

The roles of livestock in achieving the Sustainable Development Goals

Iain A Wright, Deputy Director General-Research

ILRI

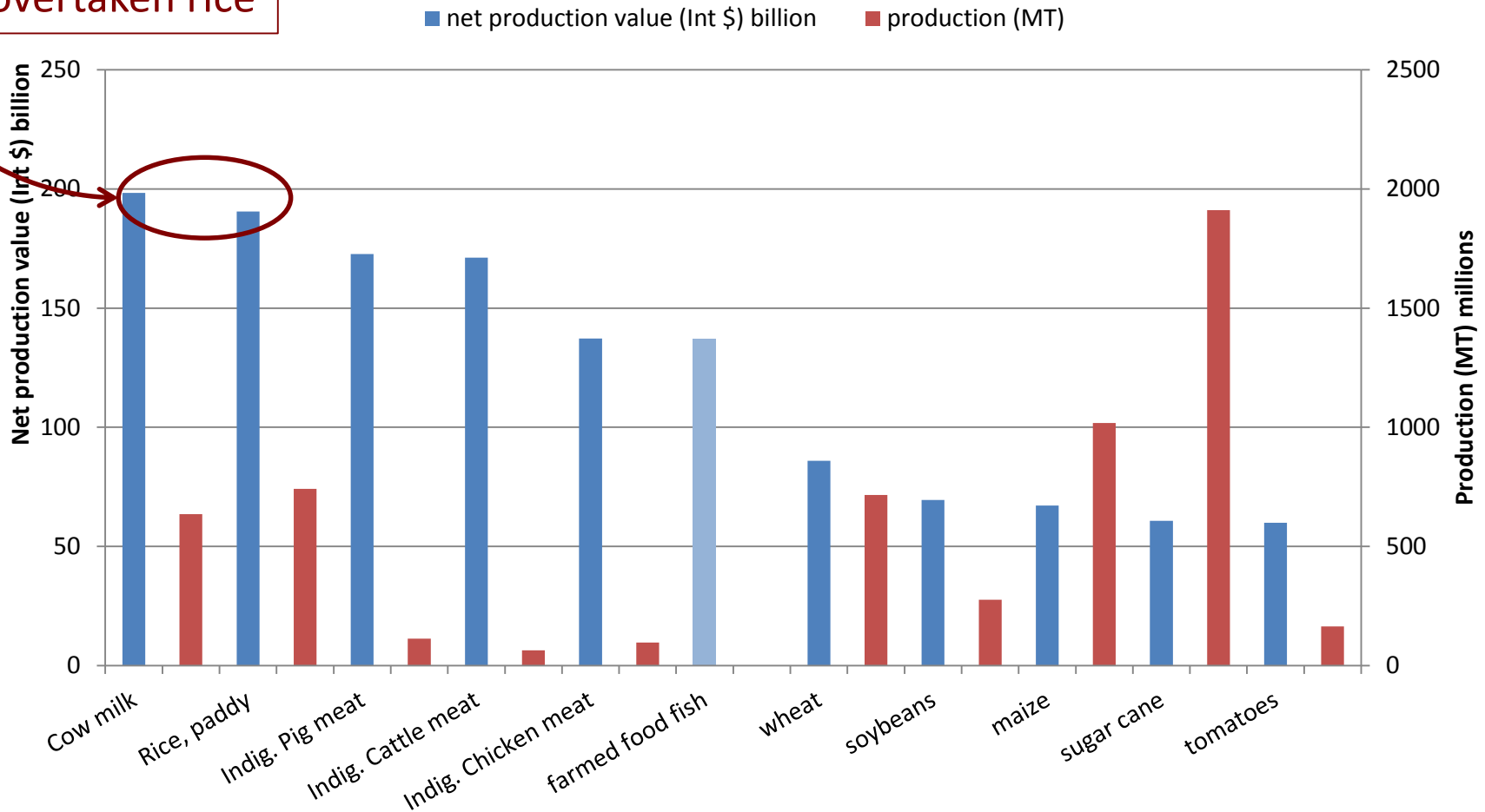
25th Anniversary Conference, Ethiopian Society for Animal Production
Haramaya University
24–26 August 2017



TODAY'S
UNPRECEDENTED
LIVESTOCK OPPORTUNITIES
FOR DEVELOPMENT

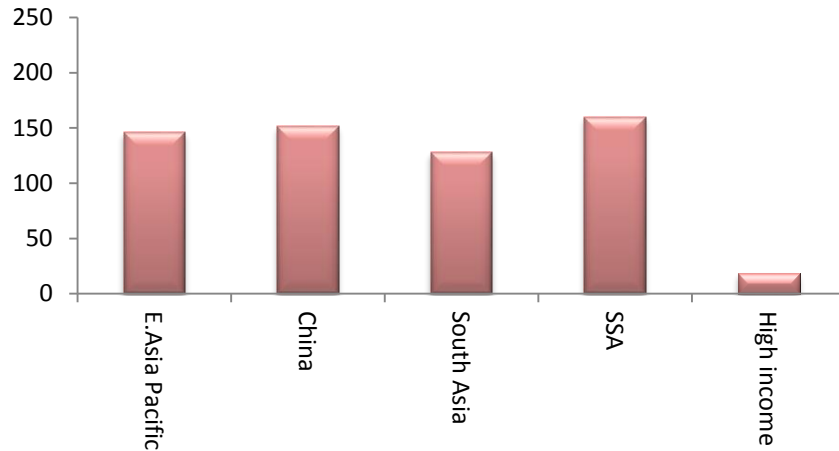
Animal-source foods make up 5 of 6 of the highest value global commodities (total value of these 5=US Int \$715

Cow milk has overtaken rice

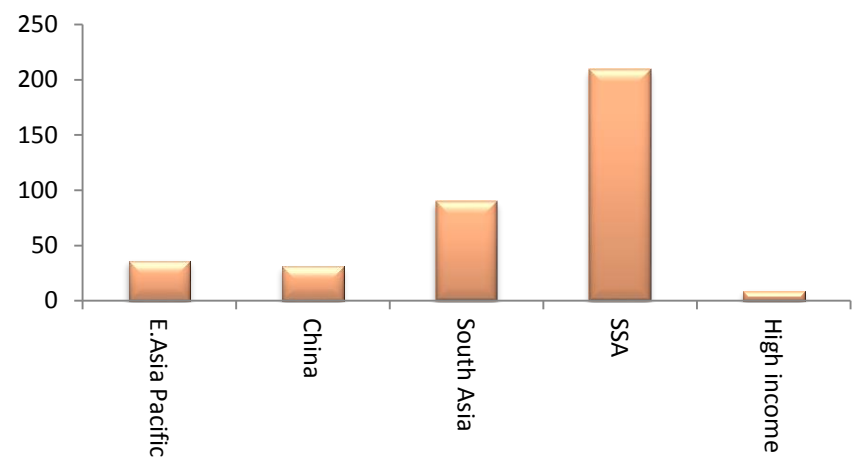


% growth in demand for livestock products to 2030 2000–2030

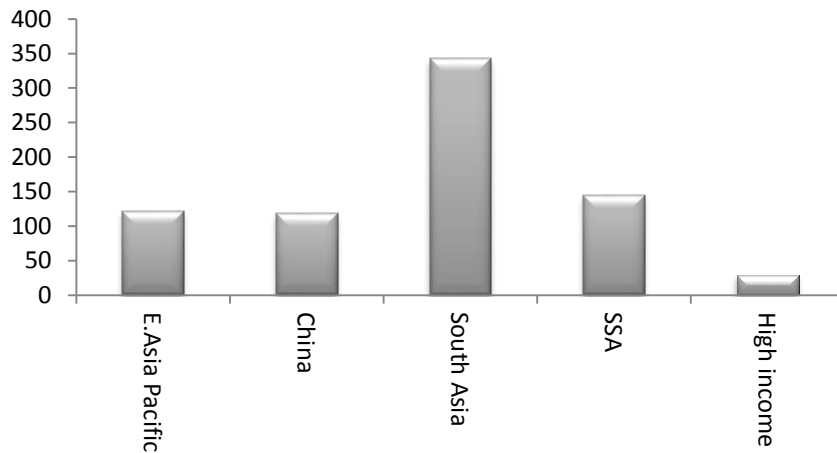
Beef



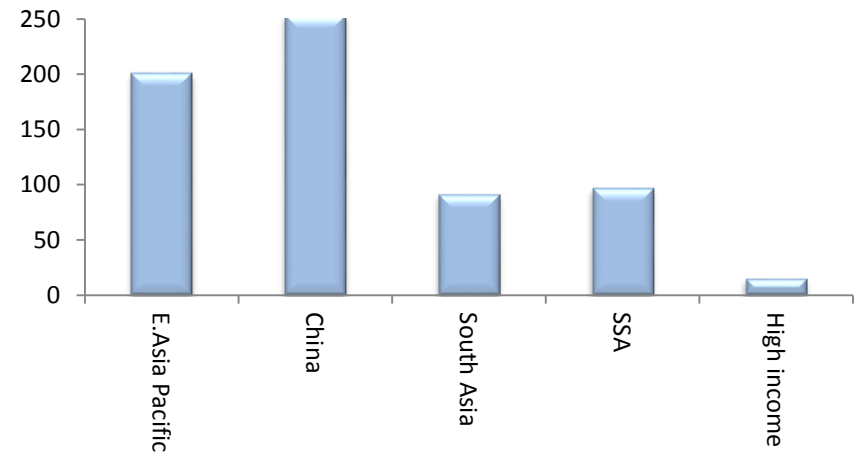
Pork



Poultry



Milk



Estimates of the % growth in demand for animal source foods in different World regions, comparing 2005 and 2030. Estimates were developed using the IMPACT model, courtesy Dolapo Enahoro, ILRI.

THE SUSTAINABLE DEVELOPMENT GOALS

17 goals



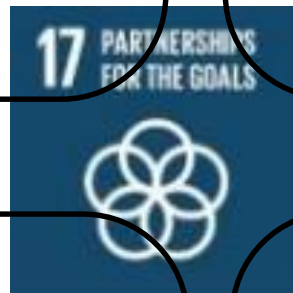
FOUR LIVESTOCK PATHWAYS
FOR ACHIEVING
ALL 17 SDGS



Livestock for
inclusive and sustainable
ECONOMIC GROWTH



Livestock for
EQUITABLE LIVELIHOODS



Animal-source foods for
BASIC NUTRITION AND HEALTH



Livestock for
SUSTAINABLE ECOSYSTEMS



PATHWAY 1: Economic Growth



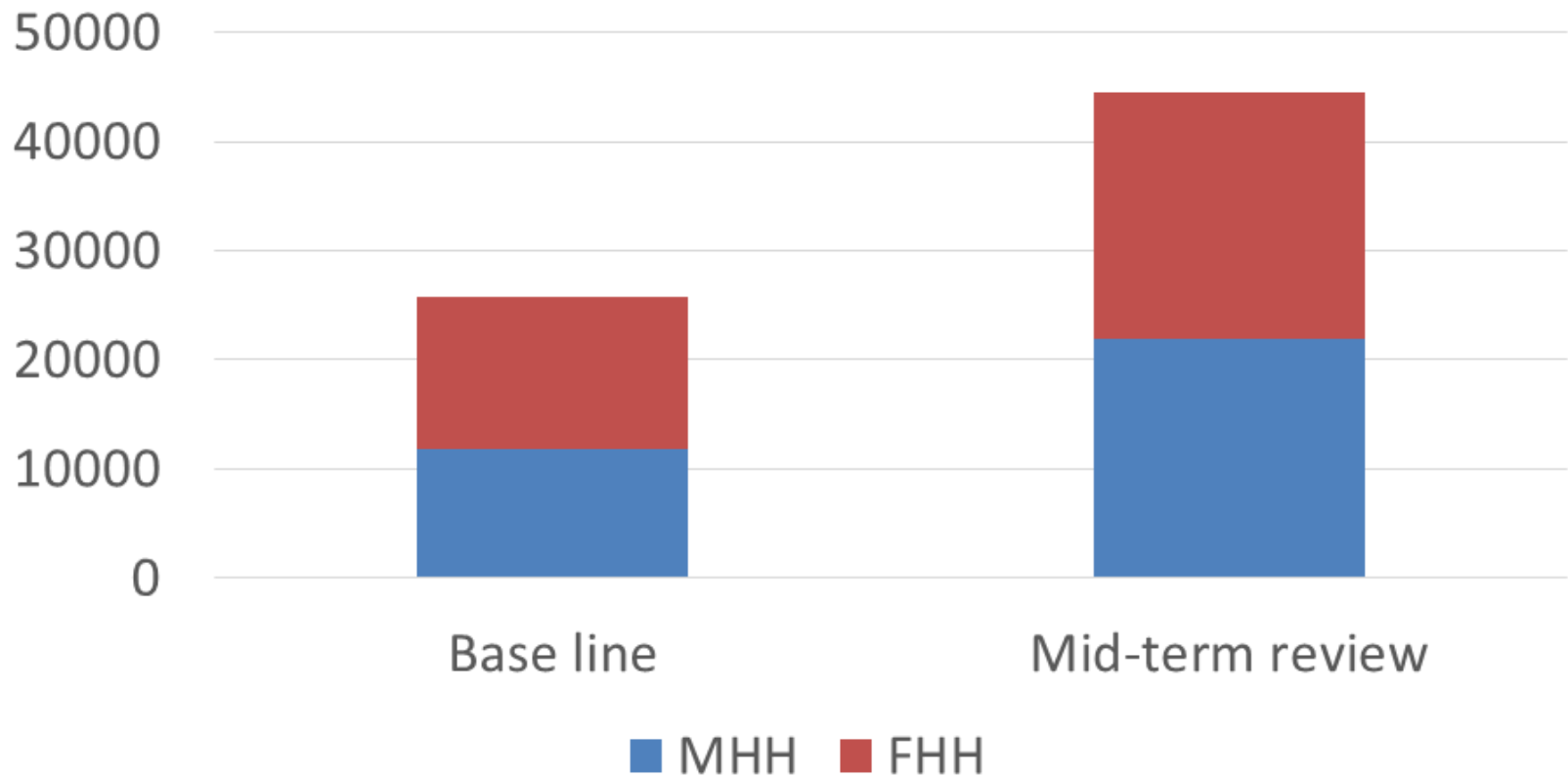
Livestock and economies

- The livestock sector contributes an average of 40% of the agricultural GDP of developing countries—and that percentage is growing
- The market value of animal-source foods in Africa in 2050 is estimated at USD151 billion
- Livestock value chains provide large numbers of jobs



Huge potential to increase productivity and income

Increased income from milk sale
(Birr/HH/year)



Smallholders still dominate livestock production in many countries

Region (definition of 'smallholder')	% production by smallholder livestock farms					
	Beef	Chicken meat	Sheep/goat meat	Milk	Pork	Eggs
East Africa (≤ 6 milking animals)				60-90		
Bangladesh (< 3ha land)	65	77	78	65		77
India (< 2ha land)	75	92	92	69		71
Vietnam (small scale)					80	
Philippines (backyard)		50			35	

1 NO POVERTY



10 REDUCED INEQUALITIES



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



PATHWAY 2: Livelihoods

4 QUALITY EDUCATION



5 GENDER EQUALITY



Livestock livelihoods

- 70% of the world's rural poor rely on livestock for important parts of their livelihoods.
- Of the >600 million poor livestock keepers in the world, about two-thirds are rural women.
- >100 million landless people keep livestock.
- For the vulnerable, up to 40% of benefits from livestock keeping are non-market, intangible benefits, mostly insurance and financing.
- In the poorest countries, livestock manure comprises over 70% of soil fertility amendments.
- Many poor people are employed in local informal livestock product markets.
- 90% of animal products are produced and consumed in the same country or region.
- Over 70% of livestock products are sold 'informally'.



SKIN THER.



SKIN THER.

2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING

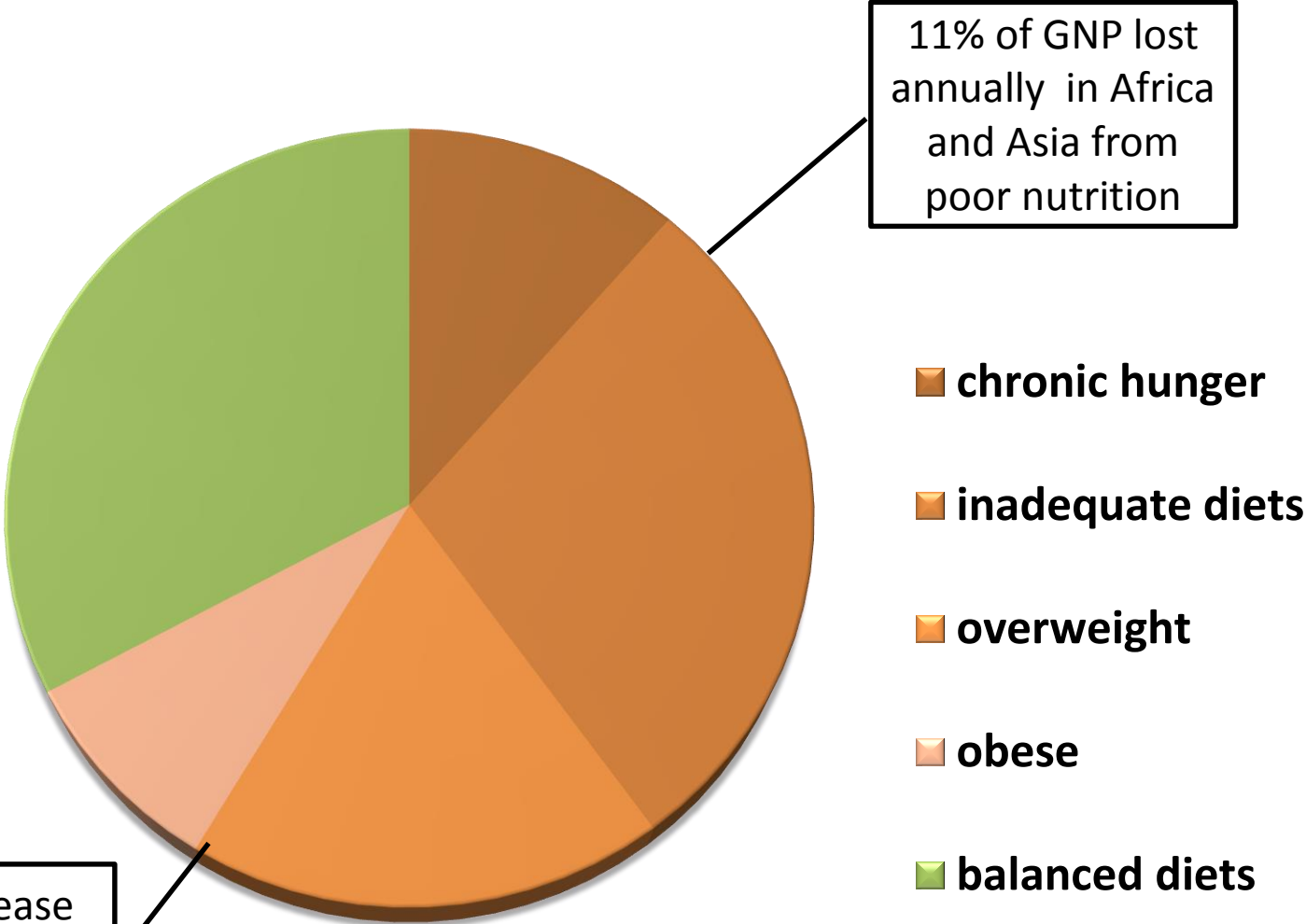


PATHWAY 3: Nutrition and health

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



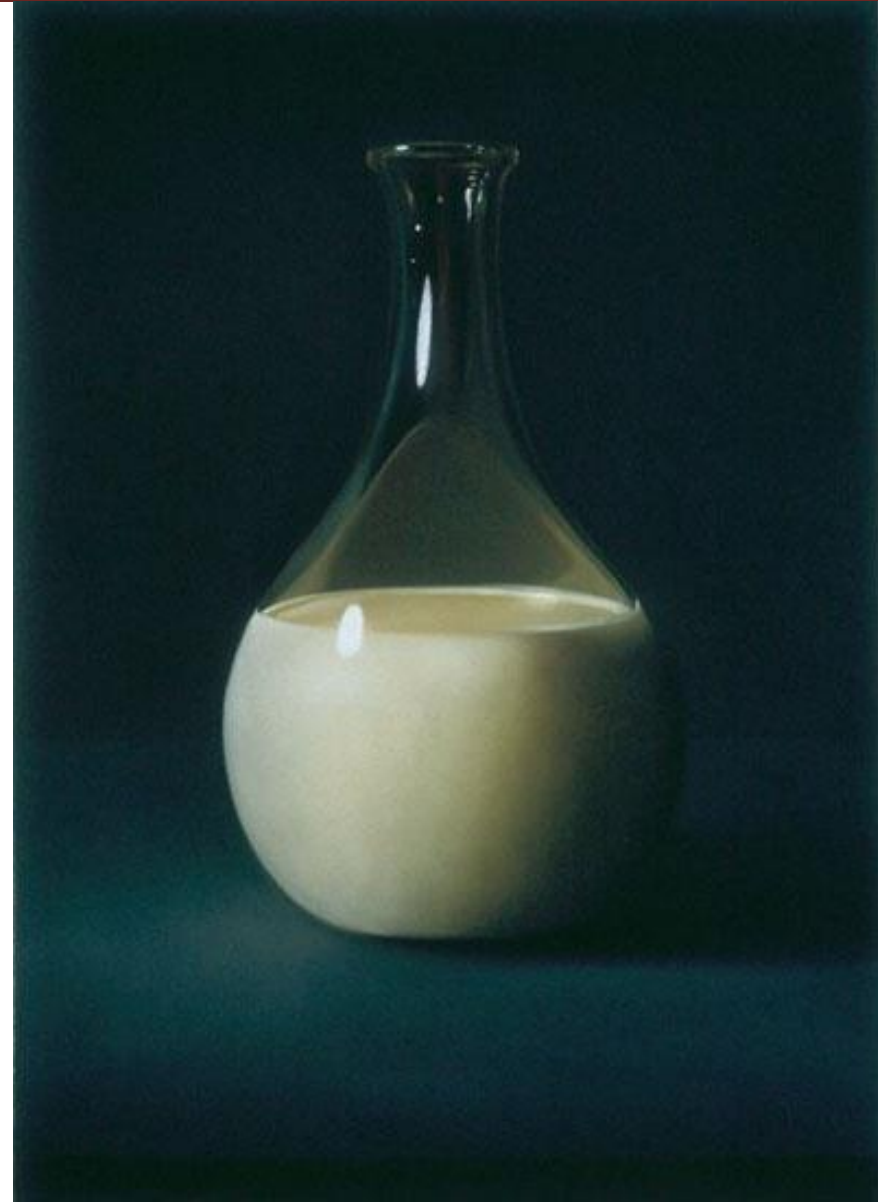
The nutritional divides among 7 billion people today



Chronic disease likely to cost \$35 trillion by 2030

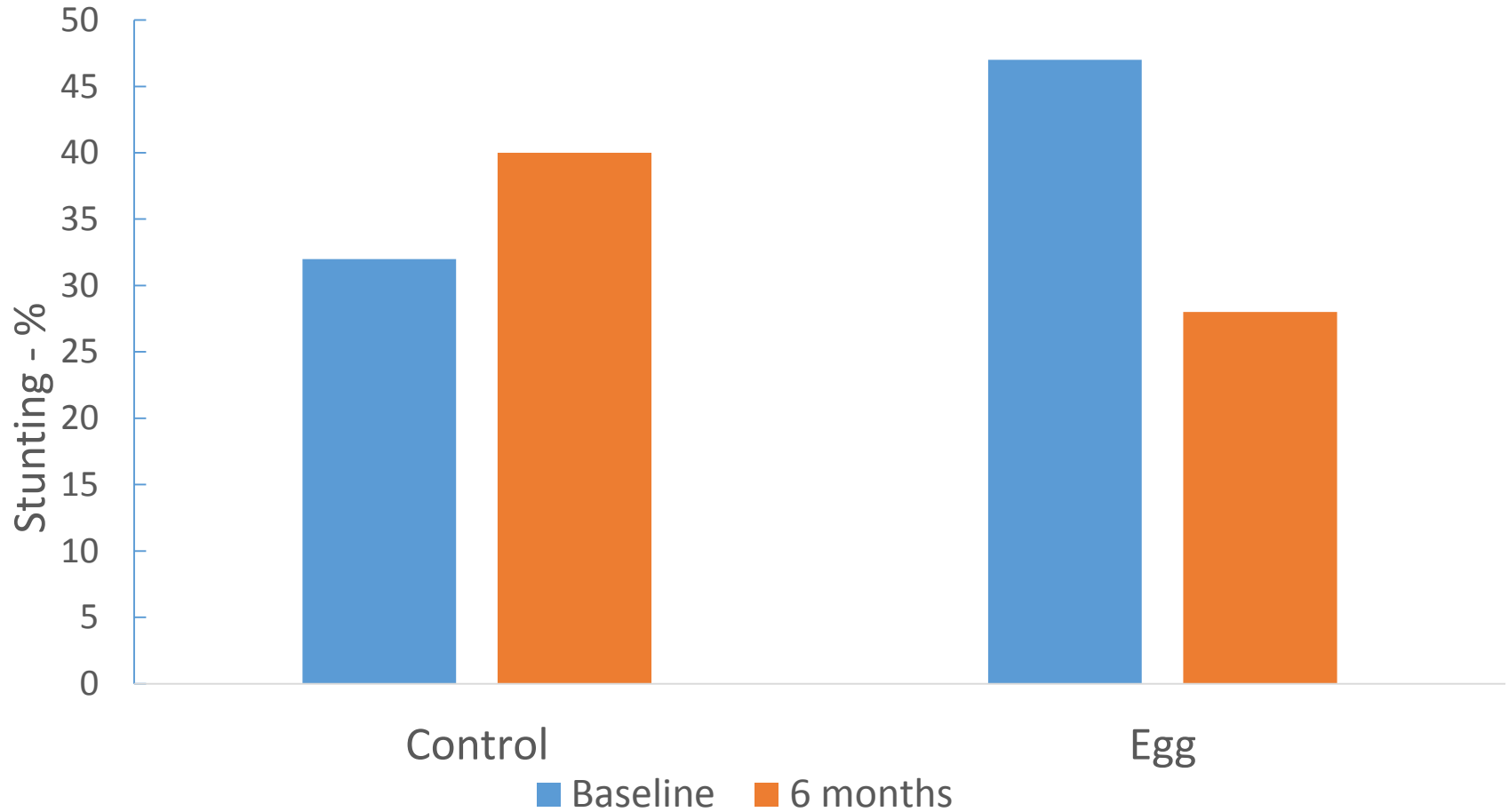
Animal-source foods provide essential nutrients

- Globally 13% of calories and 28% of protein
- Vitamins
e.g. B12 only available in animal-source foods
- Minerals
e.g. calcium, iron, zinc, iodine





Consuming just one egg a day for 6 months reduces stunting in children

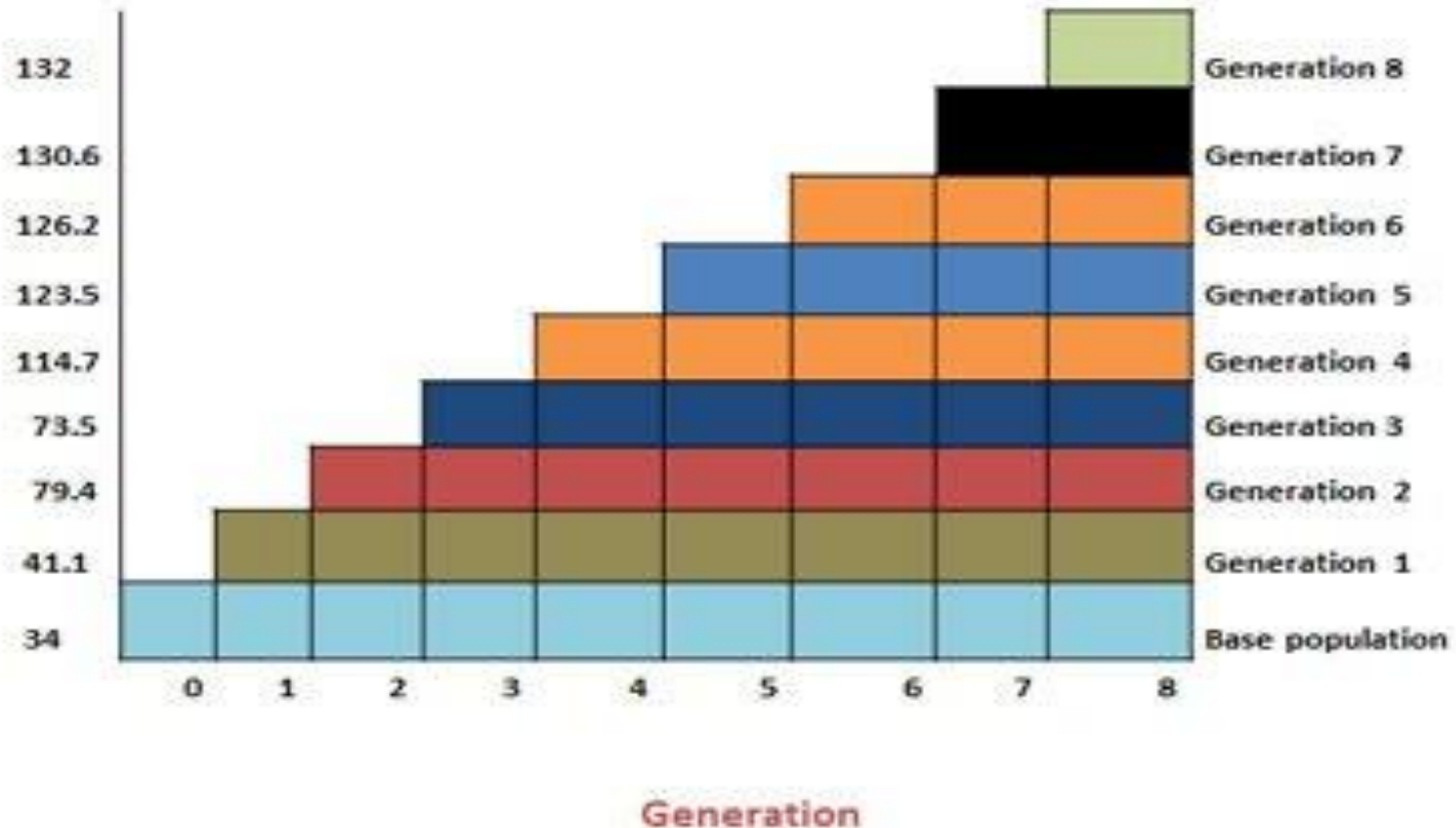


Genetic improvement of native Horro chickens in DZARC, Ethiopia (joint EIAR/ILRI project)

Genetic improvement in **Cumulative egg number** at 45 weeks of age through 8 generations of selection

% increase from base population

Selection effect from:



Nutrition in the first 1000 days of life



Nutritionists
are generating
growing evidence
that it is impossible
for babies to achieve
adequate nutrition
in the first 1000 days of life
without animal-source foods.

6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



PATHWAY 4: Ecosystems

11 SUSTAINABLE CITIES AND COMMUNITIES



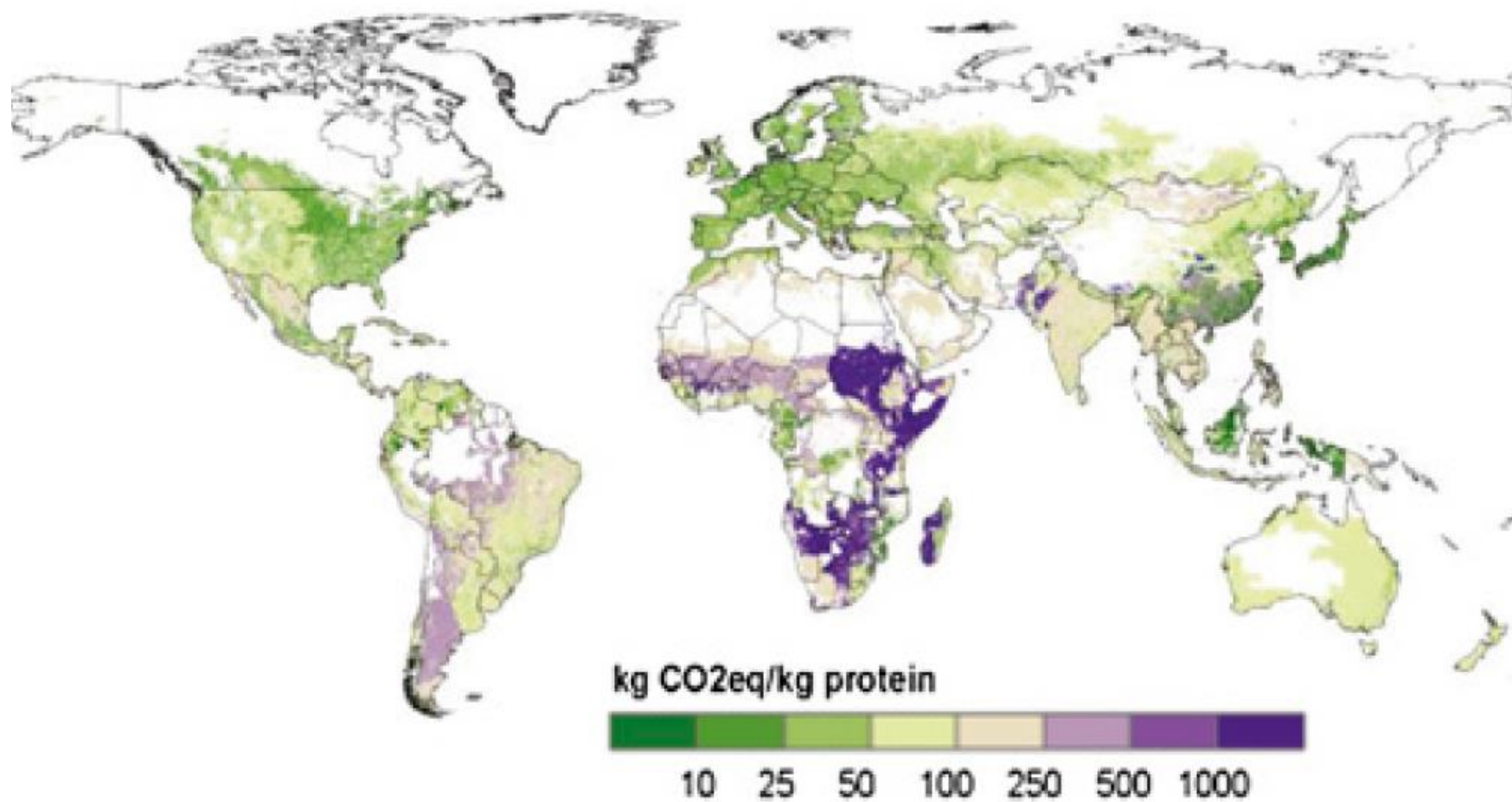
13 CLIMATE ACTION



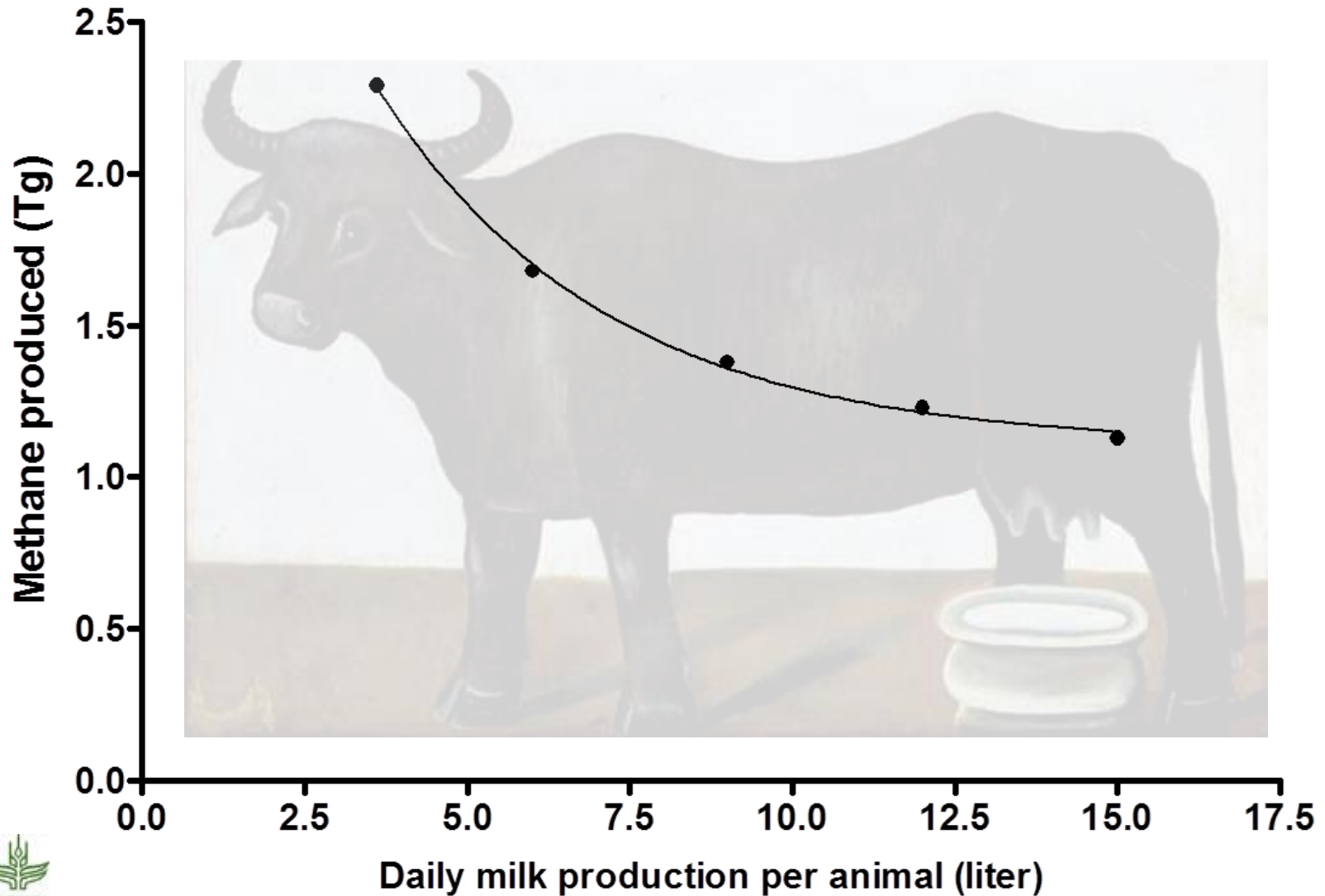
14 LIFE BELOW WATER



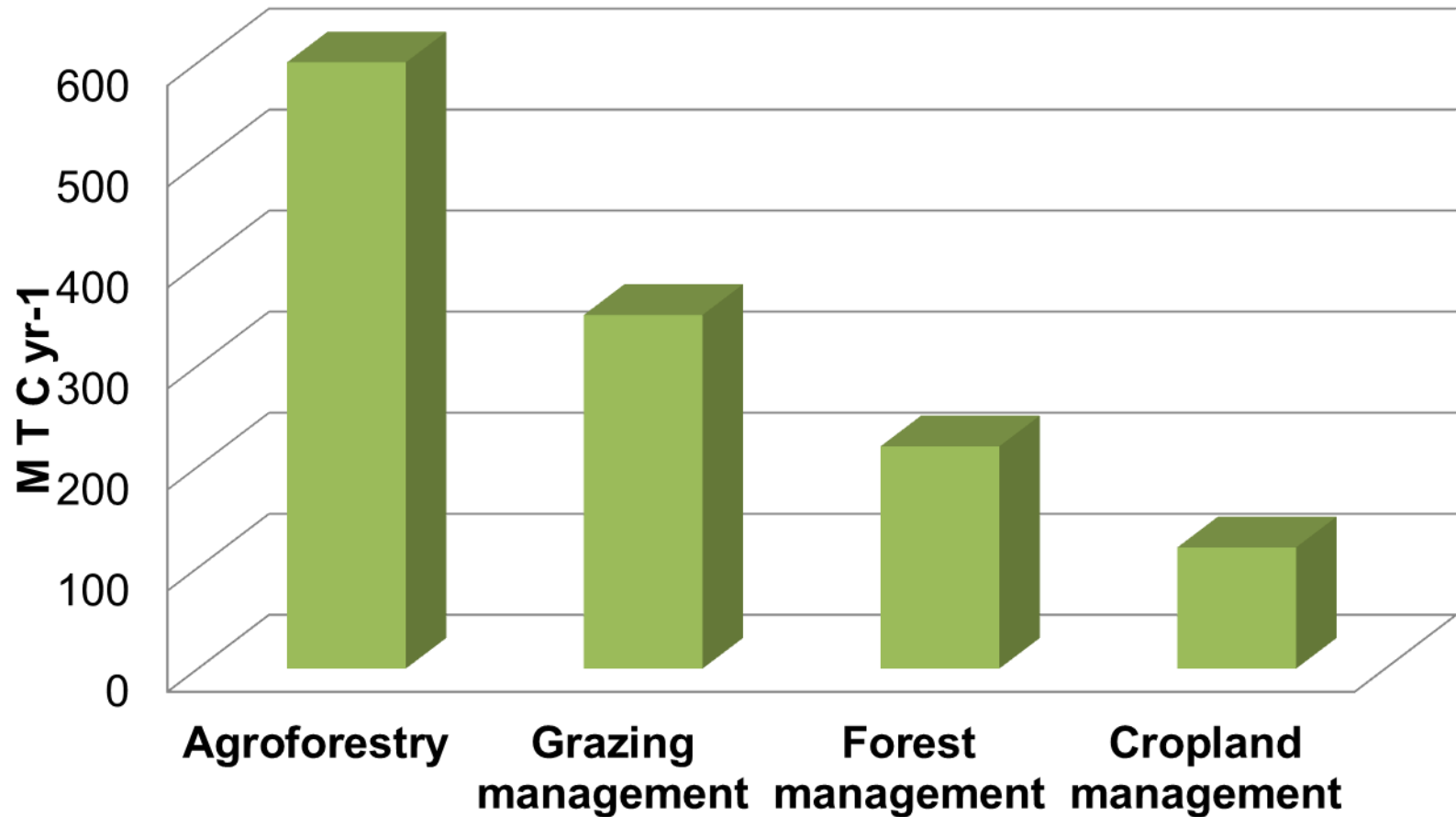
The intensity of current greenhouse gas emissions generated in livestock production



Methane production falls as productivity increases



The potential of agricultural sub-sectors to store carbon by 2040



Source: Adapted from
Thornton and Herrero, PNAS (2010)

IN SUMMARY

Sustainable livestock futures need sustainable investments

Continuing to pay insufficient attention to this fastest growing agricultural sub-sector will thwart progress in achieving the SDGs

Ways forward

Continue to build the evidence base for the
global livestock-for-development agenda

Powerfully articulate the evidence

Tailor different messages to suit different audiences

Unite reliable data with strong narratives

Create greater coordination within the sub-sector

Thank you for contributing to
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ILRI thanks all donors and organizations who globally supported its work through their contributions to the **CGIAR system**

Patron: Professor Peter C Doherty AC, FAA, FRS

Animal scientist, Nobel Prize Laureate for Physiology or Medicine–1996

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

ilri.org
better lives through livestock
ILRI is a CGIAR research centre

Box 5689, Addis Ababa, Ethiopia
Phone +251 11 617 2000
Fax +251 11 667 6923
Email ilri-ethiopia@cgiar.org

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

