Animal Health and the Tunisian National Taskforce for Bioterrorism

Speaker: H. HAJ AMMAR;
Team: H. HAJ AMMAR; W. Ben Hamouda; R. ALLANI; R. Gritli; M. Bouzaienne; H. Jbebli; M. Ben Gamra

Animal Health – VS - Tunisia

3-5 April 2023
Maison de la Chimie, Paris, France
## Plan

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World Organisation for Animal Health
Founded on OIE
**Plan**

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**World Organisation for Animal Health**

*Founded as OIE*
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

<table>
<thead>
<tr>
<th>Bovine density</th>
<th>Sheep density</th>
<th>Goats density</th>
</tr>
</thead>
<tbody>
<tr>
<td>685 670</td>
<td>6 603 188</td>
<td>1 188 971</td>
</tr>
<tr>
<td>112 000</td>
<td>410 000</td>
<td></td>
</tr>
</tbody>
</table>
Introduction

Economical
Food security
Food security
Social Cultural
Complexity of interactions between different links

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<tr>
<th>Sectors (2020)</th>
<th>Number of Job (In 1000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and fishing</td>
<td>503,7</td>
</tr>
<tr>
<td>Food Industry</td>
<td>100,3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Species (2020)</th>
<th>Production (Ton)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>225 500</td>
</tr>
<tr>
<td>Sheep</td>
<td>123 000</td>
</tr>
<tr>
<td>Goat</td>
<td>235 00</td>
</tr>
<tr>
<td>Poultry</td>
<td>192 000</td>
</tr>
<tr>
<td>Others</td>
<td>108 300</td>
</tr>
<tr>
<td>Fishery products</td>
<td>145 322</td>
</tr>
<tr>
<td>Eggs (millions units)</td>
<td>1 958</td>
</tr>
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Global Conference on Emergency Management
## Animal health and bio-threat risk

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<tr>
<th>Category A</th>
<th>Category B</th>
<th>Category C</th>
</tr>
</thead>
</table>
| - 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) |  
- Brucellosis (Brucella species)  
- Epsilon toxin of Clostridium perfringens  
- Food safety threats (Salmonella species, Escherichia coli O157:H7, Shigella)  
- Glanders (Burkholderia mallei)  
- Melioidosis (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) |  
- 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

Field investigations / positive – negative (2018-2022)
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
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**Plan**
**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 Grilti R.
Bio-taskforce

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

21/05/2021

Col. Maj Grilti R.
Bio-taskforce: partners

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

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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

Exercice 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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Introduction

Animal health and bio-threat risk

Bio-taskforce

Example Project VS-LE

Conclusion
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 HAJ AMMAR
S/D lutte contre les maladies animales - DGSV- Tunisia
Heni_hah@yahoo.fr

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