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Studying African Farmer-led Irrigation

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Session B – 4 thematic discussions

Block 1 – Definition of FLID

Block 2 – Spread and drivers of FLID

Block 3 – Consequences of FLID

Block 4 – Engagement with FLID

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Block 1: Definition of FLID

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traditional
small
unplanned
illegal
unsustainable
informal

Farmer-led irrigation development

not “unplanned” or “spontaneous”

not small-scale

not (only) individual

not (purely) private

Framing / definition

We re-frame to focus on the process of development driven by farmers

Variety of developments not studied before as different instances of 1 and the same process

Definition of "farmer-led irrigation development" ?

- Rather loosely, as in practice hybrids
- Avoid categorisation on basis of tech, size, crop, etc.
- Avoid question on whether truly farmer-led

Exchange block 1

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In your view how does FLID compare to and differ from corporate agriculture and state-planned irrigation?

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Block 2: Spread and drivers of FLID

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Some examples of FLID

1) hill-furrow systems
2) petrol pumps
3) re-appropriation of small dams
4) intensification of inland wetlands/valley bottoms
5) 'bucket irrigation'/backyard farming
6) use of waste water in (peri)urban agriculture
7) 'rain-fed' paddy rice cultivation

Economic activity

Irrigation is a **core economic activity**:

- In 78% it is head and(/or) spouse that is the main responsible to irrigate
- For 84% of irrigators it makes-up for about half or more of their income
- Irrigators have strong market-engagement

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Agricultural intensification

Irrigation comes with **broad agricultural intensification**;

of the irrigators:

- 38% use improved seeds (v. 11% for non-Irrigators)
- 44% use pesticides (v. 9% for non-Irrigators)
- 37% use fertilizers (v. 5% for non-Irrigators)

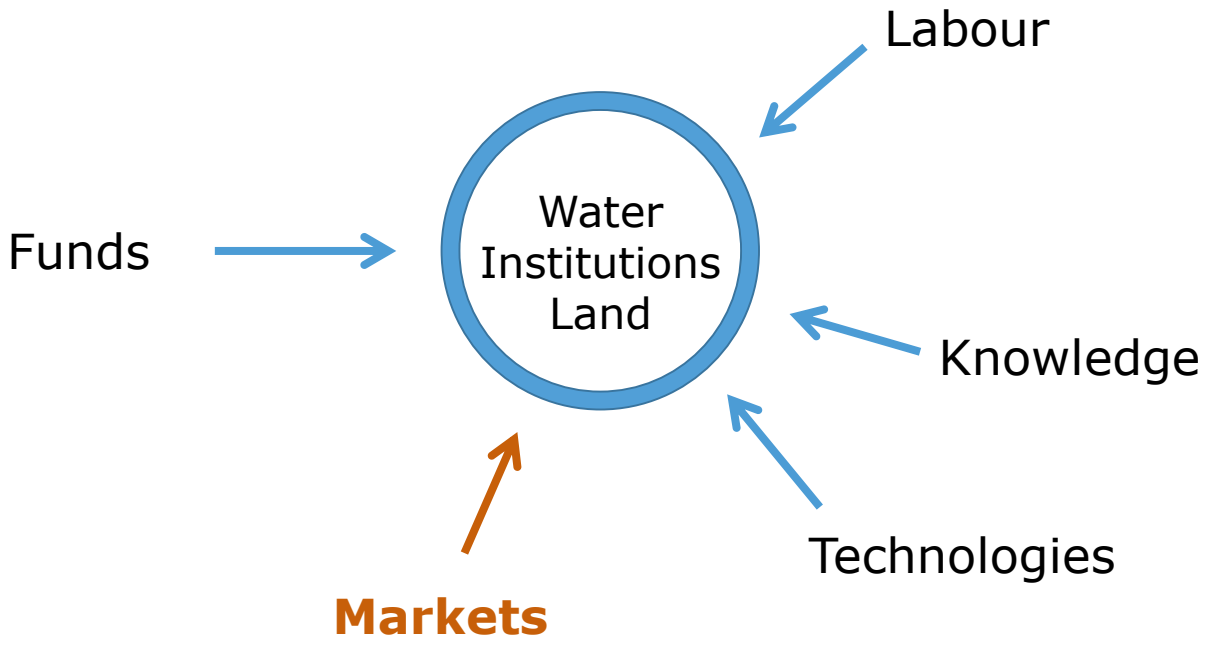
Land arrangements

Dynamic land arrangements:

- In Tanzania 39% of irrigated plots is rented and 14% purchased
- Of the irrigators 60% hires employees (v. 26% for non-Irrigators)

Drivers of development

"islands" of intensification



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Exchange block 2

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1. If these are the drivers, what are the barriers that are limiting FLID to happen elsewhere?
2. If this is intensive high-input agriculture, then what enabling environment is needed to make it even more profitable?

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Block 3: Consequences of FLID

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Downstream water effects?

- Efficient? Water **losses mostly become available** further downstream
- Water diversions frequently **precede licensing** laws
- **Accusations by downstream uses** (hydropower, national parks), not always founded on evidence
- Within cases: **more conflicts with increasing numbers** of water users.

Gendered access

Strongly **gendered pattern of access to irrigation**:

- Female-headed household (FHH)

  underrepresented among irrigators

  (16% FHH v 26% non-Irrigators)

- Irrigating FHH have on average 0.6 ha

  less irrigated land than MHH

Poverty and wealth

Strong **correlation between irrigation and wealth**;

Irrigators have:

- More **assets** (18.2 v 11.9 on an asset index)
- More **livestock** (0.24 v 0.13 TLU)
- Better **houses** (6.3 v 5.6 on a housing index)
- More months with **enough food** (10.6 v 9.8)
- Children with more **education** (+ 6 months)

Exchange block 3

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1. What is the contribution of FLID for (local) economic development?
2. What are the risks of FLID?

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Block 4: Engagement with FLID

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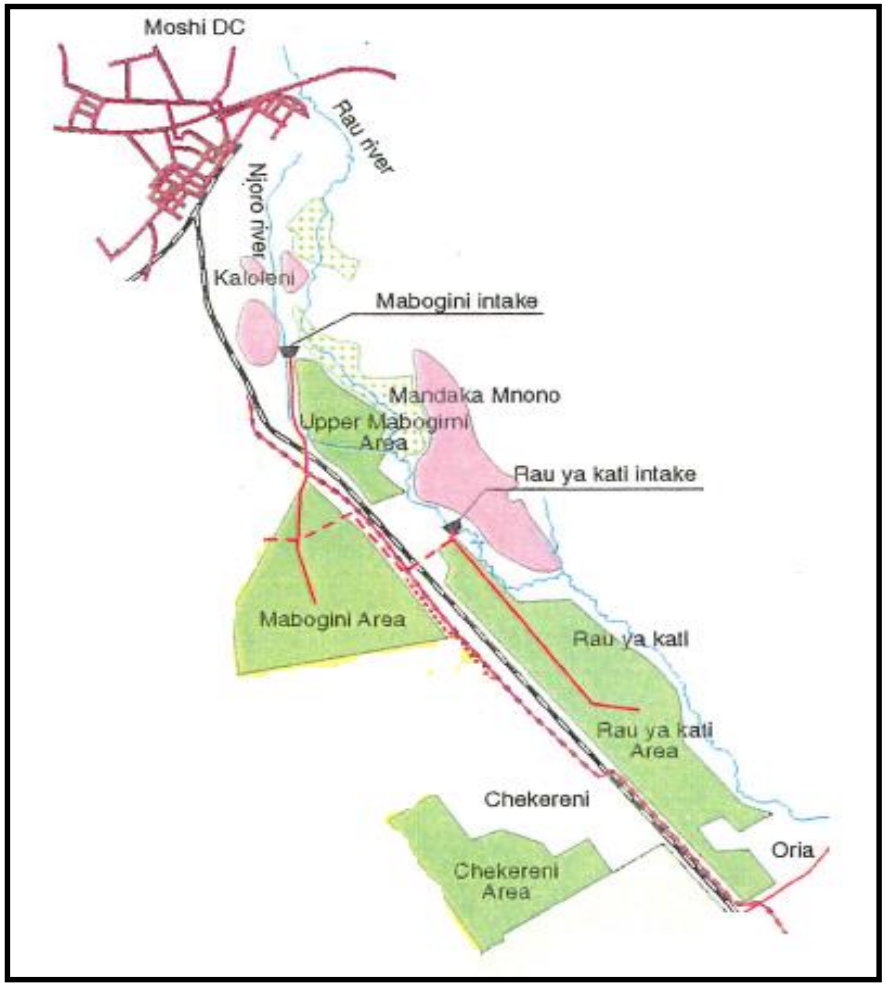
Governance domains

1. Irrigation development
2. Community development
3. Agricultural development
4. Natural resources management
5. Formal politics, democratic representation

Diverse governance responses

1. Shut down
2. Overhaul / replace
3. Ignore / dis-engage
4. Support to develop / extend
5. Support to restrict / limit / contain

LMIS & informal paddy irrigation



Informal paddy irrigation

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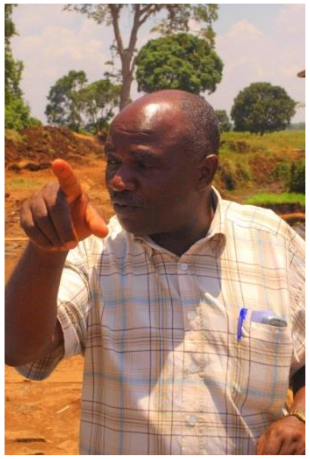
Informal paddy irrigation



Scheme Manager:

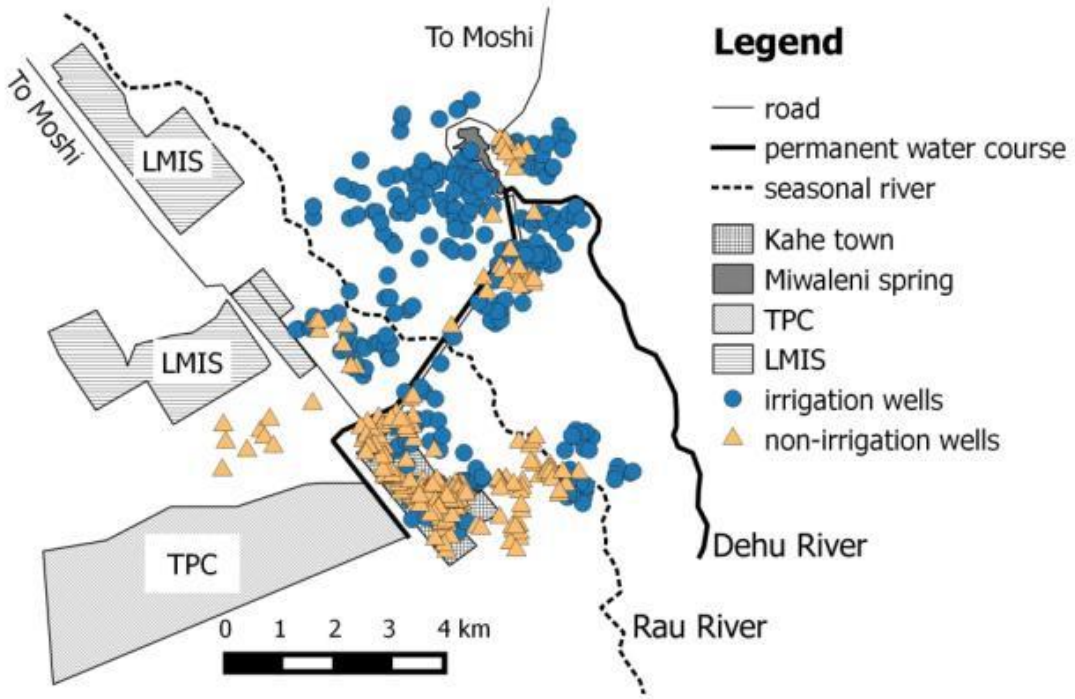
"Supply to this area is failing due to a shortage of water caused by upstream water use. Those upstream water users were not considered in the design of the scheme. (…) Frankly speaking we have a big crisis at the moment because we are not able to supply the area intended to be irrigated".

Irrigation development	Shut down => Support to contain
Community development	Support to develop
Agricultural development	Ignore
Natural resources management	Shut down => Support to contain
Formal politics	Mixed

LMIS & petrol pumps on shallow wells

> 500 irrigation wells

> 800 hectares



Source: De Bont et al., forthcoming

Petrol pumps on shallow wells

- No attempts to regulate the construction or use of wells
- No support or promotion
- Zonal Irrigation Office and Basin Office do not even acknowledge their existence

Irrigation development	Ignore
Community development	Ignore
Agricultural development	Ignore
Natural resources management	Ignore
Formal politics	Ignore

Source: De Bont et al., forthcoming

Exchange block 4

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On basis of what criteria would you decide which FLID cases to prioritise for support??

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