



*Improved knowledge on the integration of FMD control with
rural development and wildlife conservation activities*

SUMMARY REPORT

on

Three training courses

HELD IN GABORONE IN 2008 AND 2009

BY

SADC FMD PROJECT

And

FOOD AND AGRICULTURE ORGANISATION
(FAO ECTAD)

1. Background

The three serotypes (SAT 1, 2 & 3) of Foot and Mouth Disease (FMD) are endemic to most countries within the southern Africa region. From 2000, several Southern African Development Community (SADC) member states experienced unprecedented outbreaks of FMD.

In July 2003, the SADC secretariat in collaboration with the Food and Agriculture Organization (FAO) of United Nations, arranged a workshop of Directors of Veterinary Services which provided a forum for the SADC member states to appeal for assistance from the international donor community. The result was support in the form of an EU funded project entitled '**Regional strategy for the progressive control and effective prevention of FMD in the SADC Region**'. Implementation of this project was placed under the auspices of the Food Agriculture and Natural Resources (FANR) directorate of SADC. FAO was identified as a strategic implementation partner in the form of a Contribution Agreement (CA).

One of the expected key outputs of this project was '*improved knowledge base on the integration of FMD control with rural development/wildlife conservation activities*' through implementation of three training workshops with a focus on (1) Management of FMD in endemic/high risk areas; (2) Management of FMD outbreaks and (3) Achievement of freedom from FMD in vaccinated areas and requirements for proving to the OIE that freedom has been achieved.

2. Objectives of the training workshops

The main objective of the trainings was to provide field-based animal disease control managers with tools and ideas in the practical management of FMD under existing regional conditions.

3. Participation

Participants were drawn from ten (10) SADC member states comprising Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

The selected participants were middle to senior animal disease control managers who are in charge of strategising and implementing FMD control measures in their respective countries.

4. Training Methodology

Each training course was carried out over a 3 day period and comprised of lecture presentations, discussions, scenario analysis and problem solving. Each day's lectures and presentations were followed by break-out sessions where the groups discussed, in more detail, topical issues arising from the presentations. Each group gave feedback the next morning followed by discussions. On the last day, the groups were given

specific scenarios to work with followed by plenary and discussions facilitated by a group of FMD experts.

5. Training modules

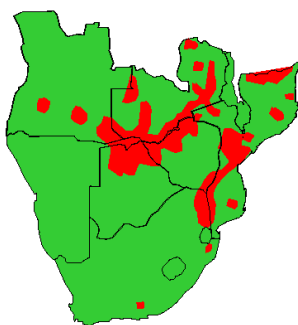
5.1 Management of FMD in endemic/high risk areas (December 2008)

The main focus of the module was to provide animal disease control managers in the region with appropriate strategies for managing FMD in an endemic situation. Topical issues discussed included, but were not limited to: Traditional approaches in the management of FMD; Key characteristics of SAT type FMD viruses (genotypes & topotypes) and their association with different wildlife species; Production, quality assurance and effective use of FMD vaccines under communal farming systems; dynamics of immune response in vaccinated herds, with particular emphasis on relationships between 'vaccination coverage' and 'herd immunity'; key elements in surveillance designs with an emphasis on post vaccination monitoring; the importance of movement control and trace-back between zones of different FMD status.

Key issues

- In southern Africa, FMD is not eradicable due to the presence of African buffalo that maintain the three SAT-types of FMD virus.
- SAT-type viruses show more genomic variation than other FMD type viruses. SAT 2 is the most variable of the SAT-type viruses with 5 lineages and 15 genotypes
- The establishment of Transfrontier Conservation Areas (TFCAs) in the region is likely to increase the complexity and distribution of SAT-type viruses
- Good governance of veterinary services is essential for effective management of FMD.

Map 1: Buffalo distribution in southern Africa



The African Buffalo (*Syncerus caffer*) is the reservoir host of SAT 1, 2 & 3 FMD viruses.



Expanding TFCAs are likely to affect country classification in respect of FMD.

Key recommendations

- As much as possible countries should submit viral material to vaccine manufacturers to ensure that new circulating strains are evaluated and if possible incorporated into vaccines used in the region.
- Countries must conduct routine post vaccination monitoring exercises to evaluate vaccination efficacy.

5.2 Management of FMD outbreaks (August 2009)

This module was designed to enable the participants to appreciate the requirements and consequences of adopting different options in the management of an FMD outbreak. Important concepts imparted to the participants included: key elements of an FMD response plan; alternative strategies for managing an FMD outbreak (stamping out, vaccination, containment zones & protection zones); species specific requirements in managing an outbreak; effects of the different FMD outbreak management strategies on trade and other knock-on effects; practical challenges in the management of an FMD outbreak in a vaccinated population; communication and farmer mobilisation in the face of an outbreak, monitoring & evaluation of an FMD outbreak (auditing of control measures); activities to mitigate the impacts of the control strategy (post outbreak control activities)

Key issues

- Contingency planning is essential in management of FMD outbreaks
- Strategies to manage FMD outbreaks must be scientifically sound and in compliance with the OIE terrestrial animal health code.
- The case definition of FMD outbreak and recognition of freedom from FMD (zone or country) need to be reviewed to recognise the realities of

the Southern African situation where carrier animals (African Buffalo) exist side by side with livestock.

- Vaccine efficacy and vaccination program effectiveness are key factors to the success in the management of FMD outbreaks in a vaccinated population.
- Efficient information flow must be established between key stakeholders engaged in the management of an outbreak.
- The quality and comprehensiveness of the data obtained during an outbreak is vital in guiding appropriate strategies to be adopted in managing current and future outbreaks.
- Strong partnerships with affected communities and other stakeholders are essential to ensure full support in management of outbreaks

Key recommendations

- Countries must consider FMD outbreak management as a public good.
- Monitoring Evaluation and Reporting (ME&R) must become an integral part of an FMD outbreak control programme to ensure efficiency and effectiveness

5.3 Achievement of freedom from FMD in vaccinated areas and requirements for proving to the OIE that freedom has been achieved (October 2009)

Having taken the participants through key issues in the management of FMD under various scenarios, this module sought to provide guidance to participants on achievement of FMD freedom in accordance with OIE standards to enable trade in livestock and livestock products. Important concepts discussed included: key OIE concepts in FMD management (zoning, containment zones, compartmentalisation, and protection zones); the problem of wildlife in establishment & maintenance of geographic freedom from FMD; Surveillance and survey designs to obtain supporting data for FMD freedom; specific documentation and relevant questionnaires required for gaining/regaining OIE recognition of FMD freedom (with or without vaccination); options in situations where achievement of zonal FMD freedom is impractical or impossible; GF-TADs & other current initiatives.

Key issues

- Currently, the OIE recognises disease status (countries, zones) for only four (4) diseases: FMD, Rinderpest, CBPP and BSE.
- Three epidemiological FMD categories are recognized under OIE;
 - Country or zone free from FMD where vaccination is not practiced
 - Country or zone free from FMD with vaccination
 - Countries or zones infected with FMD (i.e. not free)
- The concept of Commodity Based Trade (CBT) will provide another option for livestock products from countries where FMD is not eradicable, such as is the case for southern African countries.

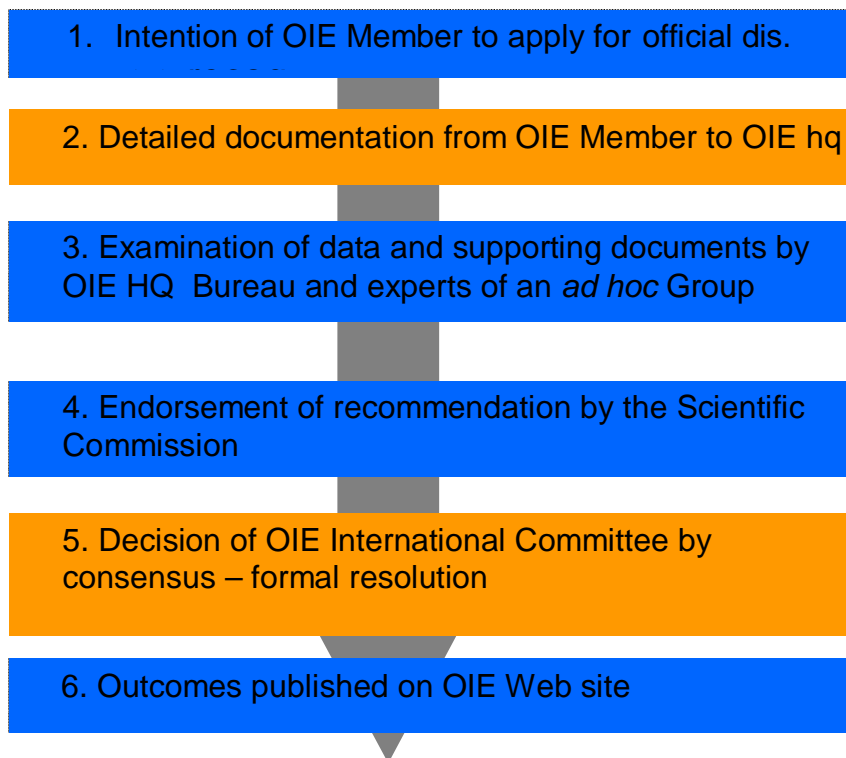


Processing of livestock commodities offers possibility of ensuring biologically safe products for export while adding value (beneficiation) of the product and associated employment creation near the site of production

Key recommendations

- The FAO/OIE GF-TADs initiative recognises that countries are at different stages in the management of FMD risk. Through the Progressive Control Pathway (PCP), Member States are encouraged to develop national risk reduction strategies that are supportive to the regional and global effort.

Figure 3: Steps of the procedure for the recognition of official animal disease status



6. Conclusion

Managers of FMD outbreaks and endemic situations benefitted greatly from this training initiative that covered a period of almost one year and in which a modular approach was chosen.

There are detailed reports and the detailed training materials used during the courses available. Please contact FAO ECTAD at P.O.Box 80598, Gaborone, Botswana, Tel +267 3953100 or contact@fao-ectad-gaborone.org .