منظمة الأغذية والزراعة للأمم المتحدة | 联合国粮食及农业组织 | Food and Agriculture Organization of the United Nations | Organisation des Nations Unies pour l'alimentation et l'agriculture | Organización de las Naciones Unidas para la Agricultura y la Alimentación

Recent Advancements in Livestock Statistics

Presenter: Patrick Okello (UBOS)
Authors: Uganda Bureau of Statistics (UBOS); Uganda Ministry of Animal Industry and Fisheries (MAAIF); Tanzania National Bureau of Statistics (NBS); Tanzania Ministry of Livestock and Fisheries Development (MLFD); Ministère de l'Élevage, République du Niger (MEL); FAO Animal Production and Health Division (AGA)

Recommendations / points for discussion

1. Include animal health-related data among the core data identified by the Global Strategy

2. Regularly update livestock technical conversion factors for accurate estimates of key livestock statistics identified by the Global Strategy

3. Undertake a specialized livestock survey as one of the periodic surveys of the integrated survey framework proposed by the Global Strategy

Outline

1. Why livestock / livestock statistics ?

2. Country-related work to improve livestock statistics
   - *core livestock data and indicators (Uganda)*
   - *livestock production and productivity (Tanzania)*
   - *livestock in household surveys with a focus on agriculture (Niger, Tanzania and Uganda)*

3. Recommendations and points for discussion

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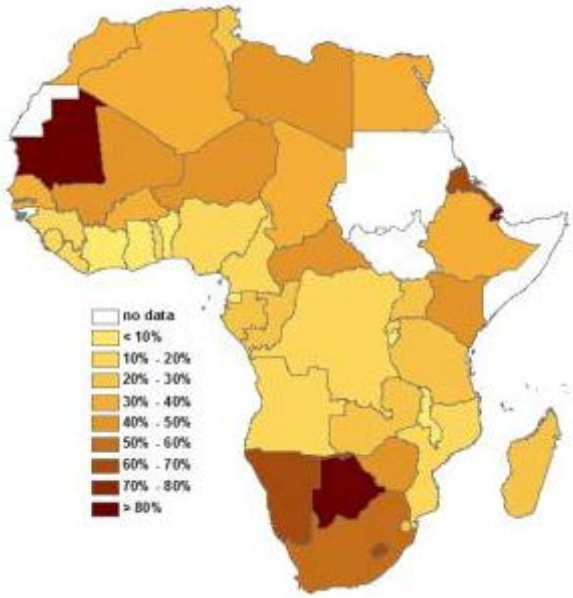
3. Recommendations and points for discussion

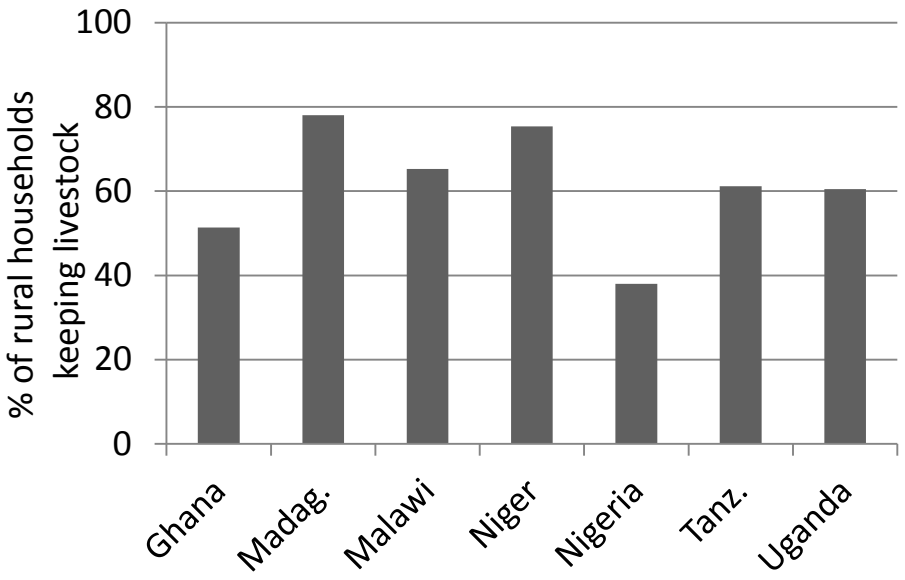
Why livestock / livestock statistics

- Livestock account for about 1/3 of agricultural value added
- As economic development progresses, consumption of high-value livestock products increases
- Livestock anticipated to become one of the largest, if not the largest contributors to agricultural value added

Livestock value added:
% of agricultural value added



Why livestock / livestock statistics



- Majority of rural households keep animals
- Consumption of animal-source foods key for food security
- Livestock might have negative impact on environment and global public health

Why livestock / livestock statistics

- Measuring livestock critical for ensuring an equitable and efficient growth of the sector:
  - *Consumer demand is met*
  - *Poverty is reduced / economic growth supported*
  - *No negative impact on environment / public health*
- But available livestock data are usually few and inadequate

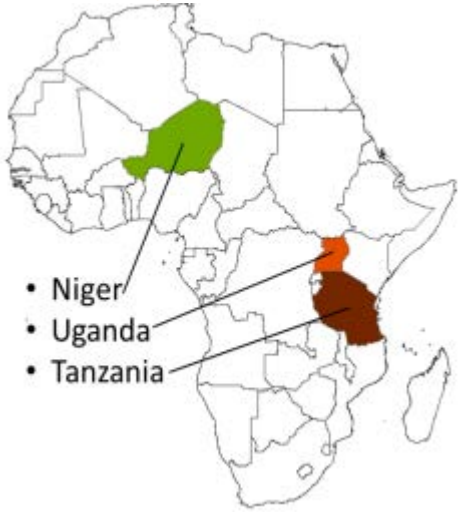
LIVESTOCK POPULATION IN UGANDA

'MAAIF, together with UBOS, conducted a National Livestock Census ... the national cattle herd was estimated to be **11.4 million cattle**' in 2008 (MAAIF, 2010,p.24)

'Previous estimates of the total number of cattle ... based on ... the Uganda National Household Survey (UNHS) 2005/06 showed that the national herd stood at **7.5 million cattle**' (MAAIF, 2010,p.24)

'The number of livestock/poultry increased by 3.0 percent. Similar to the period **2008-2009**, livestock / poultry numbers increased **between 2009 and 2010** by about **3 percent**' (MAAIF, 2011,p.22)

Why livestock / livestock statistics



In 2010-13 governments of Niger, Tanzania and Uganda partnered with:

- FAO
- World Bank
- International Livestock Research Institute (ILRI)
- African Union / InterAfrican Bureau for Animal Resources (AU-IBAR)

to improve the quantity and quality of livestock data available for policy and investment design

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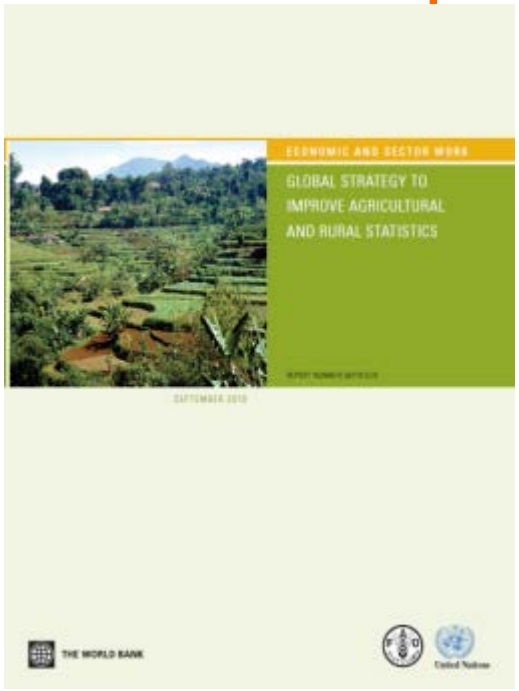
Uganda: Core Livestock Data and Indicators

Global Strategy – Pillar 1:

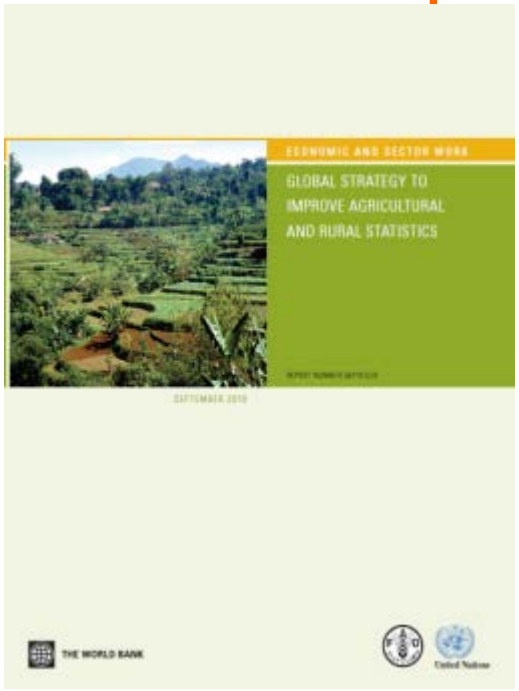
- *"a core set of data the countries need to collect to meet current and emerging demands"*
  - *LIVESTOCK: Inventory / production / price / trade of cattle, sheep, goats, pigs and poultry*
- *"each country needs to select which items to include in its national system … add other items … determine how frequently data will be provided …."*



Uganda: Core Livestock Data and Indicators

Uganda:

- MoU between Ministry of Agriculture Animal Industry and Fisheries (MAAIF) and Uganda Bureau of Statistics (UBOS) to agree upon **core livestock indicators** (and data) and identify priorities to improve systems of agri-data collection
- **Core indicators** defined as those **regularly needed by MAAIF and UBOS to fulfil their mandates (GS pillar 3: governance)**



Uganda: Core Livestock Data and Indicators

Global Strategy – Pillar 1:

- *"a core set of data the countries need to collect to meet current and emerging demands"*
  - *Inventory / production / prices of cattle, sheep, goats, pigs and poultry*

& *animal health related indicators*

- *"each country needs to select which items to include in its national system … add other items … determine how frequently data will be provided …."*

Uganda: Core Livestock Data and Indicators

1. Already part of the statistical system (surveys & min. resp. of livestock often manages stand alone system of data collection)
2. Livestock diseases influence production / trade
3. Largest share of resources of Min. responsible for livestock allocated to animal disease control and management (governance – GS pillar 3)
4. International obligations require countries to regularly report (monthly) on their animal disease situation
5. Needed to estimate livestock value added (cost of inputs), a key statistics

animal health related indicators

Recommendations / points for discussion

1. Include animal health-related data among the core data identified by the Global Strategy – *data on disease outbreaks and animal-health related inputs*

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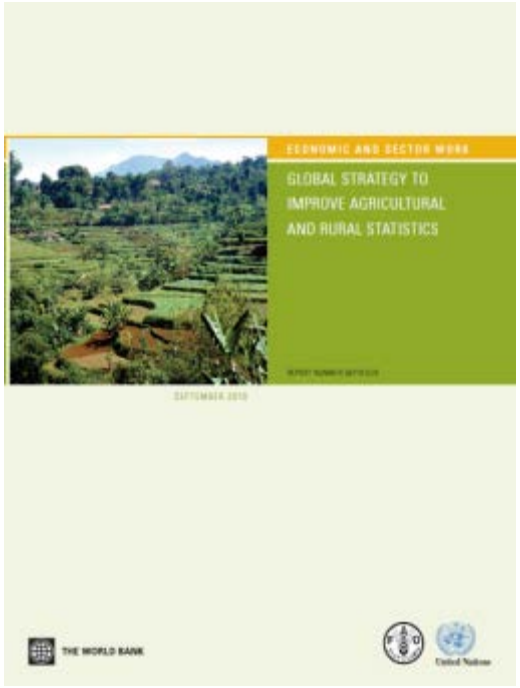
Tanzania: Livestock Technical Conversion Factors



Global Strategy – Pillar 1:

- *"a core set of data the countries need to collect to meet current and emerging demands"*
  - *LIVESTOCK: Inventory / **production** / price / trade of cattle, sheep, goats, pigs and poultry*

Survey data not always sufficient to generate accurate estimates of production in traditional systems:

- *How much milk did your cows produce in the last month?*
- *What was the average carcass weight of the cattle you slaughtered in the last six months?*

Tanzania: Livestock Technical Conversion Factors

Bureau of Statistics / Ministry of Livestock use of **Technical Conversion factors** (TCFs) to estimate production

TCFs convert a (easily) measurable quantity into a different unit of measure

Global Strategy – Pillar 1:

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Tanzania: Livestock Technical Conversion Factors

Example 1:

Number of animals slaughtered (survey / census / other)

X

Meat per animal slaughtered (TCF) =

Meat production

Example 2:

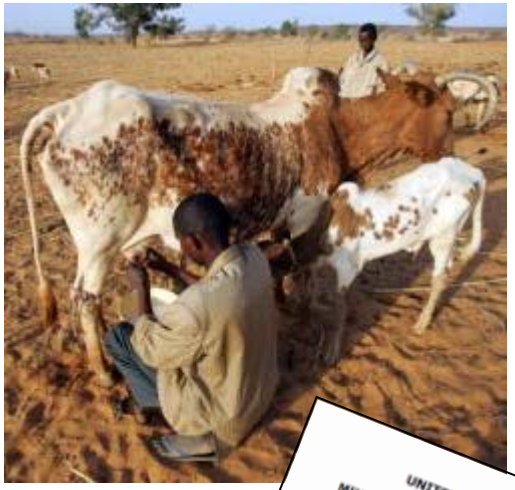
Number of milking cows (survey / census / other)

X

Milk per cow (TCF) =

Milk production

Tanzania: Livestock Technical Conversion Factors



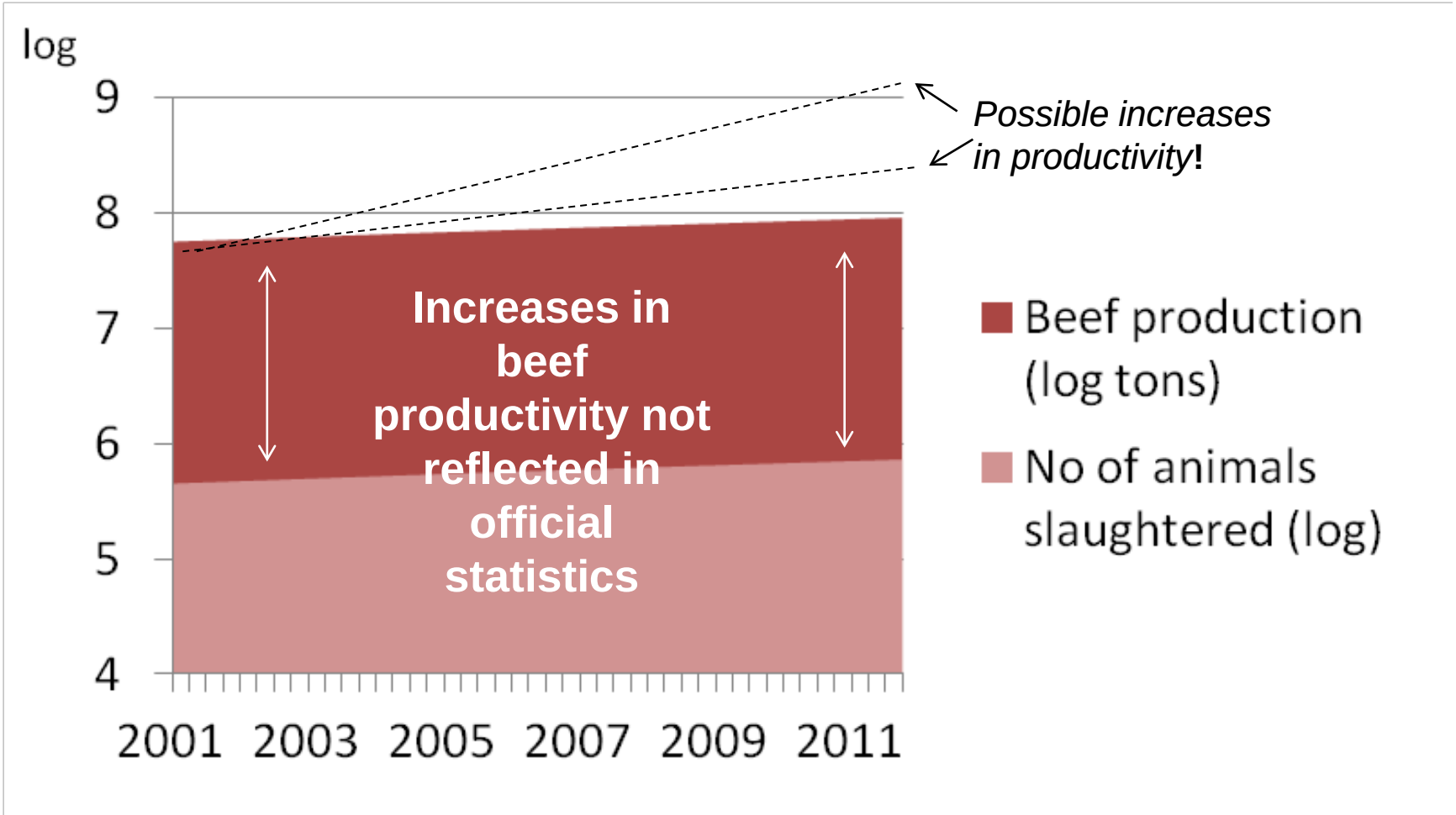
TCFs issues:

- Rarely data collected to properly quantify TCFs
- Based on expert opinions / project data / taken from neighbouring countries
- Rarely updated

- Livestock statistics inaccurate
- Impacts of policies and investments not captured in official statistics!

Tanzania: Livestock Technical Conversion Factors

In the TZ national accounts, from 2011 to 2012, beef production = number of cattle slaughtered * 125 Kg (**constant TFCs**)



Tanzania: Livestock Technical Conversion Factors

Estimating TCFs is straightforward:

- **Physically measure** production at farm level (milk; eggs; manure) and in slaughterhouses (meat, fat, offals)
- Basic training and supervision
- Technology is not an issue, but resources are
- In Tanzania, Ministry of Livestock and Bureau of Statistics are jointly updating key livestock TCFs to update livestock statistics (national accounts)

Recommendations / points for discussion

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Livestock in household surveys: NEG, TZ & UGA

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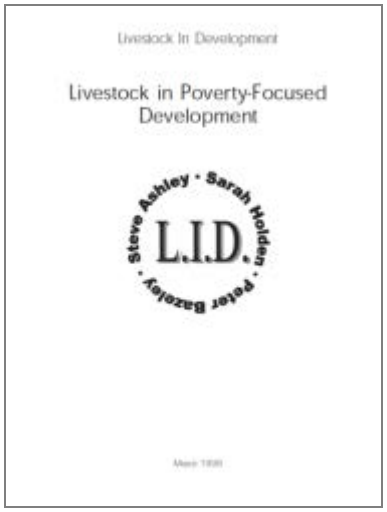
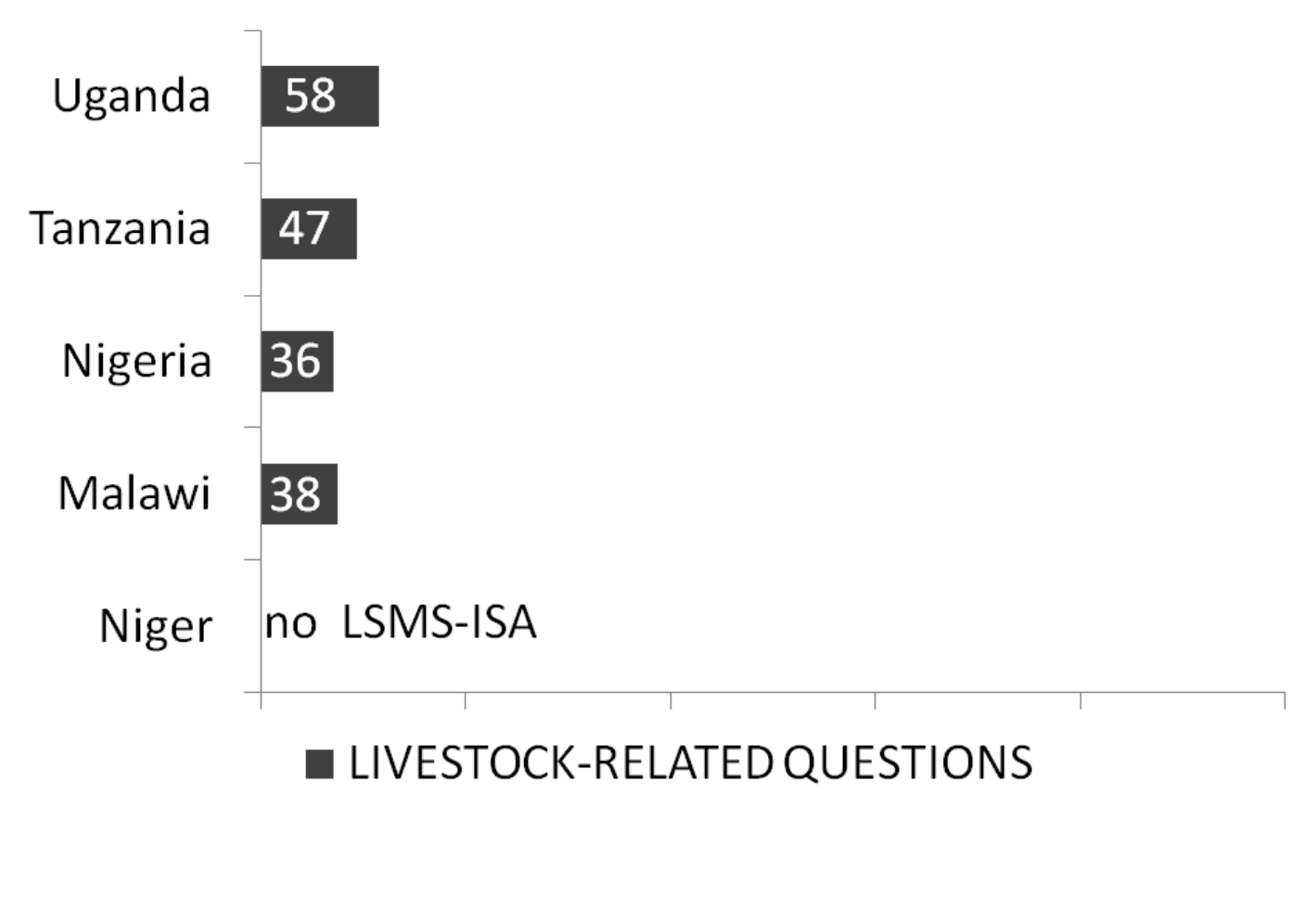
Livestock in household surveys: NEG, TZ & UGA

- Livestock support livelihoods
  - food
  - cash
  - insurance
  - draught power
  - manure
  - … … …
- There is evidence, but not systematic



Livestock in household surveys: NEG, TZ & UGA

Livestock questions in Standard Living Standards Measurement Studies (Integrated Surveys on Agriculture) – LSMS-ISA



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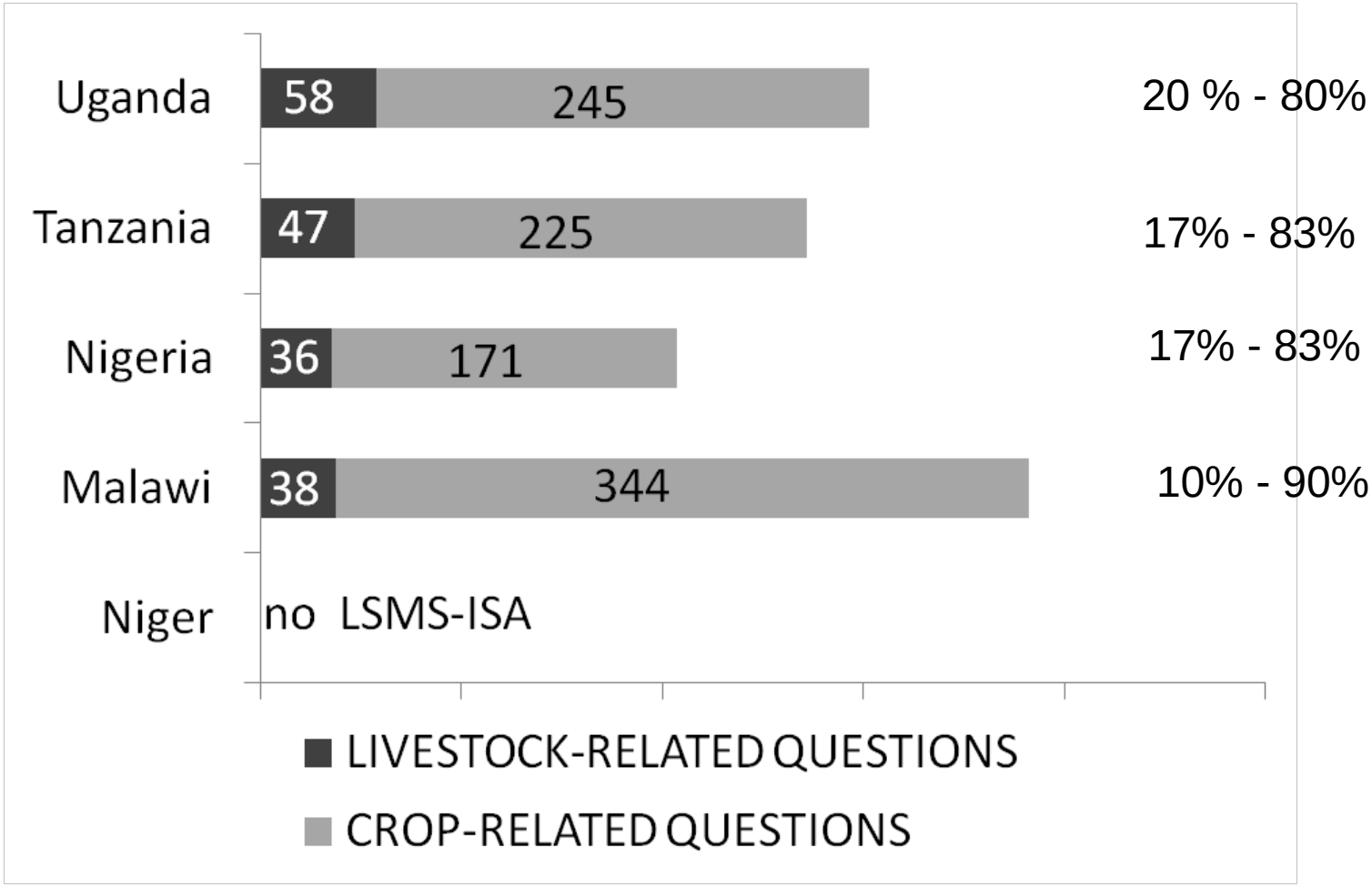

Livestock in household surveys: NEG, TZ & UGA

- Min Liv – Stat Authority - ILRI – FAO – WB – African Union
- Review of existing hh questionnaires:
  - demand for info
  - LSMS questionnaires (with a focus on agriculture)
  - Specialized livestock questionnaires
- Draft 'livestock questionnaireS'
  - consultations (national / international)
- Livestock questionnaire incorporated into LSMS questionnaires
  - Niger / Uganda / Tanzania

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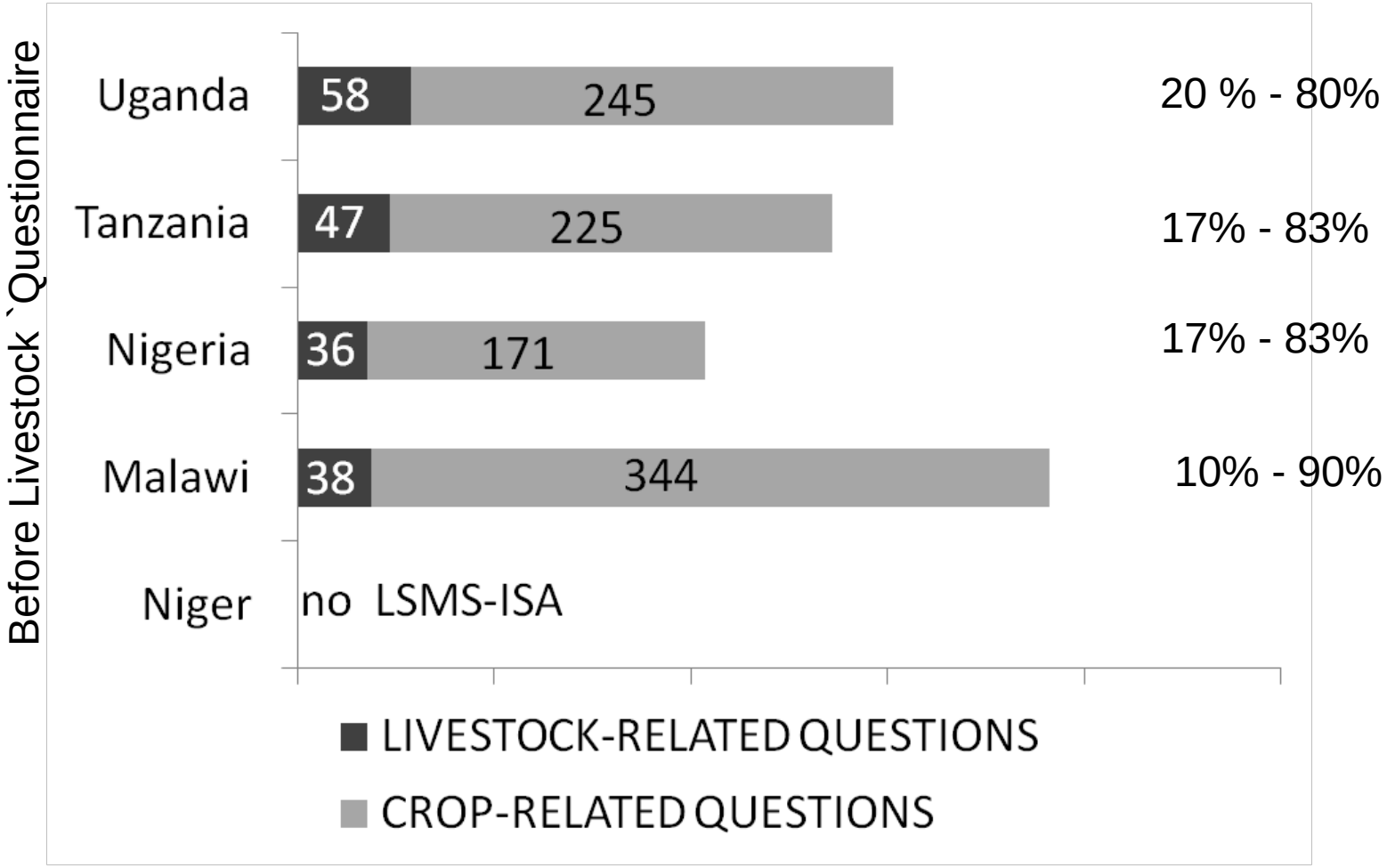

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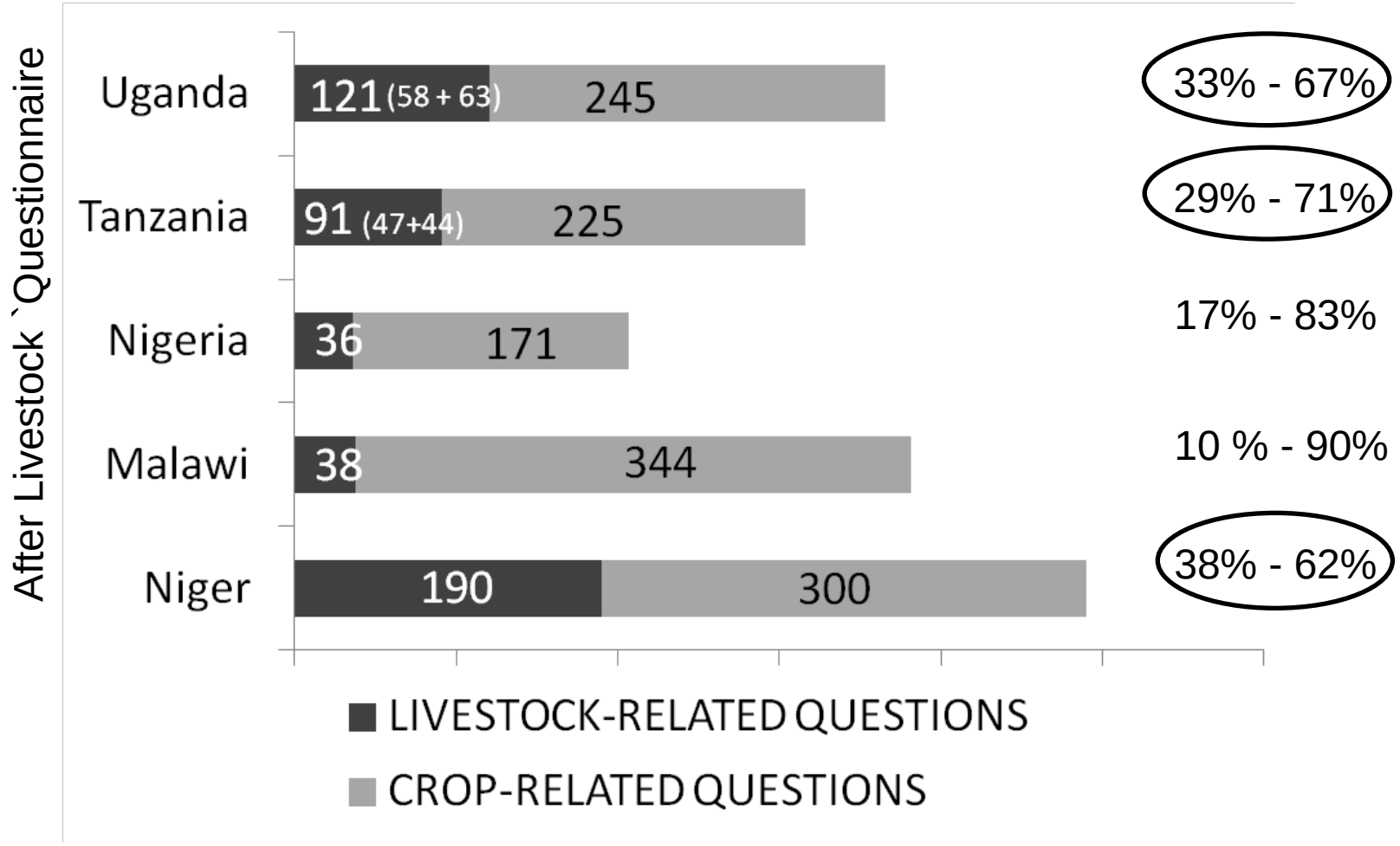

Livestock in household surveys: NEG, TZ & UGA

Content of livestock questionnaire

Livestock ownership / keeping

SECTION 1	Livestock ownership
SECTION 2	Changes in stock over the past 12 months
SECTION 3	Breeding
SECTION 4	Feeding
SECTION 5	Watering
SECTION 6	Animal health
SECTION 7	Housing
SECTION 8	Meat and eggs production
SECTION 9	Milk production
SECTION 10	Animal power
SECTION 11	Livestock dung
APPENDIX 1	Disease codes
APPENDIX 2	Breeding codes

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Livestock in household surveys: NEG, TZ & UGA

Content of livestock questionnaire

Three versions

Short version
basic questions on livestock to include in all LSMS surveys

Standard version
allow estimations of livestock contribution to livelihoods (cash / non-cash)

Expanded
detailed questions for all sections: countries to choose

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Livestock in household surveys: NEG, TZ & UGA

Livestock questionnaire &
GS integrated survey framework

Short version

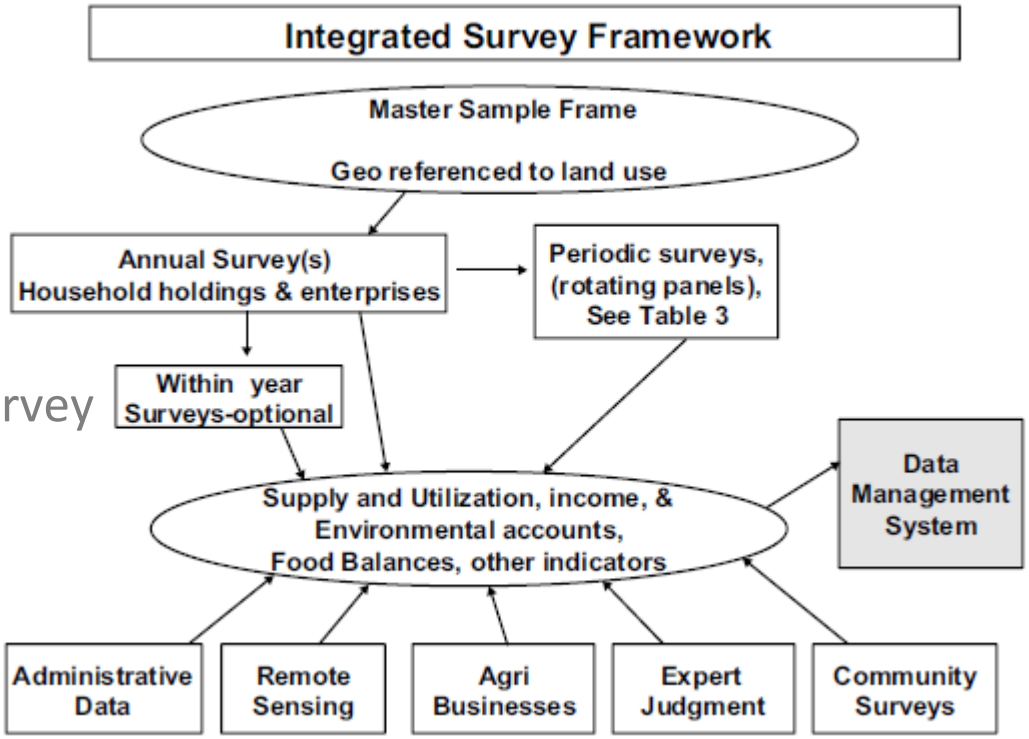
Input in annual agricultural surveys / censuses / other

Standard version

Specialized livestock periodic survey (at regular year intervals)

Expanded

Targeted design of selected surveys



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For more information, please contact:

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