4th Annual West Eurasia Roadmap Meeting

Baku, Azerbaijan
2- 4 April 2013

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National Consultant in Georgia
Geographic Location: South Caucasus
Area: 69.700 km²
Population: 4,500,000
Capital City: Tbilisi (1,250,000)
Administrative-territorial units: 10 Regions, 65 Districts
I. Description of work done to address gaps identified at last year’s meeting

For elimination of gaps identified during last PCP Roadmap meeting was implemented the following activities:

• Updated FMD Contingency Plan;
• New FMD Control Strategy;
• Risk based Mass Vaccination LR- whole population, SR – in high risk zones;
• Implementation of LR Identification & Registration;
• Baseline serosurveys (SP and NSP ab) and Follow-up investigation including probangs and swab sampling;
• For improvement of control on animal movement, including control on animal health in seasonal pastures, is considered rehabilitation and construction of migration roads and establishment of temporary veterinary check points;
• Established FMD vaccination and serosurvey organization-coordination group;
• Slaughterhouses;
I. Description of work done to address gaps identified at last year’s meeting

- Purchasing 915,000 doses of high potency (6PD50) National FMD vaccines (4v A-Iran05, O Manisa+O3039 and Asia-1 Shamir, Merial France);
- Increase NFA budget and staff (state and private);
- On base of risk assessment NFA is implementing risk communication and management.
- Simulation exercises (2009 and 2012);
- PEP-c trainings;
- PCR Lab training for lab staff;
- Strengthening of vaccination monitoring and cool chain;
- Improved collaboration with LMA (contract), proficiency testing (2010, 2011, 2012);
II. Description of FMD surveillance results and any control measures implemented, specifically for Stage 2:

- Georgia is currently on PCP Stage-1;

- FMD high risk zones has been defined: areas near border of Armenia, Azerbaijan, Turkey and the conflict regions; areas near animal migration routes and livestock markets. FMD Control Strategy is based on Risk assessment, surveillance and control, mass vaccination (whole amount of LR & SR population, 2 times at least 3 years).
Overview of the FMD control strategy including description of main risks for FMD transmission

• During risk identification, nomadic livestock systems and epizootic situation in neighbor countries, as well as animal migration within the country and livestock markets shall be taken into consideration;

• Risk management is carried out, types and subtypes of FMD prophylactic immunization is defined, control on animal migration is carried out by clinical examination of migrating animals. The permit is issued by local state veterinarians;

• Serosurvey testing are carried out in laboratory of Ministry of Agriculture (LMA). Parts of samples are sending in reference laboratory (IZSLER, Brescia); The LMA is equipped with modern diagnostic devices and the stuff is trained consequently.
II. Description of FMD surveillance results and any control measures implemented, specifically for Stage 2:

- Migrated animals - Animals migrates between winter and summer pastures. Their routes are identified and is estimated the possible amount of population. The relevant district bodies of NFA carry out monitoring on migrating animals. Mobile points are established for health control on passing roads. Migrating animals pass many settled points and get in contact with the local animal population that increases risk of the disease spreading;

- The FMD situation in Egypt and the Middle East has become extremely complex with the presence of at least 5 FMDv lineages between 2010 and 2012. Introductions of FMDv SAT2 to the Middle East have occurred from sub-Saharan African countries since February 2012. Additionally, several new FMDv type A and O types have been circulating in the Middle East since 2009.
II. Description of FMD surveillance results and any control measures implemented, specifically for Stage 2:

- There are large scale national and cross-border ruminant movements due to official and informal International trade;

- Large scale outbreaks continue to occur in neighboring Iran and Turkey. The serotypes involved are FMD A, FMD O and FMD Asia 1;

- FMD O Panasia-2 outbreaks were reported from South Ossetia in August 2011;

- Of concern is also the low protection of the Asia 1 - Shamir vaccine against the circulating virus and the low Asia-1 vaccination coverage;

- Wild animals - risk factor is also the fact that there is a large amount of wild animals in Georgia.
Serological Survey 2012

I. Spring survey - a major survey to be conducted in spring (approx. 3000 sera);

II. Autumn survey – a smaller survey to be conducted in autumn (approx. 1000 sera).

Main objectives of spring survey:
• Monitoring the background FMDv circulation in the LR and SR populations (NSP investigation);
• Estimation the FMDv circulation in a subpopulation in which National FMD control measures has priority.

Total sample size:
LR – 32 sera x 73 villages = 2336 sera; SR - 16 sera x 35 villages = 560 sera.

Main objectives of autumn survey:
• To estimate population immunity after the spring 2012 FMD vaccination in high risk zones (areas of project vaccine used) by assessing levels of antibodies against structural proteins (SP);
• Monitoring the quality of the National FMD vaccination campaign/SP Ab levels.

Total sample size:
50 sera/village * 6 villages = 300 sera/country
Results of Serological Survey 2012

According to serosurvey design the serum samples have collected and tested in the LMA from following regions & districts:

**Large Ruminants:**

<table>
<thead>
<tr>
<th>N</th>
<th>Region</th>
<th>Rayon</th>
<th>Number of villages</th>
<th>Number of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shida Karli</td>
<td>Kareli, Gori, Kaspi</td>
<td>5</td>
<td>160</td>
</tr>
<tr>
<td>2</td>
<td>Racha-Lechkhumi</td>
<td>Ambrolauri, Oni</td>
<td>4</td>
<td>128</td>
</tr>
<tr>
<td>3</td>
<td>Imereti</td>
<td>Sachkhere</td>
<td>1</td>
<td>32</td>
</tr>
<tr>
<td>4</td>
<td>Samegrelo z. Svaneti</td>
<td>Zugdidi, Tsalenjikha</td>
<td>5</td>
<td>160</td>
</tr>
<tr>
<td>5</td>
<td>Mtskheta-Mtianeti</td>
<td>Mtskheta, Kazbegi, Dusheti</td>
<td>5</td>
<td>160</td>
</tr>
<tr>
<td>6</td>
<td>Kakheti</td>
<td>Signagi, Dedoplistskaro, Kvareli, Lagodekhi, Sagarejo</td>
<td>8</td>
<td>256</td>
</tr>
<tr>
<td>7</td>
<td>Samtskhe-Javakheti</td>
<td>Akhalkalaki, Akhaltsikhe, Adigeni, Aspindza, Ninotsminda</td>
<td>27</td>
<td>864</td>
</tr>
<tr>
<td>8</td>
<td>Kvemo Kartli</td>
<td>Marneuli, Tsalka, Dmanisi, Gardabani</td>
<td>13</td>
<td>416</td>
</tr>
<tr>
<td>9</td>
<td>Guria</td>
<td>Ozurgeti, Chokhatauri</td>
<td>3</td>
<td>96</td>
</tr>
<tr>
<td>10</td>
<td>Adjara</td>
<td>Khelvachauri, Khulo, Keda, Shuakhevi</td>
<td>8</td>
<td>256</td>
</tr>
<tr>
<td></td>
<td>Total:</td>
<td></td>
<td>79</td>
<td>2528</td>
</tr>
</tbody>
</table>
Results of Serological Survey 2012

According to serosurvey design the serum samples have collected and tested in the LMA from following regions & districts:

**Small Ruminants:**

<table>
<thead>
<tr>
<th>N</th>
<th>Region</th>
<th>Rayon</th>
<th>Number of villages</th>
<th>Number of samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kakheti</td>
<td>Signagi, Dedoplistskar, Sagarejo</td>
<td>6</td>
<td>96</td>
</tr>
<tr>
<td>2</td>
<td>Samtskhe-Javakheti</td>
<td>Akhalkalaki, Akhaltsikhe, Adigeni, Aspindza, Ninotsminda</td>
<td>10</td>
<td>160</td>
</tr>
<tr>
<td>3</td>
<td>Kvemo Kartli</td>
<td>Marneuli, Dmanisi, Gardabani</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>4</td>
<td>Samtskhe-Javakheti</td>
<td>Akhaltsikhe Market</td>
<td>1</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Total:</td>
<td></td>
<td>21</td>
<td>406</td>
</tr>
</tbody>
</table>

**In total taken and tested:**
- LR serum samples – 2538, from 79 villages;
- SR serum samples – 406, from 21 villages;
- naive animals serum samples (10 calves in 0, 21, 42 and 90 days)
  - Electronic data entry has been done.
Total in Country has been tested 2528 LR sera, 123 NSP Pos. (4.8%)
Total in Country has been tested 406 SR sera, 31 NSP Pos. (7.6%)
Follow-up investigation 2012

- Accordance to EuFMD project design has been selected 2 clusters with high NSP antibody levels in agreement with the Veterinary Department authorities and the EuFMD;
- A cluster should typically consist of min. 2 villages with NSP Ab prevalence in the upper quartile of the respective species;
- All animals in the “cluster villages” which tested NSP Ab positive in the spring survey were traced and the following samples collected from them: serum, probangs and nasal/mouth swab samples;
- Age of sampled animals - 4-18 month;

**Total sample size:**
- Serum samples from villages neighbouring the “cluster villages”, if 2 villages: 2x50 LR and 2x50 SR; 200 LR and 200 SR sera per cluster = **400 LR and 400 SR sera**;
- Mouth/nasal swabs: from each NSP Ab positive animal traced back from the spring survey.
Follow-up investigation 2012

- Accordance to EuFMD project design has been selected 2 clusters with high NSP antibody levels in agreement with the Veterinary Department authorities and the EuFMD;

- The first cluster was selected - Kvemo Kartli Region (Tsalka district, villages Santa and Imera) and the second cluster Samtskhe-Javakheti Region (Akhalcalaki district, villages Sulda and Diliska);

- Virology samples (nasal/mouth swab and probangs) from four cluster villages was done and has been tested in the LMA during RT-PCR laboratory training in Tbilisi.
## Follow-up investigation-2012

<table>
<thead>
<tr>
<th>Region</th>
<th>District</th>
<th>Species</th>
<th>Villages</th>
<th>NSP ab</th>
<th>Sera tested</th>
<th>Pos.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kvemo Kartli</strong></td>
<td>Tsalka</td>
<td>LR</td>
<td>Santa</td>
<td>50</td>
<td>14</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Imera</td>
<td>50</td>
<td>18</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Beshtasheni</td>
<td>50</td>
<td>11</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SR</td>
<td>Baretı</td>
<td>50</td>
<td>13</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Santa</td>
<td>50</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Imera</td>
<td>50</td>
<td>7</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Beshtasheni</td>
<td>50</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Baretı</td>
<td>50</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td><strong>Samtskhe-Javakheti</strong></td>
<td>Akhalkalaki</td>
<td>LR</td>
<td>Sulda</td>
<td>50</td>
<td>10</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diliska</td>
<td>50</td>
<td>8</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vachiani</td>
<td>50</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SR</td>
<td>Dadeshi</td>
<td>50</td>
<td>7</td>
<td>14</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Sulda</td>
<td>50</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Diliska</td>
<td>50</td>
<td>7</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vachiani</td>
<td>50</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dadeshi</td>
<td>50</td>
<td>4</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td></td>
<td></td>
<td></td>
<td>800</td>
<td>119</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>
Total in Country has been tested 1913 LR sera, 59 NSP Pos. (3%)
Total in Country has been tested 692 SR sera, 16 NSP Pos. (3%)
FMD Vaccination 2012

Spring-2012

- **Vaccinated**: – 100.000 LR in high risk zones;
- **Used Vaccines**: - TV A - Iran 05, O Manisa, Asia-1 Shamir (EuFMD Project vaccines) Merial, France;
- **Risk based vaccination**: was agreed with the Georgia authorities based on FMD high risk populations, identified in the project regional meeting in Tbilisi in December 2011;
- **Implemented**: by private local veterinaries, contractors of NFA;
- **Monitoring**: the monitoring includes two methods: by phone - the owners and farmers are interviewed by telephone and on side monitoring - The NFA Mobile Respond Group is goes in random selected villages and is checking the done completed work.
FMD Vaccination 2012

**Autumn-2012**

- Vaccination campaign has been started in 1 of August. The campaign covered whole population of Large Ruminants in all regions and districts of Georgia and SR in the high risk zones;
- Together with vaccination is implemented animal identification and Registration;
- NFA purchased 915.000 doses National FMD 4v vaccines.(Merial, France)
- AFTOVAXPUR 100D/3ml. Purified, Strains: A Iran 05, O Manisa+O-3039, Asia-1 Shamir. Dosage: 3ml for cattle and 1 ml for SR.
- Potency 6PD50 each strains.
- NFA also purchased and supply regional and district offices with transport, fuel, syringes, needles, cool boxes and other equipment;
- For implementation of vaccination campaign NFA hire about 650 private veterinaries and 350 cars. Private Vets have short term (1-2 month) contracts
- The vaccination campaign is monitored very strong by NFA; especially the cool chain.
FMD Vaccination 2012

- FMD vaccination and the identification is free for farmers and animal owners. All expenses will be covered by the government of Georgia.
- **Totally was vaccinated app. 900,000 cattle and 100,000 small ruminants.** It should be noted that for the first time in recent years risk-based vaccination for SR was carried out in autumn 2012.

<table>
<thead>
<tr>
<th>Vaccination coverage</th>
<th>Armenia</th>
<th>Azerbaijan</th>
<th>Georgia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large ruminants (LR)</td>
<td>154 % (28 – 201 %)</td>
<td>93 (0 - 164 %)</td>
<td>75 % (0 – 245 %)</td>
</tr>
<tr>
<td>LR booster vaccination</td>
<td>7 % (0 – 53 %)</td>
<td>0 %</td>
<td>0 %</td>
</tr>
<tr>
<td>Small ruminants (SR)</td>
<td>15 % (0 – 120 %)</td>
<td>1 % (0 – 24 %)</td>
<td>15 % (0 – 63 %)</td>
</tr>
<tr>
<td>Vaccine used in autumn campaign</td>
<td>Pokrov (3-valent: A Iran 05, O PanAsia2, Asia1)</td>
<td>FGI ARRIA (3-valent: A Iran 05, O PanAsia2, Asia1)</td>
<td>Merial (Aftovaxpur; 4-valent: O Manisa, O 3039, A Iran 05, Asia1 Shamir)</td>
</tr>
</tbody>
</table>

**TCC emergency vaccine**

150,000 doses emergency vaccine are safely stored in Georgia until Jan 2014. The storage temperature is continuously recorded and twice daily checked by staff. A power back-up is installed.

As this vaccine expires in March 2014, it is proposed to use the vaccine in the TCC during the autumn 2013 campaign, if not required earlier.
**FMD Vaccination 2011**

- During 2011 year in the frame of EuFMD project NFA has delivered 240,000 dozes FMD vaccines. These vaccines were used only Cattle in the high risk zones. (ARRIAH, Russian Federation)
- In the beginning of 2011 the NFA has remaining 180,100 dozes bi-valent FMD project vaccines. (ARRIAH, Russian Federation)
- **During 2011 year in the high risk zones were vaccinated 402,380 cattle and were used 416,400 dozes FMD vaccines.**
- The Small Ruminants were vaccinated by farmers with commercial vaccines produced by FGI ARRIAH (Vladimir, Russian Federation) trivalent A, O, Azia-1 Type.

*Spring - 2011 – 260,000 LR*
*Autumn - 2011 – 145,000 LR*
*Total - 405,000 LR*
FMD Vaccination 2009-2010

**Spring-2010** – 180,000 LR and 2500 SR
**Autumn-2010** – 65,000 LR and 3500 SR
**Total** - 245,000 LR and 6,000 SR

*EuFMD Project vaccines*

**Spring - 2009** – 110,000 LR and 4,000 SR
**Autumn - 2009** – 220,000 LR and 40,000 SR
**Total** - 330,000 LR and 44,000 SR
Vaccinated Animals 2009-2012
**Plans related to FMD surveillance and control in the short and long term.**

**Short term plans:**

- During the current year is scheduled vaccination of whole animal population (LR & SR) through country twice (1 100 000 LR and 700 000 SR).
- On base of tender NFA will purchase 1. 500. 000 doses trivalent FMD vaccines for spring campaign (A Iran 05, O panasia-2 and Asia-1 Shamir) ARRIAH Vladimir vaccines;
- SP and NSP ab Investigations will be implemented;
- The surveillance on animal health during their migration to seasonal pastures and on migration routes will be strengthened. As well the traders on livestock animal markets will access only with consequent animal health certificate.
- From the second part of the current year is scheduled to contract state veterinaries on the village level for strengthening of epidemiology surveillance and other kind of vet. control;
- The type and subtype of FMD vaccine will decide on base of EuFMD recommendation.
**Plans related to FMD surveillance and control in the short and long term.**

**Short term plans:**
- In nearest future Georgia plans to become member of EuFMD, the decision was made by National Food Agency, which was agreed with Ministry of Agriculture of Georgia. Nowadays appropriate measures are carried out.
- Renovation, improvement and harmonization of legislation with EU is in process.

**Long term plans:**
- Double vaccination of cattle and small ruminants full livestock by high quality vaccines will be held at least during three years;
- Veterinary surveillance program is drawn up till 2017 year. The program also includes FMD surveillance, which comprises prophylactic vaccination, as well as sero surveys on structural and nonstructural proteins.
- Registration – identification of cattle will be continued. From 2014 registration – identification of small ruminants will be started.
Conclusions

• During last year in Georgia has been significantly strengthened the FMD surveillance and control. We have more support from new government (including financial support). The budget of NFA has been increased several times; accordingly NFA has more opportunities to hire additional private and state veterinaries;

• Despite of that the EC/EuFMD (TCC) project has completed in the end of the last year, we encourage collaborating with EuFMD and continue the project with new format
Thanks for your attention!