ILRI Animal and Human Health Program, Jan 2024 report

Several changes at ILRI

- Appolinare Djikeng Director General, April 2023
- Sibonisio (Boni) Moyo Deputy Director General, Biosciences
- Vish Nene, retired in Sept 2023, Emeritus Fellow @ILRI
- Hung Nguyen and Eric Fevre (interim) co-lead Animal & Human Health program
- Musa Mulongo (interim) lead for vaccines and diagnostics theme

Update to ILRI strategy

Corporate and research and innovation strategies



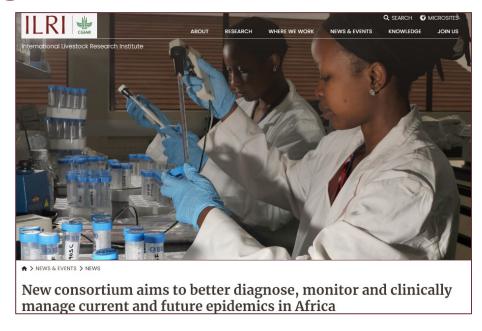
ILRI Animal and Human Health Program

GenPath Africa: Genomic Surveillance to Control Pathogen Infections in Africa (2023-2026)

- Increase the use of genomic epidemiology across Africa to answer critical public health questions;
- Create data platforms integrating epidemiologic, clinical and genomic data
- Implement selected pilot projects that apply genomic epidemiology to inform public health decision-making and product development
- Establish a community of practice, training programs in Africa.

GenPath One Health component led by ILRI:

- To optimize genomic surveillance of RVF virus in human and animal populations in the East African region
- To expand wastewater-based surveillance in Kenya to track pathogens and associated AMR.



Funding: 5M Euro by EU - HORIZON-JU-GH-EDCTP3

Interdisciplinary consortium:

- 1. Stellenbosch University (SU), South Africa
- 2. ILRI, Kenya led Samuel Oyola, Head of ILRI Genomics
- 3. Instituto Nacional de Saude (INS), Mozambique
- 4. Universitiet Antwerpen (UAntwerp), Belgium
- 5. LINQ management GmbH (LINQ), Germany



Animal Human Health continued...

Modelling and testing integrated CBPP disease control for adoption by governments, WOAH and FAO

- Identify critical parameters for building a practical and feasible CBPP disease control model in an endemic area
- Model and pilot a combination of treatment, vaccination and quarantine for control of CBPP
- Expand geography of model to demonstrate feasibility of new method
- Develop written protocols and guidelines for integrated CBPP control
- Present new protocols and guidelines to the WOAH General Assembly for inclusion in scientific manuals and the Terrestrial Code for adoption.

Objective:

- To develop, model and test an integrated CBPP disease control program for endemic areas.
- To present for adoption to WOAH, FAO and regional partners new guidelines and protocols for CBPP control in Africa.



Funding: BMGF:1.1M; IDRC: 2M

Partnership:

- Lead: ILRI, Kenya (Musa Mulongo, Bernard Bett, Elise Schieck)
- 2. GALVMed (Edinburgh, UK)
- 3. University of Cambridge, Vet. Med & Epidemiology
- 4. Tufts University, Boston, USA
- 5. KALRO
- 5. Directorate of Veterinary Services, Kenya



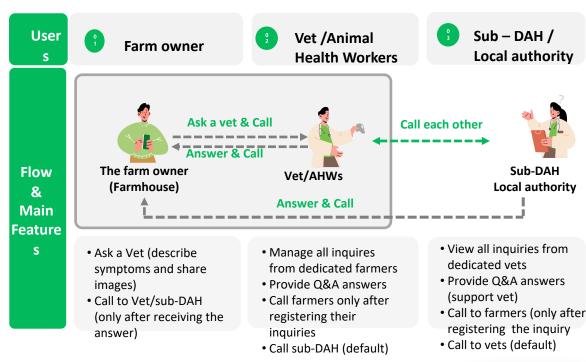


Animal Health continued...

ICT4Health: Improving human health through sustainable value chains in human-animal-environmental interactions using ICT in Vietnam

This project aims at strengthening the capacities of national partners in surveillance, early detection and emergency response, disease prevention and control and laboratory science (serology and diagnostics). The project will inform policy formulation to improve the management of transboundary animal and emerging zoonotic diseases using a One Health approach and ICT.





Funding: Korea MAFRA, 2.8M, 2023-2026

Partnership:

- 1. ILRI: Thang Nguyen et al.
- 2. NIVR
- 3. Chungnam National University
- 4. AIDKOREA



One Health



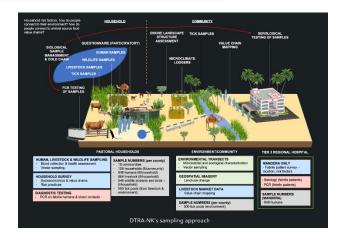


Context

A five-year, 5M US\$ US Department of Defense (DTRA) funded project in northern Kenya to understand how ecological, epidemiological and sociodemographic factors converge for humans and animals to be at risk of emerging pathogens.

Advancing Kenyan capacity to prevent and respond to these threats through improved surveillance, detection, and control measures.

Approach to sampling









Emerging public health threats in Africa's drylands

Environmental change, Africa's drylands and public health. Interdisciplinary research to mitigate the threat posed by vector-borne disease in northern Kenya





At ILRI: Eric Fèvre, James Hassell

Elsewhere:

David Redding, Dino Martins, Ellen Carlin, Francesco Favo, Jeffrey Koehler, Joshua Onono, Keersten Ricks, Mathew Muturi, Michael von Fricken, Suzan Murray, Victor Ofula, Yvonne-



Scan here for the full details of the project

Summary

The DTRA-NK project will use a multilayered approach to study and develop tools to address three emerging vectorborne pathogens - Rift Valley Fever virus (RVFV), Congo Crimean Hemorrhagic Fever virus (CCHFV) and Francisella tularensis (Ft), a bacteria causing the disease Tularemia. Each of these deadly pathogens pose an emerging threat to people and animals in sub-Saharan Africa and Global Health security.

Partners

























