
	Dr.	Abdulnaci	Bulut	FMD institute	nacib@sap.gov.tr
ARRIAH Russia	Dr	Nikita	Lebedev	ARRIAH, Vladimir, Russian Federation	lebn@yandex.ru
	Dr	Sergey	Dudnikov	ARRIAH, Vladimir, Russian Federation	dudnikov@arriah.ru
	Dr.	Alexey	Mishchenko	FGBI FEDERAL CENTRE FOR ANIMAL HEALTH, Vladimir, Russia	mischenko@arriah.ru afanaseva@arriah.ru
World Bank	Mr.	Rafiz	CHIRAQZADE	World Bank	rchiraqzade@worldbank.org
	Mr.	Galib	Abdulaliyev	World Bank	gabdulaliyev@worldbank.org

Country		First Name	Name	Title	e_mail
	Ms.	Elckin	Hgabayeva		
DTRA	Ms.	Aytan	Aghamaliyeva	BoozAllen Hamilton DTRA	
DTRA	Mr	Martin	Adams	Bechtel	
OIE	Dr.	Joseph	Domenech	Charge' de Mission OIE	j.domenech@oie.int
	Dr.	Monique	Eloit	Deputy Director General	m.eloit@oie.int
	Dr.	Ghazi	Yehia	OIE Regional Rep. for Middle East	g.yehia@oie.int
	Dr.	Stanislav	Ralchev	Technical Assistant OIE SRR Brussels	s.ralchev@oie.int
Merial	Dr.	Nicolas	Denormandie	Technical Consultant for MERIAL VPM (Veterinary Public Health	nicolas.denormandie@merial.com
Consultants	Dr.	Andriy	Rozstalnyy	Animal Protection & Health Officer	Andriy.Rozstalnyy@fao.org
	Dr.	Carsten	Potzsch	EuFMD	carsten@potzsch.eu
	Dr.	Chris	Bartels	EuFMD	info@chrisbartels.eu
	Dr.	Melissa	McLaws	EuFMD	Melissa.McLaws@fao.org
	Dr.	Ali Safar	Maken Ali	EC LML Vet AHDP Vet. Epidemiologist	makenali@gmail.com
FAO	Dr.	Mehraban	Abdulbaqi	FAO/SEC	AbdulBaqi.Mehraban@fao.org
	Dr	Julio	Pinto	Animal Health Officer FAO Rome	julio.pinto@fao.org
	Dr.	Samia	Metwally	Animal Health Officer Virologist	samia.metwally@fao.org
	Dr.	Klaas	Dietze		Klaas.Dietze@fao.org
	Dr	Giancarlo	Ferrari	IZSLT	giancarlo.ferrari@izslt.it
EuFMD	Dr	Keith	Sumption	Executive Secretary, EuFMD	keith.sumption@fao.org
	Dr	Eoin	Ryan	Animal Health Officer	eoin.ryan@fao.org
	Ms	Nadia	Rumich	Communications Officer	Nadia.rumich@fao.org
	Mrs	Leonardo	Leon		leonardo.leon@fao.org
	Mrs	Cécile	Carraz		carraz.cecile@fao.org

