

ILRI in Southern Africa: Opportunities for collaboration

Sikhalazo Dube

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Presentation Outline

- ILRI Overview
- Southern Africa in Context
- What are the issues and research priority areas?
- Who else is involved in livestock Research and Development?

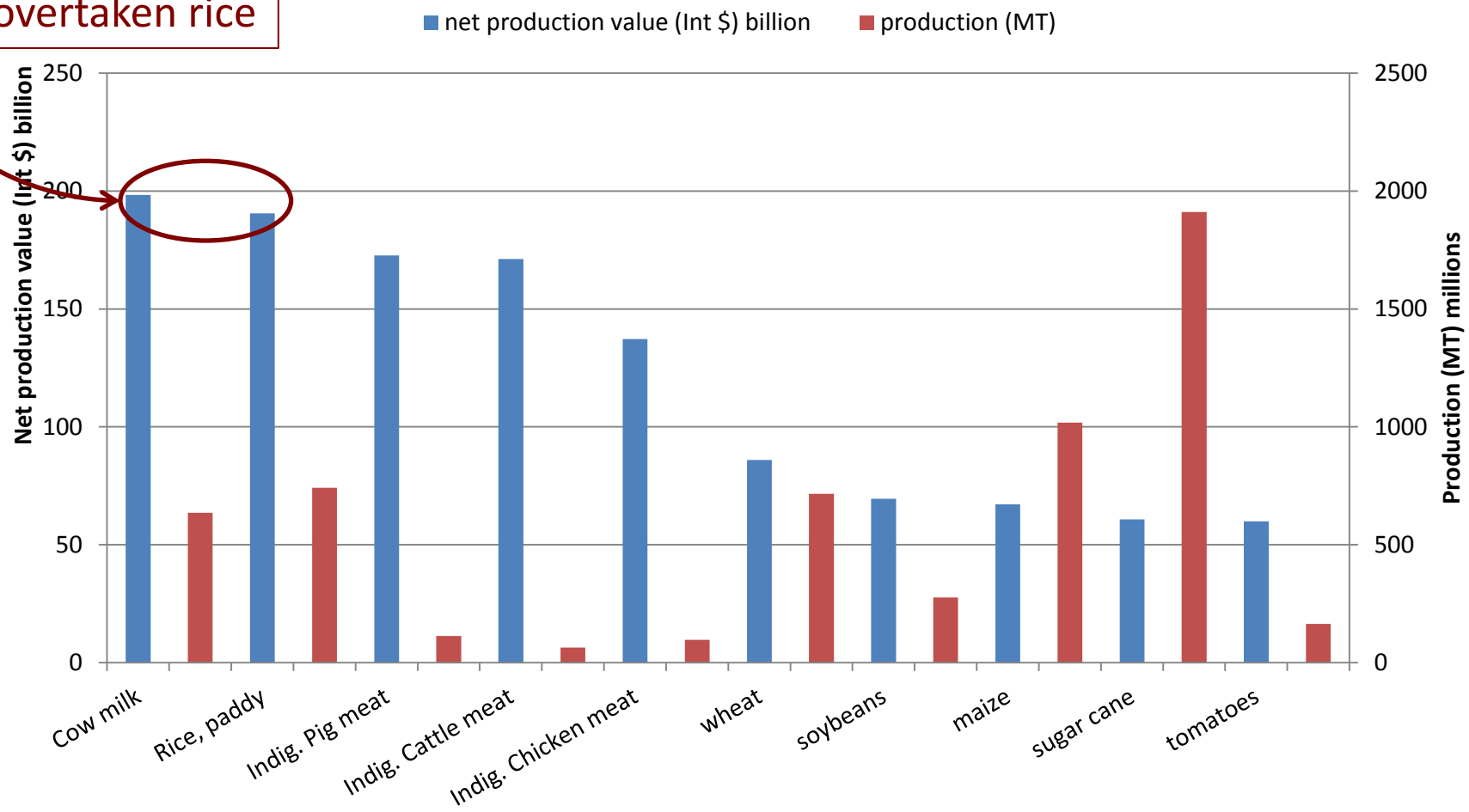
Presentation Outline

- How does ILRI fit in?
- What is ILRI doing in the region?

SOME FACTS ABOUT THE LIVESTOCK SECTOR

4 of 5 highest value global commodities are livestock

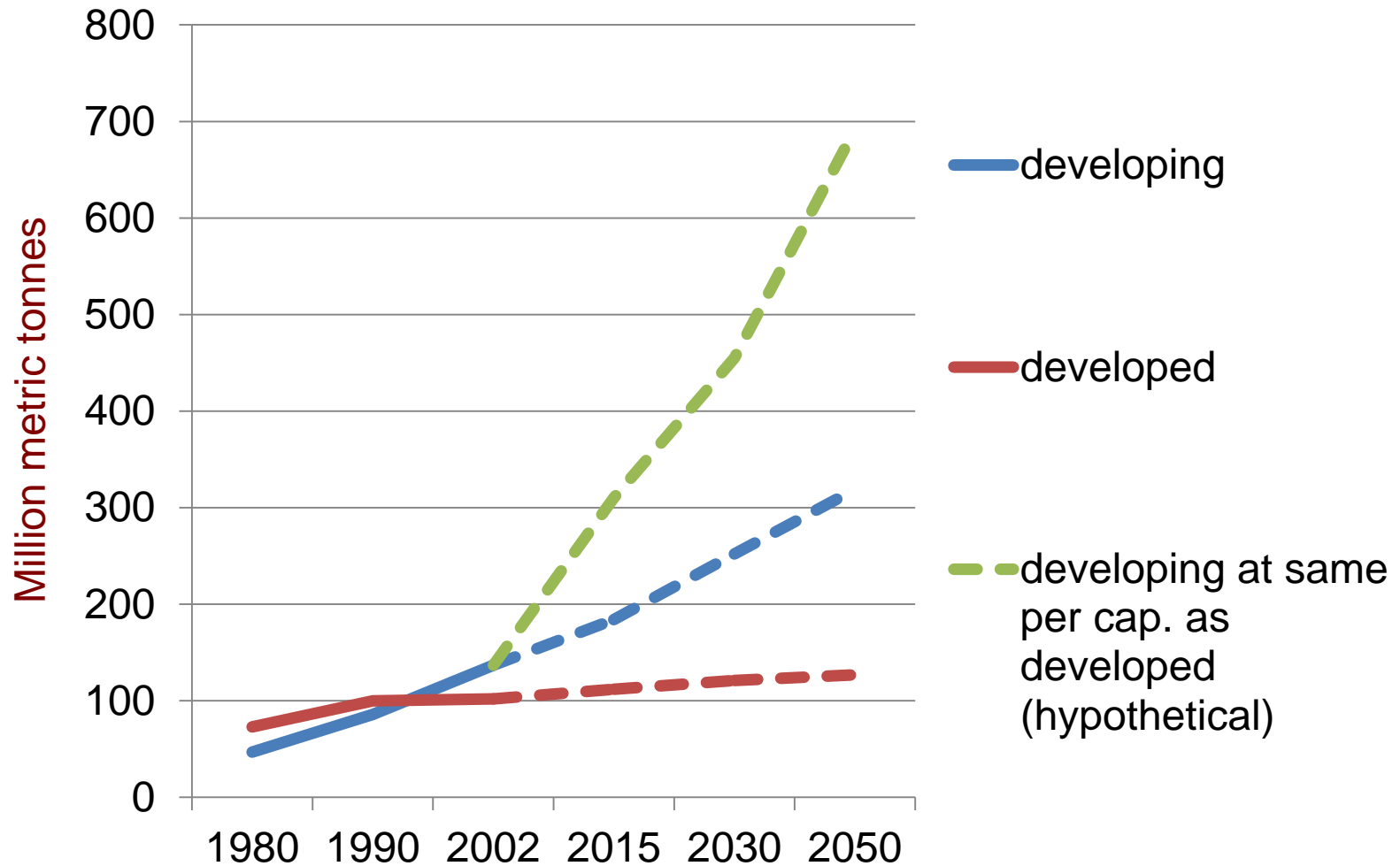
Cow milk has overtaken rice



Economic opportunities in the livestock sector

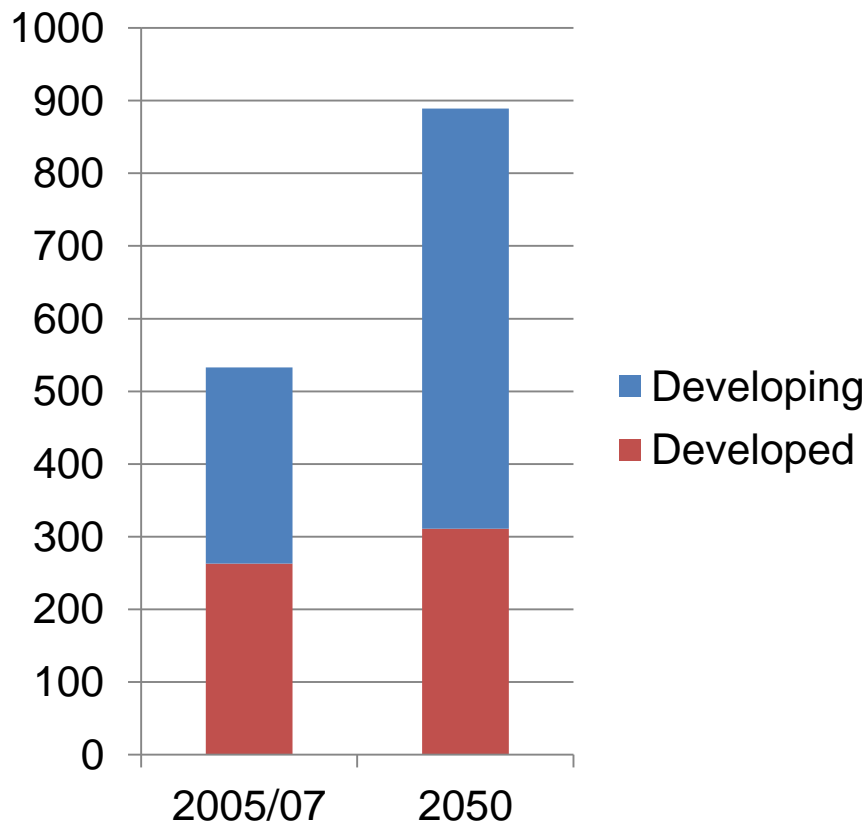
- The 4 billion people who live on less than US\$10 a day (primarily in developing countries) **represent a food market of about \$2.9 trillion per year.**
- Asset value \$1.4 trillion
- Employs at least 1.3 billion people

Gains in meat consumption in developing countries are outpacing those of developed

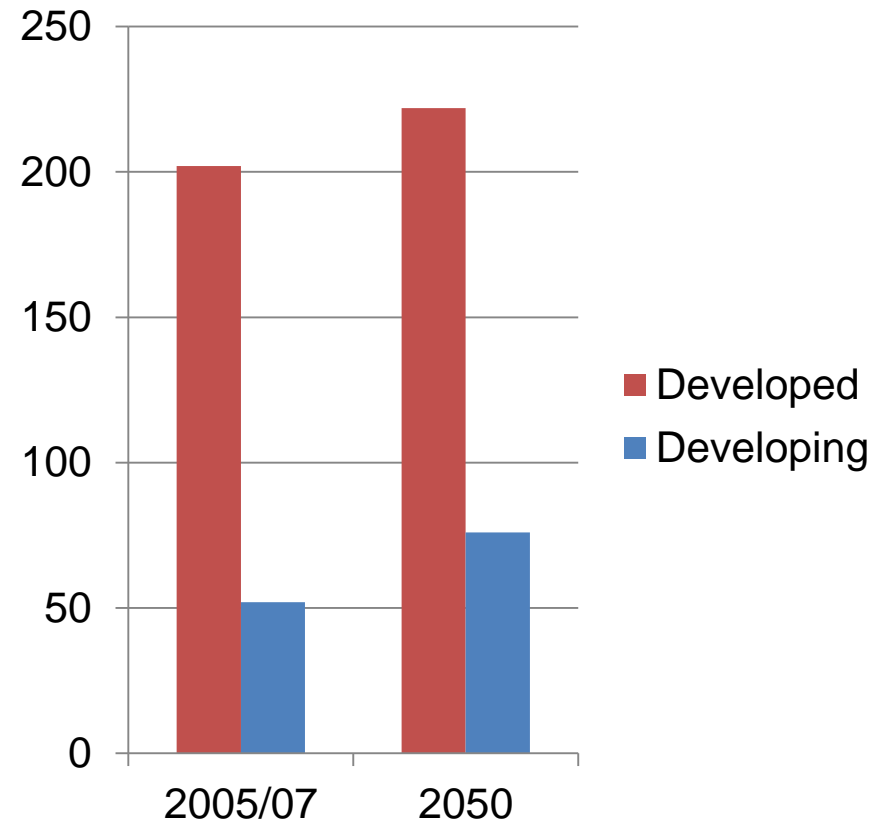


Milk demand and consumption levels differ in developed and developing countries

Demand for milk million t/annum



Milk consumption kg/capita/annum



Huge increases over 2005/7 amounts of cereals, dairy and meat will be needed by 2050

From 2bn–3bn tonnes cereals each year



From 664m–1bn tonnes dairy each year

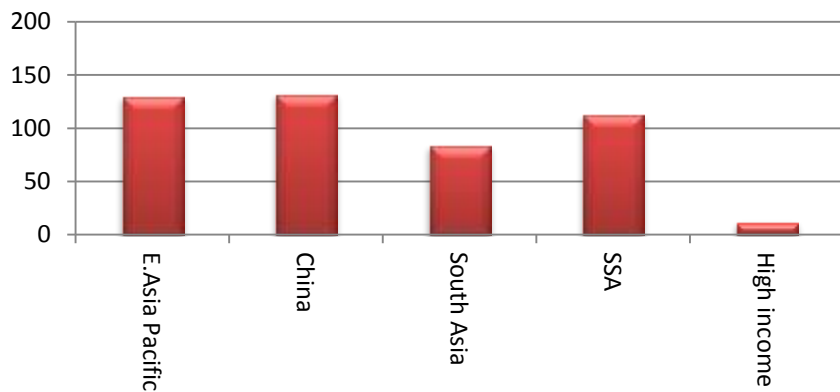


From 258m–460m tonnes meat each year

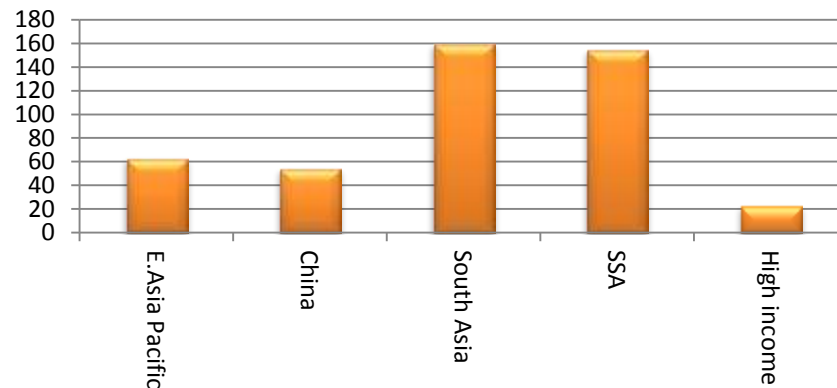


% growth in demand for livestock products 2000 - 2030

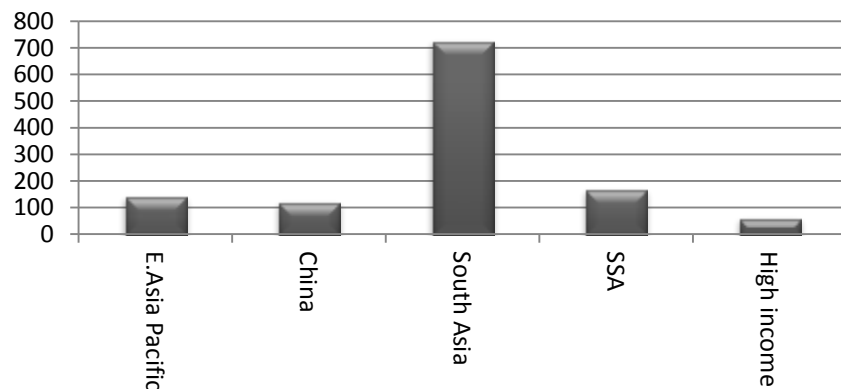
Beef



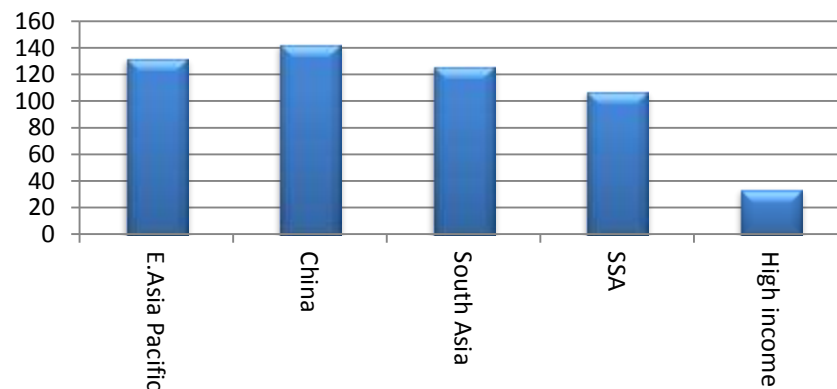
Pork



Poultry



Milk



Based on anticipated change in absolute tonnes of product comparing 2000 and 2030

Opportunities and challenges in the livestock sector

Provides food and nutritional security

BUT overconsumption can cause obesity

Powers economic development

BUT equitable development can be a challenge

Improves human health

BUT animal-human/emerging diseases
and unsafe foods need to be addressed

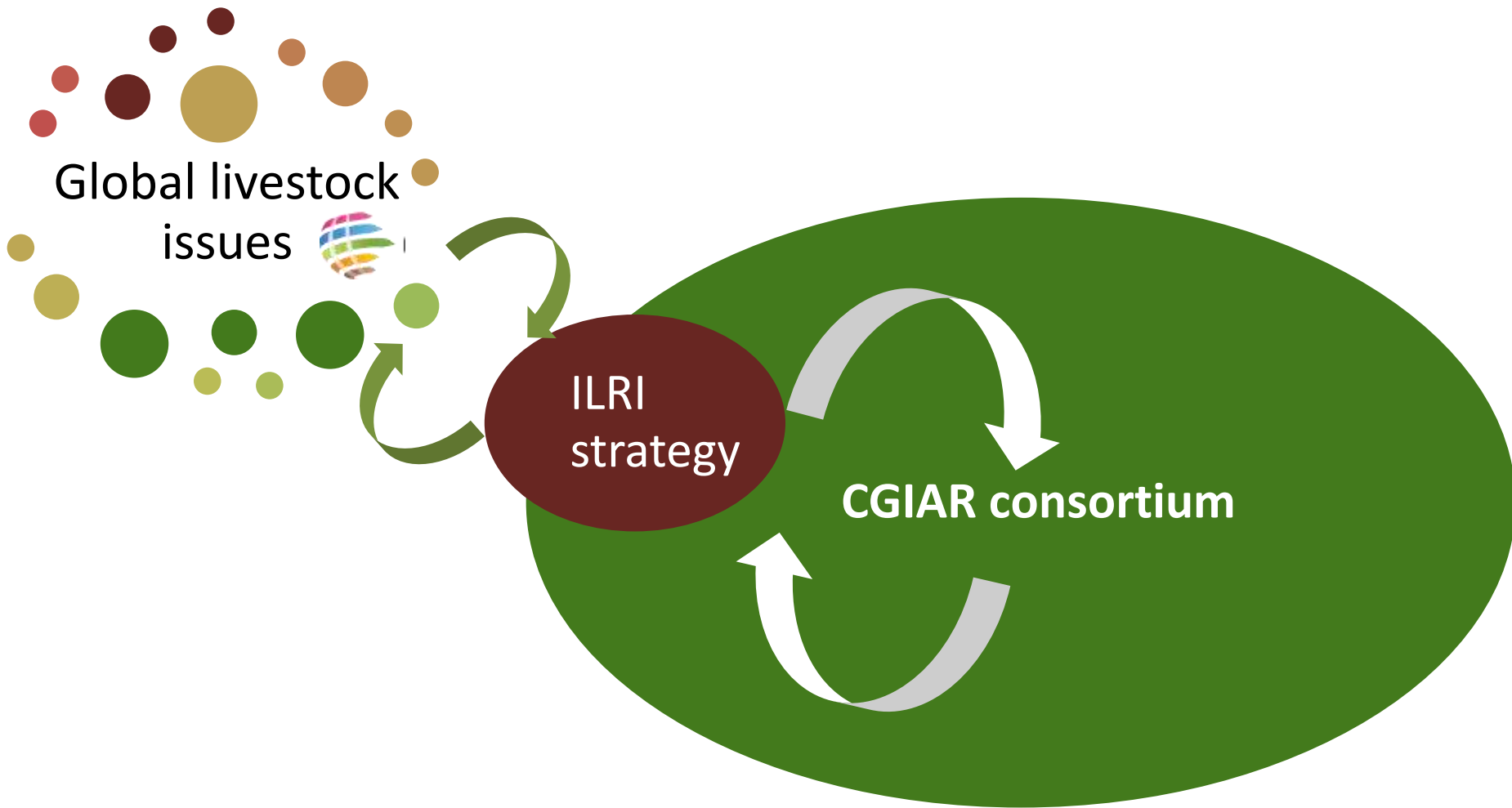
Enhances the environment

BUT pollution, land/water degradation,
GHG emissions and biodiversity losses
must be greatly reduced



ILRI – what we work on

ILRI strategy and the CGIAR Consortium



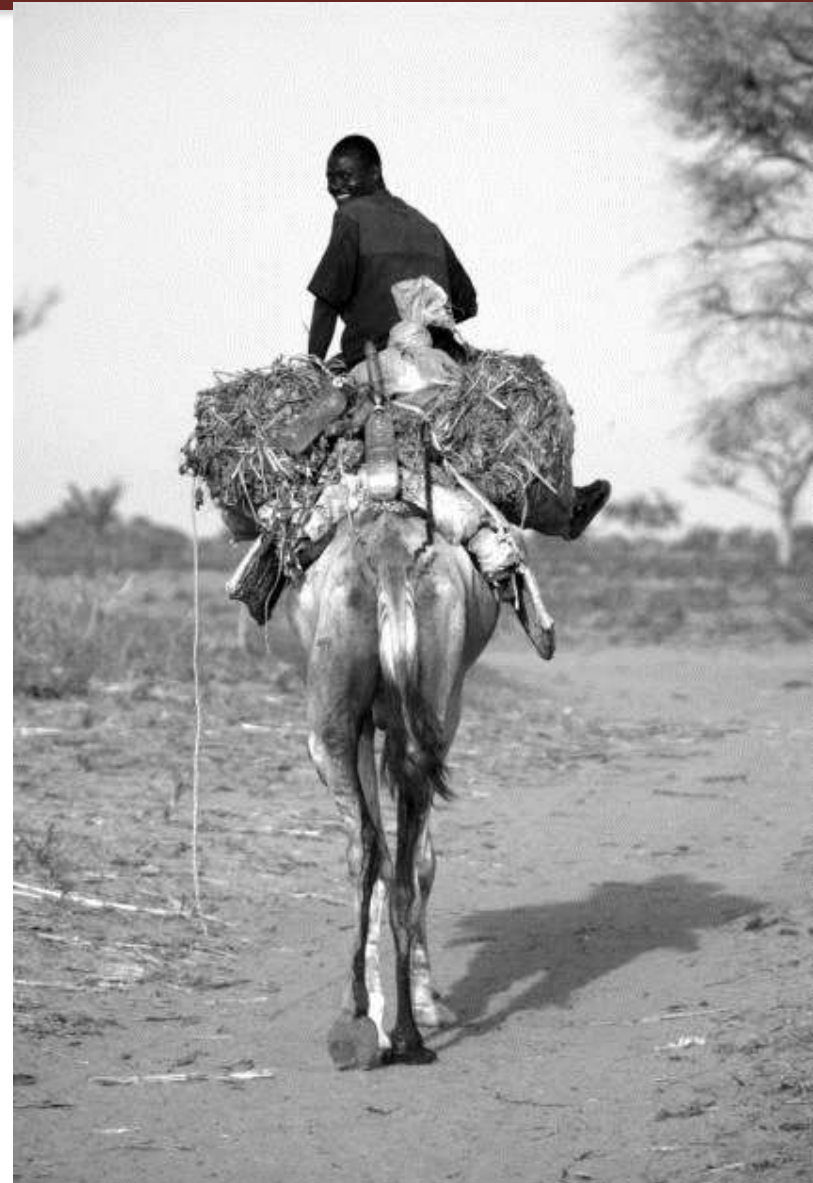
Strategic objective 1

ILRI and its partners will develop, test, adapt and promote science-based **practices** that—being sustainable and scalable—achieve better lives through livestock.



Strategic objective 2

ILRI and its partners will **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.



Strategic objective 3

ILRI and its partners will work to increase **capacity** amongst 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.



SOME CHARACTERISTICS OF ILRI

BIOSCIENCES EASTERN AND CENTRAL AFRICA (BeCA-ILRI Hub)



biosciences
eastern and central africa

ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE

- A strategic partnership between ILRI and AU-NEPAD.
- A biosciences platform that makes the best lab facilities available to the African scientific community.
- Building African scientific capacity.
- Identifying agricultural solutions based on modern biotechnology.

ILRI resources 2015

- **Staff: 700+**
- **Budget: nearly US\$90 million**
- **Senior scientists from 39 countries**
- **34% of internationally recruited staff are women --and 50% of the senior leadership team**
- **Main campuses in Kenya and Ethiopia, and offices in 16 other countries around the world**



ILRI Offices



Main campuses: Nairobi
and Addis Ababa

Offices in 16 other
countries

ILRI Graduate Fellowship

- **Graduate Fellows** - *MSc/PhD (6-36 months)* **120**
- **Research Fellows (BecA-ILRI hub)**- *Non-degree related training in research (up to 18 months)* **32**
- **Interns** - *Short-term, on-the-job training for young professionals (3-6 months)* **19**

Southern Africa: Context

Southern Africa countries. Source, sadcreview.com



Southern Africa – Facts & Figures

- Home to over 295 million people
- Largely agriculture based economies
- Livestock production through **agro-pastoral** and **pastoral systems**, **industrial livestock systems** and **mixed-crop livestock systems** (Thorntorn, 2006a) important in the region

Livestock population in the SADC region (source: SADC FANR Situation Analysis, 2011)

Species	Numbers (mln)
Cattle	64
Goats	28
Sheep	39
Chickens	380
Pigs	7
Equines	1



Southern Africa – Facts & Figures

- 41% of the land is **rangelands, suitable for livestock production**
- **Competing claims** on land (settlement, agriculture, wildlife)
- Projected **increase in temperature** negatively affecting quantity and distribution of rainfall.
 - “temperatures in the region have risen by over 0.5° C in the last 100 years IPCC (2001)”

What are the issues and research priority areas?
(based on interaction with partners and stakeholders)

Rangelands

- Management options and assessment tools
 - Availability and quality of forage
 - Feed and forage alternatives (SWAZIBEEF)
 - Cost of feed
 - Forage seeds
 - Bush encroachment
 - Degradation
 - Policies (SACAU 2015 Conference)
- } ZimCLIFS

Red meat value chains

- Disease threats – **Transboundary Animal Diseases (TADs like** foot and mouth, PPR)
- Lack of Commodity Based Trade
- Challenges of accessing the markets by smallholder livestock farmers

Red meat value chains

- Quality of animal available for marketing (related to herd management, diseases, skills etc.)
 - Most countries do not have a meat grading system yet market requires a certain animal product; mismatch in production and consumer expectations
- Lack livestock sector policies in most countries

Dairy value chains

- Diseases
- Challenges of accessing the markets by smallholder livestock farmers
- Poor infrastructure especially for cold chain (milk and semen)

Dairy value chains

- Quality of animals available for production
- Challenges of accessing genetic material to improve the dairy herd
- Forage and feed challenges (availability, costs and quality of land for production)

Who else is involved in Livestock Research and Development?

Donor Community and Export market (EU)

- EU involved in livestock activities in many countries in Southern Africa especially in Botswana, South Africa, Namibia and Zimbabwe, Swaziland
- IFAD, FAO, ACIAR are also major players in Mozambique, Zambia, Zimbabwe and South Africa, Swaziland
- DFID in Zimbabwe
- USAID is playing a role in Zimbabwe

Continental, Regional Bodies, and Farmer Organization

- CCARDESA has started engaging in livestock research, especially in the smallstock and poultry sector
- AU-IBAR is involved in Livestock Policy development in the region through partnerships with FAO and NARS
- Farmer's Organizations, NARS
- NGOs (SNV, Heifer International, CRS, Technoserve, World Vision)

Strategic Partners

- NARS
- ARC-South Africa (Irenie and Onderstepoort Veterinary Institute)
- International Research Organizations (CGIAR Centers)
- Universities (Stellenbosch, University of Zimbabwe, University of Pretoria, University of Zambia and others)

How does ILRI fit in?

Skills and expertise

- Range management (assessment, degradations management, mapping etc.)
- Animal production & Health
- Influence development of livestock policies and implementation plans

Skills and expertise

- Tools for assessing feed requirements
- Technologies for forage production and alternative feeds
- Value chain analysis and markets

What is ILRI doing in the region?

Ongoing and new initiatives

- Mozambique: Pro-poor value chain development in the Maputo and Limpopo corridors (PROSUL)
- Zimbabwe: Zimbabwe Crop x Livestock Integration for Food Security (ZimCLIFS)
- Botswana: Competitive Smallholder Livestock in Botswana

Ongoing and new initiatives

- Swaziland: Innovative beef value chain development schemes in Southern Africa
- Zambia: Food safety in Zambia (milk and fish)
- Malawi: Identifying entry points for crop x livestock integration
- Zambia, Zimbabwe, Namibia and Botswana: Commodity Based Trading proposal (FAO)

Research Questions

- What are the effective models of value chain organization?
- How do we enhance competitiveness of smallholder farmers?
- In the drier marginal areas issues of rangeland management are important, therefore, how do we reduce vulnerability and increase resilience in these areas?

THANK YOU

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Strategy materials: www.ilri.org/mission

ilri.org
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ILRI is a member of the CGIAR Consortium

Box 30709, Nairobi 00100 Kenya
Phone +254 20 422 3000
Fax +254 20 4223001
Email ilri-kenya@cgiar.org

ILRI has offices in:
Central America • East Africa
• South Asia • Southeast and East Asia
• Southern Africa • West Africa



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