



GLOBAL AGENDA FOR
SUSTAINABLE LIVESTOCK



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8th MSP meeting Ulaanbaatar, Mongolia, 11-15.06.2018

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A multi-stakeholder multi-disciplinary approach for sustainable livestock sector growth and transformation Lessons from Ethiopia and Nigeria

Ulaanbaatar, 8th MSP Meeting
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Food and Agriculture
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SUSTAINABLE
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GOALS



Outline

- One Health
- Livestock Sector Policies: A One Health Approach
- Evidence from Nigeria
- Evidence from Ethiopia
- The way forward in six African countries: the Africa Sustainable Livestock 2050 Initiative

One Health in Theory

- One Health is “the collaborative efforts of multiple disciplines working locally, nationally, and globally to attain optimal health for people, animals, plants and our environment”

American Veterinary Medical Association (2008): Report of the One Health Initiative Task Force

- One Health encompasses three intertwined dimensions:
 - Public health
 - Environment
 - People’s livelihoods

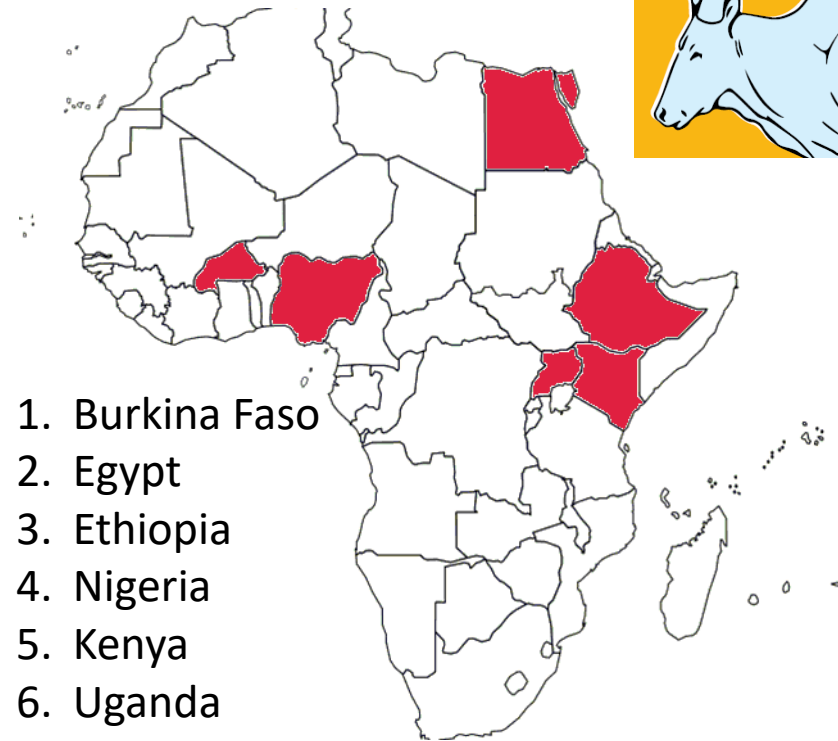
One Health in Practice

- A multitude of global, regional and local One Health Initiatives / Platforms
- Several countries have formulated One Health Strategic Plans / Strategies
- But we are still on a « learning » trajectory: how to best design and implement « one health » strategies and policies?



Ethiopia, Nigeria and ASL2050

- Ethiopia and Nigeria – as well as Burkina Faso, Egypt, Kenya and Uganda – have joined forces with the FAO Africa Sustainable Livestock Initiative (ASL2050)
- Formulation of one health policies that support a sustainable development of livestock, whose outcomes are sustainable from a public health, environmental and social perspective



One Health Policies in Ethiopia and Nigeria: Approach

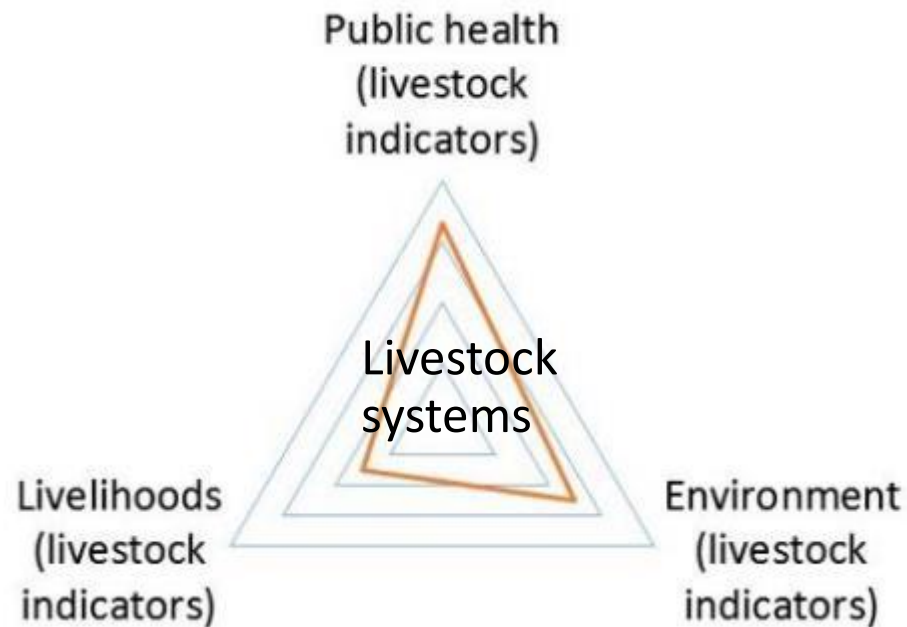
Multi-stakeholder approach

- National Steering Committees, comprising at least representatives of Ministries in charge of livestock, the environment and public health
- Regular stakeholder consultations (government, private sector, academia, NGOs, civil society; etc.)



One Health Policies in Ethiopia and Nigeria: Approach

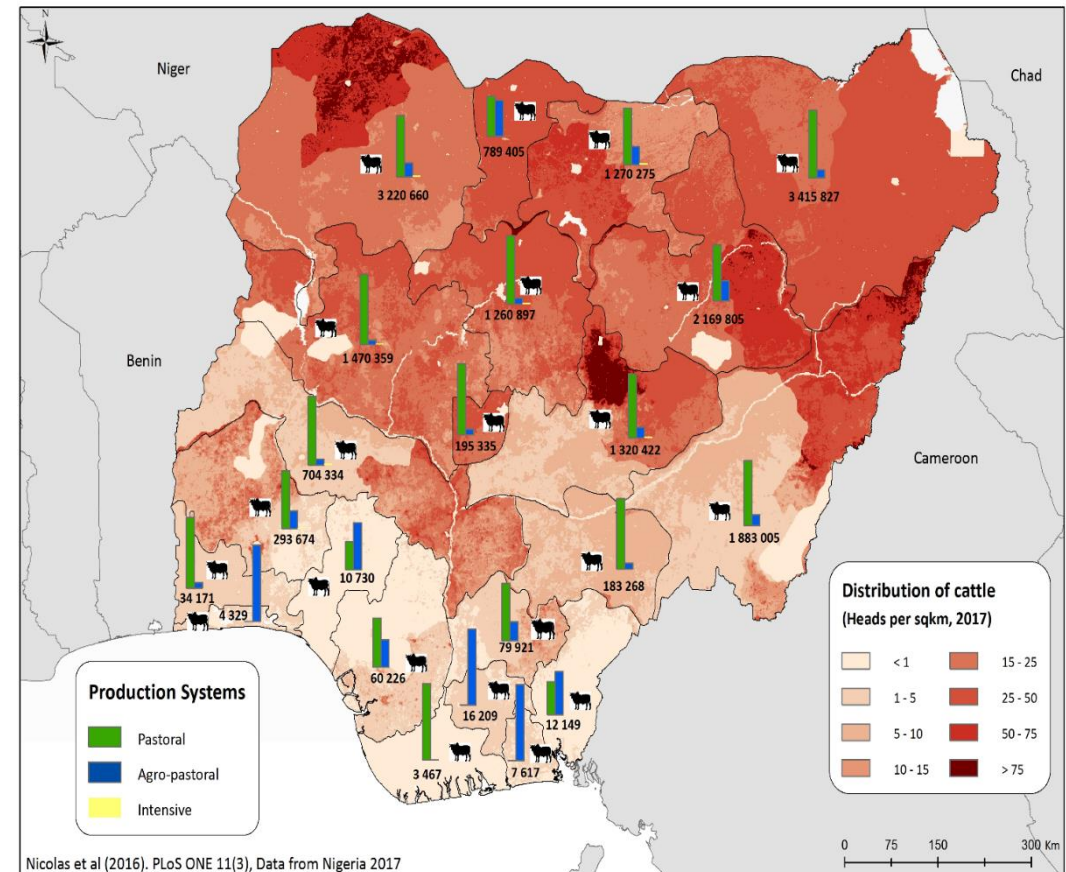
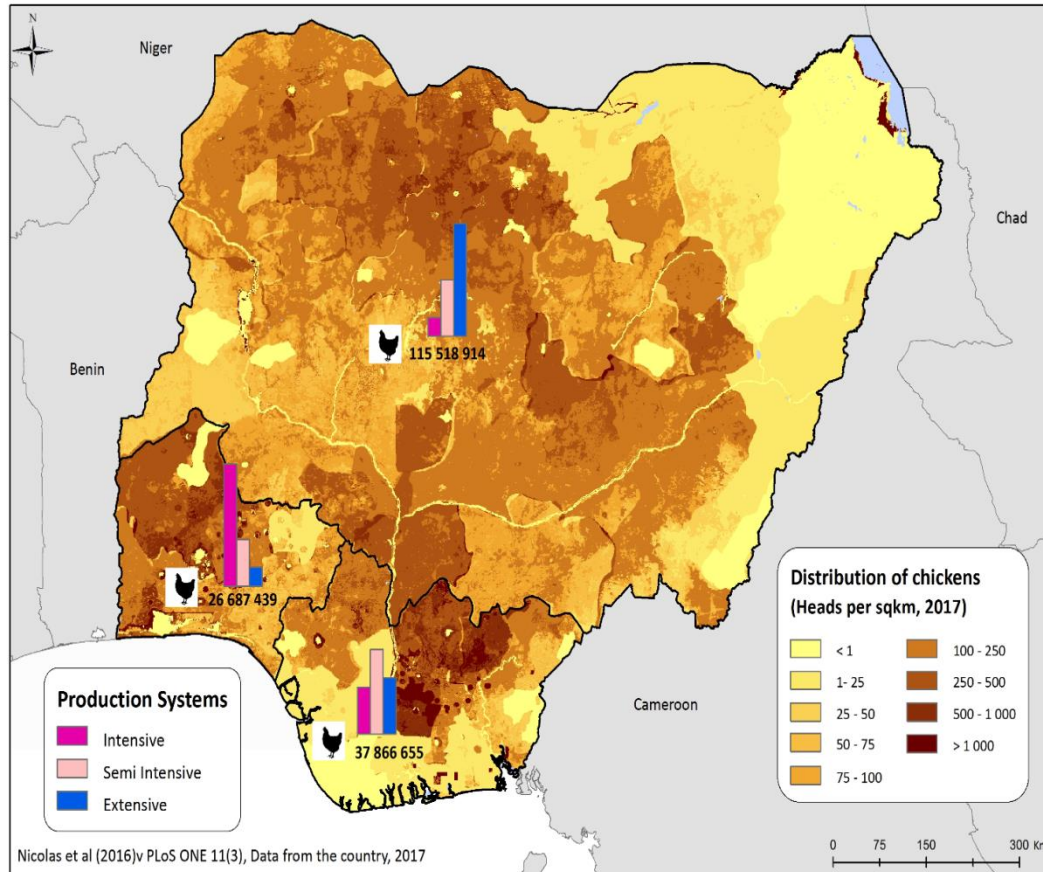
Integrated four-step approach



1. Characterization of livestock systems, jointly agreed by all stakeholders
2. Assessment of impact of livestock systems on public health
3. Assessment of impact of livestock systems on the environment
4. Assessment of impact of livestock systems on livelihoods

Nigeria: ASL2050 Outputs

- Map of Nigerian poultry and cattle production systems

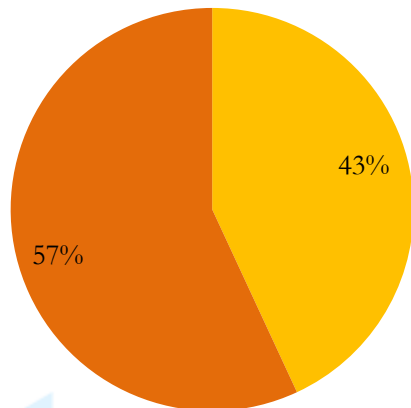


Nigeria: ASL2050 Outputs

- Public Health indicators: Monetary loss calculated for selected zoonoses, including losses in production, animal stock and loss due to morbidity and mortality of livestock keepers and consumers. Share of animal and human related losses in total loss for Brucellosis in cattle and Salmonellosis in poultry:

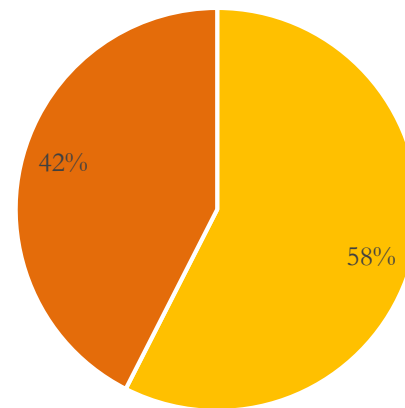
Livestock vs social cost due to Salmonellosis

■ Total loss in animals ■ Total social cost



Livestock vs social cost due to Brucellosis

■ Total loss in animals ■ Total social cost

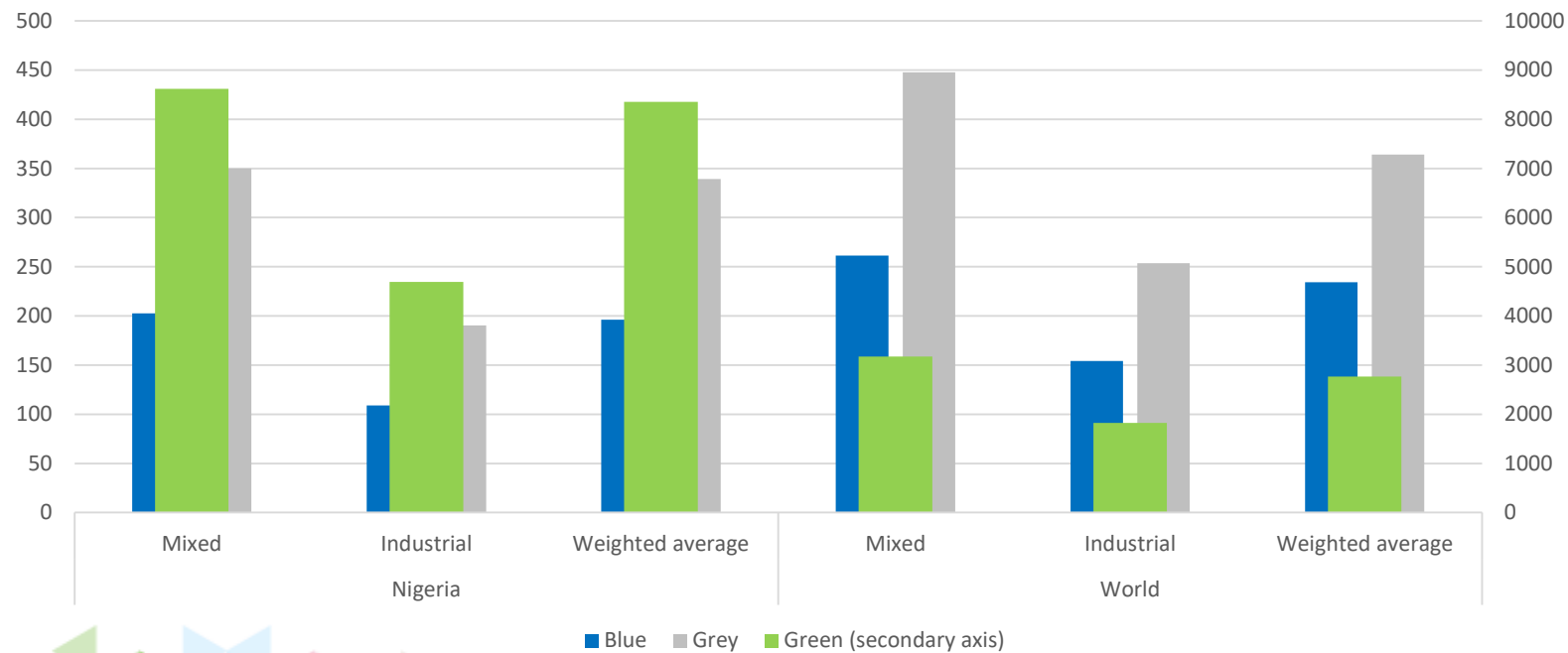


Source: FAO-ASL2050
Expert Elicitation
Protocol (forthcoming)

Nigeria: Outputs

○ Water use of poultry in Nigeria

Green, blue, grey water footprint of poultry



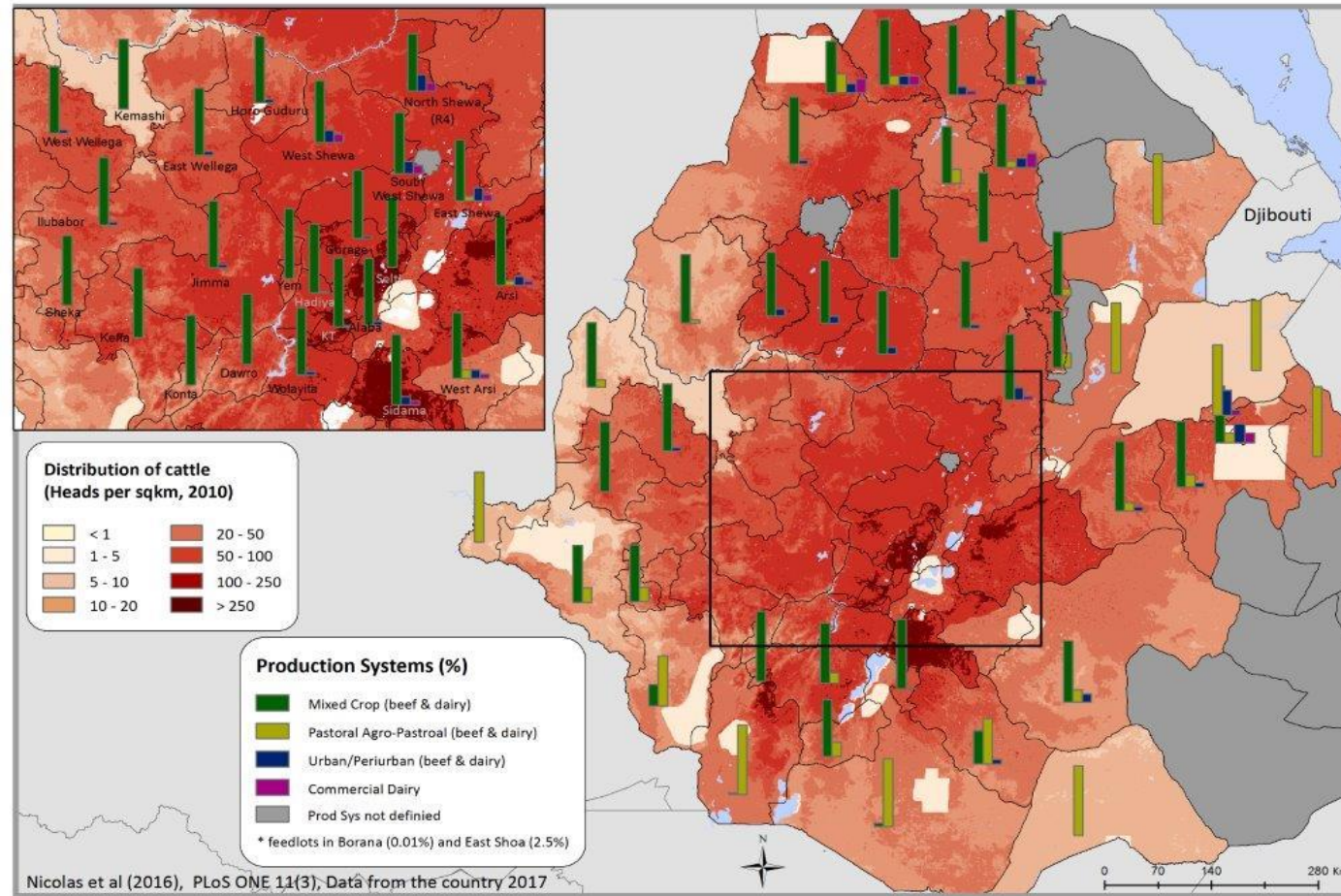
Green water= rainwater
 Blue water= surface and ground water
 Grey water= water pollution

Green water is the biggest component of water consumption in both Nigeria and the global average (note the secondary axis). Blue and grey water consumption, is lower in Nigeria than the world average.

Source: Mekonnen and Hoekstra (2010 and 2012)

Ethiopia: ASL2050 Outputs

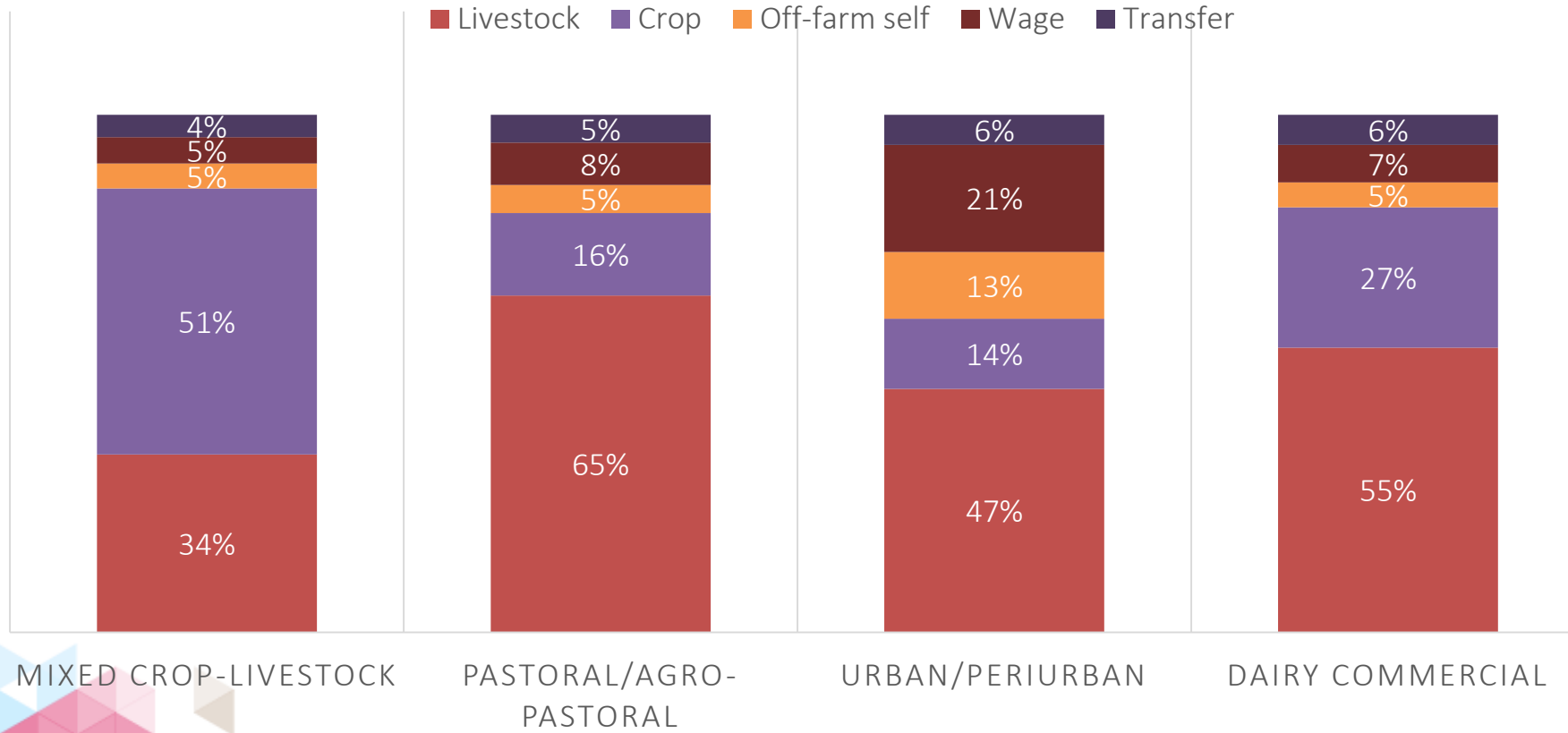
- Map of cattle production systems in Ethiopia at the zonal level



Ethiopia: ASL2050 Outputs

- Livelihoods: cattle is an important income source

SHARE OF INCOME SOURCES OF CATTLE KEEPERS



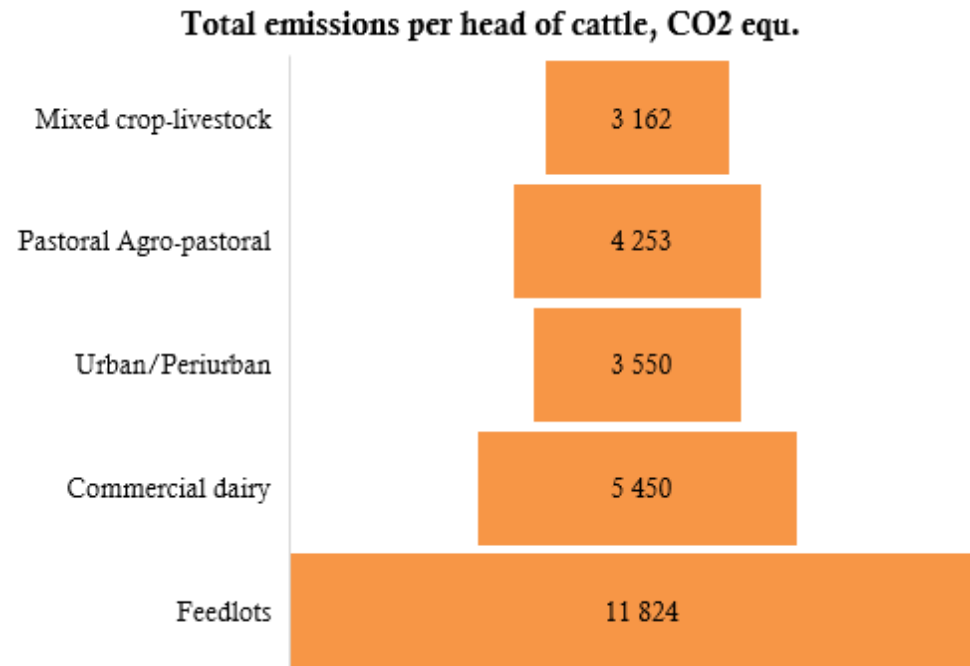
Ethiopia: ASL2050 Outputs

- Livelihoods: cattle is an important source of nutrition. In the poorer quintiles, households consume less dairy on average, and depend highly on own production.

Income group	Consuming dairy	Consumption per capita per week (g)	Share of own production in consumption
Poorest quintile	30%	324	71%
Moderately poor quintile	34%	427	72%
Middle quintile	45%	592	62%
Moderately rich quintile	44%	714	53%
Richest quintile	57%	779	31%

Ethiopia: ASL2050 Outputs

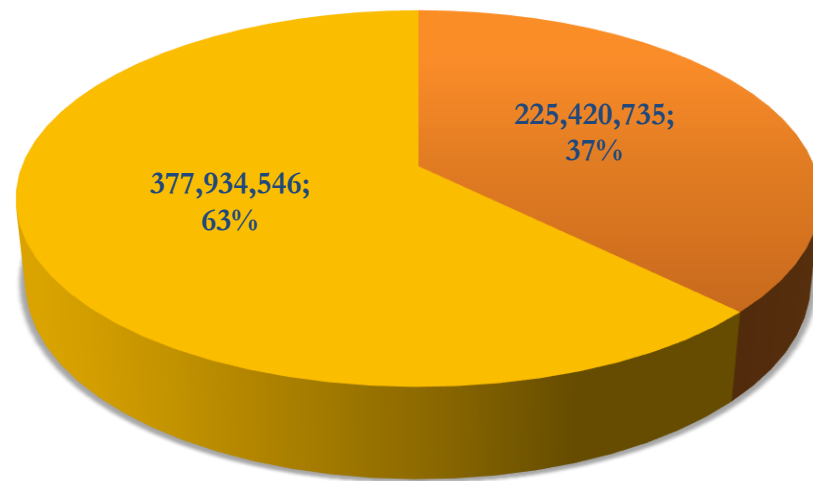
- Environment: Greenhouse Gas emissions by sector. Per head of cattle, emissions are higher in intensive systems than in extensive ones, but due to higher productivity, the emissions per unit of produce are lower in the intensive sector.



Ethiopia: ASL2050 Outputs

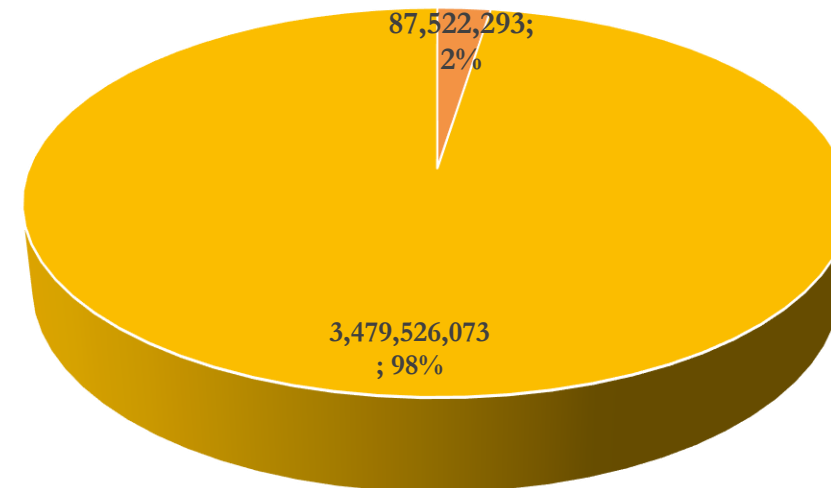
- Public Health: Monetary loss calculated for selected zoonoses, including losses in production, animal stock and loss due to morbidity and mortality of livestock keepers and consumers. Share of animal and human related losses in total loss for Brucellosis and bovine TB in cattle

Brucellosis



■ Total social cost (\$PPP) ■ Total loss in cattle (\$PPP)

Bovine tuberculosis



■ Total social cost (\$PPP) ■ Total loss in cattle (\$PPP)

Lessons: understanding trade-offs

Livelihoods:
Income
Consumption

Livestock
production
systems

Environment:
GHG
emissions
Water
footprint

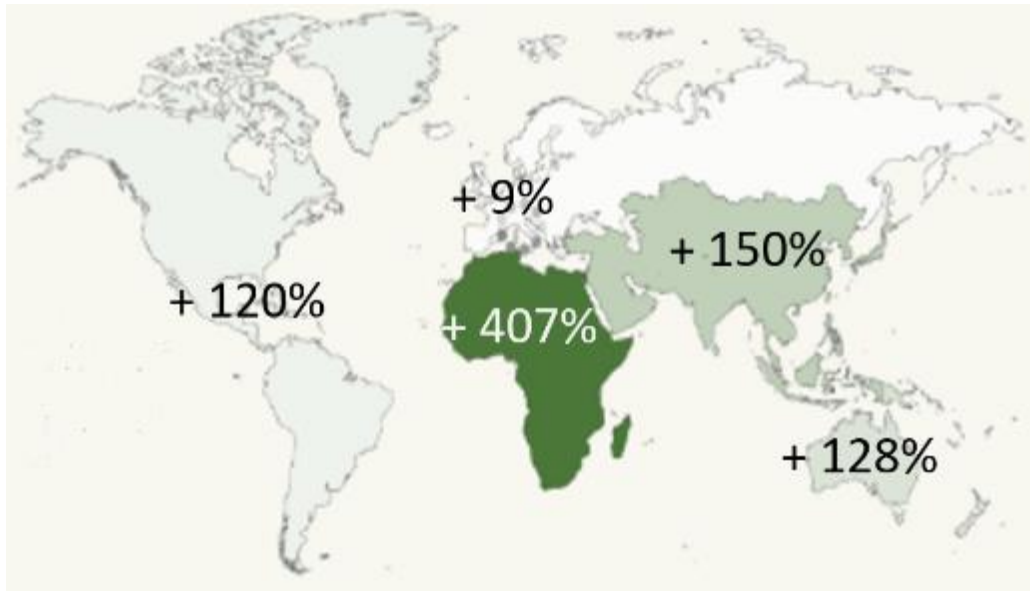
Public Health:
Value of
production loss
Value of
morbidity and
mortality in
humans

- All stakeholders – including Ministries responsible for livestock, environment and public health – have a common understanding of the livestock sector and its impact on society
- All stakeholders are now in a position to appreciate how policies that support livestock sector development have different effects on livelihoods, environment and livelihoods
- Stakeholders understand trade-offs and can take better decisions

Lessons: livestock impact on society, today and tomorrow

Livestock Projections (2050) FAO Global Perspectives

2015-2050 % change in beef consumption



Source: Courtesy of FAO Global Perspective Studies Unit

- The livestock sector – beyond being a major provider of food - has a major impact on society today from an environmental, public health and environmental perspective
- Africa is anticipated to undergo dramatic changes in the future
- Ethiopia and Nigeria agreed to investigate coming trends of livestock sector growth and transformation to develop forward-looking policies, that by anticipating coming changes will ensure a sustainable growth of livestock in the coming decades



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Thank you

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#LivestockAgenda



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17 PARTNERSHIPS
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