

**OIE Sub-Regional Workshop on the OIE procedure for the
Official Recognition of Member Countries disease status
and for the endorsement of national official control
programme with regard to foot and mouth disease and
peste des petits ruminants
KIGALI, RWANDA, 18-20 July 2017**

Specificities for PPR surveillance in the region



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Introduction

- Peste des petits ruminants (PPR) is a highly infectious disease of small ruminants caused by the peste des petits ruminants virus (PPRV). It is characterised by fever, sores in the mouth, diarrhea, pneumonia, and sometimes death.
- It is a major trans-boundary animal disease (TADs) that constitutes a threat to livestock production in many developing countries. The disease is endemic across West, and Central Africa, the Middle East and large parts of Central Asia and has economic, social and political consequences to countries, leading to food insecurity, poverty and loss of livelihoods by the rural small scale farmers.
- Direct economic losses caused by the disease are often further aggravated by the sanitary measures imposed by authorities in controlling animal movement and trade restrictions on their by-products.
- Disease earmarked for eradication by the OIE by 2030



HISTORY OF PPR IN AFRICA AND THE REGION

- First identified and described in Cote d' Ivoire in **1942**
- By **late 1970's** endemic in much of West & Central africa
- **1990's**: suspected to be circulating in DRC & parts of East Africa
- Confirmed in Uganda and Kenya in **2007**
- First confirmed entry into Tanzania in **2008**, then
- DRC in **2011** followed by Angola in late **2012**





SURVEILLANCE OPTIONS

- OBJECTIVES OF THE SURVEILLANCE SHOULD INFORM CHOICE OF OPTION
- IDEALLY SURVEILLANCE SHOULD AIM TO:
 - DEFINE THE EXTENT/ABSENCE OF THE DISEASE
 - DETERMINE NEW OUTBREAKS
 - ESTABLISH DISEASE FREE ZONES
 - MONITOR DISEASE TRENDS AND
 - INFORM DECISION MAKING AT VARIOUS DISEASE CONTROL CRITICAL POINTS/LEVELS



SURVEILLANCE OPTIONS (cont.)

SURVEILLANCE OPTIONS IN EAST AFRICA WILL ALSO VARY DEPENDING ON STATUS OF INFECTION, PURPOSE OF SURVEILLANCE AND LEVEL OF RISK

- **LOW RISK:** focus is on early detection and response. System should aim at demonstrating absence of disease.
- **HIGH RISK:** surveillance should aim at detection of incursions. Early warning surveillance at known “hot spots”
- **INFECTED AREAS:** surveillance should focus on detailed information on disease dynamics and patterns including extent of spread



Regional PPR Surveillance Specificities:

Regional fit with GLOBAL Strategy Pathway





GLOBAL CONTROL AND ERADICATION STRATEGY

DESCRIBES PROGRESSIVE STAGE-WISE APPROACH WITH FOLLOWING STAGES:

- **BELOW STAGE 1: NO DATA AVAILABLE**
- **STAGE 1: ASSESSMENT STAGE. Duration 1 - 3 years**
- **STAGE 2: CONTROL STAGE. Duration 2 - 5 years**
- **STAGE 3: ERADICATION STAGE. Duration 2 – 5 years**
- **STAGE 4: POST ERADICATION STAGE. Duration 1- 3 years**
- **BEYOND STAGE 4: OIE FREE STATUS**



ALL COUNTRIES HAVE TO PASS THROUGH STAGE ONE TO DETERMINE IF THEY ARE FREE OF PPR OR NOT.

IN EAST AFRICA NO COUNTRY IS YET CERTIFIED AS PPR FREE

- **BURUNDI**
- **ERITREA**
- **ETHIOPIA**
- **KENYA**
- **RWANDA**
- **SOMALI**
- **SUDAN**
- **SOUTH SUDAN**
- **TANZANIA**
- **UGANDA**

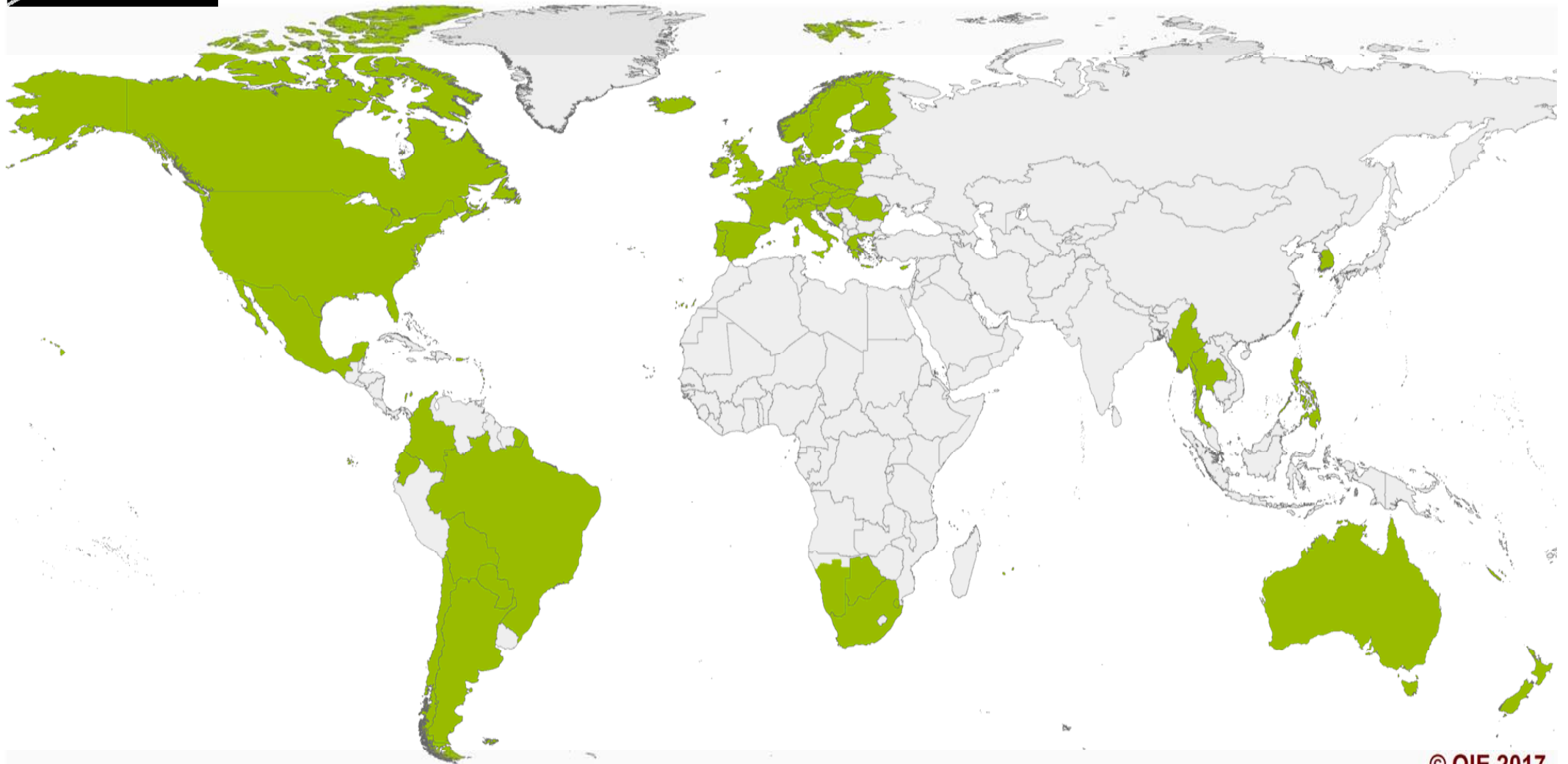






OIE Member Countries' official PPR status map

Last update May 2017

[Click on a specific region to zoom in](#)



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-  Member Countries and zone recognised as free from PPR
-  Countries and zone with no OIE official status for PPR



STAGE 1

The surveillance in Stage 1 has three objectives:

1. to assess the health status of the small ruminant population, including collection of baseline data
2. to define the priority areas for PPR control and prevention activities
3. to determine the prevalence, distribution and occurrence of PPR (disease and infection).

STAGE 1 FOCUS

- Knowledge on better understanding of the presence (or possibly the absence) of PPR in the country
- Carryout specific field surveys based on serology and/or participatory disease surveillance (PDS)
- Develop case definition for possible case of PPR
- implement an overall monitoring/surveillance system (with its active and passive components)



STAGE 1 FOCUS (cont.)

- Use compatible information system to support surveillance activities
- Conduct training of veterinary officers from central and peripheral level on value chain (the entire production and marketing system) and risk analysis
- Epidemiosurveillance to identify “risk hotspots” and transmission pathways using the value chains and risk analysis principles (this was demonstrated at the AU-IBAR sponsored meeting in Chingola, Zambia in 2010)

STAGE 2

The surveillance in Stage 2 has two objectives:

1. To provide early detection of PPR appearance;
2. to monitor the prevalence, distribution and occurrence of PPR (disease and infection)



STAGE 2 FOCUS

- passive surveillance in slaughterhouses and markets
- passive surveillance in wildlife through functional external coordination with other stakeholders like the wildlife departments, game farmers and hunters' organisations
- Active Participation in the SADC Epidemiology and Laboratory subcommittees
- Improve coordination with other key stakeholders e.g. Police, wildlife authorities, customs officials at border posts etc



STAGE 3

The surveillance in Stage 3 has three objectives:

1. To provide early detection of PPR appearance
2. To explain the reasons for this new introduction of the virus, to monitor the results of the immediate response and to give guidance for possible refining of the prevention and emergency response plan if appropriate;
3. To demonstrate the absence of PPR clinical disease and infection



STAGE 3 FOCUS

- Information on neighbouring countries and trade partners should at this stage be routinely collected
- Targeting specific sub-groups (new-born animals not yet vaccinated) or cattle as proxy indicators of virus circulation; (high resolution surveillance)
- Increase the collection of sero-surveillance data from wildlife and other susceptible species
- Design and implement surveillance in subpopulations such as those in TFCAs
- Conduct simulation exercises to test preparedness



STAGE 4

The surveillance in Stage 4 has the same three objectives as stage 3:

1. To provide early detection possible for PPR appearance
2. To explain the reasons for this new introduction of the virus, to monitor the results of the immediate response and to give guidance for possible refining of the prevention and emergency response plan if appropriate;
3. To demonstrate the absence of PPR clinical disease and infection



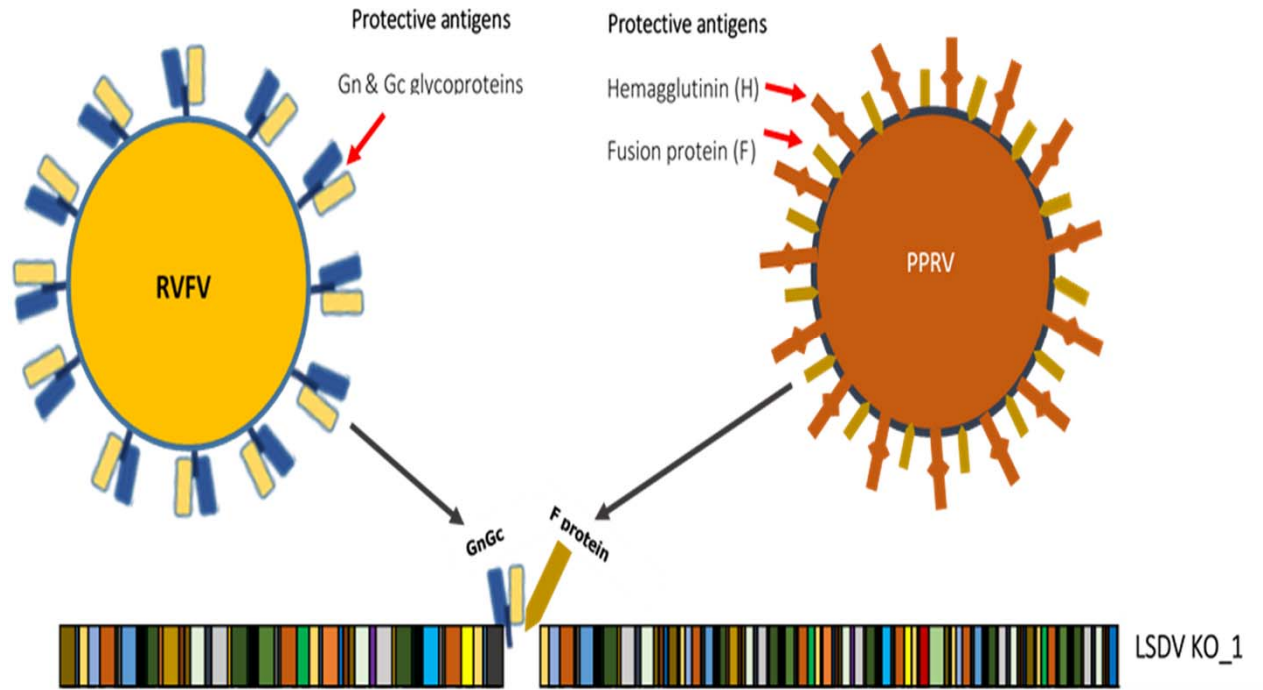
STAGE 4 FOCUS

- countries with no history of PPR should be preparing to apply for historical freedom from the disease
- Surveillance must by now be robust to pick up any incursions promptly
- Well versed in conducting risk analysis

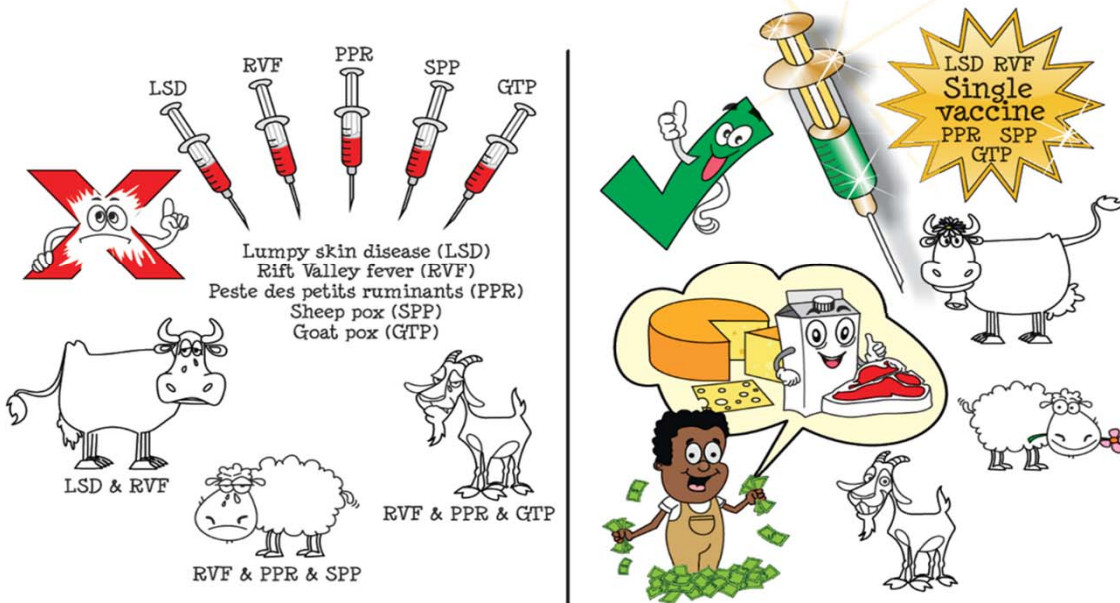


SUCCESS OF PPR CONTROL DEPENDS ON EFFECTIVE SURVEILLANCE & GOOD VACCINES

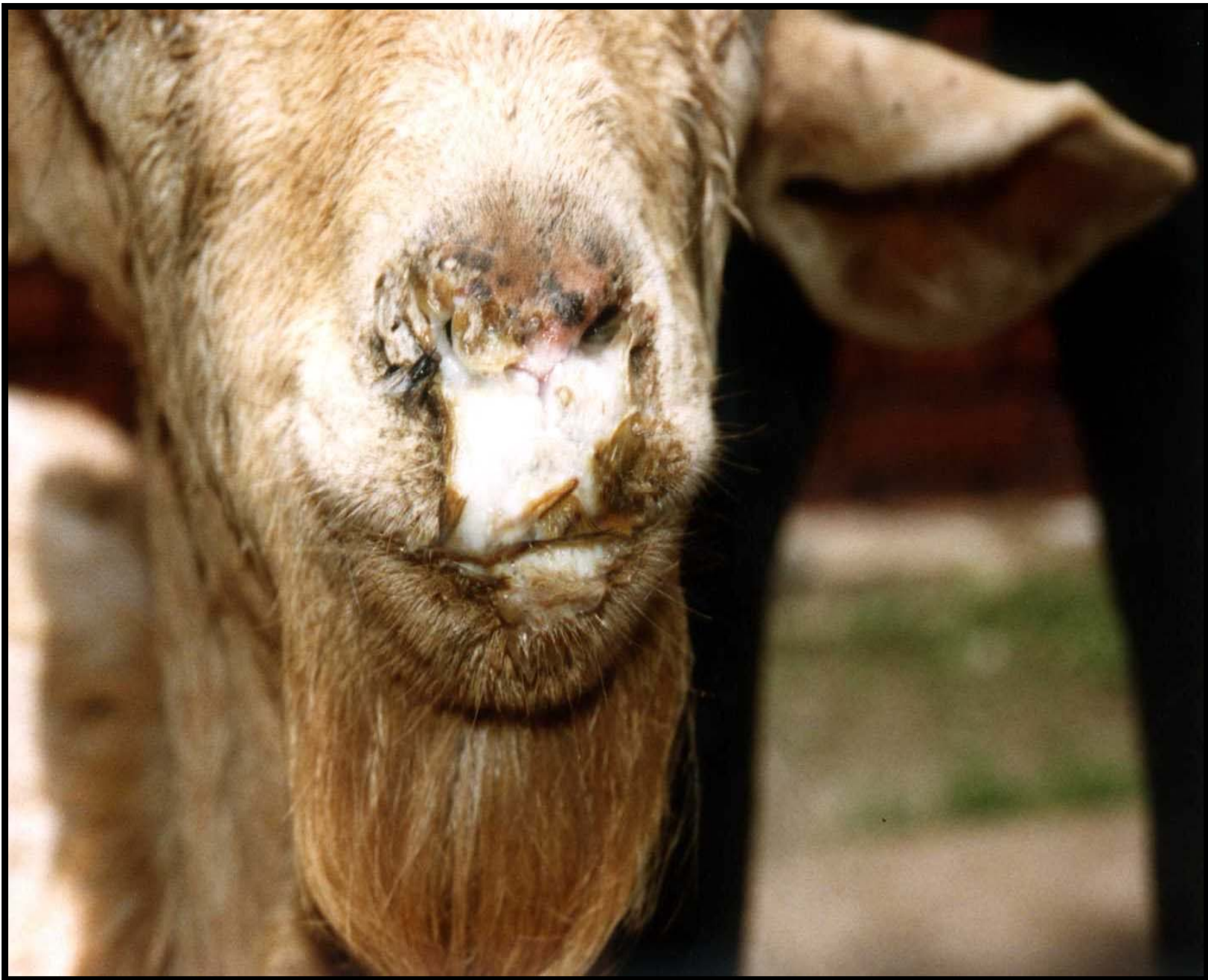
- heterologous vaccines used before to protect against PPR but no longer allowed since eradication of Rinderpest
- We now have very good and effective homologous cell-culture attenuated vaccines
- We are working on the development of recombinant capripox-based PPR vaccines (with lumpy skin as the vehicle) that are able to protect against both capripox and PPR



Single vaccine to control 5 animal diseases



- Ensure food security
- Live vectored in LSDV
- 5 -diseases-1-vaccine
- Protect sheep and goats against PPR, RVF and the capripoxes
- Potential advantages: Stability, duration of immunity, multi component



THANK YOU

