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West Eurasia FMD Workshop-Shiraz

Regional control of FMD in West Eurasia; current activities and perspective of the EuFMD Commission

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Secretary,
European Commission for the Control of Foot-and-Mouth Diser
Food-and-Agriculture Organization of the UN
Rome, Italy
October 14° 2008

FMD — a global threat to livestock productivity Natural cases of type O PanAsia II strain, 2008 Iran Veterinary Organization/EuFMDEC project



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Key bottlenecks and issues affecting further progress in FMD control

- lack of incentives at national level
 lack of incentives at producer level to invest in prevention
 lack of opportunity to purchase vaccine (state controlled access, limited or no suppliers, cold-chain issue)
 lack of technical advice to guide vaccine purchase
 commonplace high rick districts.
- commonplace high risk situations: open borders/ classical transboundary rangeland issues, and wildlife-domestic interface lack of confidence in the vaccination approach to FMD control

implementation.



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EUFMD Commission

- 35 member states in Europe (26 EU +9 non-EU members) experiend by member states EC (SANCO) agreement with FAO for support of actions (8 mč, to 2009) priorities: region risk of FAID incursions
 - European neighbourhood
- pre-accession support to protect Turkey virus intelligence to guide European preparedness increasing recognition that EU is at risk from distant locations

New member countries: welcome!

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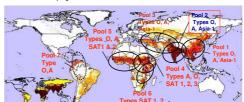
- focus on delivery in four key categories of action in the period $\underline{2005\text{-}8:}$
 - Support to FMD control in "traditional risk areas"- threatening south-eastern Europe and Turkey. Global FMD observation virus circulation and risk.

 - Coordination of technical studies to address constraints to policy Capacity building across Europe - raising and retaining expertise and competence in the scientific basis of FMD control and in best practises in epidemic management.

FMDV Global distribution



The Watershed Concept
Global FMD pool = is made of mostly separate "regional" pools (-7)
Each pool has antigenically distinct virus strains - requiring adapted vaccination programs



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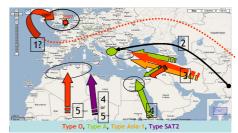
EUFMD Strategic Plan, 2005-9

- focus on delivery in four key categories of action in the period 2005-8:
- Support to FMD control in "traditional risk areas" threatening south-eastern Europe and Turkey. Global FMD observation virus circulation and risk. Coordination of technical studies to address constraints to policy
- implementation.
- imperimentation.

 Capacity building across Europe raising and retaining expertise and competence in the scientific basis of FMD control and in best practises in epidemic management.

Incursions of FMDV to western Europe and neighborhood

from FIVE virus pools (ecosystems) in the past 12 years



©EUFMD FMD in the middle-east -a dynamic situation • in 2005-7, virus incursions were from: west Asia (type A Iran 05, type O new panAsia)

- east Africa (type A Egypt 06) these added to (-and may now have replaced) the endemic strains of type O and type A
- what next? or is the storm over?

Critical control points on the "Eurasian ruminant street"

OF REAL PROPERTY. **©**EUFMD Example: EC, EUFMD/EC and FAO Project coherence and synergy in the West <u>Eurasia region</u> EuFMD (EC.fund). Turkey (EC fund) EuFMD (EC fund) FAO (ITA/frmd - GTFS)

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Why focus on West Eurasia?

- one epidemiological region; with unique FMDV strains
- frequent emergence of new type A strains
- type O and type A epidemics in 2005-8 affected most countries
- · most countries use vaccination; regional guidance needed
- all countries need early warning of emergent strains
- its where Europe, middle-east and central Asia meet: need a common approach based on disease risk

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Perspectives on improving FMD control

- impossible
 until m
- - any progress can be quickly lost from re-invasion from neighbouring countries
- countries

 requires huge investment in repeated rounds of vaccination

 who will pay?

 not worth trying

 unless our neighbours do

 owners/producers do not care

 FMD usually does not kill

 Governments give FMD a low priority

 unless they are aiming for export markets

progress Global FMD weight of infection (prevalence estimates); FADIE

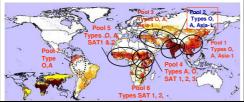
Coordinating national efforts to achieve regional



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Coordinating national efforts to achieve regional progress

The Watershed Concept
Global FMD pool = is made of mostly separate "regional" pools (-7)
Each pool has antigenically distinct virus strains - requiring adapted vaccination programs

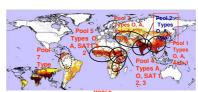


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Coordinating national efforts to achieve regional progress (Session 1)

Opportunity:

seven regional roadmaps for seven virus pools



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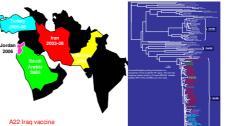
Pool 3 - West Eurasia

- West Eurasian pool
 - may be defined by the boundaries for type A and Asia-1 $\,$
 - type O PanAsiaII illustrates that some FMDV cross from South Asia into West Eurasia
 - West Eurasian pool accepted by the OIE/FAO FMD lab network (2008; Lanzhou)
 - since type A strains are UNIQUE and require TAILORED vaccines for effective control

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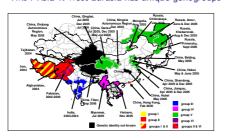


FMDV A - New Strain (Irn-05) -limited to West Eurasia



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FMDV Asia 1: west Eurasia has unique genogroups



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Time-line : spread of the new PanAsia type O pandemic in Eurasia, 2006-present

Year	Month	Confirmed (OIE/FAO network – WRL Pirbright and FGI-ARRIAH)	Suspected (no samples to network)	Note
2006				
	1-06	Pakistan		Index unknown. FAO project, WRL report
	9 -06	Iran – upsurge		
	10-06	Turkey -index case		
	12-06	Israel -index		
		Jordan		No OIE report. Reported by WRL
2007				
	1 -07	United Arab Emirates (gazelle)	Northern Iraq	
	2-07	Palestinian Authorities (west bank)	Lebanon	
	4-07	Kazakhstan		
	6-07	Kyrgyzstan		
	9-07	Egypt		
	Total	11	2	

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O Manisa vaccine

EUFMD FMD type O: spread into West Eurasia

PanAsia Strain Isolations 2001-2007

- · recent epidemic history
- vigourous trans-boundary movements
- common problems and risk factors
- · similar vaccines needed
- a regional approach for west Eurasia will benfit the region

Therefore

• and attract support from at risk regions

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Overcoming other constraints to FMD control

7 issues - discussed at the recent EuFMD-Erice Conference, October 2008

- Coordinating national efforts
- Vaccination: upscaling and effective use
- Who will pay? Stakeholder and national buy-in
- · Measuring and communicating risk , and progress
- Information gaps: diagnostics at point of use
- Capacity gaps: veterinary services
- Sustainable and feasible regional and global strategies

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Vaccination: upscaling and effective use (Session 2)

Opportunities

- targeted vaccination to risk populations and ages (2A)
- produce regular guidelines (antigens, potency) for each
- regional FMDV pool (2B)
 build on current R&D to develop novel vaccines (2C)
 implement a global system of independent
 analysis of vaccine performance (accredited labs
 to undertake serology) (2D)



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Stakeholder and national buy-in to FMD control (Session 3)

Challenge -

in endemic regions, whose responsibility is it to prevent FMD ? the state, the animal owner or livestock trader?



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Risk behaviour challenge: FMD control -what's in it for me?



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Stakeholder and national buy-in to FMD control (Session 3)

Opportunities

- national FMD risk reduction strategies that address critical risk control points in the market chain risk (FAO paper 2)
- FAO/OIE/partners to promote critical risk control analyses for (all) endemic countries



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Critical control points - in the market chain

"if I was vaccinated, I would be less risk when traded"







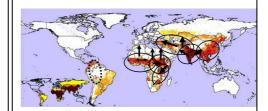
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Information for action: how to ensure quality lab services are available where needed (Session 5)

- supply all endemic countries with a minimum diagnostic capacity
 - penside/ rapid test system
- support/implement a global QA system for Reference Labs
- fill gaps in diagnostic test kits needed for use in endemic

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Towards global control: long term roadmaps for coordinated control - involving all of the virus pools



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The change-agents and agencies

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- · OIE: international norms affecting national investments
- FAO: capacity building programmes and network support
 Global Secretariat under GF-TADS comprising FAO and OIE staff;
 advocacy and annual progress reporting across the seven FMDV pools
 support and co-ordination between regions
- Global OIE/FAO FMD laboratory network: virus typing , global QA of the RL system, building capacity in each region
 R&D network to generate new tools and optimise approaches

Main operational elements

Regional Roadmaps

- gronat rodarinsys
 multi-country commitment to principles
 each region provided with minimum technical support within 2 years
 1. laborators yapport linket to DicFoFo MPu fer lab network and global QA
 2. funds to undertake critical risk pathway analysis at regional scale
 3. suitable vocance identified or vaccine producers address gap
 4. regional epidemiologist(s) and funds to provide basis risk information
- Global Platform and FMD Secretariat
 A platform to engage global support and partnerships, evolve and adapt to challenges
 - A Secretariat to support regional efforts, audit progress and communicate to all parties (Yearly FAO/OIE State of FMD progress

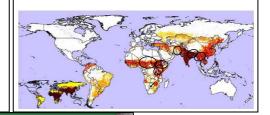
The implementation time -frame

- Global Secretariat < 1 year
- Regional Roadmaps and support units in all areas: 2-3 vears
- Capacity audits, Critical control points identified, vaccine for all roadmaps: 5 years?
- Regional progress: 5-25 years

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Situation in 20 years? risk reduction - circulation probably remaining in reservoirs/hot spots

but some genotypes/serotypes extinct?



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Thank you for your attention

...thanks also to colleagues in FAO headquarters, in the OIE, and the Executive Committee of the EuFMD and European Commission (EC-DG SANCO) for support, comments , ideas and commitm