



# Food safety



## Problem statement

The increasing scale, complexity and productivity of livestock systems leads to the production of more food and could create pathways out of poverty by creating opportunities for youth and other sections of the population to engage in the food business. But rapid, unplanned and underregulated development creates unwanted local effects such as pollution, loss of food heritage and exclusion of women from formalising value chains. For consumers, safety and health is often their biggest issue. The World Health Organization recently estimated the health burden from unsafe food as comparable to that of malaria, HIV-AIDS or tuberculosis and most of this falls on people who earn low and middle incomes and buy fresh, risky food from traditional or wet markets.

## How we are addressing the problem

- Prioritisation of foodborne disease risks in OHRECA priority countries: we still lack validated information that allows us to prioritise risks in countries of interest. We have a risk assessment protocol that is reasonably robust but requires personnel for desk work, fieldwork and sample.
- Understanding One Health implications of the bushmeat/wildlife meat chain: there is currently a lot of concern over the implications of wildlife meat chains, which appear to be rapidly increasing in Africa and Asia. This is driven both by demand from locals for cheap, available protein and increasing demand from richer urban populations who see exotic food as a status food. Unfortunately, consumption of wildlife has been associated with several disease events including anthrax, Ebola and COVID-19. ILRI has limited experience in this area but has recently signed a memorandum of understanding with the UN Environment Programme. There is also a new CGIAR COVID hub under discussion.
- Food safety interventions: we still lack an understanding of how to change behaviour in informal food value chains. We are moving away from ex-ante willingness to pay studies which are unreliable, to real world experiments. These rely on auctions, nudge type experiments, online virtual experiments and real world lab type experiments involving 100–200 participants and several weeks and experiments.

- **Impact at scale:** ILRI has projects focussing on impact at scale in Uganda, Kenya, Ethiopia, Burkina Faso, Rwanda, Vietnam, Cambodia and India. These have some commonalities in approach in that they all attempt to address market vendors, enabling environments (mainly government support) and consumer demand. They are at different stages and have taken different approaches. OHRECA will explore opportunities for supporting supplementary activities within these projects in priority countries—Kenya, Ethiopia, Tanzania, Burkina Faso and Uganda—to boost their impacts. Priority will be given to desk-based reviews, value-added activities such as additional diagnostics or secondary data analysis from previous projects or those activities which foster south-south learning.

## Role of One Health

The informal food sector often sells wild animals harvested in unsustainable ways. We will address the role of the ecosystem and animal health in assuring safe food. Transdisciplinary research activities will be prioritised for they have a better chance of providing better insights.

## Expected outcomes

We expect to generate better evidence on the multiple burdens of unsafe food and device strategies of how to address these challenges.

## One Health Centre in Africa

The International Livestock Research Institute (ILRI) has established a One Health Research, Education and Outreach Centre in Africa (OHRECA) with support from the German Federal Ministry for Economic Cooperation and Development (BMZ). The centre's primary goal will be to enhance human, animal and ecosystem health by developing capacity in One Health, supporting One Health network initiatives, and developing pathways from evidence to policy and practice.

The centre's research and development activities are implemented under four themes, each having its own defined technical (scientific), capacity and policy outputs and outcomes. The four themes are:

- preventing emerging infectious diseases;
- controlling neglected zoonoses;
- ensuring safe food; and
- reducing antimicrobial resistance

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The International Livestock Research Institute (ILRI) is a non-profit institution helping people in low- and middle-income countries to improve their lives, livelihoods and lands through the animals that remain the backbone of small-scale agriculture and enterprise across the developing world. ILRI belongs to CGIAR, a global research for development partnership working for a food-secure future. ILRI's funders through the CGIAR Trust Fund, and its many partners, make ILRI's work possible and its mission a reality. Australian animal scientist and Nobel Laureate Peter Doherty serves as ILRI's patron.

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