West Eurasia Regional Roadmap Meeting
Country Presentation 2012

FMD CONTROL AND PREVENTION IN AZERBAIJAN REPUBLIC

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National systems for FMD control and prophylaxis

According to PCP:
Azerbaijan - 2 stage
➢ In previous years FMD national strategy was based on the vaccination of susceptible animals with focus in buffer zones
➢ From 2009 – 2011 national strategy is based on the risk analysis, vaccination, seromonitoring campaign and follow-up investigation after results of seromonitoring

• In the frame of EuFMD Project was established National FMD Taskforce Group. National FMD Taskforce Group includes all relevant people and responsible for management of all FMD control measures, including risk analysis, vaccination campaign, seromonitoring.
• National FMD Contingency Plan for the first time has been developed in 2005, in connection with establishment of structure of State and Local emergency commissions has been updated in 2009 and in 2011, by modified structure of Veterinary Service, its logistical support, adoption a number of regulations.
National systems for FMD control and prophylaxis

Risk analysis

For improving of risk analysis last year following Critical Control Points were determined:

- Evaluation of epizootic situation in region, presence of FMD outbreaks in neighbouring countries (Iran, Turkey).
- Intensive business and economic relations with unfavourable FMD countries, illegal trade in animals, that became more active recently.
- Seasonal movement of animals on pastures (winter-summer)
- Movement of animals during religious holidays (Qurban bayram, Ramazan bayram, Nouruz Bayram)
- Formal and informal movement of animals within the country, as well as, in limited scale between countries in the region.
- The schedule of work of the markets of live animals in various areas
National systems for FMD control and prophylaxis

Risk analysis

For improving of risk analysis last year following Critical Control Points were determined:

- Lack of animal identification system and farms registration system
- Lack of immunity of part of susceptible population of animals (SR)
- Scarcity of vaccine purchased for vaccination and revaccination in all susceptible cattle and small ruminants populations
- High percentage of nonstructural proteins level, in comparison with recent years, which makes it possible to talk on circulation of virus in a country.
- Deficiency in overall material supply of districts, limited facilities of SVS for implementation of anti-epizootic activities
National systems for FMD control and prophylaxis

Risk analysis

According to the Risk Analysis FMD High Risks Zones were indicated:

✓ Districts bordering with Iran, Armenia, Georgia, Turkey

✓ Districts nearby live animals markets

✓ Districts located very closely to animal seasonal migrating ways
National system for control and prophylaxis

Vaccination

Improving of vaccination campaign

- Increase of vaccination quality and quantity
- Increased revaccination of calves
- Improvement of the cool chain
Laboratories

- The diagnostic capabilities of the national laboratory have been improved. Currently it has been equipped with all necessary equipment for conducting diagnostic investigations on the international level.
- A mobile unit, equipped with specialized mobile laboratory equipment and transport has been set up, who can perform the diagnostic studies in the field, immediately in the outbreak of infection, if necessary.
- Very good contact has been established between laboratory and epidemiological department of SVS for the struggle against infectious diseases.
- NSP testing in country
- Can handle large amounts of sera and data
- Participation in WRL proficiency tests 2009-2010-2011
- Participation in regional trainings in Ankara and Brescia.
The design of seromonitoring 2010-2011 was developed within the project, discussed and approved by veterinary service of the country. Samples have been selected from all country, with focus on zones of high risk. Serums were collected before and after vaccination, also sampling from pigs and testing of duration of immunity level also were carried out. Implementation of seromonitorings, aimed at the detection of real situation on FMD (not only immunity level, but also level of nonstructural proteins).
PRE- AND POST VACCINATION SEROSURVEILLANCE 2010-2011

• **Aim:**
  1. NSP antibody surveys in FMD susceptible animals (large & small ruminants, pigs)
  2. SP structural antibody surveys to estimate FMD population immunity in LR and SR

• **Design:**
  ✓ LR: 73 villages and 32 samples per villages=2336 samples
  ✓ SR: 35 villages and 16 samples per villages =560 samples
  ✓ Pigs: 1-2 sample per villages =150-200 sample
According to seromonitoring’s design were collected:

- 2300 serums from cattle
- 598 serums from sheep
- 120 serum samples from native calves in private farm, located in Masazyr village (Apsheron district) were collected before vaccination, and on 21 and 42 days after vaccination (30+30+30)
- 80 serum samples from naïve cattle, arrived from Germany (before vaccination, and on 21, 90 after vaccination).
- 100 serum samples from pigs (Oguz, Gabala, Gakh and Absheron districts).
- 200 serum samples from markets in different districts.
Main gaps of the national FMD control policy

- Lack of the control on borders from the State Veterinary Service side
- Insufficient quantity of vaccines
- Insufficient quantity of diagnostic kits
- No investigation of conformity FMD serotypes, used for vaccine manufacture to circulated serotypes in region.
- Lack of identification system of animals and farms
- Lack of an economic estimation of a damage from FMD at the state level
- A considerable quantity of very small farms (1-2 animals), a small amount of well organised farms where to carry out the control is more easier.
- Insufficient awareness work with farmers
- Vaccination and the subsequent seromonitoring campaign - the basic components of the control, however absence of diagnostic kits for timely testing of samples does not allow to conduct epidemiological investigation on "fresh tracks"
Basic strategic directions

• Improvement of the technical-logistical support of FMD activities
• Improvement of preventive veterinary-sanitary measures, improvement of a veterinary-sanitary condition of farms, increase of a level of biosecurity, strengthening of quarantine measures.
• Implementation of animal identification and execution of veterinary passports for them (EU Project already started);
• To implement timely planned immunization for the all susceptible livestock population.
• Creation of information system for the surveillance of animal diseases on the republican level for prevention of disease outbreaks (work in progress)
• Regular implementation of seromonitorings for achievement of sustainable welfare of a country on the FMD
NEXT STEPS

- Improving provision of funds for veterinary services (OIE Gaps Analysis Mission) and FMD control
- National authorities should be very interested in developing of SVS and in control of diseases
- Legislation regarding compensation, penalty should be improved
- Progression on the West Eurasia Roadmap
- Carrying out regional simulation exercises on FMD
- Maintenance of laboratory with enough of diagnostic tests.
- Trainings for improvement of professional skill both for laboratory specialists, and for epidemiologists, and also for working with GIS data and regional database
- To continue strategy of vaccination and subsequent seromonitoring as unique possibility to reach progress in liquidation FMD in region.
### NEXT STEPS

Main components of FMD control and surveillance should be:

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<thead>
<tr>
<th>Component</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>vaccination</strong></td>
<td>incl. identification and vaccination of risk populations, emergency vaccine bank</td>
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<tr>
<td><strong>sero-surveillance</strong></td>
<td>following to vaccination campaign to evaluate quality of vaccination, then follow-up investigation after NSP results</td>
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<tr>
<td><strong>applied epidemiology</strong></td>
<td>quality reports/regional database training (epidemiology, risk analysis) understanding of FMD risk, incl. economic demands</td>
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<td><strong>lab support</strong></td>
<td>SP testing, virus confirmation proficiency tests</td>
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<td><strong>other measures</strong></td>
<td>Developing and updating national FMD control plans Public awareness on FMD</td>
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THANK YOU FOR YOUR ATTENTION!