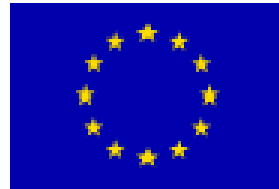


**EC/FAO/OIE
Mission Report
Assessment of the African
Swine Fever (ASF)
Outbreak
Republic of Georgia
11-14th June 2007**





RILEVANT CHARARACTERISTICS OF THE COUNTRY

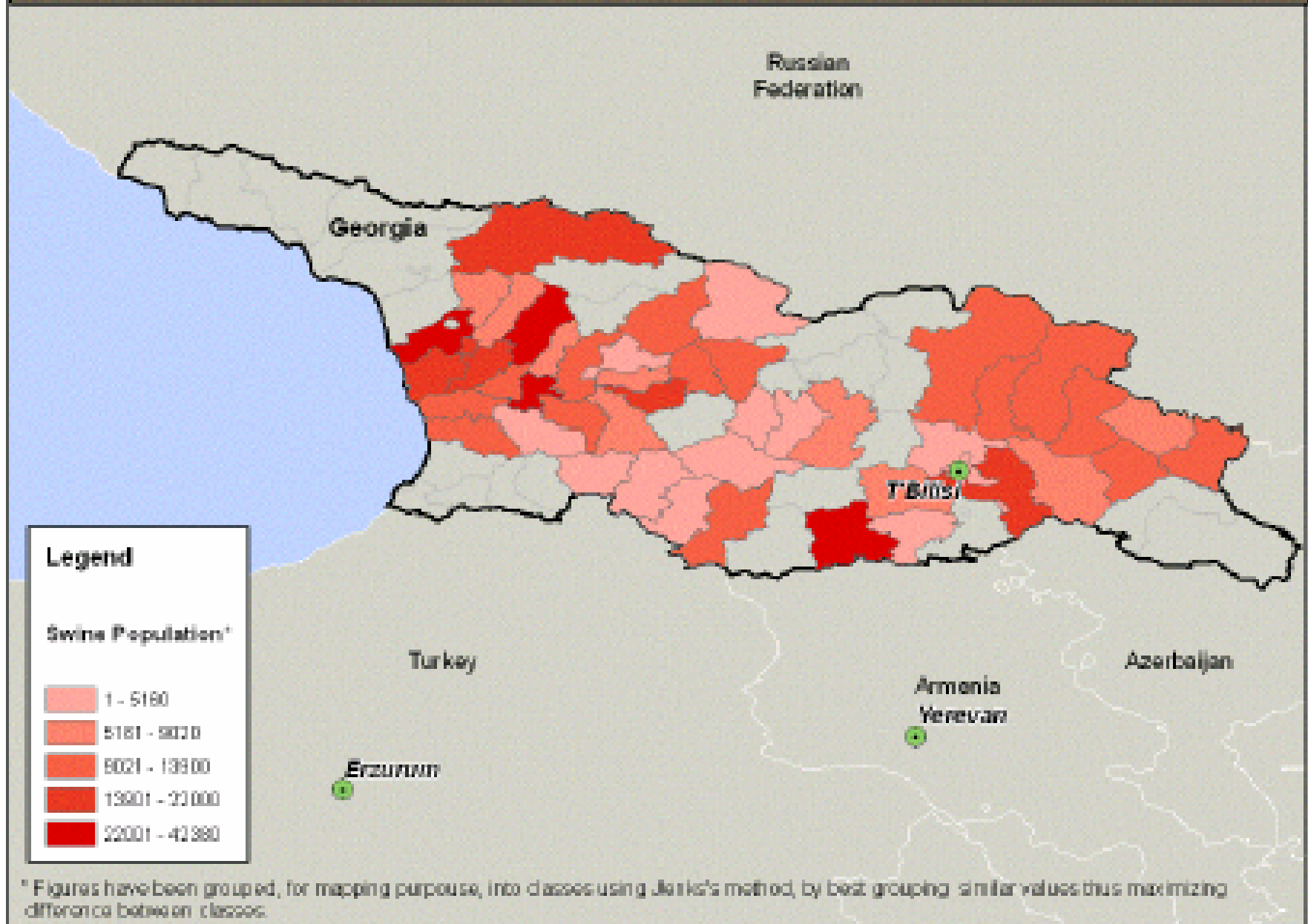
GEORGIA

- Surface: 69,700 Km²
- Inhabitants: 5 000 000
- 9 Regions - 66 Districts

Pig keeping system: *Free ranging pigs/backyards*

- **500,000** pigs
- **93.3%** of holdings with **1-4** heads
- **0.3** % of holdings with **>20** pigs

GEORGIA - Swine Population



Legend

Swine Population*

- 1 - 5160
- 5161 - 9030
- 9031 - 13900
- 13901 - 23000
- 23001 - 42380

* Figures have been grouped, for mapping purpose, into classes using Jenks's method, by best grouping similar values thus maximizing difference between classes.

GEORGIA / SOUTH F. OKRUG - Swine Population Density









CURRENT SITUATION

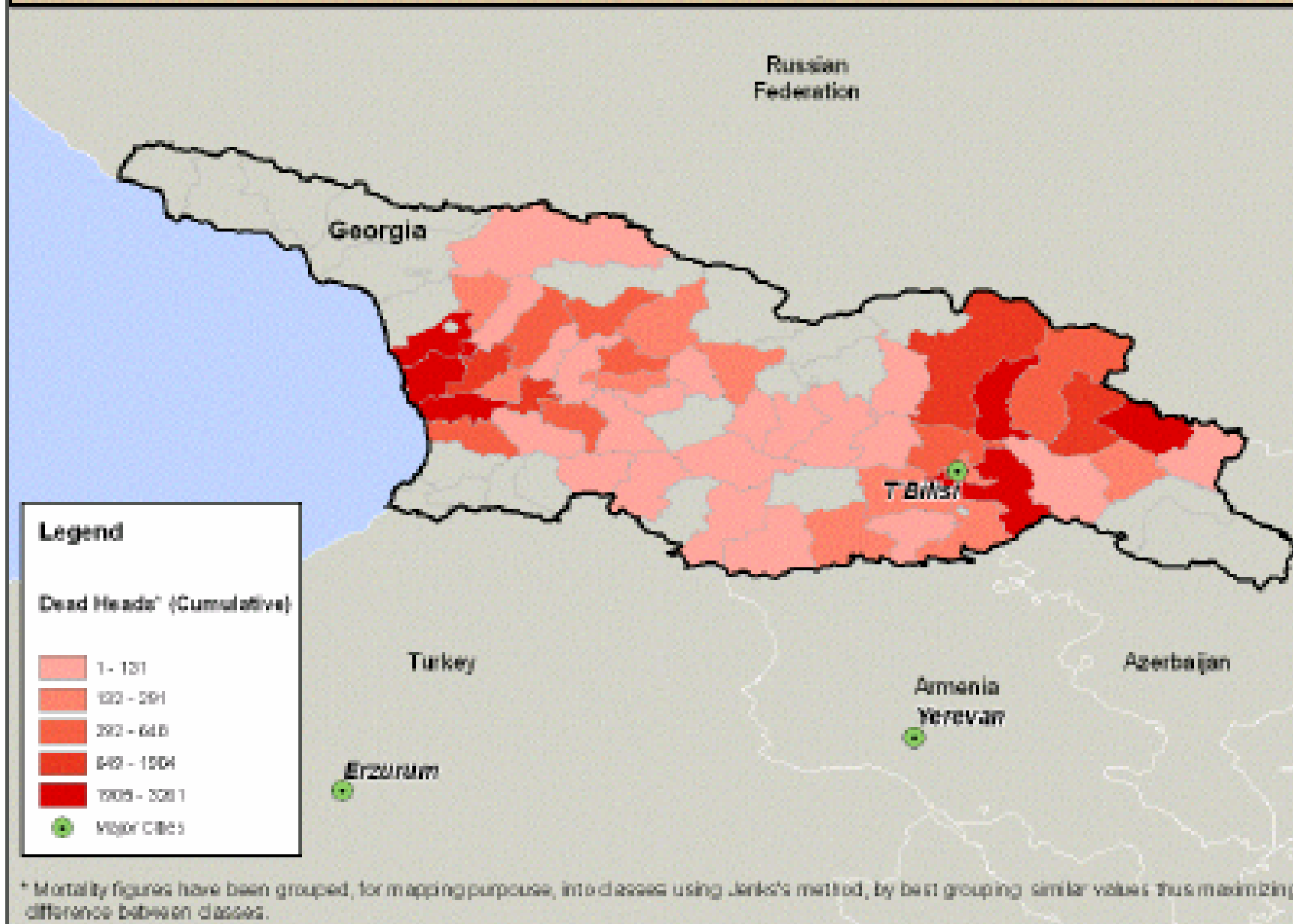
- At the time of the first report to OIE (22nd April 2007) ASF was already spread in several regions of Georgia mostly in very small scale pig holdings
- “Unofficial” reports point out an increased pig mortality beginning at least **two months** prior to the first reported suspected case
- The index case and entry route is therefore unclear; however some reports suggested that the first case occurred close to the port of Poti
- Possible source of infection the **contaminated waste from ships**

CURRENT SITUATION (2)

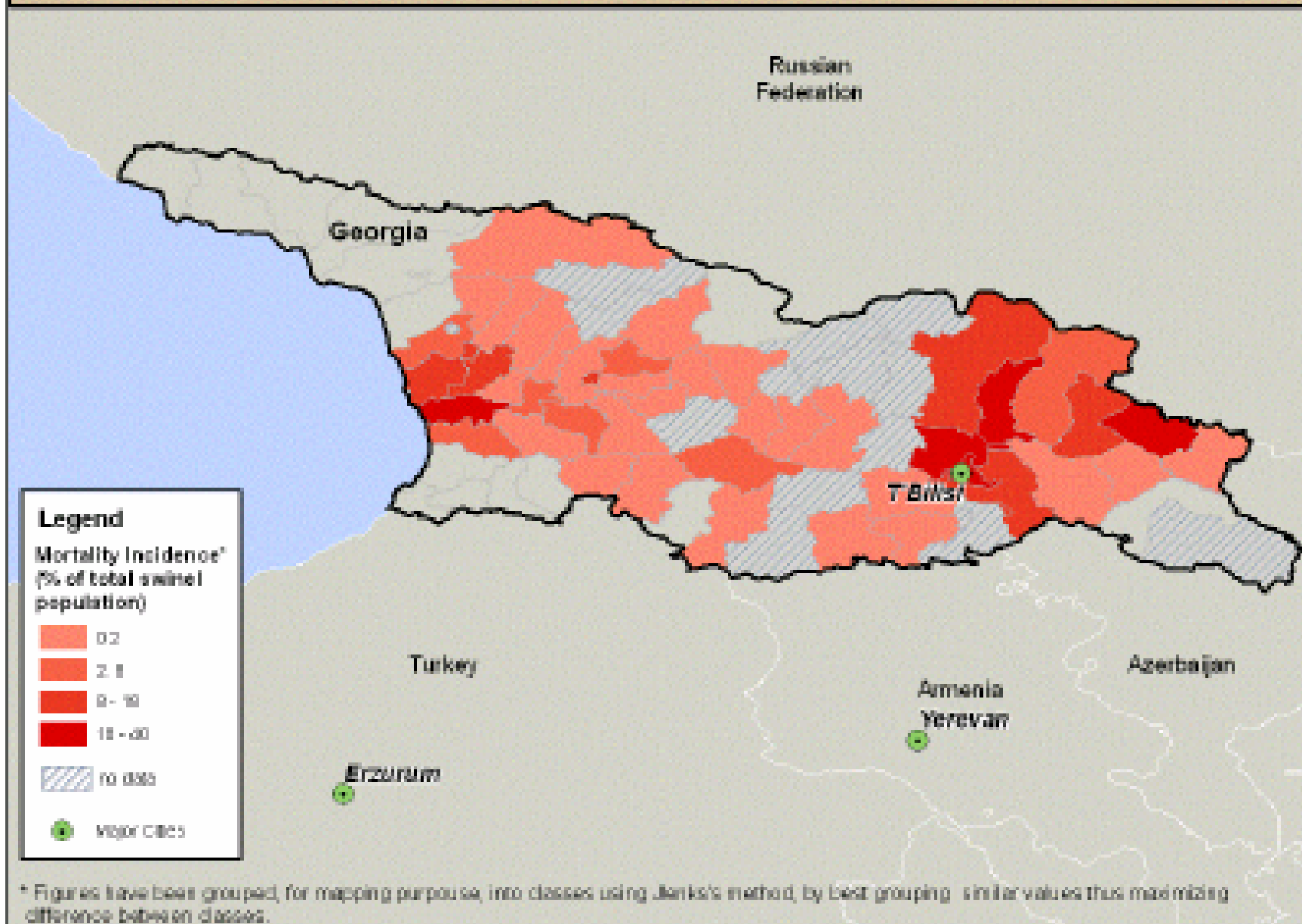


- At 13th June, ASF occurred in **52 out of 66 Districts** (under control of the Georgian authorities) and 30,300 deaths due to the disease and 450 heads culled were reported
- It is believed that the disease is now distributed across the country with a few exceptions
- The **diagnosis is based on clinical grounds** and the information on the incidence of the disease are confused and varies widely by district, from few deaths to about 30% of the population
- The underestimates data are due to lack of **surveillance and reporting**

GEORGIA ASF Outbreaks: Pig mortality in Georgia to 13 June 2007



GEORGIA ASF Outbreaks: Pig mortality in Georgia to 13 June 2007



Legend

Mortality Incidence*
(% of total swine population)

- 0.2
- 2.8
- 8-10
- 18-20
- no data
- Major Cities

* Figures have been grouped, for mapping purpose, into classes using Jenks's method, by best grouping - similar values thus maximizing difference between classes.

CURRENT SITUATION (3)



- The estimation of pig population is based on statistical data of the Ministry of Economy and the pig holding register is not available
- The information system is based on the reports of the DVS who periodically update the number of deaths animals
- There are only **1 or 2 government veterinarians** per District and it makes difficult the surveillance in relation to the number and location of the holdings
- The epidemiological unit of reference is the Village (Commune)

CURRENT SITUATION (4)



- The **lack of laboratory investigation** of all dead pigs in the district doesn't allow to assess free areas even if the low mortality numbers in some districts may not be due to ASF
- In the infected holdings the **stamping out** of clinically ill animals is carried out without compensation policy, it is practised **7-10 days after** the onset of the symptoms
- **Clinically normal pigs** on an infected holding are **allowed to remain**



GOVERNMENT STRATEGY AT THE TIME OF THE MISSION



- Aimed to **protect the districts** (6 to 14) where ASF didn't occur to date
- Ban on animal markets, pig movements, instruction to confine animals, stamping out policy on detection of infection
- Measures to protect free districts, entry control on roads into free areas and instruction to confine all pigs
- Measures on infected districts: **culling policy** of all live pigs on infected holdings (**not jet enforced**), burial of carcasses; a 10-15 Km ring culling policy, approved but not jet implemented



EXPECTED EPIDEMIC PROGRESSION



- On the basis of the uniform pig keeping system and the reported findings in the district visited, the rate of the outbreaks will remain high for some weeks before the density of susceptible animals drops, giving rise either to extinction or to an **endemic phase**
- It is likely that Georgia must face the prospect of losing most of the small holder pig sector. Some isolate villages could escape the introduction of the virus by lack of contact
- Endemic infection **for years** is a likely scenario, since:

EXPECTED EPIDEMIC PROGRESSION (2)



- **Pig product** coming from asymptomatic infected animals may act as a source of virus and re-enter the population
- Re-infection may occur during **premature re-stocking** of pigs
- **Wild boar**, following the contact with infected pigs, may become a bridge to re-introduce the infection within domestic pig population
- The possible role of **vector ticks** species need to be clarified

MAIN DISEASE MANAGEMENT PROBLEMS



Weaknesses include:

- Wide distribution of infection before disease confirmation
- Limited capabilities of VS; legislative, organisational and technical. 1-2 official veterinarians without auxiliaries per district with up 40,000 pigs
- No epidemiological investigations are conducted in infected holdings
- Large number of small herds and remotely located with limited and difficult supervision due to the contact between different pig groups

MAIN DISEASE MANAGEMENT PROBLEMS (2)



- Absence of containment by stamping out policy associated with compensation due to lack of legal provisions, fiscal resources and organisational capacity
- Lack of recording of disease events by holding or other epidemiological unit

Strengths include:

- Existing DVS is dedicated to control of the disease and open to technical assistance
- Openness and transparency of the government, willingness to adapt information system to meet needs of disease control

MAIN DISEASE MANAGEMENT PROBLEMS (3)



- **Natural barriers** in several areas favours separation of free zones from infected ones
- Legal base enabling flexibility in disease control, including wide areas culls if required
- Availability of additional staff if finances allow, 200 (practitioners) government certified veterinarians
- Very well equipped, but underutilized, national laboratory

DISEASE CONTROL POLICY OPTIONS CONSIDERATED



1. Accept that the epidemic is too advanced and resources too limited to manage the epidemic
2. Protect **free areas**, attempt to retain free herds within infected areas by:
 - a. Incentives/measures aimed to achieving **confinement of pigs**
 - b. Reduce the incidence of the disease with early culling of infected and exposed units
 - c. Herd/Village epidemiological unit culled around infected holding/village according to risk
 - d. Depopulation at district level for the maintenance of holdings in the free districts

DISEASE CONTROL POLICY OPTIONS CONSIDERATED (2)



3. Depopulation at the regional level. Similar to 2.d. but more aggressive culling

4. Complete national depopulation

Surveillance activities would allow to acquire information for the **evaluation of the options** and to modify the disease control policy

Considerations:

- **Option 2** is the recommended one if resources and conditions permit.

DISEASE CONTROL POLICY OPTIONS CONSIDERATED (3)



This implies:

- The achievement of free herds, villages and districts will require long term **biosecurity measures** and **effective surveillance** to maintain
- **Confinement of pigs** will be vital for disease control but the main constraint is the is lack of feed for housed animals
- Effectiveness of **movement control** need to be significantly enhanced
- Effective **surveillance** and reporting to maintain the free status are necessary
- Detection and control of infection in **wild boar** is necessary

RECOMMENDATIONS



The strategies stated at the time of the mission would be included in a control plan to eradicate the infection from Georgia and to maintain free holdings and districts.

To achieve this , it will be necessary to:

- Improve the **reporting** of ASF by pig keepers (early warning)
- **Protect** free districts in the country
- Establish strict entry/exit **controls on all** entry point between free and affect areas
- Establish a capacity for **early detection** and **rapid containment** of infection

RECOMMENDATIONS (2)



- Achieve rapid and effective control of first reported outbreaks in free districts (**Contingency plan** adequate and immediately available)
- Achieve confinement of pigs for a sufficient time to survive the epidemic (**incentives**)
- Improve **biocontainment** in infected districts to prevent exit of infection through:
 - Compulsory measures for non-compliance
 - Ban on pig movement, marketing and control
 - Surveillance of infection in wild boar
 - A strategy for restructuring of the pig production sector
- Establish efficient border control (waste from ships/aircraft)

RECOMMENDATIONS (3)



Recommended Short term actions

A. Central Governmental Ministry level actions:

- 1. Consider this a **national emergency** costing around 100 million USD for immediate response (national plan for control and eradication ASF)**
- 2. Provide **financial resources** for actions at district level (surveillance, culling, burial, cleansing and disinfection); Possible source of assistance: World Bank**
- 3. Conduct a review of the most possible **introduction point** for ASF and the **source** of ASF virus; Possible source of assistance: EC- SANCO**

RECOMMENDATIONS (4)



B. *DVS, Headquarters level actions*

1. Communicate very clearly the actions at district level to police, to owners, to veterinary staff

2. Revise the information flow procedures:

- Create a GIS data base including all villages, pig population data at owner or village level

- Develop and armonise new reporting procedure that include clear case definition, holding, epidemiological unit and pig population

- Report to OIE with regular follow up report with information required

RECOMMENDATIONS (5)



3. Intensive public education campaign to improve compliance at village level with control strategy objectives

C. DVS, Region and District level actions

1. Properly staff each district and define responsibilities at the district level:

- DVO: Management, decision making and reporting
- Disease investigation/surveillance officer
- 1 or 2 disease eradication officer(s)
- Recommend: recruit at least 2 vets under contract for each district to assist DVO

RECOMMENDATIONS (6)

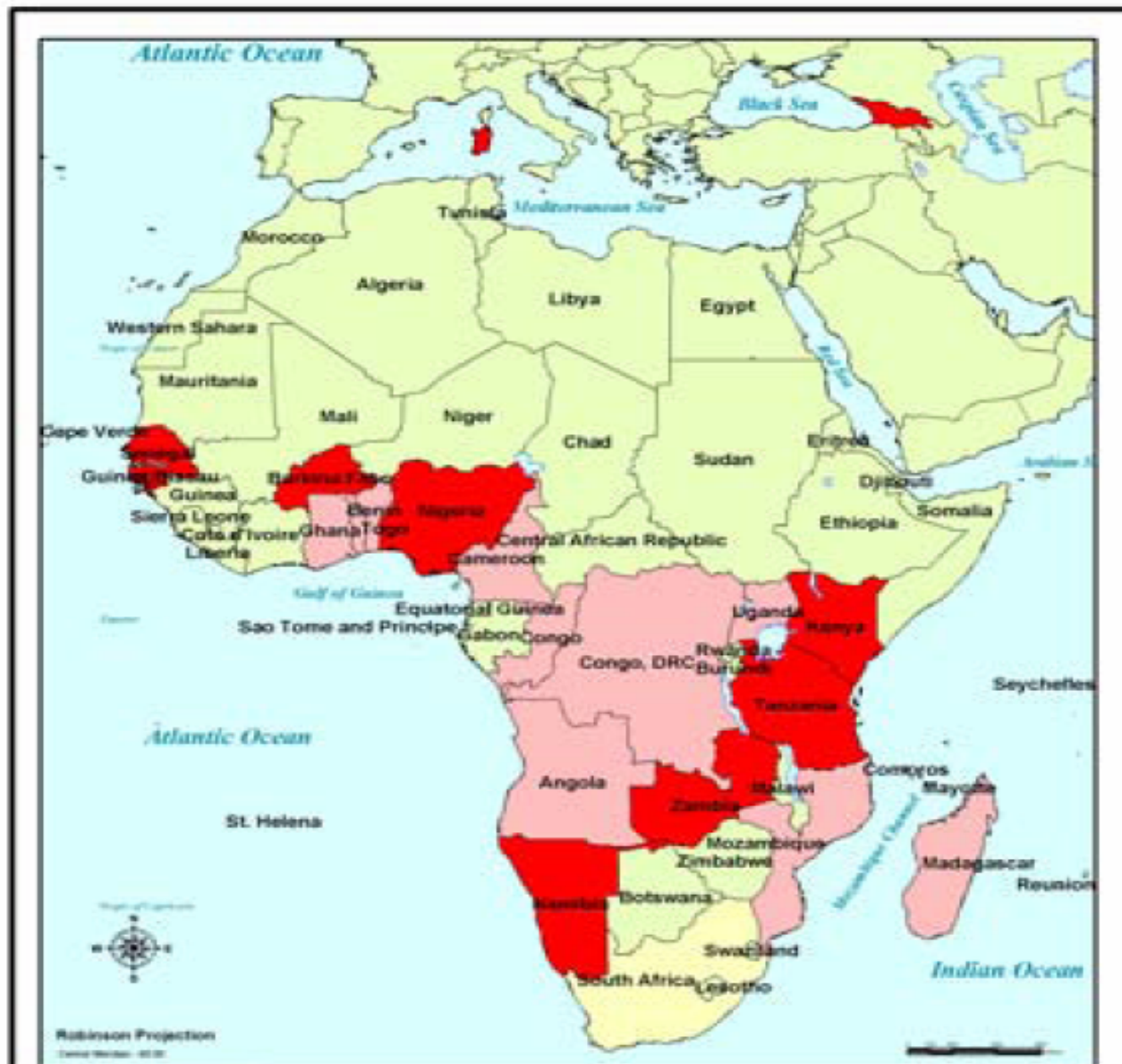


Recommended Medium-Long term actions

1. Review the national policy for pig production defining requirements for minimum housing and biosecurity conditions
- 2. Develop a SOP for restocking of holdings**
3. Implement surveillance in wild boar population
- 4. Develop a national contingency plan with operational manuals dealing with different TAD**
5. Conduct a socio-economic study of the impact of the disease to compare the cost of the prevention to the cost of the emergency response
6. Conduct a study on the possible presence of ticks

Tbilisi covered market





ASF STATUS

 Not Reported
 Present in Zones
 Endemic
 Recent Outbreaks

African Swine Fever

2004 - 2007

(Data sources: OIE, IAH Pirbright & J Sarr, ASF Ref Lab Senegal)
 (map produced 5 June 2007)

ArcGIS & Development Team
 March 2006
 Source: ESRI Data & Maps CD
 Created in ArcGIS 9 using ArcMap

Thank you for your attention!

