

# GF-TADs

GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture  
Organization of the  
United Nations



Standing Group of Experts on Lumpy Skin Disease  
in South East Europe  
under the GF-TADs umbrella

## **SGE LSD 11**

10 February 2022

***Republic of North Macedonia***

Country Update

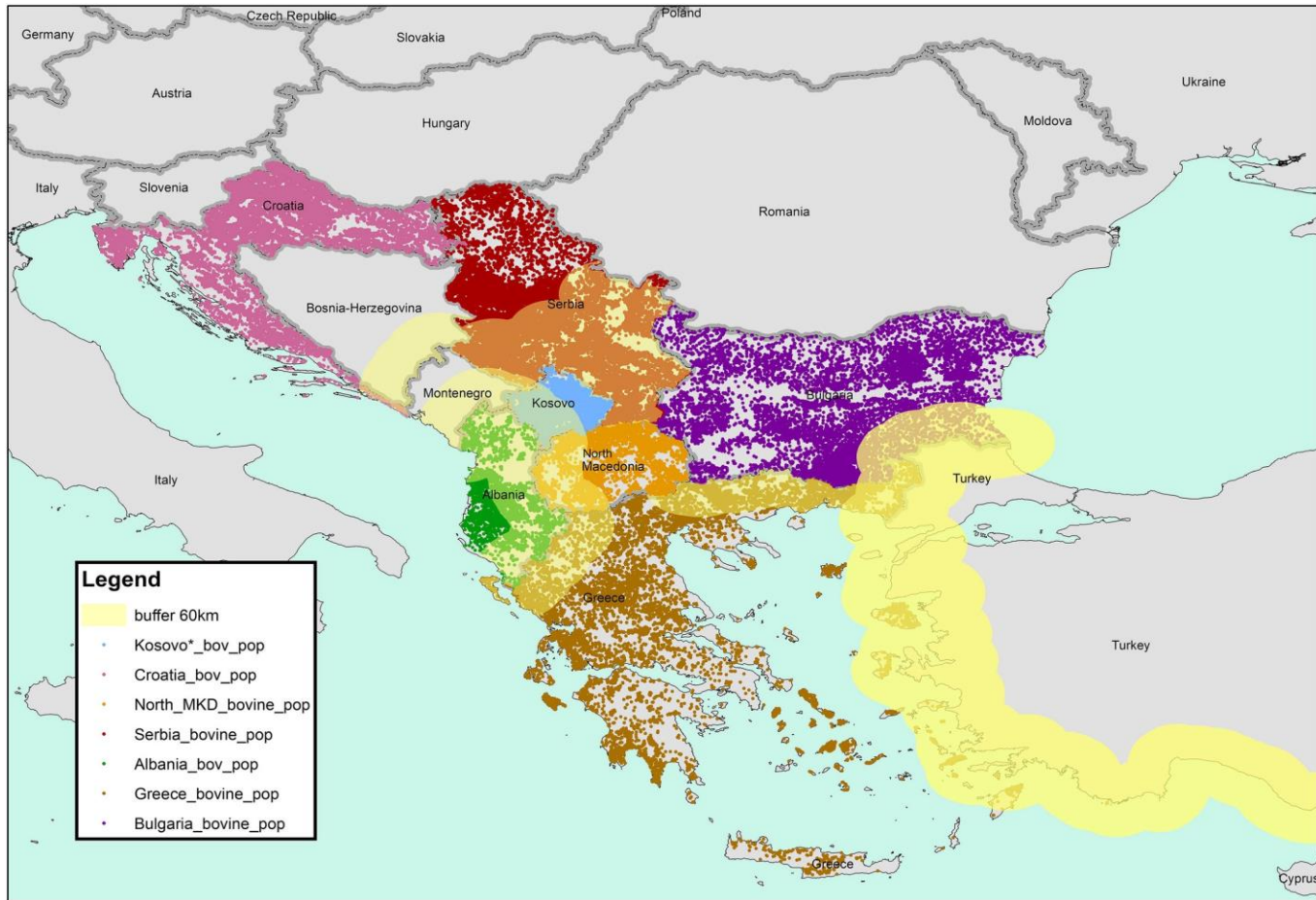
# Lumpy Skin Disease – Background information

- **LSD last occurrence:** Last outbreaks reported in 2017
- **LSD Vaccination:** LSD vaccination campaign was carried out in 2019
- **LSD surveillance (active):** active surveillance was implemented in 2020 and 2021



# LSD High risk/low areas

Source:EFSA



# Lumpy Skin Disease – Surveillance in 2020

## The main objectives of the LSD surveillance programme were:

- Early detection of new LSD outbreaks (re-emergence or re-introduction);
- Confirmation of disease freedom;
- Obtaining the status for country free from LSDV.

The active and passive surveillance was carried out in all parts of the territory of Republic of North Macedonia, including high risk and low risk areas in relation to the disease, through the use of clinical, serological and virological examination.

Types of active surveillance:

1. Active clinical surveillance - Clinical visits
2. Active serological examination and virological test



# Lumpy Skin Disease – Surveillance 2020

## Active clinical surveillance in 2020

The activities included target periodical clinical examination, performed on both vaccinated and non-vaccinated animals, in the high-risk period for LSD in the high-risk areas of the country.

For the purpose of the clinical surveillance 1087 establishments were selected to be visited and all animals clinically examined.

In addition, random selection of 200 establishments in the rest of the country were selected for active surveillance purposes. The frequency of the visits on these holdings was four visits per year as well.

**The total number of farms selected in high-risk and low-risk areas was 1287.**



# Lumpy Skin Disease – Surveillance 2020

## Preparation for the Animal Health Visits

The competent authority (FVA) have designed 3 separate check lists for data collection and one check list for official controls of performed activities.

The 1st check list contains questions dealing with of I&R animals, such as record keeping on the farm (movement on and off farm), eartags, passports etc.

The 2nd check list contains questions dealing with general clinical examinations, such as changes in animal behaviour, feed intake, grown etc.

The 3rd check list contains questions related to specific LSD symptoms, such as: Animal ID, changes on skin and mycoses, body temperature, respiratory symptoms, diarrhoea etc.

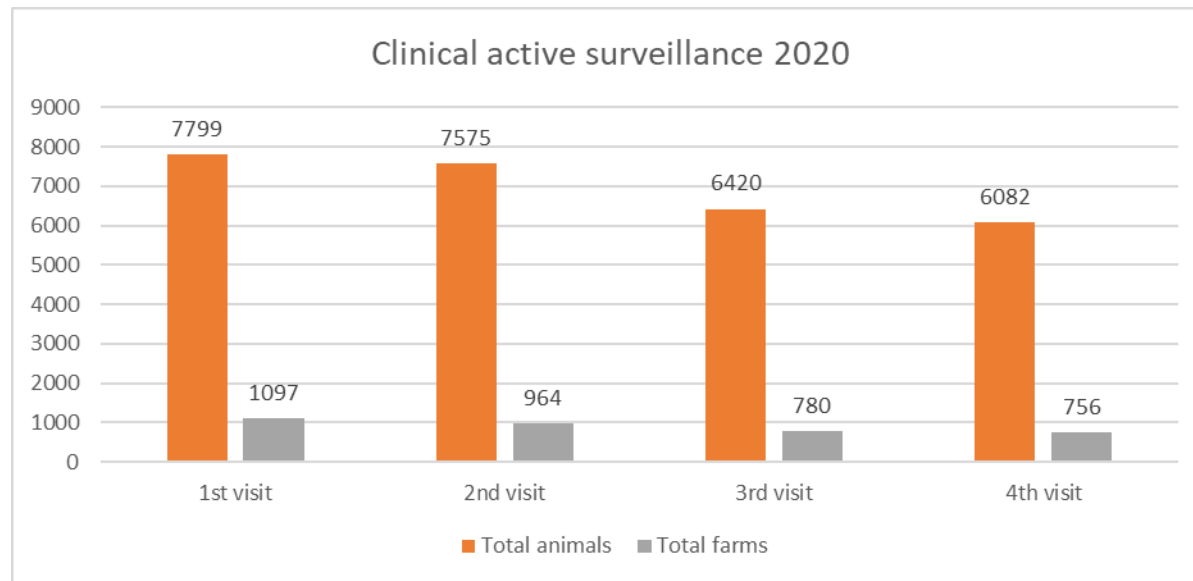


# Lumpy Skin Disease – Surveillance 2020

## First step: Animal Health Visits

Number of animals and farms clinically examined

	1st visit	2nd visit	3rd visit	4th visit
Total animals	7799	7575	6420	6082
Total farms	1097	964	780	756



# Lumpy Skin Disease – 2020/2021 – Surveillance

## Data collection (information system)

The data collected have been stored and processed in the ISFVA. The following data have been collected:

### For each clinical visit:

- The location (region, municipality, village, address, name and surname of the keeper, and geographical coordinates (WGS 84) and individual identification information of the holding (farm ID number);
- The date of the visit
- The result of the clinical inspection and, in case of detection of LSD suspicions the details of the suspect animals (individual identification number, age, sex, LSD vaccination history)

### For each serological and each virological test:

- The individual details of the animal sampled (individual identification number, age, sex, LSD vaccination history)
- The location and individual identification information of the holding of origin of the animal sampled
- The type of sample collected and the date of sampling
- The type of test carried out and result thereof





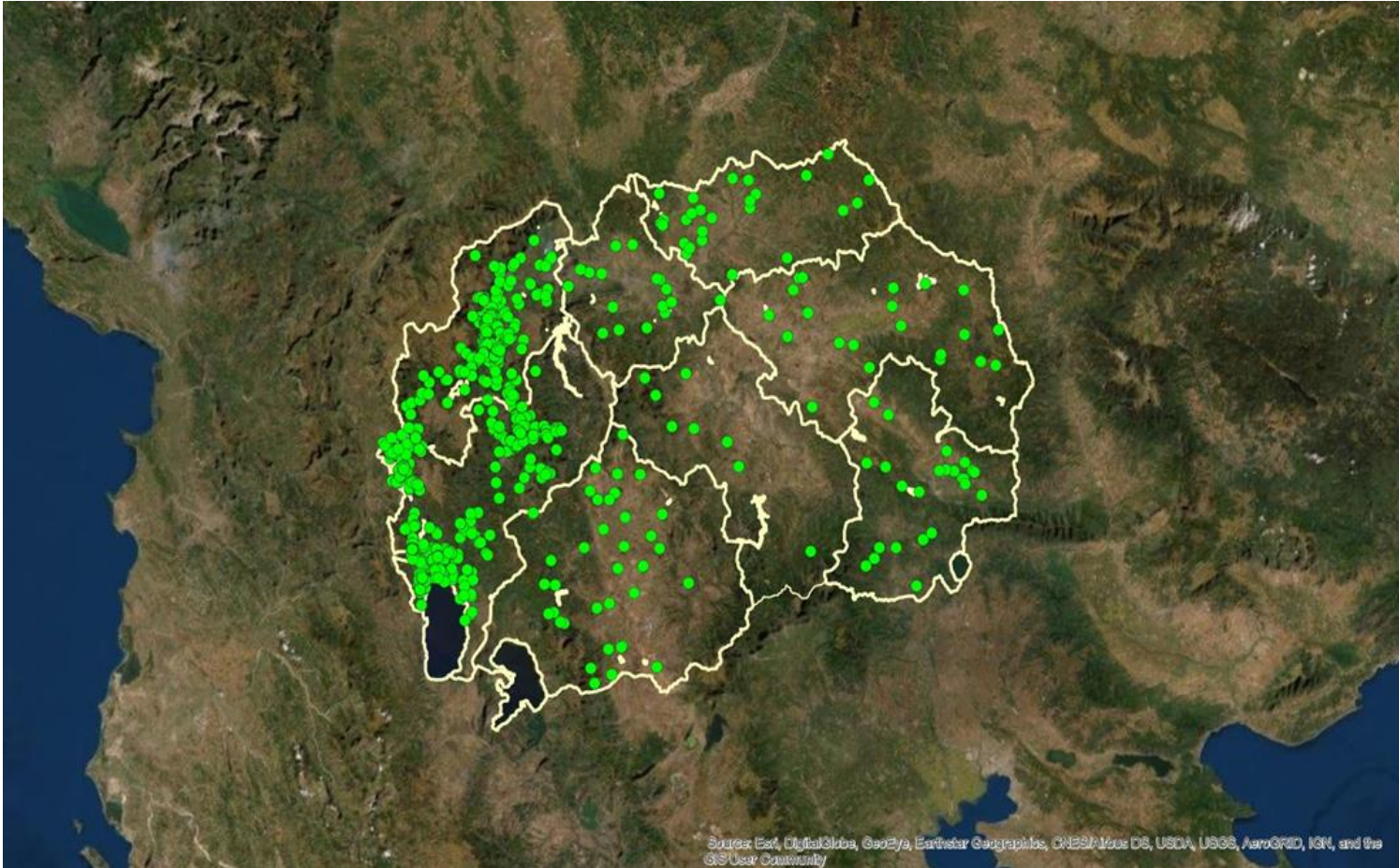
# Lumpy Skin Disease – 2020 - Surveillance

Results of Active surveillance Period of implementation 02 October – 30 November 2020- per regions in RNM.

Region	Total number of bovine herds	Number of bovine herds vaccinated	Serological tests (e.g ELISA, VNT etc.)			Virological tests (e.g. PCR)	
			Animals tested	Positive non vaccinated animals	Positive vaccinated animals	Animals tested	Positive (+)
VARDAR	888	0	212	28	43	0	0
PELAGONIA	3128	0	246	2	8	1	0
NORTHEAST	2581	0	191	11	7	1	0
SOUTHWAST	1784	0	202	46	0	0	0
POLOG	2997	0	156	21	29	0	0
EAST	1834	0	157	5	30	0	0
SKOPJE	1806	0	65	1	0	0	0
SOUTHEAST	1763	0	59	4	28	1	0



# Map of the selected holdings 2020 surveillance



# Lumpy Skin Disease – 2021 - Surveillance

Results of active surveillance in period from 23.11.2021-31.12.2021

Region	No. of tested bovine holdings	No. of tested animals	Seropositive bovine holdings	ELISA serological test positive animals	Period of sampling
POLOG	216	238	8	9	26.11-.26.12.2021
EAST	48	239	9	13	24.11-.22.12.2021
VARDAR	150	267	2	8	25.11-.24.12.2021
SOUTHEAST	162	276	23	34	23.11-.10.12.2021
SOUTHWEST	161	210	5	5	29.11-.21.12.2021
NORTHEAST	223	263	11	12	24.11-.27.12.2021
PELAGONIJA	234	277	4	5	24.11-.25.12.2021
SKOPJE	73	218	6	8	22.12-.29.12.2021
TOTAL	1267	1988	68	94	



# Lumpy Skin Disease – 2021 - Surveillance

- Food and Veterinary Agency have carried out follow up measures on all 68 farms with ELISA positive laboratory results and all eligible animals on the farm were re tested. There were 10 seropositive animals on 9 farms and all seropositive animals were tested PRC negative.
- There is no animal with clinical signs in holdings
- PVPs were responsible for clinical examination of animals.
- There is no susception reported for LSD in 2021.



# Lumpy Skin Disease – 2022 plans

- **LSD Vaccination:** *Not foreseen*
- **LSD surveillance (active): plans for 2022**

The main objectives of the programme are:

- Early detection of new LSD outbreaks and
- Confirmation of disease freedom

Passive surveillance: investigation of LSD suspect cases reported in the country

Active surveillance: periodical clinical/serological/virological examination, of non-vaccinated animals and without maternal immunity

Active clinical surveillance is designed to provide 4 clinical visits with minimum time period of 5 weeks between each visit.

## **Active sero-surveillance**

Period of implementation 01 March – 31 October 2022

Active sero-surveillance will be carried out on 3000 animals which will detect at least one positive animal with 0.1% anticipated prevalence and 95% level of confidence. Target population is non vaccinated cattle older than 6 months (animal born after 1 of January 2020).

## **Passive surveillance**

Period of implementation: 01 January – 31 December 2022

Area of implementation: The entire territory of Republic of North Macedonia. All animals showing clinical signs of LSD have to be reported to the PVP or official veterinarian, who will carry out clinical examination of all animals on suspected holding within 24 hrs.

