



Alliance



# Targeting and out-scaling interventions in agricultural systems

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26<sup>th</sup> November 2020



# INTRODUCTION

- Heterogeneity of agricultural systems:
  - Bio-physical
  - Socio-economic



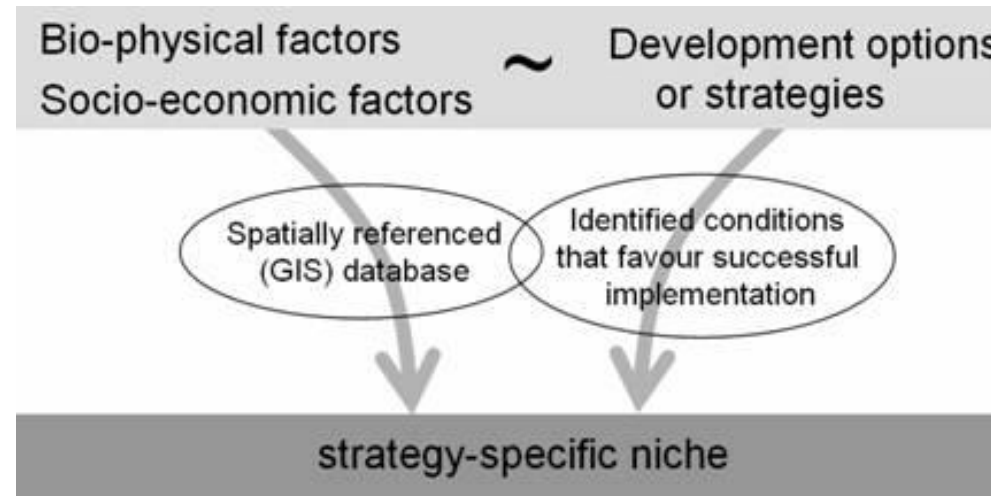
- Influences suitability and adoption of interventions
- Also influences impacts -when adopted and out-scaled

**Agriculture is highly location specific. Improving its productivity and profitability, while ensuring sustainable use of land and other natural resources, relies on knowledge and analysis that best captures those local contexts.**

# SPATIAL TARGETING

- Heterogeneous environment (bio-physical, socio-economic, institutional, policies)
- Many different practices, technologies
- No one-fit-all solution
- But: suitable in different contexts

Targeting =  
Matching to the  
context

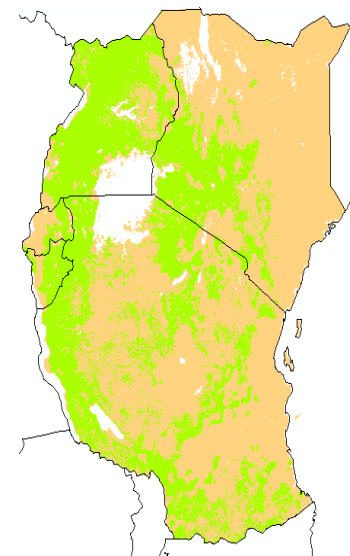
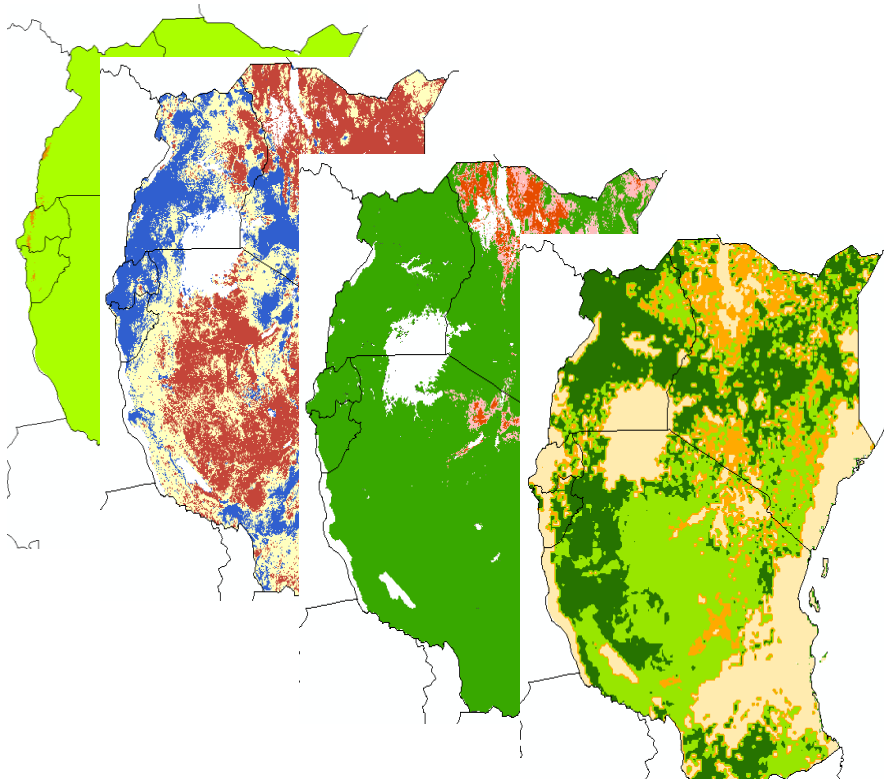


# Suitability maps

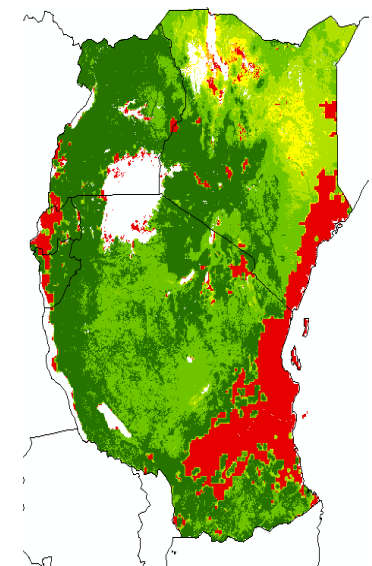
The spatially-explicit matching of conditions hypothesized to favor the successful implementation of a potential intervention with the spatial database  
 → as such it maps out the geographical areas/locations where this specific strategy is likely to have a positive impact

## BRACHIARIA SUITABILITY

	Precipitation	Temp	Fertility (~ SOC)	pH	Texture	AEZ – growing season
<b>Piata</b>	> 600mm	>25° C	Moderate to high	4-8	<i>light to heavy</i>	Semi-arid
	<i>600 - 2625 mm</i>	<i>25-296 °C</i>	<i>10-167 g/kg</i>	4-8	-	<i>11 – 52 weeks</i>



piata\_01  
 ■ suitable  
 ■ not suitable



■ no  
 ■ very low  
 ■ low  
 ■ medium  
 ■ high  
 ■ very high  
 ■ perfect

# OUT-SCALING

The majority of development activities remain isolated, one-time interventions

→ **Scaling out:** applying the lessons learned, the technology tested, ... in one location to another location

→ **Scaling up:** expanding, adapting, and sustaining successful projects, programs, or policies over time for greater development impact

→ *How do we do this scaling up?*

- *More funds, innovation systems, policy support, institutional support, scaling out, ...*

- *Part of “innovation, learning, scaling up”*

# Two tools +

1. The targeting tool matches suitability criteria with a spatial database
    - suitability maps: areas where a specific strategy is likely to have a positive impact.
  2. The out-scaling tool estimates the potential for out-scaling using socio-ecological characterization and similarity analysis.
    - similarity maps: indicating the wider applicability of the intervention
- + The characterisation tool calculates zonal statistics, e.g. total area covered, human or livestock population, ...
  - a table with the statistics per suitability/similarity class



## Suitability/Feasibility maps – some “food for thought”

- Location comprises both biophysical (e.g., land, broadly defined) and socioeconomic factors. Targeting needs to take the socio-economic and institutional context into account too.
- Reality is not static, e.g. global environmental change, economic development, ...
- Lots of advances in geographic data, still socio-economic data more scarce.
- Beyond geographical targeting: the maps still hide a lot of heterogeneity, a.o. differences at household level



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# Thank you!

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Tropical Forages Program SSA

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