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Unfulfilled potential
Irrigation and small farmers- 2 case studies from Tanzania

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PPP – critical questions for water supply

PPP can take many forms

Public management needs a more strategic approach.

Whose water needs have priority?

Irrigation needs cannot ignore water-energy-food nexus

Assumptions in 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'

New schemes

- Challenge to establish and bring in private investment while benefiting small holders
- Gov promises 'demand-driven' scheme identification (sometimes an excuse for doing nothing!)
- Management must formalised.....
- Zonal Irrigation Units support LGAs (until the private sector can fill the gap).
- But private sector is risk averse- land and water rights are too risky
- Policy is short on specific actions particularly on managing water supply

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

2 case studies of irrigation:

Dakawa Rice Farm- a 2000 hectare former state rice farm. Now managed by a co-operative society for small farmers with large inputs from USAID – donor supported PPP for small scale farmers

Uluguru Mountains- hosepipe irrigation for cultivation of high value fruit and vegetable crops. Latest evolution for small scale farming by indigenous WaLuguru people. Private irrigation without public consent

Dakawa- an example of a formal irrigation scheme

- Dakawa- former NAFCO farm- 2000 hectares of paddy
- Built by N. Korea but never operational at full capacity
- Now revived by UWAWAKUDA (a water user's association and co-operative of small Farmers.
- Large investments by USAID- Feed the Future
- Improved production (30-40 bags per acre) through use of system of rice intensification

Dakawa

The official story:

- Farm is divided into 12 acre blocks.
- 1 farmer can own a maximum of 1 block (but many of the 900+ members own 1 or 2 acres and share blocks as small farmer groups).
- The land/water is owned and managed by UWAWAKUDA on behalf of the members.
- Training on the 'system of rice intensification' (sri) has led to big increases in productivity
- See http://www.feedthefuture.gov/article/feed-future-press-tour-tanzania-marks-global-economic-statecraft-day

12-acre block – Dakawa Rice Farm

Water for Dakawa

- Water is pumped from the Wami river
- There are an increasing number of upstream users
- Rivers levels are too low to allow the scheme to operate outside of the wet season (March-June)
- Water is supplied to blocks by a strict rotation. Bye-laws control water theft- but there are disputes within and between blocks
- The Chinese Ag. Research station in Dakawa is seeking access to river water but has not been successful.

but.....

- Are these really small farmers?
  - Who owns the land?
  - Who controls the organisation?
- Is the scheme sustainable?
  - Competition for water-upstream users- dropping level of wami river
  - Poor water use efficiency
  - High costs of power-15m Tsh per month
  - Subsidised by donor
  - Lack of marketing options for small farmers
  - Illegal rice importation leading to price falls

Dakawa and the politics of aid

Dakawa is an aid hotspot

-proximity to Dar-Es-Salaam

-reliable local stars- Veronica Urio story

-China-US aid nexus

-'all of the world is coming to Dakawa….even the queen of Denmark’

‘Traditional’ and informal

- 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

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

Terraced farming on the Uluguru Mountains

But

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.

Were told they can stay if they do 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/

Win-win – a new form of PPP

Work by NGO Sustainable Agriculture Tanzania:

Organic/agroecological production enhances livelihoods and environmental protection.

It can does not contaminate water resources and potentially enhances them- terracing and increasing soil organic matter

Opportunity for new form of PPP- local stakeholders are already on board

Who is managing water supplies?

Ulugurus-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? “ Government says use is illegal and should be formalised. 2009 Water Resources Act cannot deal with multiple tiny intakes.

Dakawa- the scarce water to the scheme is only available for a limited period. Therefore water must be managed fairly through the formal rules of the scheme and on a strict rotation. Transgression of rules leads to punishment and/or conflict. Outside users have caused the shortage of water and need regulation by the RBO.

Wami-Ruvu River Basin Office- Excellent understanding of the challenges but no capacity to monitor actual water use. 'We just sell water’ – anonymous

Summing up

- 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 and ineffective
- 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
- Negotiated solutions must account for water-energy-food nexus