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Feeding the soil AND feeding the cow – Conservation Agriculture in Kenya

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Problem

The implementation of Conservation Agriculture (CA) in Sub-Saharan Africa is still lagging:

- Main obstacle: the priority given to using crop residues as livestock feed rather than mulching material.
- In this way the CA approach will not reach its full potential - particularly in countries with a limited biomass production due to climatic conditions.

CA field with pigeon peas and Maize mulch (photo: H.T. Ndah)

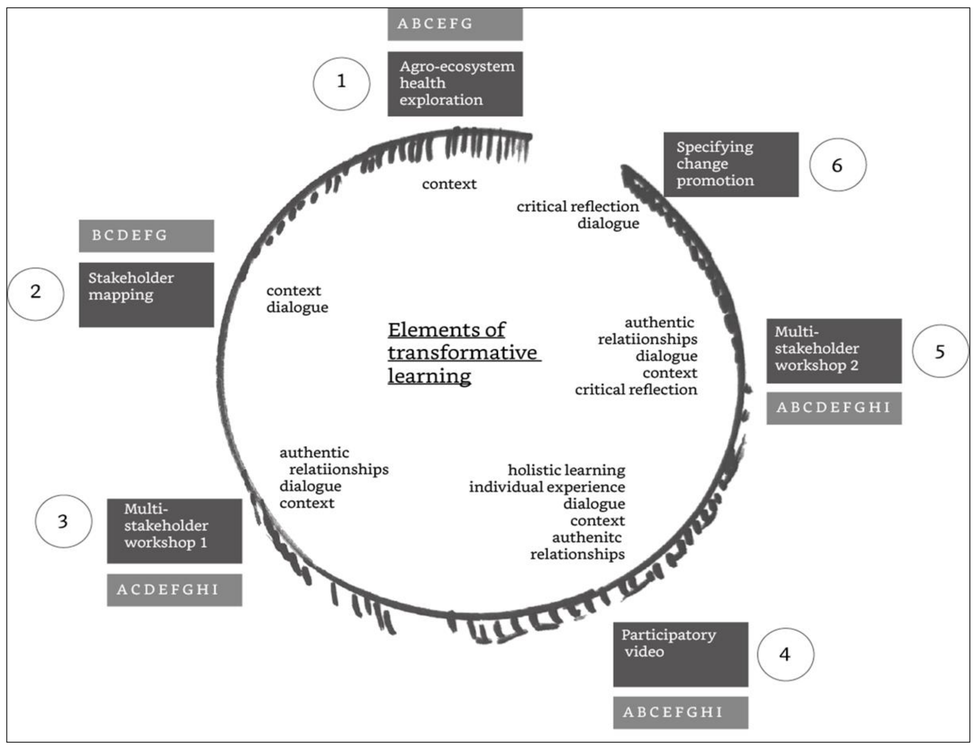
Livestock competition for biomass (photo: H.T. Ndah)

Specific objectives

- To identify pathways for enabling an implementation of CA that is not in conflict with other goals of farmers' livelihoods, esp. livestock farming
- To analyze socio-economic factors that determine the adoption of combined CA-livestock systems

Methods

- A transformative learning approach with farmers and other stakeholders in Laikipia County (Kenya):



Results

- **Challenges** to CA adoption:
  - competition for fodder,
  - a lack of financial resources to get started with CA,
- There are **knowledge gaps** on:
  - proper application of CA equipment,
  - the fodder production and conservation options and,
  - sustainable crop-livestock production systems.
- Farmers feel partly disconnected from existing governmental support.
- **Solutions** which enable feeding the soil "and" feeding the cow:
  - Some farmers have started to grow forages in order to reduce dependence on crop residues as a feeding source which had not been promoted during past extension projects.

Farmer workshop (photo: H.T. Ndah)

Conclusions

- Importance of an enabling environment provided by government programs which support long-term extension efforts combined with farmers' willingness to jointly learn towards a more sustainable agriculture.
- On farms where both systems (CA and conventional) are practiced, women play an important role by experimenting with CA practices, thereby realizing promising results in terms of yield and drought resilience.
- Furthermore, our findings underline the need for a long-term monitoring of innovation processes which is often not possible within short-term research projects and promotion programs.

Outlook

- Further research on trade-offs between CA and livestock is needed.
- To develop forage and livestock systems that fit into CA systems.
- To improve knowledge sharing at all levels from training of extension officers to training of farmers.

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