



FAO activities on African swine fever in the Balkans

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FAO Regional Office for Europe and Central Asia, Hungary*

Fourteenth Meeting of the Standing Group of Experts on African swine fever in Europe

Sofia, Bulgaria, 10-11 September 2019



TCP/ARM/3102 (NTE: 2009-12-31 00:00:00, LTU: AGAH) - Emergency Assistance for the Control of ASF	\$ 436,865
TCP/ARM/3205 (NTE: 2010-11-30 00:00:00, LTU: AGAH) - Emergency Assistance for the Control of ASF - Phase II of TCP/ARM/3102	\$ 60,689
TCP/AZE/3201 BABY01 (NTE: 2010-12-31 00:00:00, LTU: AGAH) - Assessment of ASF situation	\$ 8,244
TCP/BRA/0105 (NTE: 1981-06-15 00:00:00, LTU: n.a.) - Assistance for the Eradication of ASF	\$ 29,000
TCP/BRA/8801 (NTE: 1979-08-31 00:00:00, LTU: n.a.) - Support to the Eradication of ASF	\$ 135,000
TCP/BYE/3401 (NTE: 2015-12-31 00:00:00, LTU: AGAH) - Emergency assistance to control the ASF outbreak in Belarus	\$ 420,000
TCP/CPR/3501 (NTE: 2015-12-31 00:00:00, LTU: AGAH) - Developing Prevention and Control Strategies for ASF in China	\$ 380,000
TCP/DOM/8802 (NTE: 1979-08-31 00:00:00, LTU: n.a.) - ASF	\$ 137,500
TCP/GAM/0065 (NTE: 2002-07-31 00:00:00, LTU: AGAH) - Emergency Eradication of ASF and Enhanc. of Logistical and Technical Capacities-Dept. of Livestock Serv.	\$ 13,394
TCP/GAM/9065 (NTE: 2001-05-31 00:00:00, LTU: AGAH) - Emergency Eradication of ASF and Enhanc. of Logistical and Technical Capacities-Dept. of Livestock Serv. (recoded from TCP/GAM/0065)	\$ 200,547
TCP/GEO/3103 (NTE: 2009-12-31 00:00:00, LTU: AGAH) - Emergency Assistance for the Control of ASF	\$ 404,884
TCP/GEO/3202 (NTE: 2011-12-31 00:00:00, LTU: AGAH) - Emergency assistance for the control of ASF - Phase II of TCP/GEO/3103	\$ 89,220
TCP/GHA/8925 (NTE: 2001-08-01 00:00:00, LTU: AGAH) - Emergency Assistance to Eradicate ASF from Ghana	\$ 265,284
TCP/KEN/6612 (NTE: 1998-05-01 00:00:00, LTU: AGA) - Strengthening the Laboratory Diagnosis of ASF	\$ 160,000
TCP/MAT/8801 (NTE: 1978-12-31 00:00:00, LTU: AGA) - Emergency Assistance to Control ASF	\$ 80,000
TCP/MOZ/3102 (NTE: 2008-10-31 00:00:00, LTU: AGAH) - Assistance to control ASF	\$ 256,000
TCP/MOZ/4553 (NTE: 1997-09-01 00:00:00, LTU: DDFA) - Control of ASF	\$ 212,500
TCP/RAF/3503 (NTE: 2016-01-31 00:00:00, LTU: RAF) - Finalization of the Regional Strategy and development of a Regional Control Program for ASF in Africa	\$ 112,000
TCP/RAF/7822 (NTE: 1999-09-01 00:00:00, LTU: AGA) - Enhancing Prevention Capacities for Emergency Intervention Against ASF in W. Africa	\$ 388,690
TCP/THA/4406 (NTE: 1985-09-01 00:00:00, LTU: AGA) - Training in Laboratory Diagnosis of ASF	\$ 29,010
TCP/UGA/2906 (NTE: 2005-02-28 00:00:00, LTU: AGAH) - Emergency Assistance to Control ASF Outbreak	\$ 343,073
TCP/UKR/3402 (NTE: 2015-10-30 00:00:00, LTU: AGA) - Capacity development in early detection and response to ASF in Ukraine	\$ 258,000
TF	
OSRO/GLO/201/USA (NTE: 2014-03-31 00:00:00, LTU: AGAHD) - Control of Transboundary Animal Diseases in Africa and a Global Alliance to Combat ASF	\$ 308,949
OSRO/GLO/XXX/USA (NTE: -, LTU: AGAHD) - FAO-USDA collaboration in ASF control and prevention ? Phase I: The creation of a global alliance, starting in Eastern Europe	\$ 421,000
TF/GCP	
GCP /GLO/405/EC (NTE: 2015-09-30 00:00:00, LTU: AGAH) - ASFORCE Targeted research effort on ASF	\$ 109,522
GCP /RLA/071/ITA (NTE: 1995-03-01 00:00:00, LTU: AGAH) - Prevention of ASF and Other Diseases	\$ 4,752,762
TF/UTF	
UTF /MAT/006/MAT (NTE: 1996-08-31 00:00:00, LTU: AGAH) - Eradication of ASF and Restocking Pig Farms	\$ 772,460



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Dissemination, awareness & publications



Early warnings and assessments:

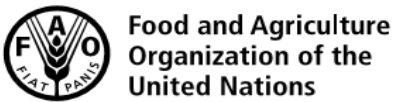


- 2007 - ASF in Georgia - http://www.fao.org/docs/eims/upload/230205/EW_ASF_Georgia_Jun07.pdf
 - 2008 - ASF in the Caucasus - <ftp://ftp.fao.org/docrep/fao/011/aj214e/aj214e00.pdf>
 - 2009 - ASF spread in the Russian Federation and the risk for the region <ftp://ftp.fao.org/docrep/fao/012/ak718e/ak718e00.pdf>
 - 2010 - FAO takes a close look at the threat of ASF introduction into Eastern Europe <http://www.fao.org/docrep/013/i1958e/i1958e00.pdf>
 - 2012 - ASF recent developments - timely updates <http://www.fao.org/docrep/016/ap372e/ap372e.pdf>
 - 2013 - ASF in the Russian Federation: risk factors for Europe and beyond <http://www.fao.org/docrep/018/aq240e/aq240e.pdf>
-

- In October 2018 and again in February 2019, FAO Chief Veterinary Officer sent a message to CVOs in the region and throughout the world encouraging preparedness and vigilance [[reference](#)].



Risk Assessment - Threat to China



March 2018

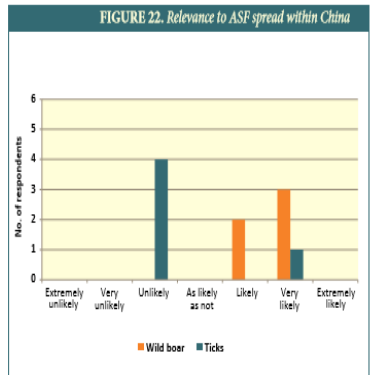
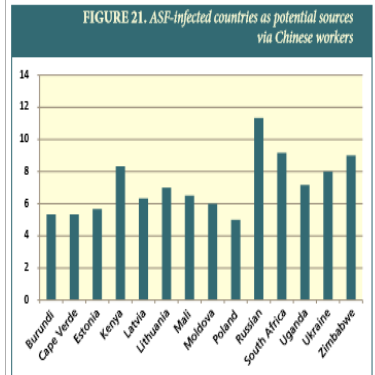
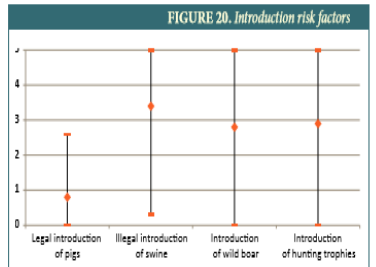
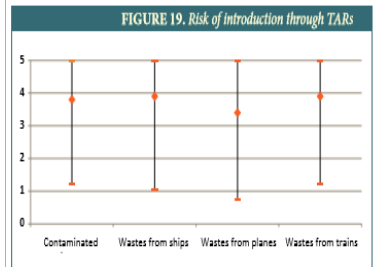
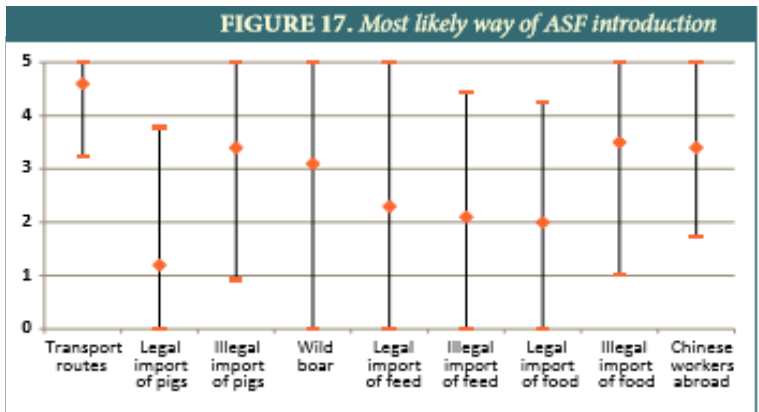


AFRICAN SWINE FEVER THREATENS PEOPLE'S REPUBLIC OF CHINA

A rapid risk assessment of ASF introduction

SUMMARY

- In March 2017, ASF was reported in Irkutsk, Russian Federation, thousands of kilometres away from previously reported outbreaks and at approximately 1 000 km from the border with China. Entry of ASF into China would have devastating consequences for animal health, food safety, and food security, and raise the possibility of further spread to Southeast Asia including the Korean Peninsula and Japan.
- The FAO rapid risk-assessment framework and methodology was discussed with swine disease experts attending the Second Regional Workshop on Swine Disease Control in Asia (China Workshop, 2017).
- The experts participating in this rapid risk assessment considered transport-associated routes (TARs) as most relevant pathways of ASF introduction into China, followed by illegal imports of food and by Chinese workers working abroad.
- China's northeastern region (Heilongjiang province) is where ASF is most likely to be introduced, followed by Inner Mongolia.
- Wild boar population density is the most relevant factor in the spread of the disease.
- The most likely regions for ASF spread are the northeast (Heilongjiang), followed by the central eastern area (Henan, Shanxi, Ammu, and Hubbei) and the southeast (Hunan). Surveillance for swine diseases in this region should be heightened.
- ASF is most likely to persist and become endemic due to the presence of wild boar populations interacting with susceptible domestic species, and lack of Chinese swine



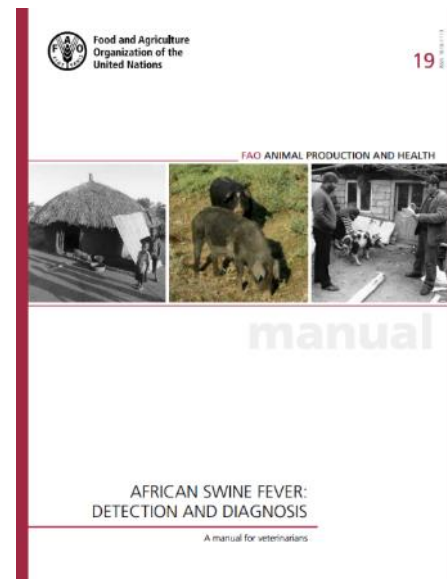
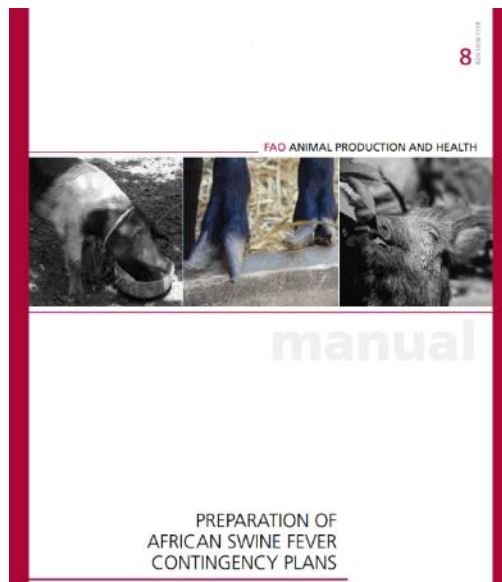
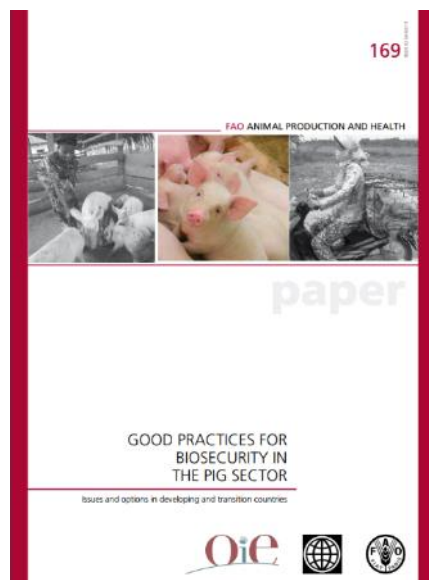


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Manuals

- **Good practices for biosecurity in the pig sector** (EN, FR, SP, RU)
<http://www.fao.org/docrep/012/i1435e/i1435e00.pdf>
- **Preparation of ASF contingency plans** (EN, FR, SP, RU, GEO, ARM)
<ftp://ftp.fao.org/docrep/fao/012/i1196e/i1196e00.pdf>
- **Recognizing ASF - A Field manual** (AL, EN, MK, RU, CH, SR, LT)
<http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/>





GF_TADs Manual on African Swine Fever in wild boar – ecology and biosecurity

- Technical, but practical
- Compendium of information about hunting management, biosecurity and wild boar carcass disposal
- Briefly describes range of practical management and biosecurity measures or interventions.
- Living document,
- <http://www.fao.org/3/ca5987en/ca5987en.pdf>



Food and Agriculture
Organization of the
United Nations



OIE
WORLD ORGANISATION
FOR ANIMAL HEALTH



From 2014 onwards
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African swine fever in wild boar
ecology and biosecurity





On carcass management

- Carcass management for small and medium scale livestock farms – Practical considerations
- English, French, Romanian, Russian, Serbian and Ukrainian, <http://www.fao.org/documents/card/en/c/CA2073EN>





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ASF Resource website

Agriculture and Consumer Protection Department
Animal Production and Health

FOOD AND AGRICULTURE ORGANIZATION
OF THE UNITED NATIONS
for a world without hunger



HOME THEMES PROGRAMMES/PROJECTS PARTNERS RESOURCES



PROGRAMMES/PROJECTS

Emergency Prevention System for Animal Health (EMPRES-AH)

Transboundary Animal Diseases (TADs)

African swine fever (ASF)

ASF situation update

Virology

FAO recommendations

FAO actions

Media releases

Documents

Links

African Swine Fever (ASF)



Latest news

11/10/18 **FAO works to better understand backyard pig sector, key in the fight against swine fever**
(FAO Regional Office for Europe and Central Asia)

07/09/18 **Asian countries warned that deadly African Swine Fever is 'here to stay' – utmost diligence required to avoid major damage to food security and livelihoods**
(FAO Regional Office for Asia and the Pacific)

FAO guidelines

African swine fever (ASF) detection and diagnosis. A manual for veterinarians
(2017)

A rapid risk assessment of ASF introduction into China
(March 2018)

Training on ASF management in wild boar - presentations of the training in two languages
EN, RU (2017)

The global platform for African swine fever and other important diseases of swine
(2013)

Good practices for biosecurity in the pig sector

<http://www.fao.org/ag/againfo/programmes/en/empres/ASF/index.html>



Mailing list on ASF (also LSD)

To be added, email me at: daniel.beltranalcrudo@fao.org

2nd Update on lumpy skin disease activities at FAO - Message (HTML)

FILE MESSAGE

Record Search Type
FAO Registry

Delete

Reply
Reply All
Forward

Delete

Respond

Quick Steps

Move to: ?
To Manager
Team Email

Move

Assign Policy

Mark Unread

Categorize

Follow Up

Editing

Zoom

Wed 3/7/2018 5:58 PM

BeltranAlcrudo, Daniel (REUT)

2nd Update on lumpy skin disease activities at FAO

To

Bcc Raizman, Eran (AGAH); Rozstalnyy, Andriy (REU); Cowan, SharonLee (REU); Szucs, Tibor (REUT); Plantek, Lea (REUT); 'tuppurainene@gmail.com'; 'Tsvyatko Alexandrov'; 'BROGLIA Alessandro'; 'CORTINAS ABRAHANTES José'; 'Nadège Leboucq'; 'Tsviatko Alexandrov'; 'Kris De Clercq'; 'Burkhard Bauer'; 'Alberto Oscar Allepez Palau'; 'Jordi Casal Fàbrega'; 'LAMIEN, Charles Euloge'; 'CATTOLI, Giovanni'; 'I.Naletoski@iaea.org'; 'edi.ferro@bujgesia.gov.al'; Kipi, Arben (FAOAL); 'Ledi Pite'; Chadikovska, Lidija (FAOMK); 'Valdet.Gjinovci@rks-gov.net'; 'vesna.dakovic@mpr.gov.me'; 'budimir.plavsic@minpolj.gov.rs';

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Dear Colleagues,

We would like to update you about the new FAO initiatives/news since the January 2018 update (see below). Please click in the hyperlinks for further information:

- FAO has started a **Technical Cooperation Project (TCP)** to address preparedness for LSD in Belarus, Moldova and Ukraine. Activities are expected to start in the coming months;
- FAO has **shipped copies of the LSD Manual** to countries in the Balkans. Additional copies will be shipped to Central Asian and Eastern Europe at risk countries in the coming days;
- A **manual on RVF surveillance** is now available on-line. Rift Valley fever may be the next cattle disease following the steps of LSD into the region;
- FAO organized a **Training on participatory epidemiology principles and techniques in Georgia** applied to ruminants between September and December 2018, and developed a ruminant surveillance system, which integrates participatory disease surveillance and current on-going surveillance activities.

Within the Joint FAO/IAEA program, the following activities have been conducted:



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Research



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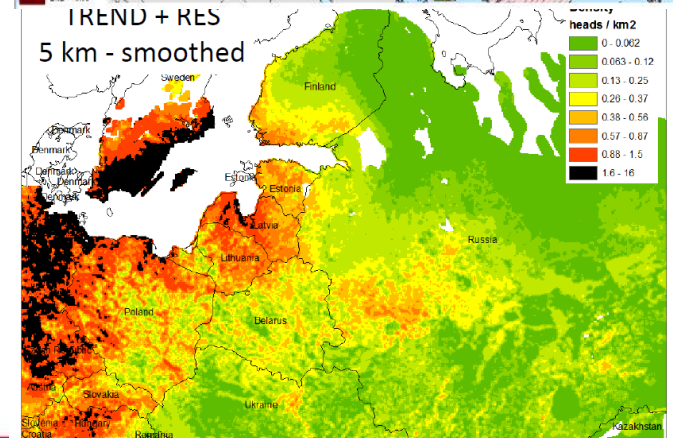
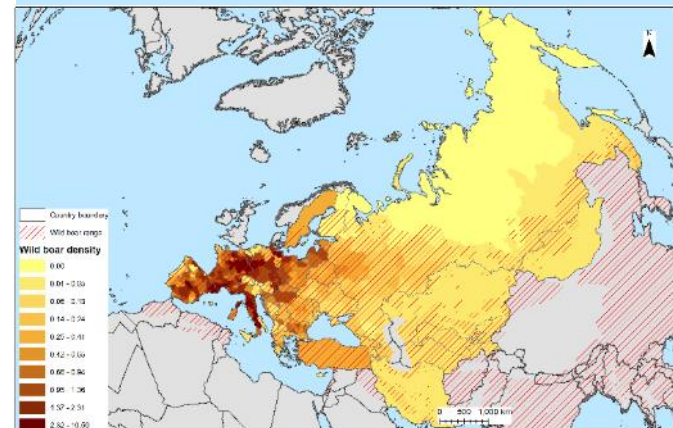
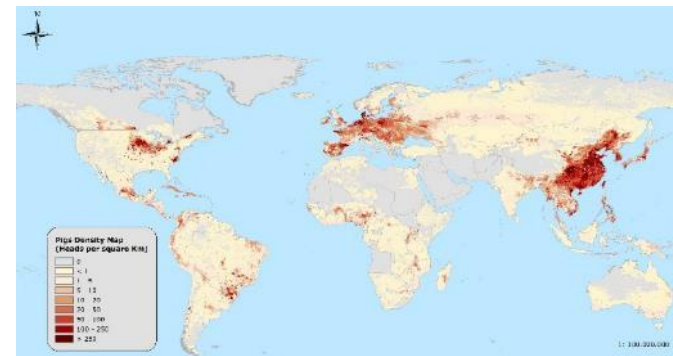
Host population mapping/modelling

Wild boar

- Wild boar distribution range and densities
- Model now available for the whole of Europe and North Eurasia (5 km resolution)

Domestic pigs

- Low biosecurity and high commercial sectors





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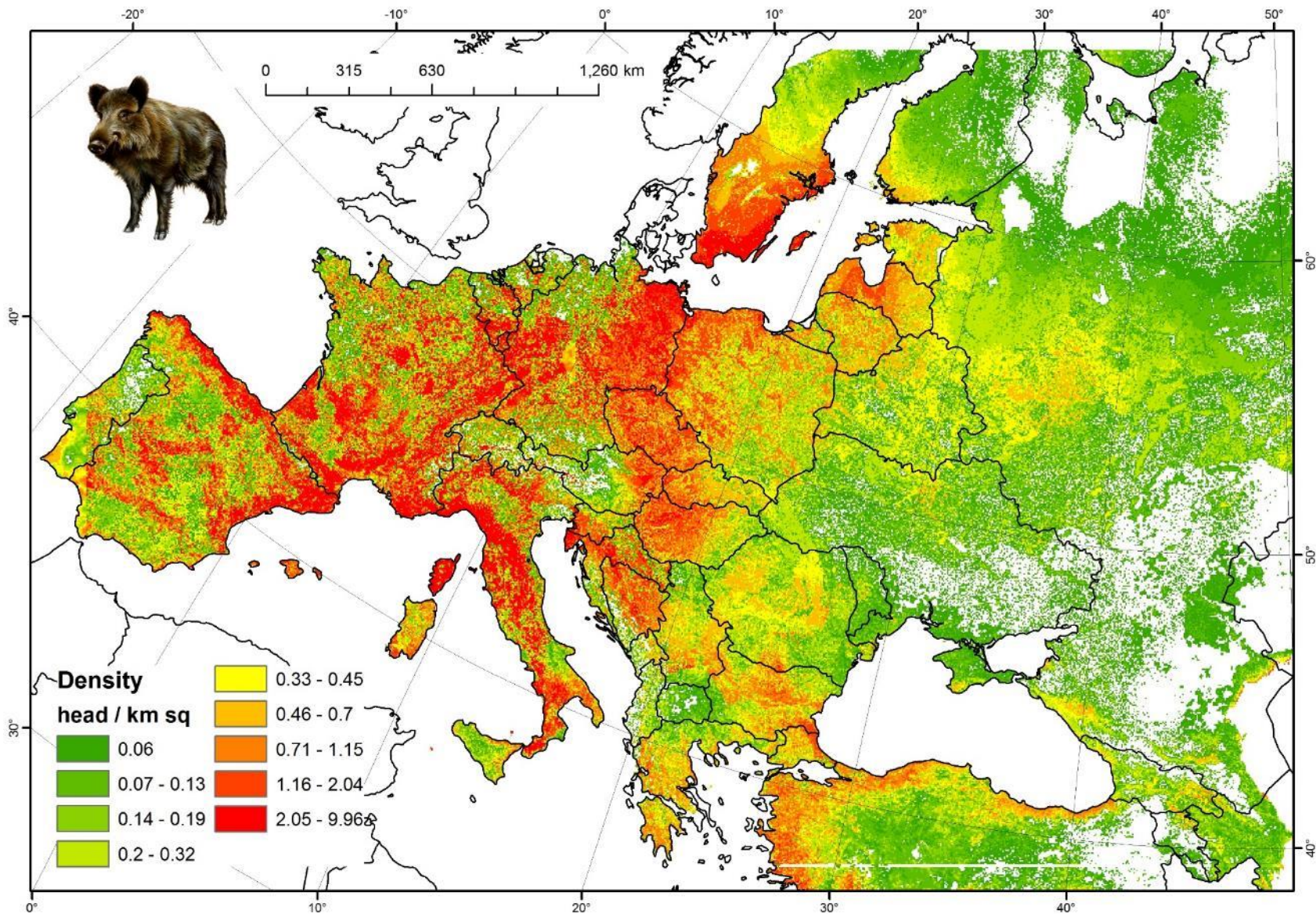


- Pittiglio C, Khomenko S, Beltrán-Alcrudo D. 2018. [Wild boar mapping using population-density statistics: from polygons to high resolution raster maps](#). *PloS one*. 2018 May 16;13(5):e0193295.
-

- Disaggregate and map wild boar population-density statistics to produce high resolution maps
- Using average bioclimatic and environmental variables for suitable habitat by admin unit
- From spatially heterogeneous administrative units (polygons) to high resolution raster maps (5 km)

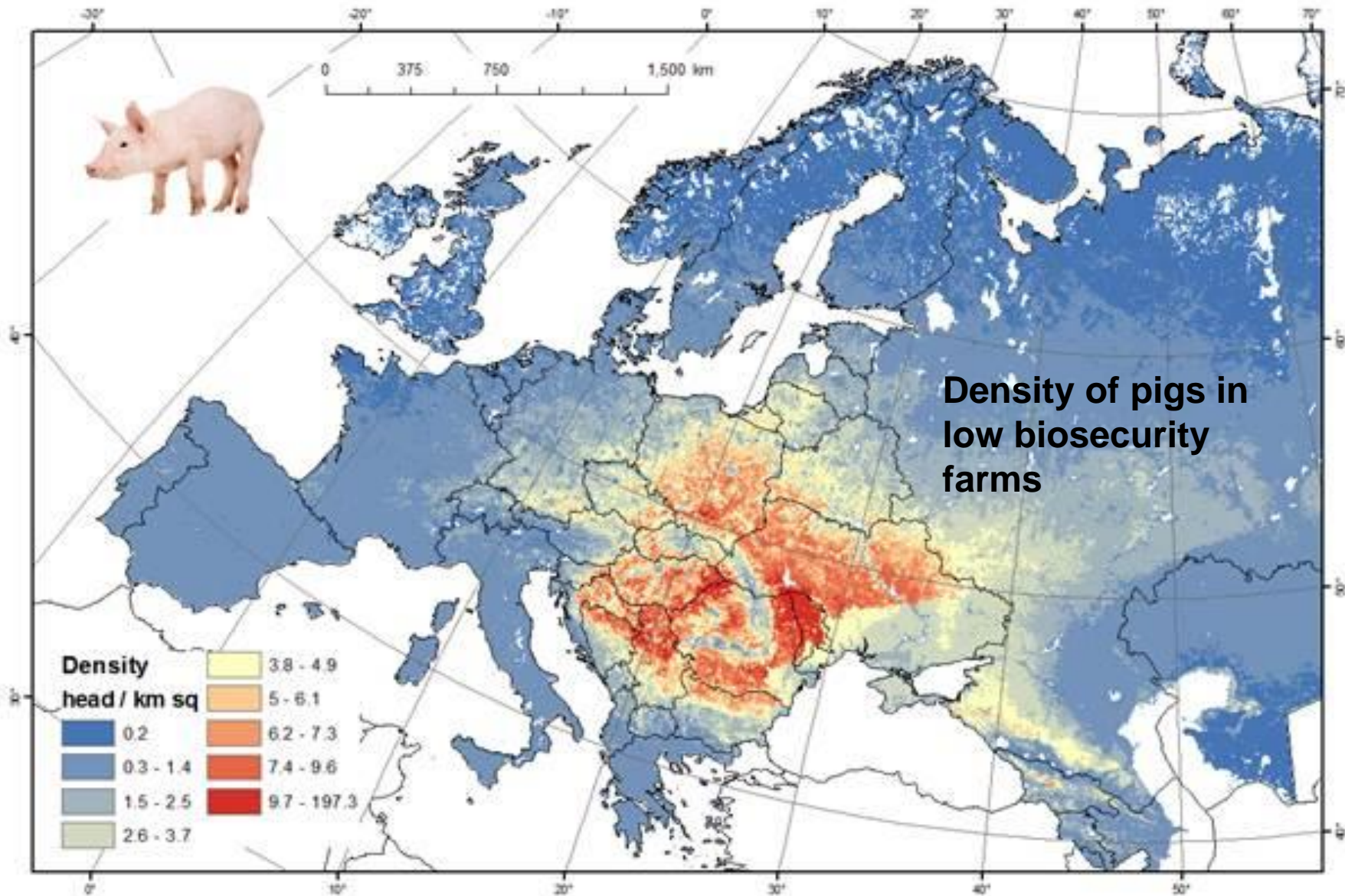


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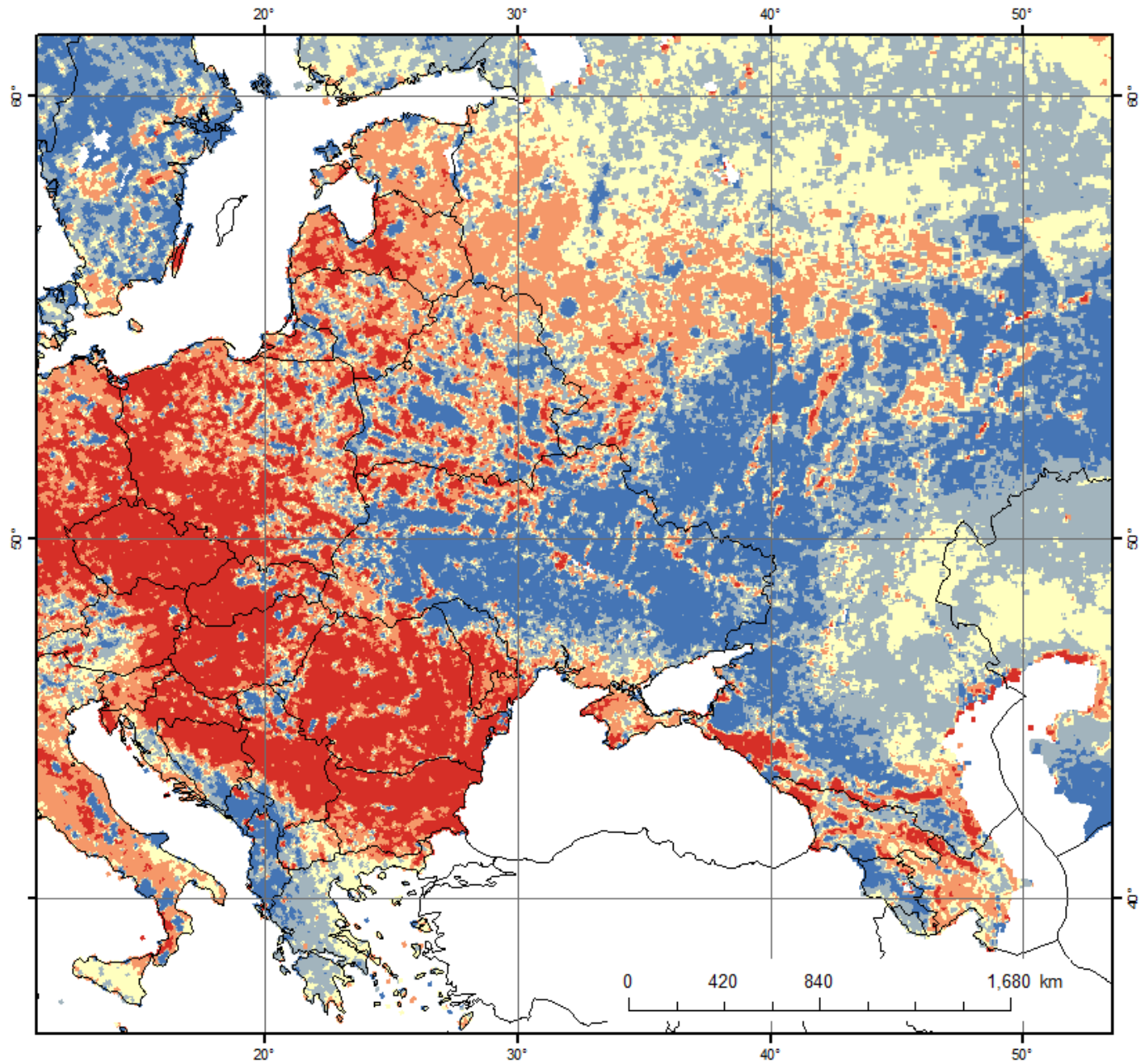
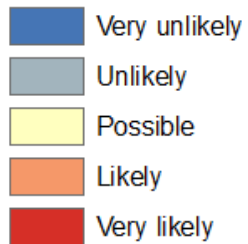


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**WB/BY pig interface
probability**





Technical Cooperation programs (TCPs)

Finalized:

- National TCPs: Georgia, Armenia, China, Ukraine, Belarus
- TCPf: Moldova (2016-17)

Ongoing:

- Emergency Regional TCP in the Balkans (2018-2020)
- Regional TCP in South-East Asia
- TCPf Kosovo* (2019-2021)

* As per United Nations Security Council resolution 1244



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Emergency Technical cooperation project in the Balkans

- **Target countries:** Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia
- Plus a parallel project with the same objectives in Kosovo*
- **Objective:** Increase prevention and preparedness
- **Timeline:** Nov 2018 - Nov 2020 (24 months)
- **There is room for flexibility**



Inception workshop

(Belgrade, 18-21 March 2019)

- Major objectives:
 - To present the project objectives, outputs and activities
 - To discuss and fine-tune the project activities and timeline, in synergy with ongoing activities at country level
 - To provide training on key aspects of ASF prevention, preparedness and control
 - To establish a baseline in terms of preparedness and risk pathways:
 - ASF preparedness checklist to guide discussions on preparedness and gaps.
 - Rough assessment of the risk of introduction of ASF into each country through each of the major pathways



Emergency Preparedness Checklist for African swine fever

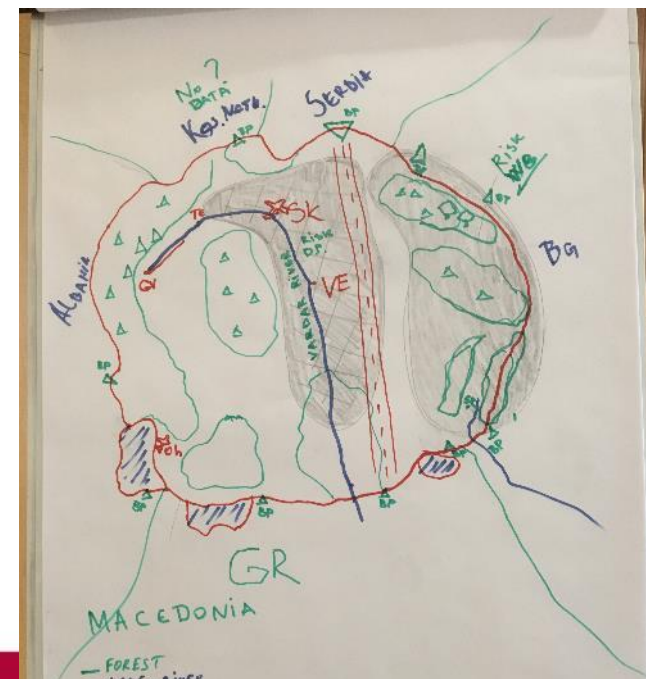
For each statement, indicate the status: Yes (green), In progress/Ongoing (yellow), No (red), Unknown (white)

List the gaps, the necessary actions to undertake, the responsible office(s) to follow up the action and provide a deadline for completion.

	Does your country have the following preparedness measures in place to manage the disease?	Status	Gaps	Actions	Responsible office(s)	Deadline
1	Requirement for veterinarians, paraprofessionals, farmers, and others to report suspected cases in place.	Neni 19 I ligjit per sh/veterinary Urdheri nr335, date 3.12.2012. Per miratimin e modelit te formularit te lajmerimit te semundjeve ne kafshe			Fermeret, Veterineret privat, veterineret zyrtare dhe AKompetent	
2	Protocol and framework support (such as a reporting hotline/website) for reporting suspected cases from the field to the CVO in place.	Formulari A dhe B i raportimit te semundjeve Sitemi alert i Raportimit ne Ruda. Nr telefoni jeshil per informimin e AK.			Fermeret, Veterineret privat, veterineret zyrtare, operoret e sitemit "RUDA" dhe Autoriteti Kompetent.	
3	Local animal health officers stationed throughout the country to respond to suspected cases or to outbreaks.	Agjensite Rajonale te sherbimit veterinar dhe mbrojtjes se bimeve mbulojne gjithë territorin e vendit.			Sherbimi veterinar rajonal, Veterineret e autorizuar.	
4	Framework and mechanism for rumor tracking in place.	Ligji nr.10465, date 29.09.2011 "Per sherbimin veterinar ne RSH.			Autoriteti kompetent ARSH&MB	
5	National surveillance and laboratory framework to collect and package samples for analysis in place.					
6	National incident management system and framework in place to respond (To include rapid response teams, incident command, and incident coordination through an animal health emergency operations center).	Plani Kontigjences per kontrollin e MKD e MAD				

No	Questions	Weight	Criteria	Answer	Risk level
1	Does your country officially import live pigs or live wild boar from currently infected countries?	1	Yes = 1 No = 0	0	Low
2	Is there a value chain of live pigs study/available? (this question will not be considered for risk profiling)		Yes No	0	no zones accepted in infected countries. PI
3	How many pigs or wild boar have been officially imported during the past year from the infected countries? (this question will not be considered for risk profiling)		Value	0	
4	Is the health status of the source farms/imported pigs known and acceptable?	1	Yes = 0 No = 1	0	
5	Which quarantine measures are applied in your country for imported pigs? - A. No quarantine - B. Quarantine < 7 days - C. Quarantine > 7 days or ASF laboratory testing	1	A = 1 B = 0.5 C = 0	0	
6	Are there veterinary inspectors who have been trained on ASF at border inspection points?	0.5	Yes = 0 No = 1	0	
7	Do the border inspection points have the capacity and infrastructure to test live pigs for ASF?	0.75	Y = 0 N = 1	1	

	SERBIA	Bosnia and Herzegovina	MACEDONIA	MONTENEGRO	ALBANIA
LIVE ANIMAL D.P.+WB	Green	Green	Green	Green	Green
NATURAL MOV. WILD BOAR	Pink	Yellow	Pink	Green	Green
Products	Pink	Pink	Yellow	Pink	Yellow
FOMITES	Green	Green	Green	Green	Green





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OUTPUT 1: Enhanced legal, regulatory preparedness and coordination for ASF at national level

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



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1.1: Assessment missions

Missions	Dates
Serbia	8 – 10 May 2019
Bosnia and Herzegovina	19 – 20 June 2019
Montenegro	10 – 11 September 2019
Kosovo*	18 September 2019
N. Macedonia	Week of 14 October 2019
Albania	TBD



- Assessing detection, prevention and preparedness of the competent authorities
- Risk assessment on entry and spread
- Recommendations for improvement (reports)



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OUTPUT 1: Enhanced legal, regulatory preparedness and coordination for ASF at national level

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

1.2 Simulation exercises on ASF to ensure appropriate emergency preparedness are organized



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OUTPUT 2: National veterinary service personnel trained in ASF detection, prevention and control

2.1 Laboratory training activities are organized



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OUTPUT 2: National veterinary service personnel trained in ASF detection, prevention and control

- 2.1 Laboratory training activities are organized
- 2.2 Epidemiology training activities are organized
- 2.3 Train-of-trainer programs for field veterinarians on ASF recognition are organized



2.3 Train-of-trainer programs

Missions	Dates	Participants
Bosnia and Herzegovina	18 June 2019	Bosnia and Herzegovina (5), Serbia (3) and Montenegro (3)
Kosovo*	17 September 2019	Albania (3), Kosovo* (5) and North Macedonia (4)

- One day intensive training of Core Trainers (by FLI)
 - Course assessment
 - Materials handed out to participants in Serbian & Albanian
- Core trainers to replicate in their countries





2.2 On-line Training Course

- Under development
- Material created by FAO & FLI experts
- Collaboration with EuFMD to convert materials to on-line content
- Pilot training course in English with 120 participants planned before end of the year
- Serbian translation and roll out of the course is planned after the pilot

MODULES

Brief Introduction to ASF (Module 1)

The disease in domestic pigs and wild boar (Module 2)

Laboratory diagnosis (Module 3) followed by joint discussion

Epidemiology and epidemiological investigation (Module 4)

Prevention and biosecurity (Module 5)

Response and Control (Module 6)

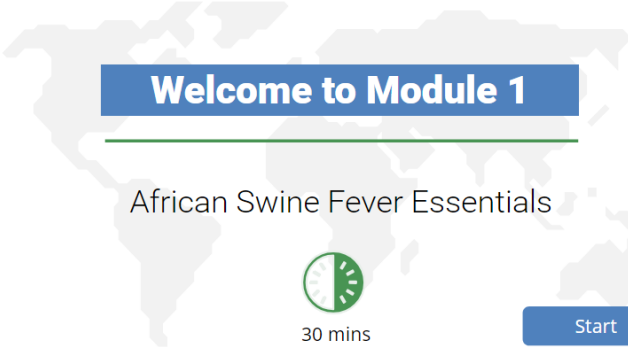
ASF in wild boar (Module 7)



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2.2 On-line Training Course



Welcome to Module 1

African Swine Fever Essentials


30 mins

Start

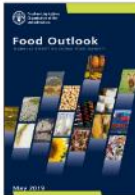
🏠
Module One: ASF Essentials
⏪ ⏩

The Impact of ASF

African swine fever has a severe impact both on global trade and local production, especially where the **pig sector** contributes significantly to the agriculture industry and where **pork meat** plays an important role in meat consumption.

African swine fever is already affecting the global food markets.

“ the world meat output is forecast to decline due to a fall in pig meat output, primarily in China...” ”



Click image to view report

“ soybean output is forecast to come to a halt in 2018/19 – largely due to a decline in China’s soymeal uptake ”


“ Feed use of maize in China has slowed considerably ”


🏠
Module One: ASF Essentials
⏪ ⏩


ASF Key Facts


African swine fever (ASF) is a contagious viral hemorrhagic disease that affects wild and domestic pigs.


Click on the images below to find out more:












The genotype II currently circulating in Europe and Asia is most often recognized in the acute form with an associated **mortality of up to 100 percent** and a case fatality of 90 percent.

🏠
Module One: ASF Essentials
⏪ ⏩

The importance of pig and pork value chains

A clear understanding of a country’s pork value chain is the first step to guide prevention and control of ASF!

- There can be a high variability in the nature of pig and pork value chains. These value chains will adapt quickly to the appearance of disease.
- It is important to understand current levels of ASF awareness and biosecurity amongst all stakeholders. Not just pig owners but also middlemen, butchers and live animal market managers
- The backyard sector’s behaviour should to be clearly understood, including both financial and cultural aspects



🏠
Module One: ASF Essentials
⏪ ⏩



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OUTPUT 2: National veterinary service personnel trained in ASF detection, prevention and control

- 2.1 Laboratory training activities are organized
- 2.2 Epidemiology training activities are organized
- 2.3 Train-of-trainer programs for field veterinarians on ASF recognition are organized
- 2.4 Workshops on wild boar management and hunting biosecurity are organized



2.4 Workshops on wild boar and hunting biosecurity

Missions	Dates
Serbia	24 May 2019
Montenegro	19 - 20 September 2019
Kosovo*	26 - 27 September 2019
N. Macedonia	Week of 14 October 2019
Bosnia and Herzegovina	TBD



- Strategic round table discussions with all stakeholders (vet services, competent authority on wild boar management/hunting, and hunters)
- Sharing experience managing ASF in wild boar
- Awareness raising for hunters and capacity building on hunting biosecurity
- Recommendations for improvement (reports)



Regional African Swine Fever (ASF) Wild Boar Management Workshop (Balkan-focused)

- Belgrade, Serbia, 21-23 May 2019
- Sponsored by the Czech Republic
- Participants:
 - state vet services from the Balkans, plus countries with ASF experience (Czech Republic, Georgia, Hungary, Lithuania, Russia and Ukraine)
 - agencies in charge of wild boar management, hunting
 - hunting associations
 - experts in wild boar biology or related fields
 - international agencies (OIE and EFSA)
- Objective: To improve participants knowledge and discuss in an open forum the most challenging issues faced when it comes to ASF prevention and control in wild boar and the best strategies to tackle them in the specific context of the Balkans.
- <http://www.fao.org/europe/events/detail-events/en/c/1194316/>



Regional African Swine Fever (ASF) Wild Boar Management Workshop

Theory (2 days) + Practice (1 day in a hunting ground)



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OUTPUT 3: Strengthened disease intelligence capacities for ASF

3.1 Risk on entry, spread and establishment of ASF is assessed

3.2 A cost-benefit analysis is performed

Plus a survey to profile husbandry, biosecurity and value chain is currently ongoing in North Macedonia

- Targeting pig farmers (commercial, family farms and backyard), live animal markets and hunters
- Through the veterinary Chamber of North Macedonia
- Electronic surveys (EpiCollect) available on request



EMPRES
EMERGENCY PREVENTION SYSTEM

OUTPUT 4: ASF awareness among all stakeholder levels created

- 4.1 Awareness and technical materials are developed and adapted to meet different stakeholder needs and also translated to local languages and disseminated



4.1 Awareness and technical materials are developed and adapted

- <http://www.fao.org/index.php?id=94206>
- Fully editable format (PowerPoint) that allows to quickly adapt, translate, add logos, change pictures, etc. when faced with an animal health emergency.
- The leaflets are now available in English, Bosnian, Bulgarian, Montenegrin, Serbian.
- Additional languages and formats (e.g. posters and videos) will be uploaded as they become available.

What can hunters do to prevent the spread of the disease?

In at risk areas, hunters should look out for dead or sick wild boar and notify immediately to [ENTER TELEPHONE NUMBER]. Each dead wild boar should be reported and ASF ruled out by laboratory diagnostic tests.

In affected areas, wild boar products, leftovers and trophies pose a significant risk of being infected. This is why all hunters are required to place particular emphasis on hygiene measures when hunting in affected areas:

- Do not leave any leftovers from the hunted wild boar in the forest.
- Avoid getting in contact with pigs after hunting a wild boar.
- Ensure that the clothes worn, tools and equipment used (e.g. knives, car) that may be contaminated by blood while hunting are cleaned and disinfected and don't get in contact with pigs.

What should people who raise pigs do to protect their pigs?

- Left-overs fed to pigs that may contain meat (i.e. swill feeding) should be boiled before.
- If you notice any clinical signs, including sudden death in your pigs, you should immediately report it to the [ENTER OFFICIAL NAME OF VETERINARY SERVICES].
- Pigs should be kept indoors all the time, not allowing them to come in contact with other pigs or wild boar.
- Buy your pigs from a trusted source and keep them separated from your animals during two weeks (quarantine).
- Avoid unnecessary visitors getting in contact with your pigs.

Is there a vaccine or treatment?

No vaccine. No effective treatment either.

Bringing back meat products from other countries can result in the spread of the disease

To prevent the incursion of ASF and other animal diseases, do not bring back home meat or meat products from other countries, particularly those infected with ASF.

Travelers should always make sure that food waste is only discarded in closely sealed waste containers where pigs and wild boar will have no access.

Go to <http://www.fao.org/3/a-i7228e.pdf> for additional information. [CHECK NEXT LINK IF YOU NEED THE MANUAL IN A DIFFERENT LANGUAGE: <http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/>]



Food and Agriculture Organization
of the United Nations

African swine fever

What is African Swine Fever (ASF)?

African swine fever (ASF) is a contagious viral disease of pigs and wild boar that causes severe economic losses to the pig sector. Originally restricted to Africa, it was introduced into Georgia in 2007, from where it spread westwards (reaching Eastern and Central Europe) and eastwards within Europe. The disease has now been reported in China, seriously threatening countries in East and Southeast Asia.

Which animals can be affected?

The ASF virus exclusively infects suids, e.g. pigs and wild boar.

Can humans be infected with the virus?

No.

What causes ASF?

The disease is caused by a virus that is very resistant and can survive for long periods, even months, in feces, meat products (frozen, salted and smoked or undercooked), and carcasses of dead animals. The virus, however, can be killed with several disinfectants such as 1% formaldehyde, 2% NaOH or paraphenylphenolic disinfectants.

How is the disease transmitted?

Wild boar and pigs can infect each other by direct contact, particularly when blood is present.

Healthy animals can also get infected when they consume undercooked pork products, either while scavenging or when fed uncooked swill. They can also become infected by feeding on infected pork or carcasses, or through contaminated tools and equipment (clothes, needles, vehicles, etc.).



Cyanosis (bluing) at the tips of ears

What are the clinical signs of the disease?

Infection can cause a wide range of clinical signs. Sick pigs usually die.

In the backyard sector, pigs show a lack of appetite followed by sudden death. Rarely other clinical signs are observed.

In commercial farms, you may also see depression, weight loss, hemorrhages in the skin (tips of ears, tail, legs, chest and abdomen), lameness and abortion in pregnant sows.

Clinical signs may be more difficult to see in wild boar because of their long dark hair.



Haemorrhagic lymph node



Bloody diarrhoea and distinct hyperaemic (red) areas on skin of neck, chest and extremities



Enlarged spleen

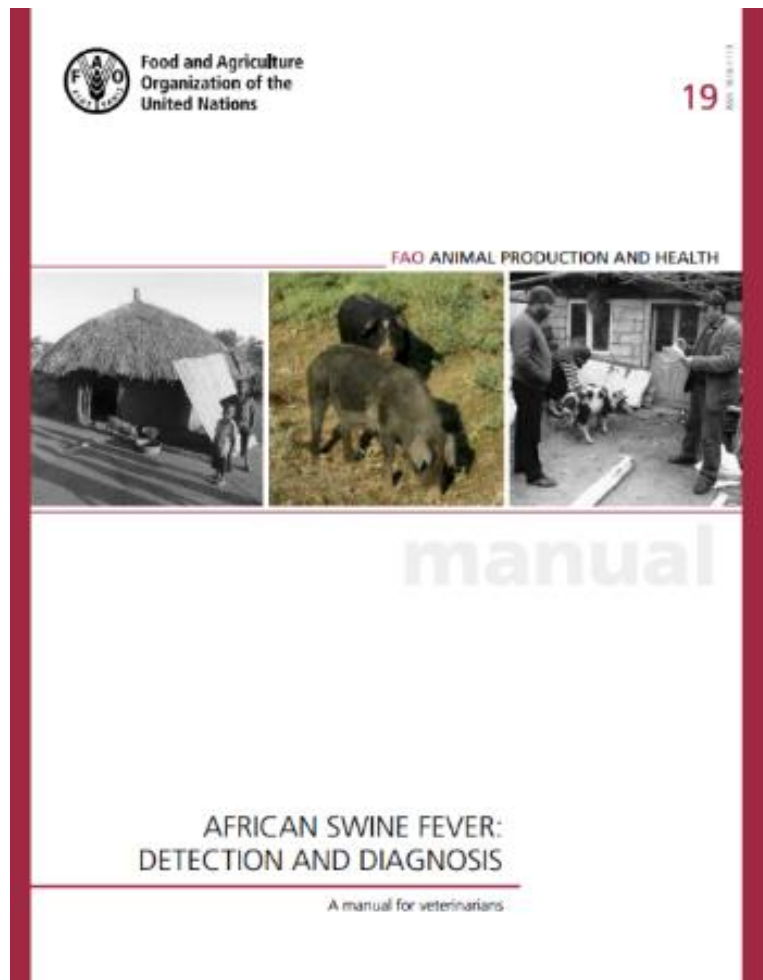


4.1. Awareness and technical materials are developed and adapted

- **Recognizing ASF - A Field manual**

<http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/>

- Translated to Albanian Macedonian and Serbian
- Copies printed and distributed to all Balkan countries





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EMERGENCY PREVENTION SYSTEM



OUTPUT 4: ASF awareness among all stakeholder levels created

- 4.1 Awareness and technical materials are developed and adapted to meet different stakeholder needs and also translated to local languages and disseminated
- 4.2 Stakeholder workshops are organized and awareness raising materials are distributed to participants



4.3 Stakeholder workshops: Biosecurity

Missions	Dates
Serbia	7 May 2019
Bosnia and Herzegovina	21 June 2019
Montenegro	12 September 2019
Kosovo*	19 September 2019
N. Macedonia	16 October 2019
Albania	TBD



- Focus on biosecurity and how to prevent entry
- Awareness raising for pig farmers and private veterinarians on ASF



Thanks for your attention