Key recommendations from previous important RVF meetings & GF-TADs

Inter-regional Conference
Mombasa, 13 – 15 November 2012

Susanne Munstermann (OIE)
Vincent Martin (FAO)
Fulvio Biancifiori (FAO)

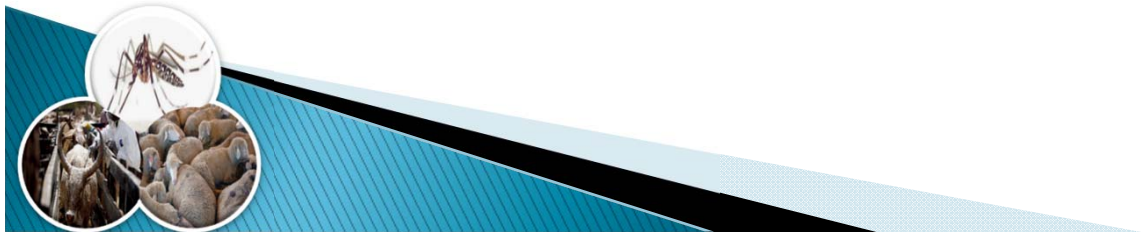
Cairo, Egypt, 2007

Participants: North and East Africa, Middle East

- Similar agenda to this workshop

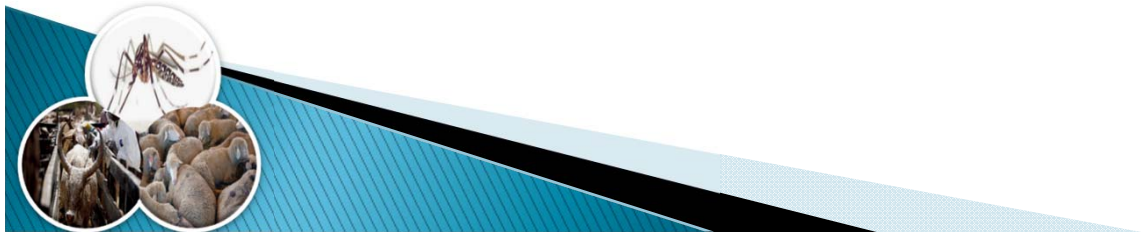
Recommendations:

- Surveillance GL for vector-borne diseases
- Provide training and technical assistance
- OIE to promote Good Vet Governance
- Dev. of diagnostic tests and vaccines
- Regional strategies under GF-TADs



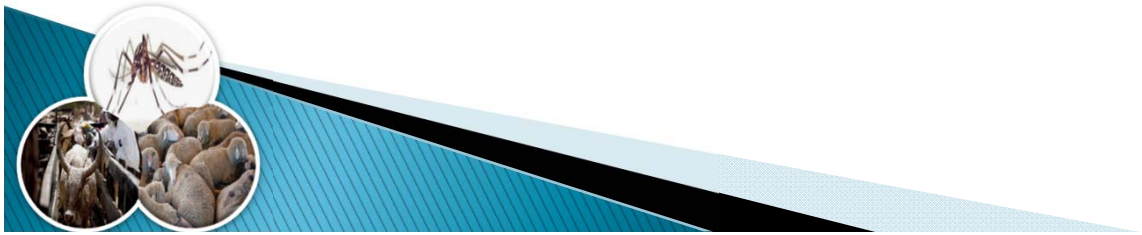
Cairo recommendations continued

- Develop prediction models (RAHC)
- Improve communication between OIE,FAO, WHO and national MoH and MoA
- Countries to comply with animal disease reporting to WAHIS
- Import/export to be governed by standards in the OIE Terrestrial Code
- In addition, make use of the intra-regional trade health certificate as developed in Cairo 2004



Bloemfontein, South Africa, 2009

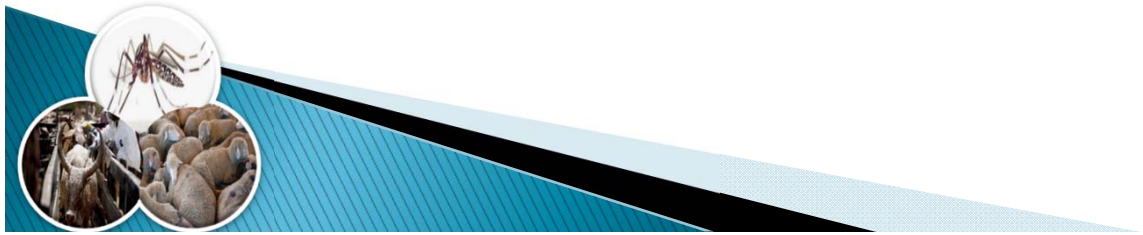
Re-emergence of RVF in Southern Africa: how to better predict and respond



Bloemfontein, 2009

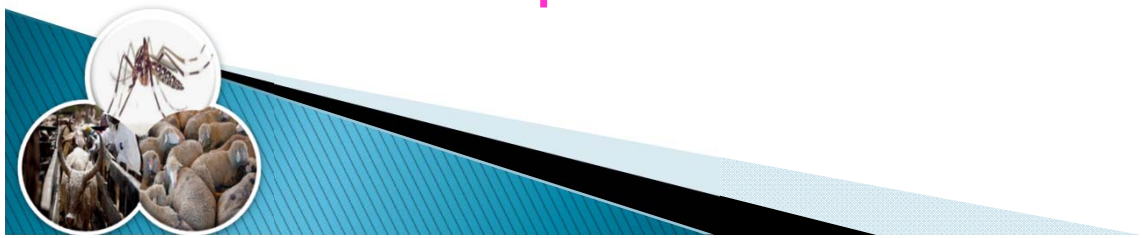
- Participants: Botswana, Comores, DRC, Kenya, Lesotho, Madagascar, Malawi, Mayotte, Mozambique, Reunion, Seychelles, Somalia, South Africa, Swaziland, Tanzania, Yemen, Zambia, Zimbabwe

- Agenda: similar to this Conference!
  - Proposed regional strategy



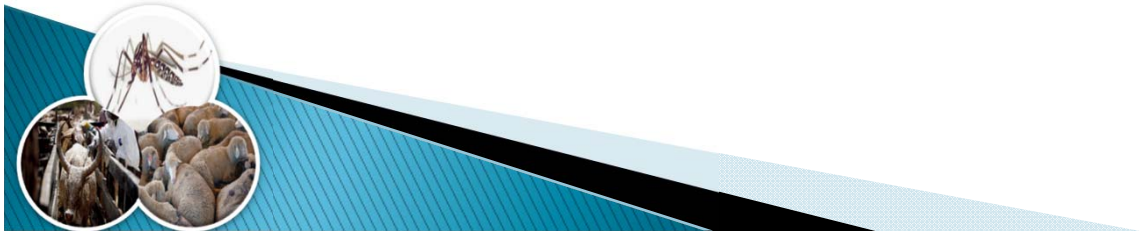
Bloemfontein recommendations

- Countries to promote good governance of VS
- Ecological sub-regions with similar risk characteristics to define harmonised preventive measures
- OIE & FAO to support R&D of diagnostics and vaccines
- Research on epidemiology and role of wildlife in Southern Africa
- Socio-economic impact of disease outbreaks to be studied and communication strategy to be developed



- Strengthen inter-sectoral collaboration (OH)
- Southern African countries to prepare emergency preparedness plans
- Countries to comply with reporting obligations to WAHIS
- OIE to update Manual and Code chapter
- Strengthen laboratory capacity in national laboratories
- OIE to support twinning on RVF to have a 2nd Lab in the continent

- SADC countries to develop forecast capacity, supported by RAHC
- SADC with support from RAHC to develop Regional RVF control strategy
- OIE to consult with WHO to promote research for human vaccine.

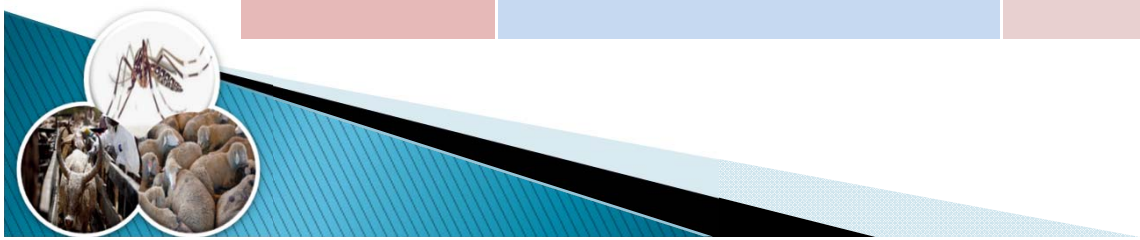


GF- TADs – Five Year Action Plan for Middle East and Africa

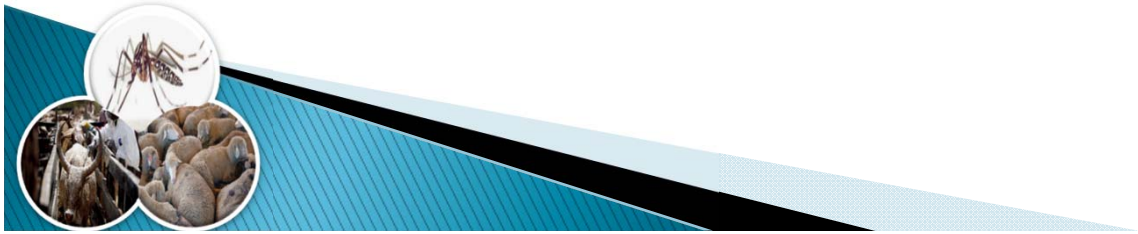
- RVF mentioned in both regional action plans
  - Middle East: FMD, Brucellosis, RVF
  - Africa: PPR, FMD, CBPP, RVF, Rabies

- Expected results:
  - Further spread of RVF in the region is prevented
  - RVF is progressively controlled in countries where the situation is endemic
  - RVF in is actively monitored and controlled in countries where cases previously occurred.

	RVF	
	MIDDLE EAST	AFRICA
ELIGIBLE ACTIVITIES	▸RVF Portfolio Review ▸Regional training workshops on RVF ▸Cross-border / sub-regional coordination meetings on RVF ▸Workshops / seminars on contingency Planning on RVF	
		Surveillance of RVF in human and animals Prevention (joint contingency plans between public health and veterinary services) including animal vaccination campaigns. Vector activity surveillance Enforcement of regulations for the control of outbreaks including vaccination, when relevant. Information and communication.



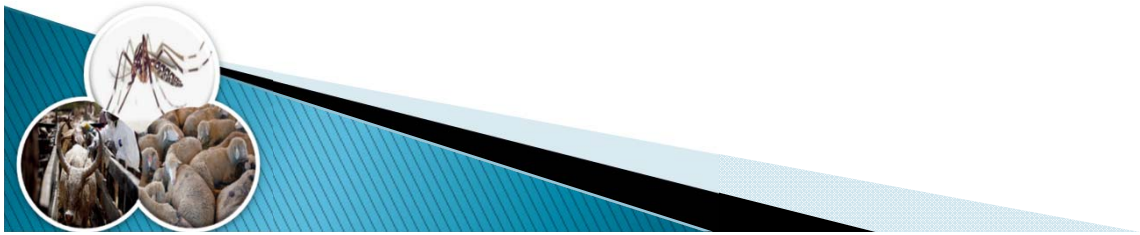
Joint FAO–WHO experts consultation on Rift Valley fever outbreak forecasting models – 2008



Recommendations – modeling

1. The accuracy of RVF potential major outbreak area maps should be increased in order to improve forecasting models

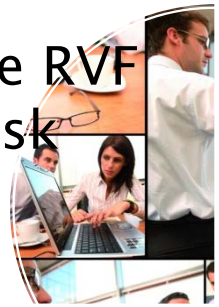
   - To improve the quality of RVF potential major outbreak area maps, FAO and WHO should coordinate the development of a **common and comprehensive database of geo-locations of RVF** animal and human cases that will be made available to international partners and scientists



Recommendations – modeling

2. The specificity of RVF forecasting models should be increased as follows

- RVF potential major outbreak area maps should be improved with soil type data, elevation data, vector distribution maps, domestic ruminant distribution maps
- Rainfall should be explicitly incorporated into the algorithm for risk assessment (NASA model)
- The RVF Potential Epizootic Area Mask (PEAM) used by the NASA system needs to be improved.
- Results of sentinel herds should be used to improve the RVF potential outbreak area map and the epizootic area mask



Recommendations – modeling

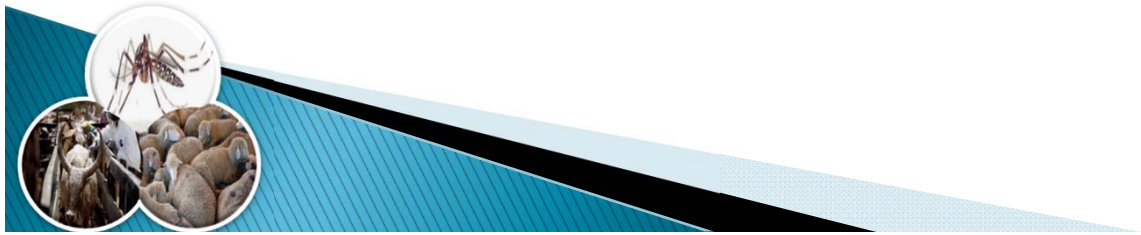
3. Models should be improved in space and time; an alert signal should be sent six months before the start of an animal outbreak.
   - The use of existing climate forecasting models including Indian Ocean Dipole and SST should be further explored with the final objective of linking them with NDVI based forecast models and RVF epidemic risk models
   - Flood maps should be included in the risk assessment
   - A phased approach to risk analysis and communication should be considered (climate forecast – ndvi – flood map – wind dispersion)

Recommendations – modeling

4. RVF forecasting models should be used in combination with livestock trade/movement data

   Ministries of agriculture and veterinary services should monitor and report movements of domestic ruminants during RVF outbreaks.

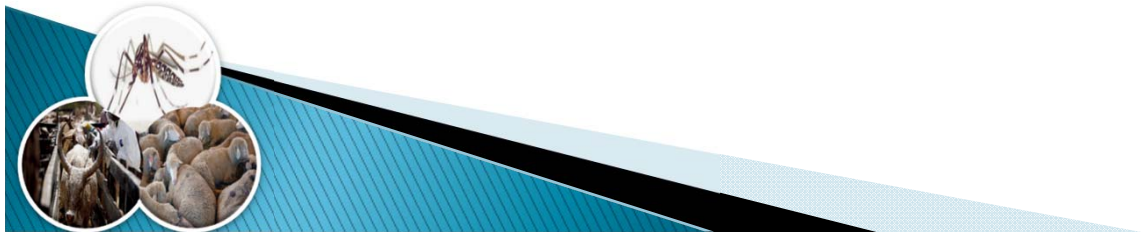
   At this stage, forecasting models only use static animal data. There is a significant amount of animal movement during an RVF outbreak, which directly affects the spread of the disease, but the data available on this are too broad / coarse.



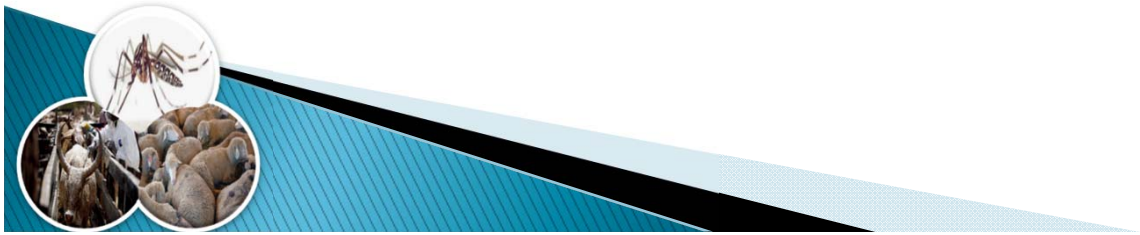
Recommendations – modeling

5. The participation of ministries of meteorology, ministries of health

FAO, WHO and their partners should organize regional training sessions and workshops on interpreting RVF risk updates on a monthly basis and analyzing/assessing forecast alert messages.



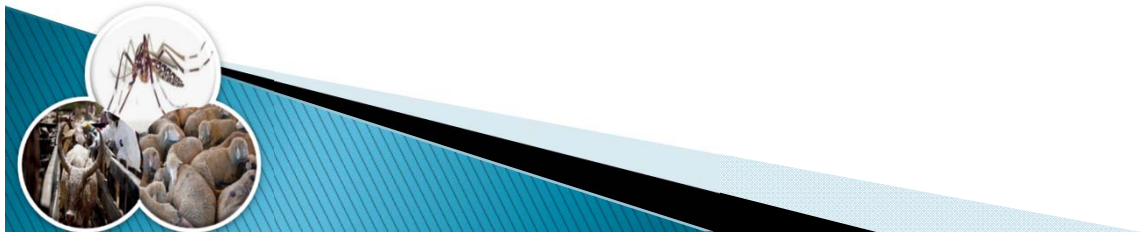
Rift Valley fever vaccine development, progress and constraints
GF-TADs meeting
January 2011



Recommendations Vaccines

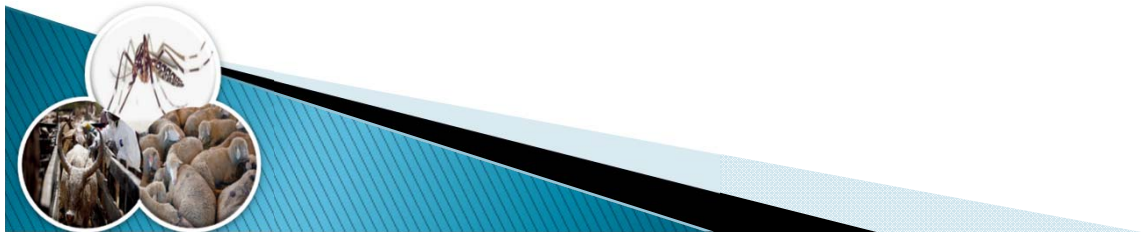
- The relative risks and benefits of RVF vaccination in the face of an outbreak should be evaluated to inform FAO and OIE, and allow them to make the most appropriate recommendations for the integrated control of RVF

- Encourage the development of a strategy for a global vaccine stockpile for use in RVF-endemic areas and emergency vaccination campaigns



Recommendations Vaccines

- Evaluate the benefits of multivalent vaccines to increase uptake of RVF vaccines in specific at-risk populations
- Development of a variety of candidate vaccines in the past decade
- Second generation of live-attenuated vaccines holds great promise:
  - Launch of C13 in South Africa
  - Potential greater acceptance in free-countries



Recommendations Vaccines

- Use of viral vectors for the control of RVFV is a promising approach
  - Resolves the problem of Maternal immunity
  - Many options developed (e.g, the use of NDV as a vector)
  - Prospect for Multivalent vaccines (e.g. LSDV and control of RVFV ,LSDV, SPPV, GTPV)
- DNA vaccines in combination with MVA (Modified Vaccinia Ankara) vectors
  - seems to have highest safety profile, interesting not only for livestock but also for humans
- Promising next generation vaccines and potential to be used as DIVA vaccines

Thank you for your attention