

WestEurasia Roadmap

**MINISTRY OF AGRICULTURE OF AZERBAIJAN REPUBLIC
STATE VETERINARY SERVICE**

**4th West Eurasia Regional Roadmap Meeting
Country Presentation 2013**

**FMD CONTROL AND PREVENTION IN
AZERBAIJAN REPUBLIC**

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AZERBAIJAN REPUBLIC



Neighbouring countries	length of boundaries (km)
Total border length	3472
length of land boundaries	2647
Russia	391
Georgia	471
Armenia	1007
Iran	765
Turkey	13
Length of Caspian sea border	825

Activities to address gaps identified in 2012 Roadmap meeting

- **FMD Control Strategy was updated according to PCP**
- **Implementation of EU Project of animal identification is started**
- **National Information Reporting System (AzVET) is implemented**
- **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 has been updated in 2009-2011 and last time in 2012 (in connection with establishment of structure of State and Local emergency commissions, modified structure of Veterinary Service, its logistical support, adoption a number of regulations).**

Activities to address gaps identified in 2012 Roadmap meeting

- For improvement of control of animal movement, winter and summer migrating routes (maps) were identified
- Working schedule of live animal markets and estimated approximately number of animals at each market were identified (maps of animal movement from market to market)
- Serosurvey in live animal markets was carried out
- Strengthening of control measures on movement of animals during religious holidays (Qurban bayram, Ramazan bayram, Nouruz Bayram) and veterinary-sanitary measures for slaughtering
- Regional simulation exercise on FMD

Activities to address gaps identified in 2012 Roadmap meeting

- **Vaccination of LR – all population twice per year (spring and autumn) and SR once per year – all population in risk zones (borders, around live animal markets and migration ways), in last spring we vaccinated 46% of SR population in country.**
- **Monitoring and evaluation of vaccination campaign: vaccine coverage, SP level and duration of immunity of naïve animals**
- **Evaluation of cool chain during vaccination campaign (distribution, transportation, storage, using) was conducted**
- **Annually seromonitoring campaigns (SP and NSP ab) and follow-up investigation, including probangs and swab sampling**
- **Different types of trainings for both laboratory and epidemiology specialists (including PEPc trainings)**
- **Value chain analysis for milk productions**

Activities to address gaps identified in 2012 Roadmap meeting

- ▶ **The diagnostic capabilities of the national laboratories have been improved. Currently they 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 contacts have been established between laboratory and epidemiological department for the struggle against infectious diseases, including FMD**
- ▶ **NSP and SP testing in RVL (last year all necessary diagnostic kits were available)**
- ▶ **Laboratories can handle large amounts of sera and data**
- ▶ **Participation in WRL proficiency tests 2009-10-11-12**
- ▶ **SOPs for collection, storage, transportation and shipment of samples for FMD diagnostics**

Description of National FMD control strategy

- **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

- **Now National Strategy is based on the risk analysis, vaccination (twice per year and on time, short period – 1-2 month), monitoring of vaccination campaign, seromonitoring campaign and follow-up investigation after results of seromonitoring**
- **Aim: Intensive strengthening FMD surveillance and control for progression on the West Eurasia FMD Progressive Control Pathway**

National FMD Control Strategy Plan for 2013-2015

Main components:

- ❖ Description of livestock system (number of farms, distribution of farm according to size, directions (milk or meat), biosecurity level, etc.)
- ❖ Risk analysis (critical control points, including epizootic situation in region)
- ❖ Vaccination programs for LR and SR (including evaluation, cool chain)
- ❖ Seromonitoring campaigns and follow-up investigation (SP and NSP)
- ❖ Control measures related to animal movement (due to official and informal international trade, seasonal and related to religious holidays)
- ❖ Control measures in live animal markets (including seromonitoring campaign)
- ❖ Value chain analysis for milk and meat production

National FMD Control Strategy Plan for 2013-2015

- **Control measures in slaughterhouses**
- **Biosecurity measures on farms**
- **Information (data base, reporting system) and identification systems**
- **Legislation regarding compensation, penalty**
- **Laboratory capabilities**
- **Awareness work with farmers and stakeholders (posters, buklets)**
- **Simulation exercises**
- **Trainings**
- **Task Force Team**
- **Contingency Plan**
- **Progression on the West Eurasia Roadmap**
- **Regional cooperation**
- **EuFMD membership.**

National FMD Control Strategy Plan

Risk analysis

Following Critical Control Points are indicated:

- ▶ **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.**
- ▶ **Deficiency in overall material supply of districts, insufficient financing of SVS for implementation of control activities**
- ▶ **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, between countries in the region.**
- ▶ **The schedule of work of the markets of live animals in various areas**

National FMD Control Strategy Plan

Risk analysis

- ❖ Lack of the control on borders from the State Veterinary Service side
- ❖ Insufficient quantity of vaccines
- ❖ Lack of immunity of part of susceptible population of animals (SR)
- ❖ Insufficient quantity of diagnostic kits
- ❖ 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

National FMD Control Strategy Plan

Risk analysis

High Risks Zones were indicated:

- ✓ **Districts bordering with neighboring countries (, Armenia, Georgia, Iran, Turkey)**
- ✓ **Districts nearby live animals markets**
- ✓ **Districts located very closely to animal seasonal migrating routes**

National FMD Control Strategy Plan Vaccination

- To increase vaccination quality and quantity
- Type and amount of vaccines, distribution list for districts
- Vaccination of LR – all population twice per year (spring and autumn) and revaccination of calves each 3 months.
- Vaccination of SR – all population in risk zones (borders, around live animal markets and migration ways), and in case of enough funds – all SR population in country at least once per year (in spring).
- Follow-up investigation after the results of seromonitoring
- Checking and improving of the cool chain

National FMD Control Strategy Plan

Vaccination

- ***Monitoring of vaccination campaign should be carried out by veterinarians, which are not involved in vaccination activities.***
- **Monitoring during vaccination campaign (in process) - daily checking record forms (how many animals were vaccinated, how many doses were used, did they have some problems, etc.), calling to farmers, randomly visiting of farms, check all documentations after vaccination campaign.**
- **Design of serosurveillance plan for evaluation of vaccination campaign, aimed at the detection of immunity level (SP)**
- **Conduct analysis and interpretation of the obtaining data (SP prevalence, range on village and district level, percentage of vaccinated animals by age group, etc.).**

National FMD Control Strategy Plan

Seromonitoring campaign

- ▶ **Seromonitoring campaigns at least one per year**
- ▶ **Random selection of samples from whole country, at the live animal markets**
- ▶ **Special team for campaign**
- ▶ **Follow-up investigation after the results of seromonitoring**

Description of FMD surveillance results Seromonitoring campaigns 2010-11-12

- **The design of seromonitorings 2010-11-12 were 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).**

Seromonitoring campaign 2012

Main objectives of spring seromonitoring campaign:

- SP structural antibody surveys to estimate FMD population immunity in LR and SR
- Monitoring the 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. Take into account the PCP requirements for stage 2, to reduce impact of FMD in at least on zone or husbandry system.

Total sample size (according to design, random selection):

LR – 2265 serum; SR - 877 serum.

SP Survey 2012

Animals	Number of sera	A	O	Asia-1
Cattle	568	83,6 (7-100%)	80,5 (30-100%)	83,8 (50-100)
Sheep	296	67,2 (45,5-84,6%	90,5 (71,4-100%)	
Cattle (NR)	780	89,7 (24-100%)	87,4 (45,2-100%)	88,2 (50-100)
Sheep (NR)	240	77,4 (54,5-89,8)	92,6 (54,5-100%)	

NSP Survey 2012

	Number of samples	NSP Positive	%
Cattle	2265	140	6,3
Sheep	877	58	6,6
Cattle (NR)	780	9	1,15
Sheep (NR)	240	4	1,66

SP Survey 2012 (SR)

District	Village	SP O SR			SP A SR		
		sera tested	pos	%	sera tested	pos	%
Aghdam	Chemenli	14	13	92,9	14	10	71,4
Barda	Soynalar	13	12	92,3	13	8	61,5
Tovuz	Dondar-Qushchu	10	9	90	10	7	70
Khyzy	Qasimov Islam	9	9	100	9	7	77,8
Khachmaz	Nerecan	9	9	100	9	7	77,8
Gusar	Yuxari Zeyxur	11	8	72,7	11	7	63,6
Goychay	Bigir	12	11	91,7	12	7	58,3
Agdash	Mursel	6	6	100	6	4	66,7
Zardab	Qoshaoba	11	10	90,9	11	9	81,8
Gakh	Ilisu	7	5	71,4	7	5	71,4
Balaken	Qazma	11	10	90,9	11	6	54,5
Sheki	Cheshmeli	11	10	90,9	11	6	54,5
Salyan	Arbatan	10	9	90	10	8	80
Khajykabul	Udulu	14	13	92,9	14	9	64,3
Fizuly	Babi	13	11	84,6	13	7	53,8
Shabran	Shabran	20	19	95	20	16	80
Shamkir	Duzqishlaq	13	13	100	13	8	61,5
Zagatala	Muxax	13	11	84,6	13	11	84,6
Jalilabad	Qarazencir	13	11	84,6	13	7	53,9
Lerik	Chayrud	11	11	100	11	5	45,5
Siazen	Quluali	11	9	81,8	11	6	54,5
Lenkeran	Suruk	13	11	84,6	13	9	69,2
Yardymly	Siriq	14	14	100	14	10	71,4
Imishly	Kurdmahmudlu	13	12	92,3	13	8	61,5
Khojaly	Mesheli	5	4	80	5	4	80
Gadabey	Slavyanka	9	9	100	9	7	77,8
		296	269	90,5	296	198	67,2

NSP Survey 2012 (SR)

District	Village	NSP SR		%
		sera tested	pos	
Aghdam	Chemenli	35	3	8,5
Barda	Soynalar	35	0	0
Tovuz	Dondar-Qushchu	22	4	18
Khyzy	Qasimov Islam	20	1	5
Khachmaz	Nerecan	35	2	5,7
Gusar	Yuxari Zeyxur	40	2	5
Goychay	Bigir	40	4	10
Agdash	Mursel	25	3	12
Zardab	Qoshaoba	36	4	11
Gakh	Ilisu	28	0	0
Balaken	Qazma	35	3	8,5
Sheki	Cheshmeli	35	1	2,8
Salyan	Arbatan	35	3	8,5
Khajykabul	Udulu	39	1	2,5
Fizuly	Babi	35	2	5,7
Shabran	Shabran	39	2	5,1
Shamkir	Duzqishlaq	35	2	5,7
Zagatala	Muxax	35	3	8,5
Jalilabad	Qarazencir	40	4	10
Lerik	Chayrud	35	3	8,5
Siazen	Quluali	35	0	0
Lenkeran	Suruk	35	3	8,5
Yardymly	Siriq	35	4	11,4
Imishly	Kurdmahmudlu	40	2	5
Khojaly	Mesheli	18	0	0
Gadabey	Slavyanka	35	2	5,7
		877	58	6,6

Follow-up investigation 2012

Main objectives of autumn survey:

- Follow-up investigation (2 clusters with high NSP %);
- A cluster consisted 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, probang samples and nasal/mouth swabs;
- The animals for sampling were be 4-18 months old;

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

		NSP LR			NSP SR		
		sera tested	pos	%	sera tested	pos	%
Tovuz	Xatinli	100	3	3	100	2	2
Tovuz	Dondar Qushchu	100	2	2	100	3	3
Gazakh	Yuxari Salahly	100	2	2	100	4	4
Gazakh	Ashaqi Salahly	100	3	3	100	2	2
		400	10	2,5	400	11	2,75

Virology samples (nasal/mouth swab and probings) from four cluster villages has been collected, tested during FMD PCR training in Tbilisi (February 2013). All samples were negative.

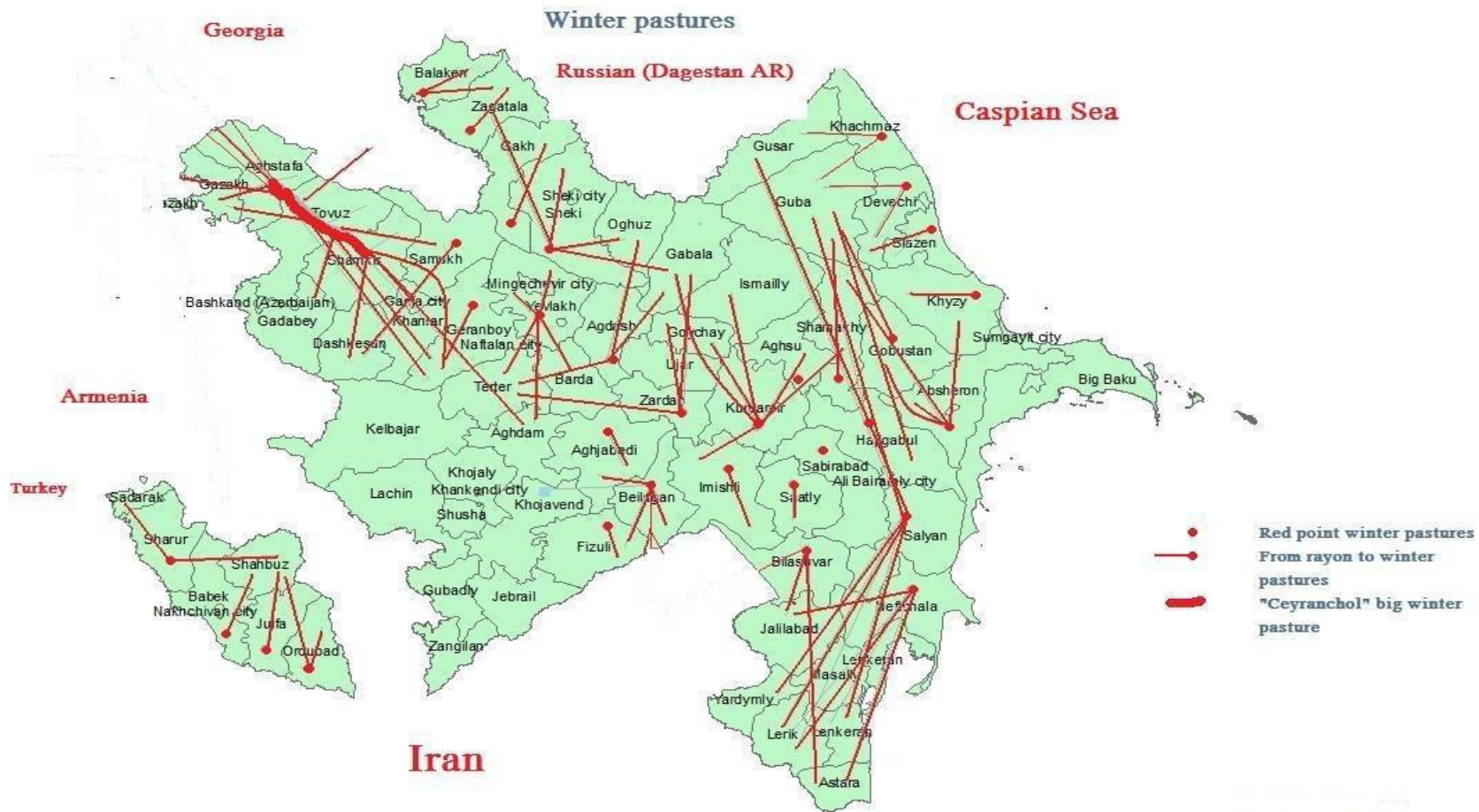
Description of FMD control measures 2012

Vaccination

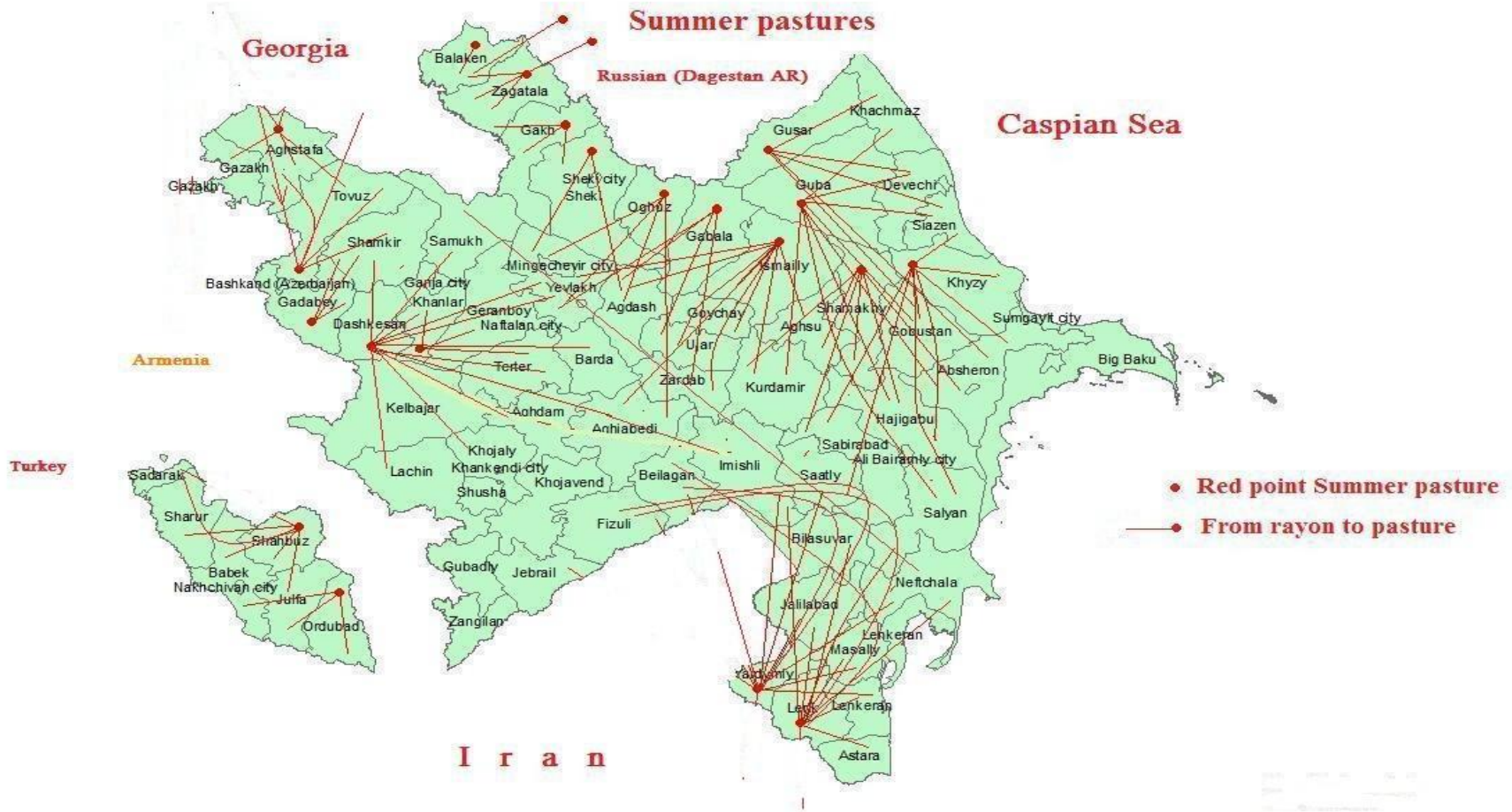
- **Vaccination of LR – all population twice per year (spring and autumn – 5 028 383 doses – 95,3% covering) and SR once per year – all population in risk zones (borders, around live animal markets and migration ways) - 3 940 202 doses, last spring we vaccinated 46% of SR population in country.**
- **Trivalent vaccine for LR: A/Iran 2005, O/PanAsia 2, Asia-1/Georgia2001) - ARRIAH**
- **Bivalent vaccine for SR: A/Iran 2005, O/PanAsia 2**
- **Improving of cool chain – requested from Government additional 6 mln AZN for this issue**

Description of FMD control measures 2012

Movement control



Description of FMD control measures 2012 Movement control



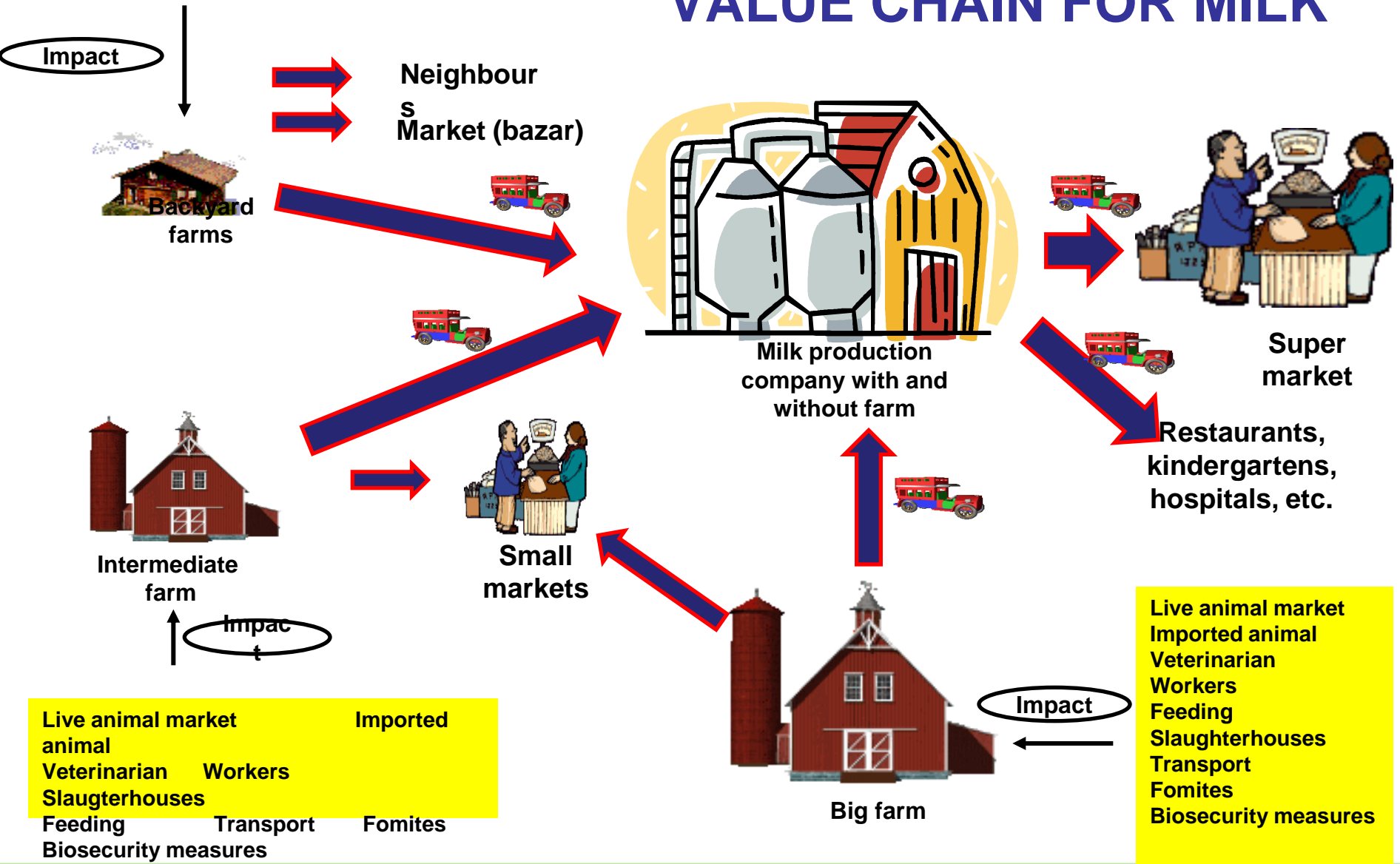
Description of FMD control measures 2012 Biosecurity measures

- **Before the religious holidays SVS sends special circular letter to all district administrative offices and municipalities. Special equipped points for slaughtering of animals under the vets control were organized. Special team and responsible people checked all process in all districts and cities and conducted all veterinary-sanitary measures (check of animals, disinfection, etc.)**

GE-TADs
 Live animal market
 Veterinarian
 Feeding Transport
 Awareness about biosecurity measures

map

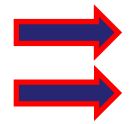
VALUE CHAIN FOR MILK



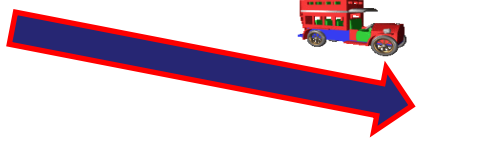
Live animal market
 Imported animal
 Veterinarian Workers
 Slaughterhouses
 Feeding Transport Fomites
 Biosecurity measures

Live animal market
 Imported animal
 Veterinarian
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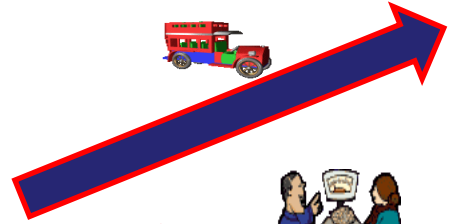
Impact



Neighbourhood Market (bazar)

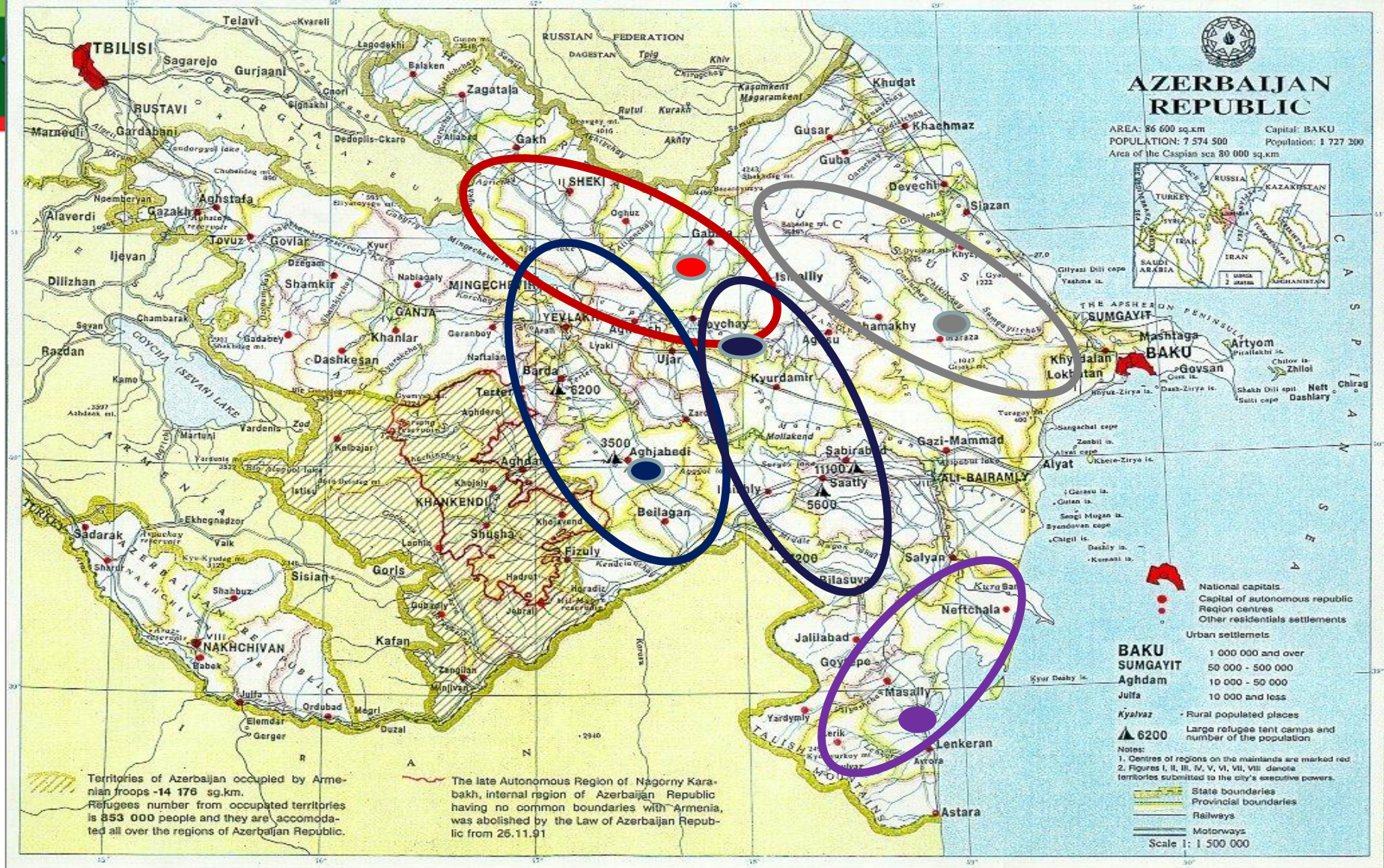


Restaurants, kindergartens, hospitals, etc.




Impact





 GILAN Milk Production Company

 MILLA Milk production Company

 PALSUD Milk production Company

 SEVIMLI DAD Milk Production Company

 ATENAMilk Production Company

Plans related to FMD surveillance and control in the short and long term.

Short term plans:

- Vaccination of LR – all population twice per year (spring and autumn) and revaccination of calves each 3 months.
- Vaccination of SR – all population in risk zones (borders, around live animal markets and migration ways), and in case of enough funds – all SR population in country at least once per year (in spring).
- Improvement of animal movement control
- Improvement of collaboration with Customs Committee
- Strengthening quarantine measures on borders
- Periodically carrying out serosurveys, including markets
- Strengthening control during religious holidays
- Azerbaijan plans to become member of EuFMD.

Plans related to FMD surveillance and control in the short and long term.

Long term plans:

- **Strengthening of SVS capabilities**
- **Improvement of the technical-logistical support of FMD activities**
- **Updating of legislation regarding compensation, penalty**
- **Improvement of preventive veterinary-sanitary control measures, improvement of a veterinary-sanitary condition of farms, increase of a level of biosecurity, strengthening of quarantine measures.**
- **Implementation of animal identification and registration system;**
- **Analysis of socio-economical impact (international supporting)**
- **Trainings**



THANK YOU FOR YOUR ATTENTION!