



Livestock: A pathway out of poverty
Interim Strategy of the International Livestock
Research Institute, 2011–2012

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ILRI works with partners worldwide to help poor people keep their farm animals alive and productive, increase and sustain their livestock and farm productivity, and find profitable markets for their animal products. ILRI's headquarters are in Nairobi, Kenya; we have a principal campus in Addis Ababa, Ethiopia, and 14 offices in other regions of Africa and Asia. ILRI is part of the Consultative Group on International Agricultural Research (www.cgiar.org), which works to reduce hunger, poverty and environmental degradation in developing countries by generating and sharing relevant agricultural knowledge, technologies and policies.

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Executive summary

In the midst of much institutional change, the International Livestock Research Institute (ILRI) has modified its long-term strategy to 2010 to guide its work during an interim two-year period, 2011 through 2012. During this time ILRI management and board will revisit and reformulate the long-term strategy, taking account of changes in the Consultative Group on International Agricultural Research (CGIAR).

ILRI will align its capacities to support a subset of new CGIAR Research Programs. ILRI has important responsibility for leading the program on livestock and fish value chains. During the interim strategy period, ILRI will determine how its competencies can best be deployed to support the overall CGIAR research portfolio as it evolves.

ILRI will at the same time strengthen its roles within the wider global livestock-research-for-development community in the areas of intensifying mixed farming systems and controlling livestock diseases, and it will intensify its efforts to provide decision-makers with pro-poor livestock options.

ILRI will position livestock research for greater benefits to the poor through the following mechanisms:

1. More emphasis on development outcomes.
2. More research embedded in large development projects in which research serves a small, albeit critical, role.
3. More emphasis on both partnerships with research, development and private-sector entities involving shared agendas, roles, funding and accountabilities.
4. More emphasis on developing smarter outreach and communications approaches that 'spill over' lessons and benefits from one region to others.

During the two-year transition period covered by this interim strategy, ILRI will focus on the following implementation tasks:

Management: ILRI will align its research management structure with its new responsibilities in the CGIAR Research Programs and take on full-cost accounting to manage programs, guide resource allocations and increase operational efficiencies.

People: ILRI will align both the research and 'soft' skills of its human resources to meet the demands and challenges of implementing the CGIAR Research Programs.

Partnerships: ILRI will engage with selected partners, each with clearly defined resources and accountabilities, in working in high-priority livestock value chains.

Communications: ILRI will utilize interactive communication vehicles for continual engagement with staff, partners and donors.

Introduction

In 2002, the International Livestock Research Institute (ILRI) developed its current 2003–2010 strategy, *Livestock as a pathway out of poverty*, through institute-wide discussions and consultations with key stakeholders. Board and management reviewed this strategy in 2010 in preparation of a new one. However, given an ongoing reform process in the Consultative Group on International Agricultural Research (CGIAR) and the recruitment of a new ILRI director general in late 2011, board and management agreed that it would be preferable to develop an interim strategy for the period 2011–2012 and defer a more thorough reconsideration of ILRI's strategic directions to late 2012.

This document presents this interim strategy, which we anticipate will serve to guide the institute during a two-year transition period. It will enable ILRI to adopt certain changes in emphasis while positioning the institute for articulation of a new strategy in 2012, when the new Consortium of CGIAR Centres is more firmly established. This delay will ensure that ILRI's directions are clearly aligned with, and supportive of, the larger strategic framework adopted at the Consortium level as well as the specific challenges of the global livestock sector. It will also permit the incoming director general to participate in a broader range of consultations with partners before adoption of a longer term strategy.

This interim strategy for ILRI consists of three parts. The first considers current opportunities and challenges that ILRI must take into account in developing a livestock-research-for-development agenda within the context of the CGIAR reform process and the evolution of the livestock sector worldwide. This suggests ways in which ILRI can best respond to these over the short and medium terms. The second part summarizes lessons ILRI has learned in implementing its current strategy over the last eight years and some of the change in emphasis that this learning implies. The third part briefly describes how the interim strategy will be operationalized over the next two years to position ILRI for the changes expected ahead.

I. Evolving context: Opportunities and challenges for ILRI in the CGIAR and the livestock sector

A changing CGIAR

In 2010, the 15 international research centres supported by the donors making up the Consultative Group on International Agricultural Research (CGIAR) joined to form a single Consortium of CGIAR Centres, governed by a board and supported by a Consortium Office. This organizational change was motivated by discussions within the CGIAR that the research system could be more efficient and effective if donors were to provide research funding in a more collaborative, multi-year framework and centres were to work more closely with each other and with partners outside of the system. The Consortium has developed a Strategic Results Framework that encompasses work being conducted by all member centres and a series of CGIAR Research Programs (CRPs) that will be implemented by collaborating centres and partners. Each of the CRPs is being developed on a separate track, with timing for implementation conditioned by the CGIAR funders and Consortium agreement on the quality of the CRP concepts and proposals. Once approved, each CRP will be the subject of a performance agreement drawn up between the Consortium and its centres. Metrics that indicate progress toward research goals and the production of public goods will be part of each agreement.

In addition, it is anticipated that individual member centres such as ILRI will continue to seek funding and partnerships with others inside and outside of the CRPs but within the overall Strategy and Results Framework.

The on-going CGIAR reform process offers ILRI and other CGIAR centres opportunities and challenges as it promises to build larger, more focused and more efficiently managed research programs that have greater development impacts. Thus far, ILRI has been an active voice in the design of the Strategic Results Framework and the development of the concepts behind the CGIAR Research Programs. In a CGIAR agenda that has traditionally favoured staple crops and supply-driven change, ILRI management has sought to manage the risk that critical livestock issues—and the livelihoods of hundreds of millions of poor livestock keepers—will be neglected.

ILRI faces three strategic challenges in responding to this new CGIAR/Consortium context. First, how can ILRI best take advantage of this changing context and link or integrate its livestock-focused set of research activities within programs designed to address the complex development challenges now embraced by the CGIAR? Second, how can ILRI ensure that its partnerships with governments, private-sector investors, non-governmental development organizations and others outside of the CGIAR are optimally managed to enlarge the success of poor smallholders in livestock development for food security and economic growth? Third, how can ILRI best capture the promise of science and technology for livestock production, processing and marketing, rapidly transforming research products into usable products? The first challenge is addressed here; the second and third, in the following sections.

ILRI's livestock research is recognized as contributing to the four CGIAR system-level objectives: reducing rural poverty, increasing food security, improving nutrition and health and managing natural resources sustainably. ILRI's leadership and participation in development of the set of CGIAR Research Programs will continue and strengthen these contributions.

1. *Reducing rural poverty:* ILRI leads research to improve income opportunities through research on pro-poor livestock value chains: smallholder dairy, ruminant meat and pig meat value chains in selected locations. In recent years, Africa has dramatically increased its regional coordination of, and high-level commitments to, agriculture and agro-industrial development. The Comprehensive African Agricultural Development Program (CAADP) of the African Union is one example. Less-well-measured private-sector commitment to serving local and regional markets with value-added goods provides another. ILRI is working toward sustainable intensification of mixed crop–livestock systems that link smallholders with performing agribusiness value chains while attending to the environmental, social and gender-related effects of expanded agro-industrial employment.
2. *Increasing food security:* ILRI's research on livestock enterprises has shown that poor households are able to increase their food security through livestock production in two ways: by increasing direct household consumption of animal-source foods and through sales of animal-source products, with the income derived used to purchase both food and other household essentials. Smallholders will continue to play key roles in increasing the availability of animal-source foods in South Asia and sub-Saharan Africa for the foreseeable future. In sub-Saharan Africa, this will contribute to the aims of CAADP Pillar 3 of increasing food supply and reducing hunger by raising smallholder productivity. Both South Asia and sub-Saharan Africa have huge rural populations, with the latter being the only region with a still-growing rural population (although it is growing at a slower rate than that in the cities), yet both are urbanizing rapidly. This development favours smallholder dairy production to serve both home consumption and urban market needs, and opportunities are also appearing for the sustainable intensification of smallholder production and marketing of sheep, goat, cattle and pig meat.
3. *Improving nutrition and health.* ILRI has played a leadership role in enhancing human health through research and training on the control of agriculture-associated diseases, such as avian influenza and Rift Valley fever. In addition, ILRI's efforts to increase production of nutritious animal-source foods have directly affected nutrition of poor households. Work on systems to enhance food safety shows that policy and institutional changes are necessary to integrate these issues into functional programs and value chains. With livestock sector growth likely to remain a preoccupation of developing-country governments, the inherent environmental and health risks of this growth need to be managed for the benefit of the poor.
4. *Managing natural resources sustainably:* ILRI has integrated its livestock research into overall agricultural systems research in three areas: sustainable intensification of crop–livestock systems; more efficient use of water and land resources for livestock as well as crops; and pro-poor adaptations to, and mitigation of, climate change. A key objective for ILRI is to help livestock play a catalytic role in the sustainable intensification of small-scale mixed crop-and-livestock farming. This has been an essential contribution of ILRI to crop–livestock systems research, particularly with crop centres in projects coordinated by the ILRI-led CGIAR System-wide Livestock Programme and in a variety of research projects adopting systems approaches, such as the Cereal Systems Initiative for South Asia.

ILRI's expertise in the areas of poverty, gender, impact assessment and modelling sustainable livestock futures also contributes to the achievement of these goals.

Drawing on this experience and responding to the new context and opportunities of the CGIAR Consortium, ILRI has already begun to play major roles in developing several CGIAR Research Programs.¹ For example:

- The ‘Livestock and Fish’ CGIAR Research Program (CRP 3.7)—More meat, milk and fish by and for the poor—builds on our understanding of the issues and concerns of the global livestock sector, both in providing livelihoods for livestock keepers and in supplying a rapidly growing market for animal-source foods. This has been the focus of ILRI’s Markets Theme for nearly a decade. CRP 3.7 recognizes that the ‘livestock revolution’ continues to be reflected in the growing demand for animal-source products in all economies where incomes are growing. The greatest supply responses to this demand pull have been in the large-scale, private-sector pig and poultry production operations of East Asia. Smallholder livestock producers, with the exception of some dairy producers, have largely lagged behind these bigger producers in terms of their productivity and competitiveness. Making improvements in smallholder production systems is more complex than in larger commercial systems because a greater number of actors and institutional innovations are required to integrate marketing, finance, knowledge, feed, breed and health inputs for dispersed small-scale farmers. ILRI’s research in Vietnam, however, shows that smallholder pig systems can be competitive, although improved methods of environmental management are needed. And in all its work to accelerate economic and other growth through livestock interventions, ILRI will also need to pay attention to who wins and who loses with a given intervention, and to ensure that social protection schemes are in place where they are needed most.
- The CGIAR Research Program ‘Agriculture for Improved Nutrition and Health’ (CRP 4) recognizes that animal-source foods are a high-quality component of diverse, nutritious diets, especially with regard to protein and micronutrients, but also acknowledges that animals are a major source of zoonotic disease and that handling animal products must be carefully managed to ensure their safety. CRP 4 takes the trends in animal-source foods into account as issues of nutrition and health are targeted for research attention by the Consortium. ILRI’s experience in both its Biotech and Markets themes in dealing with diseases transmissible between animals and people, such as highly pathogenic avian influenza, or bird flu, and more geographically delimited diseases (but those with potential to expand widely), such as Rift Valley fever, which have greatest affects on ruminant and human populations in eastern and southern Africa, will also be brought to bear.
- Participation in two CGIAR Research Programs on ‘Agricultural systems for the poor and vulnerable’ in different agro-ecologies and CRP 5 on ‘Water, Land and Ecosystems’ will enable ILRI to link and integrate its livestock systems research into a broader agricultural development and agro-ecological context. It will engage the experience of ILRI’s People, Livestock and the Environment Theme, which covers the role of livestock in sustainable intensification of smallholder crop–livestock systems to managing risk and vulnerability of pastoral populations in dry areas. It also builds on research conducted by ILRI and the International Water Management Institute (IWMI) on livestock–water management. Livestock have a big impact on natural resource use; enhancing the efficiency and managing the tradeoffs of natural resource use by livestock is a critical research area. Research has shown that the ability of smallholder livestock operations to meet market demand and to generate growing incomes for producing households is directly linked to the quality of, and the producers’ access to, environmental resources: land for fodder production and grazing and water for animal health and productivity. Both land and water supplies are under pressure from growing populations, urbanization, and climate change; livestock keepers are changing their strategies in an effort to maintain their productivity. Some livestock production will move into drier regions. Some crop

1. For the complete list of the 15 CGIAR Research Programs, see www.ilri.org/crp

farmers will move into livestock production as their own areas begin to receive less or more unreliable rainfall. Some dairy producers will switch species, taking on small ruminants or pig production. All of this demands that ILRI integrate natural resource management approaches into its research perspectives, including exploring new ideas regarding the spatial allocation of livestock enterprises and livestock management practices.

- • ‘Climate Change, Agriculture and Food Security’ (CRP 7) engages ILRI’s experience in adaptation of livestock systems to progressive climate change, methods for managing climate risk, poverty alleviation through climate change mitigation strategies, and diagnosis and scenarios that enable decision-makers and policymakers to make strategic choices. Much of the initial work has focused on climate risk and vulnerability targeting and scenario development using modelling and trade-off analyses. ILRI will lead this work in CRP7 as well as coordinate regional activities in eastern and southern Africa. Moving forward, ILRI will emphasize more cross-cutting research using livestock as a tool for adaptation to progressive climate change and for mitigating greenhouse gas production. CRP 7 understands that the resources needed for livestock production are being affected by climate change and that livestock production has negative effects, including contributing to climate change through production of greenhouse gases.

Innovation and change in the livestock sector

In addition to responding to changes in the CGIAR, ILRI will also be called upon to respond to emerging demands of partners and participants in the livestock sector. Both governments and private companies are showing much greater interest in investing in the agricultural and livestock sectors. This has brought many new actors into livestock research for development, particularly from the private sector and non-governmental organizations, as well as more coordinated public support at regional and national levels. As demonstrated in Asia, fastest progress in the livestock sector will be made in value chains and production systems with the greatest capacity and with a relatively small number of actors that can be easily coordinated. Our challenge is to find institutional arrangements that efficiently and effectively link larger numbers of smallholders to well-performing value chains and agribusiness.

By expanding its involvement with private-sector and non-governmental organizations on the one hand and investors on the other, ILRI is better supporting livestock research with development partners both within and outside the CGIAR. ILRI is building on its current partnerships with the African Union’s Inter-African Bureau for Animal Resources (AU–IBAR), with the Forum for Agricultural Research in Africa (FARA) and its sub-regional organizations as well as with regional Asian agricultural organizations, such as APAARI, and economic communities, such as the Mekong Basin Initiative.

With a crowded field of providers of knowledge, technology and capacity development, ILRI regularly assesses its comparative advantages in research for development, including its locations, partnerships, infrastructure and on-going research programs. The multi- and trans-disciplinary research capacities that ILRI has developed, from social sciences to livestock sciences to biosciences, need to be matched with nimble and effective management and greater and more effective engagement with partners, both public and private.

From science to innovation to development impact

ILRI sees great opportunities for advanced biosciences to provide technical solutions, such as new and improved vaccines and diagnostic tests, to better control livestock diseases. Increasing the relevance

and speed of the product development cycle, and scaling up impacts for pro-poor development, requires smarter ways of working with partners, including the private sector and across the spectrum of development actors.

To this end, ILRI is collaborating with the New Partnership for Africa's Development (NEPAD) Science and Technology Office in the establishment of a research platform that will serve a wide range of scientists in the region. The Biosciences eastern and central Africa (BecA) Hub, hosted and managed by ILRI, enables scientists from Africa to use state-of-the-art biosciences tools to further agricultural development on the continent. The BecA Hub also offers ILRI's livestock bioscientists greater opportunities for collaboration and development of larger and more effective research programs.

The new BecA Hub facilities are helping ILRI's laboratory-based scientists to forge new arrangements with leading bioscience innovators, to engage at early stages in the research process with the private sector and to form public-private partnerships. ILRI complements such state-of-the-art facilities as the BecA Hub with work within livestock value chains and in 'innovation platforms', which serve to link livestock science with other actors involved in livestock and agricultural development.

II. Lessons learned in implementing ILRI's strategy 2003–10

A mass of evidence and experience from ILRI's own research and from that of many others continues to affirm the important and multi-functional roles that livestock can play in alleviating poverty.

ILRI's mission, articulated in its long-term strategy to 2010, to broaden and deepen three main livestock-mediated pathways out of poverty—through increased income, reduced livestock losses and greater productivity—thus remains highly relevant in developing countries today. In addition, however, ILRI is now investing more in research that will enable producers to balance that desired livestock growth against the needs to reduce livestock-related environmental degradation and human illnesses, such as those caused by zoonotic diseases and the consumption of unsafe livestock foods.

Lessons about what ILRI should work on

Over the years, ILRI and its partners have advanced our understanding of the roles livestock play in pro-poor development. This improved and expanded understanding has helped ILRI to build capacity for research on poverty, gender and impact assessment and to integrate this research into ILRI's biological and socioeconomic research programs.

Most instructive has been ILRI's research on smallholder dairy systems, led by the Markets Theme but conducted in partnership with development actors and policymakers as well as other research groups. This project demonstrated that smallholders are more competitive in dairy than in many other agricultural enterprises, and smallholder dairying is now a high priority in pro-poor livestock development work. ILRI has learned several lessons from this research.

- Research evidence for pro-poor policymaking and policy implementation is most effective when it supports the demands of engaged actors, including policymakers and regulators, farm and market agent organizations, private-sector companies, non-governmental organizations and government departments.
- Better access by the poor to input supplies, markets, knowledge and information, finance and other value-chain functions must be coordinated to enhance the benefits of those functions for the poor.
- Value addition should be harnessed along the whole value chain to boost incomes in poor countries; targeting studies and strategic analysis should be used to shape interventions for best delivery.
- Lessons learned in given agricultural systems in use in different regions (e.g. smallholder dairy in East Africa and South Asia) should be compared and shared.
- Research by government, non-government and private-sector actors must be integrated to scale up the use of agricultural interventions.

Smart policies and investments in smallholder dairy have been shown to reduce poverty in broad and substantial ways. ILRI research has demonstrated that improving the quality of informal milk chains can

resolve sanitary problems that would reduce consumers' health while providing jobs and incomes for millions along the value chains. The development and guarantee of market demand and the creation of input, finance and market hubs that enhance the value chain encourages smallholders to take up productivity-enhancing feed (dual-purpose food-feed crops, high-yielding grasses), genetic (crossbred cows) and health (vaccines) inputs. Many of these interventions for small-scale dairying and marketing are widely applicable and are being scaled out across East Africa and South Asia.

The lessons from smallholder dairy have not been easily transferred to other livestock value chains. *Ex-ante* research indicates that work to improve selected value chains in certain locations, such as production of sheep and goat meat in West and southern Africa and pig meat in the highlands of Asia, also have great potential for reducing poverty. However, greater resources and critical mass will need to be focused on these other value chains. In making choices on focus, the key issues to consider here are the market demand for a given livestock product and the competitiveness of smallholders, which is determined by their natural resource endowments and returns to labour, and the opportunities for the poor to participate in given value chains.

Many practical lessons about farm-level innovation have been learned in the last few years in different projects. ILRI's Improving Productivity and Market Success of Ethiopian Farmers project has tested ways to supply agricultural inputs and knowledge and to engage farmers and market agents in value chains. It is clear, however, that much work remains to be done to improve the supplies of knowledge, technologies and inputs needed by farmers to improve the health, breeding and feeding of their animal stock in different contexts. While broader research on innovation systems will be required, ILRI's role will be much more specific, to see how innovation systems methods can be applied to enhance capacities for sustainable livestock production.

Improving livestock value chains does not necessarily improve the welfare of the poor or of particular kinds of poor people, such as women. Because some changes may actually harm women by excluding them from more commercial livestock markets, or displace the poor without creating alternative livelihood opportunities for them, analysing benefits in value chain work disaggregated by gender and other important stakeholder categories is now standard practice for ILRI and its partners. ILRI works to understand not only the total benefits of a given intervention but also how those benefits are distributed in society and households. In addition, ILRI is concerned not only with economic growth but with ensuring social protection of the poor and other marginalized groups.

Not all poor livestock keepers can readily link to growing livestock markets or sustainably intensify their livestock production. Among pastoral peoples living in more marginal regions, livestock assets remain critically important for reducing risk and enhancing resilience. Livestock disease remains a big risk in pastoral and other regions, making work on livestock vaccines and the genetics of disease resistance in livestock highly relevant for poverty reduction. However, appropriate technologies for improving animal health have, with a few exceptions, not yet been delivered at scale. One lesson for ILRI is that we must engage more actively with other research organizations and development partners. Because technical options are typically of limited use in helping pastoralists enhance their resilience against drought and other shocks, ILRI is placing greater emphasis on empowering pastoral communities to influence policy and investment decisions and on working with private sector companies, for example, by developing and piloting insurance that protects livestock owners against the economic loss of weather-related livestock mortality. This pilot study is based on extensive analysis of drought-related livestock deaths and is being tested to protect the livelihoods of remote herding communities that have never before been insured.

The focus of ILRI's current strategy is ensuring that poor people share the benefits of meeting the fast-rising demand for meat, milk and eggs in the developing world. It is increasingly apparent that the rapid growth of the livestock sector generates, in addition to benefits for livestock keepers, negative impacts in the form of degradation of land and water resources, emissions of methane and other greenhouse gases, and increased risks of transmission of both livestock and zoonotic (livestock-to-people) diseases. ILRI has thus expanded its research on the complex trade-offs involved in livestock development, on useful adaptations the poor can make to cope with climate change, on ways poor livestock keepers can mitigate their levels of greenhouse gas emissions, and on methods for preventing or controlling the emergence of zoonotic diseases in poor communities.

Lessons about how ILRI should work

While ILRI believes it has learned much as it has implemented its current strategy about *what* research it should (and should not) conduct, perhaps of even greater importance to ILRI's success are the lessons it has learned about *how* it should work. The context in which ILRI works has changed in recent years, with a much greater array of actors now involved in research-for-development and much greater demands for research institutions to do more than provide knowledge and technologies, particularly by engaging, supporting and adding value to the work of our development partners. One way ILRI is enlarging its engagements is by implementing ways it can better serve as an honest, well-informed, evidence-based 'broker' in knowledge sharing, problem-solving, scientific networking, innovation pathways and other social processes at the heart of development.

ILRI's research on new subunit vaccines to protect cattle in Africa against East Coast fever, like its research in smallholder dairy, has demanded increasing focus by ILRI research teams and longer term and better coordinated partnerships. Impressive research progress was made through a well-managed research partnership across several institutions supported and challenged by regular high-quality external reviews. Early engagement with a private sector vaccine producer contributed to the good progress made by ILRI's vaccine researchers. When progress stalled at a certain stage of the research results, ILRI engaged experts and held discussions with public and private partners to explore new institutional arrangements and operational mechanisms to speed up the testing of a wider variety of vaccine delivery technologies and formulation options. While large animal health companies often coordinate critical steps in the research–development process for products that are potentially profitable, they have much less interest in playing this role for development of vaccines and other products designed to benefit the poor in developing countries.

We are convinced that bringing together key public and private players within partnerships and platforms is essential for improving animal health in developing countries, but there is much still for us to learn about how this can be done more effectively and efficiently. ILRI will continue to explore this in public–private partnerships and in its investments in the recently completed platform for sophisticated research and training in biosciences, the Biosciences eastern and central Africa (BecA) Hub.

ILRI's current strategy has driven the institute to make more focused and larger research efforts, and to make deeper engagements with essential research and development partners, to achieve greater development impacts. In 2006, ILRI commissioned a review of its partnerships and developed a partnership manual, which includes good practice in project management and partner relations, to support better quality partnerships. ILRI has worked to strengthen its capacity and performance in conducting partnerships, mobilizing resources, managing human resources, and providing financial and administrative support for larger research-for-development projects. 'Team culture' among ILRI

researchers has also improved. In moving forward, these good practices will need to be strengthened and expanded in the following ways.

- Develop and maintain effective joint projects and programs with development implementers (e.g. ILRI's East African Dairy Development Project with non-governmental organizations; its Improving Productivity and Market Success of Ethiopian farmers (IPMS) project with Ethiopian federal, regional and district governments; and its East Coast fever vaccine research and delivery project with private companies).
- Provide national and regional decision-makers with policy-relevant research evidence and support regional harmonization by engaging more with regional economic communities and the African Union.
- Work closely with the national agricultural research systems of developing countries, such as the Chinese Academy of Agricultural Sciences (CAAS), the Ethiopian Institute of Agricultural Research (EIAR), the Indian Council of Agricultural Research (ICAR), the Institute of Agricultural Research of Mozambique (IIAM), the Kenya Agricultural Research Institute (KARI) and the National Institute of Animal Husbandry (NIAH) in Vietnam.
- Integrate important but isolated pieces of research into coherent, impact-oriented portfolios, building on ILRI's experience in such areas as index-based livestock insurance for increasing resilience and enhancing diversification in pastoral systems.
- Link laboratory and field research projects on animal health and zoonoses in a portfolio incorporating short-, medium- and long-term outcomes highly relevant to the stated needs of stakeholders and to building their capacity.
- Expand ILRI's skills in business and partnerships to engage in more large-sized, multi-partner research programs, with ILRI playing the role of knowledge and science partner.
- Influence the global and regional livestock agenda by engaging and supporting key partners through strategic communications and knowledge management.
- Continue to build on ILRI's capacity development work, which has delivered some of the institute's greatest impacts, by building networks of individuals trained at ILRI, scaling up learning-by-doing approaches and partnering with universities and other specialized training organizations.

ILRI has broadened its regional engagement outside eastern Africa by strengthening its representation and expanding its activities in South, Southeast and East Asia and in West and southern Africa. While maintaining common research programs across regions, ILRI's engagement of partners and ways of working has distinctive regional characteristics. Because it is physically and financially impossible for ILRI to engage with all countries in a given region, the institute has chosen focal countries with which, and in which, to work, each of which requires a critical mass of international and national staff members engaging with local livestock partners. ILRI will work on improved ways of ensuring that the lessons learned and capacity built in this work are shared quickly and broadly with other countries and regions.

III. Ways forward: An interim strategy

ILRI's mission, encapsulated in ILRI's catch-phrase, *Livestock as a Pathway out of Poverty*, and tagline, *better lives through livestock*, remain compelling and relevant within the context of the CGIAR Consortium. But the lessons that ILRI has learned and the fast-evolving context for small-scale livestock production in sub-Saharan Africa and Asia require changes to be made both in what ILRI does and in how it does it.

Table 1 outlines the main changes ILRI will make over the next 2 years to position itself for greater impacts within the CGIAR and with partners from policy- to farm-level in focus countries.

Table 1. *Repositioning for greater effectiveness*

Current ILRI	Future ILRI
ILRI is accountable to its board and to donors and partners through research results and reports	ILRI and its board will share accountability for research performance with science partners in the CGIAR Research Programs and for impact with development partners
ILRI and partners are accountable for project performance. Agendas frequently set by ILRI and funds usually managed by ILRI based on internal performance systems and subcontracts with partners	ILRI assumes greater responsibility for project performance in CGIAR Research Programs, benefiting from greater and more predictable funding from CGIAR funders, and working in closer collaboration with partners to monitor projects and adjust focus as needed
Research projects are mostly small to medium in size (USD 100–500 thousand per annum) with specific and stand-alone outputs linked to outcomes	Research projects will be embedded in larger research-for-development programs in which a given research component undertaken by ILRI itself may comprise just 5–10% of total activities
Emphasis is placed on research quality and scientific evidence in broad areas relevant to development	Research quality and scientific evidence continue to be high priorities for ILRI but they will be complemented by greater attention to specific development outcomes and impacts
Regional focus in sub-Saharan Africa and South Asia. Research projects are conducted with a wide range of partners in countries for which research funding can be obtained	Regionally based activities will serve both as learning sites and as platforms for global research. Lessons and benefits are actively 'spilled over' to other locations through smarter outreach and communication work
Emphasis is on responding to new opportunities. Project deadlines are often flexible, with frequent no-cost extensions	Emphasis is on making timely inputs to broader, shared research-for-development programs. More rigorous work planning activities and managing performance will improve the timeliness of delivery of outputs and outcomes

Some of these changes have been anticipated and are already being made while others, especially around accountability and performance, are potentially more dramatic and will be mandated, monitored and evaluated externally. Some changes will require ILRI balancing its increased accountability with shared agendas and shared responsibility for accountability. All will require new management and partnership skills and new perspectives, with a bias toward providing greater support to developing-country institutions and individuals.

This interim period is likely to be characterized by uncertainty as ILRI's roles in the new CRPs and in response to partners' requests are worked out. Performance contracting and mutual accountability within the CGIAR will depend on the nature and flow of financial resources. If most funds flow from the Fund through the Consortium to support coordinated longer term research, performance contracting linked to strategic results will be critical. If ILRI is still responsible for obtaining most of its funding through more restricted projects, its accountability will be more diverse.

ILRI will have specific roles and responsibilities in the new CGIAR Research Portfolio and the current ILRI research program and management structure will be adjusted to align with our Consortium responsibilities, emphasis being placed on nurturing flexible and responsive teams with the requisite mix of scientific and soft skills to plan and implement programs. ILRI has a leadership responsibility for the new CGIAR Research Program—*CRP 3.7: More meat, milk and fish by and for the poor*. This program has been proposed to support the development of a limited number of promising value chains in selected countries with key public and private development partners. This program will draw on ILRI expertise from across its current three themes (Markets; People, Livestock and the Environment; Biotechnology) as well as from its two cross-cutting groups (Sustainable Livestock Futures and Poverty, Gender and Impact). Given its value chain development emphasis, this CGIAR Research Program would be coordinated by ILRI's Markets Theme, with clear accountability arrangements made with other ILRI groups. Given its leadership role, ILRI will be responsible for foresight and targeting work as well as poverty and gender studies, monitoring and evaluating the research and assessing its impact.

The other ILRI leadership responsibility will be in leading the component on agriculture-associated diseases within the International Food Policy Research Institute (IFPRI)-led CGIAR Research Program—*CRP 4: Agriculture for improved nutrition and health*. This responsibility will demand better coordination and mutual accountability among ILRI programs dealing with food safety, zoonotic and emerging diseases and biotechnology as well as greater ILRI capacity in economic analysis and monitoring and evaluating health outcomes and nutritional issues. New approaches will be assessed for building ILRI's capacities in these areas.

While positioning itself to make important contributions to the broader CGIAR Research Program, as noted above, ILRI will also maintain and strengthen its roles within the global livestock-research-for-development community. This will require on-going assessment of what is best done within the CGIAR Research Programs and what is better done directly with our many livestock development partners.

Three critical livestock leadership areas for ILRI are:

1. *Sustainable intensification of mixed farming*: Provide knowledge to guide investment decisions for sustainable intensification of mixed crop–livestock systems that link value chain and livestock production system development. Help close important productivity gaps and increase returns to the poor to their breeding, feeding and livestock health inputs. Gaps in livestock skills and investments must also be closed to capture these large potential benefits. In systems targeted for productivity gains, help balance the socio-economic and environmental tradeoffs of livestock development. In pastoral and agro-pastoral areas and more difficult environments, help increase the resilience of households and communities through livestock development and provision of environmental services, insurance schemes and alternatives to livestock-keeping livelihoods.
2. *Control of livestock diseases*: Provide leadership in how the control of important tropical livestock diseases, including zoonoses, fit with broader development strategies. This would include support to thinking about the full spectrum of animal health interventions, from development of vaccines

and diagnostics to the design and implementation of disease control programs. ILRI would play a greater role in supporting efforts by partner organizations in disease control. These greater support roles will include: using the new biosciences facilities at the BecA Hub to advance Africa's animal health biotechnology research and development and research to support new approaches and institutional arrangements to speed the development of vaccines for diseases that have high impacts in developing countries and diseases that ILRI has unique capacity to tackle.

3. *Livestock policymaking and investments*: Provide government decision-makers with options for enabling pro-poor livestock policies and investments in partnership with international and continental livestock organizations.

During the two-year transition period covered by this interim strategy, the following key areas of emphasis will need to be tackled to position ILRI for greater future impacts.

- **Management**: ILRI will align its research management structure with its new responsibilities in the CGIAR Research Programs and actively engage with IFPRI (CRP 4) and WorldFish (CRP 3.7) to ensure that our research and management capacities are sufficient to implement these programs effectively. ILRI will engage actively with the lead centres for CRPs 1.1, 1.2, 2, 5 and 7 to contribute to the overall design and implementation of these programs and to take on specific roles related to ILRI's programmatic advantage and for which resources are allocated within the CRP. Financial management of programs will be based on full-cost accounting. Full-cost accounting will be used to guide resource allocation and identify ways to increase efficiency and reduce costs across ILRI operations and infrastructure.
- **People**: ILRI will align its human resources to meet the demands and challenges of implementing the CGIAR Research Programs. This will include research skills as well as business development and managerial skills to help manage larger projects and partnerships and to help mobilize resources. As much as possible, new recruits will have solid experience in livestock-sector development in developing countries.
- **Partnerships**: ILRI will actively engage with a limited number of governmental and non-governmental organizations and private-sector partners in our development of plans and proposals for work in high-priority livestock value chains. Resource mobilization and allocation will be based on relative roles and responsibilities and full-cost accounting.
- **Communications**: ILRI will establish interactive vehicles for communications about the changes taking place to keep our staff, partners and donors fully informed, advised and engaged in the change processes.

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