



5th

ANNUAL WEST EURASIA FMD CONTROL ROADMAP MEETING

Astana, Kazakhstan

23-24 April 2014

Draft Report (Version July 10 2014)



in collaboration with European Union



Vision for the West Asia Roadmap for FMD Control

Regional cooperation among Eurasian countries for the progressive control of FMD
leading towards freedom of clinical disease by 2025
for regional economic development, food security, and poverty alleviation.

Видение Дорожной карты по контролю ящура в Западной Евразии

Региональная кооперация между Евразийскими странами в целях прогрессивного
контроля ящура ведет к свободе от клинического проявления болезни к 2025 г. для
экономического развития и снижения уровня бедности.

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Abbreviations

CVO	Chief Veterinary Officer
EC	European Commission
EUFMD	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 Organisation for Animal Health
PCP	Progressive Control Pathway
RAG	Regional Advisory Group
SAT2	Southern African Territories Type 2 Strain of FMD
TAHC	OIE Terrestrial Animal Health Code, 2013 version
USDA	United States Department of Agriculture
WELNET	West Eurasia Laboratory Network
WG	Global GF-TADs FMD Working Group
WRLFMD	The World Reference Laboratory for Foot and Mouth Disease

Table of Contents

ACKNOWLEDGEMENTS.....	3
ABBREVIATIONS	4
SUMMARY	6
❖ INTRODUCTION - STORYLINE	6
❖ OUTCOME AND OUTLOOK	7
RECOMMENDATIONS OF THE MEETING	9
DAY BY DAY REPORT OF THE MEETING	13
❖ SESSION 1: FMD SITUATION AND REGIONAL ROADMAP.....	13
❖ SESSION 2: COUNTRY REPORTS.....	17
❖ SESSION 3: SPECIFIC ISSUES.....	17
❖ SESSION 4: REGIONAL EPI AND LABORATORY NETWORKS AND SPECIFIC NEEDS	20
❖ SESSION 5: SEMINAR ON NATIONAL FMD CONTROL PROGRAMMES AND PROJECT PROPOSALS AND OIE OFFICIAL SUBMISSIONS.....	21
❖ SESSION 6: ROADMAP CONCLUSION	24
❖ SESSION 7: FINAL DISCUSSIONS, CONCLUSIONS AND NEXT STEPS	27
ANNEX 1 - LIST OF PARTICIPANTS	30
ANNEX 2 - SUMMARY OF CONTENTS OF COUNTRY REPORTS.....	34
ANNEX 3 - SURVEY ON VACCINATION CONDUCTED IN THE CONTEXT OF THE W. EURASIA ROADMAP MEETING	48

Summary

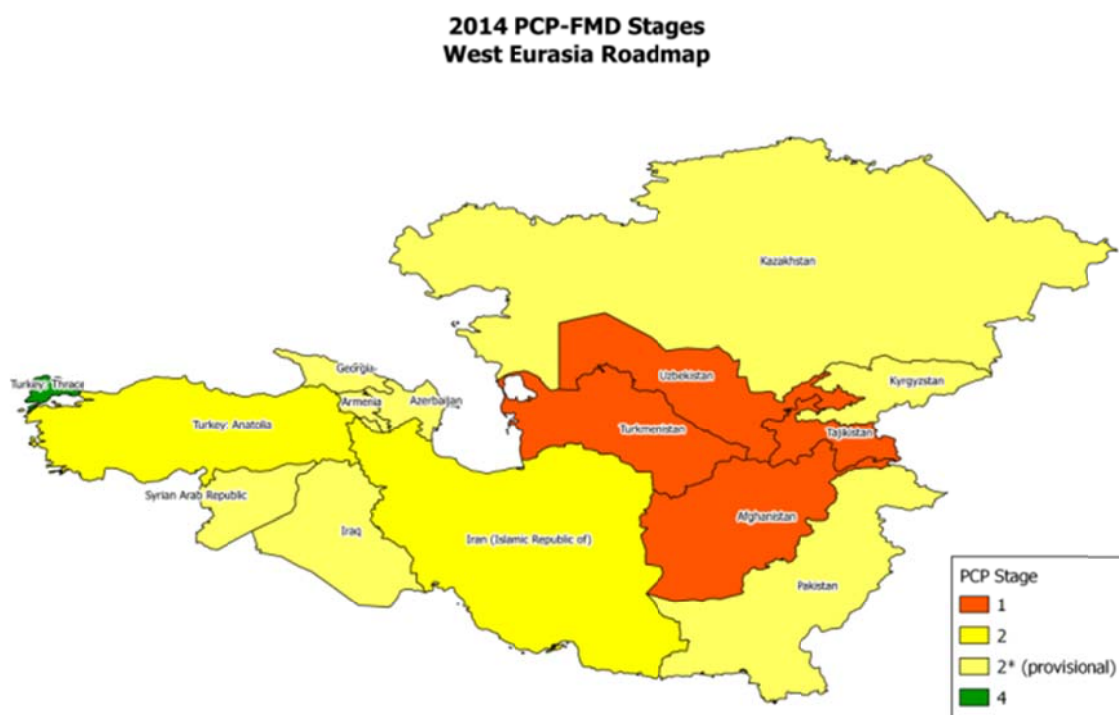
❖ Introduction - storyline

1. The 5th Regional Meeting to review the progress of the West Eurasia FMD Roadmap was held in Astana, Kazakhstan on 23-24 April, 2014 (hereafter named '2014 Astana meeting'). Earlier meetings of the Roadmap included Istanbul 2009, 2010, 2012; Baku 2013; and the 'founding' meeting was held in 2008 in Shiraz, when the sub-regional Vision was discussed and agreed: **'West Eurasia region free of clinical FMD by 2020'**. The Vision timeline was expanded to 2025 during the 2013 Baku meeting.
2. The 2014 Astana meeting was held in the framework of the FAO-OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs), with the collaboration and support of the European Commission for the Control of FMD (EuFMD) and the Kazakhstan government. The OIE Sub-Regional FMD Coordination Unit Office in Central Asia, newly established (October 2013) in Astana, was in charge of the local organization, while the Global GF-TADs FMD Working Group and EuFMD were in the fore-front for all technical aspects, prior to and during the meeting.
3. Out of the 14 countries members of the West Eurasia FMD Roadmap, 13 countries attended the meeting (Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, Armenia, Azerbaijan, Georgia, Turkey, Afghanistan, Iran, Iraq, Pakistan and Syria); only Turkmenistan was not able to attend. Russia attended the meeting as an Observer, as recommended during the 2013 Baku meeting, as well as representatives of donors and private firms. The Minister of Agriculture of the Republic of Kazakhstan, Mr Asylzhan S. Mamytbekov, the Vice-Minister of Agriculture, Mrs Gulmira Issayeva, and representatives of FAO and OIE attended the meeting. The meeting agenda and list of participants are in [Annexes 1 and 2](#).
4. As for the previous meetings, the objectives of the 2014 Astana meeting were to:
 - a. Review the progress along the Regional Roadmap towards the Vision identified at the Shiraz Meeting in 2008 (and revised in 2013) of a "West Eurasia region free of clinical FMD by 2025";
 - b. 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. Support countries to prepare national project proposals for investment in FMD control in view of the regional context.
5. An important output of the meeting is the annual assessment of the PCP-FMD Stages for all countries, following a multi-stage process: (i) preliminary assessment by the WG with the assistance of EuFMD experts, based on the self-assessment questionnaires and supporting evidence sent by the countries prior to the meeting; (ii) presentation of the country report during the meeting; (iii) country interviews during the meetings, conducted jointly by the WG with the assistance of EuFMD; (iv) preliminary discussions among the Roadmap Advisory Group and the WG and EuFMD experts; (v) final assignment (GF-TADs Acceptance) proposed by the West Eurasia Regional Advisory Group (RAG) and agreed in plenary session.
6. Members of the RAG were newly elected due to changes in the CVOs in the past year. Elected members of RAG are Dr Irfan Erol, CVO of Turkey (Chair); Dr Mereke Taitubaev, CVO of Kazakhstan; Dr Mikheil Sokhadze, CVO of Georgia; Dr Naci Bulut from Turkey (lead of WELNET Network); and Dr Naser Rasouli from Iran (lead of the Epi-Network).

7. The progress towards the implementation of the Baku recommendations as well as the progress of FMD control since 2013 were reviewed. A provisional revised Roadmap to 2025 was developed for the 13 participating countries.

❖ Outcome and outlook

8. Upon review, it was found that 80% of recommendations from the 2013 Baku meeting have been or are currently being implemented, which demonstrates that countries maintained their interest and active involvement between the 2 meetings of the Roadmap, through follow up actions. Also, more than 70% of the countries in the FMD West Eurasia Roadmap have submitted their questionnaires to the Working Group in preparation for the 2014 Astana meeting. Many countries also met the deadline to provide their control plan by May 2013 as requested during the 2013 Baku meeting.
9. **The progress in the fifth year is considered to be good.** Of the 13 countries participating in the 2014 Roadmap meeting:
- Ten countries are now in PCP-FMD Stage 2, based on the evidence presented at the meeting;
 - However, eight of these ten have been granted PCP-FMD Stage 2 with a provisional status, pending additional evidence (notably provision of a quality FMD risk-based strategic plan);
 - Four countries remain in PCP-FMD Stage 1, in the absence of evidence showing completion of this Stage.



10. The progress in developing the 'enabling environment' for PCP-FMD specific activities, namely the progressive reinforcement of the Veterinary Services capacity, was part of the assessment and acceptance process.

11. Countries with a 'provisional' stage have to submit their national control strategy within six months to the GF-TADs FMD Working Group, otherwise they will revert Stage 1. **The 2014 PCP-FMD Stage acceptance will therefore be finalized in Fall 2014.**
12. **Overall, the 2014 PCP-FMD Stage Acceptance shows that the Roadmap remains on track to achieve the sub-regional vision by 2025.** The Astana meeting was a key milestone for the West Eurasia region as seven countries are likely to progress to PCP-FMD Stage 2, indicating the implementation of risk-based control measures.

For 2014-2015:

13. Final acceptance of 2014 PCP-FMD Stages and 2025 Roadmap will be provided by the RAG in Fall 2014, after analysis of additional requested evidence.
14. (New) Countries in PCP-FMD Stage 2 will need to invest heavily in FMD vaccination programmes. Therefore, effective use of vaccine, including regular assessment of vaccine matching with local field strains, will be extremely important. The establishment of a regional vaccine bank could be explored for the timely delivery of quality vaccines.
15. FAO and OIE, in collaboration with EuFMD and the WELNET and EPI-NET regional networks, will provide reinforced support to countries, notably to the four countries remaining in PCP-FMD Stage 1. The newly established OIE sub-regional Unit Office for FMD in Central Asia will play a pivotal role in this regard, and could act as the West Eurasia FMD Roadmap Secretariat, provided the decision is made by the GF-TADs Management Committee.
16. For countries currently belonging to two regional Roadmaps (Afghanistan, Pakistan, Iran, Iraq and Syria), the GF-TADs Management Committee may also decide to position them in only one regional Roadmap, to avoid possible discrepancies in PCP-FMD Stage Acceptance (although they may attend the meetings of the alternate regional roadmap as observers).
17. The identification of Contact Points from each country as specialists on issues related to PCP-FMD, the laboratory and the epidemiology is recommended to facilitate communication and coordination in matters related to PCP questionnaires, national control plans and laboratory and epidemiology networks. This will be an important step to move the PCP process forward.

Recommendations of the meeting



Recommendations of the 5th Regional meeting to review progress West Eurasia FMD Control Roadmap 2025

Astana, Kazakhstan, 23-24 April, 2014

Considering:

- The importance of controlling FMD at the regional level and the results of previous FMD regional Roadmap meetings: Shiraz/2008; Istanbul/2009; Istanbul/2010; Istanbul/2012; Baku/2013;
- The commitment of the countries from West Eurasia to the Progressive Control Pathway for Foot-and-Mouth Disease (PCP-FMD), the Roadmap process and to continue to participate in annual progress review meetings;
- The added value in organising peer review of the PCP Stage assessments and of the control plans, including the presentation of the results of the assessments during the regional Roadmap meetings;
- The importance of having a Regional Advisory Group (RAG) for West Eurasia composed of three CVOs and leaders of the epidemiology and laboratory regional networks to analyse and present the results of the assessments to the participating countries;
- That many countries of the region are in Stage 1 or 2 of the PCP-FMD and that, to move to Stage 2, countries are required to present their risk-based strategic plans;
- That 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;
- Although the FMD situation seems to be similar in the region/sub-regions, the control programmes are different. This justifies a need for considering national control strategies in the context of regional and global approaches;
- The need to strengthen governments' capacity to prepare their national control plans and project proposals to be presented to national decision makers and donors, in line with OIE standards on FMD;
- That effective Veterinary Services are indispensable for the implementation of FMD control strategies and that the PCP-FMD stage assessment includes reference to the relevant PVS criteria (critical competencies) related to the prevention and control of diseases;
- That socioeconomic impact assessment of FMD in livestock production, livelihoods and food security and cost/benefit analysis of FMD control options have to be undertaken and used when preparing national control plans and financial project proposals;
- That countries have requested support to improve their capacity particularly in epidemiology and risk assessment;

- Three FMDV serotypes (O, A and Asia1) continue to circulate in the region and the region is exposed to threats of incursion from virus pools 1 and 2;
- Vaccine matching results and vaccine effectiveness studies indicate that vaccines currently used are not protective against all circulating viruses, and higher potency vaccines (≥ 6 PD50) are expected to provide better protection;
- Precise vaccination schedules/protocols are to be described and implemented and vaccine matching results and vaccine effectiveness studies are needed;
- Vaccination alone cannot prevent all outbreaks and other additional measures are crucial;
- The establishment of the OIE sub-regional FMD Coordination Unit in Astana / Kazakhstan, and its future role in the implementation of the recommendations of the West Eurasia FMD Roadmap in collaboration with FAO.

The 13 countries here represented (Armenia; Azerbaijan; Georgia; Kazakhstan; Kyrgyzstan; Tajikistan; Uzbekistan; Afghanistan; Iran; Iraq; Pakistan; Syria; Turkey) agree:

1. To validate the conclusions of the West Eurasia Roadmap Advisory Group (RAG)¹ as follows:

	RAG Astana/2014 conclusions
Armenia	PCP-FMD Stage 2 (provisional)
Azerbaijan	PCP-FMD Stage 2 (provisional)
Georgia	PCP-FMD Stage 2 (provisional)
Kazakhstan	PCP-FMD Stage 2 (provisional)
Kyrgyzstan	PCP-FMD Stage 2 (provisional)
Tajikistan	PCP-FMD Stage 1
Turkmenistan	PCP-FMD Stage 1*
Uzbekistan	PCP-FMD Stage 1*
Afghanistan	PCP-FMD Stage 1*
Iran	PCP-FMD Stage 2
Iraq	PCP-FMD Stage 2 (provisional)
Pakistan	PCP-FMD Stage 2 (provisional)
Syria	PCP-FMD Stage 2 (provisional)
Turkey	PCP-FMD Stage 2

** in the absence of documentation and evidence, the RAG decided to leave the countries with their previous stage (Baku 2013)*

¹ In the Astana meeting (2014), the RAG was composed of:

Voting Members

- CVOs: Dr Irfan Erol, CVO of Turkey (Chairperson); Dr Mereke Taitubaev, CVO of Kazakhstan; Dr Mikheil Sokhadze, CVO of Georgia
- Dr Rasouli Beirami Naser (Epidemiology network) and Dr Bulut Abdulnaci (Laboratory network)

Non-voting members

- GF-TADs FMD Working Group: Dr Joseph Domenech (OIE), Dr Giancarlo Ferrari (FAO), Dr Nadège Leboucq (OIE), Dr Samia Metwally (FAO), Dr Julio Pinto (FAO), Dr Laure Weber-Vintzel (OIE)
- PCP experts: Dr Keith Sumption and Dr Melissa McLaws

2. To use the assessments of 5th regional FMD Roadmap Meeting (Astana/2014) as a basis to update the Roadmap Table for the West Eurasia countries.

The countries recommend, for a better implementation of the Global FMD Control Strategy at regional level:

1. To continue the Roadmap process for West Eurasian countries, with an annual survey (based on the self-assessment questionnaires) and meeting to monitor progress (if funding available);
2. That countries which have a provisional PCP-FMD Stage 2 submit the revised risk-based strategic plan for review no later than October 2014 with evidence of the feasibility for implementation; control plans should be submitted to the GF-TADs FMD Working Group (FAO-FMD@fao.org and OIE-FMD@oie.int) to provide feedback and recommendations to countries on their risk-based strategic plans for effective implementation in coherence with the FMD-PCP guidelines;
3. That countries be provided with the necessary assistance and training to develop FMD control plans; in particular, FAO/OIE with the support of the experts from EuFMD are requested to :
 - further develop the guidance on PCP-FMD project proposals that could assist national authorities to obtain national and international investment on FMD control;
 - provide guidelines and support countries to conduct socioeconomic impact assessments of FMD in livestock production, livelihoods and food security and to conduct cost/benefit analyses of FMD control options;
4. That each country identify a specialist for PCP-FMD, a specialist for laboratory and a specialist for epidemiology to facilitate communication and coordination in matters related to PCP-FMD questionnaires, national control plans and the laboratory and epidemiology networks;
5. That countries be actively involved in the OIE PVS Pathway to improve their 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;
6. That countries consider reciprocal and regular communications with neighbouring countries to assess and mitigate risk across borders, and can seek assistance from FAO and OIE to facilitate if deems necessary;
7. That Veterinary Services ensure that the vaccines used are appropriate for the viruses circulating in the region. The most appropriate vaccines for current risk in the region and recommended for use in 2014 are:
 - For type O: PanAsia2 (O Tuk 5/2009), or O1 Manisa in combination with O 3039. Vaccine matching data suggest that some circulating strains have poor match with O1 Manisa;
 - For type A: A Tur06 or A Iran 05 (sublineage SIS10). For countries bordering China, it is advisable to add A SEA-97 in their vaccine;
 - For type Asia 1; Asia 1 (Sindh-08) or closely related strains or Asia 1 Shamir at 13 PD50 or greater.

That greater use should be made of the vaccine matching services offered by the World Reference Laboratory at Pirbright and other FAO/OIE Reference Centres; in particular, that the countries seek technical advice from the FAO/OIE Reference Centres for careful consideration when selecting vaccine strains against A Iran 05 sublineages;

8. That vaccines used by countries in the region comply with the OIE *Manual of Diagnostic Tests and Vaccines for Terrestrial Animals* 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;
9. That countries receive technical support and assistance from FAO, OIE and EuFMD in the design of serosurveillance, identification of risk hotspots, effective vaccination strategy and post vaccination monitoring, when requested;
10. That more effort be made to achieve the rapid sharing of laboratory information (transparency) on FMD virus circulation between countries of the region through support to the WELNET and to reference laboratories providing vital services to the Roadmap;
11. That the GF-TADs FMD Working Group support countries, when requested and, if funding available, for preparing project proposals to convince governments and donors for more investments in preventing and controlling FMD;
12. That the West Eurasia Roadmap programmes be well articulated with other regional control programmes such as in the Middle East;

Specifically regarding the Epi-Network and WELNET

13. That the Epi-Network encourage countries to harmonise their animal health information system and support the interoperability between existing national and regional systems (such as the West Eurasia FMD database) and with WAHIS to facilitate the country's obligation for disease reporting;
14. That webinars are offered to WELNET and Epi-Network members to connect experts and provide training on technical topics such as designing and monitoring vaccination programs and outbreak investigation;
15. That countries be provided with the necessary training to ensure that there is capacity to monitor the impact and implementation of national strategic FMD control plans; this will include training in descriptive epidemiology, risk analysis, value chain analysis and data management;
16. That a pilot project be undertaken in cooperation with Epi Network members to monitor the prices of live animals and meat in different countries, as an indicator to predict large-scale animal movement patterns;
17. That the WELNET 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;
18. That the WELNET develop guidelines on the selection of samples for further characterization by genotyping and vaccine matching, support should be provided to send 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 networking and communication.

Report of the Meeting by Day

❖ Session 1: FMD Situation and Regional Roadmap

➤ **Overview of global and regional FMD situation** [Emma Fishbourne / WRLFMD]

The WRLFMD received 401 samples in 2013, from which they obtained 259 virus isolates representing five FMDV serotypes (O, A, Asia1, SAT1, SAT2).

Significant events detected include:

- A serotype O isolate from the Indian sub-continent (O/ME-SA/Ind-2001) was detected in Libya and Saudi Arabia in 2013 and UAE in 2014. The sequence data suggest that there were multiple independent introductions of this lineage from the Indian sub-continent.
- The outbreaks in North Africa follow closely after FMD cases due to serotype SAT2 which were introduced into the region in 2012. These patterns give an indication of the changing risks and movements of viruses across West Eurasia and North Africa.
- Detection of serotype O/ME-SA/PanAsia in the Russian Federation and Mongolia in 2014, and serotype A/Asia/Sea-97 in Russia.

Based on this, important FMD threats to the West Eurasia region are the currently circulating strains (O/ME-SA/PanAsia2, A/Asia/Iran-05 and Asia 1 (Sindh-08 lineage) plus strains that might enter the region from neighbouring endemic pools. These threats are not equally distributed across West Eurasia and include: from Pool 1: O/ME-SA/PanAsia, O/SEA/Mya-98, A/Asia/Sea-97; from Pool 2: O/ME-SA/Ind2001; and from Pool 4: SAT2.

Vaccine matching data from 2013 were presented:

- For serotype O (O/ME-SA/PanAsia2 lineages), most vaccines showed a good match except O/Manisa which does not always match using the in-vitro test.
- For serotype A (A/ASIA/Iran-05 lineage) – the in-vitro vaccine matching test provides evidence for the continued evolution of the antigenic profiles of the A/ASIA/Iran-05 sub-lineages that are co-circulating in West Eurasia. The observation that some recent field strains do not appear to be well matched to any of the vaccines tested at WRLFMD warrants close monitoring of the effectiveness of these vaccines in the field (supplemented by vaccine trials and submission of samples).

Recent testing of samples at WRLFMD has highlighted the importance of completing a full vaccine course (i.e. a primary dose, followed by a booster approximately 4 weeks later). This was shown with graphs highlighting the increase in antibody levels following the second booster injection given 28 days after the first vaccination in a series of vaccine trials.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/WRLFMD_Fishbourne.pdf

➤ **FMD-PCP principles and assessment procedures** [Giancarlo Ferrari / FAO]

The PCP-FMD Guide, initially developed by FAO and EuFMD in 2008, became a joint FAO-OIE-EuFMD tool after its revision in 2011. It is now a well-recognized tool, used in many countries worldwide as a monitoring tool to progressively improve FMD control in endemic countries. It will be updated to take into account the

outcomes of the Bangkok conference and notably ensure full consistency with components 2 and 3 of the FAO/OIE Global Strategy for the control of FMD.

Questionnaires (one for each stage 1, 2 and 3) were developed in 2011 as companion tools of the PCP-FMD Guide to serve as assessment tools and help countries assess their progression along the PCP-FMD pathway. A template was also produced to help countries design their risk-based strategic plan when entering PCP-FMD Stage 2, based on the achievements and epidemiological understanding gained in PCP-FMD stage 1. All these tools need to be updated to become exclusive GF-TADs tools and be fully aligned with the FAO/OIE Global Strategy. In particular, linkages with the OIE standard on the quality of Veterinary Services are on-going to ensure a proper delineation of the 'Enabling Environment' concept in the specific context of FMD prevention and control (see next presentation).

Detailed procedures will be drafted regarding how to use these tools in a self (country) or external independent (GF-TADs experts) evaluation mode. A process involving the Regional Advisory Group, composed of Delegates of the region and heads of regional laboratory and epidemiological networks, was implemented during regional FMD Roadmap meetings. The RAG's main task is to grant countries with a FMD-PCP stage based on the assessment questionnaires, evidence provided by countries, country interviews during regional Roadmap meetings and their knowledge of the regional situation. The specific Terms of Reference of the RAG were prepared by the GF-TADs FMD Working Group. The global GF-TADs FMD Working Group brings the necessary technical and logistical support to the RAGs.

Link to the presentation: ???

➤ *Links/complementarities between PCP-FMD and PVS [N. Leboucq / OIE]*

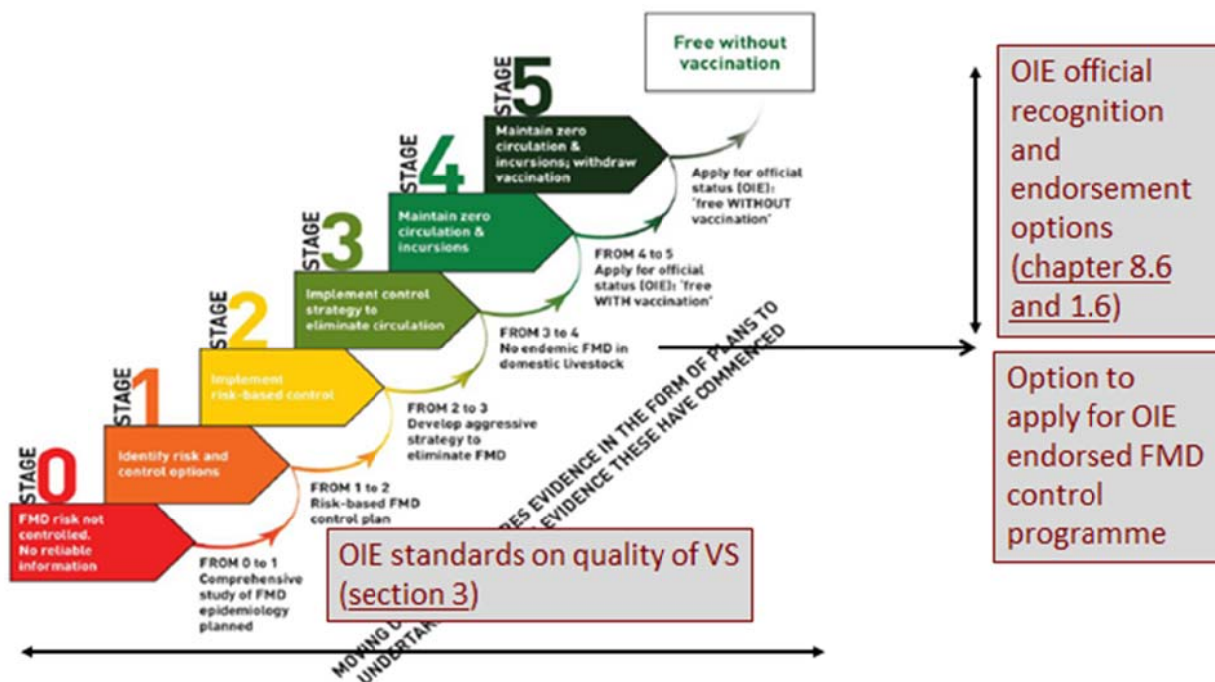
Obvious linkages between the PCP-FMD and OIE's work already exist since, at the end of the PCP-FMD Stages 4 and 5, countries may apply for an OIE official recognition of FMD free status, respectively with and without vaccination in accordance with Chapters 1.6 and 8.6 of the OIE Terrestrial Animal Health Code, 2013 version (TAHC). In PCP-FMD stage 3, a country can also request the endorsement of its national FMD control programme by the OIE.

In the very early stages of embarking into the PCP-FMD, a country should ensure that it progressively acquires the appropriate structures, organization, managerial capacities as well as human and financial resources to implement activities planned for the control — or eradication — of FMD and other TADs. This is known as the '**enabling environment**' of the PCP-FMD, implying the progressive institutionalization of FMD prevention and control and compliance with OIE standard on the quality of Veterinary Services. Chapter 3.1 of the Terrestrial Animal Health Code on the quality of Veterinary Services notably provides 'intrinsic' standards. Compliance of the Veterinary Services with Chapter 3.1 enables them to further comply with the other Chapters of the OIE Code, including those related to FMD (chapter 8.6). Chapter 3.2 on the evaluation of the Veterinary Services recommends using the OIE PVS Evaluation tool (auto-evaluation mode or external independent evaluation by OIE certified experts).

To clarify the notion of 'enabling environment', OIE proposes to use the Critical Competencies (CCs) of the OIE PVS evaluation tool and to link them to a specific PCP-FMD Stage. Thirty-three of the total 47 CCs are particularly relevant to the prevention and control of FMD and other TADs. In other words, for a country embarking into the PCP-FMD, VS capacity should develop according to PCP-FMD timing and requirements. Such a correspondence between the OIE PVS CCs and the PCP-FMD Stage is specified in Component 2 of the FAO/OIE Strategy for the Control of FMD: for PCP-FMD Stage 1, 7 OIE PVS CCs are relevant; for PCP-FMD Stage 2, 17 OIE PVS CCs are relevant; for PCP-FMD Stage 3, all 33 OIE PVS CCs are relevant. For example, the focus of PCP-FMD Stage 1 is 'To gain an understanding of the epidemiology of FMD in the

country and develop a risk-based approach to reduce the impact of FMD'. Seven CCs have been identified as particularly relevant to achieve this, including: professional competencies of veterinarians; continuing education; external coordination; risk analysis; consultation with stakeholders; preparation of legislation and regulations; and active surveillance.

While the principle of bridging the OIE PVS CCs and the PCP-FMD is well recognised and supported, concrete modalities for its implementation, notably during the regional FMD Roadmap meetings, are still under discussion. Countries which had an OIE PVS evaluation before 2010 are encouraged to ask for an OIE PVS Follow up mission.



Link to the presentation:

➤ **Presentation of provisional Roadmap for 2014 based on self-assessment questionnaires**
[Giancarlo Ferrari / FAO; J. Domenech / OIE]

During the Fourth meeting of the West Eurasia FMD Roadmap meeting (Baku /Azerbaijan, April 2013), the following conclusions were agreed:

1. The Roadmap remained on track to achieve the agreed sub-regional vision of freedom from clinical cases of FMD by 2020 (extended to 2025).
2. Based on the evidence provided, all countries were considered to remain at the same PCP-FMD stage as in 2012 (Istanbul meeting), with the following pending decisions:
 - (a) Four countries (Iraq; Kazakhstan; Georgia; Syria) may progress from stage 1 to 2 upon receipt of their risk-based control strategy;
 - (b) Two countries (Azerbaijan; Turkey) must submit their risk-based strategic plan to remain in PCP-FMD stage 2 (otherwise they will be downgraded in Stage 1).

As a preparatory phase of the Fifth meeting of the West Eurasia FMD Roadmap meeting (Astana, Kazakhstan, April 2014), the Global GF-TADs FMD Working Group asked the countries to provide (i) their self-assessment questionnaires and (ii) their national risk-based strategic plan (for those in Stage 2 or aiming to enter Stage 2).

Prior to the meeting, the Global GF-TADs FMD Working Group reviewed the documents and provided their preliminary assessment pending the country interviews and formal conclusions of the RAG which took place during the meeting. The followings were the conclusion of the preliminary assessment:

- (c) 4 countries (Kyrgyzstan, Turkmenistan, Uzbekistan, Afghanistan) qualified in stage 1 in 2013 have not submitted their questionnaires → those countries are provisionally qualified at the same stage as in 2013 (i.e. stage 1);
- (d) 3 countries (Kazakhstan, Tajikistan, Pakistan) qualified in stage 1 in 2013 and claiming for stage 2 in 2014 have not submitted their risk-based strategic plans → those countries are provisionally qualified at the same stage as 2013 (i.e. stage 1);
- (e) 3 countries (Georgia, Iraq, Syria) qualified in stage 1 in 2013 and claiming for stage 2 in 2014 have submitted their risk-based strategic plans → those countries are provisionally qualified in stage 2;
- (f) 2 countries (Azerbaijan, Iran) in stage 2 in 2013 and claiming to remain in stage 2 in 2014 have provided questionnaires and additional information on implementation of their risk-based strategic plans → those countries are provisionally qualified at the same stage as 2013 (i.e. stage 2);
- (g) 1 country (Turkey) in stage 2 in 2013 and claiming to remain in stage 2 have not provided evidence of a risk-based strategic plan → this country is provisionally maintained in stage 2;
- (h) 1 country (Armenia) in stage 2 in 2013 and claiming stage 3 for 2014 indicated that stage 3 will be achieved in the period 2013-2018 → this country is provisionally maintained in stage 2;

	RAG Baku/2013 conclusions	Provisional Roadmap based on self-assessment questionnaires and risk-based risk-based strategic plans (prior to the Astana meeting; to be confirmed by the RAG)
Armenia	PCP-FMD Stage 2	PCP-FMD Stage 2 (h)
Azerbaijan	PCP-FMD Stage 2 (b)	PCP-FMD Stage 2 (f)
Georgia	PCP-FMD Stage 1 (a)	PCP-FMD Stage 2 (e)
Kazakhstan	PCP-FMD Stage 1 (a)	PCP-FMD Stage 1 (d)
Kyrgyzstan	PCP-FMD Stage 1	PCP-FMD Stage 1 (c)
Tajikistan	PCP-FMD Stage 1	PCP-FMD Stage 1 (d)
Turkmenistan	PCP-FMD Stage 1	PCP-FMD Stage 1 (c)
Uzbekistan	PCP-FMD Stage 1	PCP-FMD Stage 1 (c)
Afghanistan	PCP-FMD Stage 1	PCP-FMD Stage 1 (c)
Iran	PCP-FMD Stage 2	PCP-FMD Stage 2 (f)
Iraq	PCP-FMD Stage 1 (a)	PCP-FMD Stage 2 (e)
Pakistan	PCP-FMD Stage 1	PCP-FMD Stage 1 (d)
Syria	PCP-FMD Stage 1 (a)	PCP-FMD Stage 2 (e)
Turkey (Anatolia)	PCP-FMD Stage 2 (b)	PCP-FMD Stage 2 (g)

This preliminary assessment, based on documents and evidence provided (or not) before the Astana meeting, was updated and made final by the RAG.

After the meeting, the Global GF-TADs FMD Working Group will provide details assessment on the risk-based strategic plans to help countries improve the quality of their plans whenever needed.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/Provisional_roadmap_based_on_questionnaires_Domenech_Ferrari.pdf

❖ Session 2: Country reports

A 10 minute presentation on the FMD situation in their country was given by a country representative. The information presented is summarized in [Annex 3](#). Country presenters were: A. Naseri (Afghanistan), S. Kharatyan (Armenia), T. Aliyeva (Azerbaijan), M. Sokhadze (Georgia), N. Rasouli (I.R. Iran), B. Alazzawi (Iraq) S. Sapargaliev (Kazakhstan), A. Zhusupov (Kyrgyzstan), M. Afzal (Pakistan), H. Alsulayman (Syria), K. Odinaev (Tajikistan), N. Bulut (Turkey), and O. Saidovich (Uzbekistan).

❖ Session 3: Specific issues

➤ ***Socioeconomic analysis and guidelines [Julio Pinto / FAO]***

Transboundary animal diseases including FMD are endemic in many developing countries. The Veterinary Services in these countries may lack resources to adequately prevent, detect and respond to these diseases. Livestock disease has broad impact on the national economy, social, food and production systems, through the effects of disease, market disruption, implementation of prevention and control measures and, in the case of zoonoses, human health.

Benefits to FMD control include avoided disease losses, avoided costs of disease risk management and consequential increased economic activity. Costs and benefits of improving FMD control in endemic countries have been estimated and are included in the FMD Global Strategy.

Socio-economic analysis of animal diseases is useful to assess if the disease has an important economic impact, to determine the likely returns of alternative approaches to control and to discover if a particular policy has been a good public investment. Some studies have been done regarding the impact of FMD in endemic countries, and vaccination was determined to be beneficial. Appropriate analytical tools include partial budget analysis, cost/benefit analysis, cost effectiveness analysis and risk analysis. Some of these tools are more appropriate at different points in the PCP-FMD, and guidelines for socio-economic analysis in the context of the PCP-FMD are being developed by the OIE/FAO GF-TADS FMD Working Group with expert support.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/FMD_SocioEconomics_Pinto.pdf

➤ ***New tools for improving national disease reporting [Julio Pinto / FAO]***

In many countries, surveillance programs contribute to the threat of emerging diseases and further spread of endemic diseases due to under-reporting, lack sensitivity and lack of timely reporting. However, in these same countries there is a proliferation of mobile technology and access to this technology is rapidly improving, even in remote places. This improvement in technology has led to the development of tools that

can improve disease surveillance and reporting. In this presentation, a number of these tools were described, including:

- A SMS gateway to facilitate the reporting of disease in poultry in Bangladesh. An FAO project funded by USAID, this tool reduced the time for risk management from disease detection to disinfection from 4.8 days to 1.5 days.
- Digital Pen Technology used in Southern Africa allows disease data to be transmitted automatically from the field to a server with a special digital pen and from a special paper disease surveillance form.
- FAO's Global Disease Information System (EMPRES-i) records disease events on a public website, as well as hosting surveillance data from FAO projects including FMD and allowing specialised analysis on an internal website.
- The West Eurasia FMD database is housed within the EMPRES-I system, and is a secure, password protected website. Participating countries enter outbreak and vaccination data on a monthly basis, and can visualise their own data in the form of charts and maps.
- Event Mobile Application (EMA-i) allows outbreak and epidemiological data to be entered from the field using smartphones. It also allows the mobile user access to relevant epidemiological information and to visualise the location of other nearby outbreaks recorded in the database on a map. It also generates early warning notifications through email that are sent to users of the system and decision makers, including the CVO of the country. EMA-i is available for countries to use on a pilot basis, and this is currently being carried out in Uganda.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/Mobile_Technologies_Pinto.pdf

➤ **Post-vaccination monitoring [Samia Metwally / FAO]**

The effectiveness of a vaccination program is its success at fulfilling the desired outcome in the field. Vaccination program effectiveness will be influenced by: host factors (age, health etc); vaccine characteristics (potency, purity, composition etc); application (timing, vaccinators, cold chain) and the match to the circulating virus. The cost effectiveness of a vaccine program will depend on the cost of disease relative to the cost of the vaccine and the proportion of the disease burden that is vaccine preventable.

Post-vaccination monitoring is necessary to optimise vaccination programs and the use of limited resources. By demonstrating the impact of the vaccination program on the disease burden, it assists to justify the cost of the vaccination. It also stimulates the production of high quality vaccine and/or the development of improved vaccines.

Post-vaccination monitoring guidelines are being developed by an expert team with the aims 1) to provide practical guidance on how to evaluate the effectiveness of an FMD vaccination program and 2) to be tailored to the needs of countries at different stages of the PCP-FMD. The guidelines will include 4 chapters:

1. Vaccine attributes: describing vaccine types, quality, considerations when purchasing a vaccine including vaccine matching and the selection of vaccine strains
2. Vaccine delivery, schedule and coverage
3. Evaluation of the immune response: this evaluation will be dependent on the aim of the vaccination program (whether to reduce clinical FMD incidence, to eliminate FMDV circulation, to maintain FMD freedom or to regain FMD freedom).
4. Monitoring the impact of vaccination and other control measures: this involves monitoring the vaccination, clinical FMD and/or FMDV infection to determine if the vaccination program is achieving the expected outcome. Outcomes will vary in different countries and may be reducing the incidence of

disease and/or infection, ensuring that the incidence of disease or infection is below a defined target value or demonstrating that disease or infection is absent.

Challenges in post-vaccination monitoring include that the correlation between protection and antibody titres has not been disclosed for some viral strains, unavailability of suitable serological ELISA tests for the recent vaccine strains and absence of certified vaccine quality control centres for FMD.

It is anticipated that the guidelines will be published by the end of 2014, and training in their content will be provided. The guidelines will be subject to revision following their validation through use in countries.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/FMD_PVM_for_WEA-Metwally.pdf

➤ **Updates on recent GF TADs Regional and Global Steering Committees [Joseph Domenech / OIE]**

Over the past year (since the 4th meeting of the West Eurasia FMD Roadmap meeting, Baku, April 2013), the GF-TADs initiative remained fully active and held a series of meetings at global and regional level, aiming at making decision (Management Committee meetings) and providing guidance (Steering Committee meetings) to key technical, financial and political stakeholders on the best ways to address FMD and other priority TADs in their regional and global dimensions. Recent meetings include notably:

- The 6th (MC6, Rome / Italy, 28 March 2013) and 7th (MC7, Paris / France, 12 September 2013) meetings of the GF-TADs Management Committee;
- The 6th meeting of the Global GF-TADs Steering Committee meeting (GSC6, Rome / Italy, 29-30 October 2013);
- The 8th meeting of the regional GF-TADs for Africa Steering Committee meeting (Accra / Ghana, 17-18 June 2013);
- The 6th meeting of the regional GF-TADs for the Middle-East Steering Committee meeting (Amman / Jordan, 22 September 2013);
- The 5th meeting of the regional GF-TADs for Europe Steering Committee meeting (Brussels / Belgium, 8-9 October 2013).

During these meetings, FMD situation is systematically reported and assessed using the global GF-TADs 5-year Action Plan as well as 5 regional GF-TADs 5-year Action Plans (2012-2016), which provide for FMD and other priority TADs (i) expected results, (ii) indicators to measure progress overtime and (iii) a baseline situation dated 2011 against which situations are reported annually or every two years. These meetings also give the opportunity to report on the state of implementation of the FAO/OIE Global Strategy for the control of FMD endorsed in Bangkok / Thailand in June 2012 at global and regional levels. Recommendations are produced during these meeting, notably to serve as roadmaps for countries, dealing with the governance of Veterinary Services and the prevention and control of priority TADs including FMD.

Under the GF-TADs umbrella, also took place an inter-regional Consultative Meeting on FMD & PPR Situation Progress (Amman/Jordan, March 2-4 2014), which included the 3rd regional FMD Roadmap meeting, to (i) share information on FMD viruses' circulation within the Middle East and North Africa countries, (ii) review the progress of each country along the PCP-FMD and (iii) assist countries preparing national control plans, project proposals for increased investment on FMD control and submissions to OIE for control programme endorsement and possible FMD status recognition. Several countries of the West-Eurasia FMD Roadmap meeting (Afghanistan, Pakistan, Iran, Iraq, Syria and Turkey) also belong to this Roadmap for the Middle East countries, both Roadmaps addressing Virus Pool 3.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/Update_on_meetings_Weber_Domenech.pdf

➤ **Updates on World Animal Health Information System (WAHIS) [Laure Weber-Vintzel / OIE]**

OIE Member Countries have a legal obligation (Organic Statutes; article 1.1.3 of the OIE TAHC) to report their animal disease situation, including zoonoses, in the most transparent and timely manner, for OIE listed diseases and any emerging diseases. Withholding facts on the incidence of relevant diseases by the OIE would constitute a violation of its Organic Statutes.

In order to help Members fulfil this duty, the OIE developed the **World Animal Health Information System (WAHIS)** and the **World Animal Health Information Database (WAHID)**. This tool is a milestone in OIE efforts to improve the transparency, efficiency and speed with which global animal health information is disseminated throughout the world. It is both a monitoring system – to report on the presence or absence of diseases on a 6-monthly basis and an early warning system – to report immediate notification of exceptional epidemiological events, and their follow up and final reports.

In August 2012, the OIE launched the second version of its World Animal Health Information System (WAHIS), six years after the first one. The major change in this new version is the integration of a specific section for wildlife diseases notification into WAHIS. It allows Members to complement compulsory information on OIE-listed diseases in wild species and also to notify on a voluntary basis specific wildlife diseases that are not officially OIE-listed. The new version of WAHIS contains many other improvements including new options such as:

- The possibility to identify affected wild species by taxonomic family and Latin names;
- A new integrated database containing susceptible wild species by disease;
- The possibility to notify clusters of outbreaks;
- The addition of an upload function to facilitate quantitative data reporting;
- The possibility to provide the terrestrial and aquatic animal health reports separately.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/Updates_of_WAHIS_5th_West_Eurasia_Roadmap_meeting_Astana_Apr_2014P2.pdf

❖ **Session 4: Regional Epi and Laboratory networks and specific needs**

The networks strive to encourage communication in the region about FMD-related risks and threats. The Veterinary Services of every country in the region should have access to the expertise it requires to develop and implement their national FMD control strategy.

➤ **Report from WELNET and EPI-network [A. Naci BULUT, Leader of WELNET FMD]**

The coordinators of WELNET (Naci Bulut, Turkey) and the Epi Network (Naser Rasouli, Iran) presented the results of the informal discussions held after Session 2. Grigor Grigoryan (EuFMD) summarised the discussions amongst Russian-speaking members. The networks history and activities were reviewed. Since 2009, network activities have included diagnostic training (2010), a course in practical Epidemiology for Progressive control (PEP-C) and the facilitation of sample shipment from Iraq to Ankara. These activities have assisted in improving the awareness of FMD risks in the region, in particular through the identification of epidemic events at an earlier stage.

Network members agreed that participation in Webinars would be a valuable activity to improve knowledge and maintain communication among members. Topics suggested for the Webinar include: vaccine/vaccination, post-vaccination monitoring, animal movements/markets, early detection of FMD, monitoring and evaluation, and strategy development.

To improve early detection of new threats, there is some interest in developing a system to send FMD samples to laboratories in the region on a monthly basis. To date, logistics of transport hinder this activity.

A project to monitor the market prices of meat and live animals on a monthly basis was proposed. It is expected that such an activity would provide insight into changing animal movement patterns.

Regarding vaccination, a workshop on non-structural protein (NSP) in vaccine was proposed. Also, it was requested that a template be developed to assist countries preparing a tender for vaccine purchase. Vaccine producers were requested to submit data on potency and strains.

Experts were encouraged to further develop instruments to assist decision making. Through sharing national FMD Control Plans, countries may better organise and coordinate the regional FMD response.

Finally, there was a call for countries to nominate focal points to facilitate network activities between Roadmap meetings.

Melissa McLaws (EuFMD) presented the results of the vaccination survey (see [Annex 5](#)).

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/WELNET_FMD_PROPOSAL_Bulut.pdf

❖ Session 5: Seminar on National FMD Control Programmes and project proposals and OIE official submissions

The objectives and outline of this session were presented by J Domenech on behalf of the GF TADs Working Group and EuFMD) (J. Domenech, G. Ferrari, M. McLaws, K. Sumption, L. Weber-Vintzel

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/FMD_Project_prop_J.Domenech.pdf

➤ ***Preparing a national control plans and a financing project proposal [Melissa McLaws / EuFMD]***

EuFMD in collaboration with the GF TADs WG prepared a template to assist countries to develop a risk-based strategic plan for FMD control. This template may be useful for countries moving from PCP-FMD Stage 1 to Stage 2 and, with slight modifications, from Stage 2 to Stage 3. The template is intended as a guideline and its use is not a requirement to move along the FMD Pathway. This template has been applied in 3 EuFMD Member stages to-date, with a positive response. Further training materials and workshops are being developed. The template will be completed and modified appropriately under GF TADs WG responsibility in order to make it a generic FAO OIE GF TADs Control Plan template to be used by interested countries all along the FMD PCP.

The template consists of 6 chapters:

1. **Situation analysis:** The FMD situation in the country is summarised, including the epidemiology, impact and control measures to date. Risk-hotspots and gaps are described. This chapter roughly corresponds to PCP Stage 1 activities.
2. **Benefits of FMD Control:** This chapter describes what benefits are expected from improved FMD control for the different stakeholders. This information is important to promote advocacy for investment in FMD control.
3. **The Strategy:** this is the heart of the Plan, and includes the long-term goal, immediate strategic objective, component objectives, tactics and activities foreseen under the Plan.
4. **Monitoring and Evaluation:** This describes how the impact and implementation of the plan will be monitored. It includes indicators, targets and means of verification for the strategic objective, component objectives and tactics.
5. **Operational Plan:** This outlines how the plan will actually be implemented. It includes a description of the organization of FMD control in the country (roles and responsibilities), the budget, timeline and makes reference to specific Standard Operating Procedures and other technical documents, where appropriate.
6. **Technical Assistance Plan:** This chapter describes the approach to address any gaps in funding and/or technical expertise needed to fully implement the Plan.

Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/National_Control_Plan_Ferrari_Mclaws_Sumption.pdf

➤ **Submission to the OIE for the endorsement of national Control Programmes and for the official recognition of FMD status for countries and zones [Laure Weber-Vintzel / OIE]**

The official recognition of FMD status (or other diseases with an official OIE status) of Member Countries is of great significance for international trade and constitutes one of the most important legal links between the OIE and World Trade Organization (WTO), in the framework of the WTO Sanitary and Phytosanitary Agreement, which allows OIE to recognise disease-free areas. A country may either lose or enhance its commercial attractiveness in the eyes of potential or existing importing partners, depending on official recognition of its disease status. By acquiring and maintaining its official status, a country also demonstrates transparency and helps to promote animal health and public health worldwide.

Granting of official disease status is handled in an objective and transparent manner, based on the scientific provisions of the OIE TAHC (or a detailed risk assessment), and is subject to the adoption by the World Assembly of OIE Delegates (resolutions). Suspension and recovery of a status are handled directly through a fast track procedure without further consultation of the OIE World Assembly of Delegates. Detailed Standard Operating Procedures for granting, suspending and recovering an official OIE Status - in constant evolution - are available at:

http://www.oie.int/fileadmin/Home/eng/Animal_Health_in_the_World/docs/pdf/EN_SOP.pdf.

For FMD, specific provisions to acquire an official status are laid down in Chapter 1.6 on the Procedures for self-declaration and for official recognition by the OIE and Chapter 8.6 on FMD of the OIE TAHC. Provisions are available for a country or a zone free of FMD, with or without vaccination.

OIE Terrestrial Animal Health Code Chapter on FMD, 2013 version	
Article 8.6.1.	General provisions, including case definition
Articles 8.6.2. to 8.6.9.	Articles related to status country/zone/containment zone/ compartment/ recovery
Articles 8.6.10. to 8.6.33.	Recommendations for importing commodities
Articles 8.6.34 to 8.6.41.	Virus inactivation

Articles 8.6.42 to 8.6.44.	<i>Surveillance: introduction, principles, methods, strategies</i>
Articles 8.6.45. to 8.6.47.	<i>Specific surveillance related to status</i>
Article 8.6.48.	<i>Endorsement of the official control programme</i>
Article 8.6.49.	<i>Interpretation of diagnostic test results</i>

A Member Country wishing to be officially recognised as disease-free by the OIE should submit the questionnaire laid out in Chapter 1.6. of the TAHC and comply with all requirements specified in the TAHC for FMD. However, it is important that the applicant country consider also all the other horizontal chapters of the TAHC, notably those related to notification, surveillance, veterinary services, identification and traceability of animals. This process - which requires a dedicated team, time and funding -also needs to involve all concerned services and stakeholders (wildlife, private sector, etc) at national level.

Member Countries with a FMD free status officially recognised by the OIE must submit an annual reconfirmation form by the end of November every year.

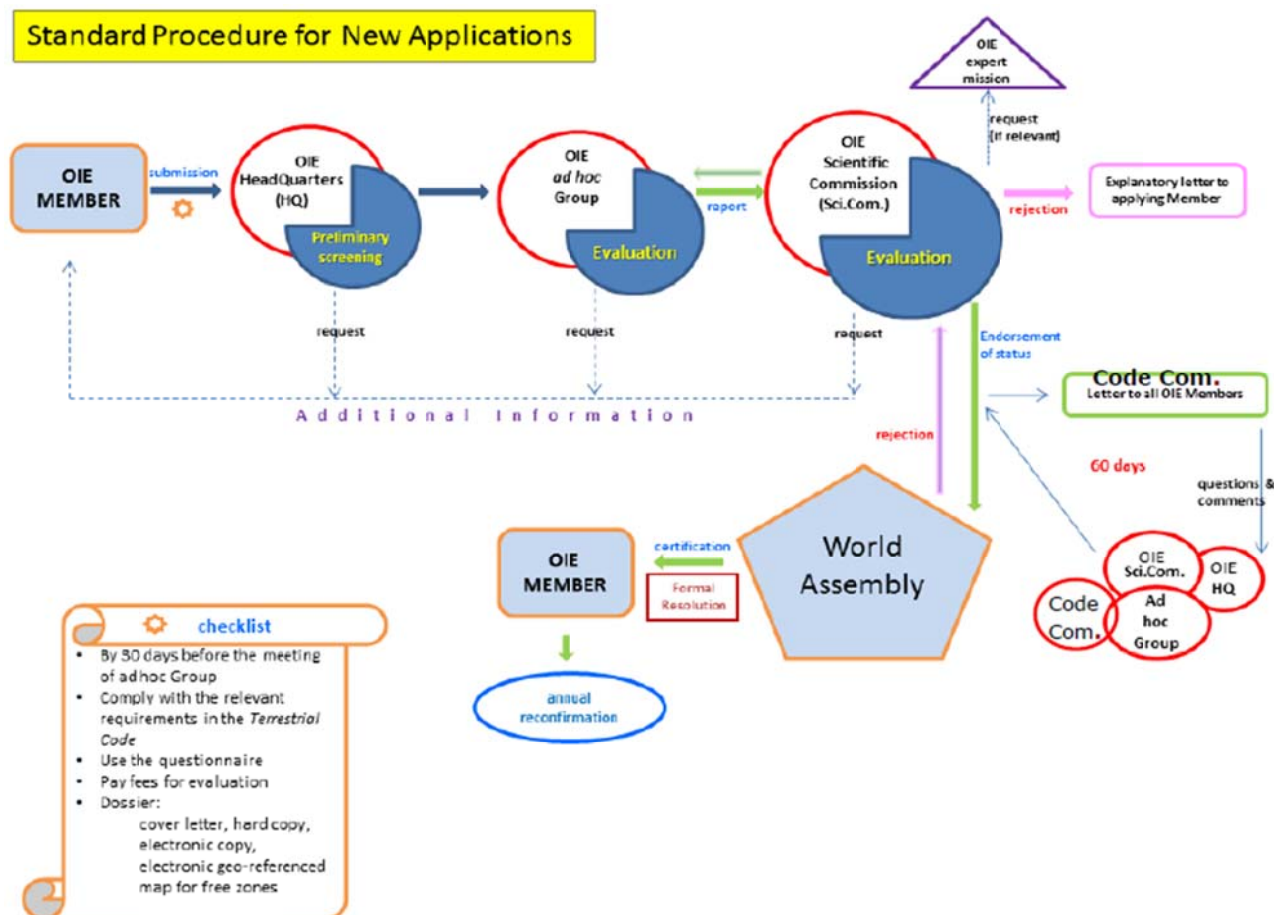
In 2012, the **endorsement of a national control programme for FMD by OIE** was put in place. The rationale behind the endorsement of official national control programmes for FMD is to act both as an acknowledgement for projects establishments and actions already taken by a Member Country to control FMD as well as an incentive to such a Member Country to proceed progressively on the way towards achieving FMD freedom. It should thus not be judged in the same manner as allocating a particular official disease status to a Member Country, and a specific procedure has been developed, also laid down in chapters 1.6 and 8.6 of the TAHC: new Articles 8.6.48 and 1.6.10 on OIE endorsed FMD official control programmes provide standards specifically addressing the stages prior to country FMD freedom.

Evidence of capacity of VS (PVS assessment) is a key aspect looked at for the endorsement of the control programme by the OIE (notably compliance with Chapter 3.1. of the TAHC on the quality of the Veterinary Services, and chapter 3.4 on veterinary legislation).

As for official status, endorsement of national control programmes for FMD is also subject to the adoption by the OIE World Assembly of Delegates.

Efforts related to status recognition and control plans endorsement do not stop when the evaluation is over: maintenance of these recognitions/endorsements need substantial and continuous efforts.

Standard Procedure for New Applications



Link to the presentation:

http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/OIE_Status_and_of_control_program_Weber_Domenech.pdf

❖ Session 6: Roadmap conclusion

➤ Implementation of 2013 Recommendations [Nadège Leboucq / OIE]

Twenty nine (29) recommendations were agreed in Baku/Azerbaijan in 2013. These recommendations should serve as indicators for countries and FAO and OIE (under the GF-TADs umbrella) to ensure the proper implementation of the FAO/OIE Global Strategy for the control of FMD, for the West Eurasia region. The Global GF-TADs FMD Working Group is in charge of monitoring the proper implementation of regional recommendations on an annual basis, together with the relevant regional Secretariat when it exists.

Out of the 29 recommendations, 6 (recommendations 1; 3; 12; 16; 20; and 21) are considered as **fully implemented/completed**; 18 (recommendations 2; 4; 5; 6; 7; 9; 10; 11; 13; 14; 17; 18; 22; 24; 25; 27; 28; 29) as **on-going**; 5 (recommendations 8; 15; 19; 23; 26) as not **implemented/completed** (see *Annex 4*)

Commendable achievements over the past year include:

- the continuation of the Roadmap process, based on self-assessment carried out by the countries on an annual basis: more than 70% of the countries belonging to the FMD West Eurasia Roadmap submitted

their questionnaires to the Working Group in preparation to the 2014 meeting; many countries also met the deadline to provide their control plan by May 2013 as requested;

- the achievements of the 2013 meeting were reported to the international community of Donors and technical partners, during the meetings of the GF-TADs Global (GSC6, Rome, November 2013) and regional (GF-TADs for Europe RSC5, Brussels, October 2013; GF-TADs for the Middle-East RSC6, Amman, September 2013); all partners applauded the initiative and country achievements along the PCP-FMD;
- Countries have made an important effort in using appropriate vaccines, matching the virus strains circulating in the region and recommended by Pirbright and FGBI-ARRIAH as FAO/OIE Reference Centres for the region. Also, Asia-1 Shamir vaccine was only used with a potency of $\geq 6\text{PD}_{50}$;
- Russia is now a 'regular' Observer of the FMD West Eurasia Roadmap meetings (attended in Baku/2013 and Astana/2014); this is important to ensure Russia is informed on the Roadmap principles, process and vision. Russia declares several FMD outbreaks a year and may be interested in conducting such an approach at oblast level;

On the other hand, several recommendations were not implemented:

- Countries did not identify FMD Roadmap focal points for communication, to better promote the initiative at national and sub-regional level. Greater communication on a regular basis to the 14 countries of the Roadmap and to their international partners, is needed, and the proposed Newsletter, bulletins or other means to bring attention to new findings/threats to FMD control are still to be developed;
- The Epi-Network did not review comprehensively the epidemiology of FMD in West Eurasia since 2008, to summarize the findings and lessons learnt over the past five years; this should be done based on the detailed achievements of the country PCP-FMD Stage 1, and would allow countries to develop informed risk-based control plans to enter Stage 2 and start implementing relevant control measures;
- The WELNET did not review the minimum potency requirements for vaccines for use in West Eurasia, taking into account production capacity and costs. Specific guidelines on the selection of samples for further characterization by genotyping and vaccine matching have not been developed as requested;
- Countries have not received support to send their samples or virus isolates to the Pirbright Institute or ARRIAH for complete characterization and rapid result reporting;
- Proficiency testing was not conducted in the countries of the sub-region;

All the other 18 recommendations are currently being implemented, which demonstrates the dynamics of the actors in the region, towards achieving the sub-regional vision of freedom from clinical FMD by 2025. Notably, countries receive significant external support from FAO, OIE and EufMD to progress along the PCP-FMD Pathway.

The 'on-going' and 'not completed' recommendations were included as part of the recommendations of the 5th meeting of the FMD West Eurasia Roadmap meeting (Astana, 2014).

➤ **Presentation of Roadmap based on post-assessment by the Roadmap Advisory Group** *[Irfan Erol, president of the RAG 2014]*

The Terms of Reference of the Regional Advisory Group (RAG) indicate that the members are elected for a 3 year period, to ensure continuity and consistency in the assignments of PCP-FMD stages overtime; however, CVOs of the 2013 RAG had changed position over the past year. A call was made for renewal of membership of the Regional Advisory Group during the Astana meeting and the country representatives 'elected' three new members of the RAG 2014. The 2014 RAG for West Eurasia was thus composed as follows:

Voting Members	Non-voting members
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- CVOs: Dr Irfan Erol, CVO of Turkey (Chairperson); Dr Mereke Taitubaev, CVO of Kazakhstan; Dr Mikheil Sokhadze, CVO of Georgia	- GF-TADs FMD Working Group: Dr Joseph Domenech (OIE), Dr Giancarlo Ferrari (FAO), Dr Nadège Leboucq (OIE), Dr Samia Metwally (FAO), Dr Julio Pinto (FAO), Dr Laure Weber-Vintzel (OIE)
- Dr Rasouli Beirami Naser (Epidemiology network) and Dr Bulut Abdalnaci (Laboratory network)	- PCP experts: Dr Keith Sumption and Dr Melissa McLaws

The PCP-FMD Stage assignments were based on results from (i) the self-assessment questionnaires that were submitted by countries prior to the meeting, (ii) interviews with individual countries (day 1 of the meeting) conducted by the members of the Global GF-TADs FMD Working Group and PCP-FMD experts, (iii) discussion with the Regional Advisory group and (iv) country reports presented during the meeting (see [Annex 1](#)).

The RAG agreed on the following assessments and ratings for 2014:

	RAG Astana/2014 conclusions	Evolution of country PCP-FMD Stage between 2013 and 2014
Armenia	PCP-FMD Stage 2 (provisional)	→
Azerbaijan	PCP-FMD Stage 2 (provisional)	→
Georgia	PCP-FMD Stage 2 (provisional)	↗
Kazakhstan	PCP-FMD Stage 2 (provisional)	↗
Kyrgyzstan	PCP-FMD Stage 2 (provisional)	↗
Tajikistan	PCP-FMD Stage 1	→
Turkmenistan	PCP-FMD Stage 1*	→
Uzbekistan	PCP-FMD Stage 1*	→

Afghanistan	PCP-FMD Stage 1*	→
Iran	PCP-FMD Stage 2	→
Iraq	PCP-FMD Stage 2 (provisional)	↗
Pakistan	PCP-FMD Stage 2 (provisional)	↗
Syria	PCP-FMD Stage 2 (provisional)	↗
Turkey	PCP-FMD Stage 2	↗

* in the absence of documentation and evidence, the RAG decided to leave the countries with their previous stage (Baku 2013)

Countries with a 'provisional' stage have to submit their risk-based strategic plan within 6 months to the GF-TADs FMD Working Group, in the absence of which they will revert to the lower Stage. The 2014 PCP-FMD stage Acceptance will therefore be made final in October 2014.

During the meeting, countries were also requested to forecast their PCP-FMD Stage progression until 2025. The responses of the countries are provided in the Table below but remain indicative at this stage, until they are validated by the RAG after detailed review and acceptance of the final 2014 PCP-FMD stages (see above).

	validated stages							provisional stages (not validated)												
	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*	3	3	3	4	4	4	4	4	5	5	5		
Kyrgyzstan	1	0	0		1	1	2*	2	2	2	3	3	4	4	4	5	5	5		
Tajikistan	0	1	1		1	1	1	2	2	2	2	2	3	3	4	4	4	4		
Turkmenistan	0	0	0		1	1	1													
Uzbekistan	0	1	1		1	1	1	2	2	3	3	4	4	5	5	5	5	5		
Afghanistan	0	1	1		1	1	1	1	2	2	3	3	3	4	4	4	4	4		
Iran	2	2	2		2	2	2	2	2	2	2	2	3	3	3	3	3	3		
Pakistan	0	1	1		1	1	2*	2	2	2	3	3	3	3	3	4	4	4		
Turkey Thrace							?	4	4	4	4	5	5	5	5	5	5	5		
Turkey Marmara-Aegean								2	2	2	3	3	3	3	4	4	4	4		
Turkey Rest of Anatolia	1	2	2		2	2	2	2	2	2	2	2	3	3	4	4	4	4		
Syria	3	1	1		1	1	2*	2	3	3	4	4	4	4	5	5	5	5		6
Iraq	1	1	1		1	1	2*	3	3	3	3	3	3	4	4	4	4	4		
Armenia	2	2	2		2	2	2*	2	2	3	3	3	4	4	4	4	4	4		
Azerbaijan	2	2	2		2	2	2*	2	2	3	3	3	4	4	4	4	5	5		
Georgia	2	1	1		1	1	2*	2	3	3	3	4	4	4	4	4	4	4		

PCP-FMD stages of West Eurasia countries as of May 2014

(*Legend:* * indicates provisional status – countries have till October 2014 to provide additional information including a control Plan; if not, they will be downgraded to the previous stage)

❖ Session 7: Final discussions, conclusions and next steps

The participants voiced their deep satisfaction about the meeting, both in terms of logistical and technical aspects.

They also expressed their continuous commitment to the West Eurasia Roadmap as the framework for increasing action against FMD in the region. To this effect, they strongly supported the annual evaluation process (based on the self-assessment questionnaire) and annual Roadmap meetings.

Overall, the 2014 PCP-FMD Stage acceptance shows that the Roadmap remains fully on track to achieving the regional vision by 2025. The Astana meeting was a key milestone for the West Eurasia region as 7 countries are likely to progress to the PCP-FMD Stage 2. This means that most of the countries of the Roadmap (>70%) are intending to 'implement risk based control measures such that the impact of

FMD is reduced in one or more livestock sectors and/or in one or more zones', with the following implications in terms of planned activities for the coming years (next Action Plan):

- On-going monitoring of circulating strains and risk in different husbandry systems will be in place;
- Risk-based control measures will be implemented for the sector or zone targeted, based on the FMD strategic control plan developed in Stage 1
- The impact of FMD will be reduced by the control measures in at least some livestock sectors and/or zones
- There will be further development of an enabling environment for control activities

As vaccination will be the main control measure implemented in PCP-FMD Stage 2, the establishment of a regional vaccine bank could be explored to address the need of quality vaccines and timely delivery.

For countries remaining in PCP-FMD Stage 1, significant support from the GF-TADs and EuFMD will need to be provided in the next year, for them to gain a good understanding of the FMD situation country-wide and prepare a risk-based control strategy to move to the next Stage.

Provided the availability of fund, the sixth FMD Roadmap meeting for West Eurasia may be held next year. The hosting country was not identified during the meeting. However, the Delegate of Kazakhstan expressed the willingness of his country to host the meeting, with the support of the newly established OIE sub-regional FMD Coordination Unit in Astana / Kazakhstan, and in collaboration with the FAO and the OIE Headquarters. At the request of the countries, the agenda of the 6th meeting will need to allocate more time to the country presentations, which provide key elements to the RAG to assign the PCP-FMD Stages in the most adequate manner.

A meeting of the 2014 RAG is tentatively scheduled before the end of 2014 (exact dates and location to be determined) to:

- 1) Assign final 2014 PCP-FMD stages upon revision of the updated risk-based strategic plans for countries progressing to PCP-FMD Stage 2.
- 2) Discuss and agree on the provisional Roadmap progression until 2025.

Annex 1 – Meeting Agenda

(http://www.fao.org/fileadmin/user_upload/eufmd/Roadmap_2014_Astana/Provisional_Agenda-Astana.pdf)

Day 1. 23 April 2014

Annual West Eurasia FMD CONTROL Roadmap Meeting		Chair / Facilitators
08.00-08.30	Registration	
08.30-09.00	Opening / Welcoming Remarks Representative of Republic of Kazakhstan International Organisations (FAO, OIE)	
09.00-09.15	Objectives and Adoption of Agenda	
09.15-10.00	Session 1: FMD situation and regional road map – Overview of global and regional FMD situation- WRL – FMD-PCP principles and assessment procedures – Links/complementarities between PCP and PVS – Presentation of provisional roadmap based on self-assessment questionnaires	Chair: Kazakhstan WRL G. Ferrari (FAO) N. Leboucq (OIE) G. Ferrari (FAO) and J. Domenech (OIE)
10.00-10.30	Break	
10.30-12.00	Session 2: Country reports Country reports - 10 minutes / country (14 countries) (justify PCP Stage assessment, as per template provided)	Chair: Turkey
12.00-14.00	Lunch	
14.00-16.00	Interviews with countries to review their PCP-FMD questionnaires and control activities	FAO/OIE/EuFMD
16.00-16.30	Break	
16.30-18.00	Session 3: Specific issues – Socioeconomic analysis and guidelines – A new tool for improving national disease reporting – Post-vaccination monitoring – Updates on recent GF TADs Regional and Global Steering Committees and on GF-TADs	Chair: OIE J. Pinto (FAO) J. Pinto (FAO) S. Metwally (FAO) J. Domenech and L. Weber-Vintzel (OIE)
18.00	Closure of day 1	
18.00-19.30	Closed Session: Regional Advisory group meeting	

Day 2. 24 April 2014

Annual West Eurasia FMD CONTROL Roadmap Meeting		Chair / Facilitators
09.00 -11.00	Session 4: Regional Epi and Laboratory networks and specific needs – Report from WELNET – Report from EPI-network – Round table discussion on needs for epi and lab support for countries and the region	Chair: EuFMD WELNET leader EPINET leader All participants
11.00 -11.30	Break	
11.30-12.50	Session 5: Seminar on National FMD Control Programmes and project proposals and OIE official submissions – Preparing a national control plans and a financing project proposal (including representations from some selected countries) – Submission to the OIE for the endorsement of national Official Control Programmes and for the official recognition of FMD status for countries and zones – Roundtable discussion: viewpoints from countries	Chairs: FAO and OIE G.F. (FAO), M. McLaws (EuFMD) and K. Sumption (EuFMD) L. Weber-Vintzel (OIE) All participants
12.50-14.00	Lunch	
14.00-15.30	Session 6: Roadmap conclusion – Presentation of roadmap based on post-assessment by the Regional Advisory – Roundtable discussion: viewpoints from countries	Chairs: FAO and OIE Regional Advisory Group All participants
15.30-16.00	Break	
16.00-17.00	Session 7: Final Discussions and Report – Conclusions on Regional Priorities	Chairs: OIE and FAO
17.00	Closure of meeting	

Annex 2 - List of Participants

Members of the Roadmap		
Country	First / Last name	Title
Afghanistan	Dr. Naseri Aminuddin	Director General of Animal Health Production, Ministry of Agriculture, Irrigation and Livestock
Armenia	Hovhannes Mkrtchyan	Head of Veterinary Inspection Republic of Armenia Ministry of Agriculture State Service for Food Safety
Armenia	Satenik Kharatyan	DVM PhD. National Consultant of EuFMD Projekt in Armenia Food and Agriculture Organization Of the United Nations
Azerbaijan	Vali Garaev	PhD of Biological Sciences, Specialist - advisor of the sector for reformation of veterinary law and another normative acts in the field of veterinary
Azerbaijan	Tamilla Aliyeva	Director of the Azerbaijan State Scientific Control Institute for veterinary Preparation
Georgia	Mikheil Sokhadze	Chief Veterinary Officer and Deputy Head of Agency National Food Agency Ministry of Agriculture of Georgia
Georgia	Zurab Rukhadze	Ministry of Agriculture of Georgia National Food Agency Veterinary Department Head of Veterinary Medicines Registration and Animal Feed Division
Iran	Mohsen MESHKAT	Deputy of Health and Prevention Department, Ministry of Jihad-e-Agriculture, Iran
Iran	Rasouli Beirami Naser Hussein	National Project Co-Ordinator, Iran
Iraq	Adil Kamil Ajel	Consultant of AI - Muthana Veterinary Hospital
Iraq	Barraq Kamel Abood Al-Azzawi	Head of the National Project for FMD control Head of Transboundary Animal Diseases (TADs) Laboratory, Iraq
Kazakhstan	Mereke Taitubaev	OIE Delegate of Kazakhstan Deputy Chairman of the veterinary control and surveillance of the Ministry of Agriculture of the Republic of Kazakhstan

Members of the Roadmap		
Country	First / Last name	Title
Kazakhstan	Serik Sapargaliev	Deputy Chairman of the veterinary control and surveillance of the Ministry of Agriculture of the Republic of Kazakhstan
Kyrgyzstan	Ashirbai Zhusupov	OIE Delegate of Kyrgyzstan Chief Veterinary Officer of the Kyrgyz Republic
Kyrgyzstan	Aidarali Sarykov	Head of Food Safety in the State Veterinary Inspector
Pakistan	Manzoor Hussain	OIE Delegate of Pakistan National Project Director GCP/PAK/123/USA
Pakistan	Muhammad Afzal	Project Coordinator GCP/PAK/123/USA Progressive Control of Foot and Mouth Disease in Pakistan
Syria	Hosein Al Soliman	OIE Delegate of Syria Director of Animal Health Directorate of Animal Health Ministry of Agriculture and Agrarian Reform, Syria
Syria	Yaser Wazer	Directorate of Animal Health
Tajikistan	Kholnazar Odinaev	Deputy Head of the state veterinary supervision
Tajikistan	Mahmadshoev Abdurahmon	General Director of National Veterinary Diagnostics Center, Tajikistan
Turkey	Irfan Erol	OIE Delegate of Turkey Director General of Food and Control Ministry of Food, Agriculture and Livestock, Turkey
Turkey	Veli GÜLYAZ	Director of FMD Institute
Turkey	Bulut Abdalnaci	FMD -expert of FMD Institute
Uzbekistan	Sunnat Okkiev	Chief Republican Expedition of Epizootic division
Observers		
Country	First / Last name	Title
Russia	Damir Latfullin	Adviser of the organization of the anti-epizootic measures of the Veterinary Department of Agriculture Russia
Russia	Alexey Mishchenko	Head of reference laboratory diagnosis of FMD
Russia	Elnikov Vasilii	Deputy Director of Production Shelkovskii Biocombinat
Russia	Kryukova Elena	Deputy Director of Marketing Shelkovskii Biocombinat

Members of the Roadmap		
Country	First / Last name	Title
Participants from International and Regional Organizations		
Affiliation	First / Last name	Title
EuFMD	Keith Sumption	Executive Secretary, EuFMD
EuFMD	Melissa Mclaws	consultant of EuFMD
FAO	Giancarlo Ferrari	FAO - Veterinary Epidemiologist
FAO	Mehraban Abdulbaqi	Livestock Development Officer FAO Sub-Regional Office for Central Asia
FAO	Julio Pinto	Animal Health Officer
FAO	Samia Metwally	Senior Animal Health Officer
FAO	Andriy Rozstalnyy	Virologist Animal Production and Health Officer FAO Regional Office for Europe and Central Asia
FAO	Grigori Grigoryan	Short Term Professional European Commission for the Control of Foot-and-Mouth Disease (EUFMD) Animal Health Service, Food-and-Agriculture Organization of the United Nations Rome, Italy - Deputy head Virology
ANSES	Labib Bakkali Kassimi	Unit Virology unit Maisons - Alfort Laboratory for animal health
DTRA	Jeanne M. Fair	Defence Threat Reduction Agency Cooperative Biological Engagement Program Science Lead Middle East & South Asia
DTRA	Martha Stokes	Science Lead Middle East & South Asia Defence Threat Reduction Agency Cooperative Biological Engagement Program
FAS, USDA	Lindsay Malecha	International Trade Specialist of United States Department Of Agriculture
Merial	Nicolas Denormandie	FMD Technical Director for MERIAL (Veterinary Public Health)
Merial	Charvet Luc	Marketing Head - EMEA Region Veterinary Public Health
Pirbright	Emma Fishbourne	WRL FMD Pirbright
Prionics	Gerrit Keizer	Prionics Lelystad NETHERLANDS director
USDA	David J. White	Program Manager of the United States Department of Agriculture
USDA-APHIS	Karen Sliter	Regional Manager APHIS USDA

Members of the Roadmap		
Country	First / Last name	Title
USDA-APHIS	Cristóbal Zepeda	Senior Epidemiologist USDA APHIS
OIE	Monique Eloit	Deputy Director General
OIE	Ghazi Yehia	OIE Regional Representative for Middle East
OIE	Nadège Leboucq	OIE Sub-Regional Representative Brussels
OIE	Joseph Domenech	Advisor
OIE	Laure Weber-Vintzel	Recognition of countries' animal disease status
OIE	Askar Kozhayev	Technical Assistant OIE Sub-Regional FMD Coordination Office in Astana
OIE	K. Lukauskas	OIE Regional Representative in Moscow

Annex 3 - Summary of contents of country reports

<u>Country</u>	<u>Speaker</u>
Afghanistan	A. Naseri
Armenia	S. Kharatyan
Azerbaijan	T. Aliyeva
Georgia	M. Sokhadze
I.R. Iran	N. Rasouli
Iraq	B. Alazzawi
Kazakhstan	S. Sapargaliev
Kyrgyzstan	A. Zhusupov
Pakistan	M. Afzal
Syria	H. Alsulayman
Tajikistan	K. Odinaev
Turkey	N. Bulut
Uzbekistan	O. Saidovich

Afghanistan



PCP-FMD Stage	
2013	1
2014	1
OIE PVS evaluation	/

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Afghanistan	0	1	1		1	1	1	1	2	2	3	3	3	4	4	4	4	

FMD outbreaks & surveillance:

- 382 samples tested from 19 provinces
- Serotypes A, O and Asia-1 detected in 2013
- NSP serosurvey in 34 provinces involving 190 epi units: 50% NSP seropositive at individual level

FMD Control Measures:

- Risk-based vaccination of LR and SR, using imported, purified vaccine
- Vaccine matching performed at OIE FAO reference laboratory

Other notes and priorities for the future:

- 332 persons were trained on FMD case definitions and procedures for FMD sampling and shipment
- Laboratory has capacity to perform ELISA and PCR, and training was provided in PCR testing in 2013
- An FMD database management system has been developed in DAH
- FMD results are mapped using a GIS system
- National FMD outbreak investigation team created and trained, performed 3 full outbreak investigations
- Plans to strengthen and extend FMD passive surveillance coverage, twinning of CDVRL with an OIE/FAO Reference laboratory

Armenia



PCP-FMD Stage	
2013	2
2014	2*
OIE PVS evaluation	2007

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Armenia	2	2	2		2	2	2*	2	2	3	3	3	4	4	4	4	4	4

* indicates provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- No outbreaks reported since 2001
- NSP serosurveillance last carried out in 2012, seropositivity varied by region and species (~6-30% NSP positive)

FMD Control Measures:

- Mass Vaccination using trivalent high potency vaccines (≥ 6 PD50), including A/Iran 2005, O/PanAsia 2, Asia-1/Georgia2001 strains
- 2013 vaccination coverage estimated to be 100% for LR and 40% for SR

Other notes and priorities for the future:

- FMD Control Strategy was updated according to PCP-FMD
- Evaluation of cold chain during vaccination campaign was conducted
- Data sharing within the region using the W. Eurasia EMPRES-i database
- Participation in WRL proficiency tests 2009-2013
- Updated and reviewed SOPs for laboratory and field work
- Implementation of animal (LR) identification and registration
- Improvement of control on animal movement, including control on animal health in seasonal pastures and veterinary-sanitary measures for slaughtering
- National FMD Task Forces (risk assessments, planning and implementation of FMD control and monitoring)

Azerbaijan



PCP-FMD Stage	
2013	2
2014	2*
OIE PVS evaluation	2008

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Azerbaijan	2	2	2		2	2	2*	2	2	3	3	3	4	4	4	4	5	5

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- No outbreaks reported since 2002
- NSP and SP serosurveillance carried out using subset of samples collected as part of brucellosis surveillance
- NSP positivity 2.3% LR (620 samples) and 2.7% SR (330 samples)
- SP positivity 81-91% for 3 serotypes

FMD Control Measures:

- Mass vaccination
- 2013 vaccination coverage estimated to be 100% for LR and 36% for SR, including revaccination of young stock
- Animal movement and border controls
- Improve biosecurity, raise awareness

Other notes and priorities for the future:

- Adopted a set of joint measures of CIS Member States on the prevention and control of FMD for the period until 2020
- Changes carried out in the veterinary legislation
- Development of animal identification and registration system
- Development of national information reporting system (AzVET and EIDSS)
- Strengthen control in markets
- Improvement of cold chain infrastructure
- Plan to update the national strategy for the prevention and eradication of FMD

Georgia



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	2009

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Georgia	2	1	1		1	1	2*	2	3	3	3	4	4	4	4	4	4	4

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- No outbreaks reported since 2003
- NSP and SP serosurveillance last carried out in 2012
- NSP seropositivity varied by region, with seropositivity in each region ranging from 0-16%

FMD Control Measures:

- Mass vaccination LR and SR using high potency vaccine
- Animal movement and border controls
- Improve biosecurity, raise awareness
- Update FMD contingency plans
- Harmonization of legislation with EU norms

Other notes and priorities for the future:

- Development of risk-based strategic plan for FMD control
- Development of animal identification and registration
- Strengthening of vaccination monitoring and cold chain;
- Georgia has recently developed a National Animal Health Program (2013-2018)
- Improved collaboration with LMA (contract), proficiency testing (2010-2013);
- EuFMD membership (2013)

Iraq



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	/

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Iraq	1	1	1		1	1	2*	3	3	3	3	3	3	4	4	4	4	4

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- 839 outbreaks reported in 2013, and 19 outbreaks in first 3 months of 2014
- 2013 survey shows NSP positivity varied by region from 0-60%

FMD Control Measures:

- Mass vaccination nationwide, except in the Kurdish region, using high potency trivalent vaccine
- 2013 vaccination coverage estimated to be 60-65% for LR and 76-77% for SR, including revaccination of young stock
- Animal movement and border controls
- Biosecurity, raise awareness

Other notes and priorities for the future:

- NSP serosurveillance demonstrates that NSP prevalence has decreased from 2010 to 2013, reflecting the efficiency of the applied control policy
- Uncontrolled cross-border animal movements allowed new virus strains to enter Iraq in 2011 (Asia 1) and 2012 (A/SIS/2010)
- Important gaps identified include difficulties in shipping, confirming and matching virus isolates; inability to carry out vaccination in some provinces due to security concerns and lack of cooperation with neighbouring countries and Kurdish region

Islamic Republic of Iran



PCP-FMD Stage	
2013	2
2014	2
OIE PVS evaluation	/

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)											
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
Iran	2	2	2		2	2	2	2	2	2	2	2	3	3	3	3	3	3	

FMD outbreaks & Surveillance:

- 1,149 outbreaks in 2013 (814 in cattle and 335 in sheep and goats)
- 667 outbreaks Jan-Mar 2014
- Outbreaks are widespread throughout the country
- Serotypes O, A, Asia 1 identified

FMD Control Measures:

- Risk-based control plan has been developed to reduce the impact of clinical FMD
- Mass vaccination of LR and SR
- Animal movement control and reduce the risk posed by animal markets
- Biosecurity improvements

Other notes and priorities for the future:

- A survey was conducted to characterise the live animal markets throughout the country
- There are important cross border movements of animals into Iran, particularly in the east
- Emphasis on ensuring the safety and potency of vaccines

Kazakhstan



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	2011

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	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*	3	3	3	4	4	4	4	4	5	5	5

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- 3 outbreaks reported in 2013, in the Eastern part of the country caused by Serotype A /SEA-97
- Serosurvey results from 2013 and 2014 shows NSP positivity varied by region from 0-47%, with areas in North and West free of FMD

FMD Control Measures:

- Mass vaccination in the buffer zone
- Zoning: creation of free zone (where FMD has not been detected for at least 3 years) and buffer zones
- On-going monitoring, with specific protocols developed for each zone

Other notes and priorities for the future:

- Important risks to manage include late detection of cases; insufficient post-vaccination immunity; introduction from neighbouring countries and wild animals
- 126 laboratories recently built, with diagnosis of brucellosis and FMD as priority

Kyrgyzstan



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	2007

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Kyrgyzstan	1	0	0		1	1	2*	2	2	2	3	3	4	4	4	5	5	5

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- 37 outbreaks in 2012
- No outbreaks reported in 2013 or first 3 months of 2014
- State veterinary services carries out monitoring activities to detect FMD

FMD Control Measures:

- Vaccination in cattle with trivalent vaccine (A/O/ Asia1)
- Kyrgyzstan is divided into 2 zones according to the risk of introduction of FMDV (high risk and medium risk)

Other notes and priorities for the future:

- FMD outbreaks attributed to incursion from neighbouring countries, due to illegal importation of animals and animal products from neighbouring countries, as well as contact on common pastures
- Country program was prepared in accordance with the decision of the Intergovernmental Council for Cooperation in the field of veterinary CIS from April 17, 2002
- Plan to implement animal identification and registration in 2014
- Laboratory capacity to detect NSP and SP antibodies, and to type the virus

Pakistan



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	/

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Pakistan	0	1	1		1	1	2*	2	2	2	3	3	3	3	3	4	4	4

*indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- 2874 FMD outbreaks detected in 2013 (1166 serotype O, 1091 serotype A, 110 serotype Asia1, 48 mixed)
- 1377 outbreaks detected in 1st 3 months of 2014 (serotype: 544 O, 51 A, 12 Asia 1, 15 mixed)
- NSP serosurvey: seropositivity varied according to area and production system (4-50% positive)

FMD Control Measures:

- Training to raise farmer awareness
- Workshops for field and laboratory staff
- Vaccination with high potency trivalent vaccine on farmer demand (paid by farmer)
- Outbreak response: movement control advice, ring vaccination, zoo-sanitary measures

Other notes and priorities for the future:

- Improvement in FMD diagnosis: participate in proficiency testing, development of a harmonized Laboratory Information Management System
- Research project to vaccinate animals in dairy colonies, breeding farms and smallholder production system; animals were closely monitored and no clinical disease was observed in vaccinated animals
- Introduce a cost sharing approach to vaccination
- Vaccination trial in yak
- Development of risk-based strategic plan for FMD control

Syria



PCP-FMD Stage	
2013	1
2014	2*
OIE PVS evaluation	2008

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Syria	3	1	1		1	1	2*	2	3	3	4	4	4	4	5	5	5	6

* indicates a provisional status (countries have till October 2014 to provide additional information including a Control Plan; if not, they will be downgraded to Stage 1)

FMD outbreaks & surveillance:

- No outbreaks reported in 2013 or in 2014 to date
- NSP serosurvey indicated no virus circulation

FMD Control Measures:

- Prevent incursion of FMDV through: import controls; veterinary quarantine and disinfection at border crossing; raise awareness; early warning system
- Annual NSP and SP^a serosurveys
- Compulsory, mass vaccination, twice annually for LR, once annually for SR
- Trivalent vaccine (OPanAsia2, Alran05, Asia1)

Other notes and priorities for the future:

- Animal husbandry very important in the Syrian economy, generates 18.6% of national income

Tajikistan



PCP-FMD Stage	
2013	1
2014	1
OIE PVS evaluation	2009

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Tajikistan	0	1	1		1	1	1	2	2	2	2	2	3	3	4	4	4	5

FMD outbreaks & surveillance:

- No outbreaks reported since 2011

FMD Control Measures:

- Vaccination with bivalent and trivalent vaccines produced by ARRIAH (Russia), Raksha (India) and Razi (Iran).
- 27% vaccination coverage reported
- SP serosurvey done to monitor vaccination

Other notes and priorities for the future:

- Gaps identified include lack of funds, diagnostic kits, reagents and equipment, lack of skill development and transportation of samples to a reference laboratory

Turkey (Anatolia)



PCP-FMD Stage	
2013	2
2014	2
OIE PVS evaluation	2007

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)										
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Turkey Marmara-Aegean								2	2	2	3	3	3	3	4	4	4	4
Turkey Rest of Anatolia	1	2	2		2	2	2	2	2	2	2	2	3	3	4	4	4	4

FMD outbreaks & surveillance:

- 1199 outbreaks in 2013, 91 in 1st 3 months of 2014
- Current circulating strains are: O PanAsia2, A Iran 05, Asia1/Sindh08
- All outbreaks are serotyped, genetic analysis of sufficient number to understand disease dynamics, vaccine matching
- NSP and SP serosurveillance, last completed in 2012, currently underway
- Additional surveillance in Thrace

FMD Control Measures:

- Mass vaccination twice annually
- Spring 2014 campaign used bivalent and trivalent vaccine (OTur07, ATur06, Asia1Tur11), 6 PD50 potency with booster dose for calves in western Anatolia
- Outbreak response (biosecurity, quarantine, ring vaccination)
- Control of animal movements and markets
- Training veterinarians, Raise awareness

Other notes and priorities for the future:

- Risk-based strategic plan for FMD developed, with long-term goal to achieve OIE status of FMD-free with vaccination by 2023
- Vaccine effectiveness study was done
- Several activities will be conducted within the framework of an EU project 'Preparation Veterinary Strategy', including socio-economic studies

Uzbekistan



PCP-FMD Stage	
2013	1
2014	1
OIE PVS evaluation	2007

Provisional Roadmap 2014

	validated stages							provisional stages (not validated)																
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
Uzbekistan	0	1	1		1	1	1	2	2	3	3	4	4	5	5	5	5	5	5	5	5	5	5	5

FMD outbreaks & surveillance:

- No information provided

FMD Control Measures:

- Preventive vaccination (mono- and multi-valent vaccines including serotypes A, O and Asia1) in small and large ruminants
- Raising awareness
- Veterinary border control points

Other notes and priorities for the future:

- State veterinary control plan approved annually, includes preventive measures for FMD

Annex 4 - 2013 Recommendations (and state of implementation)

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 GF-TADS 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.

The countries recommend:

Completed (C)
 On-going (OG)
 Not completed (NC)

Recommendations	C OG NC
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. That countries are provided with the necessary assistance and training to develop national strategic FMD control plans;	
6. 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. 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. 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. 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 $\geq 6\text{PD}_{50}$;	
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;	
<i>On the FMD monitoring and early warning activities</i>	
18. 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.	
<i>On progress along the Roadmap since 2009</i>	
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 <i>end of May</i> , after allowing another month for the missing information to be provided.	
<i>Recommendations of the West Eurasia FMD Lab Network (WELNET)</i>	
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.	
<i>Recommendations of the Epi-Network</i>	
25. 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.	
<i>Recommendations of the GF-TADS National Project Proposals Seminar</i>	
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.	

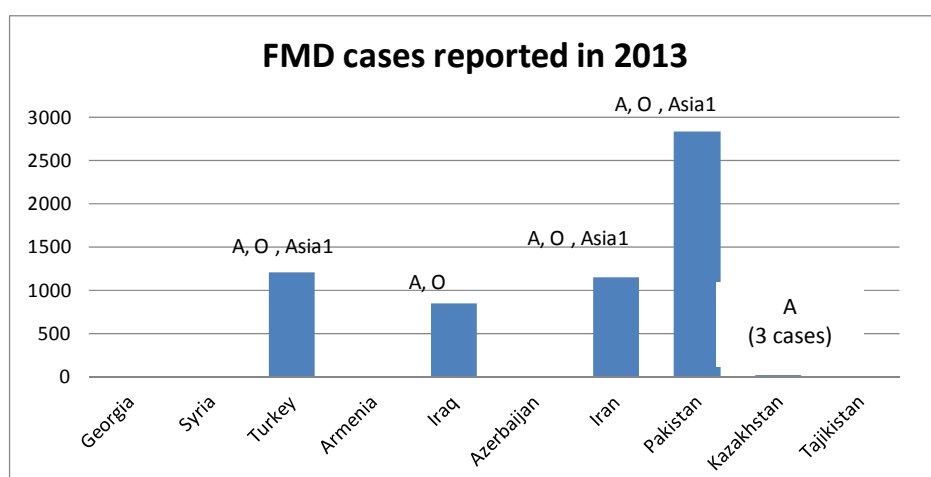
Annex 5 - Survey on vaccination conducted in the context of the W. Eurasia ROADMAP MEETING

Vaccination against FMD in West Eurasia (in 2013 +/- early 2014)

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

Results

FMD cases were reported in 2013 in 5 of the 10 countries. Causative serotypes were A, O and Asia1.



The FMD vaccination strategy varies considerably between countries. Vaccination is compulsory for large ruminants (LR) in 8/10 countries, and compulsory for small ruminants (SR) in 7/10 countries. Seven out of 10 countries have mass vaccination campaigns for LR, mostly twice per year, and 6/10 countries have mass vaccination campaigns for SR once or twice per year. Ring vaccination around outbreaks is performed in 7/10 countries.

Table 1: Vaccination schedule

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Kazakhstan													
Kyrgyzstan													
Tajikistan													
Turkmen													
Uzbekistan													
Afghanistan													
IR of Iran													
Pakistan	On Farmer demand												
Turkey													
Syria													
Iraq													
Armenia													
Azerbaijan													
Georgia													

The reported vaccination coverage achieved for LR ranges from 4-100%, and in SR from 0-100%.

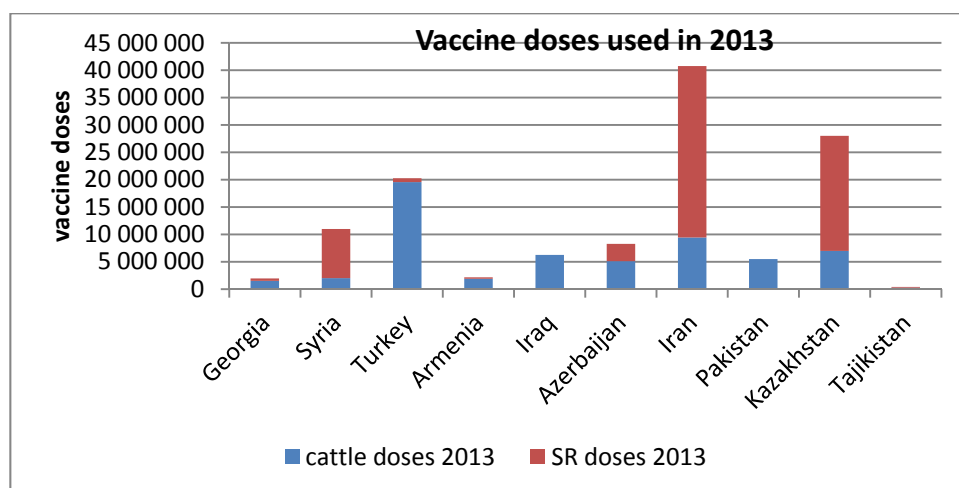
Reported Large Ruminant Vaccination Coverage 2013



Reported small ruminant vaccination coverage (2013)



Only 3 out of 10 countries pass some cost of the vaccination to the livestock owners (vaccination fee +/- vaccine). The number of vaccine doses used in 2013 each country is seen below:



The vast majority of vaccines used were trivalent (A/O/Asia 1). Thirteen different suppliers were identified that provide vaccine to the countries (Merial, MSD Intervet, Russia, Czech Republic, India, national (Turkey, Iran, Kazakhstan, Pakistan)). At least 3 different vaccine strains were used for *each* serotype

Table 2: Vaccine strains used in W. Eurasia in 2013, for each serotype

Serotype 0	Serotype A	Serotype Asia1
O PanAsia2 (O Tur07)	A Iran05 (A Tur06)	Sindh08
O PanAsia2 (O Tur05 2009)	A TUR20 2006	Shamir
O1 Manisa, O-3039	A Iran 05	Georgia2001

Methods reported for monitoring vaccination were: serological surveys (6 countries), telephone (2 countries), records (2 countries), random farm visits (2 countries) outbreak investigation (1 country) and clinical surveillance (1 country). Vaccine matching for circulating field strains was reported from only 4/10 countries.

Conclusions:

The survey demonstrated a large variation in FMD vaccination practices in West Eurasia. Most countries are following the recommendations put forward at the last Roadmap meeting in terms of strain selection. There are a number of areas where technical assistance may be appropriate including as:

- Selection of FMD control policies / vaccination strategies (particularly those based on risk assessments).
- Vaccine matching –strain selection
- Post-vaccination monitoring