

# Research Design: WMA, Village and Household Selection

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# Introduction

## Research question:

*What are the social and ecological outcomes of WMAs?*

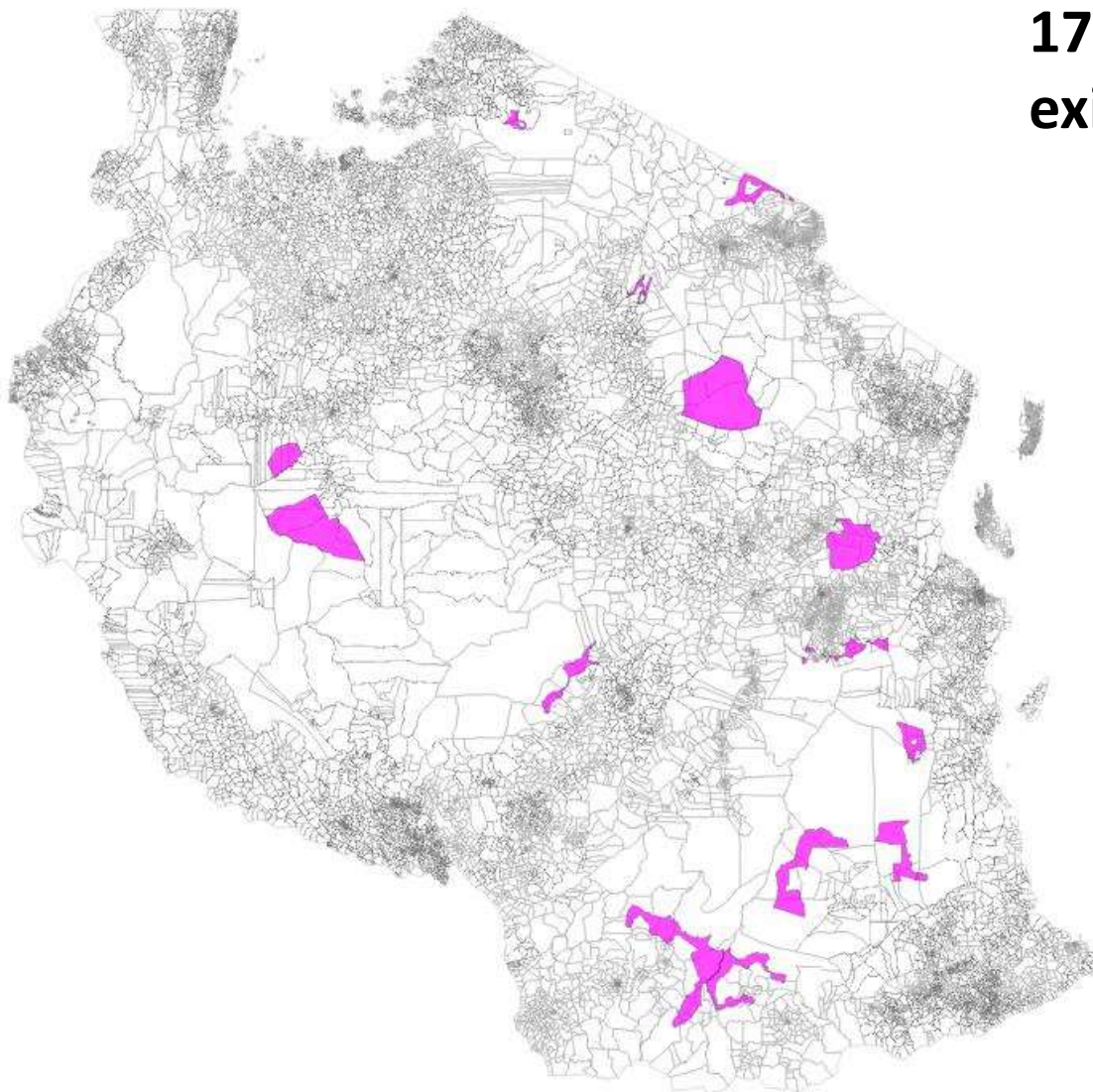
## Components of research design:

- WMA selection
- WMA village selection
- Control village matching
- Household sampling
- Household matching





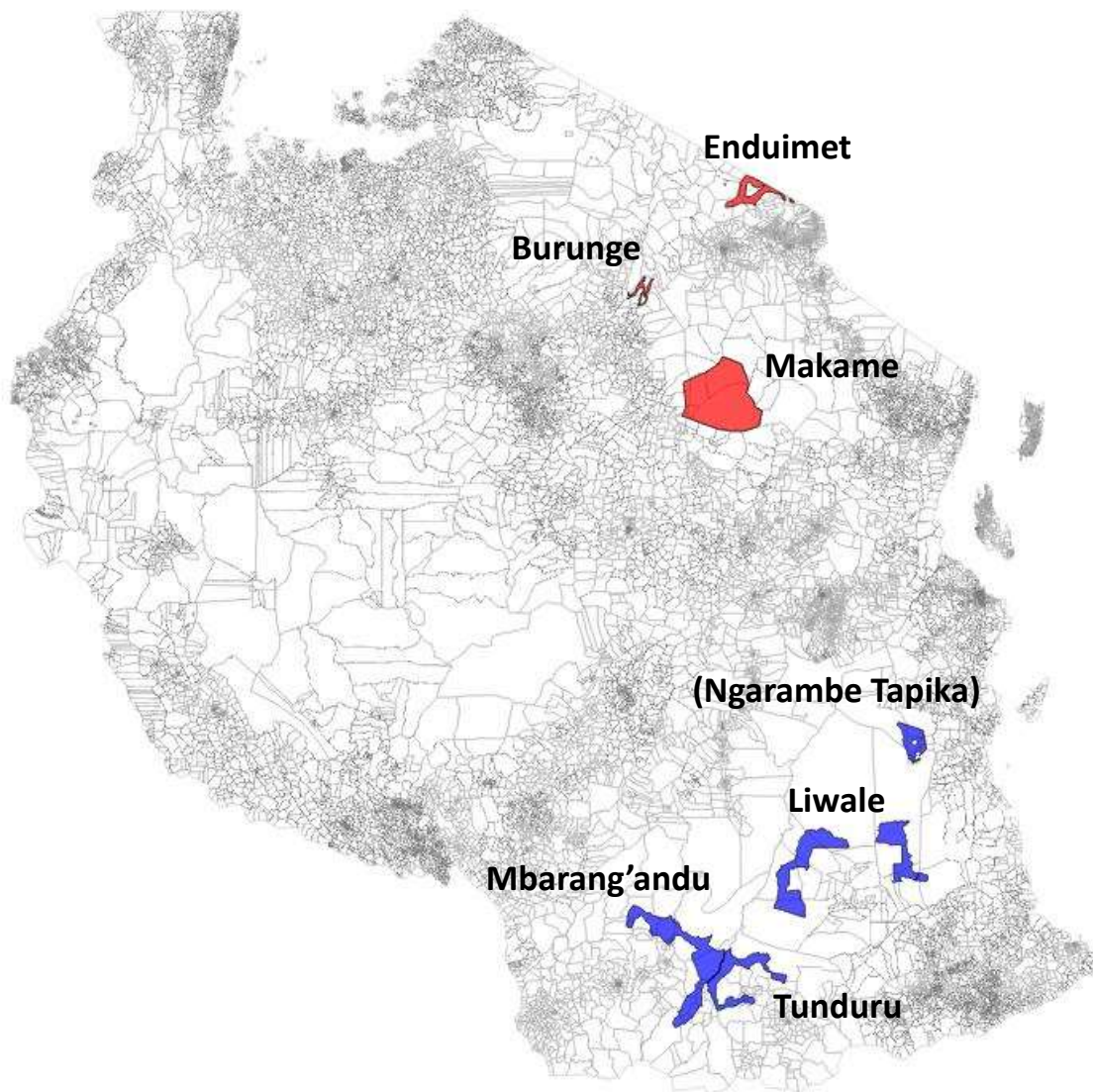
# WMA Selection



**17 WMAs in  
existence**



# WMA Selection



**6-7 WMAs selected**

**North vs. South**

**Familiarity**

**Existing data**

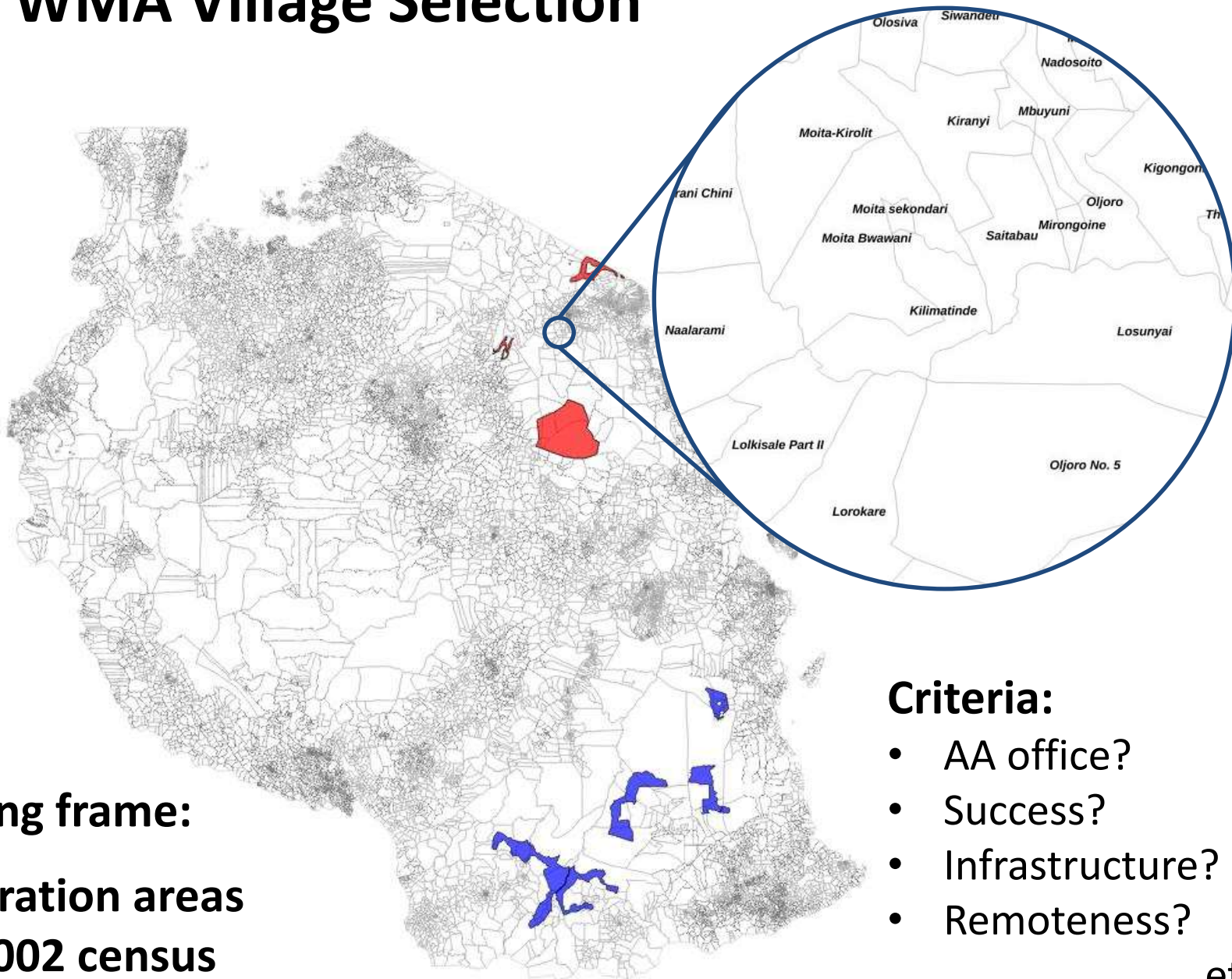
**8 villages per WMA:**

**4 inside**

**4 outside**



# WMA Village Selection



**Sampling frame:**

**Enumeration areas  
from 2002 census**

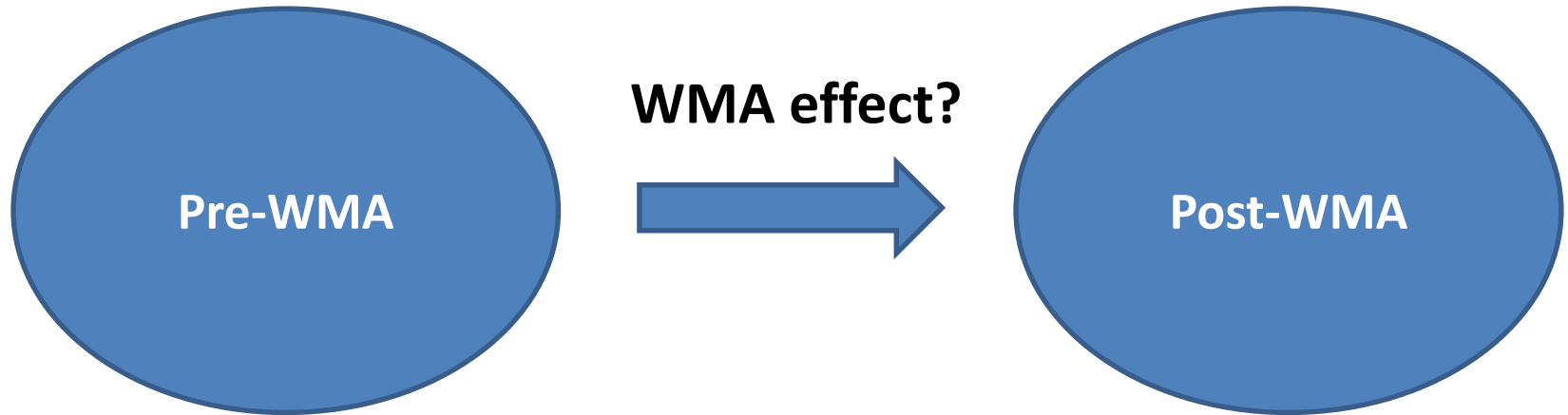
## **Criteria:**

- AA office?
- Success?
- Infrastructure?
- Remoteness?

...etc.



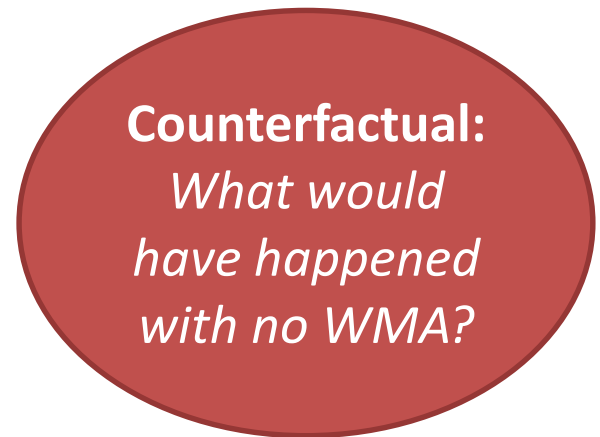
# Impact evaluation



## What has changed?

- Are people richer? Poorer?
- Are there more elephants?
- Are there more tourism jobs?
- Is there more conflict?

...etc.

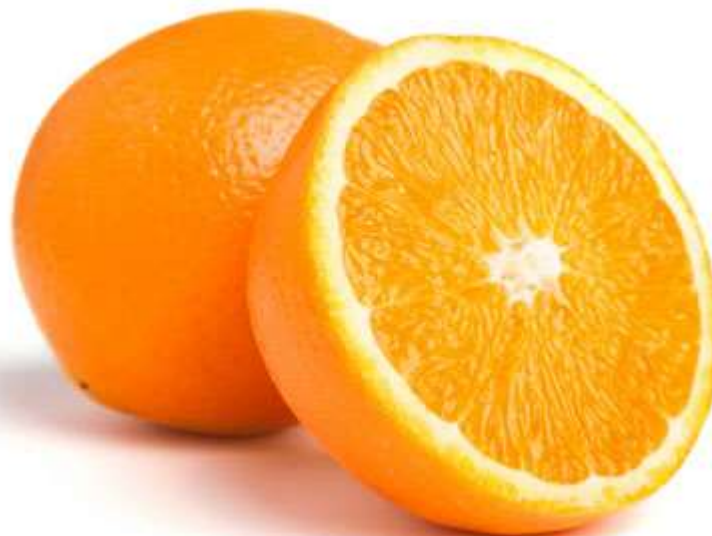




# Control village selection



**WMA units**



**“Control” units?**



# Matching

## Pool of potential control units



## WMA units





# Matching

## Matched control units



## WMA units



# Control village selection

## Matching on:

- Demographics (population density, dependency ratio)
- Market access (distance to roads; distance to towns)
- Wildlife (corridors; species presence)
- Biophysical characteristics (EVI, precipitation, elevation, land cover)

## Excluding:

- Protected areas
- PFM





# Household sampling

## Sampling:

- 40 households per village
- 1 inside: 2 outside
- Stratified by wealth

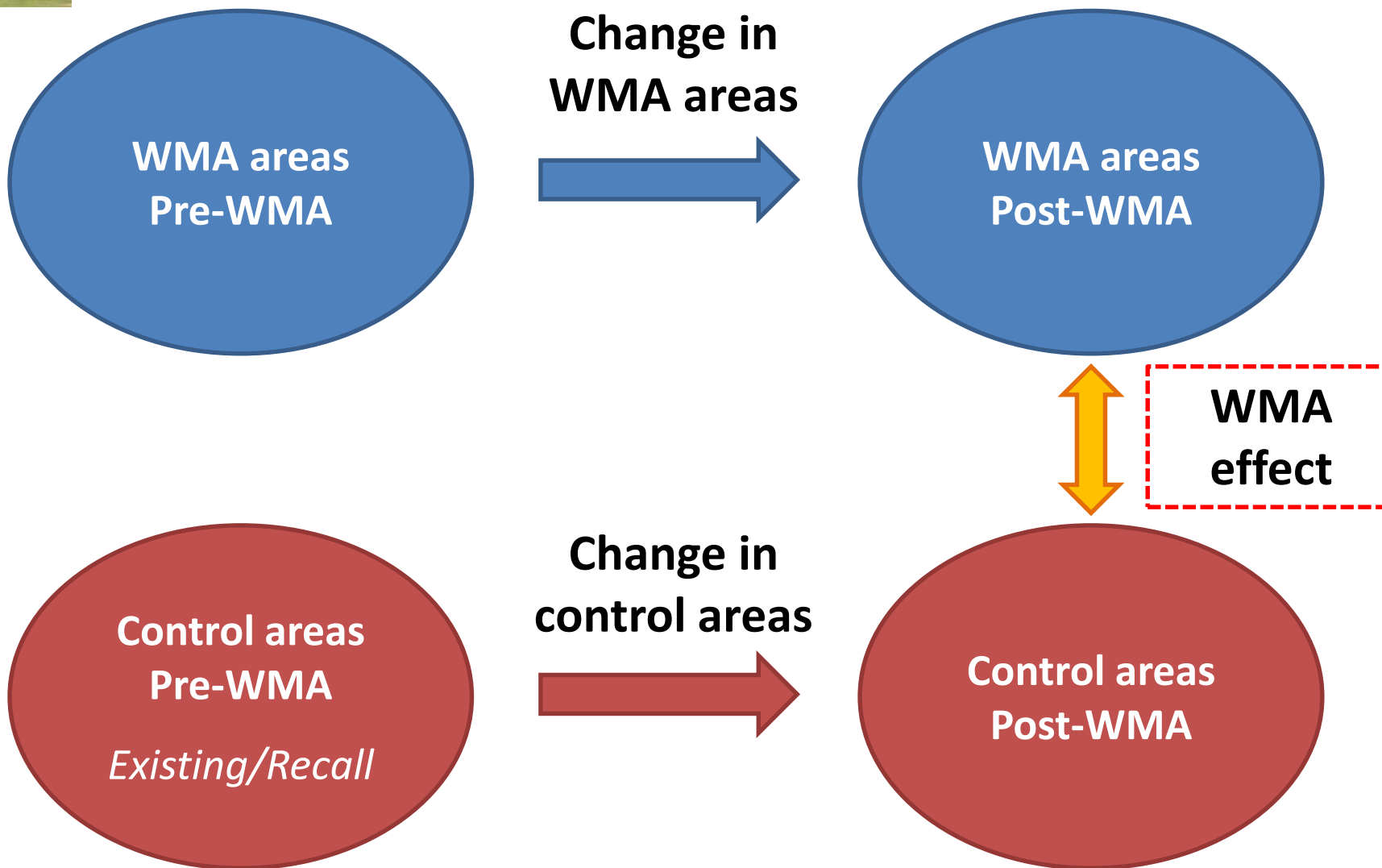
## Post-interview matching on:

- Livelihood components
- Wealth
- Assets





# Impact evaluation



# Poverty and ES Impacts of Wildlife Management Areas (PIMA)

Katherine Homewood (UCL), Maurus Msuha (TAWIRI), Joseph Olila (TNRF),  
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