

GLOBAL CONFERENCE
ON EMERGENCY
MANAGEMENT

Animal Health and the Tunisian National Taskforce for Bioterrorism

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Animal Health – VS - Tunisia

3-5 April 2023

Maison de la Chimie, Paris, France



Plan



Introduction	Animal health and bio-threat risk	Bio-taskforce	Example Project VS-LE	Conclusion
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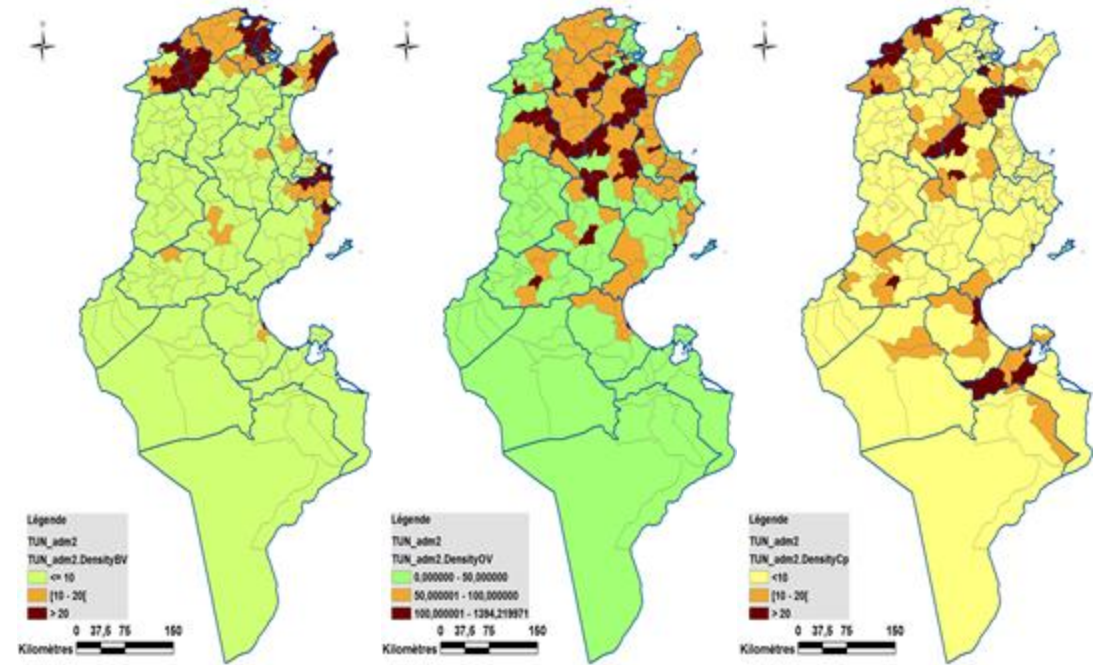


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INTRODUCTION

- The Tunisian economy is based on agriculture with an important socio-economic role.
- The agricultural sector contributes 8% to GDP, 9% to the value of exports and 16% to job creation.
- Livestock accounts for 35-40% of agricultural GDP, or 4-5% of total GDP.
- Breeders: 80% small breeders



Bovine density

Sheep density

Goats density

685 670

6 603 188

1 188 971

112 000

410 000

Introduction

Economical

Food security

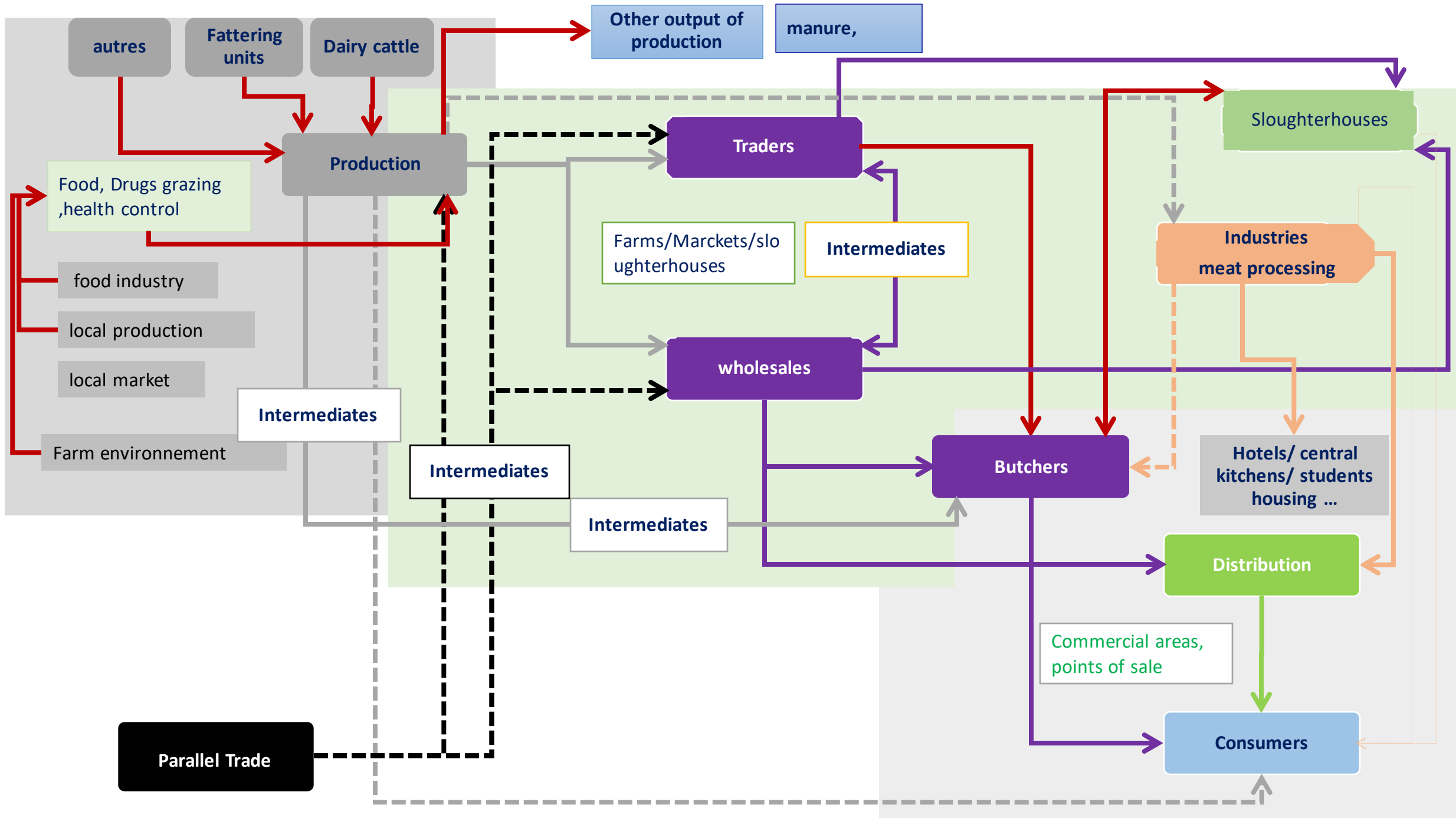
Food security

Social Cultural

Complexity of interactions
between different links

Sectors (2020)	Number of job (in 1000)
Agriculture and fishing	503,7
Food industry	100,3

Species (2020)	Production (Ton)
Cattle	225 500
Sheep	123 000
Goat	235 00
Poultry	192 000
Others	108 300
Fishery products	145 322
Eggs (millions units)	1 958



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Animal health and bio-threat risk

Category A

- [Anthrax](#) (*Bacillus anthracis*)
- [Botulism](#) (*Clostridium botulinum* toxin)
- [Plague](#) (*Yersinia pestis*)
- [Smallpox](#) (variola major)
- [Tularemia](#) (*Francisella tularensis*)
- [Viral hemorrhagic fevers](#), including:
 - [Filoviruses](#) (*Ebola*, *Marburg*)
 - [Arenaviruses](#) (*Lassa*, Machupo)

Category B

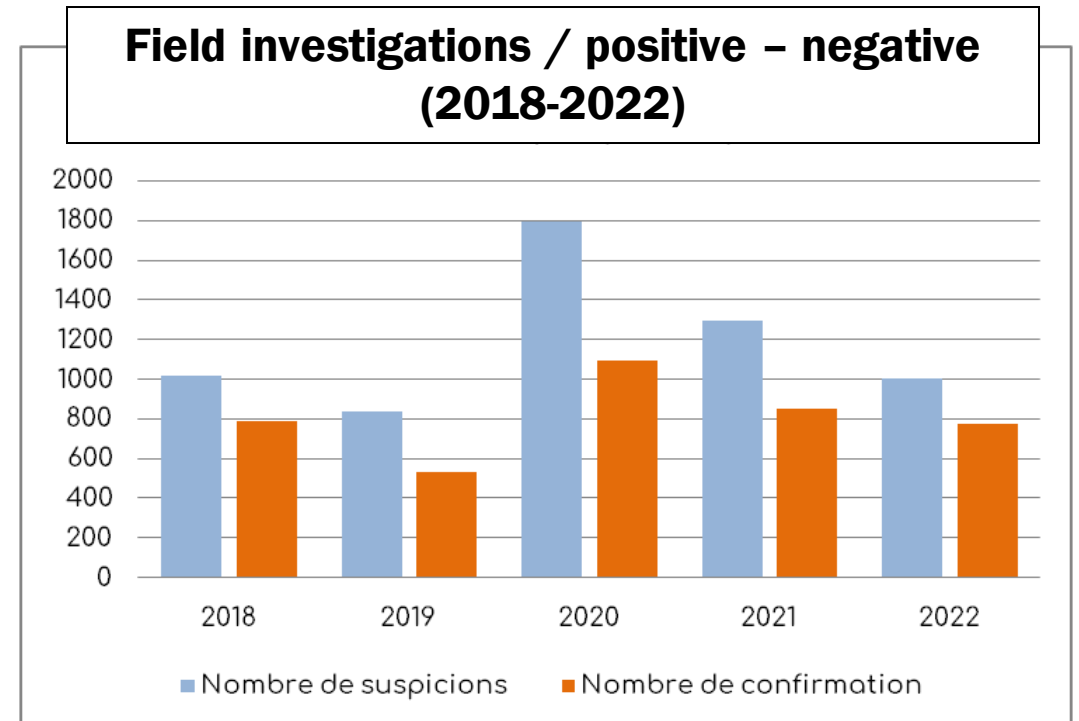
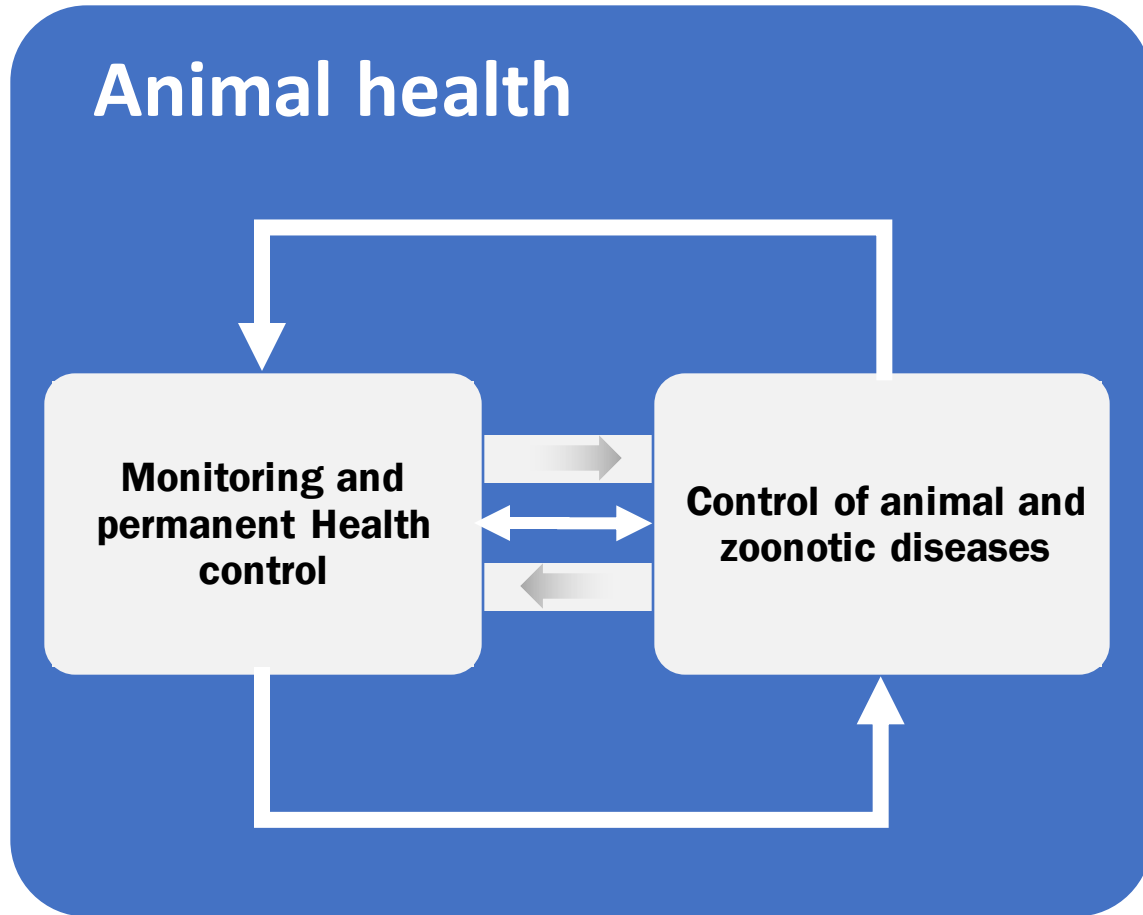
- [Brucellosis](#) (*Brucella* species)
- Epsilon toxin of [Clostridium perfringens](#)
- [Food safety threats](#) (*Salmonella* species, *Escherichia coli* O157:H7, *Shigella*)
- [Glanders](#) (*Burkholderia mallei*)
- [Meliodosis](#) (*Burkholderia pseudomallei*)
- [Psittacosis](#) (*Chlamydia psittaci*)
- [Q fever](#) (*Coxiella burnetii*)
- [Ricin toxin](#) from *Ricinus communis* (castor beans)
- [Staphylococcal enterotoxin B](#)
- [Typhus fever](#) (*Rickettsia prowazekii*)
- Viral encephalitis (alphaviruses, such as [eastern equine encephalitis](#), Venezuelan equine encephalitis, and western equine encephalitis])

Category C

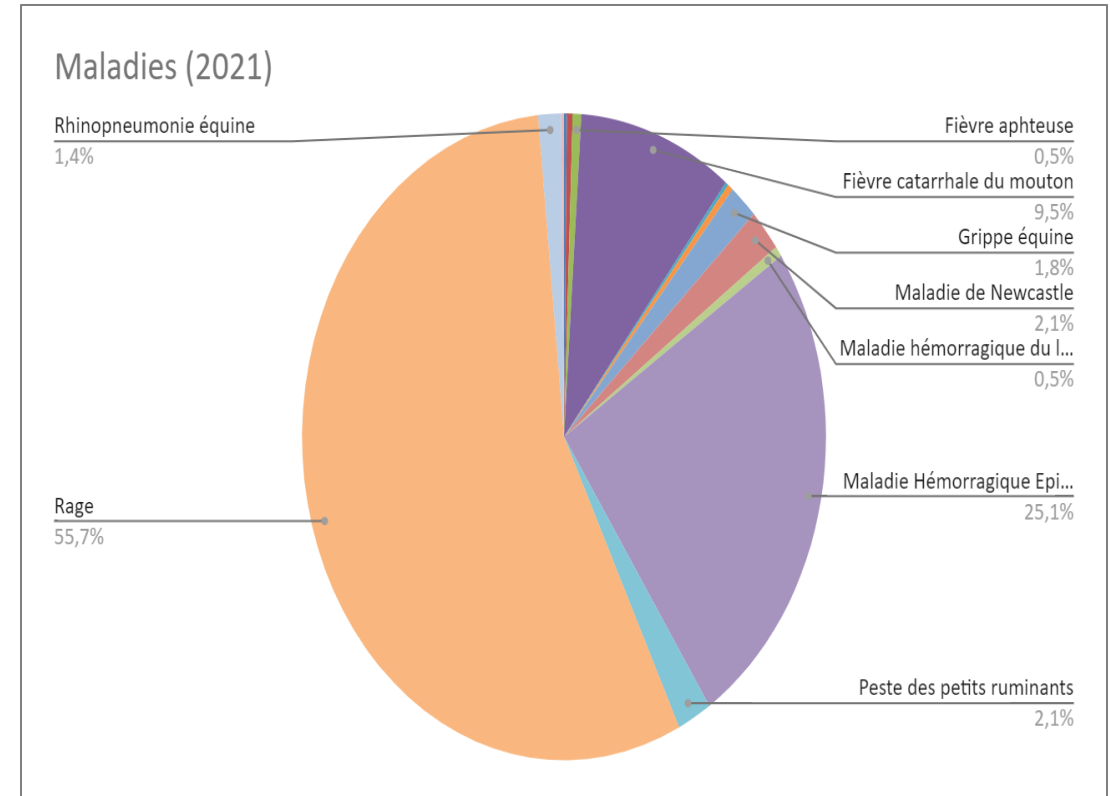
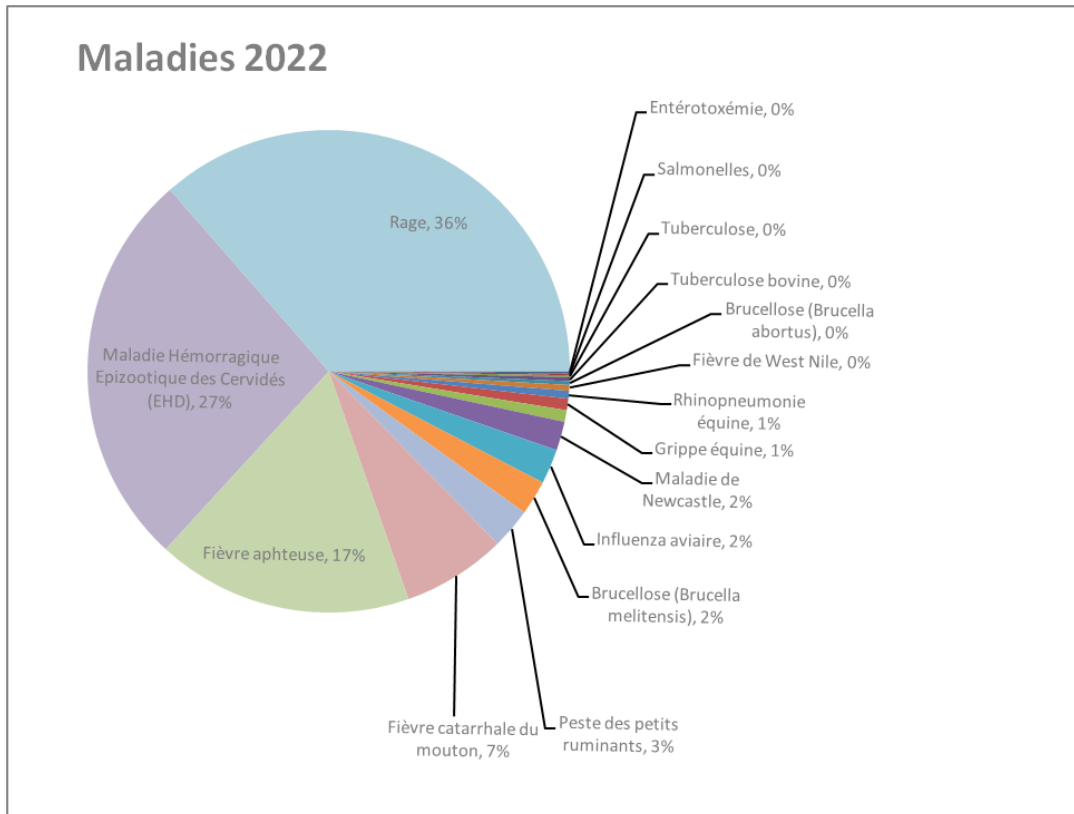
- Emerging infectious diseases such as [Nipah virus](#) and [hantavirus](#)

Expansion of the list to non-zoonotic agents, new and emerging diseases, other zoonotic diseases

Animal health and bio-threat risk



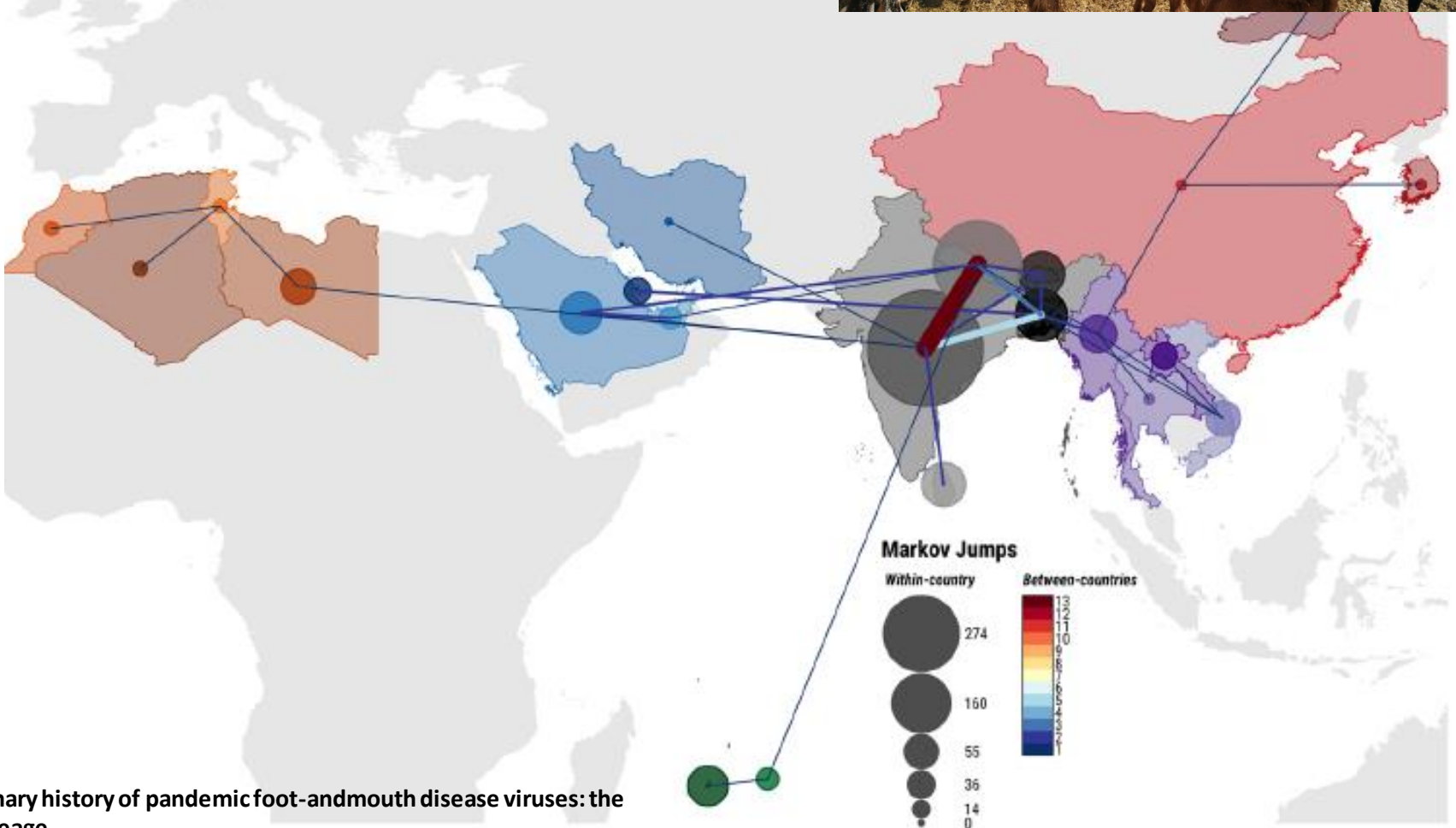
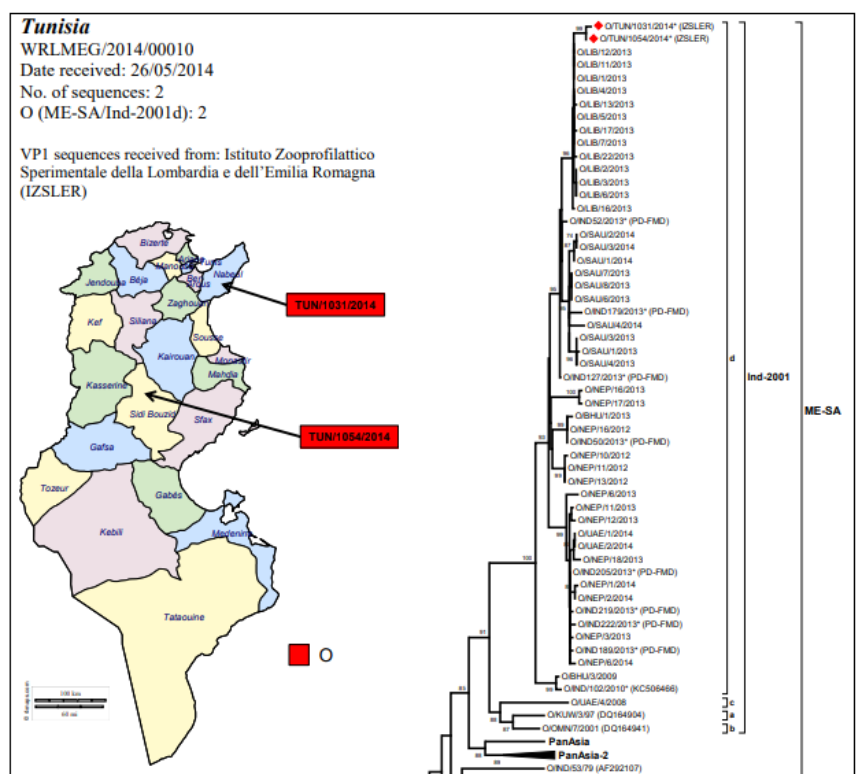
Animal health and bio-threat risk



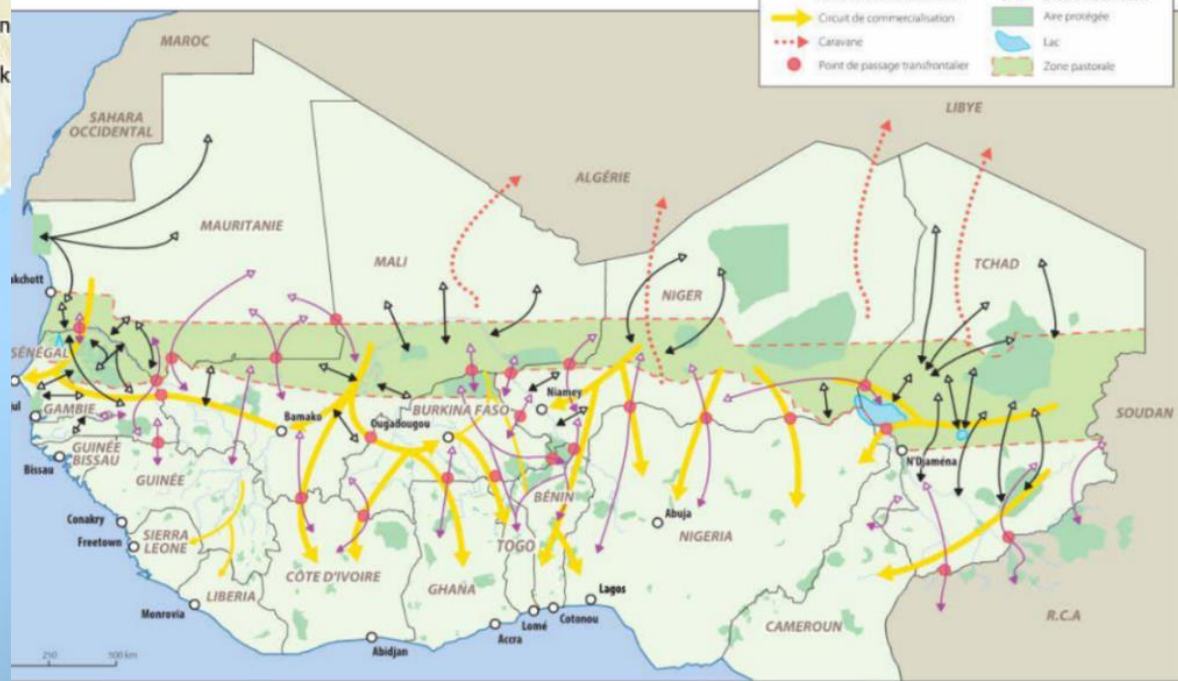
Animal health and bio-threat risk



Fièvre aphteuse: O/ME-SA/Ind-2001 lineage



Animal health and bio-threat risk



Carte 10: Synthèse des mouvements récents nationaux et transfrontaliers et des circuits commerciaux du bétail
A. T. Diop, J.D. Cesaro, I. Touré, A. Ickowicz, B. Toutain <http://www.fao.org/docrep/017/i2601f/i2601f.pdf>

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Bio-taskforce

Strategic objective

Strengthening the Tunisian capacity to prevent and combat biological hazards

Biological hazards:

- Highly virulent germ epidemics
- Deliberate, premeditated criminal or terrorist acts +++

Operational goals

- Implementation of highly contaminated response teams.
- Creation of decontamination teams.
- Creation of teams of biologists
 - handling and diagnosing highly pathogenic agents
 - respecting biosafety and bio-safety rules

Col. Maj Gritli R.

Bio-taskforce

**MOBILE LAB / Taskforce against biotreats & decon. Teams
2017-2021**



21/05/2021

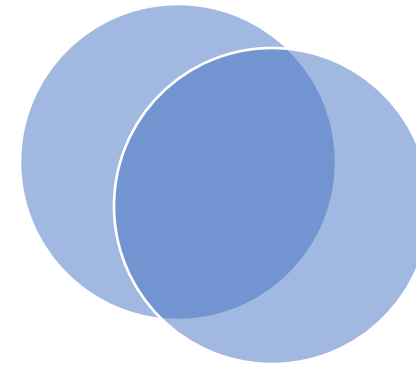


Col. Maj Gritli R.

Bio-taskforce : partners

Importance of Internal (National) and External (Regional and Global) NETWORKING
Multisectoral approach and inter-institutional

**Ministry of
Agriculture, Water
Resources and
Fisheries**



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Example Project VS-LE

- **OIE-FAO-INTERPOL Joint International**
- **Project inter institutional coordination resilience against BT and CA affecting animal health**
- **Objectives**
 - Build capacity for multi-sectoral responses to agroterrorism and agrocrime and resilience to all animal health emergencies
 - Strengthening regional and international cooperation
 - Foster veterinary and enforcement engagement
- **Department of International Affairs
Canada (GAC)**

MAGHREB



Canada

Oie
WORLD ORGANISATION
FOR ANIMAL HEALTH



INTERPOL



World Organisation
for Animal Health
Founded as OIE

Example Project VS-LE

▪ MISSION SET

▪ LMT Mission

- Training cycles
- GEMP
- SET
- LMT
- Simulation exercise

▪ Second part

- Twinning between Tunisian and Italian SV

▪ Surveillance Epidemiological Tool (SET): evaluation of the surveillance system (field mission)

- Animal health surveillance
- Bioterrorism

▪ Laboratory Mapping Tool (LMT): laboratory assessment (field mission)

- Veterinary services
- law enforcement

▪ Exercice Phoenix

Example Project VS-LE



Example Project VS-LE

■ Exercise Phoenix

- Table Top Simulation Exercise
- Triggers for regional meetings.
- Networks or mechanisms exist for the exchange of information between agencies at regional level
- Types of information that will not be shared in detail
- Information to be shared with the public
- Information that may be disclosed without the authorization of the other agency
- Public communication campaigns about the event as a whole
- Collection and combination of messages from OAS and LE



Example Project VS-LE

Exercise Phoenix

- **Objectives:**

- Raise awareness and confirm the triggers of suspicion of an act of agro-terrorism at national and regional level.
- Discuss the joint response and initial response measures put in place when a potential agro-terrorist event is detected.
- Practice collaboration and cooperation between law enforcement and veterinary services at national and regional levels.
- Discuss information sharing at national, regional and international levels in response to this threat.
- Explore the roles of certain national, regional and international entities in managing an international agro-terrorist incident.



Example Project VS-LE

- **Output**
- ***Rapport d'évaluation SET***
- **12 recommandations**
- **Proposed improvement activities for each recommendation**
- **Prioritization of recommendations**
 - Short,
 - medium and
 - long term
- **activities LMT Assessment Report: in progress**



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Conclusion

- **Combating biological threats to agriculture and animal health in particular is a national priority**
- **The fight against and prevention of these threats is the joint responsibility of the various partners of the security forces**
- **Coordination and sharing among different partners is the most important element for building resilience**
 - **National**
 - **International**
- **Need to develop:**
 - **Networking**
 - **SOPs**
 - **Information sharing**
 - **Work tools**
 - **New technology Skills**



Thank you

Heni HAJAMMAR

S/D lutte contre les maladies animales - DGSV- Tunisia

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This event is supported by funding from:



Canada 

