



GF-TADs
GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



eofmd
EUROPEAN CONFERENCE FOR THE
CONTROL OF FOOT AND MOUTH DISEASE

WestEurasia Roadmap




FMD Vaccination in the West Eurasia Countries

Results of a questionnaire survey

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EuFMD

Objectives of the Survey:

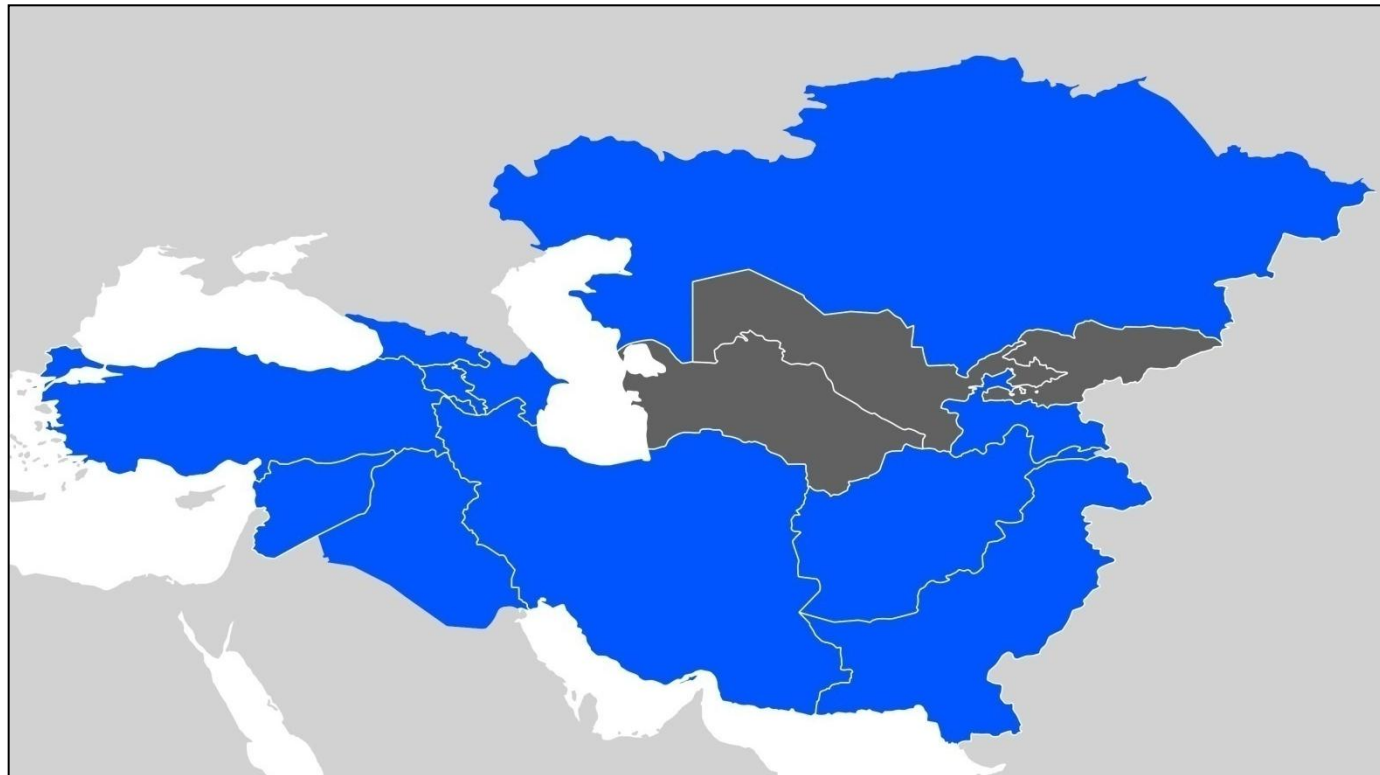
-  **To gain an insight of the vaccination strategy adopted by West Eurasia Countries for 2012-2013**
-  **To identify/prioritize areas of improvement**
-  **To identify possible areas of international cooperation between**

Description of the Survey

Questionnaire distributed 3 weeks before the Baku meeting.

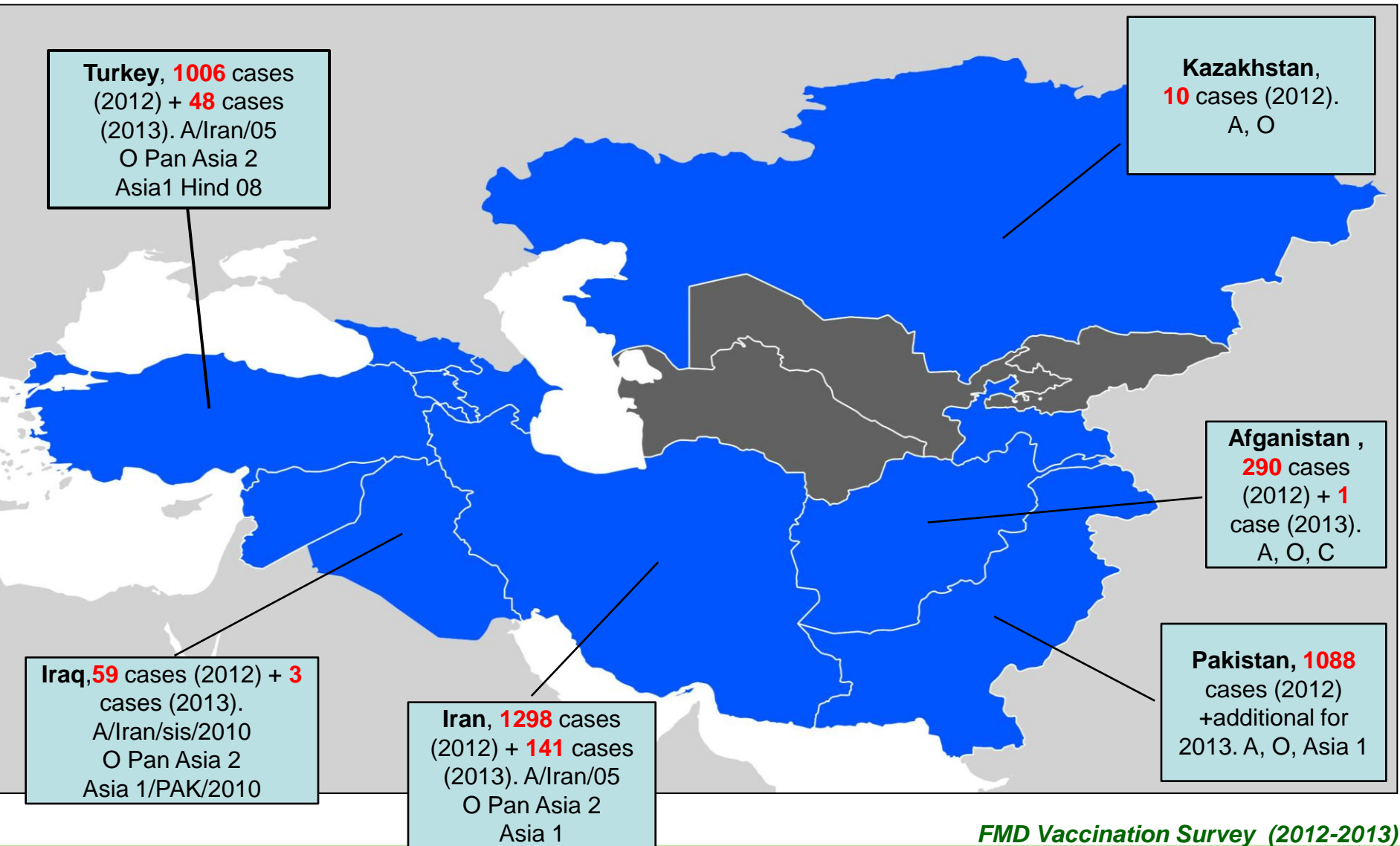
Completed: 11 countries (in blue):

Afghanistan, Armenia, Azerbaijan, Georgia, Iran, Iraq, Kazakhstan, Pakistan, Syria, Tajikistan, Turkey

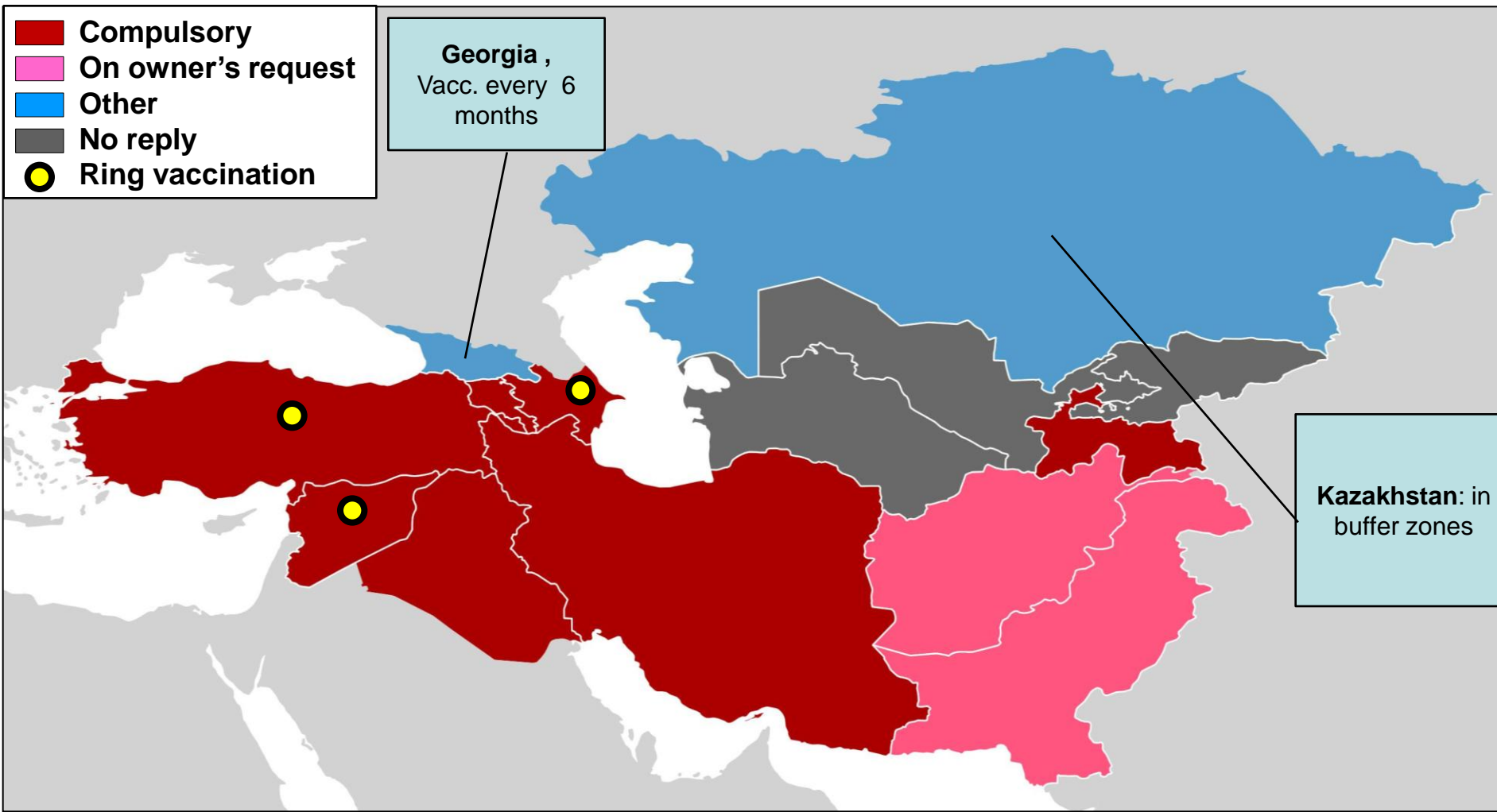


Many Thanks to all who responded !!!!

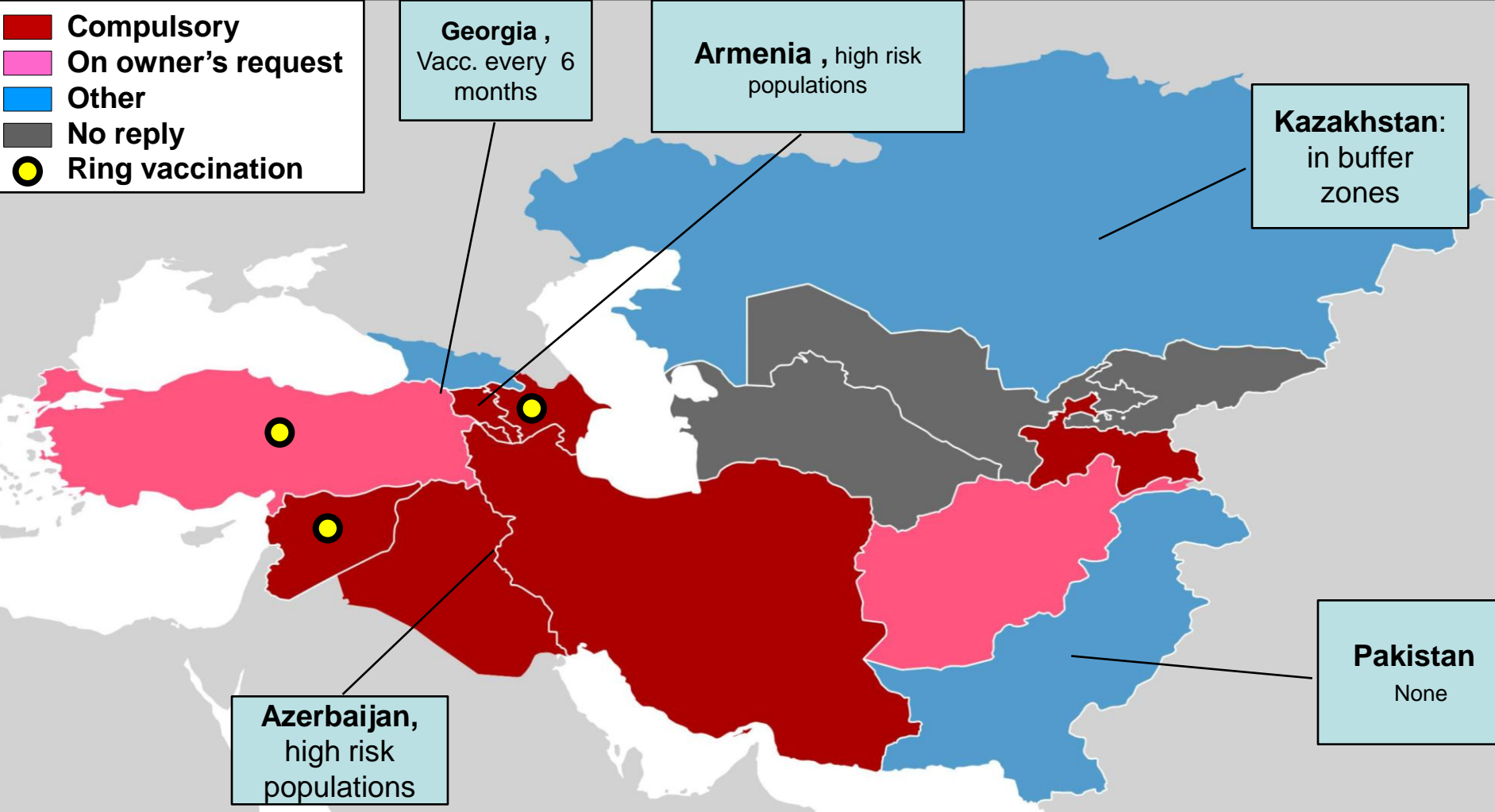
Results: Questions 1-6 , FMD Occurrence in 2012- early 2013 as reported in the questionnaire



Results: Question 7 , FMD Vaccination strategy in cattle



Results: Question 8 , FMD Vaccination strategy in small ruminants



Results: Question no 9, FMD vaccination costs payed by the owner

Yes: 4/11

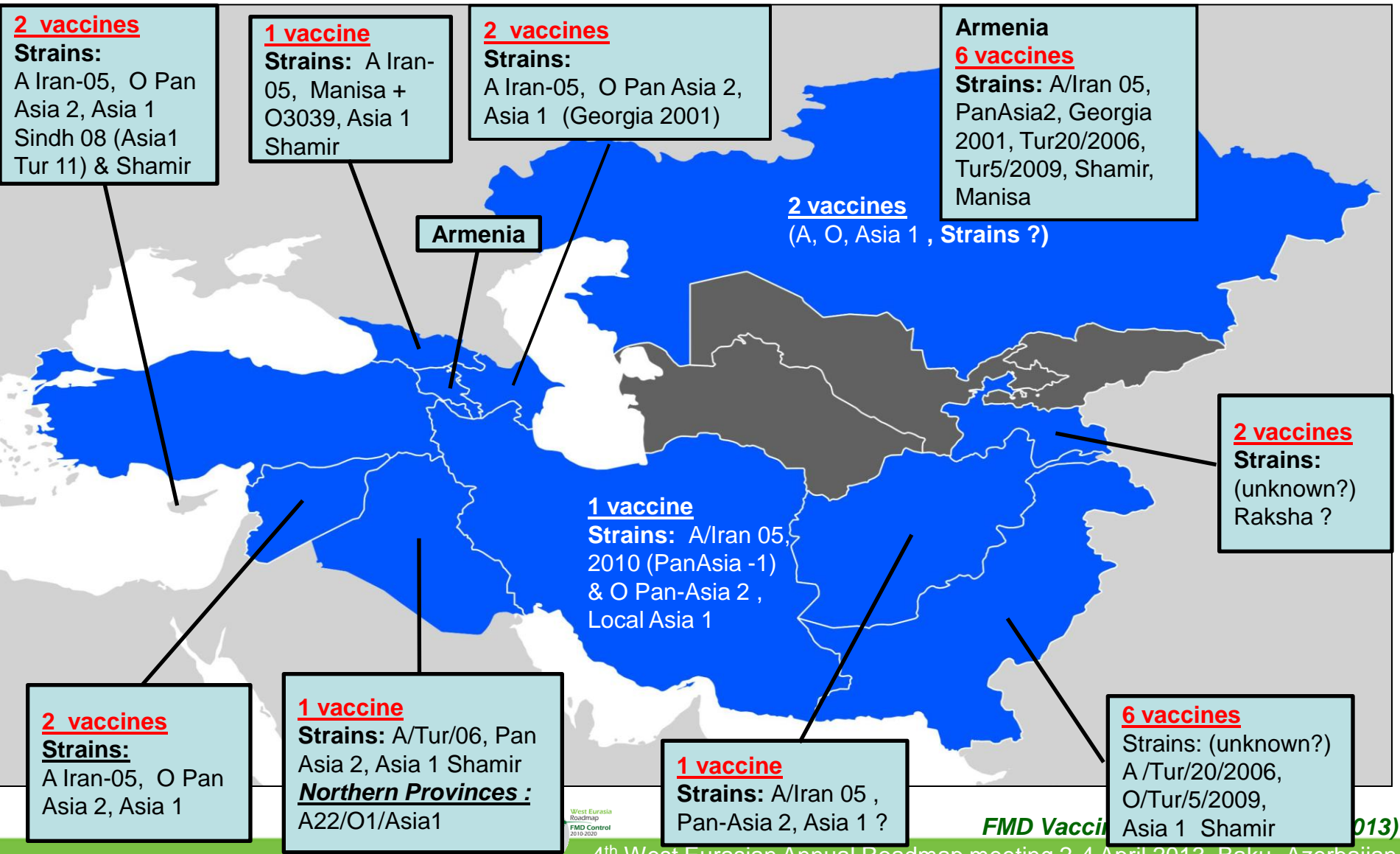
COUNTRY	Amount /dose payed by livestock owner	Comments
Afghanistan	\$1,00	Vaccine + Vaccination fee
Armenia	-	-
Azerbaijan	-	-
Kazakhstan	-	-
Georgia	-	-
Iran	-	-
Iraq	-	-
Pakistan	15 – 250 Rs, depending on vaccine type	Vaccine + Vaccination fee
Syria	-	-
Tajikistan	\$0,41	Vaccine + Vaccination fee
Turkey	0,75 TL	Vaccination fee

Results: Question no 10, who does the FMD vaccination

COUNTRY	OWNER	LOCAL PRIVATE VET	LOCAL STATE VET	VET FROM NATIONAL STATE SERVICE
Afghanistan		X		
Armenia			X	
Azerbaijan			X	
Kazakhstan				
Georgia			X	
Iran	X *	X	X	
Iraq				X
Pakistan		X	X	
Syria			X	
Tajikistan			X	
Turkey		X	X	

*Just in big industrial cattle complex

Results: Question no 11, FMD vaccine composition (in most cases trivalent : A/O/Asia1)



Producers & countries

Vaccine producer

Used in no. of countries

- | | |
|---------------------------|---|
| • FGI-ARRIAH & Pokrov, RF | 6 |
| • Merial | 4 |
| • Intervet | 2 |
| • Razi Institute, Iran | 1 |
| • SAP-Institute, Turkey | 1 |
| • Vetac, Turkey | 1 |
| • TOO Vita ST, Kazakhstan | 1 |
| • Aftibin; Czech Rep. | 1 |
| • Lahore, Pakistan | 1 |
| • Indian Imm., India | 1 |

Results: Questions 12-13 , FMD vaccine matching tests from 2012 samples
& labs that performed them **YES: 3-5/11**

COUNTRY	Vaccine matching tests conducted	Laboratory
Afghanistan	NO	
Armenia	YES (??)	Scientific center for risks assessment and analysis in food safety area» SNCO/RA (??)
Azerbaijan	NO	
Kazakhstan	NO	
Georgia	NO	
Iran	YES	WRL Pirbright & Iran Central Veterinary Laboratory (CVL)
Iraq	NO	
Pakistan	YES	WRL Pirbright, FADRC, ARS, NewYork
Syria	NO	
Tajikistan	YES (??)	State Scientific Production Company “Biological preparations” Tadjikistan Akademy of Agriculture
Turkey	YES	SAP Institute

Results: Question 14, FMD vaccination schedule for 2012 **9/10: 2x LR & 1x SR**

vacc.

	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC
Afghanistan	?	?	?	?	?	?	?	?	?	?	?	?
Armenia			LR/SR	LR/SR						LR	LR	
Azerbaijan			LR	LR						LR/SR	LR/SR	
Georgia				LR	LR			LR	LR	LR/SR	LR/SR	
Kazakhstan			LR/SR	LR/SR					LR/SR	LR/SR		
Iran *				LR/SR	LR/SR	LR/SR				LR/SR	LR/SR	LR/SR
Iraq	LR/SR			LR	LR	LR					LR/SR	LR/SR
Pakistan												
Syria												
Tajikistan				LR /SR	LR /SR					SR	SR	
Turkey												

Note

Iran: Industrial holding cattle vaccinated every 4 months

Pakistan: No fixed schedule, on demand of farmer, repeat after 6 months

Turkey: No vaccine in Eastern Black Sea and mediterranean Regions. Eastern borderline vaccine on Spring /Western -Inner Anatolia vaccine on Autumn. Thrace: vaccination campaign 2x per year all ruminants.

in 1/3 of the country

Results: Question 15 , number of FMD vaccine doses delivered in 2012

COUNTRY	Large ruminants	Small ruminants	Other
Afghanistan	?	?	
Armenia	1.782.938	264.229	
Azerbaijan	5.028.383	3.940.202	
Kazakhstan	5.421.350	24.768.400	
Georgia	980.000	35.000	
Iran	9.837.451	33.092.735	
Iraq	2.000.000	0	
Pakistan	3.500.000	0	2.300
Syria	2.000.000	9.000.000	0
Tajikistan	?	?	400.000
Turkey	14.750.000	710.000	0
TOTALS	45.300.122	71.810.566	402.300

← 400,000 from State budget

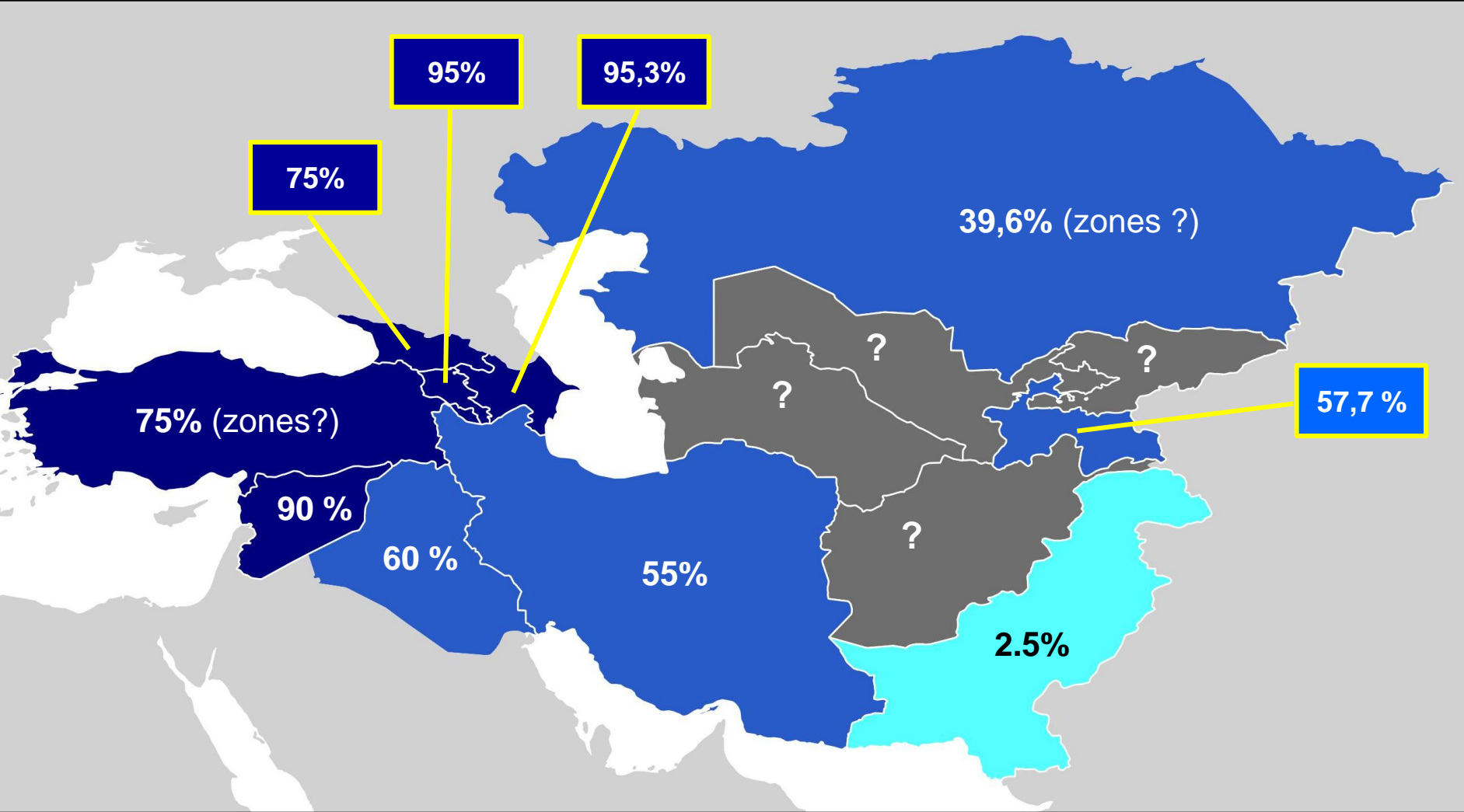
Theoretical vaccination coverage of large and small ruminants, vacc. campaigns 2012

	Large ruminants	Small ruminants	Total
Vaccination totals	45.3 mil	71.8 mil	117.1 mln
Animal no.s totals	106.5 mil	258.8 mil	365.3 mln
Theoret. coverage	42.5 % *	27.7 %	32.1 %

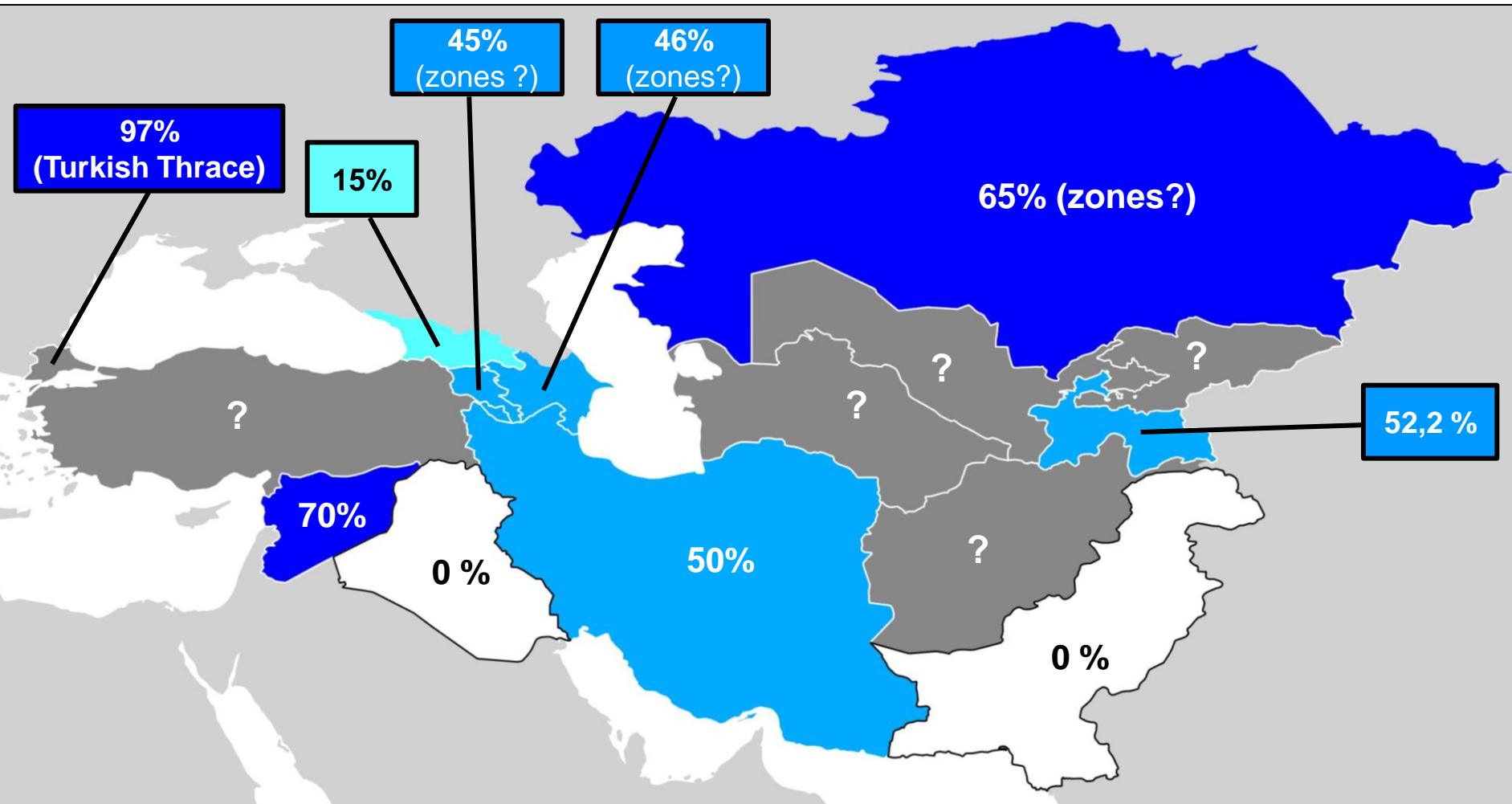
* LR vacc. 2x/ year
→ 21.3 %

2008: 22.4 %
2010: 43.4 %

Results: Question 16 , approximate coverage of FMD vaccination in cattle in 2012.



Results: Question 16, approximate coverage of FMD vaccination in small ruminants in 2012.



Results: Question 17, neighbours' schedule considered for vaccination policy ?

YES: 7/11

COUNTRY	Reply
Afghanistan	NO
Armenia	(YES)
Azerbaijan	YES
Kazakhstan	YES
Georgia	YES
Iran	YES
Iraq	NO
Pakistan	NO
Syria	YES
Tajikistan	YES
Turkey	NO

Results: Questions 18-19, differences in the FMD vaccination policy within each country.

Yes: 7/11, 6 risk based !

COUNTRY	Different policies for different regions	DESCRIPTION
Afghanistan	NO	
Armenia	YES	Vaccination of SR was in buffer zone and where animal movement is higher
Azerbaijan	YES	According to risk analysis vaccination of small ruminants in border districts with neighbouring countries, around of live animal markets and roads of seasonal movement of animals vaccination
Kazakhstan	NO (YES)	(vacc. buffer zone)
Georgia	NO (YES)	(Risk based vacc. in small ruminants)
Iran	YES	Vaccination in 2012 were applied as follow: Vaccination of industrial dairy cattle every 4 month. As described in row no. 14 Vaccination of cattle in the villages every 6 months
Iraq	YES	There is difference in vaccination schedule in the northern provinces Kurdish region as the antigen used there is A22/O1/Asia1
Pakistan	NO	Only project vaccination in selected herds given free of cost
Syria	NO	
Tajikistan	NO	
Turkey	YES	Based on risk-analysis vaccination was conducted in different regions of the country. The low risk area like Eastern Black Sea and Meditterriaen Region remained unvaccinated in both campaign sessions. Eastern borderline has been defined as high risk area for the Spring vaccination campaign, Whereas Western and Inner Anatolia has been defined high risk areas for autumn campaign.

Results: Question 20, follow up of the FMD vaccination programme.

Yes: 7/11

COUNTRY	Follow up of the FMD vaccination programme
Afghanistan	none
Armenia	SP serology in 5% of vaccinated animals one month after vaccination
Azerbaijan	SP serology in 10% of vaccinated animals one month after vaccination
Kazakhstan	Checking of immunity level among cattle (162641 samples) and sheep (37156 samples) is planned after 21 days after vaccination
Georgia	SP serology in vaccinated animals 3-8 weeks after vaccination. Telephone and on-side monitoring is carrying out by special group (state vets) after vaccination campaigns.
Iran	Paper based monitoring.
Iraq	NSP and SP serology in 0.05% (??) of vaccinated animals one month after vaccination
Pakistan	Only project vaccination is being followed up serologically and clinically
Syria	Serologic check of 5000 samples (SP ELISA) from vaccinated animals in the country
Tajikistan	Serologic check (SP) in 1% of vaccinated animals one month after vaccination
Turkey	Vaccine effectiveness studies following regular NSP serosurveillance, routine post-vaccination herd immunity partially

Results: Questions 21-22, FMD reference laboratory used - method

COUNTRY	National Lab	International Lab	Methods available
Afghanistan	YES		ELISA & PCR
Armenia	YES	(IZSLER)	Ag ELISA, SPCE, NSP ELISA
Azerbaijan	YES	IZSLER	Ag ELISA, SPCE, NSP ELISA , PCR
Kazakhstan	YES	OIE reg. ref. lab.	ELISA and PCR
Georgia	YES	IZSLER	Ag ELISA, SPCE, NSP ELISA
Iran	YES	WRL Pirbright	ELISA, PCR, VNT
Iraq	YES	Just/Jordanian Kingdom, SAP-I, Turkey, WRL Pirbright	ELISA and PCR
Pakistan		mostly WRL Pirbright	ELISA and PCR
Syria	YES		SP ELISA, NSP ELISA, Ag ELISA, PCR
Tajikistan	YES		
Turkey	YES		Multiplex Real Time RT-PCR , Multiplex RT-PCR , Ag ELISA, LPBE, NSP ELISA , VNT (Vaccine Matching) PCR and Nucleotide Sequencing
Summary	YES: 10/11	YES: 7/11	ELISA: 10 PCR: 8 VNT:2



Results: Question 23, FMD vaccination programme planned for 2013-2014.

COUNTRY	Vaccine plan for 2013-2014
Afghanistan	none
Armenia	Same as 2012, incl. re-vacc.
Azerbaijan	Same as 2012
Kazakhstan	For 2013-2014 vaccination will be covered all regions of country, high quality vaccines, produced according relevant international standards (6 PD) will be used
Georgia	Vaccination of all ruminants (SR & LR) twice per year (Spring – Autumn) with trivalent vaccines recommended by EuFMD
Iran	Some amendments on vaccination time, provinces grouping, ring vaccination strategy, outbreak investigation and post vaccination monitoring: country divided to two parts: North & South, vaccination in south provinces start on May and vaccination in north provinces start of June, Ring vaccination with monovalent vaccine on outbreaks
Iraq	Same as 20112
Pakistan	Only for FAO executed USDA funded project. Vaccine recommendation from the conference will be used along with data from WRL, Pirbright and FADRC, NY
Syria	Same as 2013
Tajikistan	-
Turkey	Same as 2012, areas subject to risk assessment
summary	same: 5, amendments : 4 (1 which was not using risk based vacc.), none: 1

Concluding Remarks

- Large variation in FMD vaccination practices in West Eurasia
- Areas for improvement:
 - **vacc. based on risk assessments:** 7/11 countries (how much risk based and cost effective are vacc. (whole country – zonal, LR – SR) amended strategy for 2013: 4/11 (incl. one country which didn't use risk assess. before)
 - **vaccine matching:** 3-5/11 countries
 - **Strain selection:** in 3 countries unknown or not matching
 - **Revaccination:** in only one country (no specific question on revacc.)
- Coordination/ assistance needed for:
 - **Vaccination and FMD control strategy**
 - **Vaccine selection & tender requirements** (recomm. Of Roadmap meeting 2009: „Vaccine tender templates should be made available by EuFMD or WRL including minimal requirements and information to be provided by producers”)
- Where long term experience/int. projects are present vacc. selection, risk based approaches and int. cooperation seem on better level → **national PCP focal points**

**MANY THANKS
FOR YOUR ATTENTION !!!!**

(general) international organisations should

- agree with nat. VS on national PCP focal points to liase between national veterinary service and FAO in PCP requirements incl regional cooperation and reporting