

Cattle diseases in dairy herds in Tanzania: Farmers' view and laboratory confirmation

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Cattle farming and livelihoods

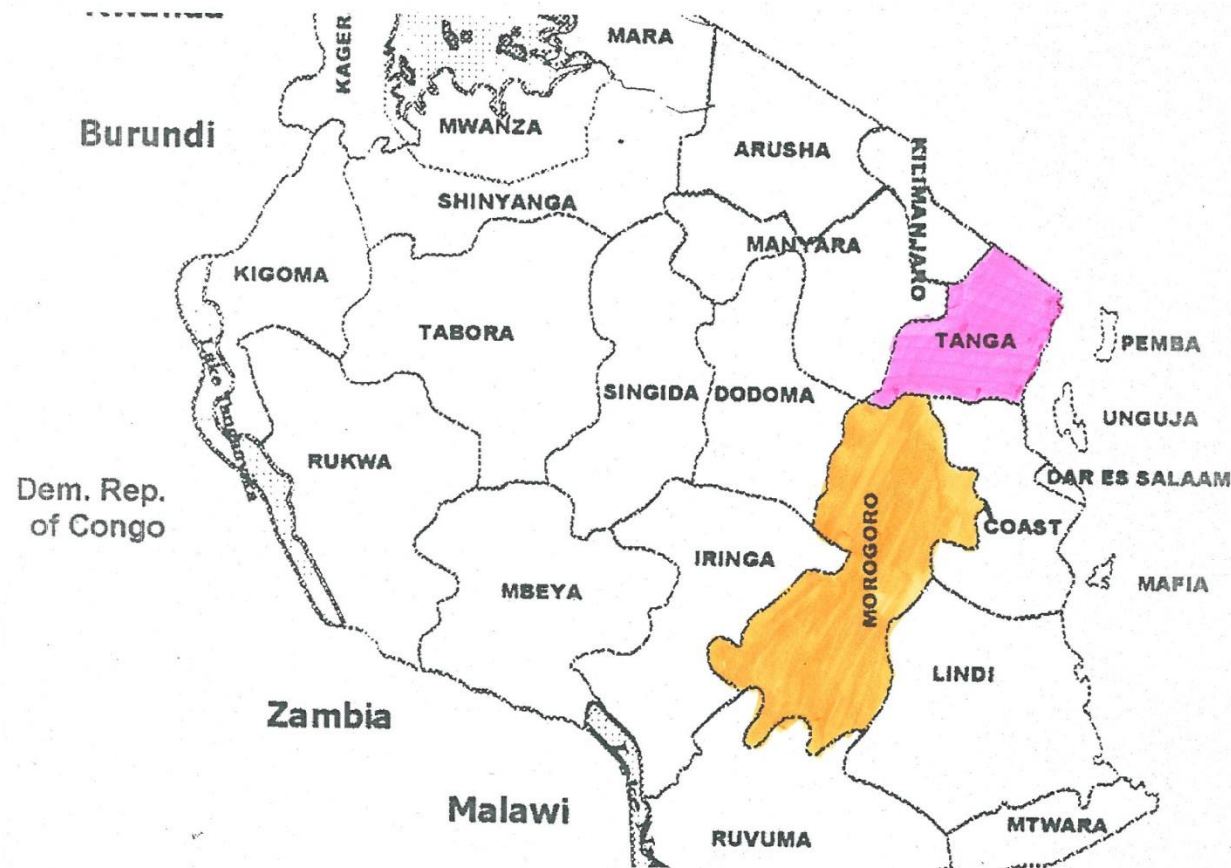
DAIRY VALUE CHAIN in Tanzania

Effective and “vibrant” markets

- **Improved milk production**
- Access to inputs/services
- Access to efficient markets
- **Safety and quality of milk**



Research sites









Aims:

- Relative importance of known and “unknown” cattle diseases
- Assess farmers knowledge of cattle diseases

Multipathogen survey



20 villages > 4 Districts > 2 regions

- Extensive (pastoralists) and “zero grazing”
- 153 farmers interviewed

Purposive animal sampling:

- “SICK-suspected” cattle
- Blood samples
- Metadata (incl. tentative diagnoses by farmer)



Laboratory analysis (ELISA)

DISEASE	PATHOGEN
Q fever	<i>Coxiella burnetii</i>
East Coast Fever	<i>Theileria parva</i>
Theileriosis	<i>T. mutans</i>
Anaplasmosis	<i>Anaplasma marginale</i>
Babesiosis	<i>Babesia bigemina</i>
Brucellosis	<i>Brucella</i> spp.
Contagious Bovine Pleuropneumonia	<i>Mycoplasma mycoides</i>
Bovine Respiratory Syncytial Virus	BRSV
Bovine Parainfluenza Virus Type 3	PIV3
Infectious Bovine Rhinotracheitis	IBRV
Bovine Virus Diarrhoea Virus	BVDV
Neospora	<i>Neospora caninum</i>

Further analysis planned (microscopy, PCR) + other diseases

Farmers' diagnosis

270 sick looking animals (66%)



Laboratory diagnosis

DISEASE	% POSITIVE	(N total)
East Coast Fever	37%	31.8 (402)
Theileriasis		10.2 (402)
Anaplasmosis	18%	31.6 (402)
Babesiosis		21.4 (402)

TICKBORNE DISEASES

25%

Preliminary observations

- **The “old suspects” are still very widespread**
(research and management efforts are still relevant!)
but... still neglecting important diseases?
- **Farmers capacity to diagnose is low;**
(still they treat their animals! – resistance)
- ...Still many things to “dig” into:
 - Co-infections
 - One-to-one comparison of diagnosis
 - Pastoralists vs “zero-grazing”
 - Accuracy of laboratory tests (Se/Sp)

With the support of...

Donors:

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Research team:

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