**Organic coffee: Where does the organic matter come from? A Resource accounting approach**

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Farms in the densely populated and intensively cropped volcano mountain slopes of the Mt Elgon in Uganda struggle to intensify production. Many do not intensify; others choose the organic system for their coffee at least, many others conventional practices using both chemical inputs (fertilizers), mulch and manure.

Yet, we hypothesized that biomass would be a main constraint to the organic intensification strategy. Thus, an organic intensification may be dependent on inputs from outside the system, as conventional intensification is. The poster presents the biomass metabolism of one farm producing organic coffee near Kapchorwa.

- How dependent is the organic production on inputs from outside the farm?
- How regenerative is the farm to its environment?

**Results: Key Biomass Flows** - towards a representation of the farm metabolism

Figure 2: Seven tons of fresh manure are purchased in the savannah where local cattle is herded in the rangelands, two hours drive away down the volcano to the north.

Farm system: 5 active fields and the compound (total 3.43 ha)

- The farm imports 1/3rd of all its biomass; most of it from the savannah grasslands in the plains.
- Among the imports one counts, ¼ of the feed for the livestock.
- 60% of the total manure used is applied on the organic coffee/banana fields next to the homestead.
- The farm is a nett biomass importer.
- It sells 95% of its harvests.
- Farm income makes up only 58% of the total income.

**Figure 3: Inflows, stocks and outflows on the farm in tons Dry Matter from September 2019 to September 2020**

- The biomass imports used for fertility enhancement (feed and manure) reveal a coupling of the mountain organic coffee production to the savannah grassland system down the mountain.
- The savannah and distant fields (rented) are depleted from organic matter while own fields are enhanced. This relocation pattern is conditional to the wealth of the farming household.