Does Urban Farming Increase Access to Diversified Diets? Evidence from Kampala, Uganda

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Outline

- Background
- Objective & approach
- Site selection
- Results
- Conclusion & outlook

Background

- Africa is urbanizing rapidly (UN, 2019; Sahn and Stifel, 2003; Tschirley et al., 2015; Ziraba et al., 2009).
  - Accompanied with shift of poverty and malnutrition hotspots; increase in the consumption of unhealthy food.
  - Especially cities are faced with the triple burden of malnutrition.
- Urban farming might play an important role to increase access & the variety of current dietary patterns.
  - Little is known about the effect of urban agriculture on the access to a variety of foods in low- and middle-class urban households.

Objective and approach

- Objective/Hypothesis:
  - Households that are involved in urban farming activities might have a more diversified diet.
- Approach:
  - A survey in December 2021 among 373 households was conducted asking questions about urban farming.
- The research was conducted in the context of the **NOURICITY** project
  - Aiming to improve livelihoods and food & nutrition security in several African countries.

Objective and approach II – Urban farming

- Urban farming activity
  - Defined as any urban agricultural activity practiced (Crops cultivated, livestock rearing)

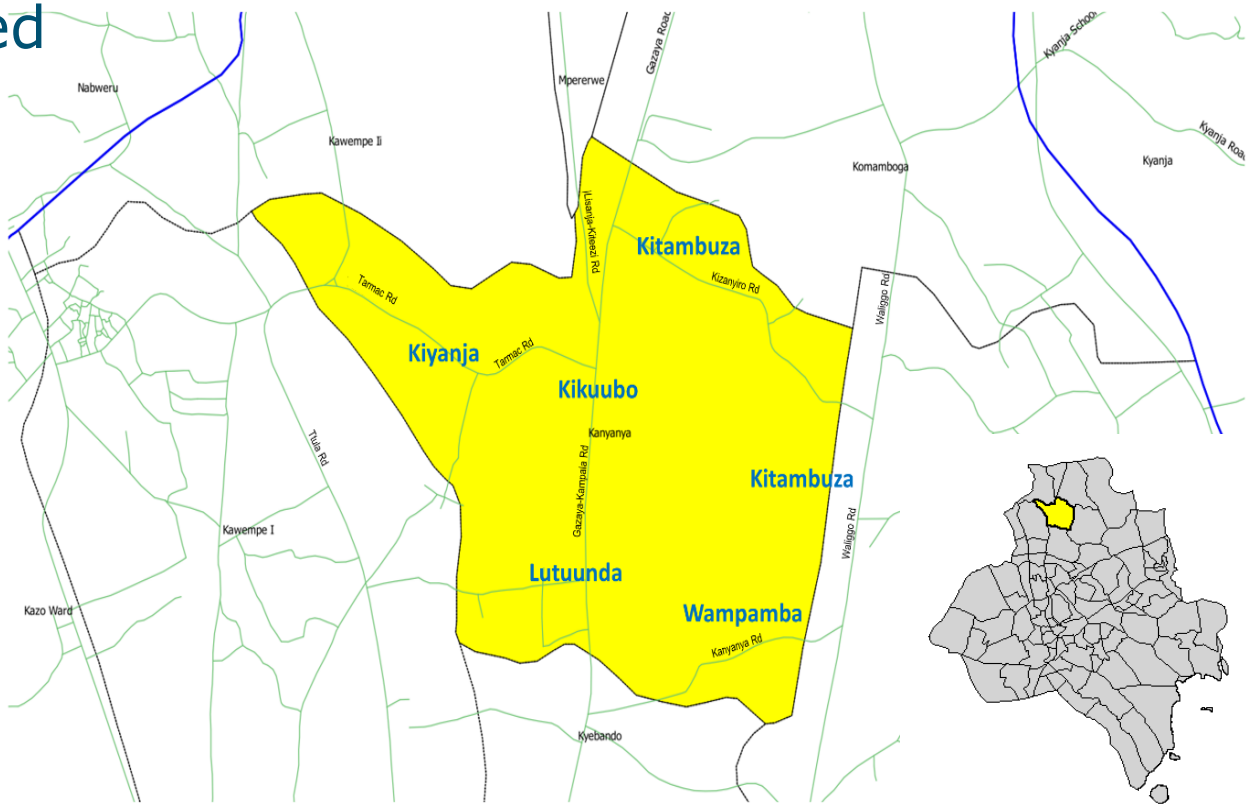
- Production diversity (Muthini et al., 2020; Sibhatu and Qaim, 2018a)
  - Allocation of food crops & livestock to food groups (Score 0-8)
    - Cereal, white roots and tubers, dark green leafy vegetables, vegetables, fruits, meat, eggs & dairy

Objective and approach III – Diversified diets

- Household Dietary Diversity Score (**HDDS**) (Kennedy et al. 2011, Swindale & Bilinsky, 2006):
  - Number of food group consumed by HH over given reference period (12 pre-defined food groups)
  - Proxy for household economic ability to food access
  - Calculated based on 7-day food consumption recall

Site Selection
Kanyanya Parish, Kawempe Division

- Literature review, transect walk (UBOS, 2016)
- Densely populated (~26,800 inhabitants)
- Low & middle income area
- 5 zones/villages

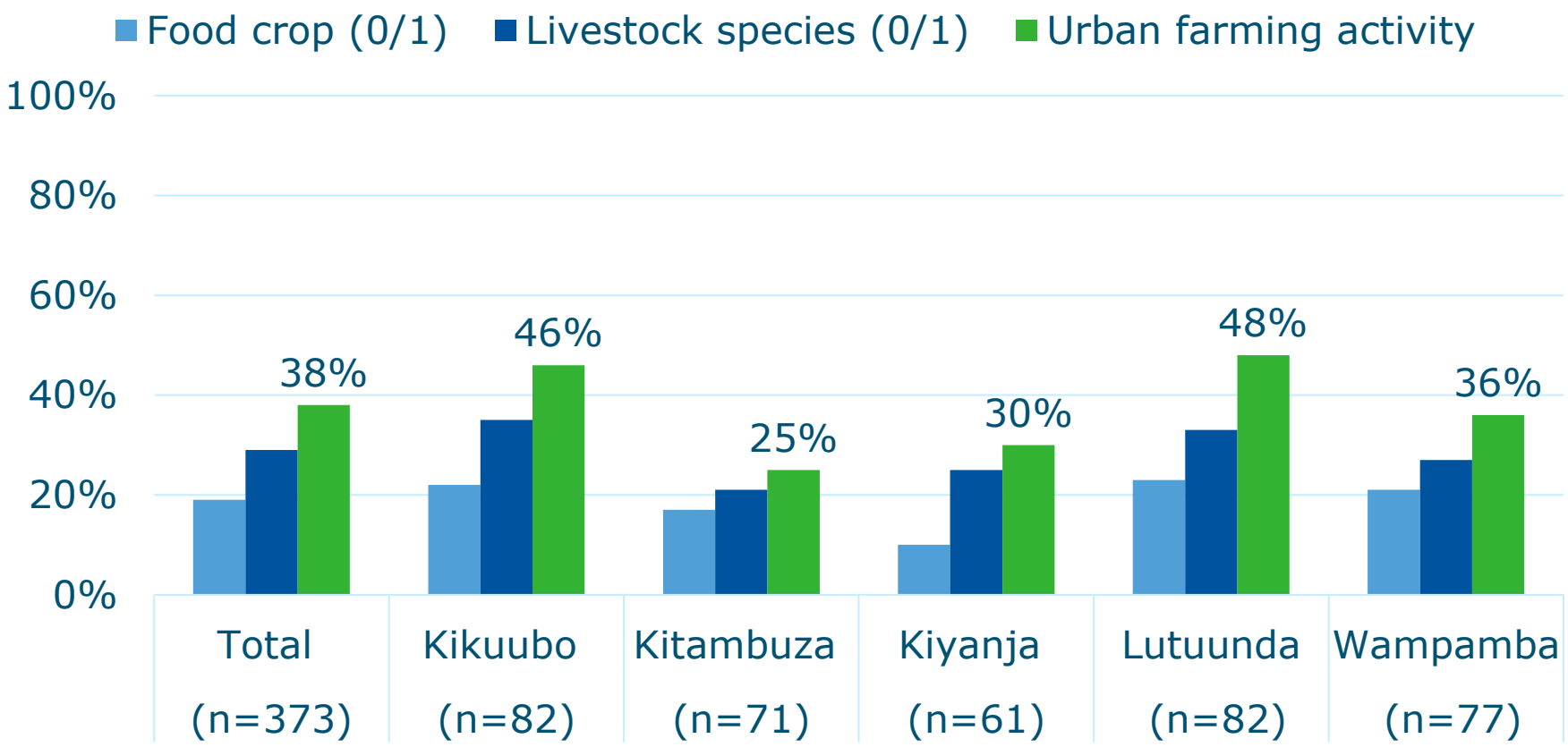


Results

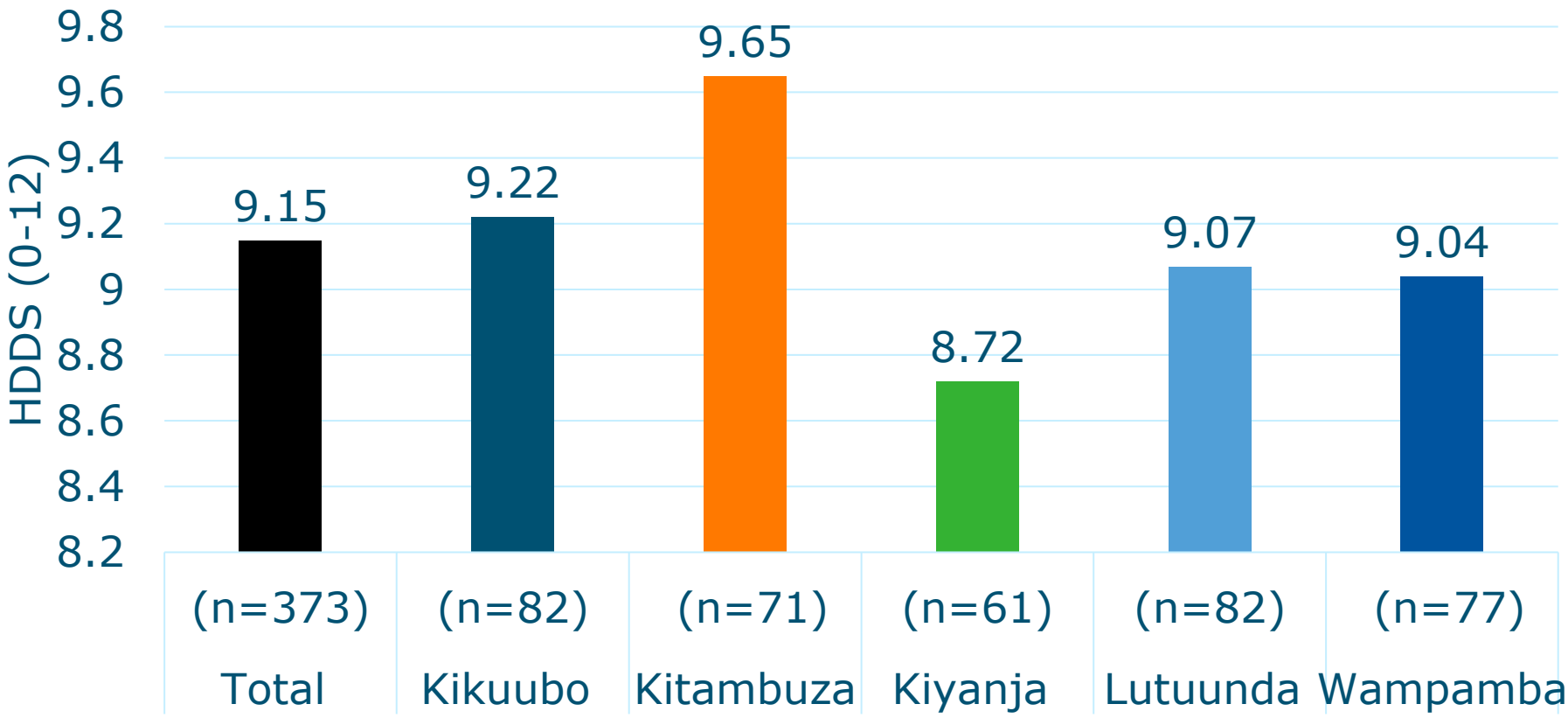
Mean Household characteristics

	Total	Kikuubo	Kit-ambuza	Kiyanja	Lut-uunda	Wam-pamba
Total number of Households	373	82	71	61	82	77
Male Household Head (0/1)	0.65	0.70	0.68	0.67	0.61	0.61
Age Household Head (years)	42.65	46.72	41.75	40.49	43.76	39.68
Household Size (count)	4.92	5.02	5.06	5.30	4.84	4.47
Availability of garden (0/1)	0.13	0.1	0.13	0.05	0.15	0.22

Household characteristics: Urban farming



Household characteristics: Mean dietary diversity



Dietary diversity & urban farming

- Mean comparison of HDDS based on urban farming
- Confirmed by Chi-squared test

		NO Urban farming	Urban farming	
Total	n	232	141	
	Mean HDDS	8.93	9.51	0.00

Conclusions

- Households involved in urban farming activities have a higher dietary diversity
  - Contributing to divers' diets

- Despite having access to gardens not many households in Kanyanya utilize it for urban farming
  - Offering a great potential to promote urban farming & to increase access to food for urban households.

Outlook

- Identification of influencing other characteristics on urban farming and dietary diversity
- Looking into the relation of production diversity & individual level data collected

Thank you!

All pictures by Andrea Fongar

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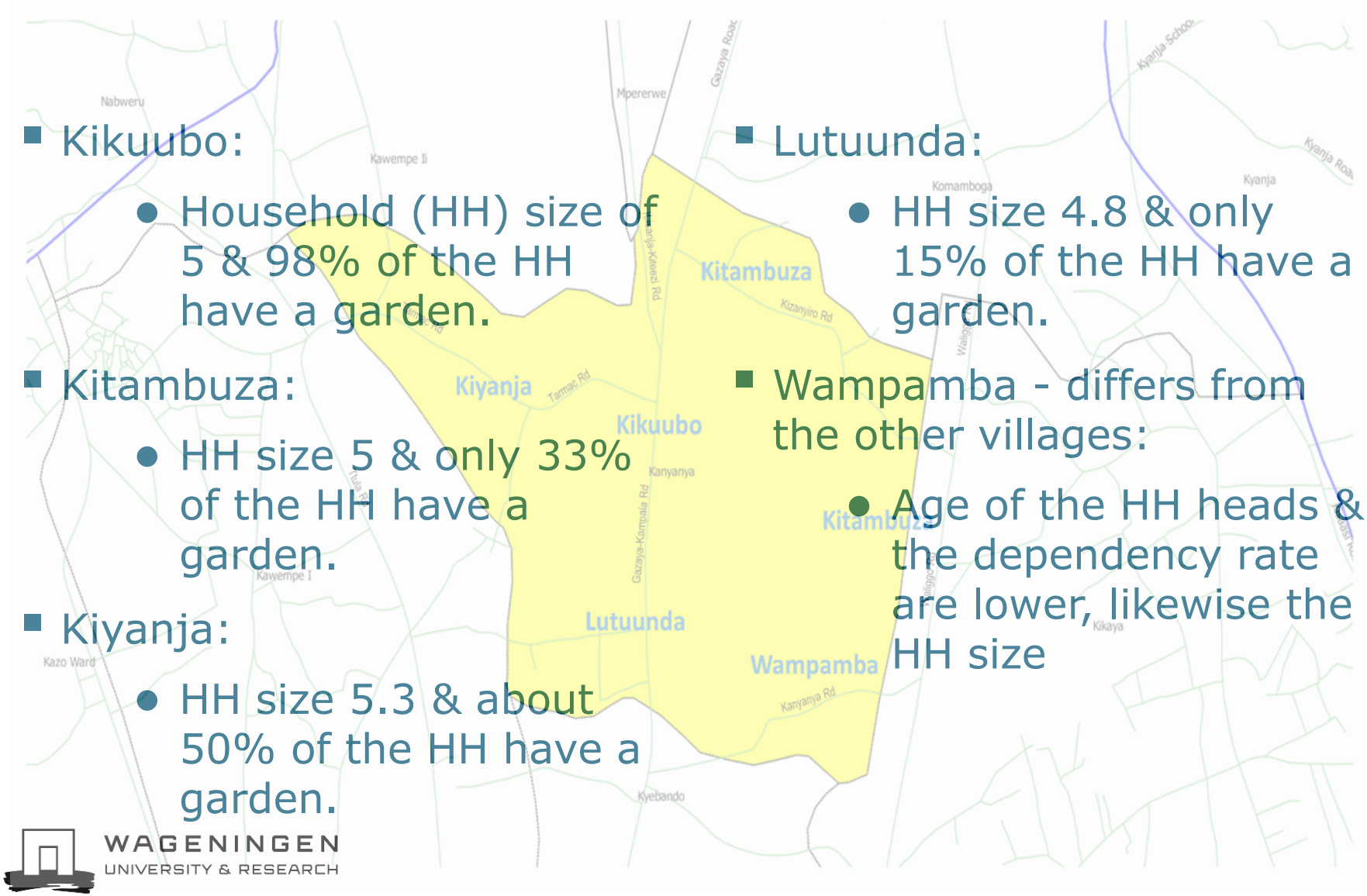
Back-Up Slides
Household Characteristics

	Total		Kikuubo		Kit-ambuza		Kiyanja		Lut-uunda		Wam-pamba	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Total Household Numbers	373		82		71		61		82		77	
Male Household Head (0/1)	0.65	0.48	0.70	0.46	0.68	0.47	0.67	0.47	0.61	0.49	0.61	0.49
Age Household Head (years)	42.65	13.00	46.72	13.67	41.75	12.17	40.49	12.49	43.76	12.73	39.68	12.78
Educational level of Household head (0/1)	0.18	0.39	0.16	0.37	0.18	0.39	0.20	0.40	0.18	0.39	0.21	0.41
Household Size (count)	4.92	2.34	5.02	2.60	5.06	2.47	5.30	2.06	4.84	2.41	4.47	1.99
Availability of garden (0/1)	0.13	0.34	0.98	0.30	0.13	0.34	0.49	0.22	0.15	0.36	0.22	0.42

Household characteristics per village



- Kikuubo:
  - Household (HH) size of 5 & 98% of the HH have a garden.
- Kitambuza:
  - HH size 5 & only 33% of the HH have a garden.
- Kiyanja:
  - HH size 5.3 & about 50% of the HH have a garden.
- Lutuunda:
  - HH size 4.8 & only 15% of the HH have a garden.
- Wampamba - differs from the other villages:
  - Age of the HH heads & the dependency rate are lower, likewise the HH size

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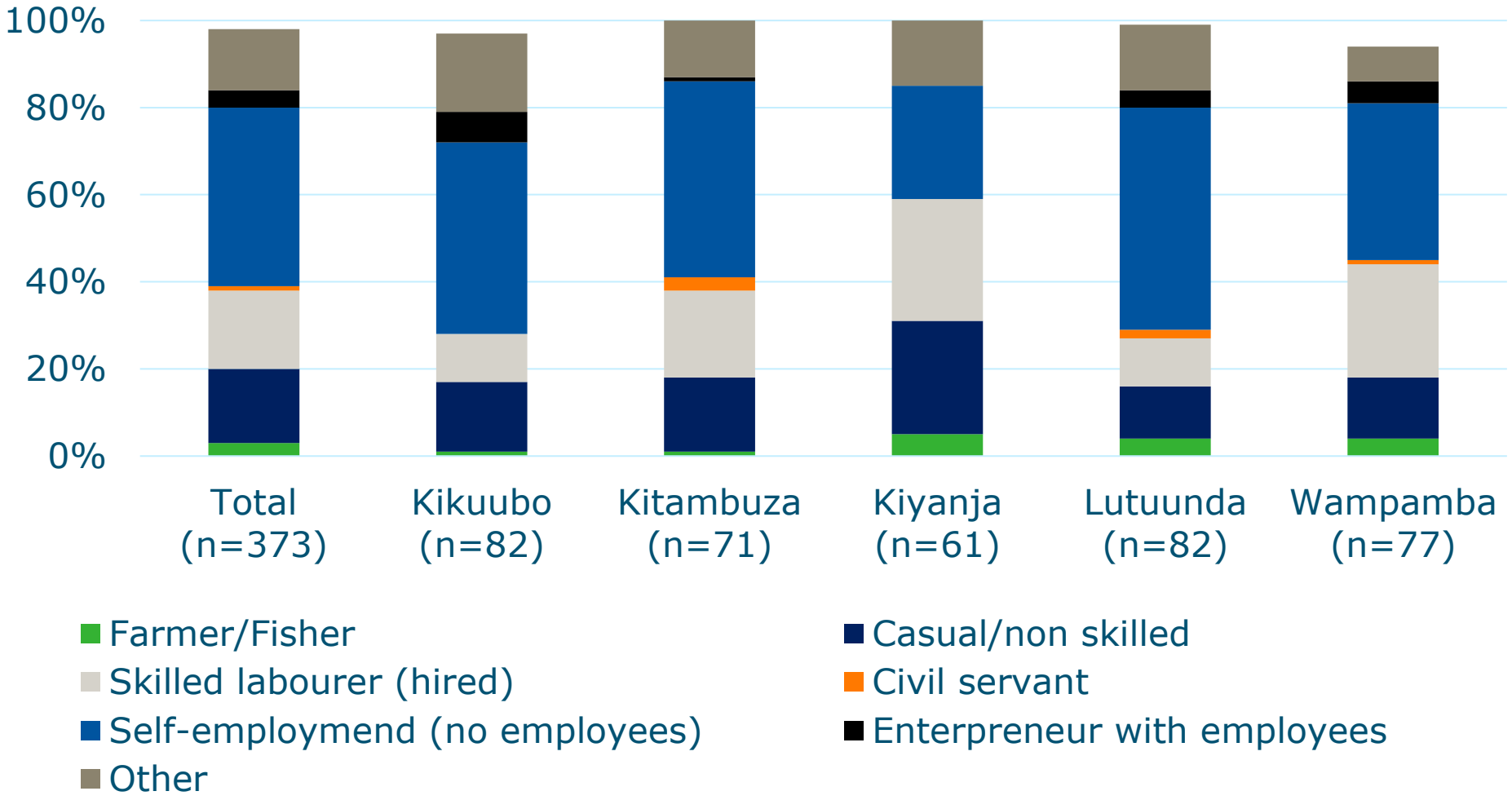
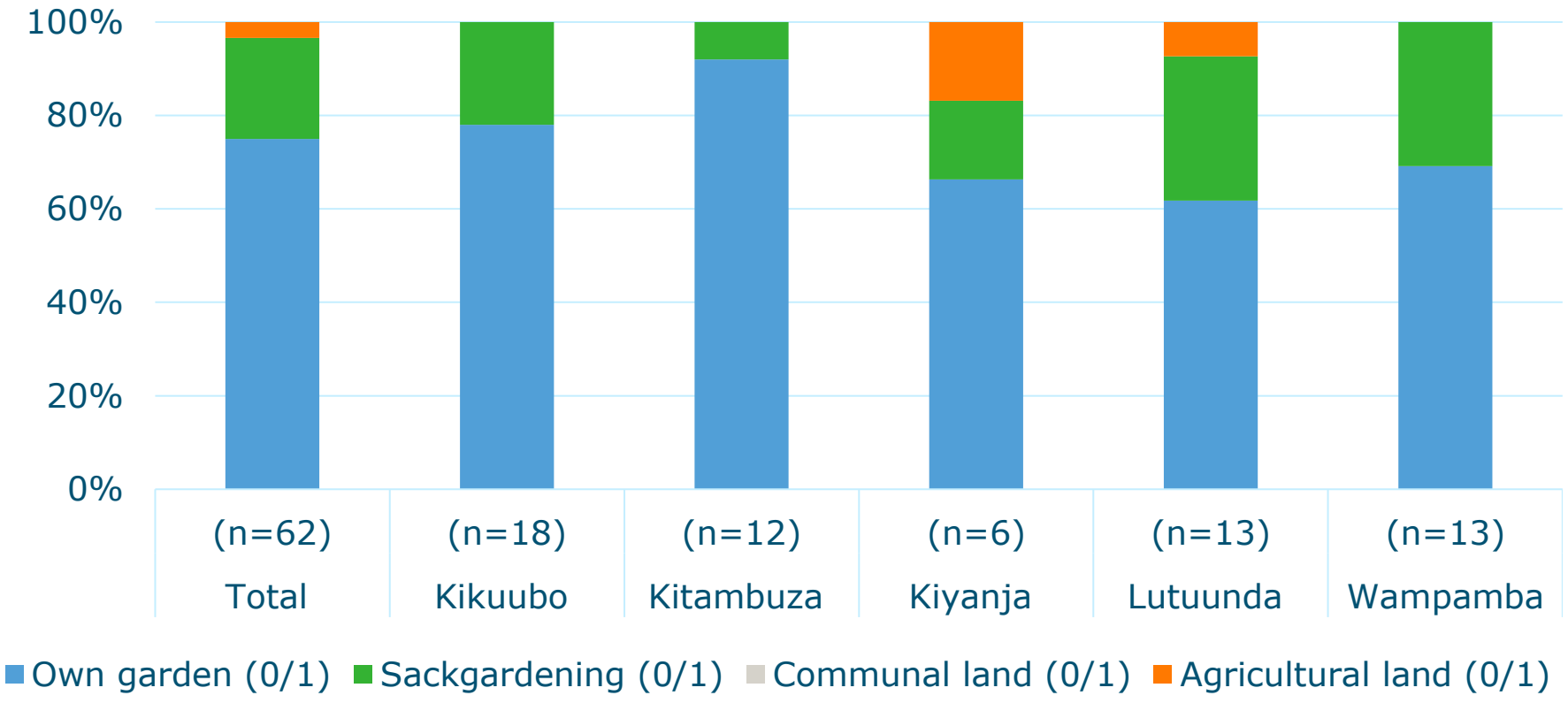
Household characteristics: occupation

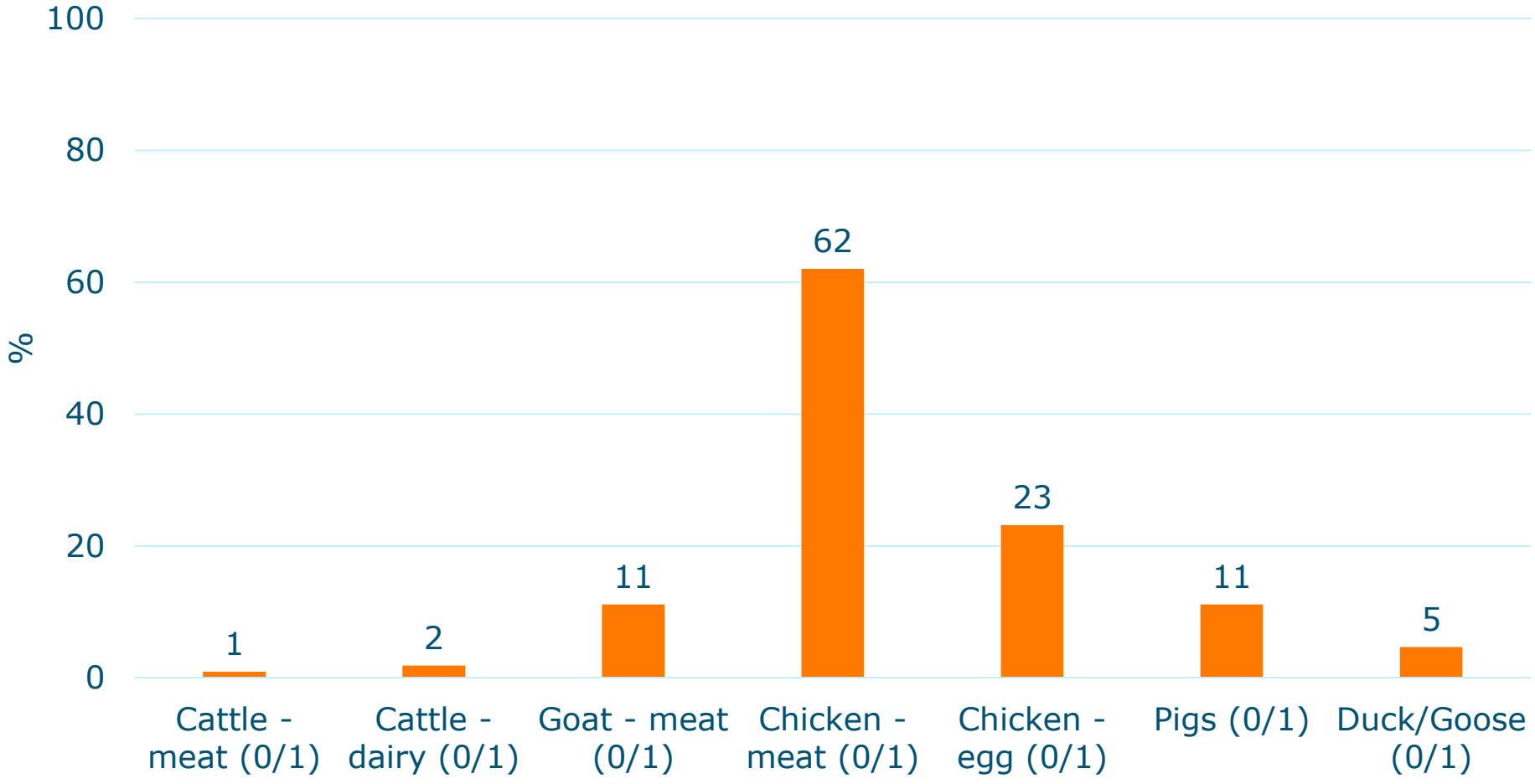


Household characteristics: urban agriculture land use

- No household uses communal land, only a few agricultural land

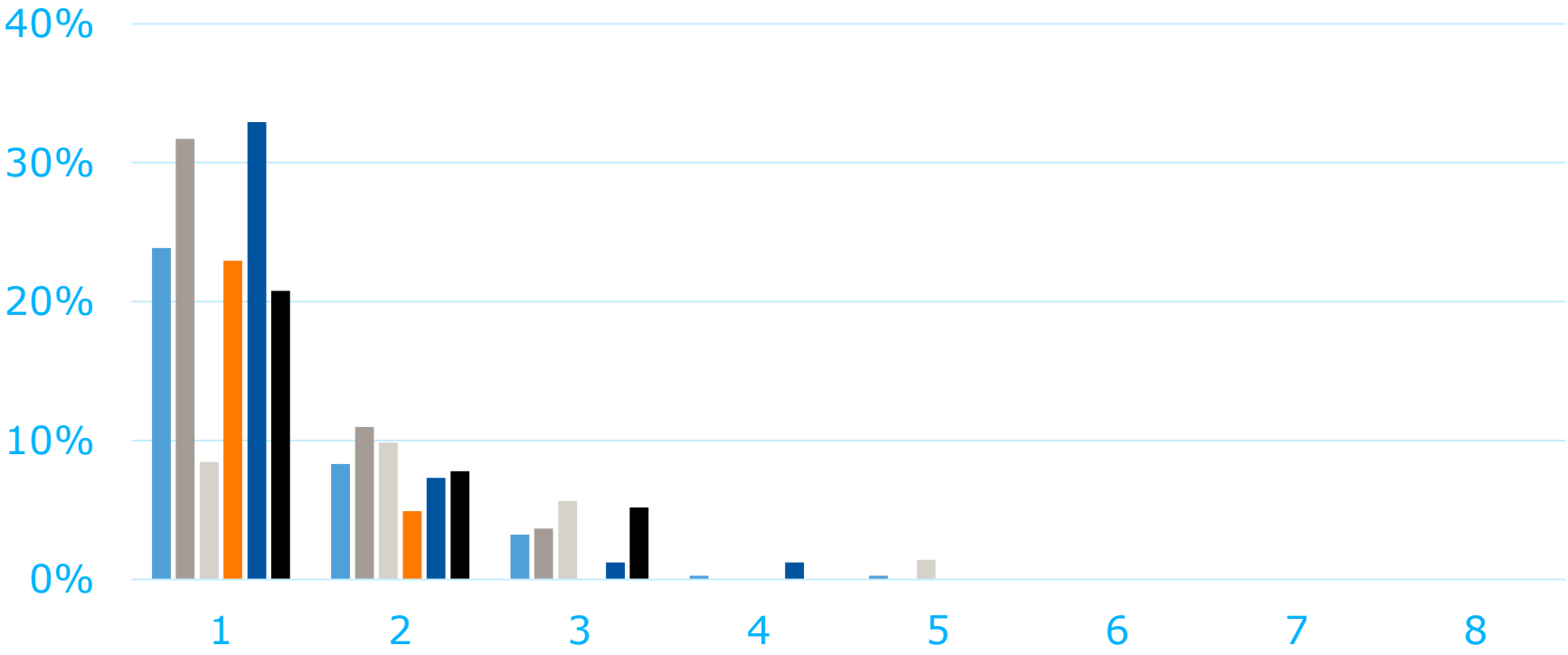


Back-Up Slides
Livestock species



Back-Up Slides
Production diversity

- Groups:
  - Cereal, White roots & tuber & plantain, DGLV, Vegetables, Fruits, Dairy, Meat, Egg
- Majority of households did not produce anything



Back-Up Slides

Household food group consumption (12 FG)