Appendix 1: Supplementary material for "Unpacking the barriers to adoption of sustainable land and water management in Uganda"

Table A1.1. List of factors associated to adoption of agricultural innovations in Uganda from meta-analysis. In green are the factors selected as attributes for the analysis and in orange the factors that are included as proxies in some of the selected attributes (e.g. the factor "land size" was selected as spatial attribute, but it also represents a proxy of farm size (Prestele Reinhard et al., 2018)).

FACTOR	PAPERS (n=24)
Education	8
Labour	7
Access to credit	6
Age	6
Off-farm income	5
Extension services	5
Gender	5
Farm size	4
Houshold size	4
Land size	4
Livestock units	4
Land tenure	4
Farmer associations	3
Distance to Market	3
Distance farm-house	3
Land ownership	3
Slope/location	3
Clear policy and legal framework	2
Subsidy provision	2
Security of land tenure	2
Agro-climatic conditions	2
Transport	2
Training	2
Lack of government support	1
Drastic seasonal variability	1
High investment costs	1
On-farm income	1
Information	1
Capital	1
Decision making power	1
Norms and beliefs	1
Value of output	1
Fragmented land	1
Drought/rainfall	1
Marketing facilities	1

Cash	1
Naighbouring SWC	1
Soil fertitily	1
Radio/communication	1
Crop type	1
Crop diversity	1
Crop production	1
Agricultural and environmental related programs	1
Land degradation	1
Roads	1

Table A1.2. Spatial attributes and corresponding datasets used for the classification of spatial archetypes of social-ecological barriers in Uganda.

Attribute	***Description***	***Source***
Precipitation	Total precipitation (mm y^{-1}) averaged for the period 1986-2016 from monthly time series data.	(Goodman et al., 2019)
Elevation	Elevation from sea level (m)	(Goodman et al., 2019)
Temperature	Air temperature (C), yearly average	(Goodman et al., 2019)
Education	Average education attainment	(Graetz et al., 2018)
Gender gap	Gap in education attainment between genders measured in years.	Derived from Graetz et al. (2018)
Remoteness	Accessibility to cities (with more than 50.000 people) in minutes.	(Weiss et al., 2018)
Household size	Average household size (number of people).	(Uganda Bureau of Statistics (UBOS), 2010)
Rural poverty	Poverty density, computed as number of people in rural areas living below the national rural poverty line per square kilometer.	(*Poverty GIS Database*, 2008)
Livestock	Total Tropical Livestock Unit (TLU)	(*Africa Ruminants Tropical Livestock Units (TLU)*, 2015)
Farmers´organizations	Desity of farmers organizations, computed as number of FO per hinabitant.	(*Farmers' organization of Uganda*, 2017)
Farm size	Median Landholdings of households	(*The National Livestock Census Report*, 2008)

Access to credit	Percent of agricultural households reporting having access to credit	(Uganda Bureau of Statistics (UBOS), 2010)
Extension services	Percent of agricultural households that reported receiving extension services on farm management	(Uganda Bureau of Statistics (UBOS), 2010)

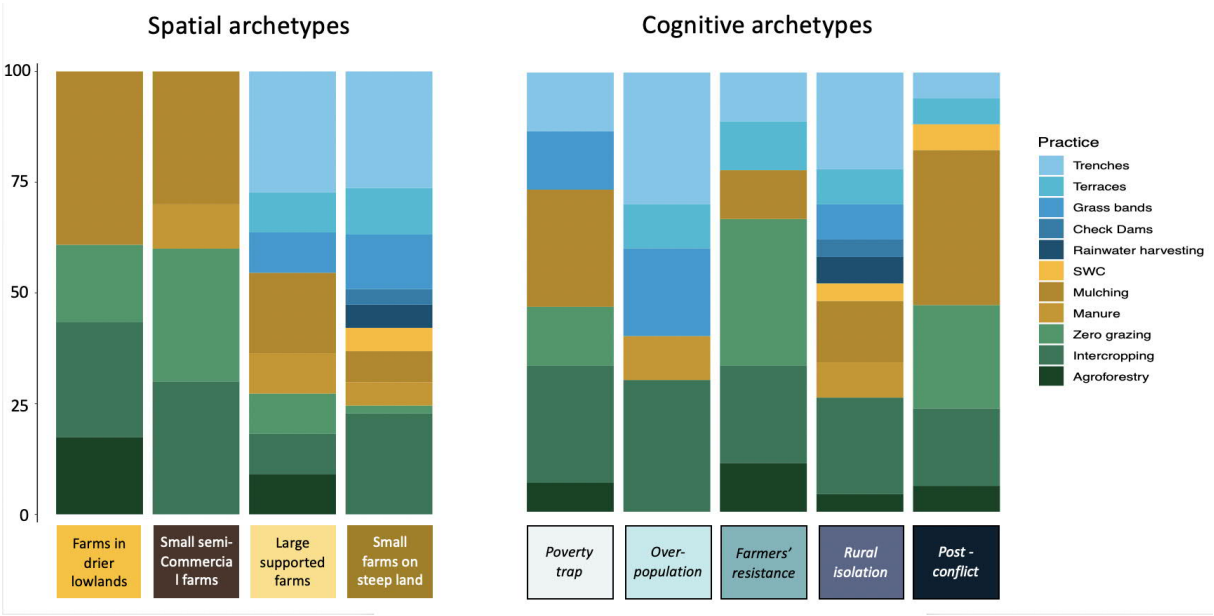

Figure A1.1. Distribution of sustainable land and water management (SLWM) practices across four spatial and five cognitive archetypes in Uganda. The practices are color-coded according to their purposes: soil erosion reduction (blue shades), soil rehabilitation (yellow shades) and increased productivity (green shades). The information on the practices was recorded during the interviews.

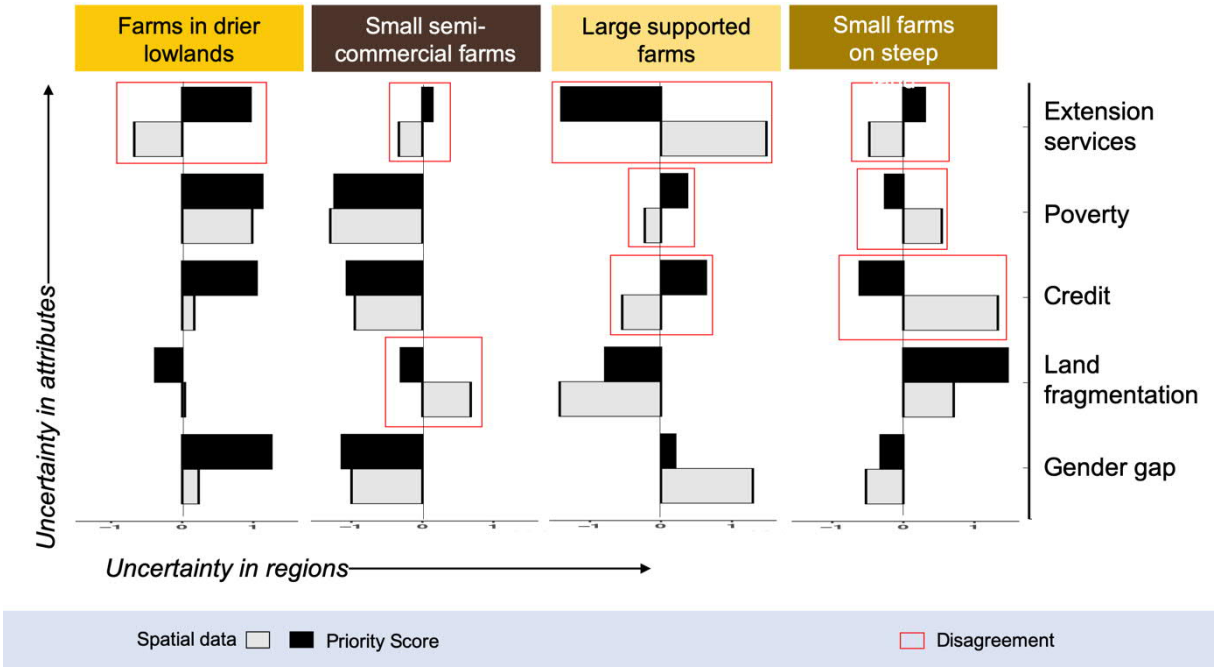

Figure A1.2. Complete comparison between the Priority Scores and spatial data in the four spatial archetypes hosting interviews. The bars show the relative agreement/disagreement between the two sets of data used to generate cognitive (Priority Score) and spatial (spatial data) archetypes.

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