

Animal and human health program

Recent accomplishments

Instrumental in global initiatives, for example, in the World Health Organization strategy for cysticercosis control.

Introduction of technologies, policies, training and certification for informal milk traders benefiting 6.5 million consumers in India and Kenya and generating tens of millions of dollars in economic benefits.

Development of a Rift Valley fever decision-support framework protecting around 50 million people in East Africa.



Impact statement: Better management of food-borne disease could save nearly half a million lives a year and safeguard the livelihoods of over one billion small-scale livestock producers. We have infrastructure and policy linkages in six priority value chains to go to scale to 200 million consumers within five years.

How we address the challenge: Our approach is based on risk analysis. We identify the hazards in food and build the capacity of policymakers to understand risk-based approaches; policy will be more effective and efficient if based on actual risk to human health rather than the presence of hazards. We generate evidence and develop solutions to improve the safety of meat, milk and eggs in informal food markets.

Objective

The program seeks to effectively manage or eliminate livestock, zoonotic and food-borne diseases that matter to the poor through the generation and use of knowledge, technologies and products, leading to higher farmer incomes and better health and nutrition for consumers and livestock.

1. Healthy livestock

Problem statement: Livestock in developing countries suffer from high disease burdens reducing productivity and welfare.

Impact statement: We will improve herd health for around 30 million farmers in Africa and Asia resulting in greater access to nutritious livestock products, improved livelihoods for farmers and reduced environmental impacts.

How we address the challenge: Our approach is based on improving herd health in smallholder systems and developing intervention packages. We promote the rational use of animal health products, including antibiotics, develop and test gender-sensitive service delivery models and provide evidence to governments on effective disease management approaches.

2. Safe food, fair food

Problem statement: In Asia and Africa, most livestock products and fresh produce are sold in informal markets. The human health burden from food-borne disease is comparable to that of malaria, HIV/AIDS or tuberculosis. Unsafe food is also a barrier to market access for poor farmers.

3. Saving livestock with vaccines

Problem statement: Infectious diseases in developing countries cost billions of dollars a year through livestock mortality and illness. Many Africa-specific diseases are neglected as there is little private investment in developing vaccines for them.

Impact statement: Vaccines are the most effective tool for infectious disease control. We aim to have vaccine candidates for some key diseases and two diagnostic assays ready for commercial production by 2022 with the potential to benefit millions of people through increased milk and meat yields.

How we address the challenge: Our comparative advantage is in the discovery to proof-of-concept phase. We develop generic vaccine-related platforms focused on our disease portfolio, but the technologies can be rapidly applied to other diseases. We work on key livestock diseases: African swine fever, contagious bovine pleuropneumonia, contagious caprine pleuropneumonia, East Coast fever and peste des petits ruminants.

4. Zoonoses control

Problem statement: Three-quarters of new human diseases emerge from animals; for most of those with pandemic potential, domestic animals are involved. At the same time

neglected zoonoses continue to impose a huge health burden on poor people and reduce the value of their livestock assets.

Impact statement: Millions of people in Africa and Asia will be better protected from pandemics such as Rift Valley fever. We will support large-scale efforts to control neglected zoonoses such as cysticercosis and brucellosis.

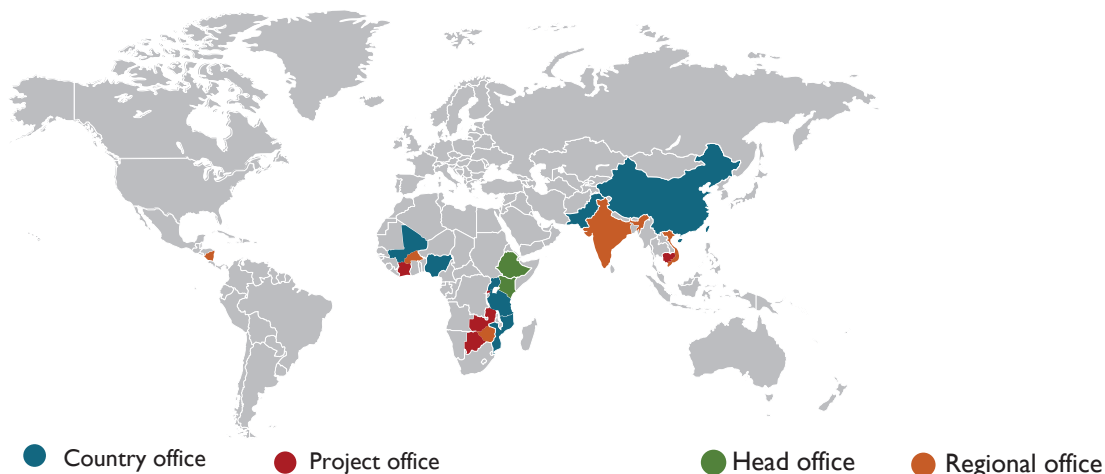
How we address the challenge: We have a suite of tools and approaches, including: risk mapping and risk targeting;

modelling zoonotic pandemics; short-term disease-risk forecasting; developing and testing technologies and systems for surveillance; decision-support tools for graduated responses; and advice on vaccination strategies. We also generate evidence on the cost and impact of zoonoses and the benefits of their prevention.

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The International Livestock Research Institute (ILRI) works with partners worldwide to:

1. Develop, test, adapt and promote science-based practices that—being sustainable and scalable—achieve better lives through livestock.
2. Provide compelling scientific evidence in ways that persuade decision-makers—from farms to boardrooms and parliaments—that smarter policies and bigger livestock investments can deliver significant socio-economic, health and environmental dividends to both poor nations and households.
3. Increase capacity among ILRI's key stakeholders and the institute itself so that they can make better use of livestock science and investments for better lives through livestock.

ILRI leads the CGIAR Research Program on Livestock, leads and co-leads the food safety and improving human health flagships of the CGIAR Research Program on Agriculture for Nutrition and Health, and contributes to several other CGIAR research programs and platforms. ILRI is the co-founder, with the African Union/New Partnership for Africa's Development Planning and Coordination Agency, of the Biosciences eastern and central Africa (BecA-ILRI) Hub on its Nairobi campus where world-class facilities for bioscience research are in use by ILRI, and other international and national partners. The platform increases access to advanced laboratories for African and international scientists conducting research on African agricultural challenges.

ILRI The International Livestock Research Institute (ILRI) works to improve food and nutritional security and reduce poverty in developing countries through research for efficient, safe and sustainable use of livestock. Co-hosted by Kenya and Ethiopia, it has regional or country offices and projects in East, South and Southeast Asia as well as Central, East, Southern and West Africa. ilri.org



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