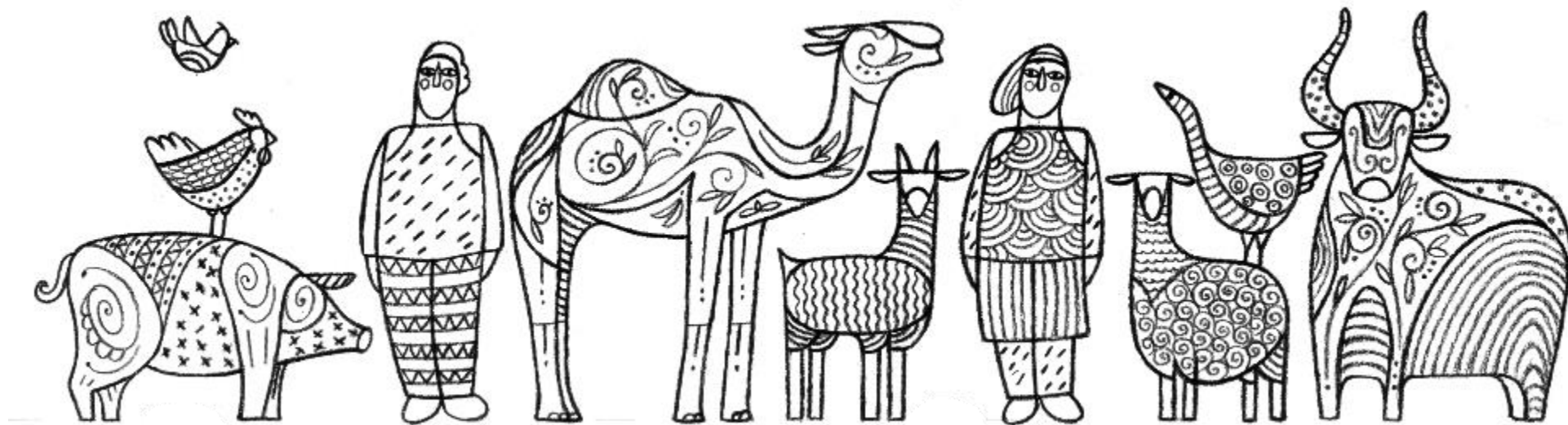




Food and Agriculture
Organization of the
United Nations

The long-term growth and transformation on African livestock the importance of farm-level benchmarking



Ugo Pica-Ciamarra (FAO)

Take-away messages

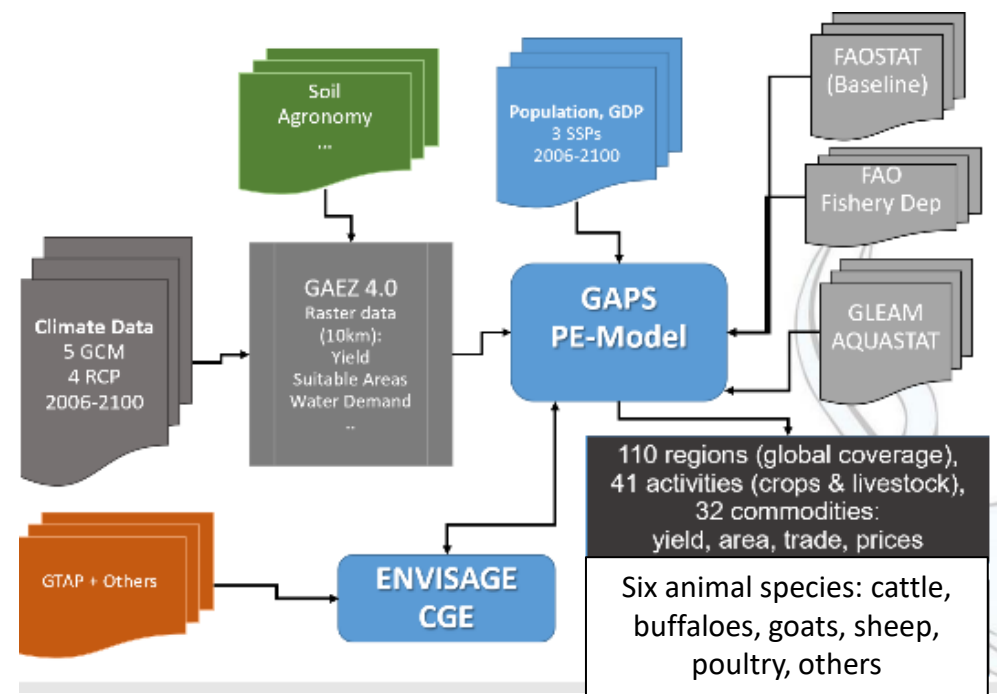
- Africa and its livestock sector are anticipated to dramatically change in the coming decades
- The transformation of livestock will pose huge challenges to society
- Farm-level benchmarking is essential to support a sustainable transformation of the livestock sector



Take-away messages

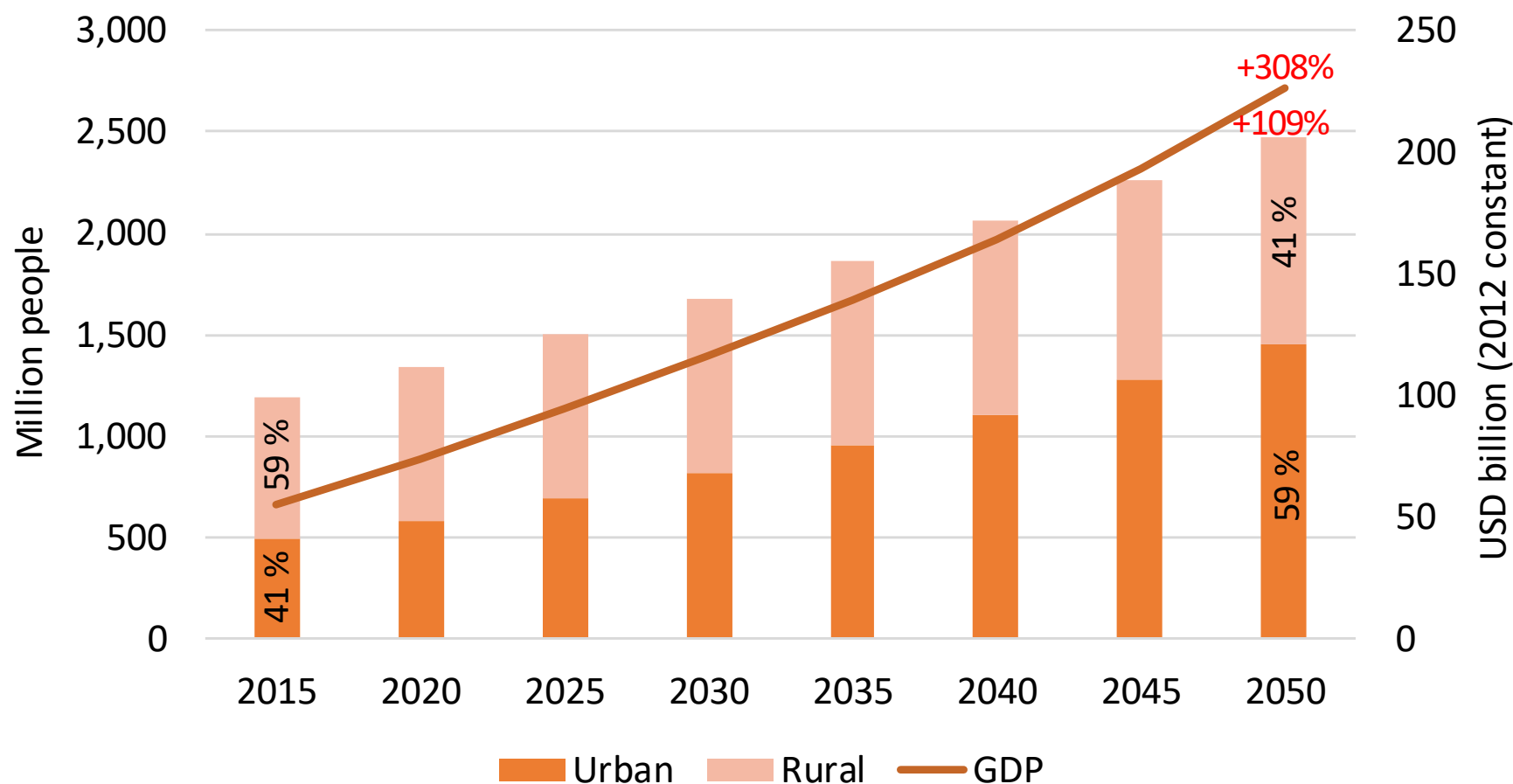
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FAO Global Agricultural Perspectives System Model



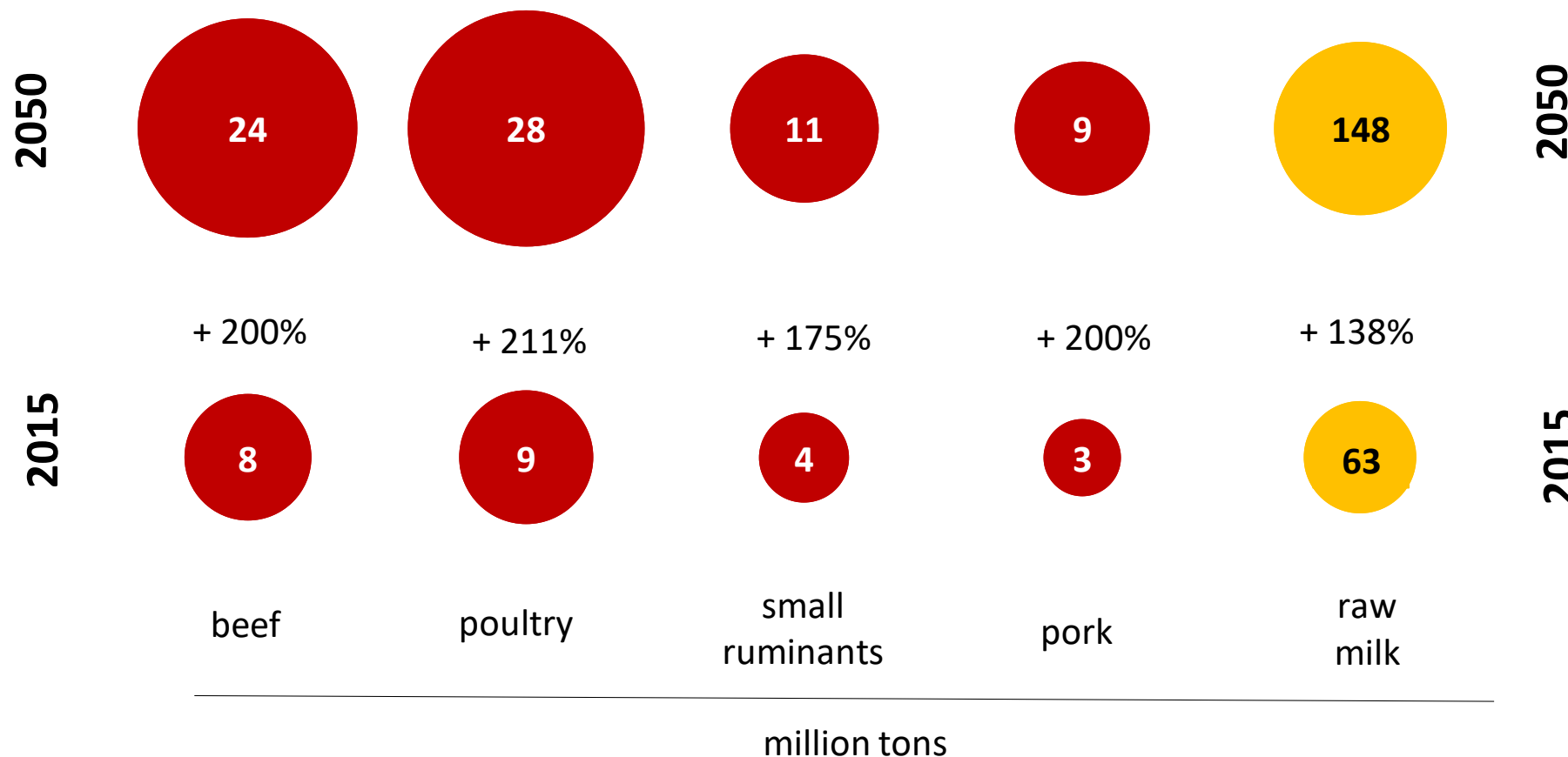
<http://www.fao.org/global-perspectives-studies/en/>

Africa: population and economy – 2015-2050



Source: FAO GPS, 2018

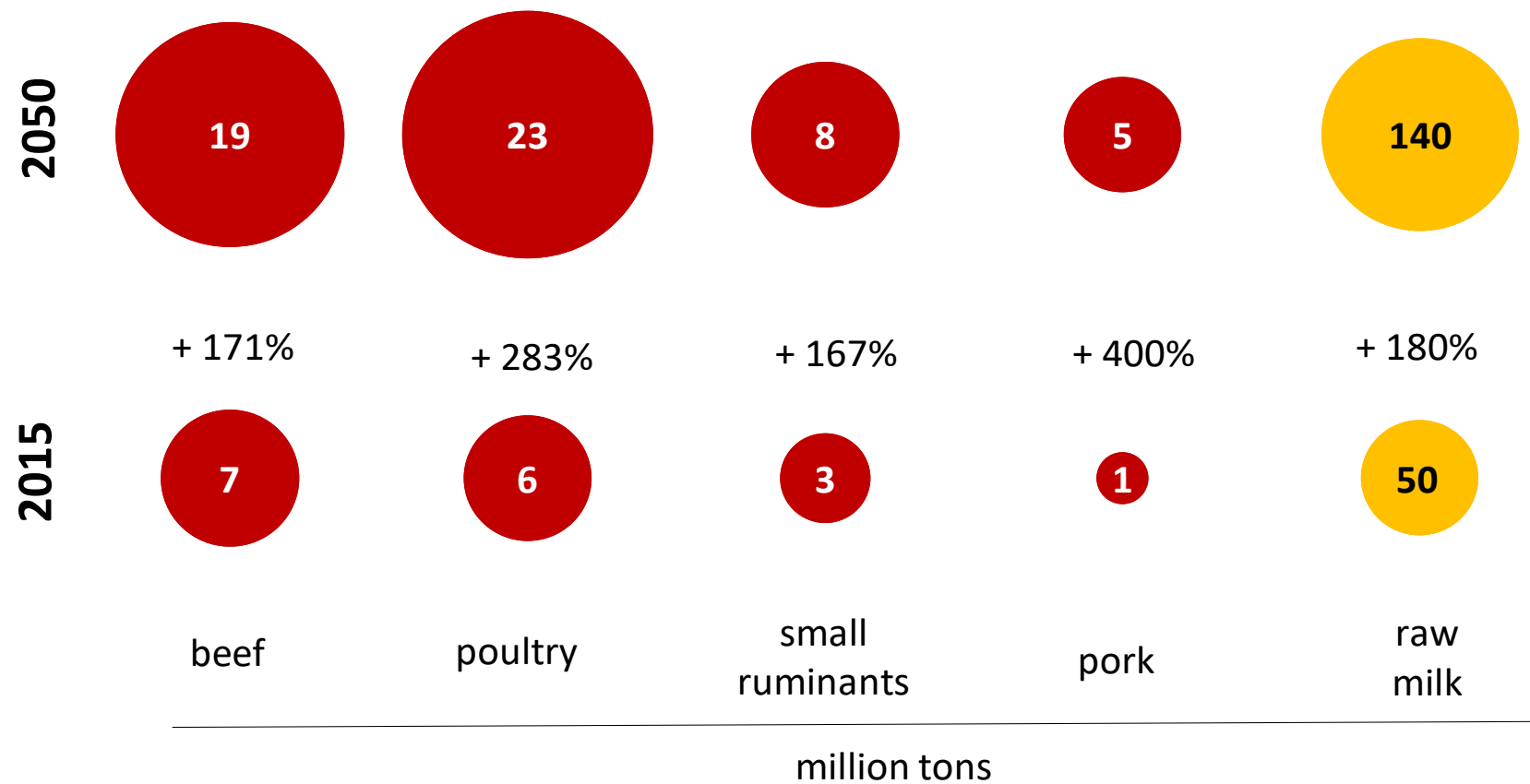
Africa: consumption of livestock products - 2015-2050



Demand for livestock products will exponentially increase

Source: FAO GPS, 2018

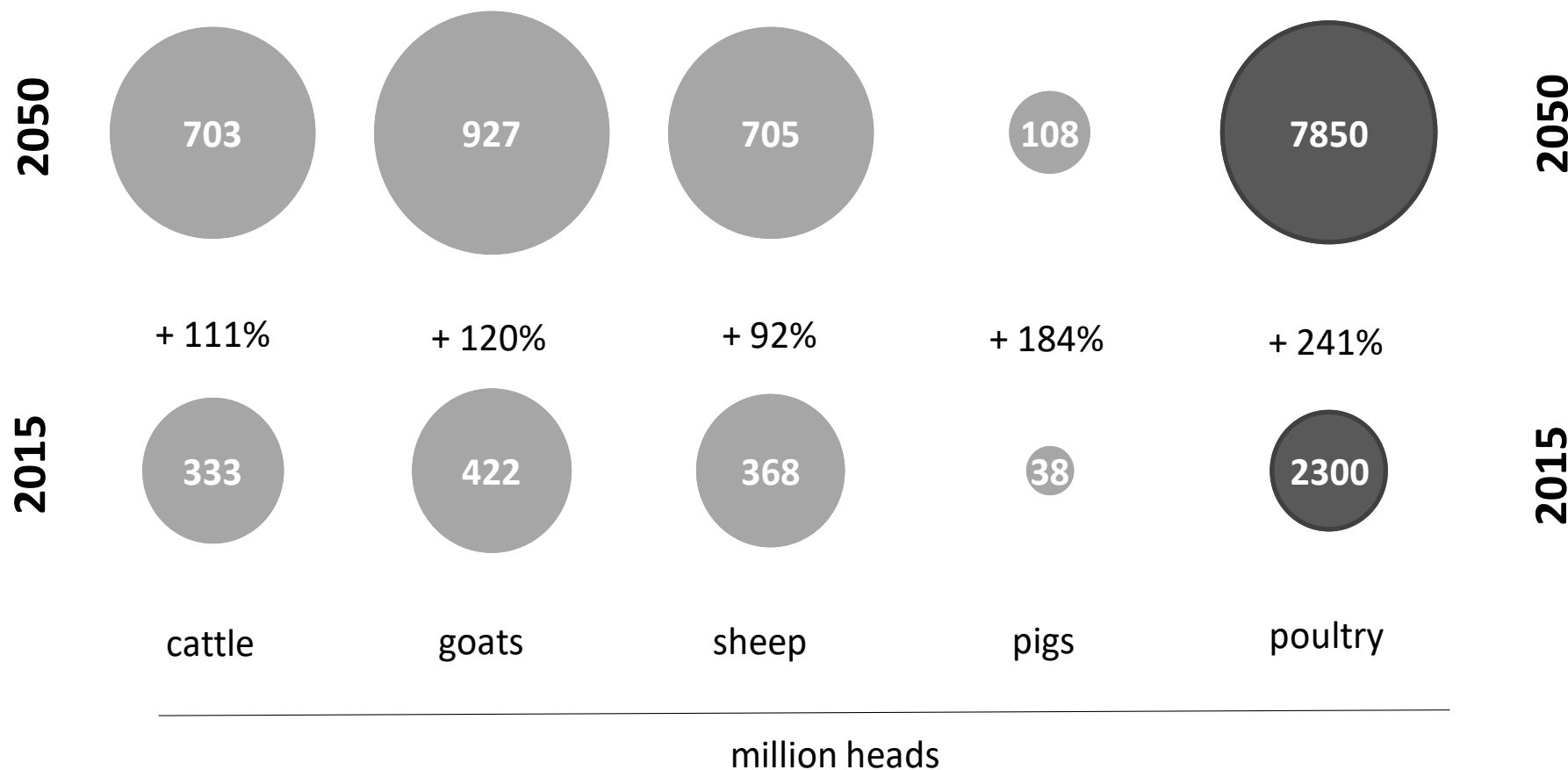
Africa: production of animal source foods - 2015-2050



Production of livestock will exponentially increase

Source: FAO GPS, 2018

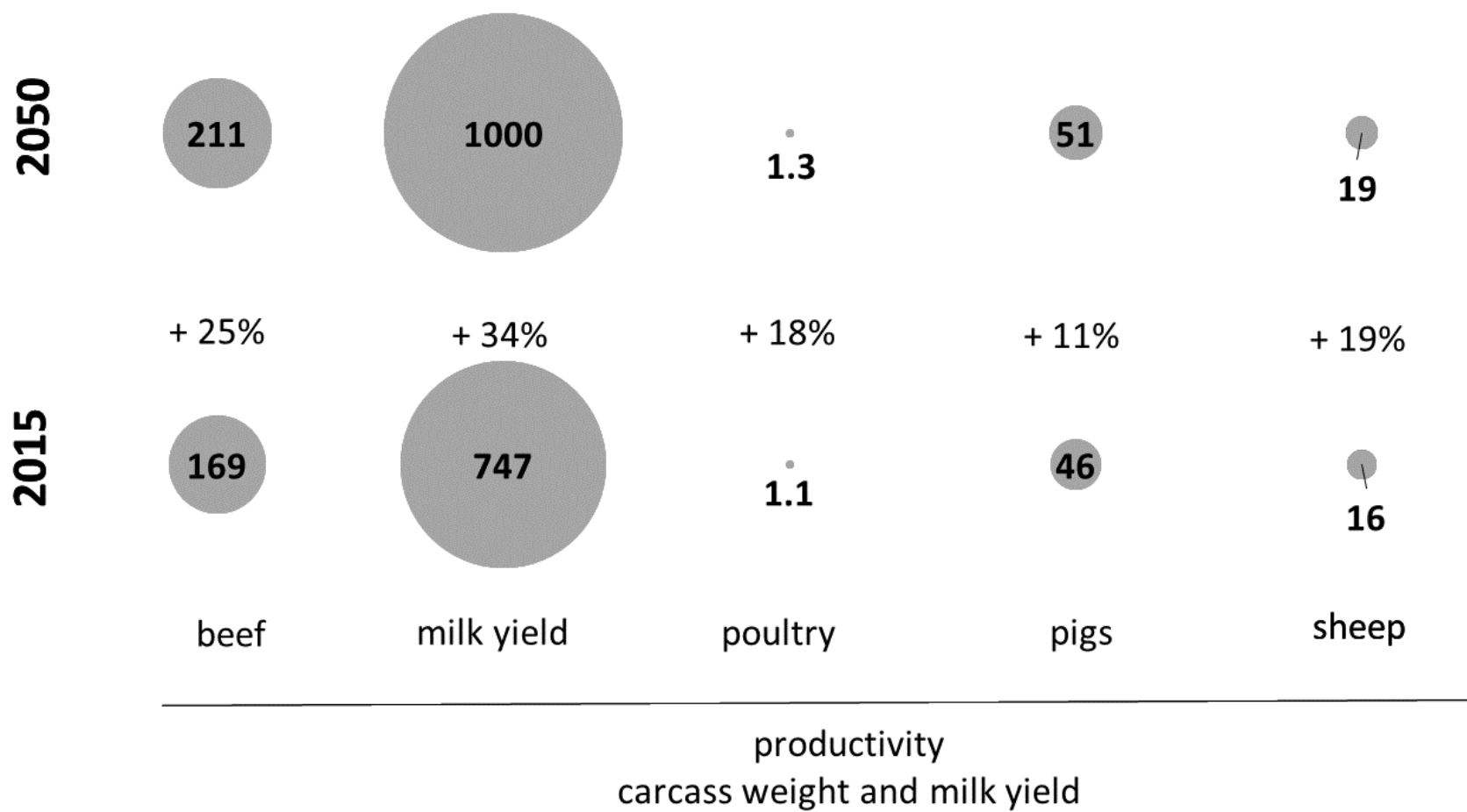
Africa: animal population - 2015-2050



Livestock
production
systems will
dramatically
change

Source: FAO GPS, 2018

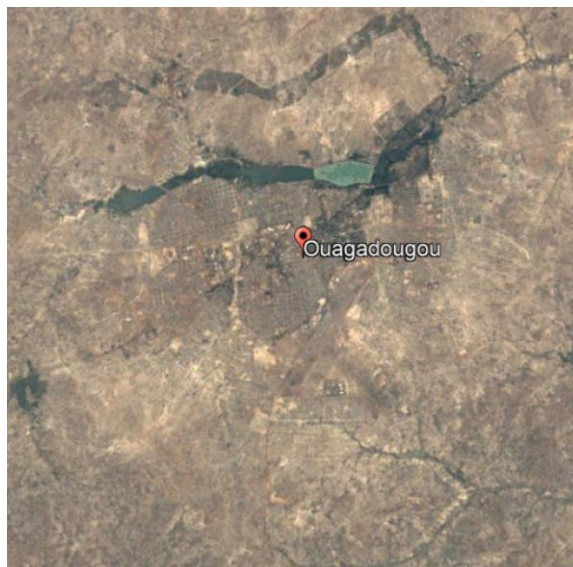
Africa: livestock productivity - 2015-2050



2050
Livestock
production
systems will
dramatically
change
2015

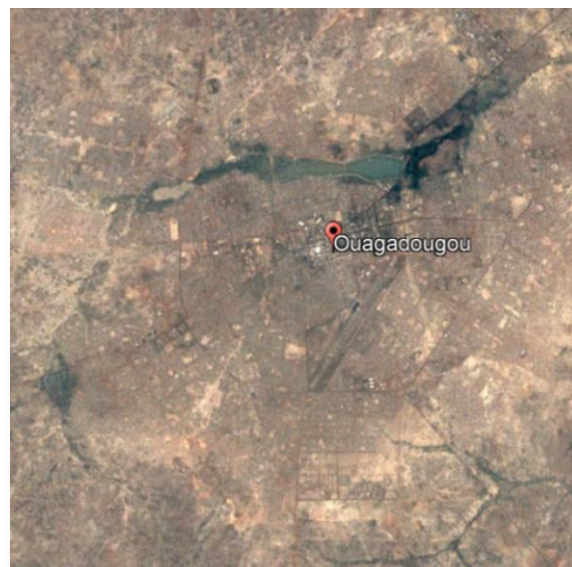
The livestock transformation: a satellite view

1985



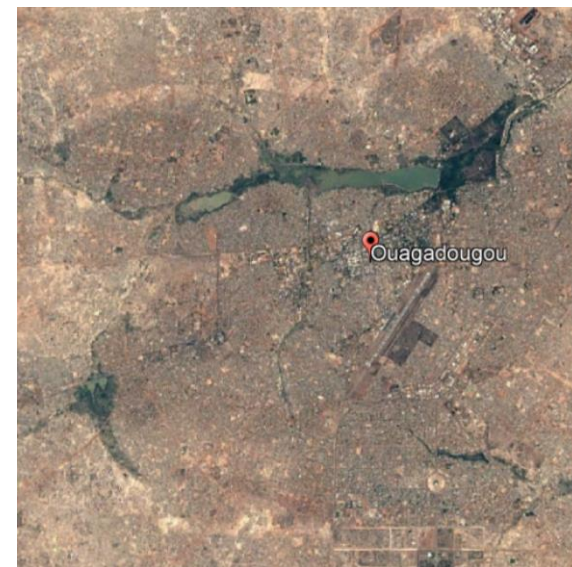
Pop = 0.46 million

2000



Pop = 0.92 million

2015



Pop = 2.2 million

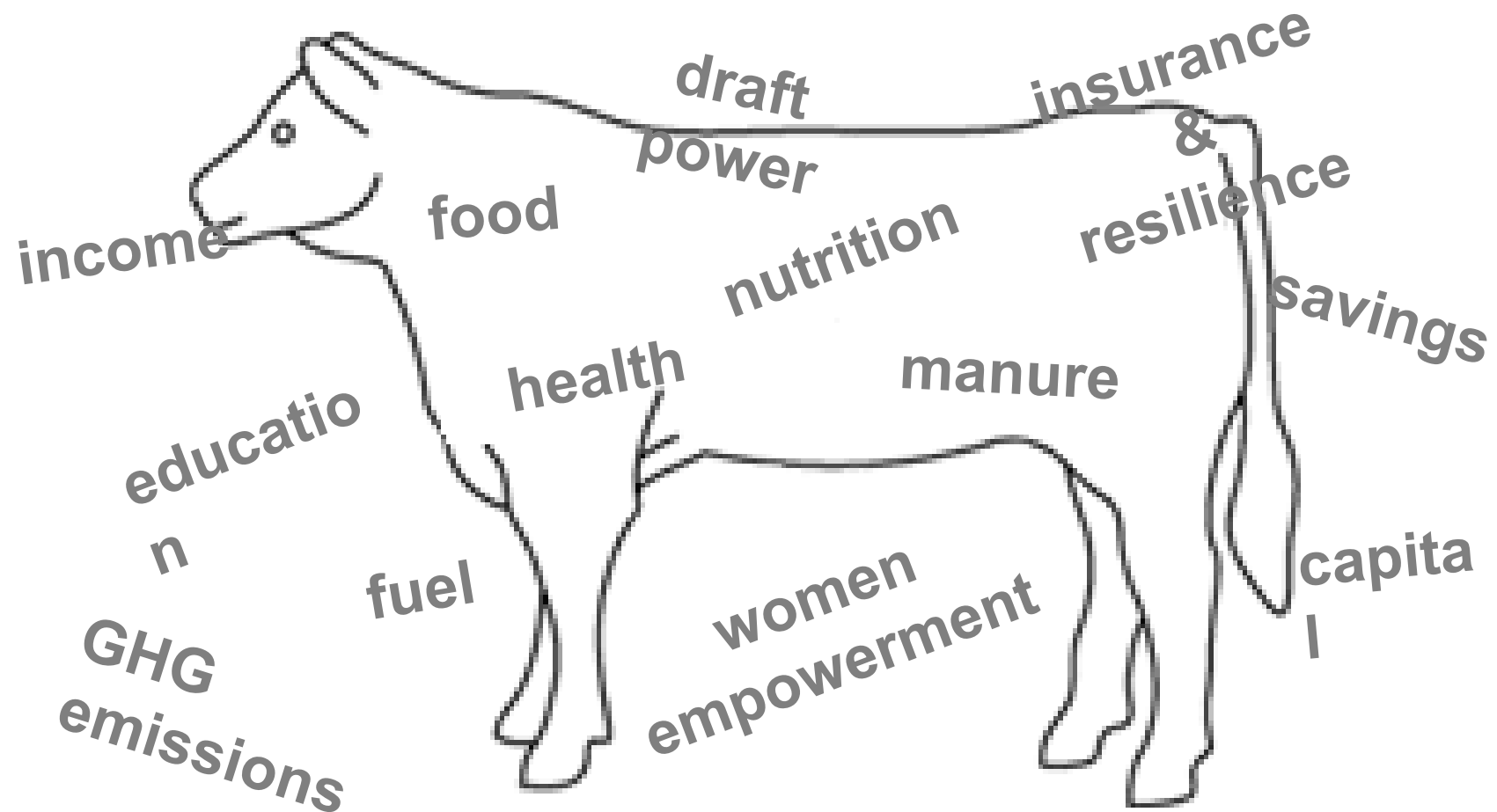
Ouagadougou 2050: 8.6 milion

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Livestock's role in society



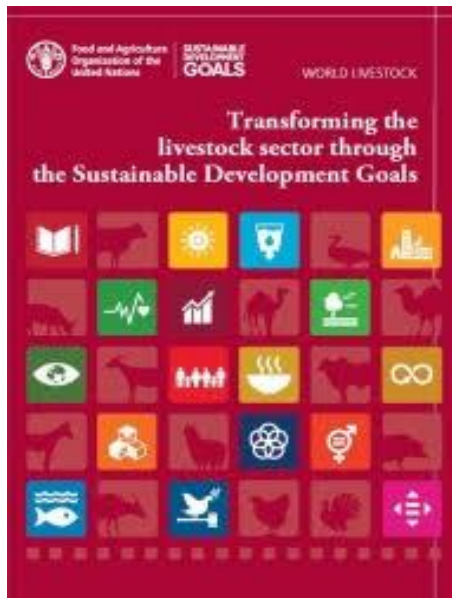
1. LIVELIHOODS

2. ENVIRONMENT

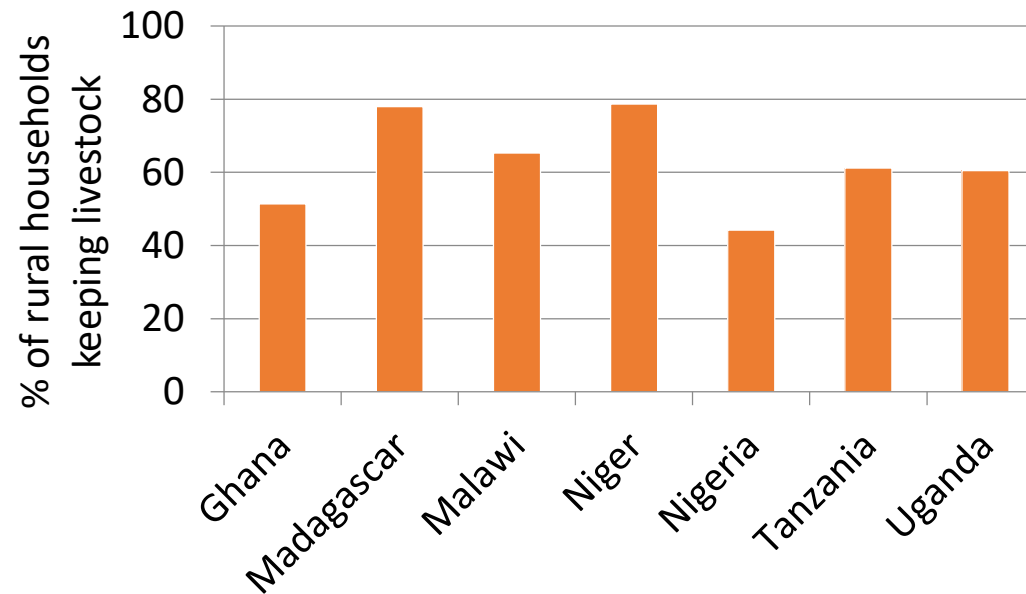
3. PUBLIC HEALTH

1. Livelihoods

Doubling human
and doubling
(cattle) population



62% of rural HHs keep livestock

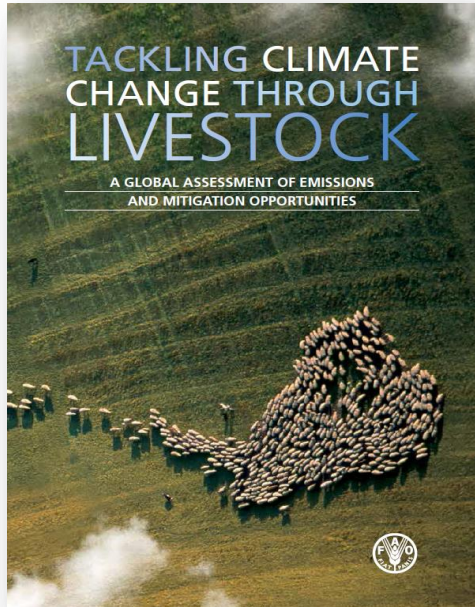


- Increased competition for productive resources
- Many will exist the livestock sector: will there be sufficient employment opportunities?

Working age population: 0.5 billion today / 1.3 billion in 2050

2. Environment

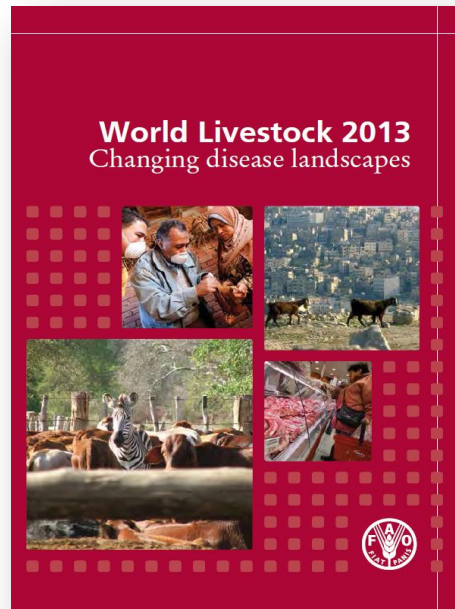
Doubling (cattle)
population



- Livestock is the largest user of agricultural land at global level
grazing land + croplands for feed = 80%
- Livestock is a major user of water
In the literature, estimates of water use per kg of beef ranges from 27 to over 200.000 lit!
- Livestock is a major contributor of GHG emissions
14.5 % of total GHG emissions
- Nutrients overloading of soil and water / biodiversity loss

3. Public health

Doubling human
and doubling
(cattle) population

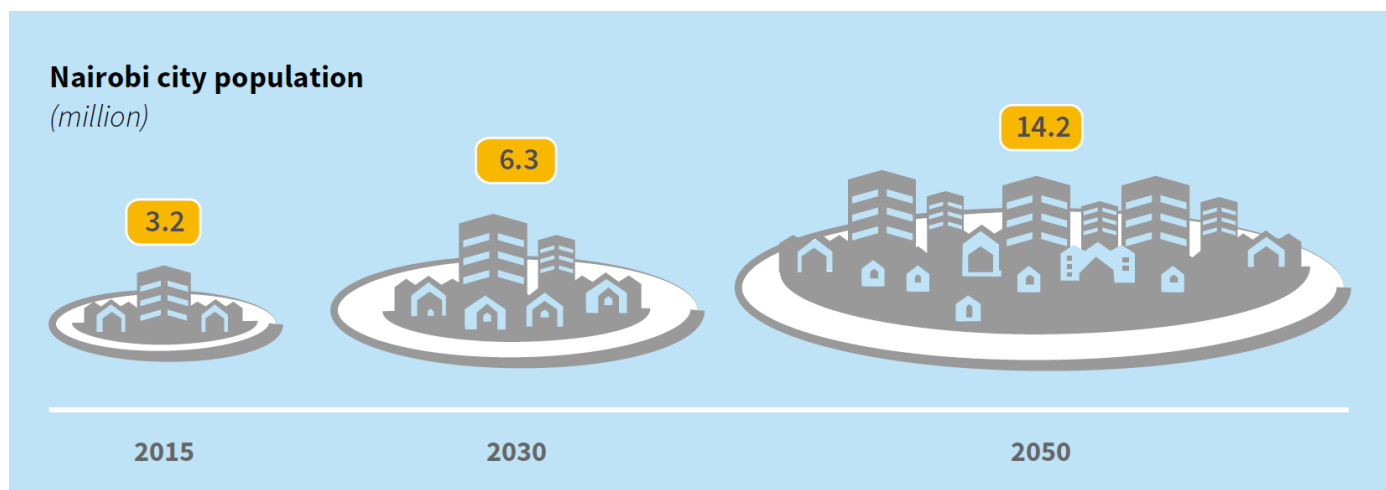


- 70% of human diseases originate from animals
Domesticated animals and wildlife
- Emerging infectious diseases (e.g. avian influenza) increasingly frequent
More frequent and novel interactions between animals, humans and wildlife - high cost of society: e.g. Ebola USD 31-33 billion; H1N1 USD 45-44 billion
- Increased incentives to use antimicrobials for disease prevention and growth promotion
Livestock-driven antimicrobial resistance

Add to that... transformed livestock supply chains

Pop in SSA from 39% (2015) to 58% (2050) urban

E.g. Kenya: from 25.7 to 46.3 million -
65% of pop growth will be in urban areas!



- + 11 million in 35 years
- + 314,000 per year
- + 26,000 per month
- + 6,100 per week
- + 870 per day

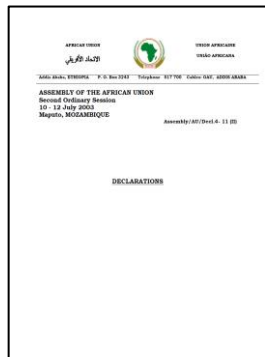
Add to that... resource scarcity

African countries are and will remain low / middle income countries in the next decades

If SSA grew at 7 percent per year for the next 35 years, per capita income would increase from \approx USD 1,500 to \approx 8,000 USD per year



Add to that... resource scarcity



MAPUTO, 2003



MALABO, 2014

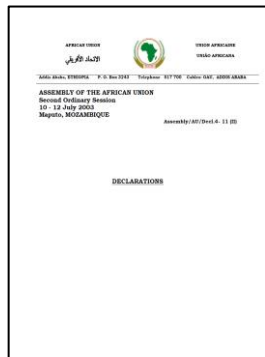
10% of budget
allocated to
agriculture

- a typical a SSA government can afford spending USD 1.2 per/day/person to provide public services
- about USD 0.12 cents/day/person on agriculture (and livestock)

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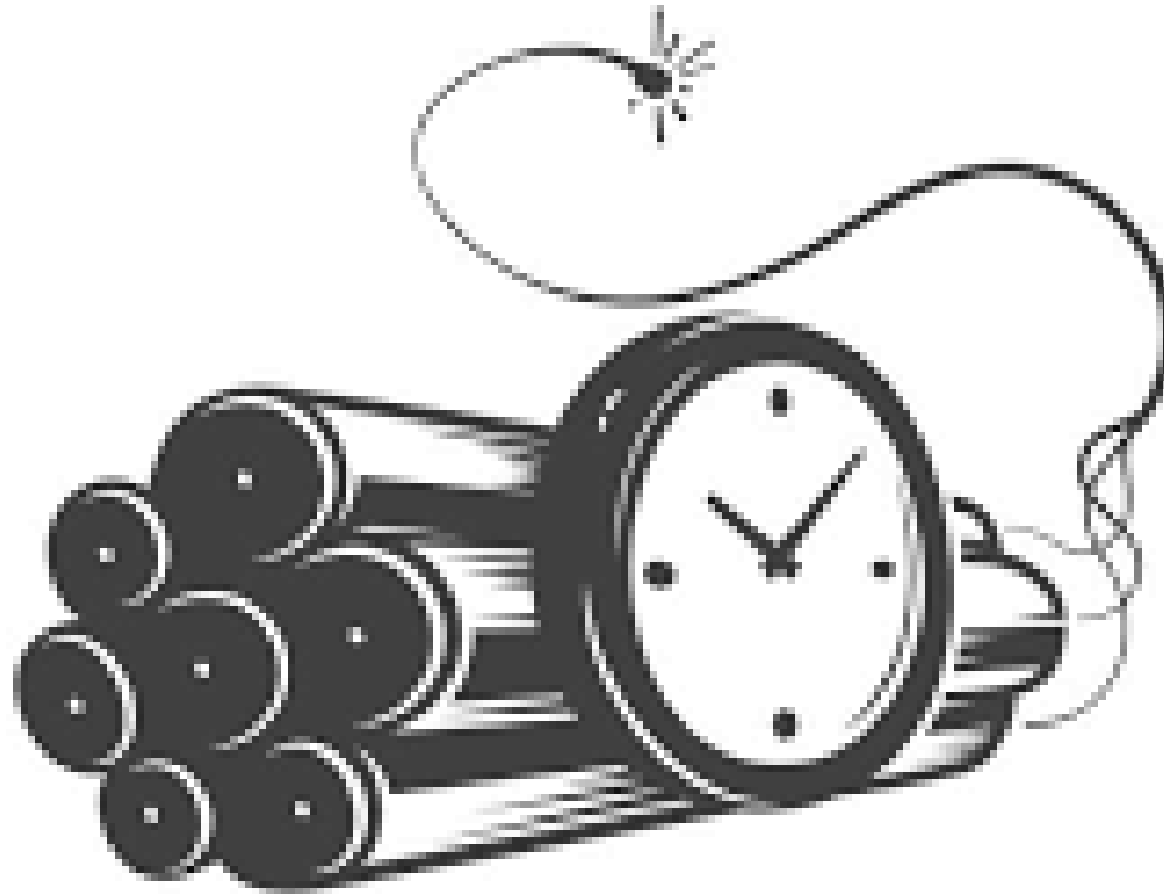
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≈ USD 117 million of which
≈ USD 13 million for livestock
(≈ USD 0.25 per head of cattle per year!)

The future of livestock in Africa ?

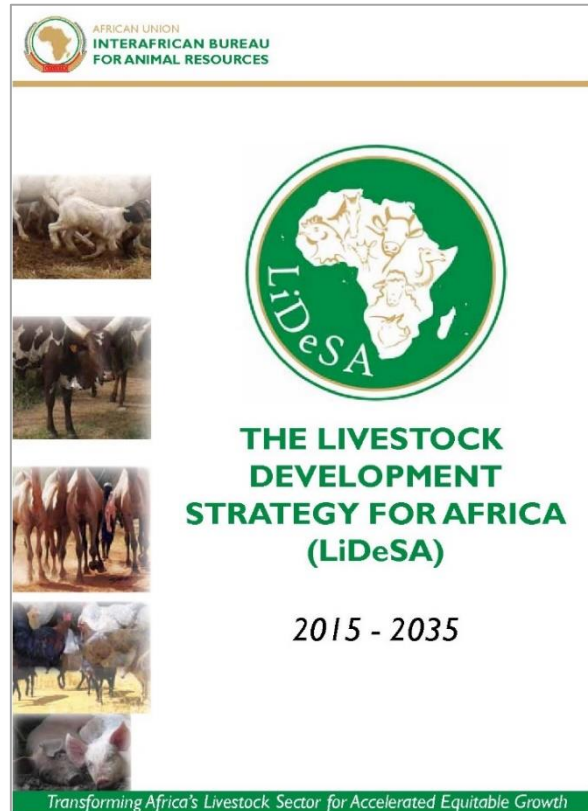


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Invest on what works for sustainably transform livestock



From passive policies / strategies
attempting to address all conceivable
constraints (spray-gun approach)

... ..

to pro-active policies supporting
efficient and sustainable farms

What works today ?

What «types» of livestock farms are sustainable:

- socio-economy ?
- environment ?
- public health ?

Available information does provide little evidence



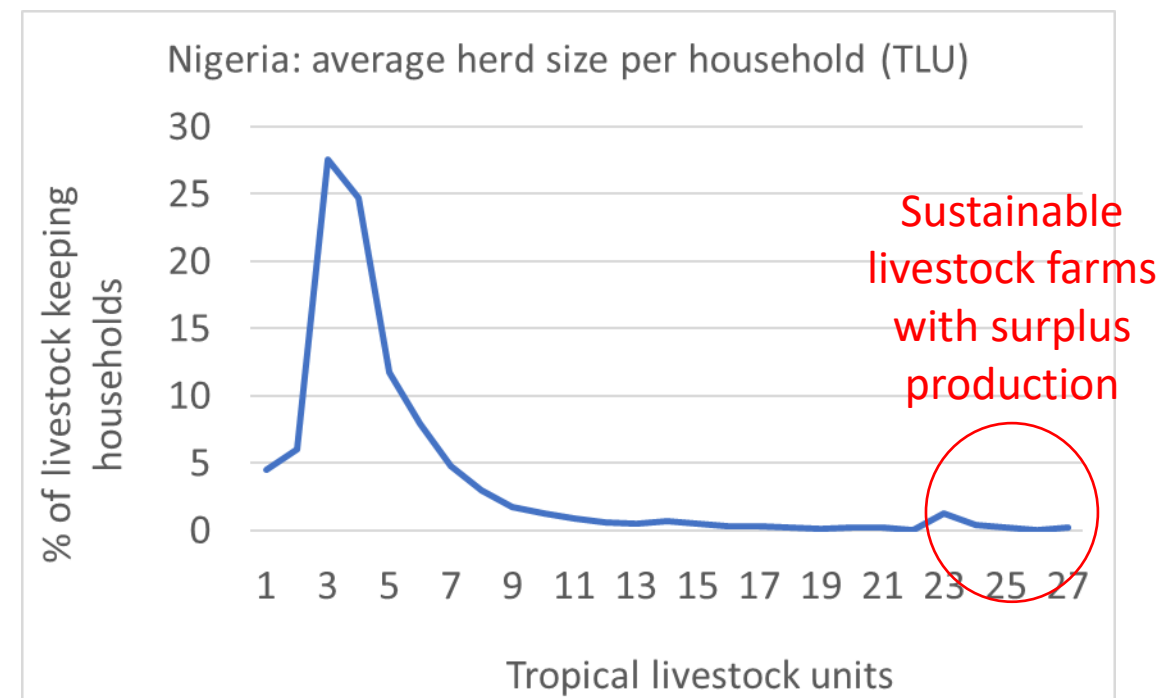
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The statistical information trap



What works today: benchmarking is key



Characterizing / benchmarking (sustainable)
middle to large scale farms

- Cattle (beef and dairy)
- Poultry
- Pig
- Small ruminants

is fundamental to provide decision-makers
with evidence for «pro-active» livestock
sector policies

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Thank you

