

Who and why?: rural out-migration in Uganda

Case-study in Ankole sub-region,
western Uganda

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Promoters:

Prof. Anton Van Rompaey – KUL, Dr. Ronald Twongyirwe – MUST,
Prof. Jean Poesen - KUL, Dr. Matthias Vanmaercke – KUL,
Dr. Alfonse Opio – Gulu University, Uganda

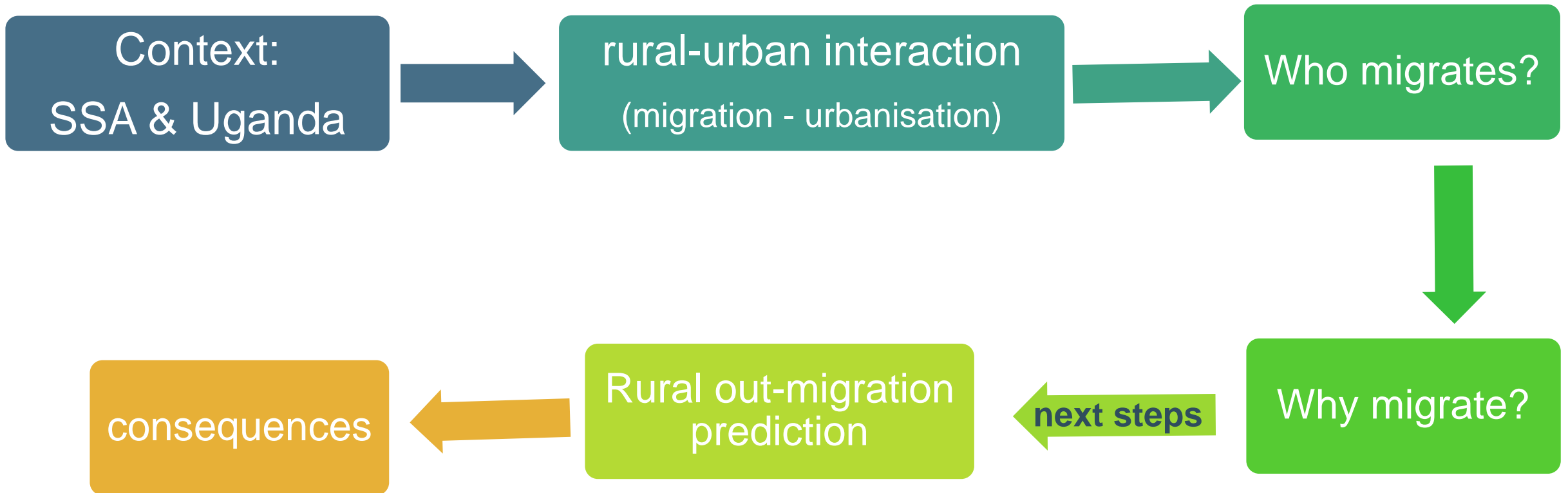
Sheema rural (source- goggle)



Mbarara city (source- goggle)



Outline



Context – urbanisation in SSA

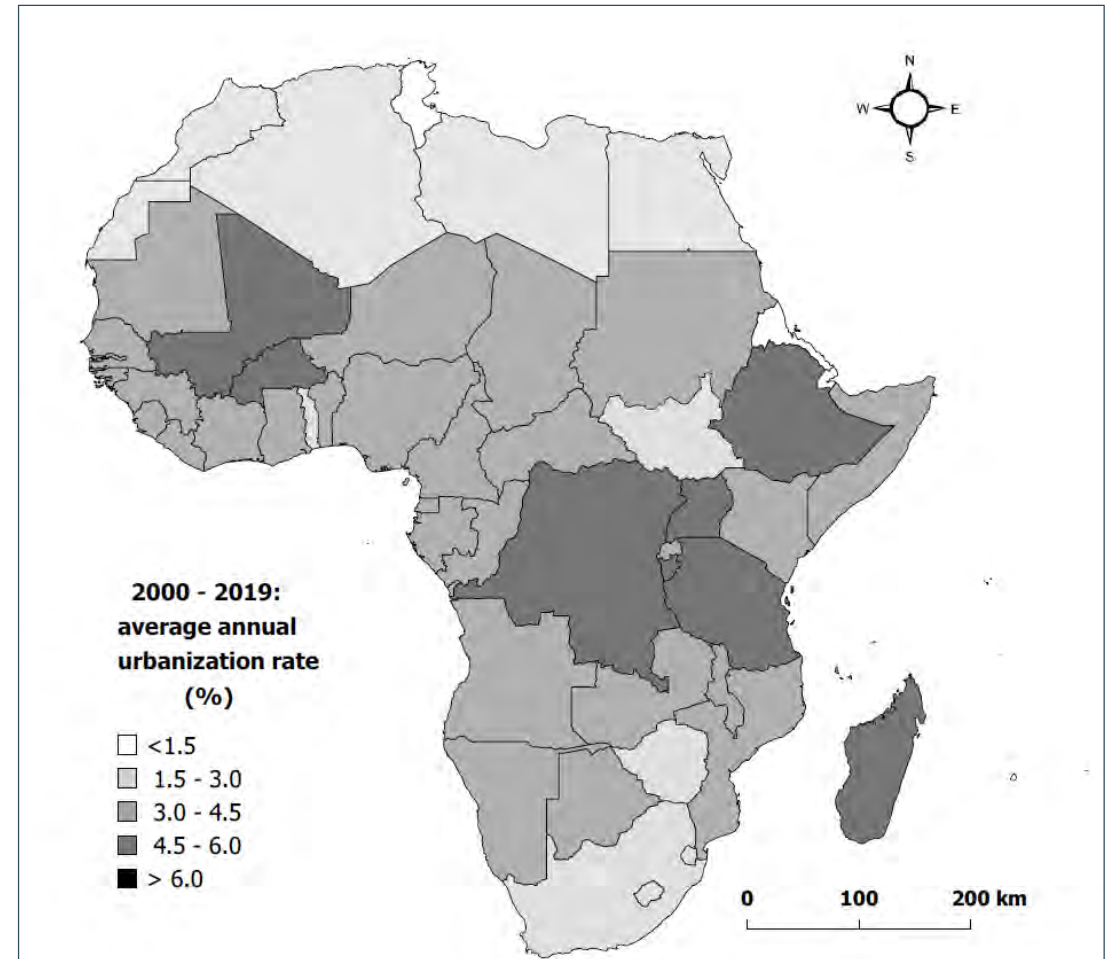
social & economic progress since 2000

- GDP per capita -> increasing at annual average of 5%
- reduced extreme poverty and hunger
- healthier population with reduced mother and child mortalities, increased life expectancy

population growth at 1.3% per year

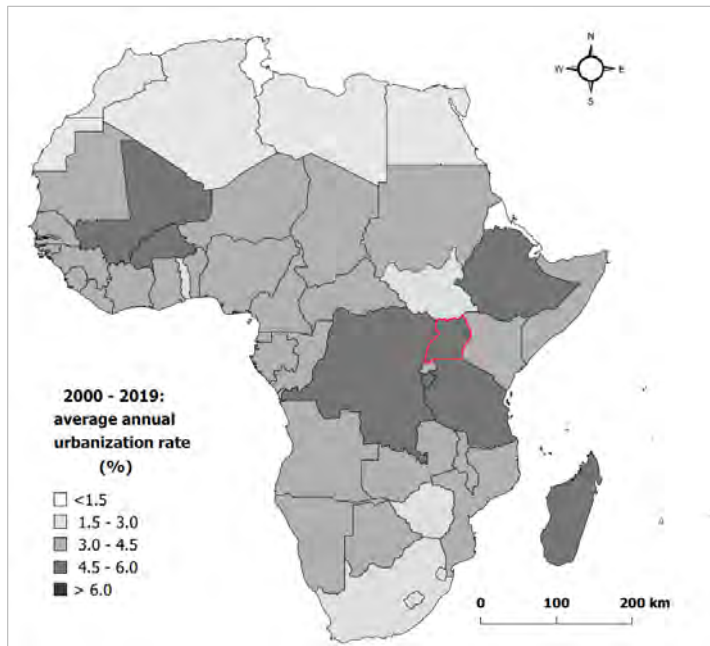
urbanization – 4% per year

(UN-DESA/PD, 2020)

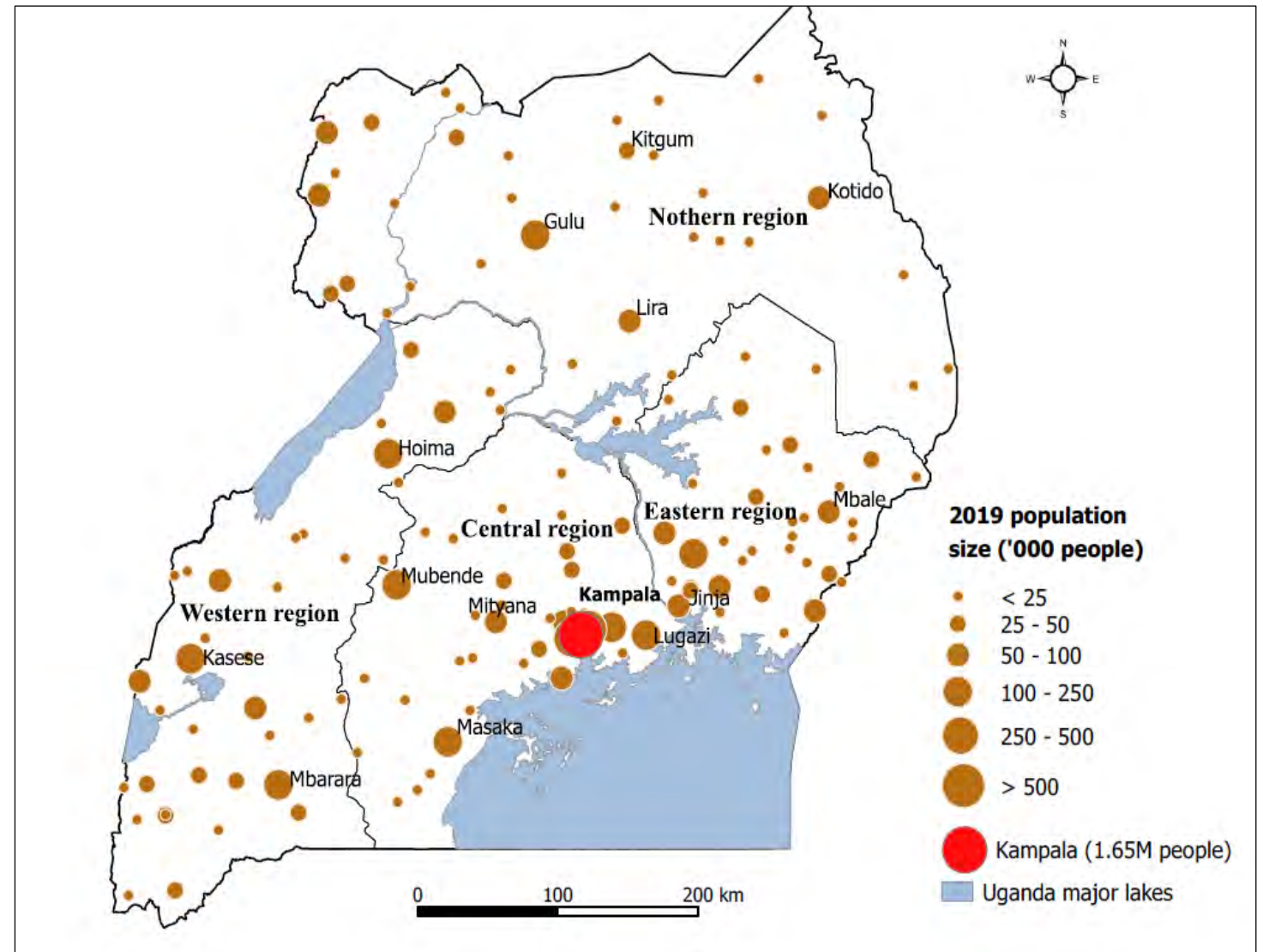


Data Source: World Bank national accounts data, 2019

Context – Uganda's urbanisation



- pop growth -> 3.2% /year since 2000
 - Urban pop. 25% in 2020
 - Urbanization rate: 6%, in 2019
- (UBOS, 2020)**



Data Source: UBOS – 2019 population estimates

general drivers of urbanization

general drivers of urbanization

(Awumbila, 2017; Tacoli & Agergaard, 2017; UNCTAD, 2018; UN-IOM, 2018)

- in-situ natural growth -> declining total fertility rates in urban areas
- area reclassification
- **rural-urban migration**

internal migration in Uganda

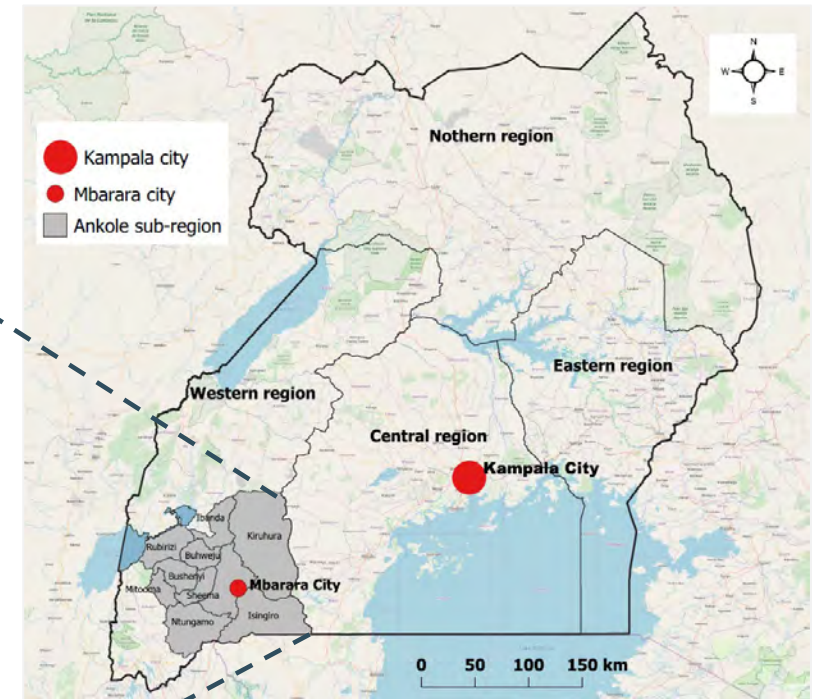
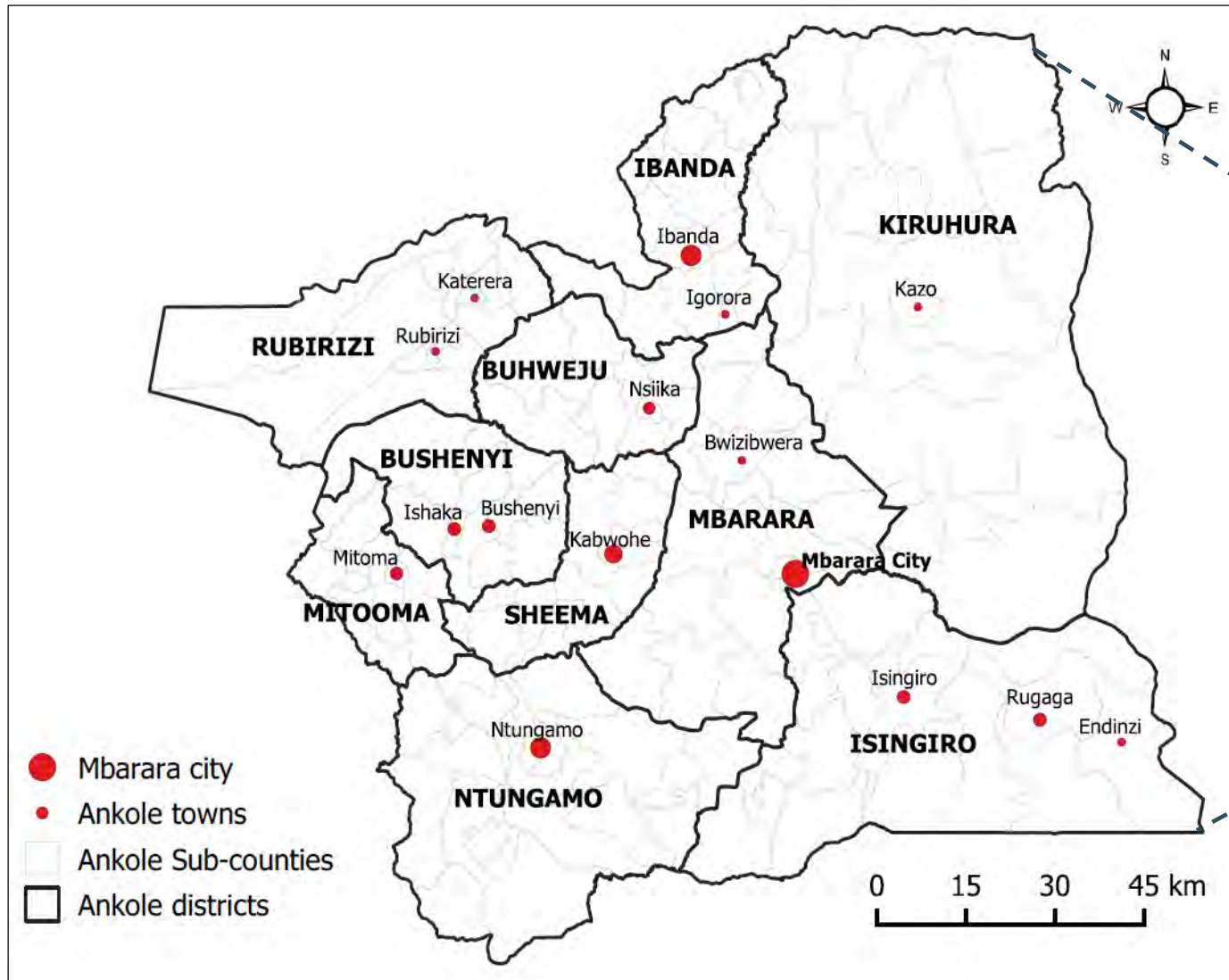
- little statistics and research
- **66%** of the **1.4M** internal migrants enumerated during the 2014 NPHC had permanently settled in urban areas (UBOS, 2016)

projection

(UBOS, 2018)

- 6 out 10 Ugandans will be urban inhabitants by 2050

Who migrates? case study area - Ankole sub-region



located in western region

- 12 rural districts, 145 sub-counties
- 3.3M people – 2020 estimate (UBOS 2020)
- 1 city (Mbarara), 5 municipalities
- Urban population – 27% of total population. (UBOS, 2020)

Who migrates

Prediction of likelihood of rural out-migration:

- Logistic regression model
- $P(\text{migration}) = \frac{\exp(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon_i)}{1 + \exp(\beta_0 + \beta_1 X_1 + \dots + \beta_n X_n + \varepsilon_i)}$
 $X_1 \dots X_n$ are predictor variables - the social and economic characteristics – **at household & community levels**

Outcome:

- **Household typology – likelihood to have an out-migrant**

Logistic regression estimates for the likelihood of a household to have an out-migrant

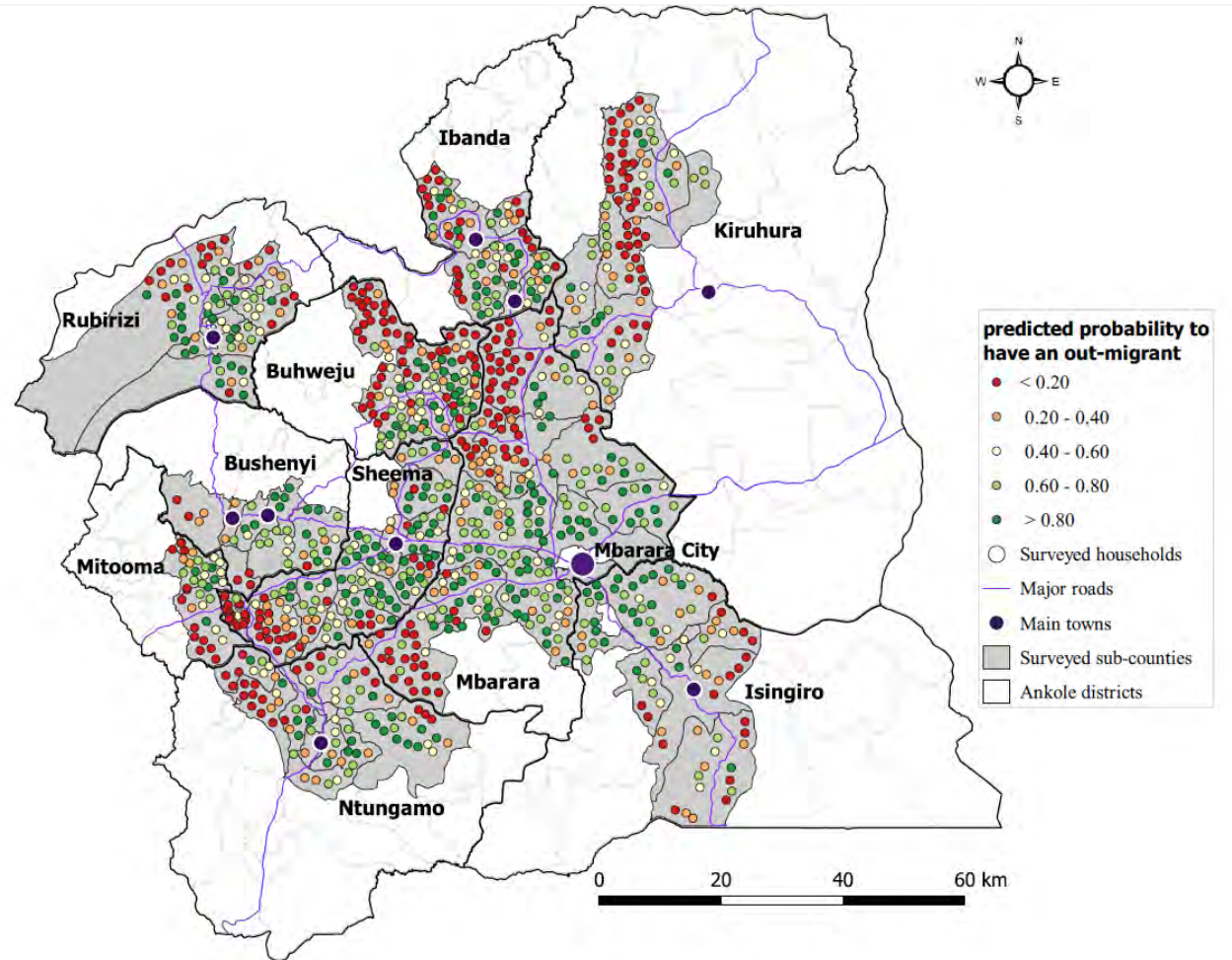
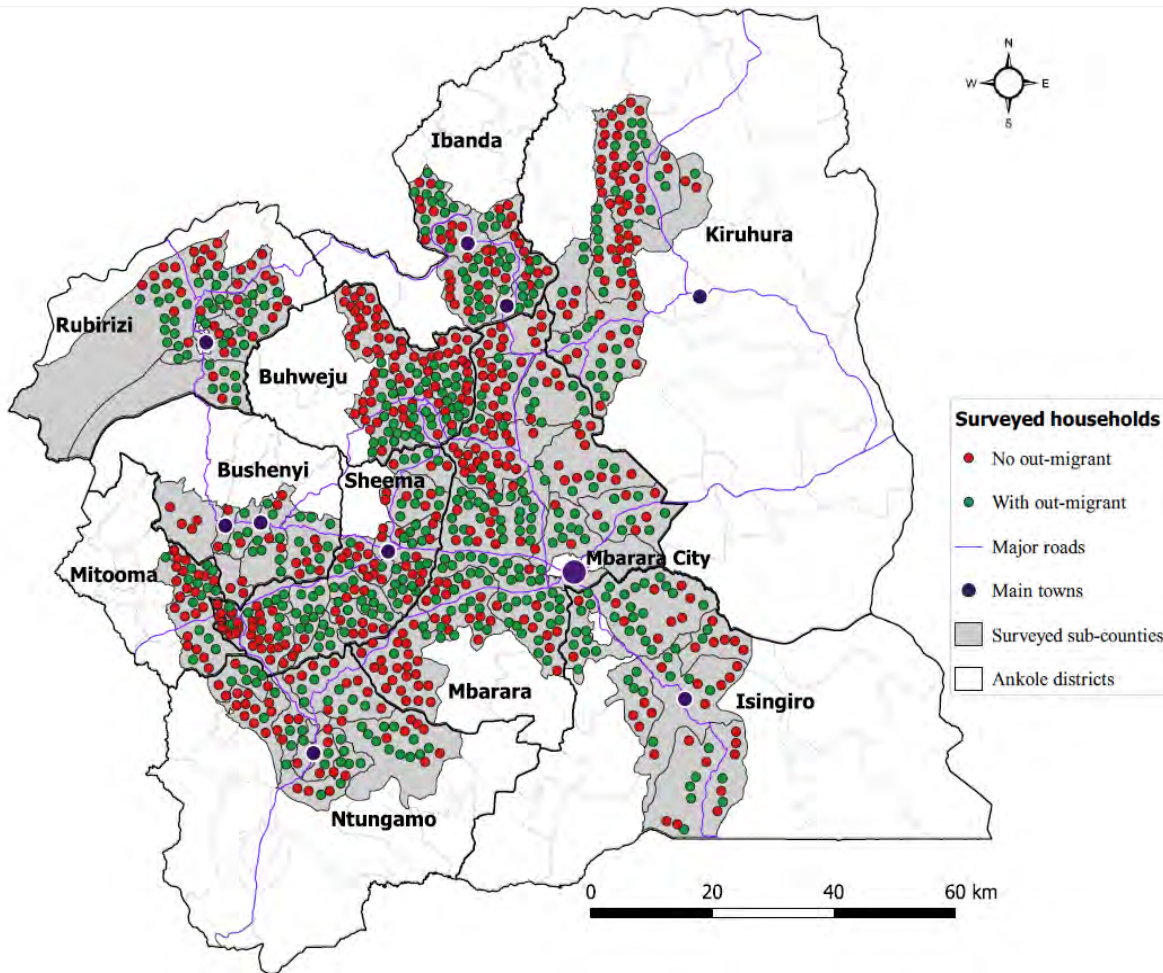
Predictor variable (reference category)	Odds Ratio	p-value
Gender of household head (female)		
	Male 0.909 (0.637 - 1.296)	0.587
Age of household head	1.012 (1.004 - 1.031)	0.008
Household size	1.065 (0.970 - 1.170)	0.046
Dependency ratio	0.399 (0.263 - 0.437)	0.001
Household's migration history (no history)		
	Has migration history 1.920 (1.297 - 2.431)	0.970
Education level of the most educated member (no education - illiterate)		
	Primary to high school - literate and (un-) semi-skilled 1.182 (0.746 - 1.873)	0.477
	Tertiary level training - literate and skilled 1.776 (1.006 - 3.134)	0.048
Household main occupation and livelihood source (farming)		
	Trading and business 1.504 (0.870 - 2.600)	0.144
	Formal employment 1.832 (1.132 - 2.965)	0.014
Years doing the main household occupation	1.024 (1.003 - 1.047)	0.027
Household's land size	1.127 (1.053 - 1.207)	0.001
Household income level): (household expenditure of < 1.9\$/day/person)		
	Household's expenditure of > 1.9\$/day/person 1.597 (0.938 - 2.718)	0.048

regression estimates cont.

Predictor variable (reference category)	Odds Ratio	p-value
House type (proxy of standard of living): (permanent house type - good standard of living)		
Semi-permanent [medium standard of living]	0.331 (0.186 - 0.588)	0.001
Temporary [poor standard of living]	0.445 (0.246 - 0.804)	0.007
Distance to the nearest town - Municipality	0.949 (0.936 - 0.962)	0.001
Satisfaction level with the quality of public services and infrastructures in the community (dissatisfied)		
Averagely satisfied with the quality	0.322 (0.194 - 0.533)	0.001
Satisfied with the quality	0.099 (0.056 - 0.175)	0.001
Electricity supply in the community (No connection)		
There is supply and connection	1.060 (0.670 - 1.677)	0.805
Piped water supply in the community (No connection)		
There is supply and connection	1.277 (0.968 - 1.683)	0.084
Access to a health center (Near [within 5km])		
Far from a health center [above 5kms away]	0.780 (0.524 - 1.160)	0.219
Access to education institution (Near [within 5kms])		
Far from any school institution [above 5kms away]	1.344 (0.925 - 1.953)	0.120
Constant	1.924 (0.626 - 5.914)	0.254

rural out-migrants are more likely to come from larger wealthier households with educated and (semi-) skilled members

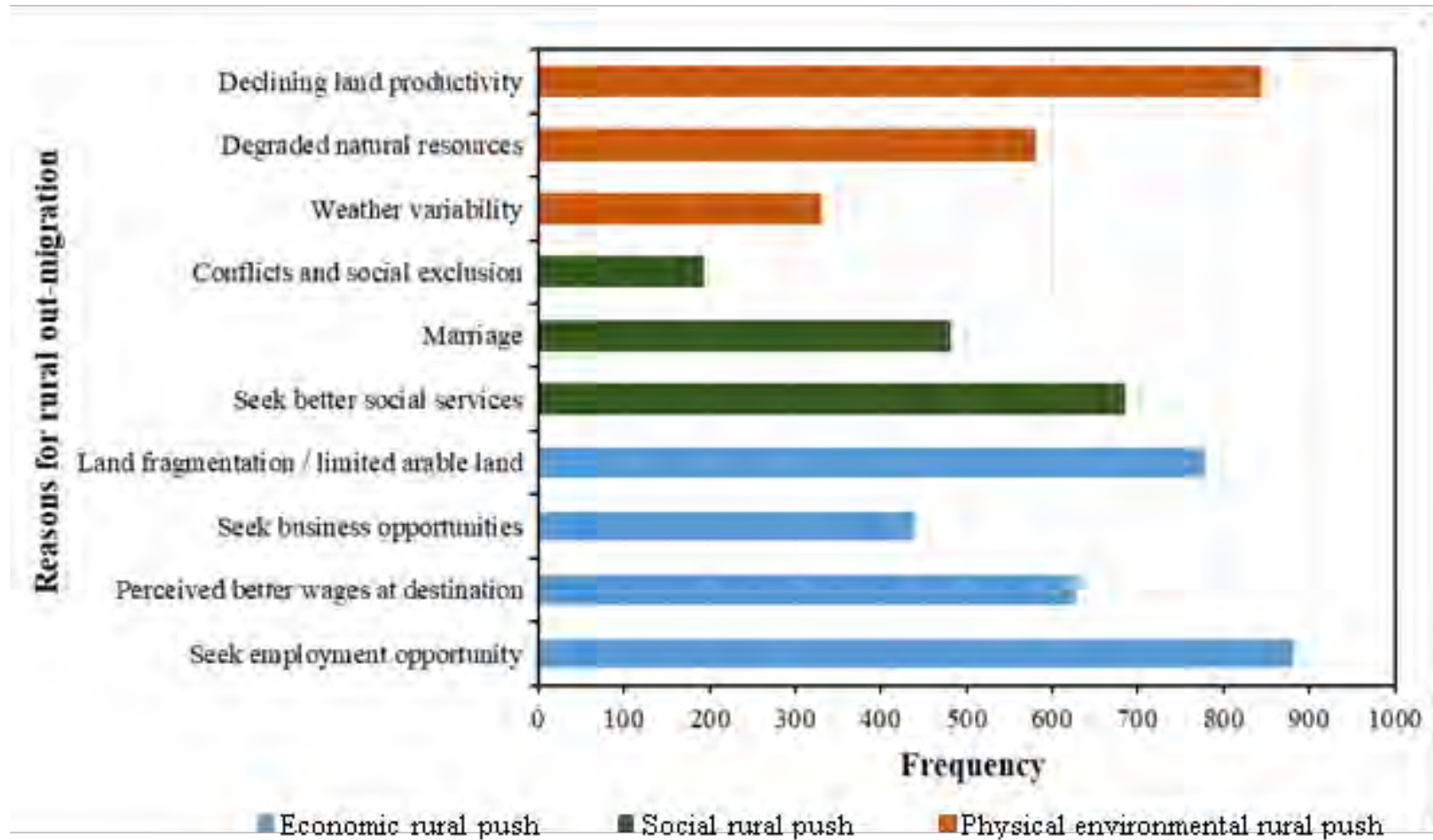
Out-migration prediction



Area Under the ROC curve = 0.86; robust estimation power

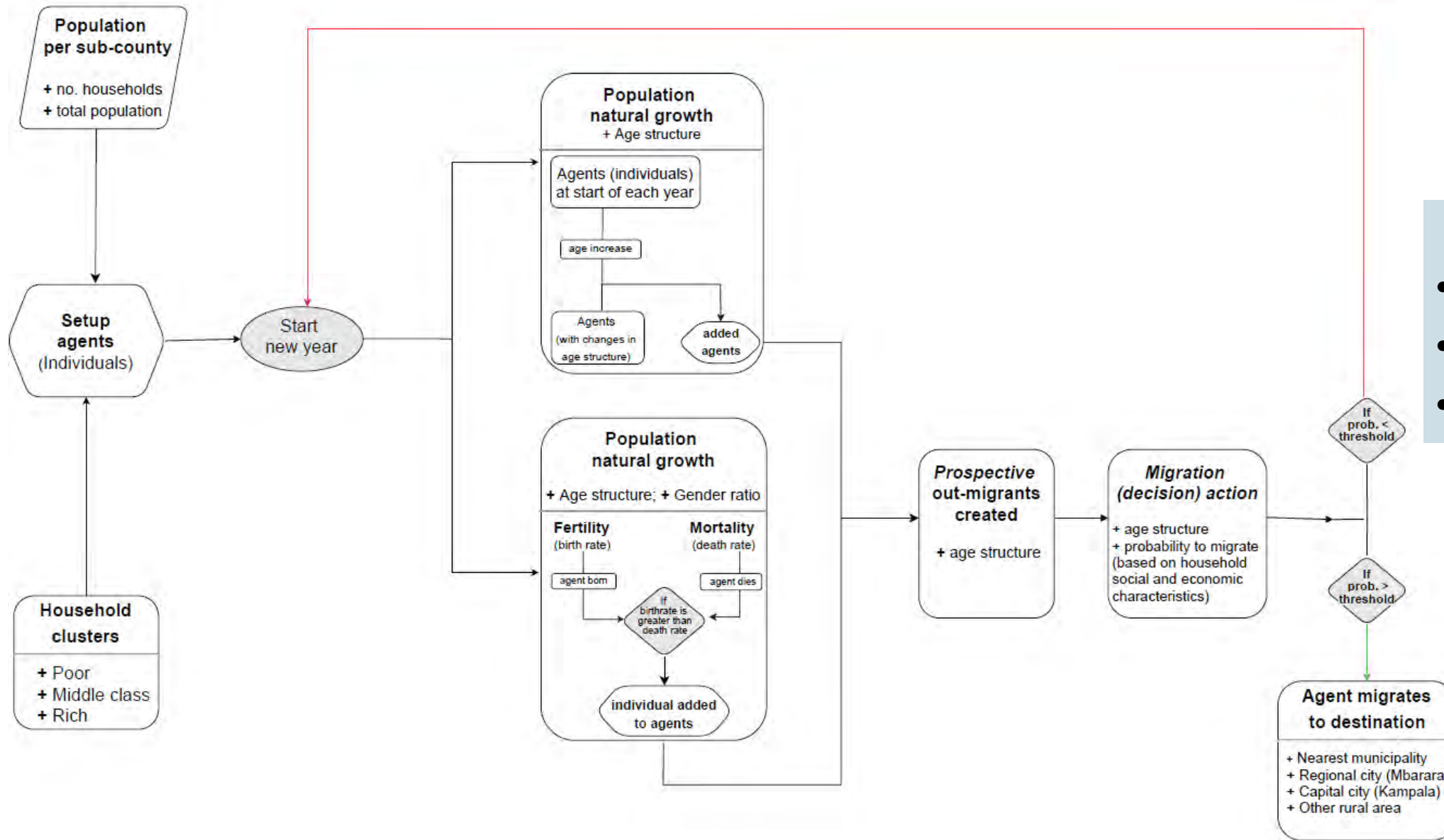
Factor: remoteness – proximity to towns

Why?



out-migration is a livelihood strategy

predicting rural out-migration – Agent Based Modelling (ABM) - ongoing



Model output:

- out migration flows
- spatial distribution
- destination town

analysis of the consequences – yet to be done

Consequences to land use

What are the consequences / implications on/for?

- land use at origin and or destination
- Household livelihoods changes

What are the patterns of urban expansion & land use changes

Implication to policy

what does this imply for an integrated rural – urban development?

THANK YOU