



Food and Agriculture
Organization of the
United Nations



Regional project (TCP) for ASF Preparedness in the Balkans

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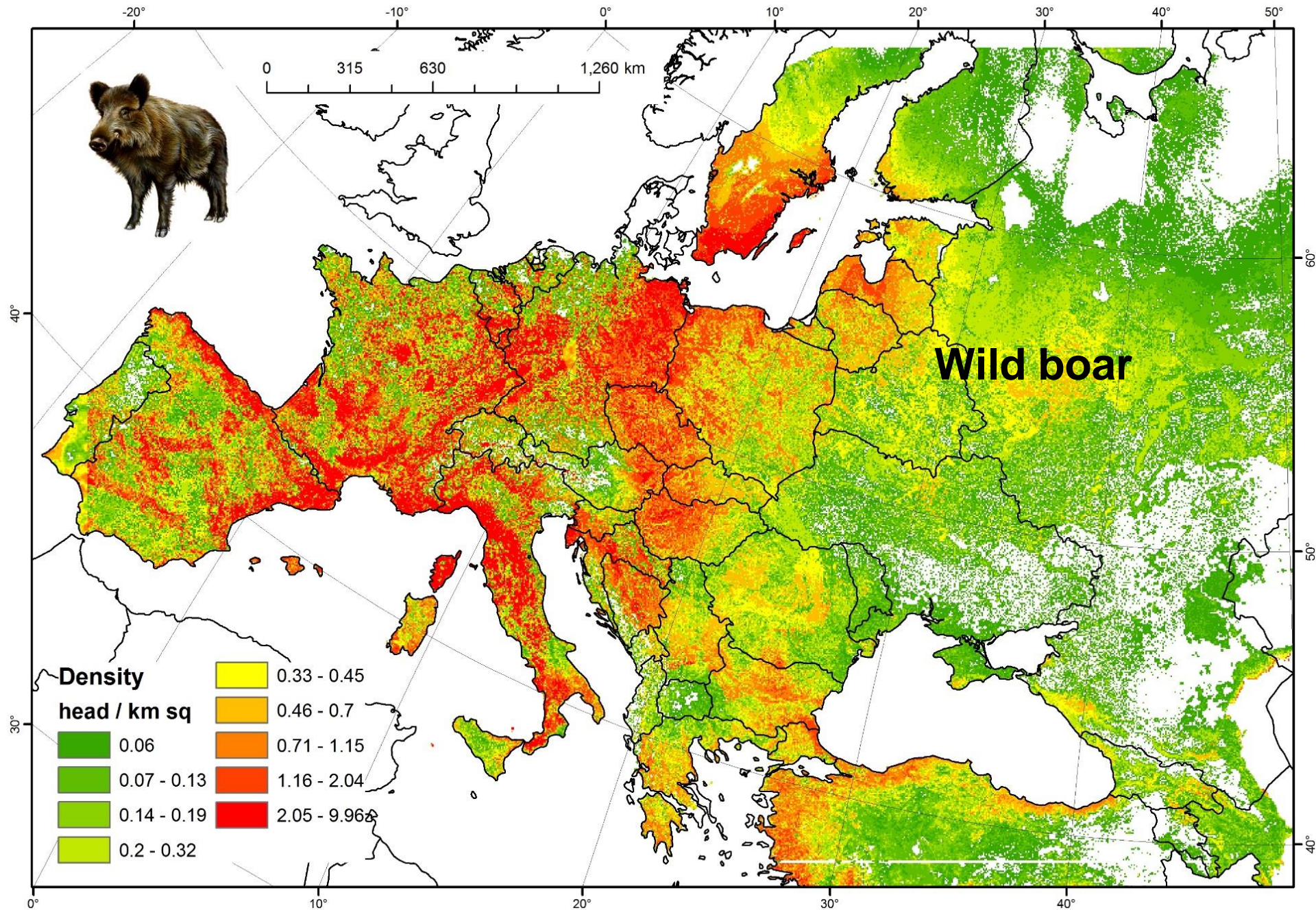
Food and Agriculture Organization, FAO

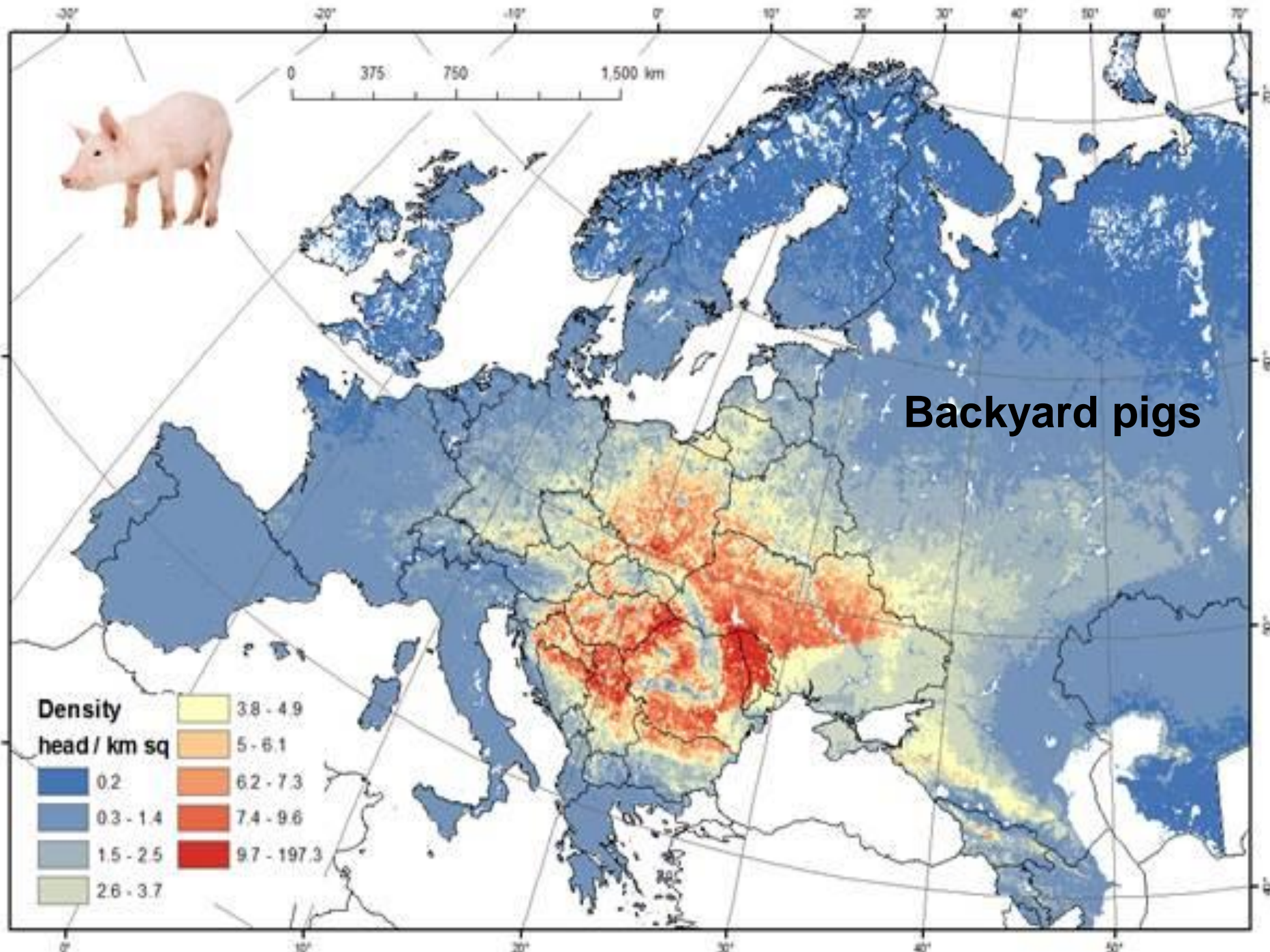
11th SGE ASF, Warsaw, 25 September 2018



Risk to the Balkans

- High and imminent → Essential to start in next 3-6 months
- Potential impact:
 - May spread rapidly due to the relatively dense wild boar population and highly prevalent backyard sector
 - Effects on rural livelihoods
 - Economic costs of disease control plus trade implications
- The Balkans have never been exposed to ASF, which implies:
 - Low awareness level among all stakeholders
 - Low technical knowledge of the disease
 - Absence of contingency/surveillance plans in place
- **Awareness, Prevention & Preparedness** to allow prompt detection and control are KEY





Backyard pigs

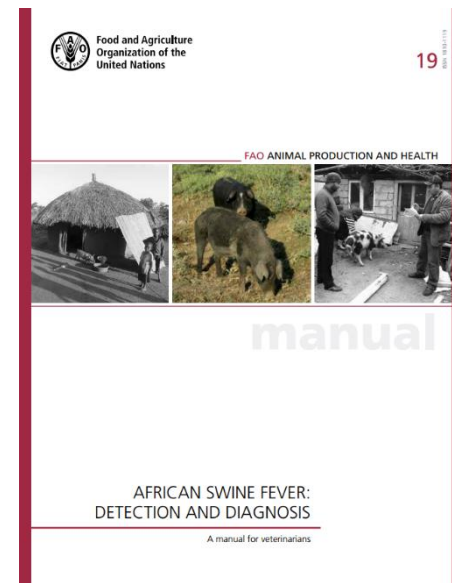
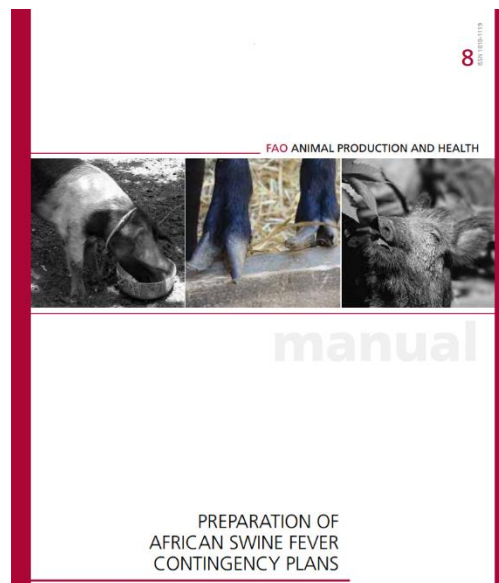
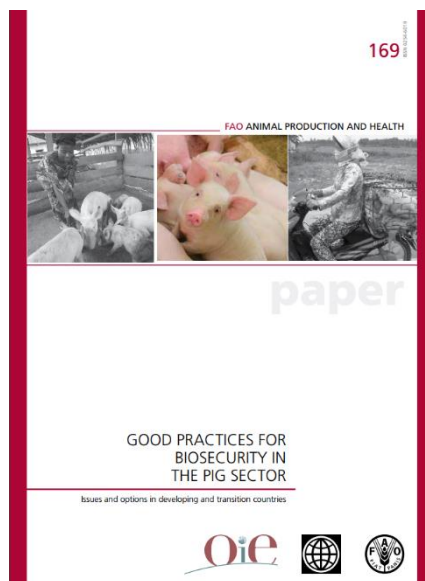


Recent FAO activities relevant to the Balkans



Manuals

- **ASF Detection and diagnosis** (EN, RU, **Chinese, Serbian**)
<http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/>
- **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>
- **GFTADs Handbook on wild boar management**





Šta mogu lovci da urade i doprinesu sprječavanju širenja bolesti?

U različnim područjima, lovci treba da obrate pažnju na mrtve ili bolesne divlje svinje i odmah obavijeste o tome. Svaki slučaj uginula divlje svinje mora biti prijavljen i u laboratoriji primjenom odgovarajućih dijagnostičkih ispitivanja isključena pojava afričke kuge svinja. U područjima pogodnim za lov kugom svinja značajan itak od daljeg širenja infekcije predstavljaju proizvodi od divljih svinja i trofeji. Zbog toga su svi lovci dužni da posebnu pažnju obrate na higijenske mjere prilikom lova u pogodnim područjima:

- Ne ostavljajte ostatke ulovljene divlje svinje u šumi.
- Izbjegavajte kontakt sa domaćim svinjama nakon lova na divlje svinje.
- Uvjerite se da su odjeća i oprema (npr. noževi, auto) koji mogu biti zagađeni krvlju divljih svinja, dobro očišćeni i dezinficirani da neće svinje doći u kontakt sa njima.

Šta bi države/ vlasnici trebali da urade u cilju zaštite svojih svinja?

Ostatke hrane koji sadrže meso (na primjer pomije) ne treba davati svinjama, a u slučaju upotrebe obavezno ih treba prokuhati.

- Ako primjetite bilo kakve kliničke znake bolesti, uključujući iznenadno uginuće svinja, odmah ih prijavite nadležnoj veterinarskoj službi.
- Svinje treba stalno držati u zatvorenom prostoru, ne dozvoljavajući im da stupe u kontakt sa drugim svinjama ili divljim svinjama.
- Kupuje svinje od povjerenog izvora i držite ih odvojene od vaških životinja tokom dvije sedmice (karantina).
- Izbjegavajte nepotrebne kontakte posjetiocima vašim svinjama.

Afrička kuga svinja prijeti Balkanu

Šta je afrička kuga svinja (ASF)?

Afrička kuga svinja (ASF) je zarazna virusna bolest svinja i divljih svinja koja prouzrokuje teške ekonomske gubitke u sektoru proizvodnje svinja. Prvo otkrivena na kontinentu u Africi, a 2007. godine ušla je u Gruziju, odakle se razirila na zapad (obuhvatajući Istočnu i Centralnu Evropu) i na Istok. Pojava bolesti je prijavljena u Mađarskoj i Rumuniji, što ozbiljno ugrožava države Balkana.

Kako se prenosi bolest?

Divlje svinje i svinje se mogu međusobno inficirati direktnim kontaktom, posebno kada je prisutna i krv. Zdrave životinje takođe se mogu inficirati konzumiranjem nedovoljno termički obrađenih proizvoda sa svinjskim mesom, bilo stvrahanjem ili ishranom nekuhanim pomijama. Do njihove infekcije može doći i nakon ishrane inficiranim mesom ili leševa, ili putem kontaminiranog alata i opreme (odjeća, igle, vozila, itd.).



Gijana: plavo ljubičasta palja na vratima divlje

Šta iz drugih zemalja prijeti?

Čak i ako kuga svinja kao i ostale mesne ili mesne proizvode ne iz onih zaraženih porajru baciti ostatke svoje kojima svinje i divlje svinje

Lojal

Koje vrste životinje mogu oboljeti?

Virus afričke kuge svinja isključivo može izazvati infekciju domaćih i divljih svinja.

Da li ljudi mogu biti inficirani virusom?

Ne.

Ko je uzočnik afričke kuge svinja?

Bolest je uzrokovana virusom koji je veoma otporan i može preživjeti duži vremenski period u spoljašnjoj sredini, čak i mjesecima, u fecesu, mesnim proizvodima (parmrznutim, soljenim i dimljenim ili nedovoljno termički obrađenim) i leševima uginulih životinja. Međutim, virus efikasno uništavaju dezinfekciona sredstva, kao što je 1% formaldehid, 2% NaOH ili paraformni fenol.

Koji su klinički znaci bolesti?

Infekcija može proći sa različitim kliničkim znacima bolesti. Oboljele svinje obično umiru. Na malim gazdinstvima može se uočiti da svinje gube apetit i brzo iznenada uginu. Rijetko se pojavljuju drugi klinički znaci. Na većim komercijalnim farmama, može se uočiti potištenost životinja, gubitak tjelesne težine, krvarenja na koži (vrhovi ušiju, rep, noge, grudi i stomak), teško kretanje i pobačaji kod suprasnih kramača. Klinički znak se teže uočavaju kod divljih svinja usljed njihovih dugačkih tamnih čekinja.



Krivišnja: brava



Krivišnja: brava palja na koži vrata, grudi i nozi



Uvećana slika



Capacity building efforts

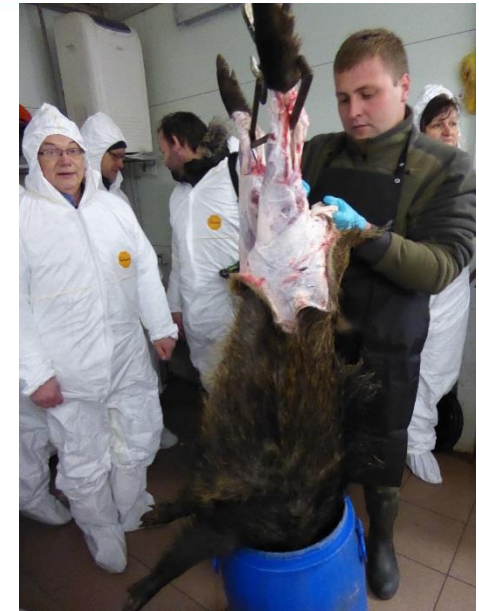
- **Epidemiology Trainings:** Ukraine: (May 2009; > 50 participants); and Belarus (May 2009; > 20 participants)
- **Lab Trainings:** Ukraine (March 2010; 16 diagnosticians from Belarus, Moldova and Ukraine); and Kazakhstan (with CISA-INIA; Sept 2013; 10 participants)
- **Collection & identification of *Ornithodoros* ticks:** Georgia, June 2013 (with CIRAD): 10 participants from Georgia (2), Armenia (1), Kazakhstan (1), Russia (2), Bulgaria (2), and Ukraine (1)
- **Epi & Diagnosis:** Italy, Nov 2013 (with IZS-UM): 9 participants from Georgia (1), Armenia (2), Belarus (2), Russia (1), Moldova (1), Ukraine (2) and Serbia (1)
- **Contribute to EC's BTSF GF-TADS workshops**





Training on ASF management in wild boar

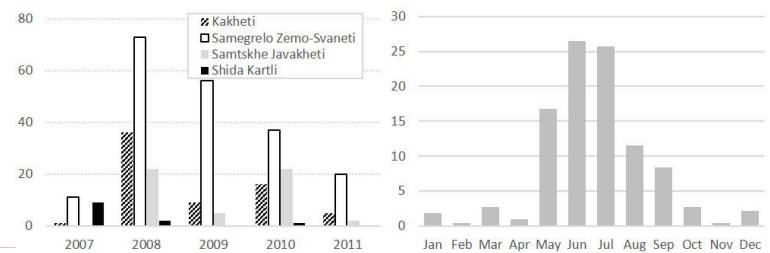
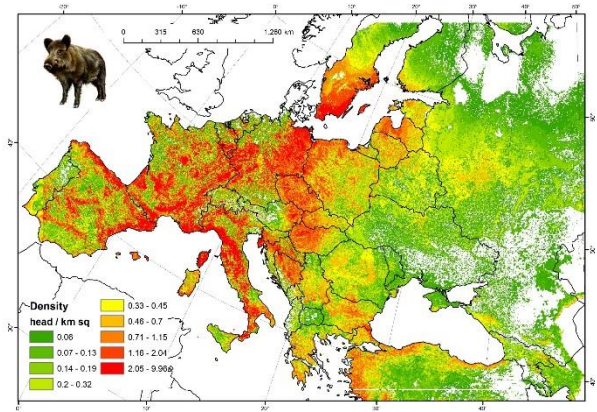
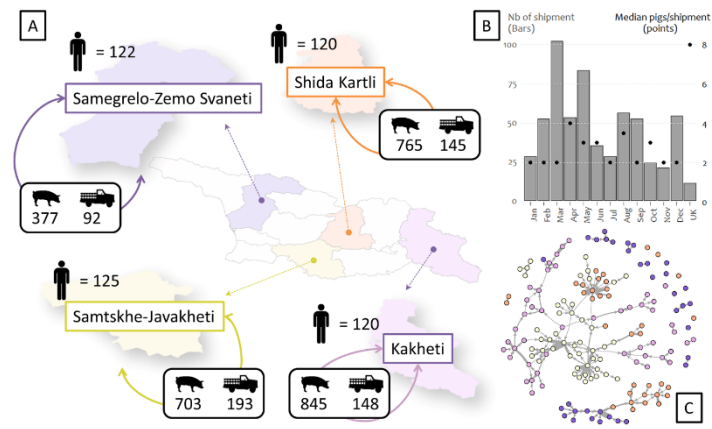
- <http://www.fao.org/europe/events/detail-events/en/c/1051367>
- Kaunas, Vilnius, 22-23 Nov 2017
- Participants: Belarus, Moldova, Ukraine, Bulgaria, Estonia, Germany, Hungary, Latvia and Lithuania, FAO, OIE, DG SANTE, and FACE
- Day 1 - Technical presentations
- Day 2 - Field day at a hunting ground.





Research

- Beltrán-Alcrudo D, Kukielka E, de Groot N, Dietze K, Sokhadze M, Martinez-Lopez B. 2018. [Descriptive and multivariate analysis of the pig sector in Georgia and its implications for disease transmission](#). PLoS ONE 13(8): e0202800.
- Casal J, Allepuz A, Miteva A, Pite L, Tabakovsky B, Terzievski D, Alexandrov T, Beltran-Alcrudo D. 2018. [Economic cost of Lumpy Skin Disease \(LSD\) outbreaks in three Balkan countries: Albania, Bulgaria and the Former Yugoslav Republic of Macedonia \(2016-2017\)](#). Transbound Emerg Dis. 2018;00:1–9.
- 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.
- Kukielka EA, Martínez-López B, Beltrán-Alcrudo D. 2017. [Modeling the live-pig trade network in Georgia: Implications for disease prevention and control](#). PLoS One 12(6): e0178904





Technical Cooperation programs (TCPs)

- 1-2 years
- ≈ USD 300,000-500,000
- Most common activities:
 - Trainings
 - Purchase of equipment
 - Awareness (leaflets/booklets)
 - Surveillance
 - Small research projects
 - Legislation and regulatory issues
 - Decision support tools
 - Simulation exercises
 - Information systems

- **Past TCPs on ASF:** Georgia, Armenia, China, Ukraine, Belarus and Moldova (TCPf) (all finalized)





Proposed TCP

- **Title:** ASF emergency preparedness in the Balkans
- **Recipient countries (8):** Albania, Bosnia and Herzegovina, Croatia, Bulgaria, Kosovo, The former Yugoslav Republic of Macedonia, Montenegro and Serbia.
- **Duration:** 18 months
- **Budget:** 400,000 USD

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

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

Strengthened disease intelligence capacities for ASF

ASF awareness among all stakeholder levels created

Regional coordination



OUTPUT 1

Enhanced legal, regulatory preparedness and coordination for ASF at national level.

ACTIVITIES for achieving output 1

- 1.1** **Strengths and weaknesses** of the national veterinary and diagnostic services are **assessed**, i.e. from capacities, to organigram, competences and functions. Within this task, existing legal powers and strategy documents are assessed, improved and developed as needed (in line with international standards), such as contingency and national control plans, surveillance plans, etc. Specific stress on strategies and protocols related to wild boar management, e.g. hunting strategies, surveillance, carcass removal, and how to adapt them according to the ASF status and risk
- 1.2** **Simulation exercises** on ASF to ensure appropriate emergency preparedness are organized. A series of country-level desktop simulation exercises involving all relevant government agencies are organised to test the different components of the contingency plan in realistic outbreak scenarios (one per country).
- 1.3** **Descriptive reports of the pig sector and wild boar hunting** are prepared. Within each country, all available information will be compiled on the structure, actors, production systems, flows, numbers, distributions/densities, etc. Surveys may be conducted on specific countries to look specifically at the backyard sector.



OUTPUT 2

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

ACTIVITIES for achieving output 2

2.1 **Epidemiology training** activities. At three levels:

1. Regional training (back-to-back with the inception workshop) to cover: 1) depopulation of large pig farms (culling and disposal options); 2) wild boar management; and 3) how to deal with backyard settings.
2. A 2-day training workshops in each country to increase skills and educate epidemiologists from veterinary services. The workshops will cover ASF epidemiology, surveillance, disease recognition, outbreak investigation, sampling and shipping, control operations, etc.
3. An on-line training module on ASF covering the above topics.

2.2 **Train-of-trainer program for field veterinarians** on ASF recognition; Farm and personal biosecurity; Outbreak investigation; Sample collection and submission; Executing and managing quality control of depopulation – safe disposal of infected carcasses; Cleaning and disinfection procedures.

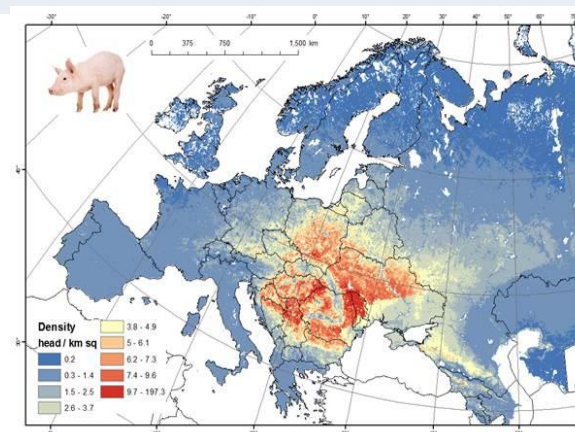
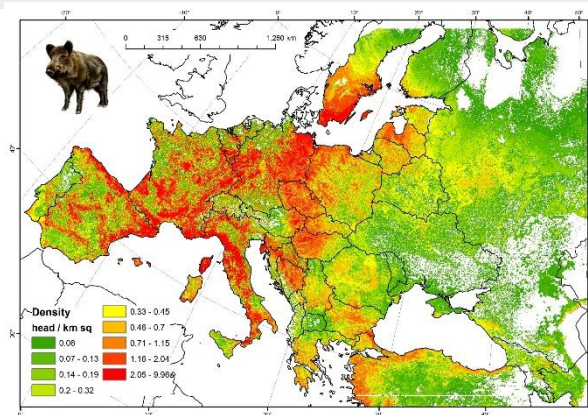
2.3 **Workshop on wild boar management and hunting biosecurity** (2 days). The training will involve veterinary services, but also representatives from forestry agencies (or those in charge of wildlife management) and hunter associations.



OUTPUT 3 Strengthened disease intelligence capacities for ASF

ACTIVITIES for achieving output 3

- 3.1** Risk on entry, spread and establishment of ASF is **assessed**. This will be done through a training workshop on risk assessment with relevant stakeholders (i.e. government officials, forestry services, hunters, farmers/farmer associations and middlemen).
- 3.2** A **cost-benefit analysis** on different ASF outbreak control options is performed.
- 3.4** **Training on effective risk communication** (to media, general public, retailers, farmers, hunters, etc.). One training would be conducted for all countries at the Inception Workshop.





OUTPUT 4

ASF awareness among all stakeholder levels created

ACTIVITIES for achieving output 4

- | | |
|-----|--|
| 4.1 | Developing an awareness strategy document targeting the most relevant stakeholders. |
| 4.2 | Developing and adapting awareness and technical materials to meet different stakeholder needs. Awareness materials, such as leaflets, posters, infographics, presentation, papers and social media posts will be developed and translated into relevant languages. The existing ASF Manual and other relevant documents will be translated and printed. |
| 4.3 | Awareness activities to reach farmers and hunters:
Stakeholder workshops
Dissemination of awareness raising materials to farmers (both commercial and backyard) and hunters through National NGOs and professional associations.
Internet social media, local rural newspapers, farmer and hunter magazines and other. |



OUTPUT 5	Regional coordination
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ACTIVITIES for achieving output 5	
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- | | |
|------------|--|
| 5.1 | Inception workshop (2 days) to support project coordination and cooperation and coordination on ASF prevention and control in the region.
<ol style="list-style-type: none">1) coordinate the implementation of prevention and control actions;2) present the results of ASF-related activities and provide updates on the disease situation;3) provide a forum for discussions and exchange of ideas. |
| 5.2 | Final workshop to
<ol style="list-style-type: none">1) present project results to countries donors, international institutions;2) discuss potential follow-up to the project |



Final remarks

- Need to closely coordinate with other programs/projects to synergize efforts while avoiding overlap
- Each country will need an individualized approach and set of activities
- Final set of activities will be finalized and the project approved in the next few weeks
- There is room to adapt activities as the project evolves, to adapt to the situation
- Any inputs at a later stage can be communicated at daniel.beltranalcrudo@fao.org



Thanks for your attention