

Setting international livestock research priorities

Some livestock research challenges and priorities suggested by participants in ILRI@40 events in 2014

Compiled by Peter Ballantyne

20 January 2015



ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE



ILRI@40

- In 2014, to mark four decades of international livestock research, the International Livestock Research Institute (ILRI) held a series of events on the ways in which livestock research advances food and nutritional security, economic well-being and healthy lives.
- At each event, we asked participants to comment on two questions:
 - Looking to 2054, what are THE two most critical livestock-related challenges we must answer through research?
 - What is THE most promising ‘best bet’ opportunity we should invest in to achieve better lives through livestock in 2054?
- This presentation is a summary of the responses collected. It gives some of the specific suggestions; it also presents graphic ‘word clouds’ summarizing the inputs received (using a simple categorization of the responses).
- More on ILRI@40 events: news.ilri.org/category/ilri40

People at the Nairobi event



Question 1

Help set livestock research priorities!

- Looking to 2054, what are THE two most critical livestock-related challenges we must answer through research?
- *Solicited from people at 7 events: Tropentag (Sep); Nairobi (Oct); Dar es Salaam (Oct); Hanoi (Oct); Des Moines (Oct); Nairobi (Oct); Addis Ababa (Nov)*

Challenges to answer through research

- connect animal research to resources research: plant growth, water availability, environmental externalities
- *manage impacts of climate change on systems that sustain balanced crop-livestock system*
- devise water-efficient livestock farming for maximum productivity
- *build critical mass to cause change in the livestock sector*
- provide sustainable feeds and forage for pastoralists in arid and semi-arid regions
- *attract youth to livestock production and related business*
- breed efficient dairy cattle breeds that have small bodies but produce lots of milk
- *provide evidence from rangelands that livestock make a quantitative positive contribution to global food production*

Challenges to answer through research

- make livestock production more viable and profitable for smallholder farmers
- *help smallholders reconcile having fewer, more productive animals with the need to reduce risk and meet cultural and banking requirements*
- ensure sustained smallholder based livestock productivity increases while maintaining environmental health and equitable access to nutritious and safe animal source foods
- *feed double the population of today with fewer livestock, while not overusing land resources*
- make the livestock 'business' attractive to the private sector
- *make nomadic lifestyles technically and socially acceptable*

Challenges to answer through research

- develop livestock breeds adapted to tropical conditions and changing climate
- *secure livestock genetic diversity for future needs*
- incorporate food safety issues into food security
- *develop sustainable feeds and forages for pastoralists*
- address the effects of seasonality on livestock production in Africa
- *formulate high-impact feeds using locally available resources*
- curb the use of antibiotics in food producing animals and develop alternatives to produce healthy animals
- *develop vaccines to control and prevent livestock diseases*

Challenges to answer through research



People contributing to the Addis event



Question 2

Help set livestock research priorities!

- What is THE most promising ‘best bet’ opportunity we should invest in to achieve better lives through livestock in 2054?
- *Solicited from people at 7 events: Tropentag (Sep); Nairobi (Oct); Dar es Salaam (Oct); Hanoi (Oct); Des Moines (Oct); Nairobi (Oct); Addis Ababa (Nov)*

Opportunities for research

- shift from traditional livestock (cattle, pigs, sheep, etc) to insects
- *invest in the drivers of equitable, gender-aware participation in livestock-based value chains*
- support improved crop livestock integration through expanded use of multipurpose crops for forage and grain
- *enhance the contribution of livestock to human nutrition*
- improve access to capital/credit to value chain actors
- *apply emerging ICT, genomic and reproductive technologies to deliver more productive and resilient livestock*
- increase avenues to share research findings
- *develop sustainable poultry production based on local breeds, good management system, disease control, marketing outlets ...*
- develop capacities to replace aging animal scientists

Opportunities for research

- explore and identify livestock systems that have a lower 'footprint' on natural habitats and provide ecosystems services
- improve pastoralists' access to and control of land
- Improve market linkages and market-driven production systems and upgrade livestock value chains
- reconfirm links between animal source foods and cognitive development of children on whom development depends
- engage farmers in defining research agendas
- break down complex technologies to ease their adoptability
- Invest in innovation platforms that transfer technologies
- invest in key value chains - dairy, pig, fish, sheep, goats, poultry
- engage and support youth in livestock; develop technologies that attract youth

Opportunities for research



Contrasting the Priorities

Priority challenges



Priority opportunities



Other issues suggested

- how do we prioritize research for different targets: producers, urban consumers and other value chain actors – to ensure their economic well-being and healthy lives?
- *consider the trade-offs among equity, health and nutrition and economic well-being*
- what integration measures will be needed for mixed crop-livestock, pastoral, and urban/peri-urban livestock systems? By 2050, what will these systems look like?
- *how do smallholders improve their productivity without resources? What are the priorities?*
- is there a chance that smallholders will get out of poverty by 2054?
- *will there be a niche for livestock smallholders in 2054?*

Other issues suggested

- what happens when projects end? We need to address the sustainability and continuation at the end of projects
- *if research is more and more donor-driven, how do we ensure that fundamental research is still done*
- invest more in collaboration that brings together public and private sectors to improve value chains.
- *bridge gender gaps - real, actionable ideas is what we want!*
- what are the implications when smallholders become richer? Does an institute like ILRI need to evolve as smallholders evolve?
- *integrate impact assessments as a natural part of what we do; we need them to guide future priority setting and to enable the institutionalization of important approaches (like OneHealth) so they do not become vulnerable to lack of funding or loss of institutional memory.*

More

- News stories: news.ilri.org/category/ilri40
- Products: cgspace.cgiar.org/handle/10568/45939
- Photos: [Photos on flickr](#)
- Video materials: [Playlist on YouTube](#)

better lives through livestock

ilri.org

ilri.org

Box 30709, Nairobi 00100, Kenya
Phone: + 254 20 422 3000
Fax: +254 20 422 3001
Email: ILRI-Kenya@cgiar.org

Box 5689, Addis Ababa, Ethiopia
Phone: +251 11 617 2000
Fax: +251 11 617 2001
Email: ILRI-Ethiopia@cgiar.org

other offices
China • India • Mali
Mozambique • Nigeria • Tanzania
Thailand • Uganda • Vietnam

Better lives through livestock
ILRI is a member of the CGIAR Consortium



The presentation has a Creative Commons license. You are free to re-use or distribute this work, provided credit is given to ILRI.