



Food and Agriculture Organization  
of the United Nations



## Lumpy skin disease follow-up project proposal

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Lumpy skin disease prevention, control, and awareness workshop

Tirana, Albania, 10-11 May 2017




## Beneficiaries and the general aim of the project

2

- Northern Caucasus: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova and Ukraine
- Balkan countries: Albania, Bosnia and Herzegovina, FYR of Macedonia, Kosovo, Montenegro and Serbia
- Turkey
- **General aim** is to provide well-targeted, tailor-made assistance for LSD affected and at-risk countries
- Short term FAO disease expert missions are carried out to identify the specific needs and analyse capacities and preparedness of the veterinary and diagnostic services to control and eradicate LSD
- Considering the epidemiological situation in the region and the risk of the spread of LSD, well-defined assistance, support and training are provided for countries and regions in timely manner

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**Output 1. Enhanced legal and regulatory preparedness for LSD** 3


**Activity 1.1.** Strengths and weaknesses of the national veterinary and diagnostic services are assessed

**Activity 1.2.** Existing legal powers and strategy documents, such as contingency and national control plans, operation manuals and disease awareness materials for LSD prevention and control are assessed, improved and developed as needed.

**Activity 1.3.** Simulation exercises on LSD are organized to ensure appropriate emergency preparedness. A series of desktop SimExs are organised to test the different components of the contingency plan in different outbreak scenarios.

**Activity 1.4.** Regulatory framework for authorization of the use of different types of vaccine against LSD in emergency situation is discussed

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**Output 2. Enhanced diagnostic capacities in national reference laboratories** 4

**Activity 2.1.** Laboratory capacities for detection of LSD antigen and antibodies are strengthened according to the specific needs of national reference laboratories

**Activity 2.2** Laboratory training activities are organized on national and regional levels

- Training on performance of diagnostic methods and evaluation of staff competency
- Update on the novel diagnostic methods for LSD antigen and antibody detection
- Writing technical specifications, conducting tenders for the procurement diagnostic reagents and kits
- Implementing Good Laboratory Practice (GMP) if required
- Basic in-house quality assurance to confirm the accuracy of test results and use of standardized controls for the diagnostic assays and equipment service and calibration needs
- Biosecurity in the diagnostic laboratories

**Activity 2.3.** Accuracy of the test results is confirmed by participation to inter-laboratory proficiency trials in collaboration with international reference laboratories and reference centres

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### Output 3. Risk analysis on entry, spread and establishment of LSD 5

**Activity 3.1.** In order to enhance current understanding on the structure and dynamics of the cattle sector in a country/region, an analysis is performed, including cattle densities, legal and illegal cattle movements due to national and international trade, differences in the market price of live cattle and meat, seasonal grazing and nomadic way of farming, providing the base for the risk assessment

This will be done through workshops with relevant stakeholders, existing databases and questionnaires with farmers, middlemen, etc.

**Activity 3.2.** The most likely entry routes of LSD are identified and different districts are classified according to their risk level

**Activity 3.3.** The risk for the disease spreading throughout the country is assessed



### Output 4: Sustainable and cost-effective control strategies developed

**Activity 4.1.** A cost-benefit analysis on different LSD outbreak control options is performed, including feasibility of different or non stamping-out policies, different ways to disposal of culled animals, compensation options, disease surveillance, laboratory costs etc

**Activity 4.2.** A study on the socio-economic impact of an LSD outbreak to small holders of less than 5 cattle and to the livelihood and wellbeing of poor rural communities is conducted

**Activity 4.3.** Comparative study is carried out on the different farmer compensation strategies after implementation of stamping out, such as imbursement of a culled animals by full or partial market value, replacement with a vaccinated pregnant cow of a cattle breed well-adapted to local conditions or with other species such as sheep or goats (in case immunized cattle are not easily available)



## Output 5: Early detection and awareness campaigns

7

**Activity 5.1.** An awareness strategy is developed targeting the most relevant stakeholders (private and public veterinarians, farmers, butchers, middlemen, etc.)

**Activity 5.2.** Training provided on effective risk communication

**Activity 5.3.** Farmers meetings organized by cattle associations are used for training farmers and animal care personnel on early recognition of LSD infected animals, prevention (e.g. biosecurity) and reporting.

**Activity 5.4** Awareness and technical materials and FAO LSD Field Manual is adapted to meet different stakeholders' needs and translated into relevant local languages and disseminated

**Activity 5.5** A pilot study is conducted to investigate the efficacy of the livestock protective (insecticide-treated) fences against biting and blood-feeding vectors



## Output 6: Vaccines and control of LSD by vaccination

8

**Activity 6.1.** Advice in selection of a vaccine product based of proven efficacy and effectiveness against LSDV

**Activity 6.2.** Advise on effective and feasible vaccination strategy with sufficient vaccination coverage are implemented in affected regions.


**Activity 6.3.** Evaluation, recording and reporting side reactions after vaccination.

**Activity 6.4.** Training provided in following vaccine related topics

- Writing technical specifications for vaccine procurement and conducting tenders in timely manner
- Cold storage and delivery of large numbers of vaccines in a face of an outbreak



**BOVIVAX LSD**  
Vaccin liposoluble à virus vivant atténué contre la Dermatose  
Mucocutane Contagieuse des Ruminants



**Output 7. Biosecurity training at cattle holdings and diagnostic laboratories** 9

**Activity 7.1.** Practical trainings on

- Outbreak-related biosecurity on the farm/village;
- Executing and managing quality control of depopulation – safe disposal of infected carcasses;
- Cleaning and disinfection procedures in affected cattle farms;
- **Feasible vector control**

**Activity 7.2.** **Biosecurity in diagnostic laboratories**

- Handling of infectious samples and performing assays including working with tissue cultures and live virus
- Disposal of infectious material of animal origin
- Disposal of contaminated consumables and materials
- Disposal of unused vaccine dosages

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**Output 8: Enhanced disease surveillance for LSD** 10

- **Activity 8.1.** Development of strong LSD post-outbreak surveillance protocols and strategies
- **Activity 8.2.** Development of programme and model for confidence of disease freedom in risk areas where LSD has not detected (based on serology)
- **Activity 8.3.** Novel surveillance strategies developed and pilot studies conducted in selected remote regions
- **Activity 8.4.** Training of public and private field veterinarians on early recognition of LSD cases, enhanced knowledge on the epidemiology and transmission of LSD, how to carry out outbreak investigation and preferred sample collection and submission
- **Activity 8.5.** Provision of translated training and awareness material for further dissemination of the data following a train-a-trainer principle

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## Output 9: Regional training and coordination

11

**Activity 9.1** Inter-regional workshops organized in order to coordinate and harmonize transboundary implementation of major control measures/campaigns, particularly vaccination.

**Activity 9.2.** Regional strategy for the demonstration of the freedom-of disease (with vaccination) status discussed and developed

**Activity 9.3.** Regional training are organized on different topics included into this project proposal



## Output 10: Creations of an online platform for LSD

12

- Regularly updated general facts on the LSD - according to new scientific evidence (clinical signs, epidemiology, transmission, vectors etc.)
- LSD networking platform for information change - Open forum for registered members and on-line chat: questions and information exchange and updates on outbreaks with maps, cattle density and vaccination coverage in the region, outbreaks of other transboundary diseases
- Available and new vaccines coming on the market and comparative data on the efficacy of the existing ones
- News on recently published research data, including a short summary of the most important findings (as many of the papers are not open access), links to open access papers
- Available funding – open international calls
- On-going LSDV research projects in different scientific research institutes, PhD and MSc opportunities plus links
- Reference laboratory news – diagnostic services and available new tests
- Next proficiency tests and ring-trials times
- Commercially available diagnostic test kits
- Training courses available (organizer, where, when and contact info) links if possible
- Risk assessment and farm biosecurity and decontamination
- Links to OIE Wahid, Manual and Code, European Union, DG Sante, EC Directives



## Downloadable material on the LSD website

13

- FAO LSD Field Manual
- Contingency plan template
- Awareness campaign material in different languages
- Cost-benefit analysis template
- Instructions for decontamination and disinfection measures
- Manual on procedures for disease eradication by stamping out giving
- Published materials by other international operators



14

## Thank you for your attention!

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