West Eurasia: Report on Activities

Including Lessons Learned for PCP/FMD Management

Presented by: Melissa McLaws
Acknowledgements

- **Turkey**: Naci Bulut, PEP-C trainees (Beyhan Sareyyupoglu & Yener Sekercan), Nahit Yazicioglu *and others*
- **TCC**: Satenik Kharatyan, Tamilla Aliyeva, Zurab Rukhadze, PEP-C trainees (Otar Parkadze, Ayten Hajiyeva, Smbat Ghushchyan, Lasha Avaliani) *and others*
- **IR of Iran**: Naser Rasouli, Darab Abdolahi, Javad Emami, PEP-C trainees (Parvaneh Seifori, Abbas Ganji) *and others*
- Chris Bartels, Carsten Potzsch, Kees van Maanen, Labib Bakkali, Theo Knight-Jones, Giancarlo Ferrari *and others*
- **EuFMD**: Keith Sumption, Eoin Ryan, Nadia Rumich, Manuela Zingales, Anda Fabrizi, Rossana Cecchi, Leonardo Leon *and others*
- European Commission support
Outline

• Context
• Approach
• Activities and Achievements
• Lessons Learned

PEP-C outbreak investigation: photo with trainees from Turkey, Iran and Armenia

Animal Market in Iran

% LR Vacc Coverage in TCC Autumn 2012
Context

- Agreed in 38th General Session EuFMD strategy 4 years ago to support FMD control in this region, to reduce the risk to SE Europe
- Diverse region:
  - Politically, climate, animal density, animal husbandry
- FMD endemic
  - Serotypes O, A, Asia-1
- FMD control primarily relies on vaccination
  - Diverse suppliers, schedules, coverage
- Animal movements important in FMD spread within and between countries
Approach

• Support to W. Eurasia Roadmap
  – Annual regional meeting with 14 countries, PCP evaluation and information sharing
  – W. Eurasia Laboratory Network development (WELNet)

• Country projects:
  – Trans-Caucasus countries (Armenia, Azerbaijan, Georgia)
  – IR of Iran

• Capacity building
  – Training: Practical Epidemiology for Progressive Control (PEP-C)
Activities: Support to W. Eurasia Roadmap

- Regional meetings for revision of progress along PCP in 2012 and 2013
- Development of ‘Assessment tool’
  - Questionnaire used by countries in 2012 and 2013

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

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* To move to Stage 2 pending receipt of Control Strategy
** Will be changed to Stage 1 unless copy of control strategy received by end May 2013

Preliminary assessment of country Stage position for 2013, together with the expected progression to 2025
Activities: Support to W. Eurasia Roadmap

Roadmap is now established as regular platform for information sharing and regional risk assessment, coordination of control measures and assistance, as well as PCP progress review.
Activities: Support to W. Eurasia Roadmap

W. Eurasia Laboratory Network (WELNet)

- Regional laboratory support
- Meetings in conjunction with WE. Roadmap
- Samples from Iraq recently
  - Circulation of A Iran05 SIS-10
- Sequences shared between Iran and WRL
TCC Project 2011-2013: Summary

• Overall Objective: strengthen FMD surveillance and control in TCC to assist progression in West Eurasia PCP.

• Started May 2010; due to finish Dec 2012 but extended to March 2013 due to delays

• EC trust fund: USD 2,000,000

• Follow-up to earlier FMD support projects, since 2004.

• 3 national consultants, 1 international consultant, 1 project secretary.
TCC Project: Objectives

1. Improved FMD monitoring and control
   • TCC to advance in PCP
   • Vaccination campaigns every 6 months, risk-based (funded by project in 2010 & 2011)
   • Serosurveys: NSPs, SP, investigation of NSP clusters
   • Simulation exercises
   • Epidemiology training (PEP-C)
   • Monthly data on demographics, vaccination and surveillance provided to EuFMD
   • Monthly reports to EuFMD

2. Enhanced laboratory capacity to support FMD monitoring and surveillance
   • NSP, SP and Ag ELISA and PCR capacity developed
   • Investigations of NSP clusters: probang samples, swabs, PCR, sequencing
   • Field outbreak investigation training
   • Sample management decision trees & reporting arrangements in place
   • Annual serosurvey
   • Participate in WRL PTS
Activities: TCC project 2011-13

Key achievements I:

• PCP based national control measures in place in Armenia, Azerbaijan and Georgia

• 2013: Full handover of national responsibilities for vaccination programme maintenance

• Improved risk-based vaccination strategies
Activities: TCC project 2011-13

Key achievements II:

- Awareness of risk posed by animal trade and migration patterns
- Improved FMD diagnostic capacity and surveillance activities
- Regular (monthly) reporting of activities and regional cooperation
TCC Project: Recent activities

- March 2012: 150,000 doses of trivalent Merial vaccine supplied by EC to act as regional strategic reserve for TCC. Expires March 2014.

- June 2012: mission to assess vaccination campaign quality control (cold-chain, following strategy, implementation).

- August 2012: investigation of NSP positive clusters, probang sampling

- November 2012: Desktop simulation exercise for all three TCC, held in Georgia

- February 2013: Real-time PCR training course, at which samples from August NSP cluster mission were analysed.

- March 2013: integration of monthly data reports with EMPRES-i database system
FAO/GOVERNMENT COOPERATIVE PROGRAMME

Project of the Government of the Islamic Republic of Iran

Combating Foot-and-mouth Disease through enhanced and co-ordinated surveillance activities; Phase III of the FMD surveillance centre initiative.

• 3 yr project, effective starting date: Oct 2010
• EC Trust Fund Contribution: $ 956,500 USD
Activities: Iran Project

Key achievements

1. Development of risk-based national FMD control strategy
2. Development of sub-national laboratory network
3. Improved FMD surveillance
4. Vaccine potency test performed to OIE standards
5. Large NSP serosurvey conducted in W. Azerbaijan province
6. Progress in W. Azerbaijan province
Activities: Iran Project

Key achievements

1. Development of risk-based national FMD control strategy
   - First documented control strategy ever produced
   - Based on Global Strategy, input from EuFMD missions
   - Main sections: Targeted surveillance, epidemiological studies, biosecurity, vaccination, training and information exchange, strengthening veterinary services
   - Surveillance and vaccination protocols vary by husbandry system, geographic location and FMD status
Activities: Iran Project

Key achievements

2. Development of sub-national laboratory network

- Central Veterinary Laboratory officially nominated as National FMD Reference Laboratory (*on map)
- 4 provincial subnational laboratories: diagnose serotype within 24 hrs
- Quality assurance program developed
  - NSP and Ag ELISA
Activities: Iran Project

Key achievements

3. Improved FMD surveillance
   - early identification of serotype Asia-1 incursion..allowed for advance warning for Turkey
   - Currently serotype A currently dominant

FMD in Iran Oct 2010-March 2013:

Clinical reports and serotypes by month.

- Number of outbreak reports
- Laboratory results
- Number of outbreak reports
Key achievements: Iran project

4. Vaccine potency test performed to OIE standards

- Potency test undertaken by Iranian vaccine manufacturer (Razi Institute)
- EuFMD expert provided onsite technical support over course of 2 missions
- New Double Oil Emulsion tetravalent vaccine tested, Serotype O challenge strain was used
- IVO has requested further potency testing from Razi to start immediately
Activities: Iran Project

Key achievements

5. Large NSP serosurvey conducted in W. Azerbaijan province
   - Demonstrated widespread exposure to FMDV
     - 80% of epi-units and 40% calves
   - Methodological advances to interpret results
     - Increased ELISA cut-off to be more certain that positive results due to infection vs. vaccination
   - Subnational laboratory analysed samples, results confirmed by IZSLER in Brescia
   - Results presented at Intl Epidemiology conference (ISVEE) by Dr. J. Emami from WAZB province
Key achievements

6. Progress in W. Azerbaijan province:
   • Development of local laboratory epidemiology capacity, FMD taskforce
   • NSP serosurvey and risk factor study
   • Training and studies in Outbreak investigation: highlight importance of animal markets
     – Innovative animal marketing project to be piloted
   • Value chain workshop
Iran project: Other noteworthy Activities

Animal Movement:
- Value chain workshop in W. Azerbaijan
- Market survey done, (data input/analysis ongoing)
- Animal Identification and Registration:
  - Consultant travelled to Iran to advise
  - Study tour to Montenegro

Training:
- 4 Iranians included in Practical Epidemiology for Progressive Control (PEP-C) training
- IVO initiated own epi training in collaboration with University in Tehran

Note: financial sanctions have delayed and impeded some activities
Activities: Practical Epidemiology for Progressive Control (PEPc) training

• 4 week training course
• Develop capacity in epidemiology (and socio-economics)
  – Skills to progress along PCP
➢ Problem-based, student oriented learning approach
  • Material developed for the course: Fit for Purpose
  • Short lectures, Case-studies, problem solving, Group discussions, Field trips, homework
  • Emphasis on active participation!!
Activities: PEPc training

✓ Week 1: Outbreak investigation
✓ Week 2: Socio-economics: value chains, impact assessment
✓ Week 3: Surveys and Surveillance
✓ Week 4: Designing a disease control strategy
Activities: PEPc training

- 1° course held in Istanbul Sept-Dec 2012
  - 1 week/month
- 6 countries:
  - PCP Stages 1 & 2
- Trainees from Vet Services
- Development regional epidemiology network
Lessons Learned for PCP/FMD Management

1. Regional approach/network is a good model
   - applied in TCC project, PEP-C & WELNet
   - countries share circulating viruses and challenges to control (e.g., animal movements, biosecurity, insufficient vaccine),
   - Optimise resources by development of tools and expertise available at regional (& global!) level
     - Laboratory (WELNet), Epidemiology, Socio-economics

2. Focus on Management of control
   - Development of risk-based National strategies:
   - Setting objectives, monitoring implementation and impact
   - Comprehensive approach: beyond vaccination
Thank you!