



CURRENT FMD SITUATION, CONTROL STRATEGY IN TURKEY & PERSPECTIVES FOR THE BETTER CONTROL OF FMD IN WEST EURASIA

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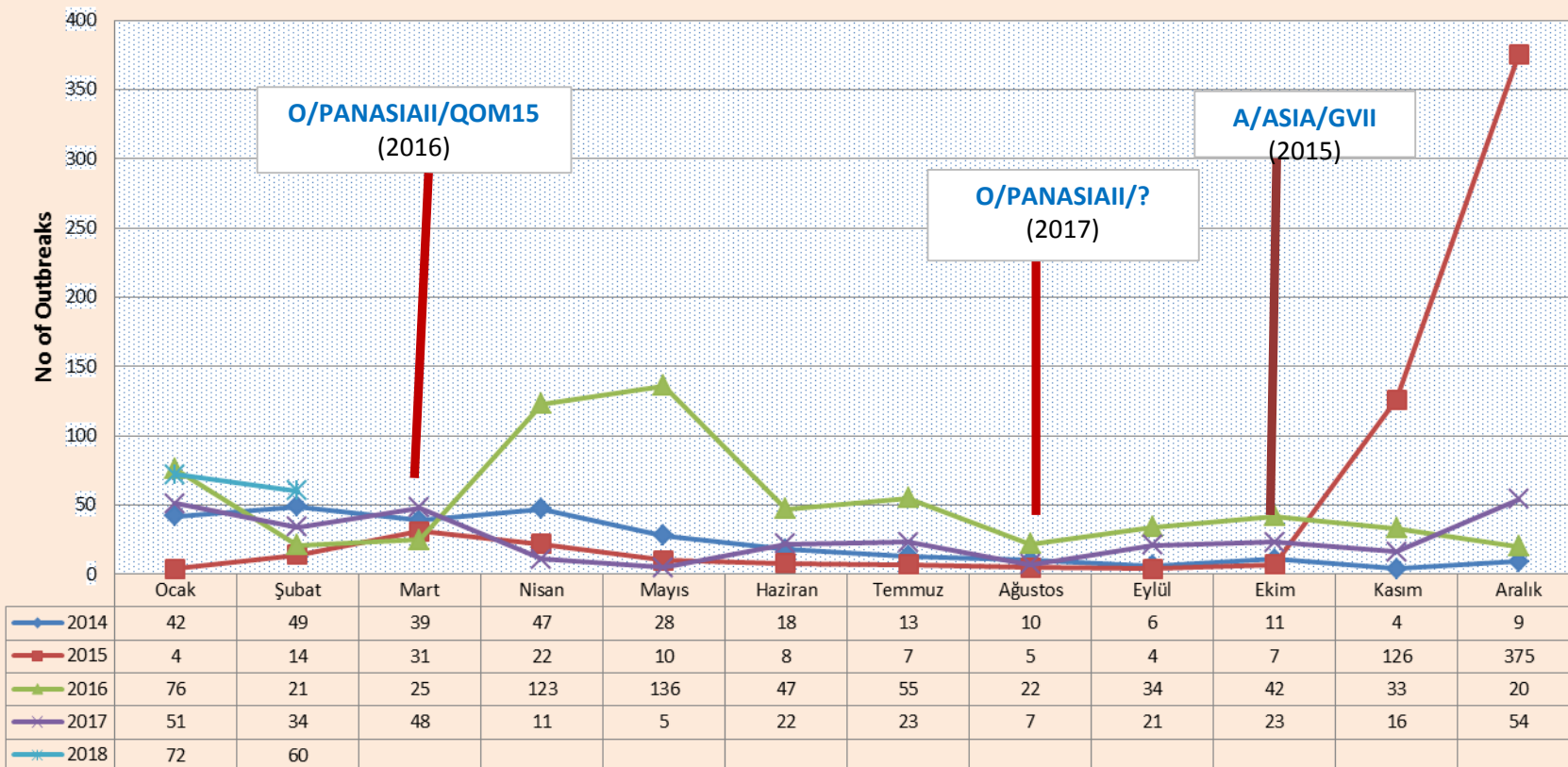
Şap Institute, Ankara, Turkey



CIRCULATED VIRUSES IN TURKEY

- FMD is endemic in Anatolia region in Turkey
- Current Circulating virus strains:
 - Serotype O (O PanAsiaII): Qom15 and new one-subgenetic clade for Qom15
 - Vaccine Strain: O TUR2007
 - A (Asia/GVII) : A/ASIA/GVII and SAM16
 - Vaccine Strain: A/Asia/GVII and SAM16
 - (Asia1 has been not recorded since July 2015)
 - Latest circulated one was Asia-1(Asia1/SINDH08)
- *Thrace region has been free of FMD with vaccination since May 2010*

Outbreaks for Last Five Years



Map distribution for outbreaks in 2017

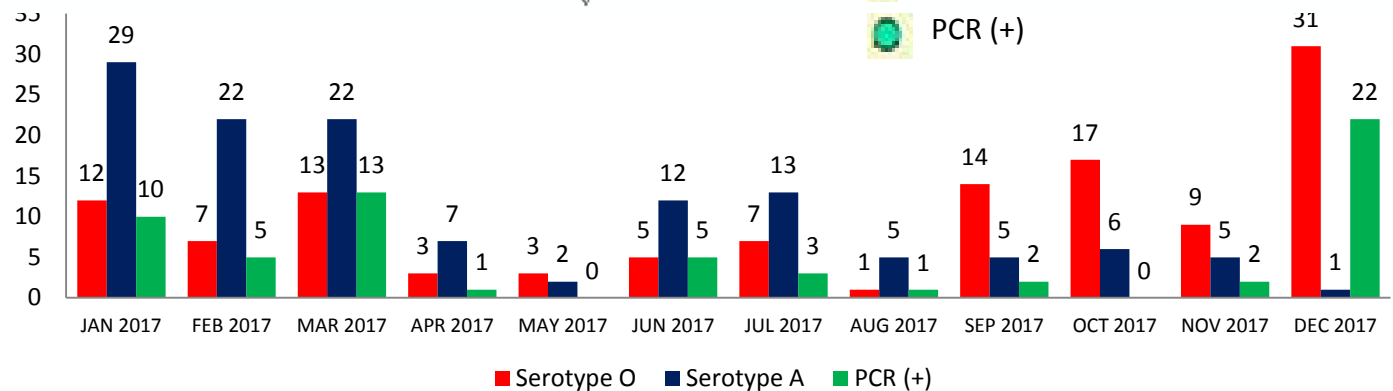


n=315

Serotype O :126

Serotype A :127

PCR (+) :62



Map distribution for outbreaks in 2018






n=132

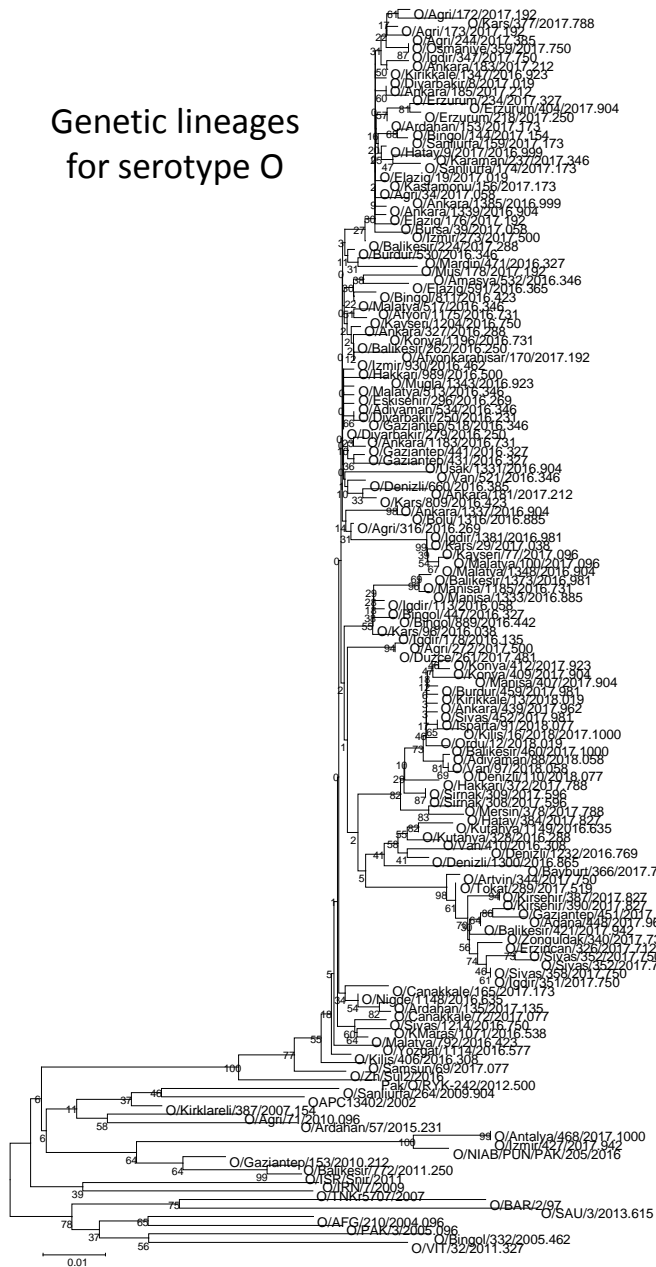
Serotype O :121

Serotype A :1

PCR (+) :10

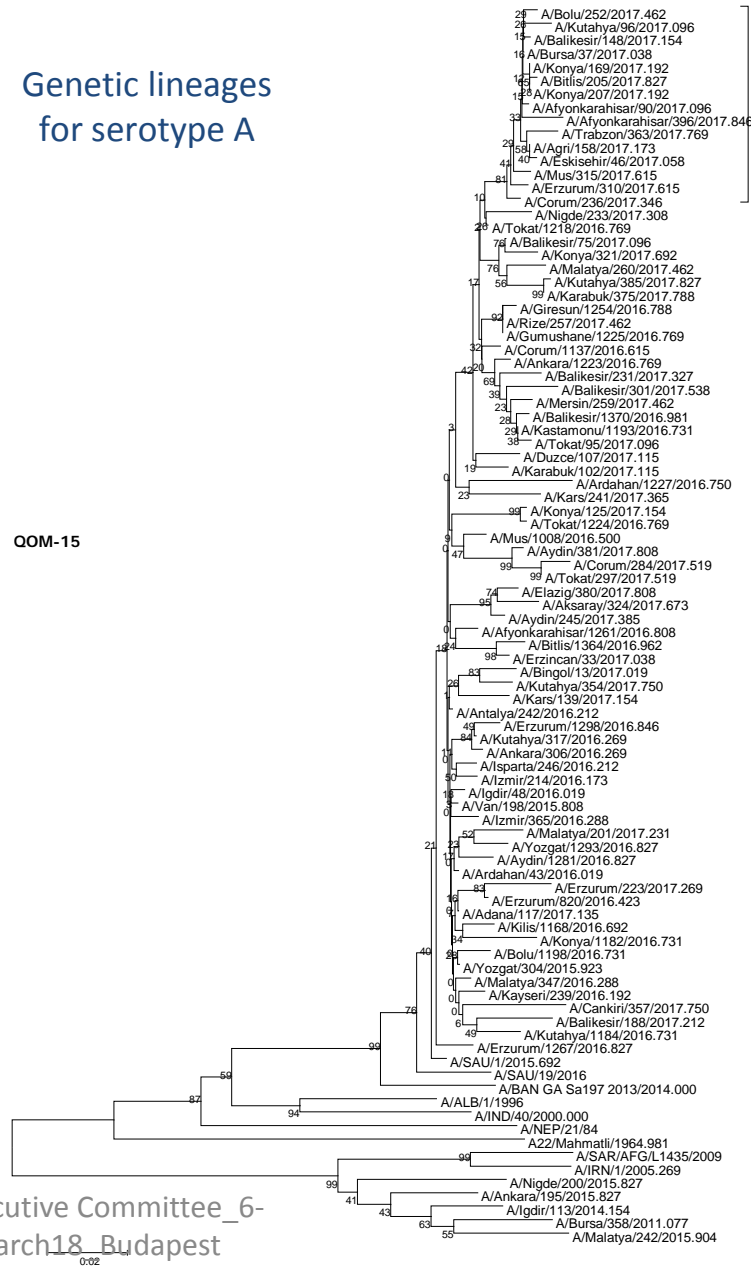
-  SerotypeO
-  Serotype A
-  PCR (+)

Genetic lineages for serotype O



ISP-16

Genetic lineages for serotype A



ADA-16

SAM-16

BAN-12

QOM-15

TOK -17

95th Executive Committee_6-
7thMarch18_Budapest

Summary of vaccine matching (antigenic characterisation by VNT):

	Vaccine strain		
	O1 Manisa	OTUR07	OTUR14
O QOM-(2015 isolate)	N	M	N
O QOM-(2016 isolate)	N	M	N
O QOM-(2017 isolate)	N	M	N

	Vaccine strain	
	GVII	ATUR16 /GVII
A05 (2006 isolate)	N	N
A05 (SIS10 / 2011 isolate)	N	N
A05 (SIS10 / 2015 isolate)	N	N
GVII (BAN-12 / 2016 isolate)	M	M
GVII (BAN-12 / 2017 isolate)	M	M
GVII (SAM16 / 2016-2017 isolate)	M (Partially)	M

	Vaccine strain		
	As1 Shamir	Asia1 TUR11	Asia1 TUR 14
As1 Sindh 08 (2015 isolate)	N	N	M

VACCINATION POLICY

- Preventive campaign vaccination :
 - In Anatolia; twice a year for LR;_ (SR not included/only request by owner)
 - In Thrace: : Three times a year for LR/twice for SR
- Ring Vaccination to response outbreak
 - in Surveillance zone of outbreak
- Targeting vaccination for identified “Hotspot»
- Small ruminant vaccination where risk identified
- Booster vaccination introduced in country wide
- Vaccination implemented based on risk assessment:
 - Early Spring: population assured protection before releasing grazing time
 - Late Summer: population assured protection before Kurban Festival
- Post Vaccination Monitoring: SP surveillance will be implemented in Autumn Campaign

PROGRESS FOR NATIONAL FMD CONTROL STRATEGY



TURKEY -
RISK-BASED STRATEGIC PLAN
FOR
CONTROL OF FOOT-AND-MOUTH DISEASE

A NEW STRATEGY TO ELIMINATE VIRUS ENTIRE OF THE ANATOLIA

***A Risk Based Control Program has
been developed and applied since 2014***

The program has been
**updated with
agressive activities**

GOAL OF NEW STRATEGY

To contribute to the development of the
livestock sector by achieving OIE
status of FMD free with vaccination

by 2023

2018 AchieveStage_3

**2021
AchieveStage_4**

**2022 (end of)
AchieveStage_5**

NEW REGIONAL APPROACH OF THE STRATEGY



Improvement Monitoring and Evaluation System

- **Monitoring and Evaluation System has been already established**
 - Central (GD/FC)/Institute/Province level
 - Serial Epidemiology training by technical support of EuFMD has been conducted in order to build up of technical capacity
 - 4 weeks training series have achieved last year; and 3 week also will be conducted in this year
- **Continue Surveillance and sero-surveillance**
 - **New clinical surveillance program & OI procedure**
 - NSP Sero-surveillance: Assessment disease dynamics and identifying risk factors
 - Post vaccination sero-surveillance: Vaccination performance and antibody level
- **Reconstructed database with more functional and features**
 - Animal Registration System by TURKVET
 - LR/SR registered into the system with ear-tag; initiated replacement of electronic ear-tag
 - Animal movement managed and monitored by the system
 - Veterinary Information System (VIS)
 - Outbreak Management
 - Entering outbreak data all notifiable disease
 - Recording vaccination data
 - Sample Management System regulated by the database system
 - Recording surveillance questionnaire data

Stop Virus Incursion

- Establish early detection system
 - Establish bilateral agreement for WE countries endemic
- **Create effective clinical surveillance in the borderline provinces**
- Implement *Extra High Potency Vaccine (>10 PD50)* in borderline province
- Improve cooperation and collaborative study with neighboring countries
- Establish network for molecular epidemiology data
- Include SR vaccination program in borderline provinces
- Improve infrastructure for inspection to stop illegal movement cross the border
- Implementation of Stamping out in borderline province (2018)

Eliminate Risk Consisted by Animal Movement

- **Restriction of the movement**
 - Regulated all movement by TURKVET and VETBIS:
 - automatically restriction and double check system
 - requirement vaccination last six month for adult anim.
 - requirement booster vaccination for young animal: 2 vaccination in last six month
 - Clinical examination in destination place
- **Registration dealer and improve trading system**
 - Registration&Monitoring by TURKVET and VETBIS
 - Improve infrastructure of transportation vehicle
 - Continue training and awareness activities for dealer
- **Improve animal market system and increase certificated market**
- **Encourage trading through farm base**

Eliminate Virus Circulation

- **Maintenance of current routine vaccination**
 - whole susceptible LR population;
 - achieved 100% vaccination coverage in the last campaign (by eligible population)
- **Achievement booster vaccination ;**
 - already initiated but it needs to be reached at desirable level
- **Effort to achieve 100% booster vaccination coverage**
- **Continue subsidizing for booster vaccination**
- **Continue ring vaccination for all susceptible population with *Extra High Potency Vaccine (>10 PD50)***
- **Continue vaccination for SR population where the risk is identified**
- **Implement ring vaccination in Surveillance zone of outbreak with *Extra High Potency Vaccine (>10 PD50)***

Improvement outbreak management and disease control

- Create a new SOP for outbreak investigation (OI)
 - Create OI protocol for OI
 - Implement OI based on the protocol
 - Reach every single outbreak
 - Improve biosecurity measures
-
- Implementation of Stamping out in some specific targeted sectors in the first year (2018)
 - Extended stamping out policy to whole region in the next years
 - Implement Extra high potency vaccine (>10 PD50) in ring vaccination in Surveillance zone of outbreak

***PERSPECTIVES FOR THE BETTER CONTROL OF
FMD IN WEST EURASIA***

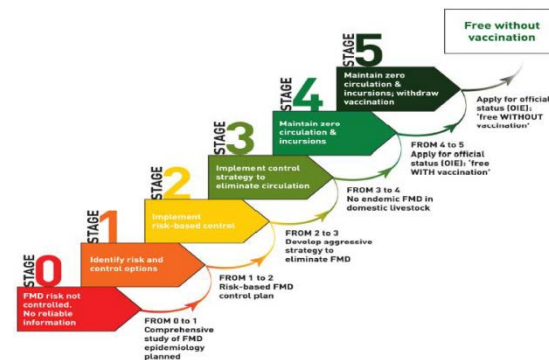
Achievement the West Eurasia Roadmap

- The West Eurasia Roadmap has made good progress along the decade:

- better awareness of the FMD risks
- identifying "new epidemic events" at an earlier point
- countries increasingly use PCP as tool in identifying gaps and for FMD control
- training for capacity building for all
- skill to understand the disease
- many project and
- developing
- PCP
- dev
- progr

However all these progress not enough to cover approach of the road map visions

changes in the

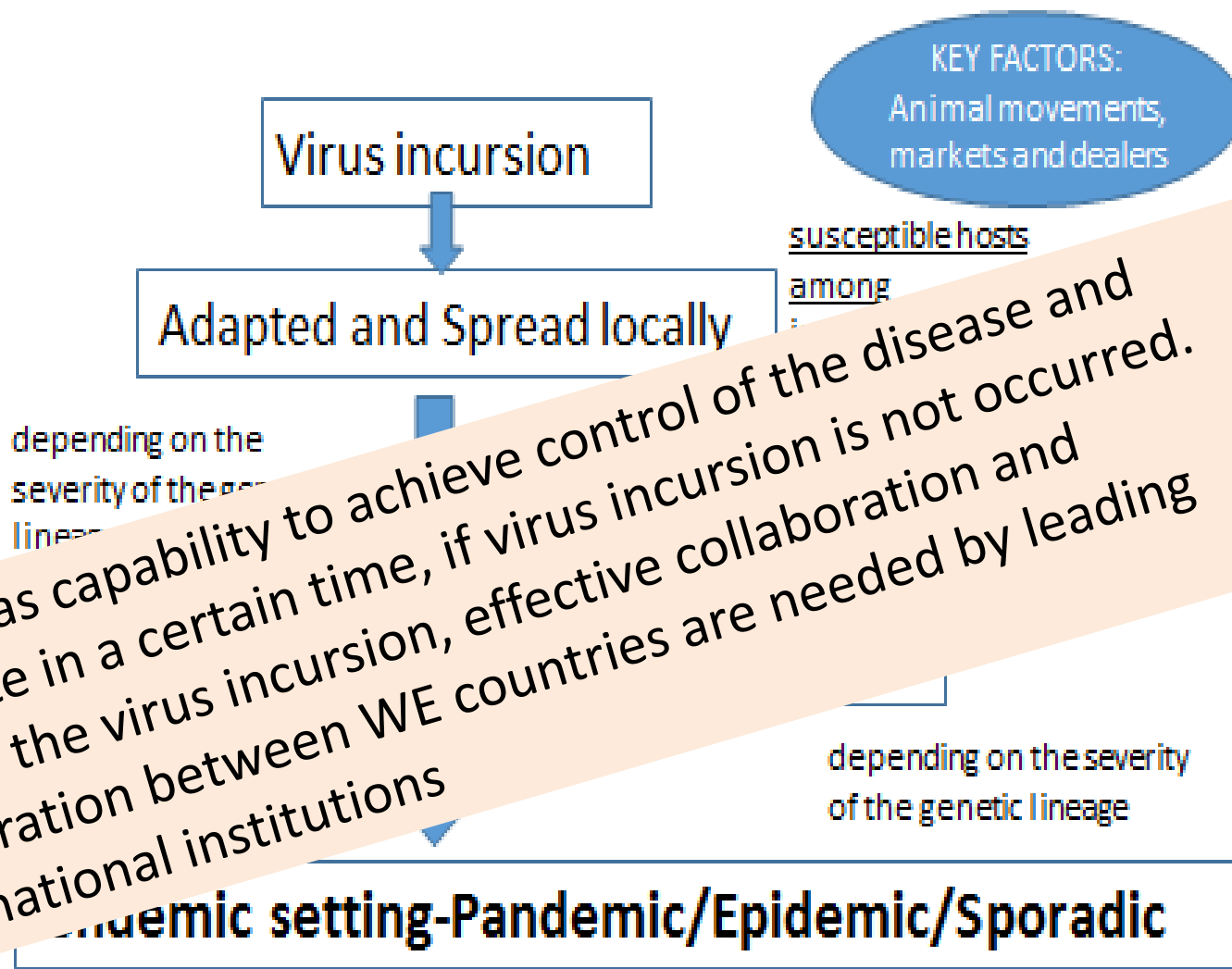


Consideration

- Countries in the West EurAsia Regions are endemic, some intermediate sporadic by FMD; and some not clinically but still the virus circulated.
- The region has been experienced highly effective vaccination periodically.
- It is essential that the region should be free from the occurrence of the disease.
- To achieve all these, effective collaboration and cooperation between WE countries are needed by leading international institutions
 - Indicators:
 - Incidence and prevalence of the disease
 - Seroprevalence (nucleotide sequencing analysis) data, and animal trading/movement patterns
 - Vaccination coverage
 - Serological values as indicator of vaccine sufficiency
 - Sero-surveillance results- NSP positivity rate and PI/PV antibody levels

NATIONAL RISK BASED CONTROL STRATEGY

WORKING HYPOTHESIS



PERSPECTIVES FOR THE BETTER DISEASE MANAGEMENT IN WE

- Turkey would like to call to international institutions, OIE, FAO, EC and EuFMD, as well as countries in the region that;
 - *to ensure that every effort is given to the better continuation of the Roadmaps and that progress is maintained towards its vision of region free of clinical FMD by 2025.*
 - *Therefore, activities specified below should be considered particularly by EuFMD for achievement:*

FMD Investigation Training Course (FITc) in Turkish

- EuFMD has been executes succesfully FITc in different languages until this time.
- FITc was realized for Turkish vets (159) and will be realized second one in this year again by request of General Directorate of Food and Control (GDFC).
- In favour of built up technical capacity of vet service in the WE, Turkey would like to kindly ask EuFMD to extention the course other Turkish speaker vets;
 - ***By inviting Turkish/Azeri speakers from Iran to join a Turkish language FITc, alongside Turkish and Azeri participants.***
- *This would be an unique oppurtunity for extention of the training by low cost*

Pilot study on Livestock Markets and Price Monitoring

- Data and information from surveillance on livestock markets and price monitoring is one of unique indicator for early detection and analysing of disease spread dynamics
- EuFMD has initiated a pilot study on livestock markets and price monitoring last year
- Turkey has identified some institutions and animal market for collection of data.
- A mission has been also conducted in Iran to seek opportunity for implementing the study in Iran.
- However, the study has not been fully started till now.
- Therefore, Turkey is ready to start carrying out the study and would like to ask to EuFMD:
 - ***Support to pilot study on livestock markets and price monitoring in Iran as well as TCCc and other endemic countries, if possible and feasible;***

Data Sharing

- Establishment of early detection system is one of the **key** and **strategic** vision of the WE roadmap
- Some effort for achievement of the vision by EuFMD under the WELNET has been remained inconclusive along the decade
- Turkey recently has tried bilateral agreement between Iran as well as Afghanistan and Pakistan for collaboration of the disease control including early detection system
- Turkey would like to call to international institutions to encourage countries in the region for playing role on data sharing:
 - It could be initiated between Turkey and Iran to share sequence and vaccine matching data
 - This can be got in routine by visiting Iran experts from ŞAP Institute
- **The activities proposed above could be made into a specific agreement of EuFMD and IVO and signed in Paris in May at OIE Session (like the statement of intentions).**

TCC FMD CONTROL PROJECT

- This project was proposed by Russian Federation; initiated technical support by EuFMD
 - To built up capacity on FMD (as well as other infectious diseases) control for Trans-Caucasian Countries
 - The project has been actively started asigment of «Statment Intention» by CVOs of Armenia, Azerbaijan, Georgia, Iran, Rusia and Turkey
 - Data sharing for outbreak and vaccination has been started last year
 - However, Iran hasnot actively involved data sharing under the project agreement
- ***Turkey would like to ask to FAO in order to ensure for data sharing between Iran (GISVET) and TCC information sharing system.***

OWNERSHIP

- At regional level, STILL need for :
 - to reduce risk of animal movements
- Risk /Socio-Economic analysis, involving stakeholder
- sharing of data on vaccination, serological surveys and FMDV at suitable scale
- improved human resources for epidemiology, risk assessment & management
- **GREATER REGIONAL COLLABORATION-**
- **THE MOST IMPORTED KEY POINT: NEEDING REGIONAL OWNERSHIP!!!**
 - Countries should manage their own risks with own resources

- Current effort by OIE/FAO by GF-TADs umbrella is not enough for achievement of the main goal the WE roadmap
- International support to the region has played a vital role in promoting reviews of national strategies, push/encourage the countries for better acting on the disease control
- Therefore, Welcomes the initiative of FAO and OIE and other international organization in order to invite national FMD project proposal, AND follow up principle of Bangkok Workshop for more financial support

Thank you very much for your attention!

Acknowledges

- General Directorate for Food and Control (GDFC)
- EuFMD
- The Şap Institute



RISK FACTORS AND GAPS ON THE STRATEGY

- Virus incursion
- Animal movement
 - Common grazing in the some region
 - Yayla system in the some region
 - Local movement
 - Movement throughout the country
 - Kurban period movement
 - Impact of animal market and deallers
 - Inadequate Biosecurity application

- Lack of booster vaccination
- Market and movement controls
- Poor notification and lack of disease awareness
- Inadequate outbreak management
 - a. clinical surveillance
 - b. Outbreak investigation
 - c. Infected animals can not be isolated from the susceptible animals because of common grazing
 - d. Bio-security
 - e. Quarantine measures
- 7. Border inspections
- 8. Early detection system for the detection of new strains
- 9. Monitoring and evaluation system