Expanding to wetlands in Beninese family farms: a trade-off between collective and individual development opportunities

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Background

- Agricultural production in sub-Saharan Africa is mostly upland-based.
- Wetland potential for rice and market gardening production is currently underexploited.
- Opportunities for greater provision of year-round food are expected from utilising wetland land and water resources.

Hypothesis

- Wetland crops are labour-demanding crops.
- In some smallholder households, labour is already distributed between family fields intended for collective profit and individually managed fields intended for individual financial benefit to the women or men (Figure 1).
- Changes in crops and cropping calendars may interfere with intra-household labour distribution.

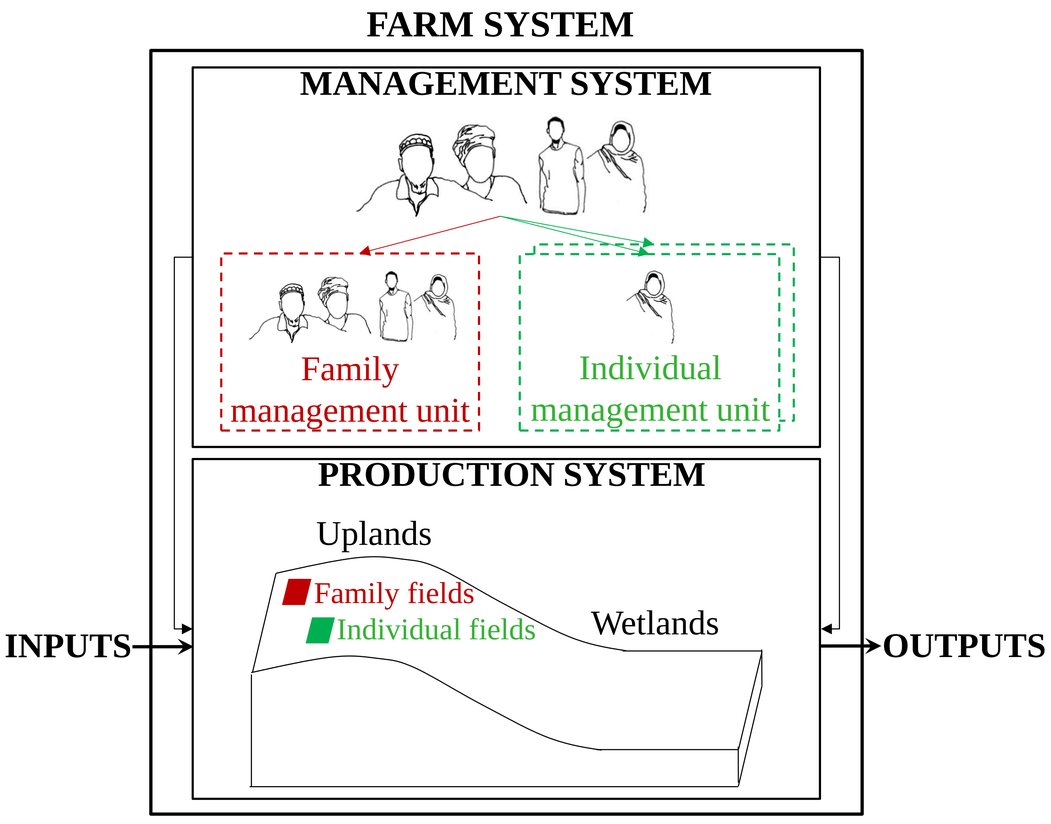

Figure 1. Model of the farm system

Objective

- Our objective was to investigate differences in the uptake of wetland crops among smallholder households in relation to intra-household labour distribution.

Methods

- Smallholder households were described in a functional farm typology for two villages where rice fields and market gardens co-occurred in wetlands; Zonmon in the southern part of Benin and Pelebina in the north-western part (Figure 2).

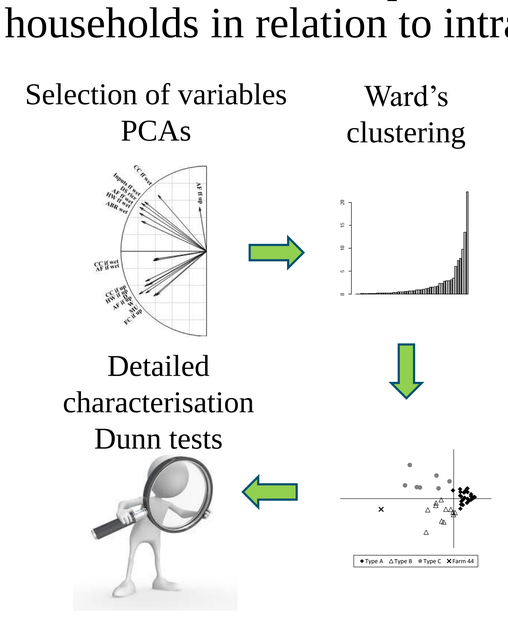

Figure 2. Methodology outline

Conclusion

- Unlocking the potential of wetlands requires insight in practices at the level of the farm and the level of the workers within the farm.

Discussion

- Granting individual fields may be a strategy to secure a fair remuneration for work and freedom of initiative.
- The extent of the expansion to wetlands may be the result of a trade-off between collective interest and individual interest.
- Just as increasing the area farmed in family fields in wetlands may conflict with fairness associated with individual development opportunities, increasing the area farmed in individual fields in wetlands may conflict with fairness associated with collective development opportunities.

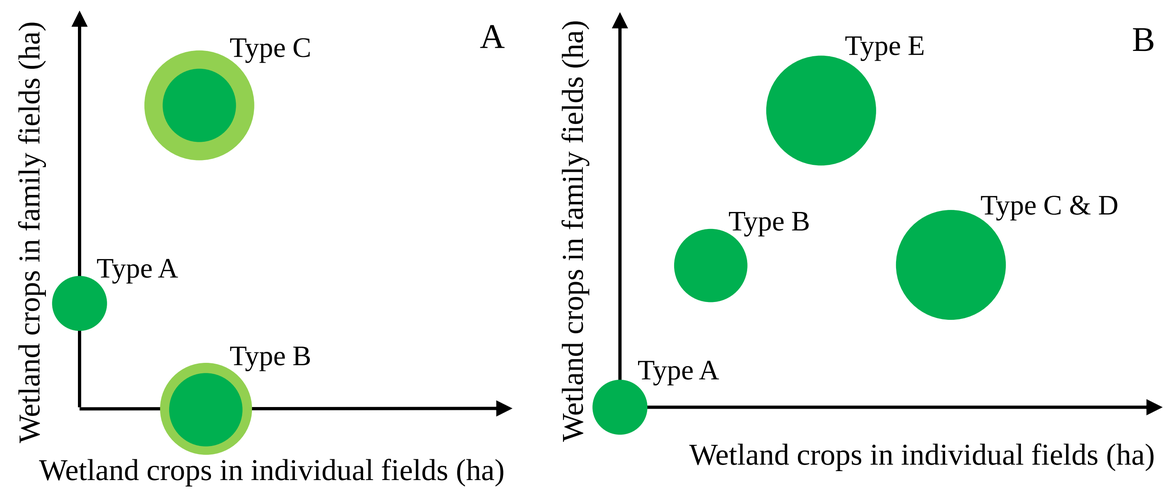

Figure 3. Schematic representation of the trade-off between the area under wetland crops in family fields and the area under wetland crops in individual fields in farm types. Differences in the number of family workers are symbolised by differences in the size of ellipses. (A) Zonmon. The additional amount of labour available in the form of hired labour is symbolised by light green rings. (B) Pelebina.

Table 2. Differences at the 5% level in the area under wetland crops and in the available labour among farm types in Pelebina. Values represent medians.

	Type A	Type B	Type C	Type D	Type E
Family labour	3.0 a	3.0 ab	6.0 b	8.5 b	7.5 b
Hired labour (FCFA)	27 500 a	30 250 a	27 750 a	21 000 a	112 500 a
Wetland crops (ha)	0.00 a	0.03 ab	0.13 b	0.25 b	0.19 b

Table 1. Differences at the 5% level in the area under wetland crops and in the available labour among farm types in Zonmon. Values represent medians.

	Type A	Type B	Type C
Family labour	2.0 a	4.5 b	3.0 b
Hired labour (FCFA)	39 400 a	110 950 ab	194 802 b
Wetland crops (ha)	0.12 a	0.28 a	1.09 b

Results

- Larger areas under wetland crops were found for farm types with more labour available either in the form of family labour or as hired labour (Table 1 and Table 2).
- Among the farm types with greater labour availability, the extent of wetland crops depended on the labour distribution between upland fields and wetland fields as well as between family fields and individual fields (Figure 3).

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