Livestock have long played a central role in Tanzanian life. People and animals live in close proximity, with cattle, sheep, goats and chickens providing people with valued livelihoods and nutrition – and often a route out of poverty too. In Tanzania today, a third of the population uses livestock for social and commercial transactions.

As Tanzania experiences one of the fastest urban growth rates in the world, it is also experiencing great changes in the ways in which people and livestock live together and in which meat and milk products – in ever-growing demand – reach the consumer. These changes, in turn, affect the emergence and spread of diseases that livestock and their products can pass on to people. Such diseases are known as zoonoses. Zoonoses affect the health of people and livestock, damage development prospects and add to Tanzania’s overall poverty burden.

Our research

Livestock, Livelihoods and Health is an international One Health research programme providing the evidence base to inform new strategies for zoonotic disease control and elimination. We are undertaking projects working towards:

- **Better understanding of the social, economic and environmental factors causing disease.** Brucellosis, Rift Valley fever and Q fever cause production losses in livestock and affect people too, potentially causing severe illness, chronic disability and death. We are exploring how changing livestock-keeping practices in Tanzania affect the transmission of these and other diseases. Our objective is to identify and assess the social, economic and environmental drivers of the diseases and the implications for zoonotic threats, contributing to an evidence base for better disease control in policy and practice.
• **Better understanding of disease risk from meat.** Tanzania is a hotspot for bacterial zoonoses that cause diarrhoea and blood-stream infection (sepsis), both major preventable causes of death in poor countries. These zoonoses include non-typhoidal *Salmonella* and *Campylobacter*, which can be transmitted to people throughout the food chain. As the market drives larger-scale and more intensive meat production and centralised processing, we are researching the pathways that meat takes from the farmer to the consumer, and assessing meat safety. We aim to identify areas for improvement in food safety policy and practice.

• **Better understanding of the spread and control of brucellosis.** Brucellosis is a significant public health challenge in Tanzania, where the disease is widespread yet commonly misdiagnosed. It can be caused by different species of *Brucella* bacteria, but we still do not know which *Brucella* species and which host animal species are the most important as a source of human infections. Our researchers will investigate this question, with the aim of providing the evidence base to inform a control policy, including possible livestock vaccination strategies.

---

**Research with impact**

The overall objective of Livestock, Livelihoods and Health is to contribute evidence that can inform institutional innovations, interventions and policy decisions that lead to better zoonotic disease control in Tanzania in livestock and people. As our study sites in northern Tanzania are representative of the changing context of livestock-keeping in East Africa in general, it is expected that our evidence can also inform approaches to zoonotic disease management across the region. We hope it can guide thinking elsewhere too.

---

**About us**

Livestock, Livelihoods and Health comprises three of 11 projects funded under the Zoonoses and Emerging Livestock Systems (ZELS) programme, a joint initiative between the UK Department for International Development, the Biotechnology and Biological Sciences Research Council, Economic and Social Research Council, Medical Research Council, Natural Environment Research Council and the Defence Science and Technology Laboratory.

Livestock, Livelihoods and Health is led by a team from the University of Glasgow, UK. Other partners include: in the UK – Institute of Development Studies, Animal and Plant Health Agency, and Institute of Food Research; in Tanzania – Nelson Mandela African Institution of Science and Technology, Kilimanjaro Christian Medical Centre, Kilimanjaro Clinical Research Institute, Sokone University of Agriculture, Ministry of Livestock and Fisheries Development, National Institute for Medical Research, Tanzania Wildlife Research Institute, Tanzania Veterinary Laboratory Agency, and Global Animal Health, Tanzania; in New Zealand – University of Otago and Massey University; in USA – Washington State University; and the Food and Agriculture Organization of the United Nations.

Photo credits: Sarah Cleaveland (main picture), Felix Lankester (inset picture).

---

**Contact us**

- **Web**  [www.livestocklivelihoodsandhealth.org](http://www.livestocklivelihoodsandhealth.org)
- **Twitter**  [@zoonoses_TZ](https://twitter.com/zoonoses_TZ)
- **Email**  info@livestocklivelihoodsandhealth.org