



**Ministry of Agriculture, forestry
and water management
Veterinary Directorate**

**Biosecurity management and activities in control
and prevention the spread of African swine fever in
the Republic of Serbia**

LAGAL BASE ON CONDUCTING MEASURES ON ASF CONTROL

The Law on Veterinary Medicine

The Law on Food Safety

The Law on Animal Welfare

The Law on Game and Hunting

The Rulebook of ASF on establishing measures for early detection, diagnosis, prevention of spread, suppression and eradication of ASF, as well as the method of their implementation

Rulebook for Infectious Diseases-Rulebook on the List of particularly dangerous infectious diseases of animals and the List of infectious diseases of animals that must be reported, as well as the method of their registration and registration

Program of animal health protection measures (annual regulation in the form of regulations for the current year)

Crisis plan and operation manuals

LAGAL BASE RELATED ACTIVITIES

FORMED AND ACTIVATED NATIONAL, REGIONAL AND LOCAL CRISIS CENTERS

DECISIONS ON THE DECLARATION OF RESRECTED AREAS

THE MINISTER ORDER ON TAKING MEASURES TO PREVENT THE INTRODUCTION, APPEARANCE, SPREAD, SUPPRESSION AND ERADICATION OF THE INFECTIOUS DISEASE AFRICAN SWINE FEVER INTO THE REPUBLIC OF SERBIA,

THE PLAN OF SURVEILLANCE AND DIAGNOSTIC TESTING OF DOMESTIC PIGS ON ASF FOR 2019, 2020, 2021, 2022, 2023

EUVET TEAM" VISIT (14-16 AUGUST 2019)

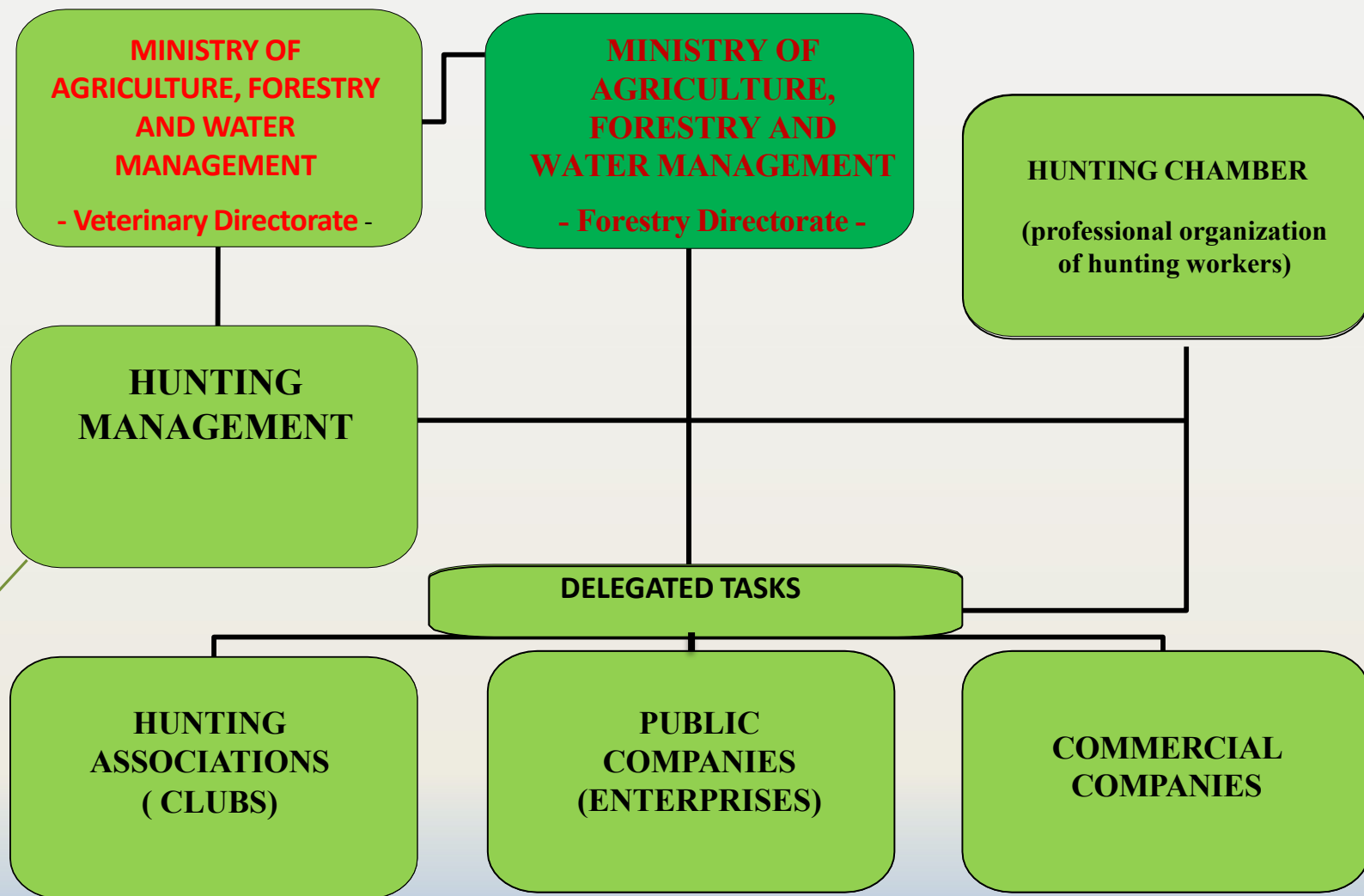
GF-TADS VETERINARY MISSION ON ASF (10-13 DECEMBER 2019)

DECISIONS ON THE DECLARATION ON ASF NFECTED AND ADDITIONAL CONTROL AREAS (BUFFER ZONE) IN WILD BOARS

NSTRUCTIONS AND GUIDELINES FOR HUNTERS, USERS OF HUNTING GROUNDS AND HUNTING ORGANIZATIONS

OPERATIONAL HEADQUARTERS FOR ASF CONTROL AT GOVERNMENT LEVEL ESTABLISHED

Organizational structure of hunting in Serbia



Managing Authority



Responsible person



Professional services



Gamekeeping services



other services
(financial, commercial, technical)



HUNTING GROUNDS IN THE TERRITORY OF THE REPUBLIC OF SERBIA



The surface area of the Rep. of Serbia:

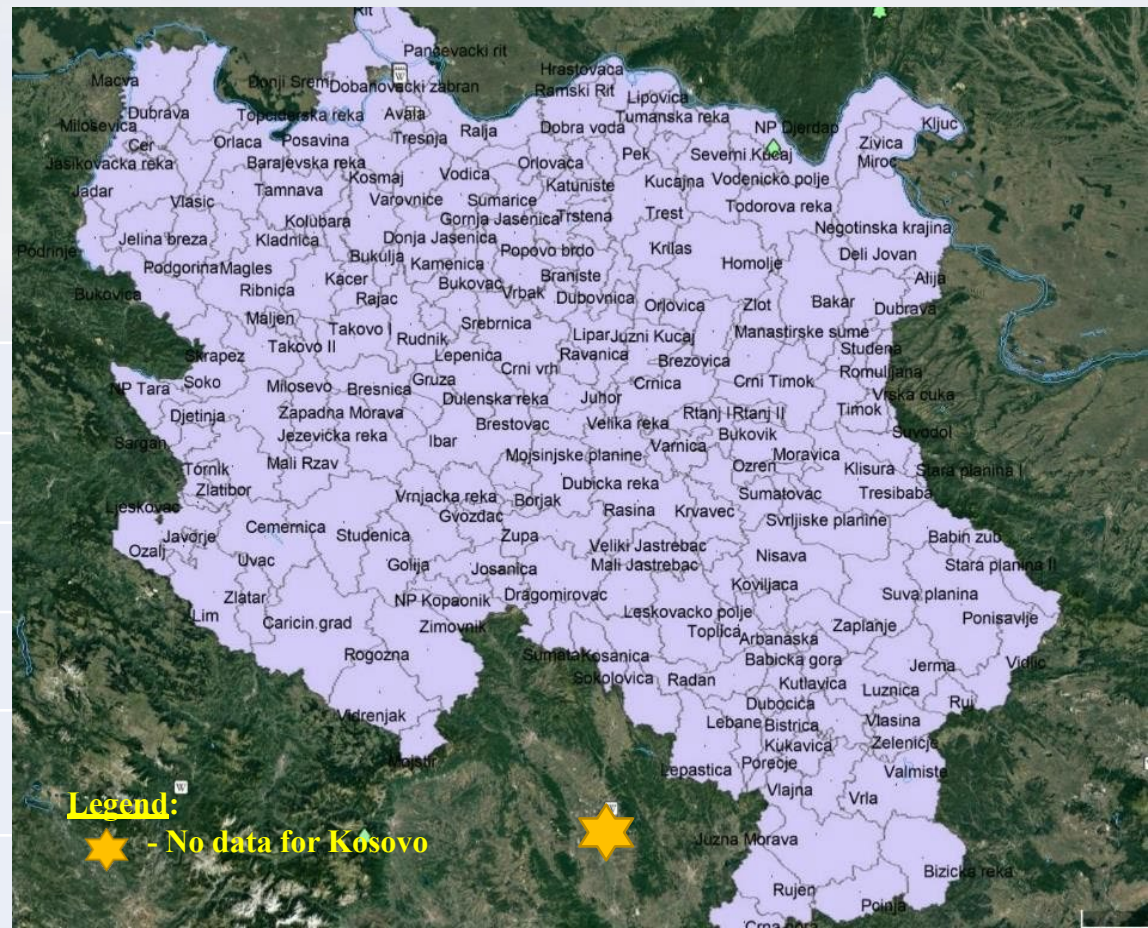
88.499 km² / 77.484 km² ★

Area of the hunting grounds:

86.449 km² / 75.679 km² ★

Fenced hunting grounds:

0,82612 km²



Number of hunting areas

16

No. of hunting grounds in Central Serbia

204

No. of hunting grounds in northern Province of Vojvodina

157 ★

Total number of hunting grounds

361 ★

No. of hunters in the Republic of Serbia

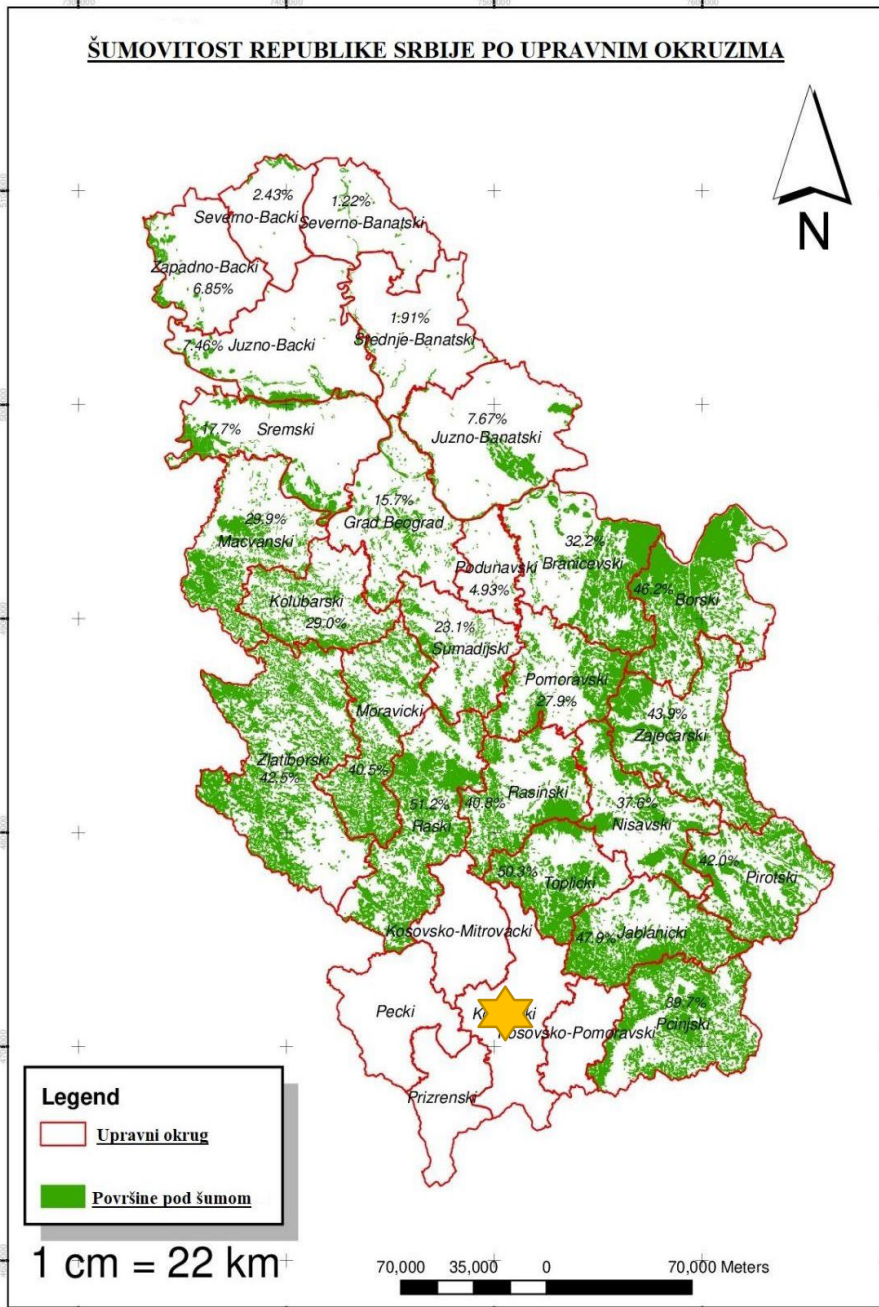
81.933

(2022/2023. hunting year)

Average age of hunters

49 years

ŠUMOVITOST REPUBLIKE SRBIJE PO UPRAVNIM OKRUZIMA



Management of wild boar populations

Total forest area ~ 22.524 km²

Around 29,1% surface of RS on which the National inventory of forest was carried out)

Sate ownership – 43%

Private ownership – 57%

Hunting area (HA)

for wild boar ~ 25.000 km²

Estimated number of wild boars ~ 25.000-30.000 animals (parent fund)

Average population density of wild boars in Serbia ~ 1 animal/km² HA

(open hunting grounds)

Type of hunting:

individual and group hunting

Duration of the hunting season:

Males/juvenile: 1 January - 31 December

Females: 01 July – 28/29 February.

Hunting year	Estimated number of parent stock	Estimated density (unit/km ²)	Animal shot
2015/2016	22.024	0,88	8.446
2016/2017	23.250	0,93	9.407
2017/2018	23.701	0,95	11.179
2018/2019	23.836	0,95	10.648
2019/2020	21.974	0,88	16.607
2020/2021	23.726	0,95	17.860
2021/2022	25.521	1,02	18.576

Regional Crisis Centre (RCC) /Competent veterinary Institutes (12)

Local Crisis Centre (LCC) /coordinators of intervention teams (28)



Central Serbia

RCC

Administrative district

BELGRADE (1/2)
(17 municipalities)

ŠABAC (1/2)

Mačvanski
Kolubarski

KRALJEVO (1/4)

Zlatiborski
Raški
Moravički
Rasinski

JAGODINA (1/2)

Pomoravski
Šumadijski

POŽAREVAC (1/2)

Podunavski
Braničevski

ZAJEČAR (1/2)

Zaječarski
Borski

NIŠ (1/5)

Pirotski
Nišavski
Jablanički
Pčinjski
Toplički

Province of Vojvodina

RCC

Administrative district

SOMBOR (1/3)

Zapadnobački
Južnobački
Severnobački

SUBOTICA (1/2)

Severnobački
Severnobanatski

NOVI SAD (1/2)

Južnobački
Sremski

ZRENJANIN (1/2)

Srednjobanatski
Severnobanatski

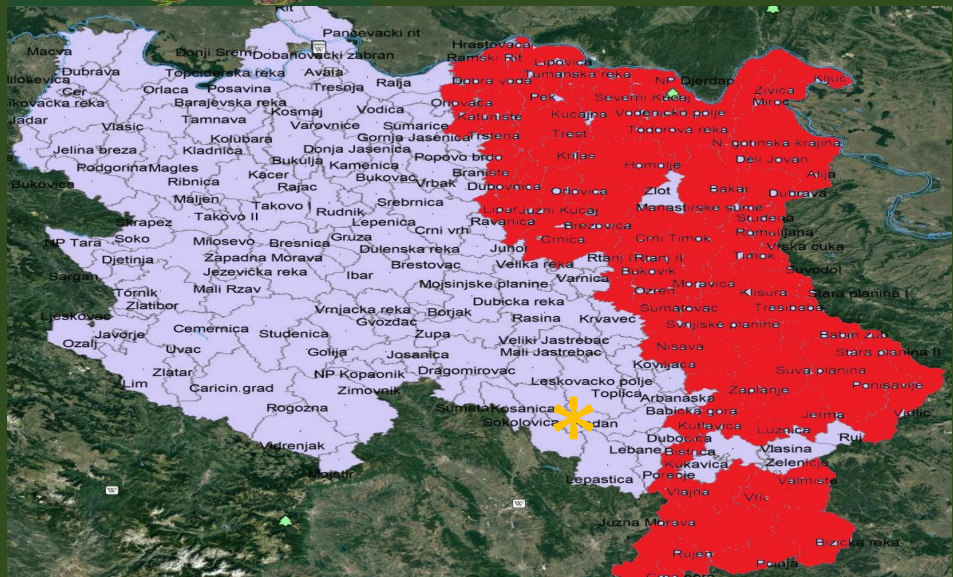
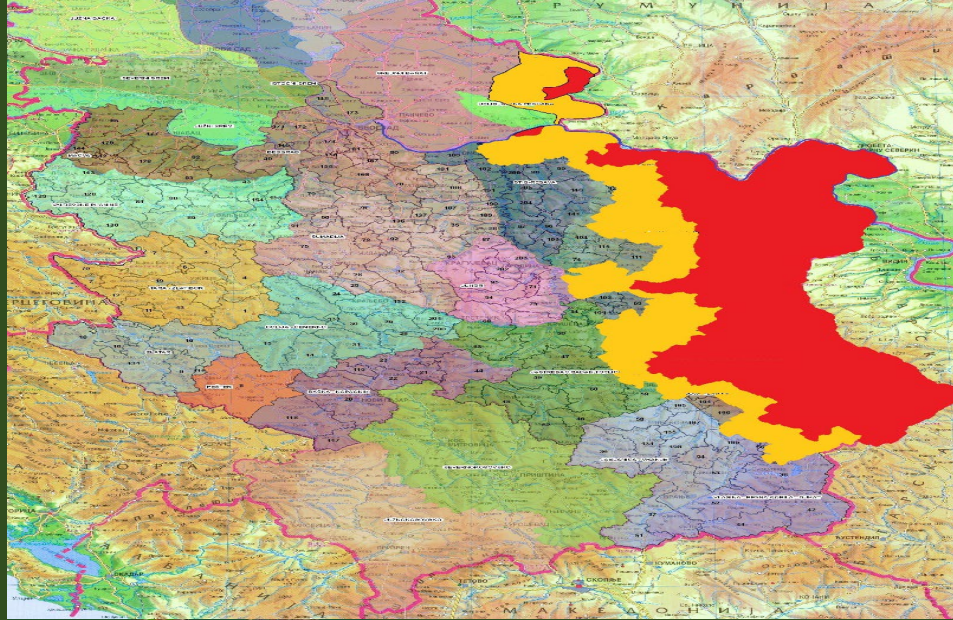
PANČEVO (1/1)

Južnobanatski

ASF in wild boars in Republic of Serbia –infected areas

First appearance by Veterinary Directorate Ordinance - 13.01.2020.

East and south east areas bordering Romania and Bulgaria



Latest Status
September 26,
2023:

370 infected
wild boars
in 10
administrative
districts

ABP MANAGEMENT AT HUNTING GROUND

ABP good practice

- ❖ Report of found game carcasses
- ❖ Report of the sanitary or diagnostic hunt
- ❖ Providing conditions for ABPs safe disposal
- ❖ Marking a hunted large game
- ❖ Official inspection game meat
- ❖ Provide facility for temporary game storage
- ❖ Provide facility for trophy processing
- ❖ Human capacity - trained

Dispose options

- ❖ Rendering plant – contract
- ❖ Disposal pit - vet authority allow
- ❖ Burial - vet authority allow
- ❖ Incineration - vet authority allow
- ❖ Feeding places for predators – registered, vet authority allow
- ❖ Zoo - registered facility
- ❖ Leather industry



PROBLEMS POINTED OUT

➤ Implementation of biosecurity measures in hunting grounds:

1. *Large areas of the hunting ground - high organization costs* (fuel, equipment, footwear, clothing, food, travel expenses and food for members of the intervention teams, daily allowances, as well as an individual reward for any person who finds a pig carcass in the hunting ground);
2. *inadequate equipment and means of transport for the safe disposal of game carcasses;*
3. *land ownership (private) in cases of on-site burial of wild boar carcasses;*
4. *small capacities of cooling chambers for temporary storage of culled game, short period of safe meat storage, inability to separate fresh and stored carcasses...)*
5. *possible waiting for diagnostic results* (the absence or postponement of planned hunting activities, financial losses,
6. *impossibility to fulfill obligations from planning documents or non-compliance with the changed planning hunting documents, postponement of hunting, dissatisfaction of hunters...)*

Hunters records and hunting management procedures:

1. *Purchase and movement of wild boars with uncontrolled origin and health status;*
2. *Uncontrolled and unauthorized movement of person inside the hunting ground* (gatherers of forest fruits, mushrooms and medicinal plants, foresters, woodcutters, farmers, mountaineers, tourists, extensive livestock farming, domestic animals (dogs, cats)
3. *Disregard in implementation of biosecurity measures ;*
4. *Illegal landfills*
5. **Insufficient communication between decision-makers, local selfgoverments, competent Cisis Centre, veterinary and hunter inspectors, hunting ground users (hunting clubs) and local population**
6. **Correlation with a low level of biosecurity awareness and the consequences of irresponsible human behavior with domestic pigs**



GENERAL PROVISIONS ON SAFE DISPOSAL

ORDINANCE

ON THE METHOD OF CLASSIFICATION AND HANDLING OF BY-PRODUCTS OF ANIMAL ORIGIN, VETERINARY-SANITARY REQUIREMENTS FOR THE CONSTRUCTION OF FACILITIES FOR THE COLLECTION, PROCESSING AND DESTRUCTION OF BY-PRODUCTS OF ANIMAL ORIGIN, THE METHOD OF PERFORMING OFFICIAL CONTROL AND SELF-CONTROL, AS WELL AS CONDITIONS FOR LIVESTOCK CEMETERIES AND THE GRAVE TOMBS

(Published in "Official Gazette of RS", number 31/11)

Article 96.

By-products of animal origin that can be buried and burned in a livestock cemetery or pit grave, as well as on-site, with the application of measures that ensure the control of risks to public and animal health, might include material of Category 1 in reasonably remote areas where, taking into account geographical and climatic reasons or natural disasters, access is practically impossible or would pose a risk to the health and safety of the persons performing the collection or would require a disproportionate use of the means of in the event of an outbreak of diseases that must be reported, and the consequence of which is a large number of deaths or a large number of animals that, due to ordered measures killed, if:

- (1) due to transport to the nearest facility approved for the processing or destruction of animal by-products there is a risk of spreading health risks, or**
- (2) in the case of a large number of outbreaks of particularly dangerous infectious diseases, the capacity of the nearest facility approved for the processing or destruction of by-products of animal origin has been exceeded**



PROCEDURE FOR BURYING WILD BOAR CARCASSES

Depending on the assessment of the user of the hunting grounds, the competent veterinary inspector and the competent epidemiologist, a decision is made whether to form individual or group burial pits (one or more). The decision on the type and number of pits is made based on the sparseness of the terrain and the density of the population of wild boars.

The location for the group pit grave is chosen based on:

That the soil is suitable for digging

That it does not cause noise or unpleasant smells,

That it does not endanger the environment, namely: water, air, soil, plants and animals, the surroundings, i.e. places of special public interest,

That it is far away from the areas where plants, that are used for human food or animal feed, are planted.

That the pit is not near busy roads,

Having access to a solid (firm) road for vehicles,

That it is at least 50m from any road

That it is at least 500m away from establishments in the hunting grounds,

That it is not in a flood area,

That the groundwater level is lower than the very bottom of the pit (min. 5 to 6 m groundwater level),

That the land is owned by (or the user of state property) the user of the hunting grounds or they have written consent of the owner of the property,

That there are no planned activities on the land for at least 3 years,

If possible, that it is on a sunny field.



RECOMENDATION AND CONDITIONS THE PIT CAN BE DUG

Depth 3 to 4 m

Minimum length and width 2m

Distance from the neighbouring pit, if dug next to the existing pit, min 2m

The capacity of the pit is calculated as 1m³ for one conditional head (5 wild boars of 100 kg)

The capacity does not include the final layer of the pit height with last 1.5 m covered with earth.

Volume of the pit = (depth – 1.5m) X width X length

Estimated capacity in conditional herds / 1m³ = estimated number of individuals / 5

It is recommended that a pit be dug 0.5 to 1 m deeper in one corner in order to confirm the groundwater level.

A layer of organic matter with the capacity to absorb liquid (eg straw, sawdust) is placed on the bottom of the pit before starting to fill it. Place a fence around the site (as protection from the predators) and visibly mark the site of the pit. The pit is filled successively from the end that is further from the access point, i.e. the gate, if the pit is longer. While the pit is being actively filled/used, after partial filling, apply a layer of soil and disinfect the surface by spraying.

The disinfection is carried out by spraying the upper surface of the pit and the immediate environment (surroundings of the pit). The fence and visible signs should be on the fence and the pit remains idle for at least 3 years.

The records with the geolocation are kept for the pit

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Estimated capacity in conditional herds / 1m³ = estimated number of individuals / 5



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GAME MEAT CHAIN

regular procedure







ASF

DISPOSAL OF CARCASSES IN HUNTING GROUNDS





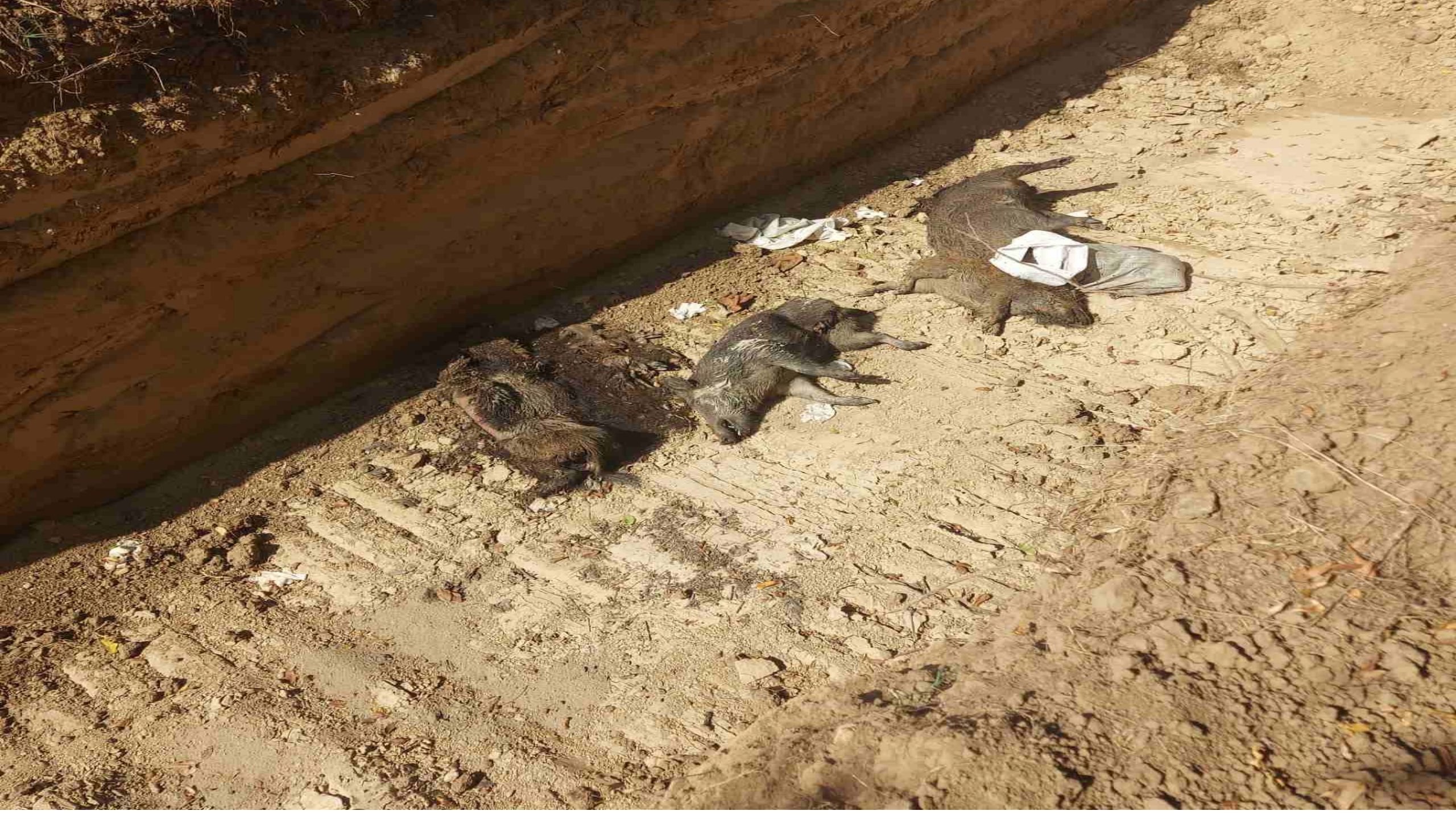














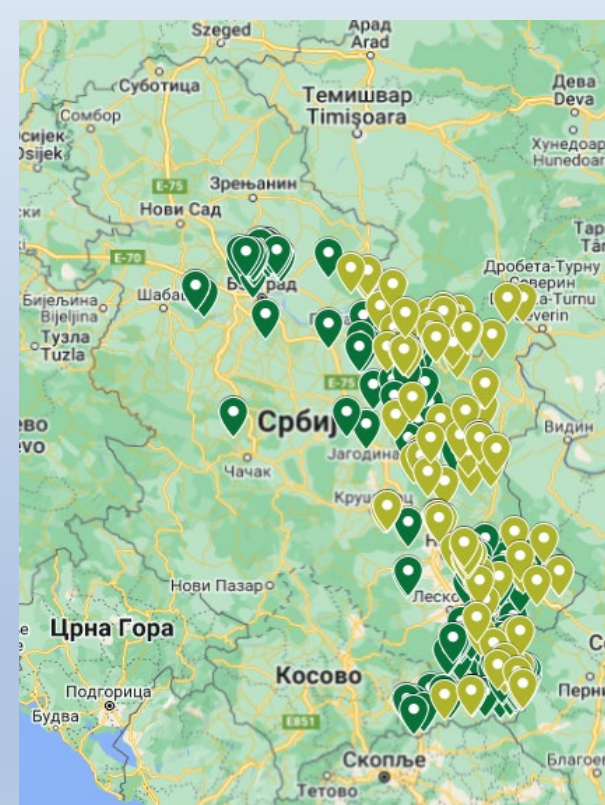
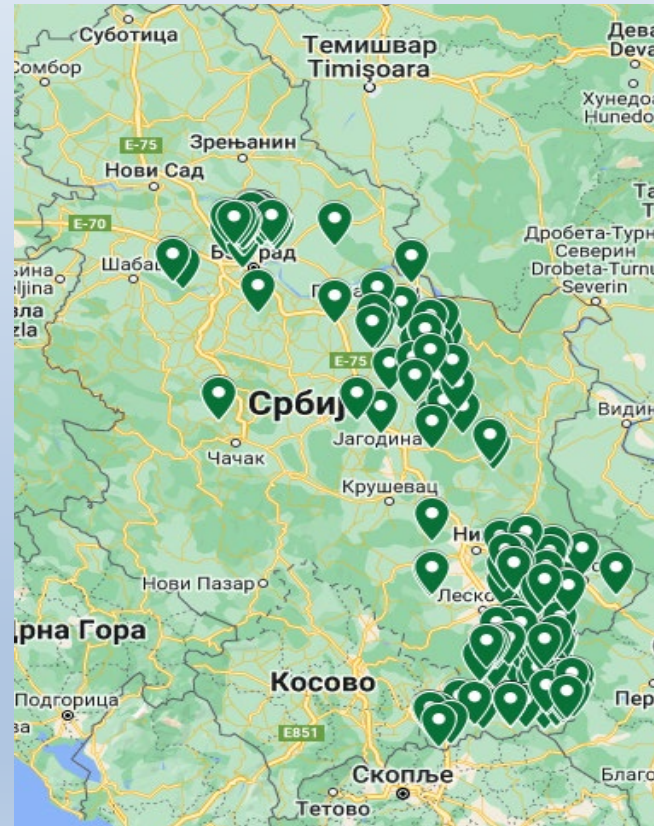
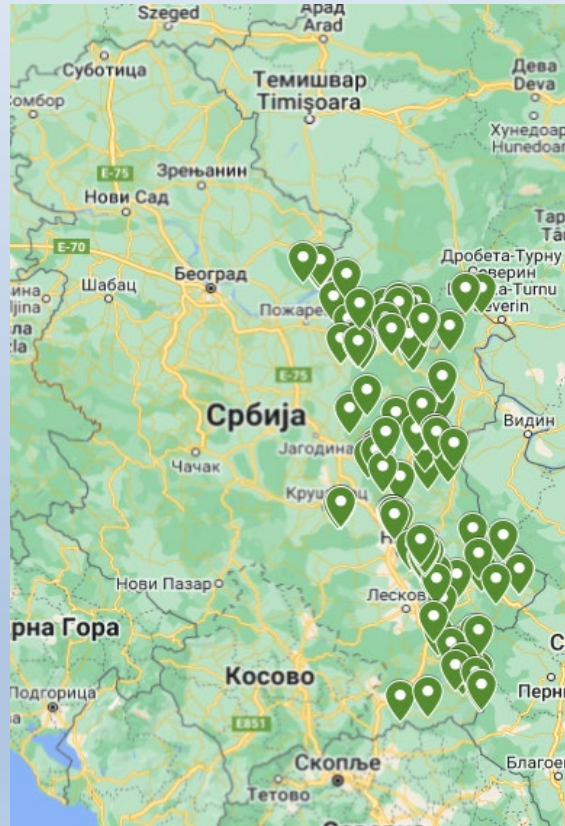
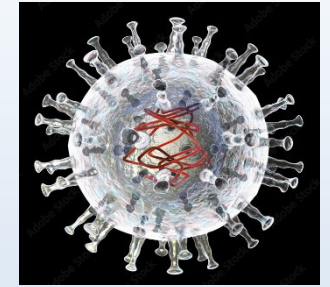


ASF 2023 SERBIA

2022

2023

2022-2023

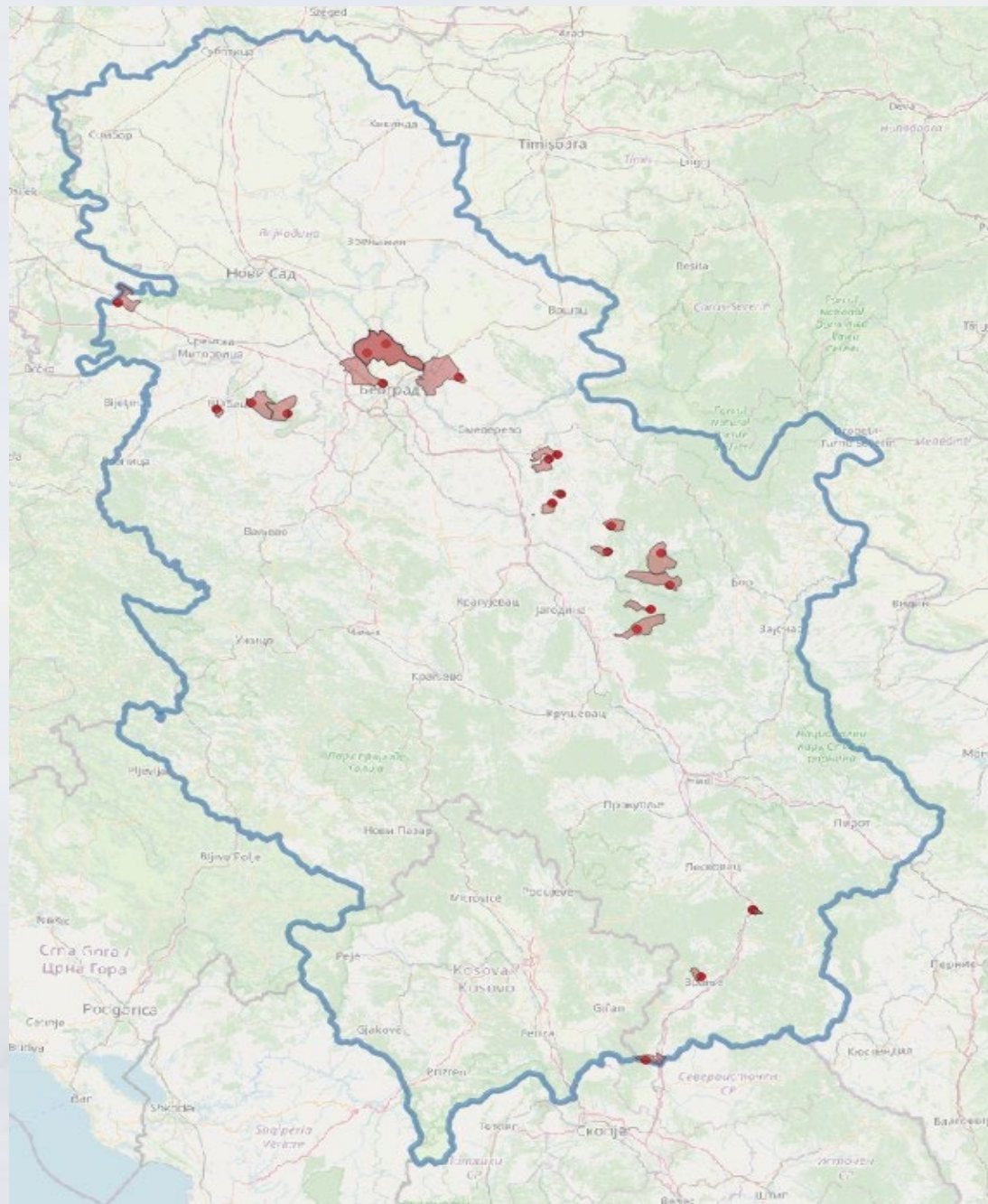


ASF DOMESTIC PIGS

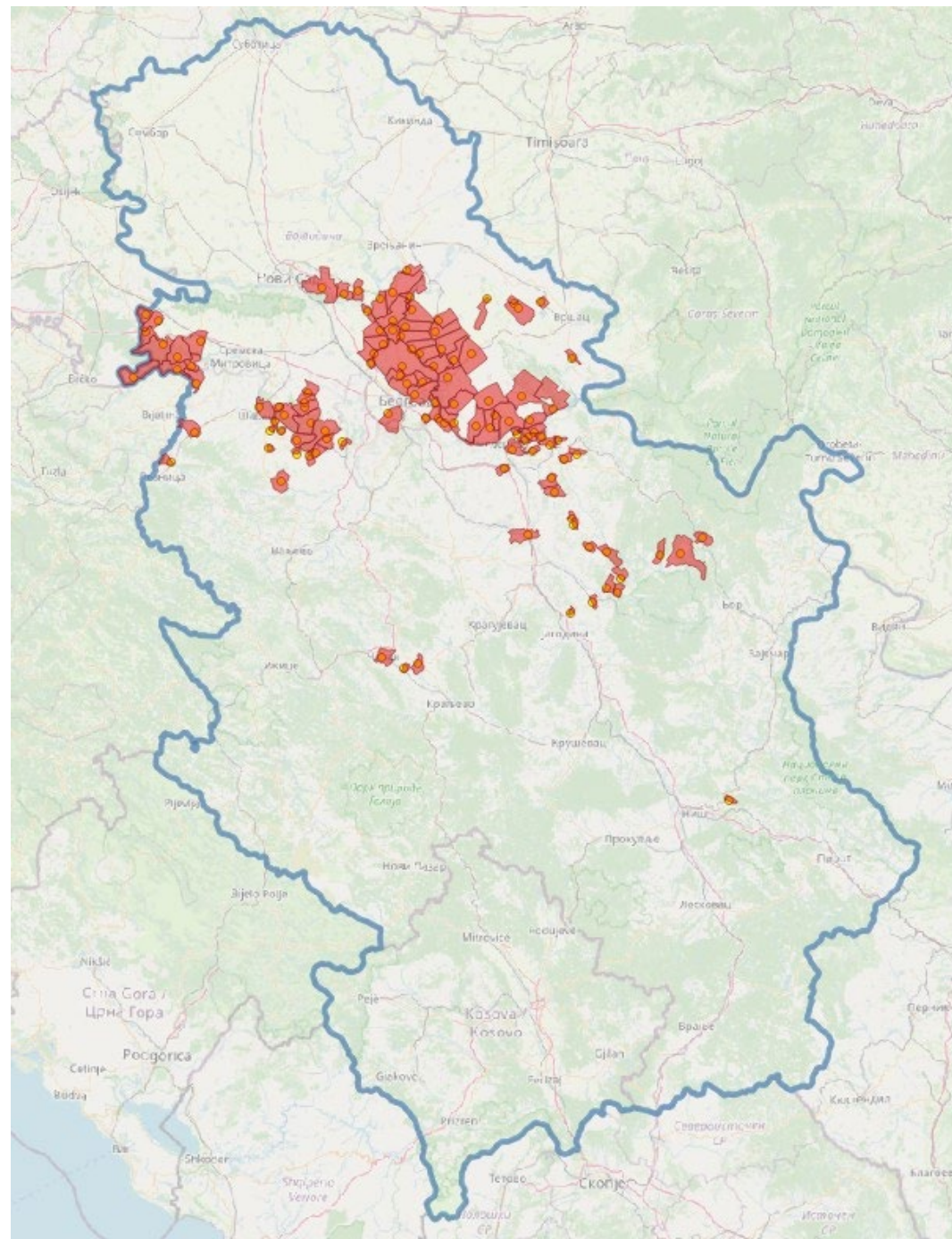
2023 development and current situation

- 1. Ending with 2022 in continuing with the middle of 2023 implicated the stabilization of epidemiological situation. In the beginning of May 2023, only 81 outbreaks were found affected**
- 2. Until 26.09.2023. 4,437 cases were confirmed in 2,445 holdings in the territory of 50 municipalities, in 15 administrative districts (Pčinjski, Braničevski, Pomoravski, Podunavski, Moravički, Južnobanatski, Borski, Srednjebanatski, Zaječarski, Sremski, Šumadijski, Južnobački, Mačvanski, Pirotski and the City of Belgrade) ASF in domestic pigs.**
- 3. In infected farms, 9212 pigs were found dead, and 68,869 pigs were euthanized with safe removal and disinfection of the holdings.**
- 4. However among dead and killed 46403 are registered in commercial establishments, of which four (4) are considered as big scale farms**
- 5. As a result of epidemiological findings three districts are declared free of ASF in September (Šumadijski, Zaječarski and Pčinjski and 12 districts are still considered as partly affected at the moment**
- 6. Fast spreading of disease is a consequence of permanent persistence of causal agent in surroundings with long exposure and high infective pressure**
- 7. Huge number of backyards with low biosecurity measures contributed to the rapid spread in the absence of early detection of the disease4. 4,**

Wild boars September 2023



Domestic pigs September 2023



Measures performed

**URGENT DEPOPULATION ON
BACKYARDS TO STOP
SPREADING TO COMMERCIAL
FARMS IN AN AFFECTED AREA
(Sečanj-24 000 pigs saved)**



TRANSPARENCY

The list of decisions on the declaration of an restricted areas from ASF in domestic pigs and wild boars in 2023 with the list is of decisions put out of order is regularly updated and available at the web-site of Veterinary Directorate of Serbia

<https://www.vet.minpolj.gov.rs/zarazne-bolesti-zivotinja/africka-kuga-svinja-aktuelne-informacije/>

SPISAK REŠENJA O PROGLAŠENJU ZARAŽENOG I UGROŽENOG PODRUČJA OD AFRIČKE KUGE SVINJA - 2023						
Redni broj	Zaraženo naseljeno mesto/lovište	Opština	Okrug	Broj rešenja	Datum rešenja	Vrsta životinja (domaće/divlje)
1	Lovište Homolje	Žagubica	Braničevski	323-02-00007/2023-05/2	10.01.2023.	Divlje svinje
2	Lovište Crnica i Lipar	Paraćin, Jagodina	Pomoravski	323-02-00007/2023-05/4	16.01.2023.	Divlje svinje
3	Lovište Krilaš	Petrovac na Mlavi	Braničevski	323-02-00007/2023-05/5	19.01.2023.	Divlje svinje
4	Lovište Bistrica	Grdelica, Leskovac	Jablanički	323-02-00007/2023-05/6	31.01.2023.	Divlje svinje
5	Lovište Crna Gora	Preševo	Pčinjski	323-02-00007/2023-05/8	06.02.2023.	Divlje svinje
6	Lovište Orlovica	Despotovac	Pomoravski	323-02-00007/2023-05/9	08.02.2023.	Divlje svinje
7	Lovište Kutlavica	Leskovac	Jablanički	323-02-00007/2023-05/11	09.02.2023.	Divlje svinje
8	Loviste Dubovnica	Despotovac	Pomoravski	323-02-00007/2023-05/16	03.03.2023.	Divlje svinje
9	Laznica	Žagubica	Braničevski	323-02-00007/2023-05/18	17.03.2023.	Domaće svinje
10	Trnjane	Požarevac	Braničevski	323-02-00007/2023-05/19	22.03.2023.	Domaće svinje
11	Lovište Manastirske šume	Despotovac	Pomoravski	323-02-00007/2023-05/20	22.03.2023.	Divlje svinje
12	Maruljevac	Požarevac	Braničevski	323-02-00007/2023-05/23	11.04.2023.	Domaće svinje
13	Poljana	Požarevac	Braničevski	323-02-00007/2023-05/24	11.04.2023.	Domaće svinje
14	Prugovo	Požarevac	Braničevski	323-02-00007/2023-05/27	12.04.2023.	Domaće svinje
15	Lovište Orlovača	Malo Crniće	Braničevski	323-02-00007/2023-05/33	27.04.2023.	Divlje svinje
16	Mrčajevci	Čačak	Moravički	323-02-00007/2023-05/35	04.05.2023.	Domaće svinje
17	Lovište Katunište	Žabari	Braničevski	323-02-00007/2023-05/36	04.05.2023.	Divlje svinje
18	Lovište Trstena	Žabari	Braničevski	323-02-00007/2023-05/37	09.05.2023.	Divlje svinje
19	Lovište Južna Morava	Vranje	Pčinjski	323-02-00007/2023-05/38	09.05.2023.	Divlje svinje
20	Lovište Sopotska kosa	Požarevac	Braničevski	323-02-00007/2023-05/40	01.06.2023.	Divlje svinje
21	Jabuka	Pančevo	Južnobanatski	323-02-00007/2023-05/41	02.06.2023.	Domaće svinje
22	Lovište Pančevački rit	Palilula	Grad Beograd	323-02-00007/2023-05/43	09.06.2023.	Divlje svinje
23	Beograd-Krnjača	Palilula	Grad Beograd	323-02-00007/2023-05/44	13.06.2023.	Domaće svinje
24	Padinska Skela	Palilula	Grad Beograd	323-02-00007/2023-05/46	15.06.2023.	Domaće svinje
25	Glogonj	Pančevo	Južnobanatski	323-02-00007/2023-05/47	16.06.2023.	Domaće svinje
26	Ćirikovac	Požarevac	Braničevski	323-02-00007/2023-05/52	20.06.2023.	Domaće svinje
27	Rajčilovci	Bosilegrad	Pčinjski	323-02-00007/2023-05/56	23.06.2023.	Domaće svinje
28	Petka	Požarevac	Braničevski	323-02-00007/2023-05/57	23.06.2023.	Domaće svinje
29	Kulič	Smederevo	Podunavski	323-02-00007/2023-05/58	23.06.2023.	Domaće svinje
30	Čenta	Zrenjanin	Srednjobanatski	323-02-00007/2023-05/59	23.06.2023.	Domaće svinje
31	Pančevo	Pančevo	Južnobanatski	323-02-00007/2023-05/60	23.06.2023.	Domaće svinje

SHARED RISKS - CONTACT WITH WILD PIGS



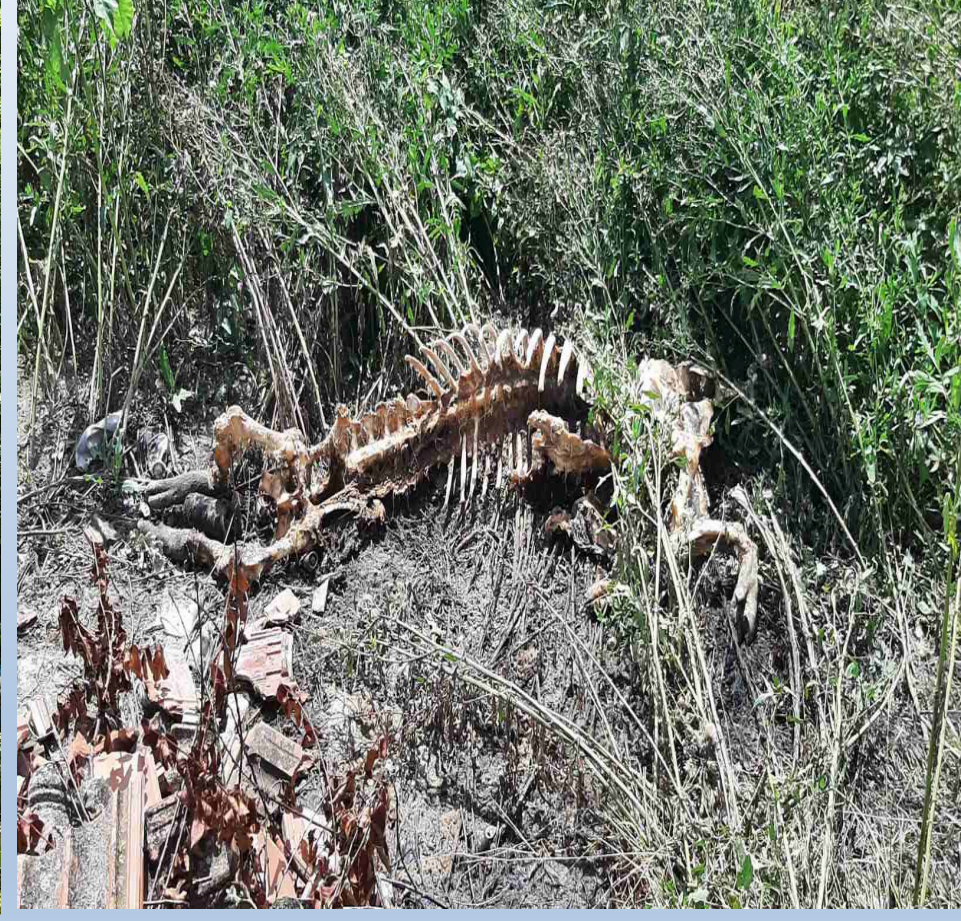
FREE RANGE



BACKYARDS – LOW BIOSECURITY



UNSAFE DISPOSAL OF CARCASSES



UNSAFE DISPOSAL OF CARCASSES



FLOODS



STORMS /PIG FARM



**IMPLEMENTATION OF
ORDERED MEASURES –
infected area**



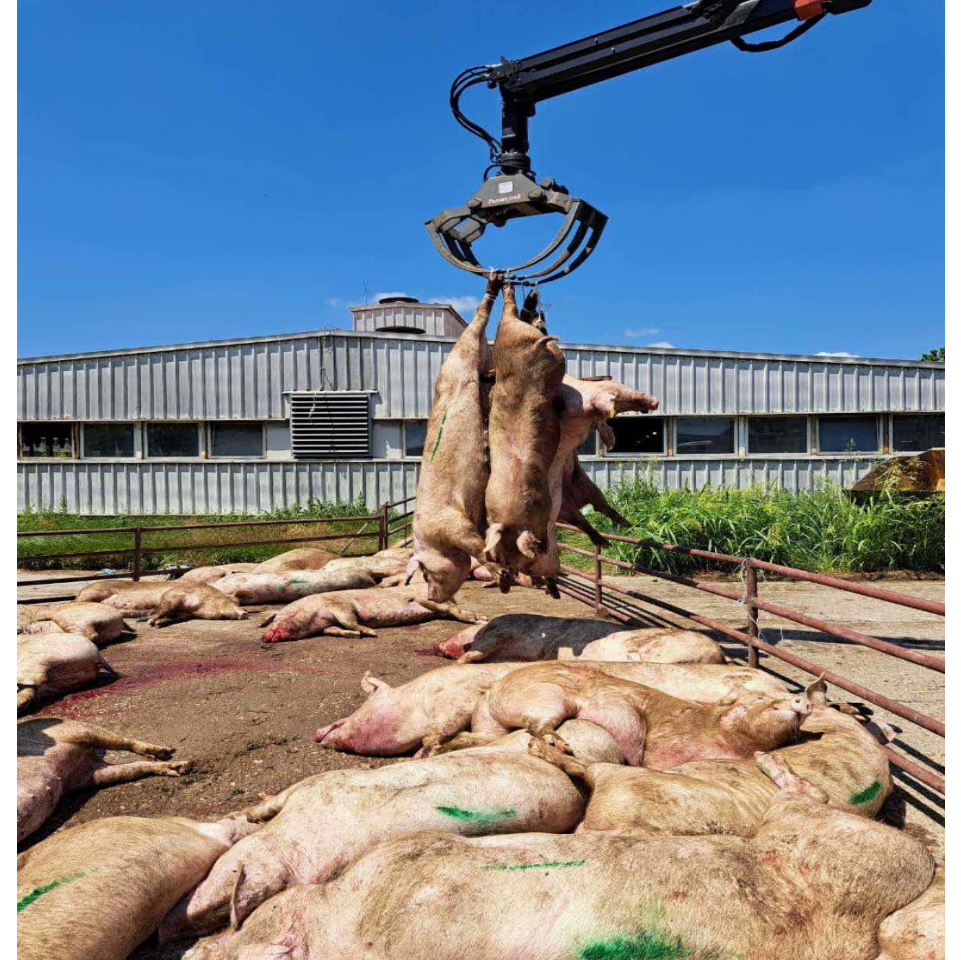
IMPLEMENTATION OF ORDERED MEASURES – euthanasia-stamping out



IMPLEMENTATION OF ORDERED MEASURES – pit tomb



IMPLEMENTATION OF ORDERED MEASURES – euthanasia



IMPLEMENTATION OF ORDERED MEASURES – euthanasia piglets



IMPLEMENTATION OF ORDERED MEASURES – EUTHANASIA



IMPLEMENTATION OF ORDERED MEASURES – euthanasia piglets



IMPLEMENTATION OF ORDERED MEASURES – safe disposal



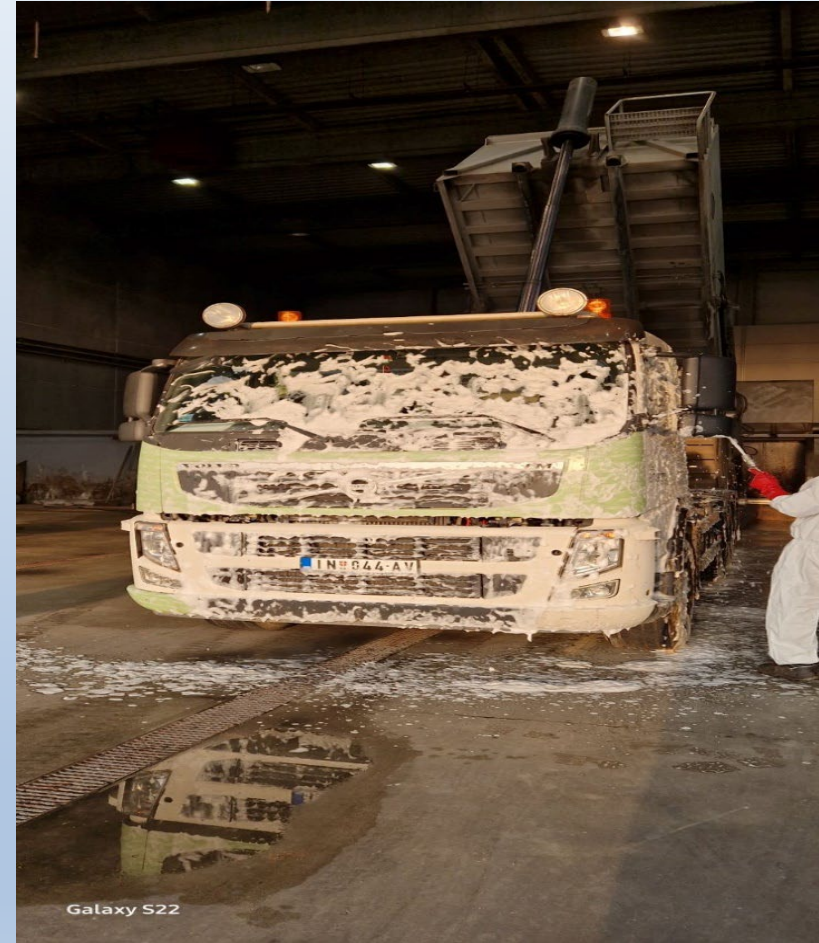
IMPLEMENTATION OF ORDERED MEASURES – disinfection



IMPLEMENTATION OF ORDERED MEASURES – disinfection



IMPLEMENTATION OF ORDERED MEASURES – disinfection



CHALLENGES

Presence of ASFV in domestic pigs in the country,
Early detection and rapid response
Presence of ASFV in wild boar population,
Effectiveness of surveillance
Ways of spread, human factor and mediation
Safe disposal of carcasses
Low level of biosecurity on rural farms/ backyards
High risk of virus introduction into commercial farms
Preparedness and organization/logistics at the local level
Available financial and human resources
Holding a continuous awareness campaign
Cooperation at all social/state levels
Financial support
Regional and international cooperation



**THANK YOU FOR YOUR
ATTENTION!**

