

Federal republic of Somalia
Ministry of Livestock, Forestry and Range(MoLFR)

Somalia situation

Workshop on the Surveillance, Diagnosis, Control and Prevention of Brucellosis in Arab Countries

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Kingdom of Saudi Arabia/Riyadh

Speaker

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Head of Central Veterinary Laboratory



INTRODUCTION: SOMALIA LIVESTOCK SECTOR

Livestock is backbone of the Somali economy and provides **government revenue, Employment and Income and livelihood**

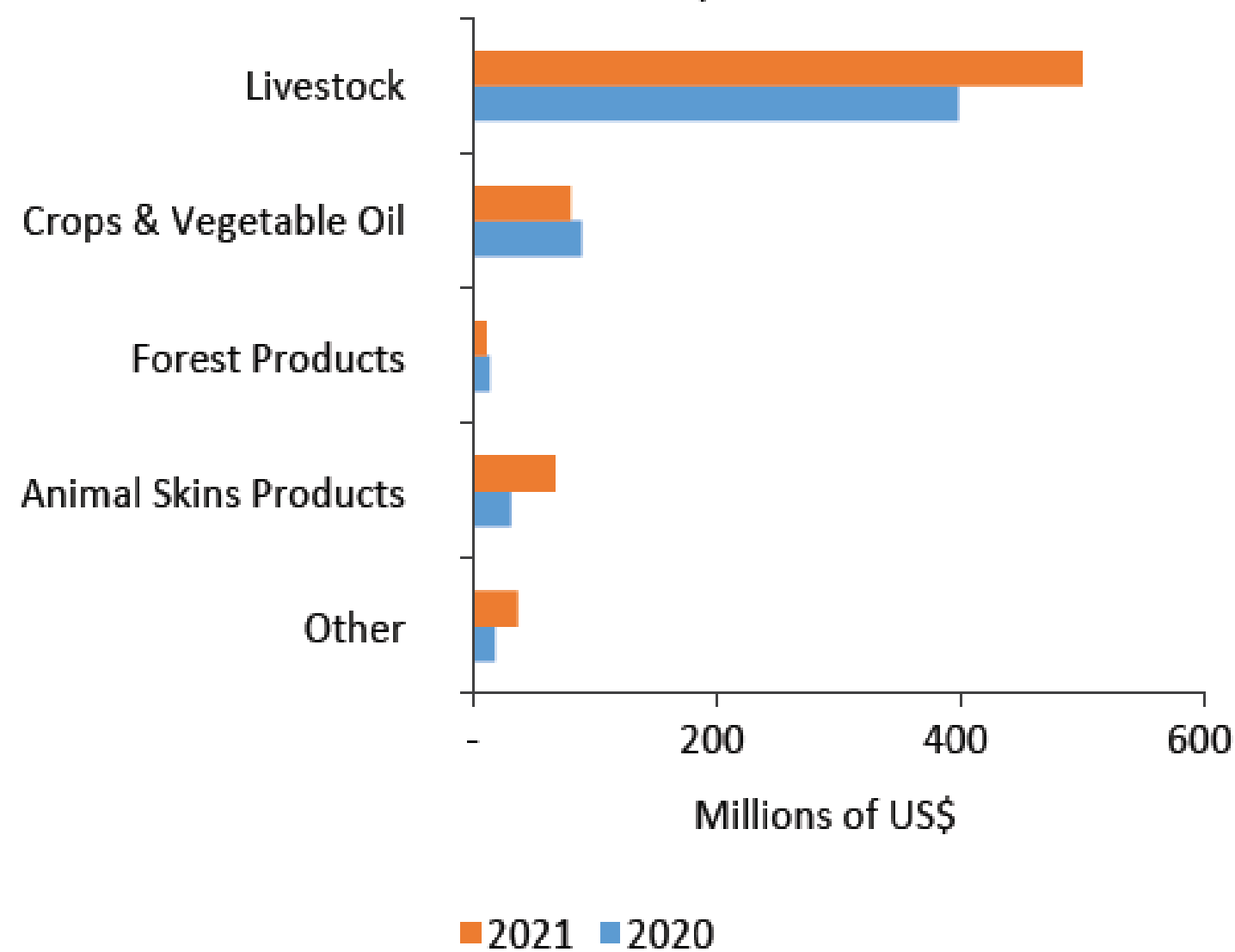
Livestock sector contributes around 80% of agricultural GDP and **45%** of national GDP.

About **70%** of the population in Somalia depend on livestock for livelihoods

80% of the foreign currency earnings come from livestock export excluding remittance from Somalia Diaspora

Around **USD 500 m** valued livestock export in 2021

b. Merchandise exports





LIVESTOCK POPULATION

Total Somali Livestock Population is estimated about **59M** out of which:



Cattle
5.3M



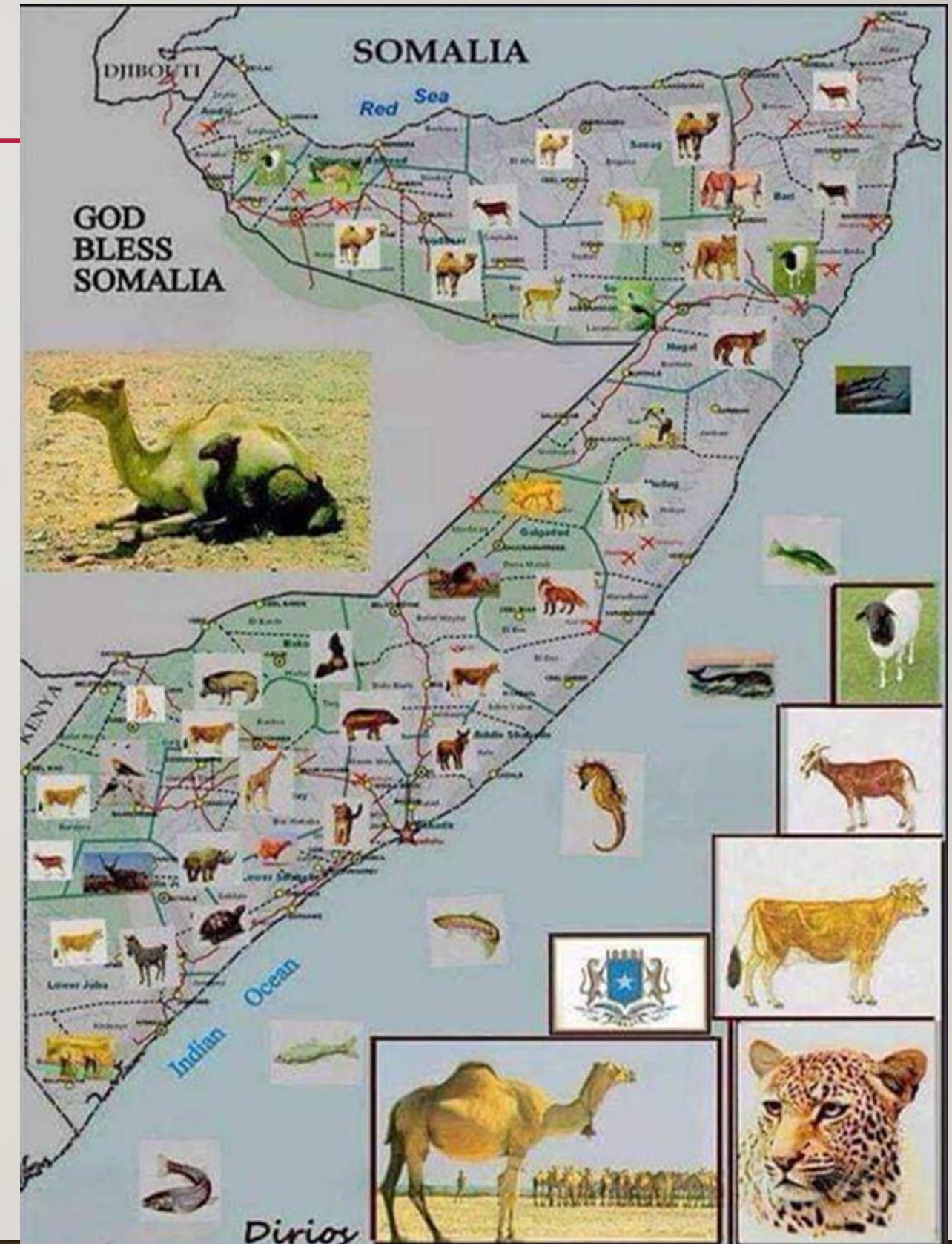
Camel
9.1M



Sheep
13.6M



Goats
30.99M





Animal disease situation in the country

The most animal priority diseases in the county

1. Food and mouth disease (FMD)
2. Contagious bovine pleuropneumonia (CBPP)
3. Peste des petits ruminants (PPR)
4. Contagious caprine pleuropneumonia (CCPP)
5. Sheep pox and goat pox (SGP)
6. Lumpy skin disease (LSD)
7. Camel pox
8. Hemorrhagic septicemia
9. Brucellosis
10. Anthrax
11. Blackleg
12. Bluetongue
13. Rabies
14. Trypanosomiasis
15. Endo-ectoparasites

Rift valley fever

This disease is not exist in Somalia but normally we do vector control periodically at the areas of cross-border because of it is seasonal endemic in Kenya side, particularly the areas occurs flooding and heavy rains.



- **A brief description of brucellosis:**

- Brucellosis is a worldwide bacterial zoonotic disease affecting both animals and humans. It causes heavy economic losses to the livestock industry and also poses serious human health hazards.
- The disease is caused by members of genus *Brucella* that are gram-negative, facultative intracellular, coccobacilli, non-motile and non- spore-forming bacteria.



A brief description of brucellosis

- ❖ The first report on the isolation of Brucella strains in the Somalia were recorded 1982 from milk of an infected cow.
- ❖ The disease is endemic in Somalia and reported in all domestic ruminants,
- ❖ Somali people have inadequate awareness about the zoonotic potential of the disease with their existing habit of raw milk consumption and close contact with domestic animals.



• A brief description of brucellosis disease situations:

1. Incidence and Prevalence:

- Brucellosis is a disease that affects livestock and humans in Somalia, and there are several risk factors for the disease.

❖ Livestock

- The prevalence of brucellosis in Somali livestock varies by species and location:
 - ✓ Sheep: 4% prevalence by RBT and 3.1% by I-ELISA
 - ✓ Goats: 4.9% prevalence by RBT and 3.9% by I-ELISA
 - ✓ Camels: 3.9% prevalence in northern Somalia, 4.4% in Mogadishu, and 7% in the Puntland State
 - ✓ Cattle: The overall prevalence of regions under investigation was 9.5% by SAT and 12% by MRT.
 - ✓ Husbandry methods and herd size are the main reasons for these regional differences



1. Incidence and Prevalence.....

Humans

- ❖ Brucellosis is classified as a priority zoonotic disease in Somalia, there is limited data on the distribution and determinants of brucellosis in humans.
- ❖ Many risk factors include:
 - ✓ Consuming raw milk
 - ✓ Handling aborted materials and reproductive excretions with bare hands
 - ✓ Close association with domestic animals





Number of new cases reported in both animals and humans.

- Species affected (Brucella abortus, Brucella melitensis, Brucella ovis, etc.).
- Geographical distribution of cases (regions or zones with outbreaks).

2022

Regions	Disease/Condition	Species	No. of outbreaks	No. at Risk	No. sick	Deaths
Jubbada Hoose	Bovine babesiosis	Cattle	3	460	10	1
Shabeellaha Hoose	Bovine babesiosis	Cattle	3	394	14	4
Hiiraan	Bovine babesiosis	Cattle	2	194	44	2
Shabeellaha Dhexe	Bovine babesiosis	Cattle	1	87	10	1
Gedo	Brucella abortus	Cattle	1	415	11	1
Bakool	Brucella abortus	Cattle	1	514	14	2
Bakool	Brucella abortus	Goats	1	480	17	3
Bay	Brucella abortus	Goats	1	245	10	0
Jubbada Hoose	Brucella abortus	Cattle	1	2127	72	10
Bakool	Brucella abortus	Camel	1	511	5	1
Gedo	Brucella melitensis	Goats	1	490	18	4
Hiiraan	Brucella melitensis	Sheep/goats (mixed herd)	3	1108	158	13



Regions	Disease/Condition	Species	No. of outbreaks	No. at Risk	No. sick	Deaths
2023						
Bay	Brucella abortus	Cattle	2	182	8	1
Bakool	Brucella abortus	Cattle	1	268	7	0
Jubbada Hoose	Brucella abortus	Cattle	6	371	27	0
Jubbada Hoose	Brucella abortus	Goats	2	75	7	1
Gedo	Brucella abortus	Cattle	4	580	22	3
Bakool	Brucella melitensis	Goats	1	140	11	0
Gedo	Brucella melitensis	Sheep/goats (mixed herd)	6	596	23	1
Galgaduud	Brucella melitensis	Sheep	1	38	2	0
2024						
Gedo	Brucellosis abortus	february	Cattle	1	36	4
Lower Jubba	Brucellosis abortus	June	Cattle	1	19	1
Lower Jubba	Brucelosis abortus	January	Cattle	1	45	3
M/shabele	Brucellosis melitensis	February	Sheep & Goats	2	44	6



• Response measures to brucellosis disease outbreak - Surveillance

Outbreak Investigations and surveillance schemes:

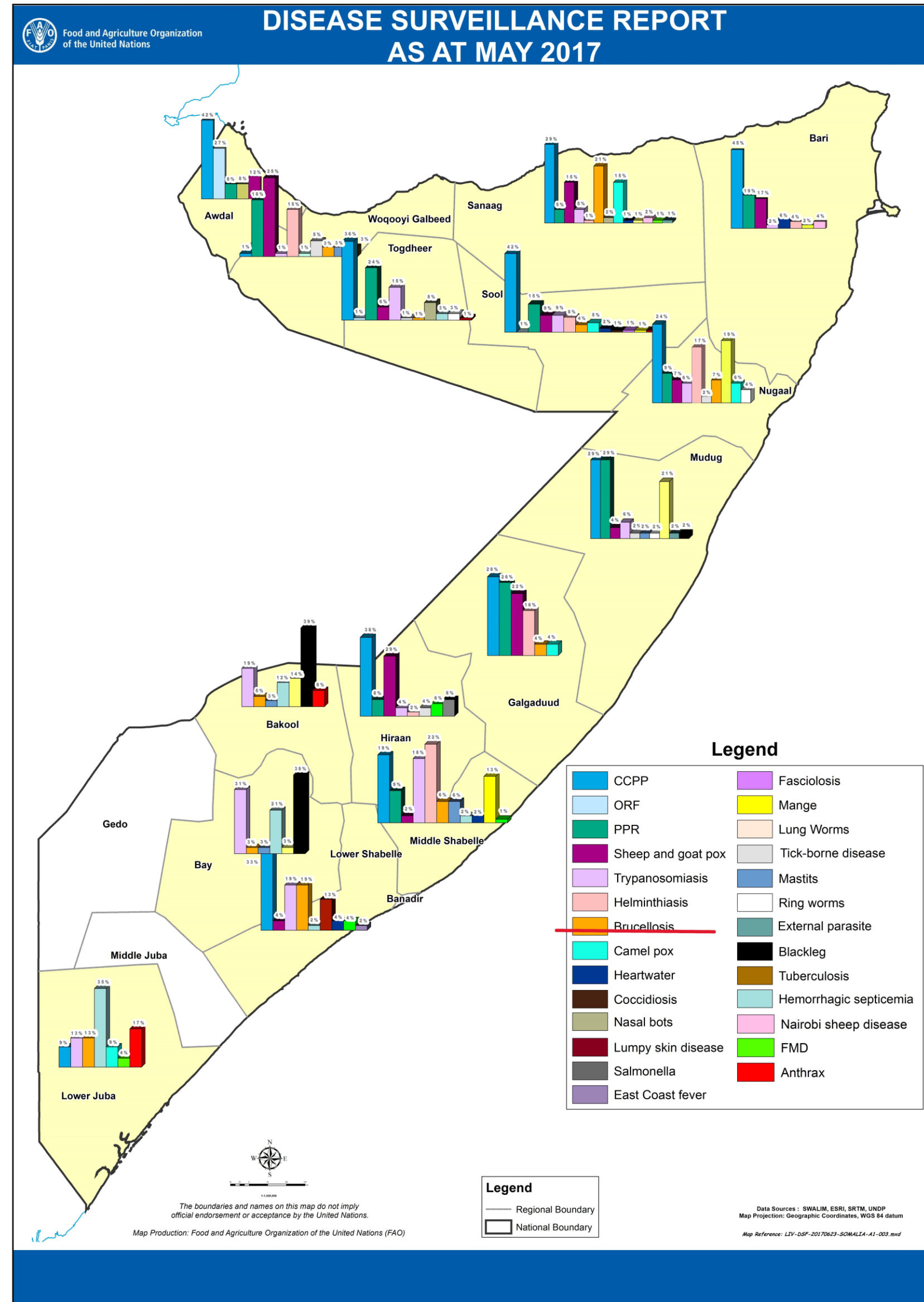
➤ Passive surveillance

- Monthly livestock passive disease reports is currently being conducted by field and regional veterinary and district officers (RVO) and (DVO), CAHWs as well as private Livestock professionals Associations. District focal points collect all disease reports and submit to the regional veterinary officer and then to the Director of Animal Health Services.

⋮

Disease surveillance report

- The Central epidemiology unit should determine the baseline incidence rate of brucellosis in defined regions to establish a threshold for outbreak investigation.
- EDMU sent team to outbreak area and collect samples and bring to Central Veterinary Laboratory to test using RBT and ELISA and sent feedback to state where outbreak occur.





• Response measures: National prevention and control

Measures	Y/N	Description
1. Programme to control or eradicate disease	N	Specific for brucella
2. Veterinary legislation	Y	Next slide
3. Emergency preparedness and response plans	Y	
4. Disease surveillance (general, targeted,..)	Y	
5. Disease reporting – notification	Y	
6. Detection and management of cases	Y	Case definition and CP
7. Measures to prevent introduction or spread of disease	N	
8. Vaccination	N	
9. Measures to protect public health	N	
10. Communication and collaboration among all competent authorities	Y	There is Somali One Health program and have collaboration between two ministries.
11. Awareness programme for relevant stakeholders	y	



SECTOR STRATEGIES & POLICIES REGULATIONS

Veterinary Law Code (2016)

Draft Meat inspection and control Act

Draft Dairy Act

National SPS Strategy

**Somalia Livestock Sector Development
Strategy (2020 – 2030)**

National animal health Strategy



CONT'D

Situational Analysis Study Of Antimicrobial Use And Antimicrobial Resistance In Somalia

National Livestock Development Policy

National Rangeland Management Strategy (2021 – 2031)

Standard Operating Procedures for Somali Livestock Export Quarantine Stations (SOP)



SECTOR UPCOMING POLICIES & STRATEGY

**Livestock Identification and
Traceability Policy(final stage)**

Veterinary Drug control policy

Livestock marketing Strategy

Food safety policy(approving stage)

**Livestock and Livestock products
brands and pricing policy**



• National prevention and control

➤ Vaccination strategy:

- The brucellosis is endemic in Somalia.
- There is no program of vaccination going in the country.

➤ Control and Eradication Measures:

- Eradication of brucellosis by test-and-slaughter is impracticable in developing countries like Somalia because of limited resources to compensate farmers whose animals are slaughtered.
- Raising community awareness of the importance of pasteurizing milk and not handling abortive materials and reproductive secretions with hands to reduce the incidence of brucellosis in humans.



National prevention and control...

Laboratory capacity:

Mogadishu Central Veterinary Laboratory(MCVL) :

❖ The primary goal of the Mogadishu Central Veterinary Laboratory(MCVL) is to serve as the national reference laboratory for animal health and disease surveillance in Somalia.

❖ Type of diagnostic test:

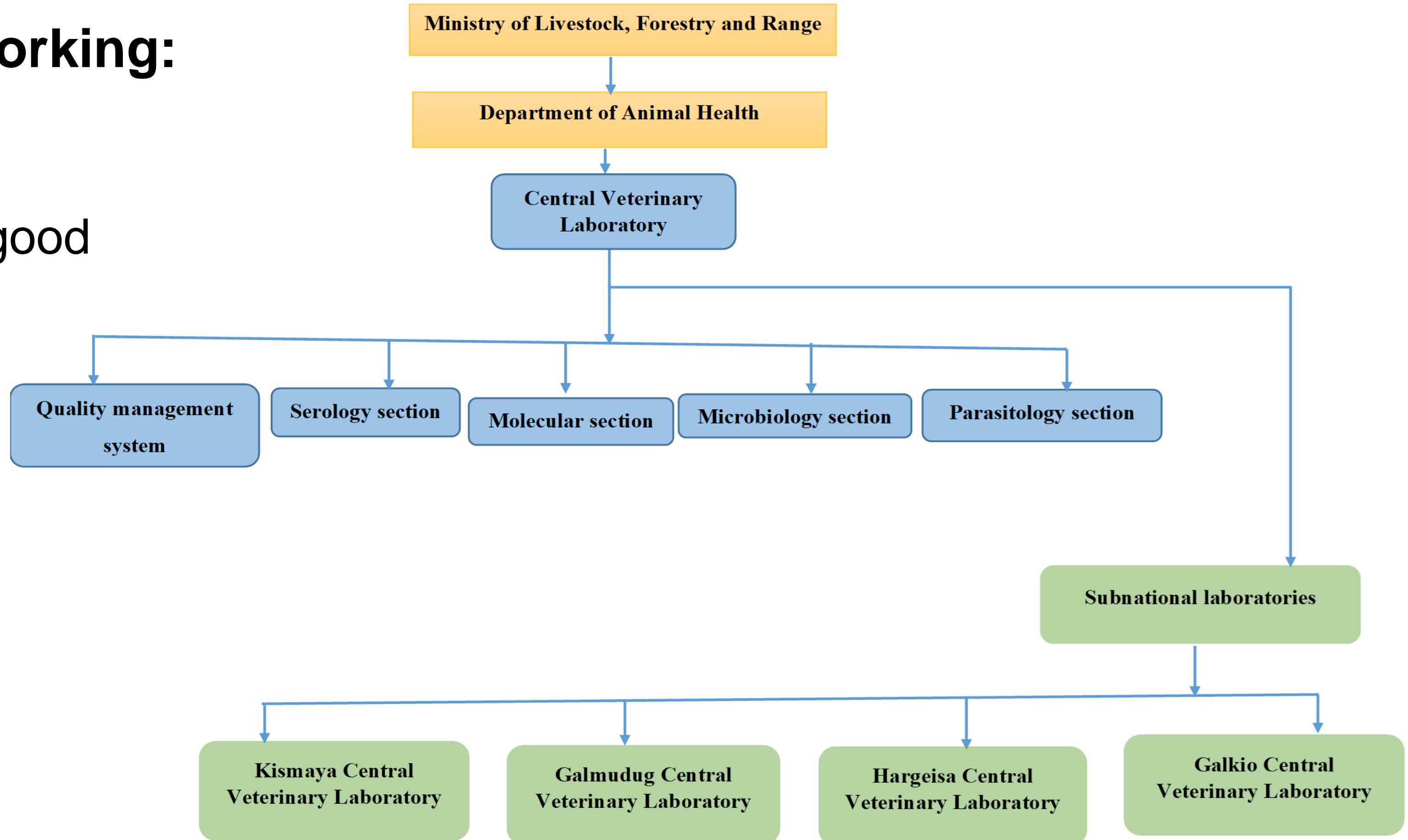
1. RBT
2. SAT
3. MRT
4. Brucellosis iELISA
5. Brucellosis cELISA





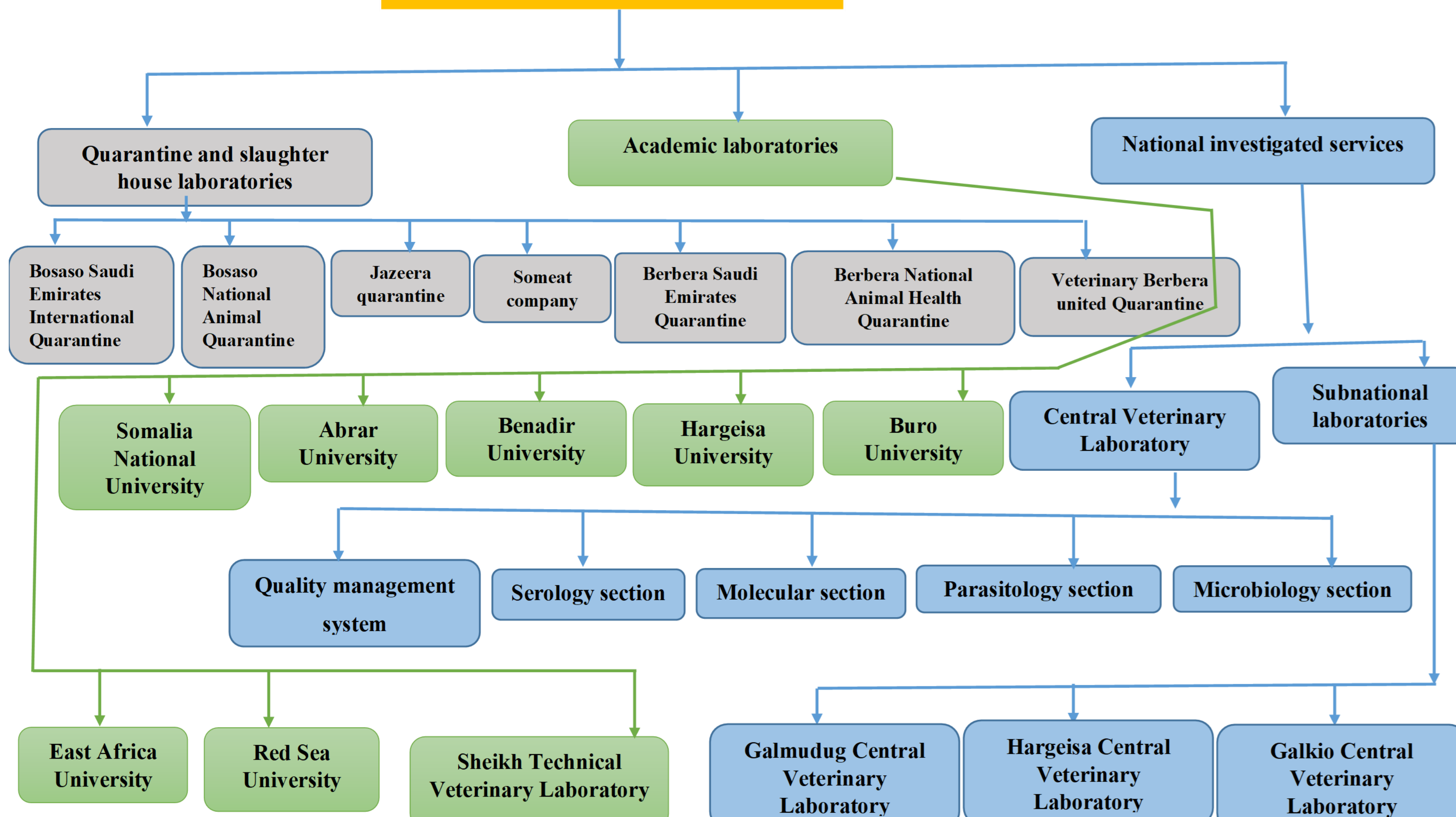
laboratory networking:

❖ The MCVL have good networking and sharing kits and reagents with subnational laboratories.





Diagnostic and Research Laboratories in Somalia

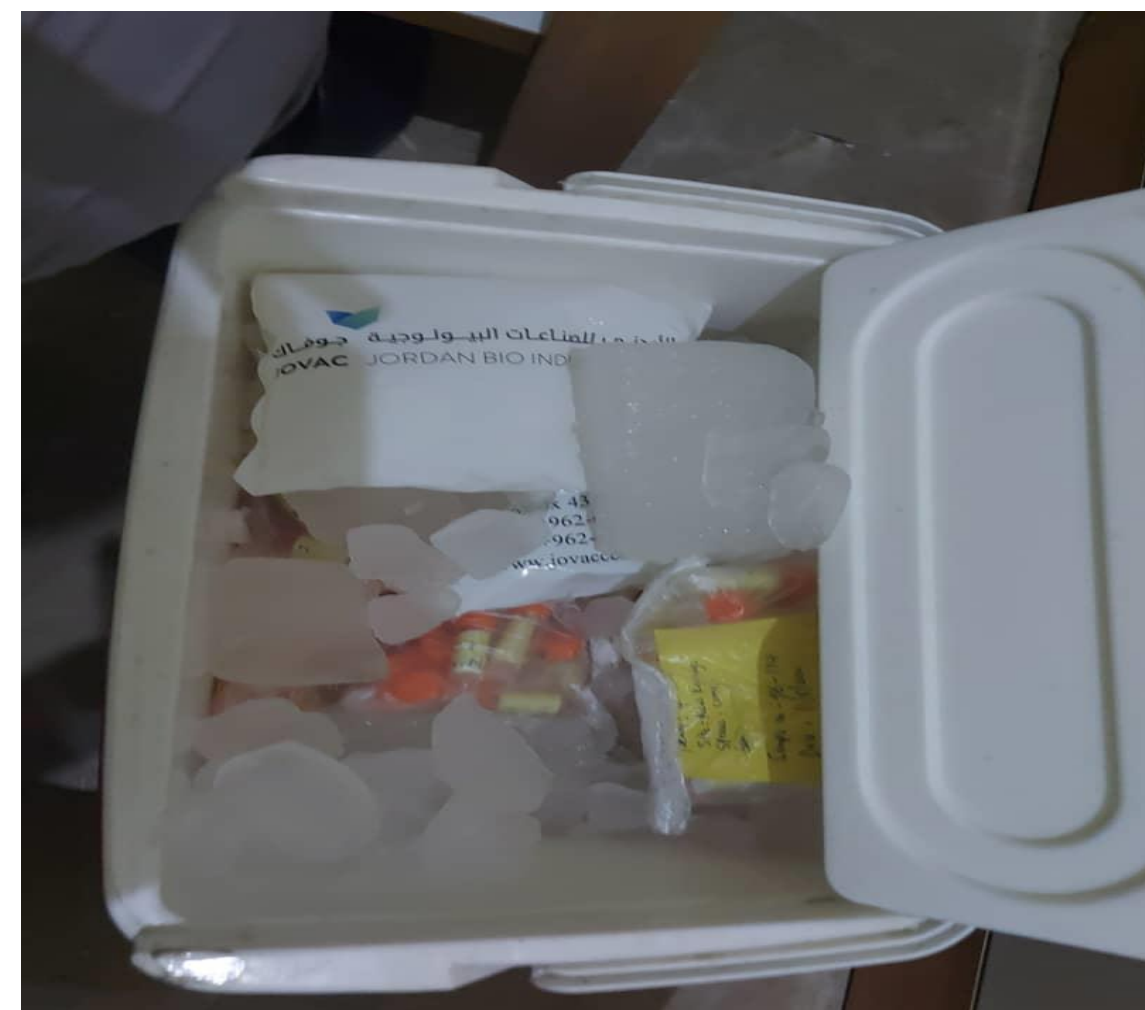




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- ❖ All outbreaks; the subnational laboratories collect samples and sent to MCVL where take place tests and sent back the report to state.
- ❖ Most often, brucellosis is diagnosed in quarantine laboratories where all exported animals are tested.





- **Economic impact**

- ❖ Brucellosis can reduce the quality and quantity of animal products, which can lead to lower household income and food security.
- ❖ Somalia is **export country** and any outbreak will effect directly the export of livestock; direct effect of country economic and likelihood of owners of animals.
- ❖ Brucellosis is an important livestock production constraint that results in farmers losing a significant **amount of income** due to losses and costs attributed to the disease such as **abortions, milk loss**, livestock mortality and trade barrier.



Challenges and solutions in implementing national plan

Challenges	Solutions
1. Lack of harmonized approaches and strategies: <ul style="list-style-type: none">• To effectively control of transboundary diseases• Disease surveillance and information sharing	Harmonized surveillance and vaccinations
2. insufficient of resource allocated for TADs control;	Allocation of specific fund for TADs control and strategy at national & state level
3. Uncontrollable Livestock movement searching pasture & water;	<ul style="list-style-type: none">• to be enforced signed MoU between Somalia and Ethiopia and to sign the MoU between Somalia and Kenya• Regular cross-border meetings with communities to establish community-based cross-border disease and livestock movement control mechanisms



Challenges and solutions in implementing national plan...

Challenges	Solutions
4. Inadequate of training and number of lab and surveillance staff	Laboratory and surveillance staff training
5. Inadequate of diagnostic reagent and test kits	Support of diagnostic kit, chemical and reagents.



Country's experience on response using OH approach

- Somalia have one health national control program for brucellosis, which could reduce to the spread of the disease and economic losses.
- An effective surveillance system for the disease should be based on the collaboration between the human and animal health services.
- The Somalia One Health office provides an ideal platform that can coordinate joint surveillance activities like data sharing and communication of surveillance information across sectors.
- In addition, the existence of major livestock export quarantine facilities in Somalia provides a good opportunity for brucellosis surveillance data.
- Somalia GLLP and one health teams ; MCVL collaborating with National Public Health Reference Lab and many time CVL use NPHRL to test samples.

Thank you Mahadsanid

شكراً

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