



Successful small-scale irrigation or environmental  
destruction? : competing claims on water in the  
Uluguru Mountains, Tanzania

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# A political ecology of irrigation

- Who does water belong to:
  - The state?
  - The people?
- How can competing claims be negotiated?
- Natural Resources Management- the formalisation and institutions debate (Ostrom, Cleaver)
- Romanticisation of the 'traditional'- (Trawick, Mul)
- Marginalisation of the 'traditional' (Walsh, Leach & Fairhead)
- Historical construction of the 'traditional' leading to external appropriation (Peters, Verhoeven)



The policy ecology . . . . .

# Water Policy in Tanzania

- Integrated Water Resources Management – National Water Policy 2002, National Water Development Strategy 2005-15, Water Resources Management Act 2009.
- THMIS 2011/12 survey suggests 59% (41% in 1985) have access to clean water (12 % rural water supply provided by authority) Only 10% have improved sanitation- off target in all areas.....
- Decentralisation and a ‘demand driven’ approach
- Encouraging participation of private sector and NGO
- Water managed by nine river basin offices- e.g. Wami-Ruvu River Basin- issue permits under 2009 WRMA

# Irrigation Policy in Tanzania

- **Background: the long attempt to modernise and commercialise agriculture**
- **Irrigation is a named component in Kilimo Kwanza (Agriculture First Plan)**
- **2009 Irrigation Policy developed responding to 2002 Irrigation Master Plan**



# Assumptions in 2009 Irrigation Policy

- 'Traditional' irrigation is wasteful and inefficient- suggests training the farmers on better water use and encouraging the private sector, NGOs etc to contribute.
- 'Improved' traditional irrigation- investment in upgrading traditional systems (can be seen in Pare Mountains- see paper by Mul)- suggest gov will oversee technical requirements and encourage PPP
- Water conflicts can be avoided if all are organised properly in 'associations'

A photograph of a hillside with banana plants and a blue hosepipe irrigation system. The text is overlaid on the image in yellow. The background shows a lush green hillside with several banana plants in the foreground. A blue hosepipe runs across the middle of the image, and a black pipe runs along the bottom. The ground is covered with green grass and some brown leaves.

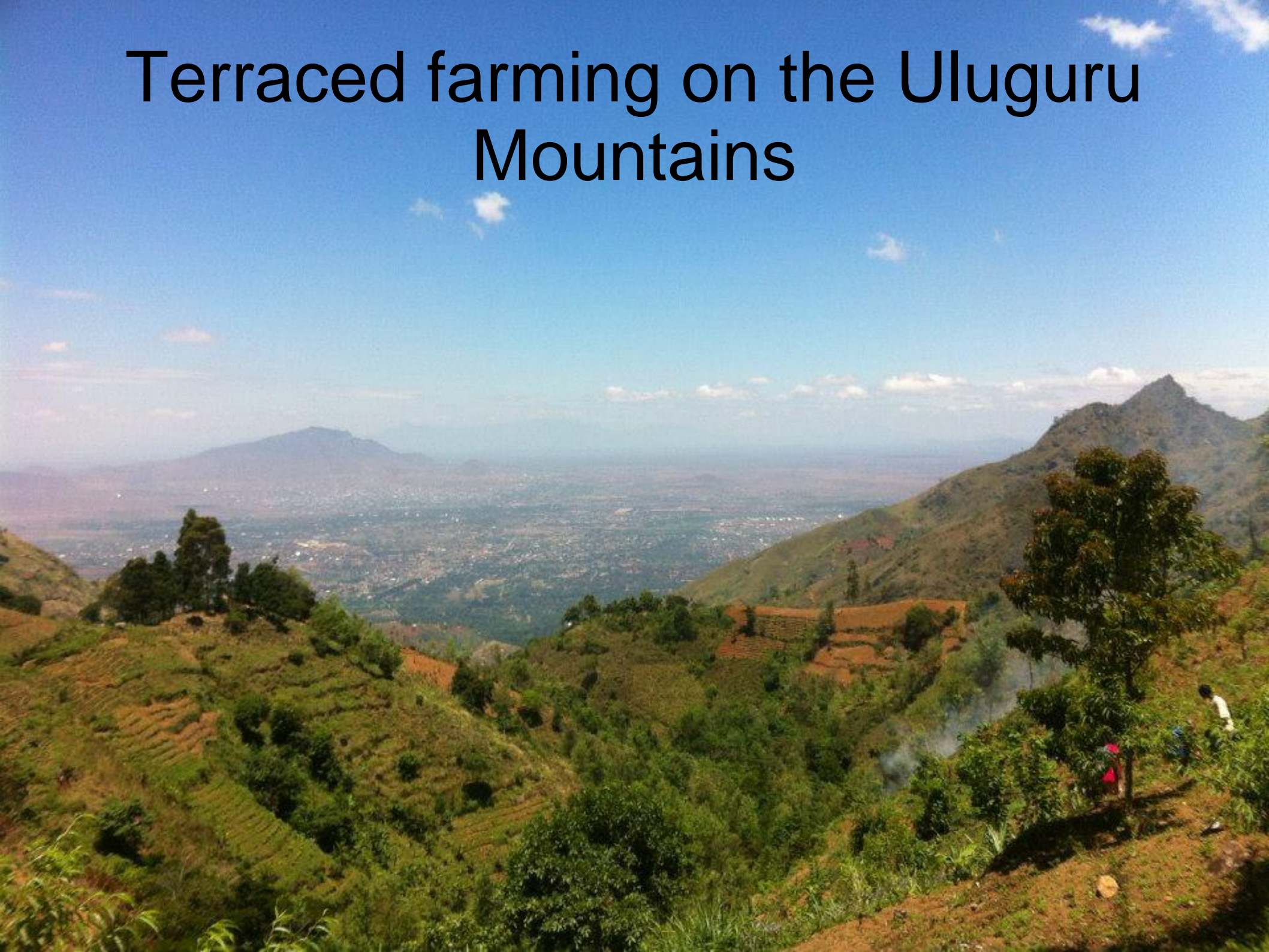
# A political ecology of irrigation Fieldwork - May 2013-Jan 2014

An ethnography of informal small-scale irrigation:

Choma- Uluguru Mountains- hosepipe irrigation for cultivation of high value fruit and vegetable crops. Latest evolution for small scale farming by indigenous WaLuguru people.

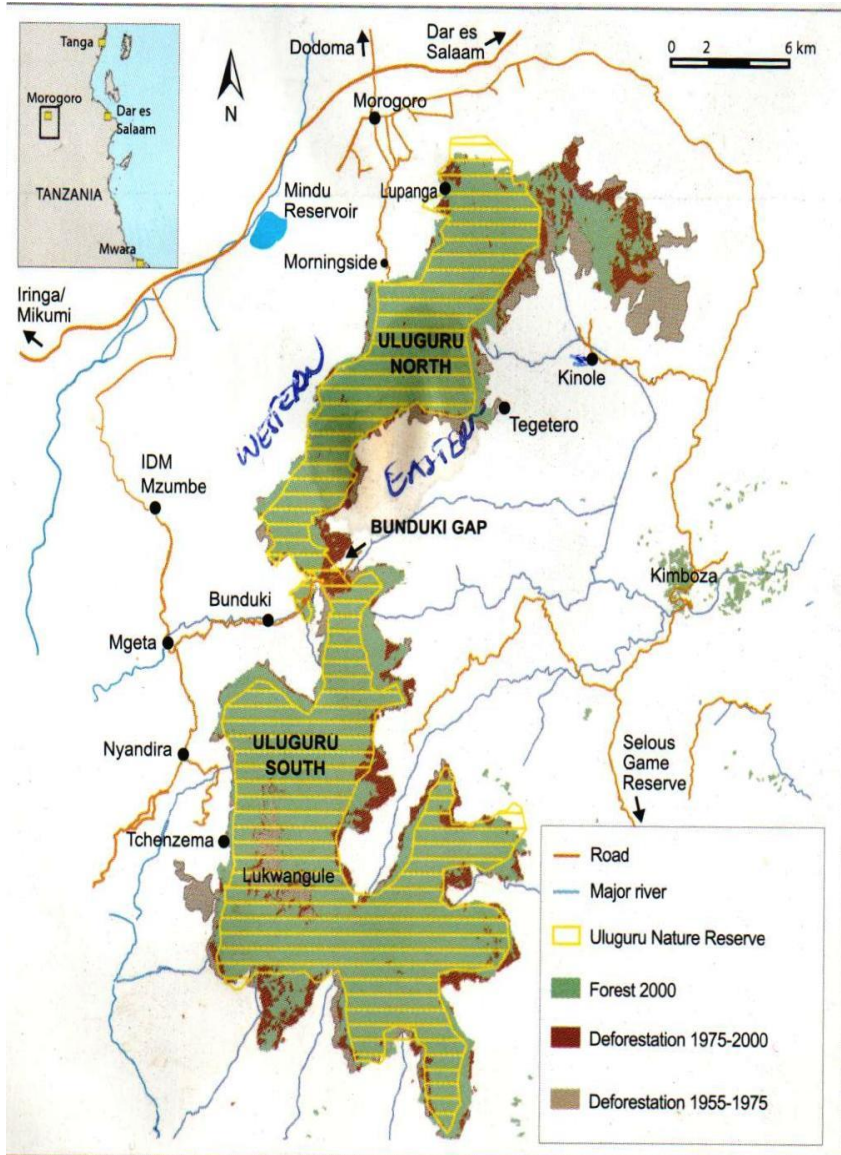
Informal sharing of water based on kin relationships. Low conflict. Seen by state as illegal and with potential negative impact on urban water availability

# Terraced farming on the Uluguru Mountains





# 'Traditional' and informal



- Choma- Luguru produce vegetable and fruit crops on small land holdings.
- Past- used traditional furrow systems but these were banned
- Records show concerns over agriculture in the Ulugurus since German colonisation- promotion of terracing has been contentious in the past
- Now- use hosepipes from the waterfalls and rivers to feed sprinklers
- People argue that water is a freely available resource- shared informally by those with access to land and capital to buy pipes. Government have done nothing so why should they be paid for water?

# Improved livelihoods

- Some good production with market linkages
  - Vegetables, herbs and fruit in Morogoro
  - Strawberries- Arusha and Dar (and cannabis)
- Evidence of improved livelihoods-
  - Improvement of housing
  - Purchase of motorbikes
  - Construction of road by community
  - Secondary school for children

# But- this is illegal and harming the environment

Their activities are seen as illegal- it is informal and unregulated- characterised as competing with drinking water supplies in Morogoro and beyond to Dar-es-Salaam: local hydropolitics

In 2006/7 the Municipal Council tried to evict the farmers from the mountain- they took the case to the President.

For now allowed to stay but must not farm within 60m of the water sources and use environmental conservation practices.

A number of NGOs are supporting this approach- e.g. Through 'payment for watershed services' and organic farming initiatives

See <http://kilimo.org/WordPress/>

## What does this tell us?

- **An old story of blaming the poor farmer for environmental destruction and water shortage (See Fairhead and Leach and work on the Great Ruaha River)**
- **The vulnerability of customary tenure- as Peters argues it has made it easier for the state and other powerful actors to dispossess the poor- perhaps can also be applied to water**
- **Political disinterest in management of the Ulugurus for sustainable agriculture- small successes by SAT but also a familiar contracting out by government to aid-funded short-term projects.**

# Bigger issues

- Small-scale irrigation is not a quick fix for agricultural growth without solving bigger issues of hydropolitics
- Insufficient attention is given to competing uses of water (e.g. Agricultural use vs power generation)
- Current policy frameworks and approaches are inadequate, contradictory, ineffective and can increase inequality
- Inadequate capacity of RBOs to regulate water use- 'we just sell water'.
- Climate change, economic growth and increasing population make water supply a critical issue