

FOOT AND MOUTH DISEASE IN UGANDA

*Situation analysis in Uganda
Spatial distribution and trends*

Presented by

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At the

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Greetings from Uganda





Presentation outline

- Introduction
- Situation Analysis
 - History of FMD
 - Factors influencing FMD control
 - FMD control strategy
 - FMD control strategy for export
 - FMD control protocol
 - Achievements of FMD control
 - FMD research
 - Challenges of FMD control
- Spatial distribution and trends of FMD



Introduction

- FMD is endemic in Uganda
- It was first confirmed in 1953 and since then several control measures have been applied
- FMD serological and molecular research has been undertaken in Uganda mostly since 2006.
- Some cost benefit studies have been done but more requires to be carried out in order to establish cost effective control measures

History of FMD

- Since 1953 when the disease was first confirmed, FMD has occurred as epidemics in various years and areas
- All outbreak serotypes have been identified. The Asia type was identified only once in buffalo in 1970. Type O and SAT2 have been the commonest in recent years. However serotype A ceased to be reported in 1976, and then reappeared nearly twenty years later in 1999.
- FMD is now considered endemic in Uganda and effort to control outbreaks and eventual eradication are underway.



Factors influencing FMD control

- Animal disease control in Uganda is guided by the Animal Diseases Act of 1964.
- Lack of a specific FMD control policy
- Existence of susceptible wildlife which act as reservoirs and mix with domestic animals very easily
- Poor animal movement regulation both within and across the national borders



Factors influencing FMD control

- Improper vaccines
 - FMD is caused by a virus with seven stereotypes which do not cross protect
- Wide host range, all cloven footed animals are susceptible
- Modes of spread varied; aerosol, contaminated vehicles, equipment/formites, other body fluids
- In apparent carriers; incubation, pharyngeal carriers



Factors influencing FMD control

- The low mortality caused by the disease is a big disincentive to control efforts.
- The role of small ruminants in FMD epidemiology is not clearly understood.
- Weak enforcement of regulations during Quarantine Restrictions facilitates the spread of the disease.



Factors influencing FMD control

- More than 80% of Uganda's livestock is raised extensively, grazing and watering communally and moving long distances in search of pasture and water especially during prolonged dry periods.
- Delays in vaccine procurement
- Re-stocking exercises
- Tendering of markets by the local government

FMD control strategy

- FMD control in Uganda is undertaken through a multi-disciplinary approach
 - Early detection and reporting
 - Movement control
 - Quarantine restrictions
 - Vaccination with trivalent vaccine (covering the most common outbreak serotypes – SAT 1, SAT 2, and O)
 - Serological and molecular confirmations
- The main control effort focuses on cattle since it is regarded the most important livestock and it is also the one usually clinically affected
- The socioeconomic importance of the other livestock susceptible to FMD is increasing at different rates in areas depending on the changing farming systems and priorities.

FMD control strategy for export

- Uganda is undertaking an FMD control strategy targeting meat export utilizing export zone
- The policy and specific legislation law to enable export under zoning principles are being drafted
- Zoning the country
- Re-centralization of disease control activities is underway.
- Characterization of viruses in outbreaks for tracing and instituting appropriate control measures
- Formation of a technical committee and Task force.
- Determination of the role of wildlife-studies are ongoing.
- Elaboration and enforcement of animal movement control legislations including border control.

FMD control protocol

- FMD is a notifiable disease which should be reported within 48 hours of the outbreak.
- Any person responsible for animals is obliged by the Act to report animal disease outbreaks that occur in their herds .
- The farmer reports disease within 24 hours to the DVO who undertakes a clinical investigation and reports to Commissioner within the next 24 hours.
- The Commissioner constitutes an investigation team composed of an epidemiologist and laboratory scientists and reports are sent to all stakeholders (Farmer, local veterinarian, MAAIF administration, AU IBAR, OIE)
- FMD ring vaccination with an appropriate vaccine is instituted immediately.



Achievements of FMD control

- Increased research in serological, molecular and socio-economic aspects have been made. These will guide cost effective control measures
- Zoning concepts, maps, stakeholder sensitization and acceptance have been achieved
- Plans for an export abattoirs in two zones are underway
- Beef production and marketing is being improved through farmer associations.
- The Ministry is addressing improved breeds, pasture and water availability



FMD research

- FMD research is now continuous and will include vaccine production

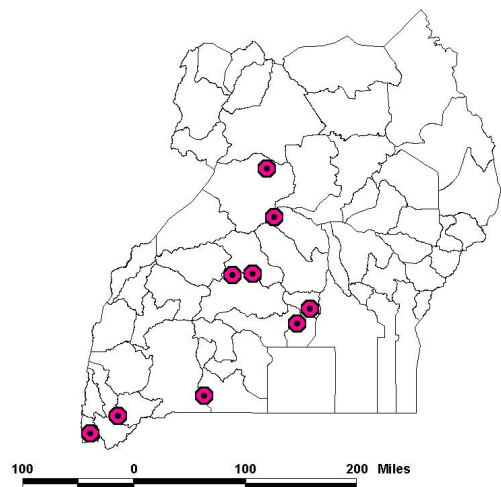


Challenges of FMD control

- Resources are usually insufficient
- Most beef animal production is still under subsistence and extensive farming systems.
- Urgent need to commercialize the beef industry

Spatial distribution of FMD outbreaks

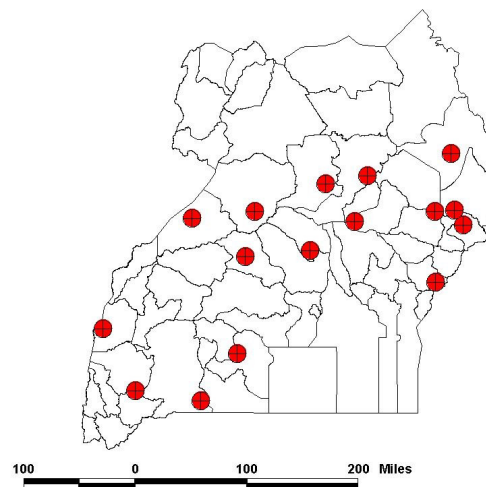
2001 FMD OUTBREAKS



● 2001 outbreaks
□ Districts



FMD OUTBREAKS IN 2002



● 2002 FMD outbreaks
□ Districts

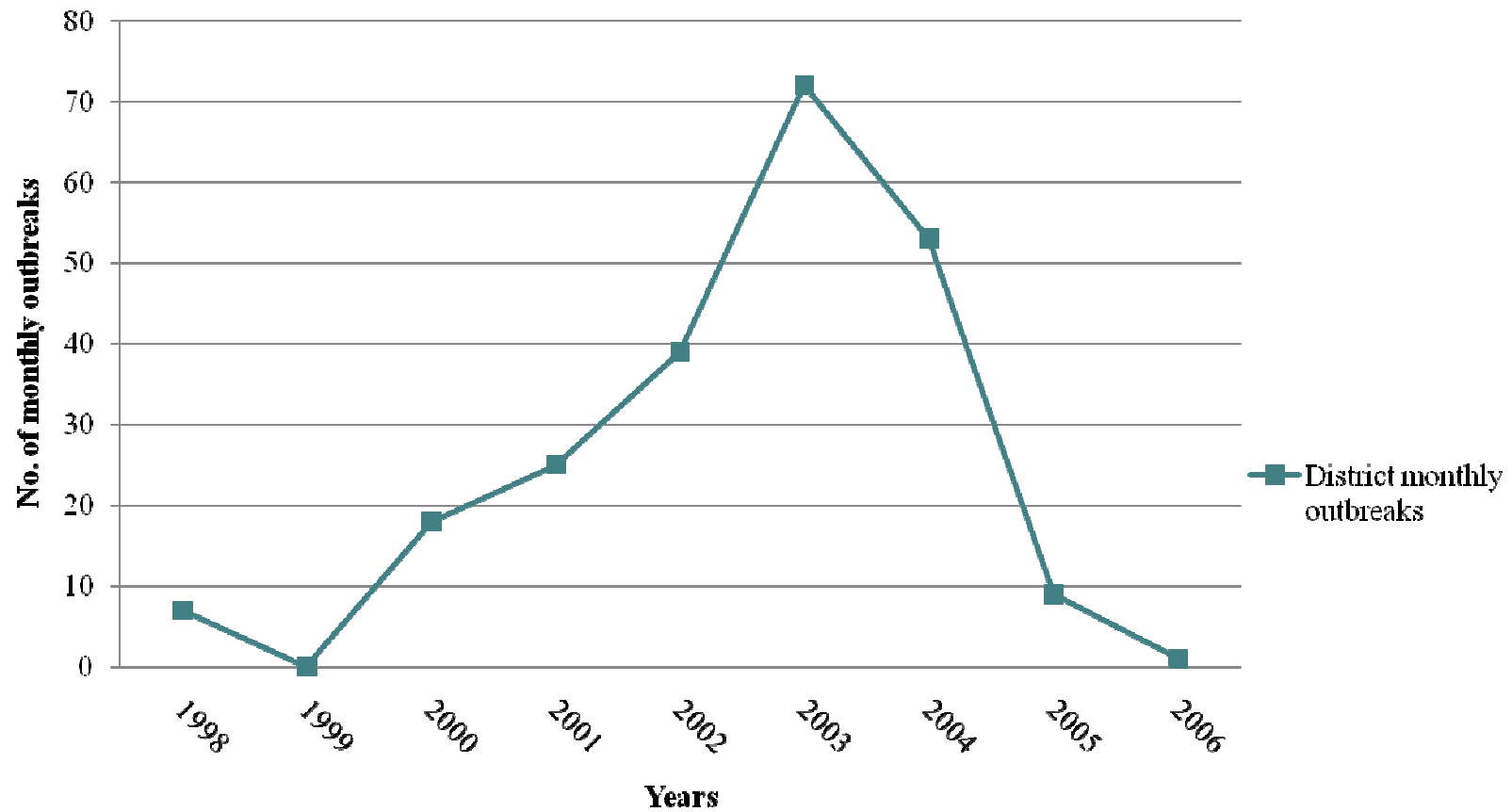


Monthly reports at the epidemiology Unit

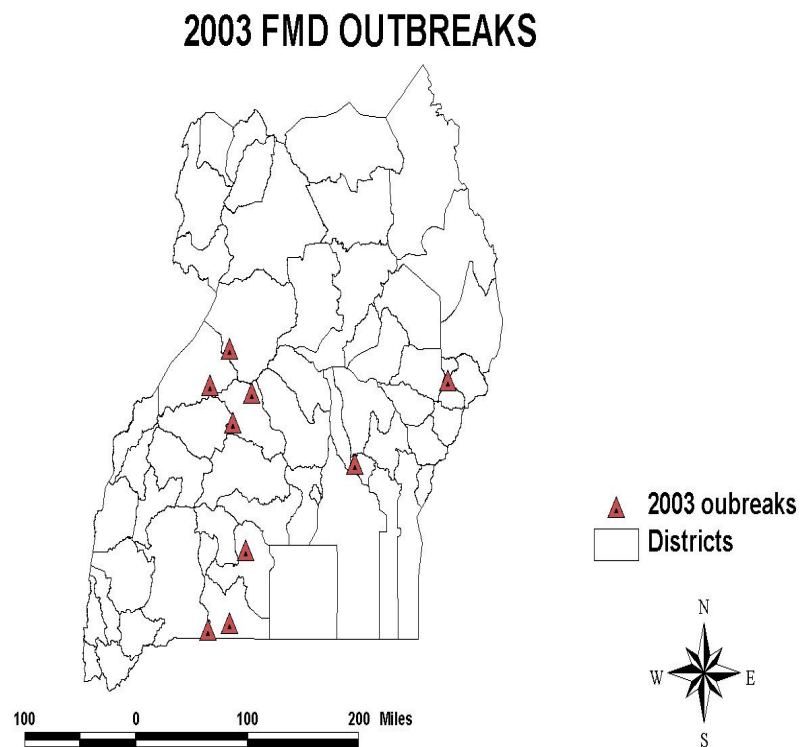
Year	Animals risk	Animals affected	Percentage prevalence
1998	113,826	625	0.5
1999	0	0	0.0
2000	51,634	1,289	2.5
2001	62,696	3,263	5.2
2002	37,121	7,262	19.6
2003	368,419	85,008	23.1
2004	9,534	1,708	17.9
2005	14,127	929	6.6
2006	60,204	1,579	2.6
Note: Overall there has been poor animal disease reporting			

FMD Trends in Uganda

District monthly outbreaks

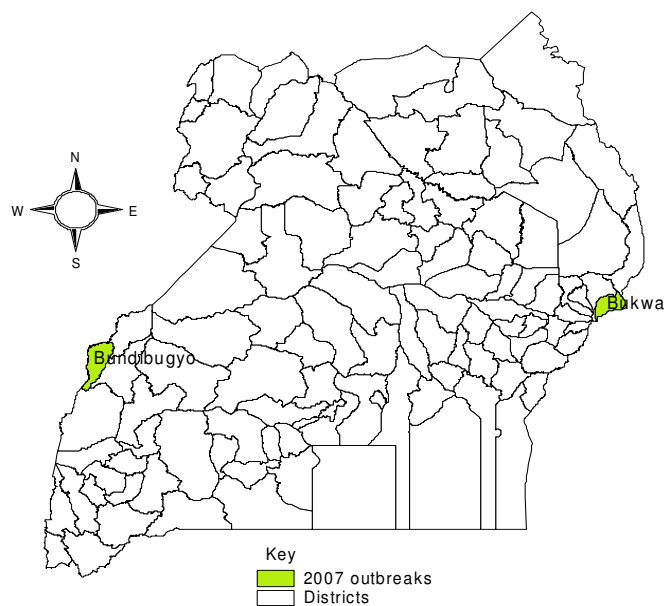


Spatial distribution of FMD outbreaks

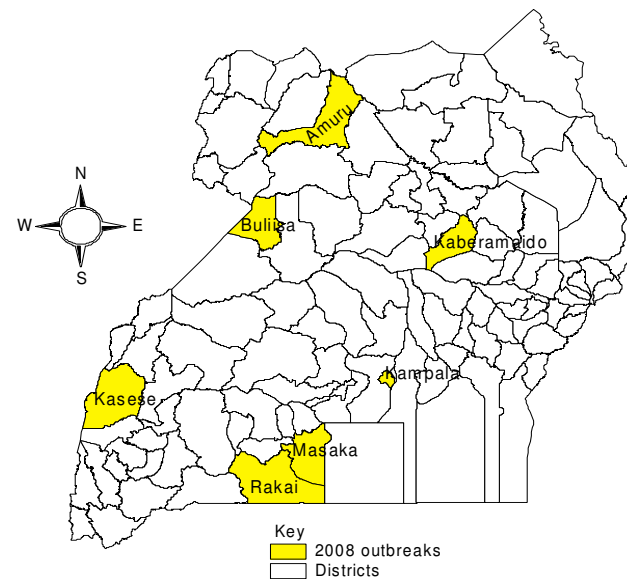


Spatial distribution of FMD outbreak

2007 FMD OUTBREAKS

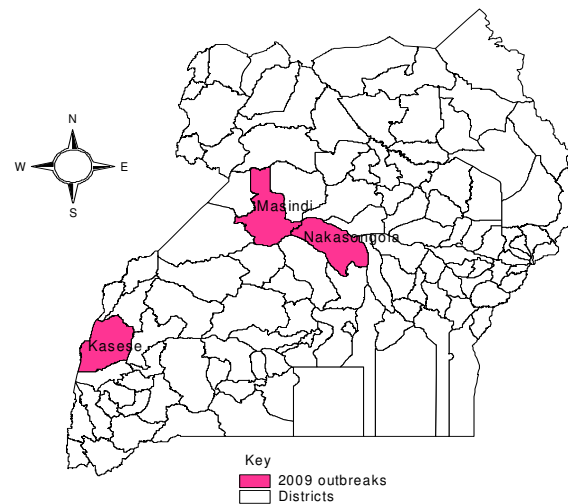


2008 FMD OUTBREAKS

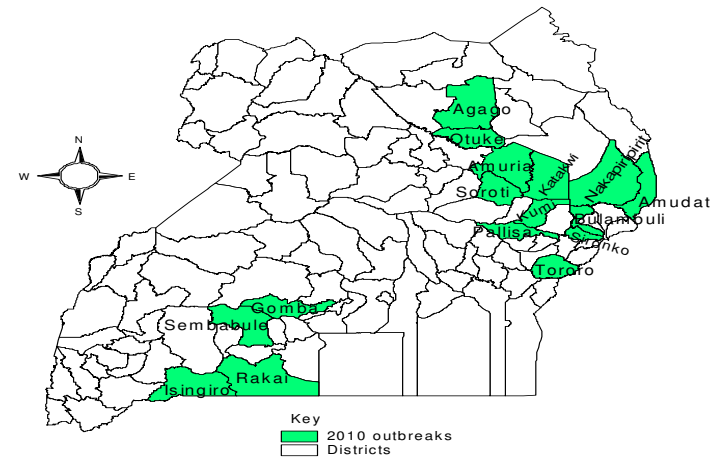


Spatial distribution of FMD outbreak

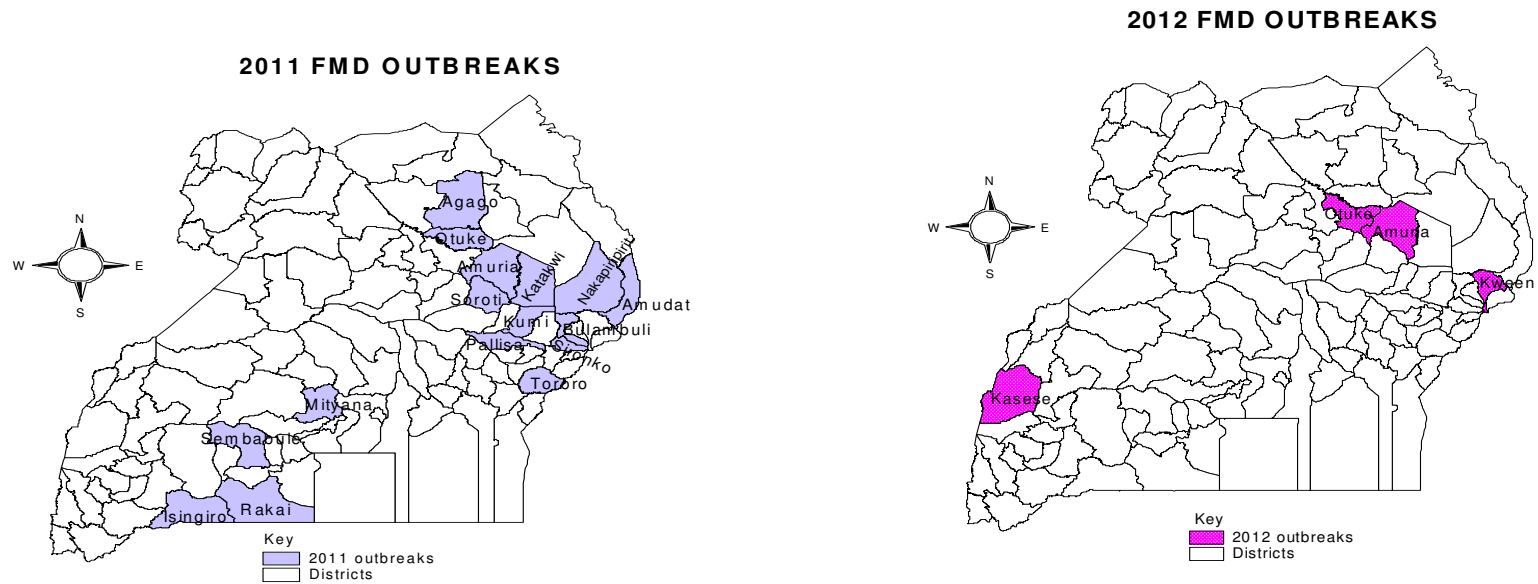
2009 FMD OUTBREAKS



2010 FMD OUTBREAKS



Spatial distribution of FMD outbreak





Impact of FMD in Uganda

- FMD is the major challenge to access to market and to improvement of the livestock industry
- Insidious losses due to losses in weight, milk, abortions, manure and draught power.
- Lack of incentive to adhere to FMD disease control measure

We thank you for planning for us

