BETTER LIFE ALLIANCE: CLIMATE CHANGE MITIGATION AS CO-BENEFIT OF IMPROVED LANDSCAPE, AGROFORESTRY, SOIL, AND FERTILIZER MANAGEMENT

CATEGORY:

POLICY | RESEARCH | FIELD | **CLIMATE**

LOCATION/SCALE:

Luangwa, Eastern Province Zambia

IMPLEMENTING ORGANISATION:

CAMCO, USAID, CCAFS

PERIOD:

2011 - 2014

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COMACO implemented the 4 year project in the Eastern Province of Zambia that aimed at improvements of agricultural value chains and to link smallholder farmers to market incentives. The measures taken are direct training and capacity building for small-scale farmers to adopt conservation practices and secondly, the introduction of natural resource management plans to prevent conversion of wildlife habitats into agriculture used land. Key activities of the project have been to highlight the CO_2 mitigation potential in Zambia by avoiding savanna degradation or conversion and provided market-based incentives for agricultural crops to avoid conversion. Furthermore soil fertility management was promoted through agro-ecological approaches and postharvest loss was reduced through improved product processing, storage, and packaging. While a considerable mitigation potential could be demonstrated in the project, another important finding is that there are various co-benefits resulting from agroecological practices, when applied along the value chain starting with input management, to production practices and ending with post-harvest management.

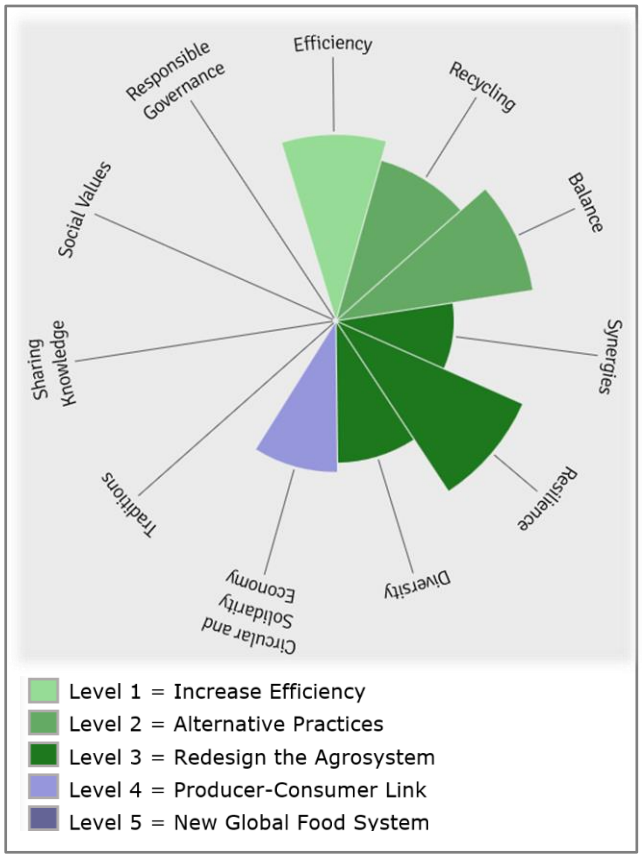

Figure: Assessment of the BLA based on FAO Elements of Agroecology and Gliessman's five levels of food system change

CONTEXT

Small-scale farming accounts for 70% of farms in Zambia, a country where more than 64% of the population lives in extreme poverty. With unimodal rainfall pattern, smallholder farmers produce one harvest per year. Zambia has experienced decreases in average rainfall, increases in temperatures, and faces repeated droughts and flooding, while soil fertility is generally low and savanna conversion a source of land degradation and GHG emissions.

OBJECTIVE

The main goal of the Better Life Alliance project is to achieve poverty reduction, sustainable land management, and improved conservation by linking smallholder farmers to market incentives while at the same time reduce GHG emissions as co-benefit from sustainable agriculture production practices.

KEY INTERVENTIONS

FIELD LEVEL

- Avoided degradation and conversion of shrubland through community conservation plans (avoid fire and conversion)
- Agroforestry expansion through promotion of alley agroforestry systems of Gliricidia (Gliricidia sepium and maize
- Support of improved soil management and manure usage in groundnut, maize, and soybean value chains, including retention of crop residues, minimal tillage, and incorporation of green manure and/or cover crops
- Reduction of fertilizer application
- Discontinuation of crop-residues burning and using it for animal feed, composting, or soil amendment instead

LESSONS LEARNED/CHALLENGES

Farmers were connected to consumer markets through a business model that provided incentives for conservation of savannah and resulted in climate change mitigation. Improved farming practices based on agroecology approaches resulted in increased yields and decreased post-harvest losses.

RELEVANT LINKS & REFERENCES

- Content summarized from Better Life Alliance Info Note: https://bit.ly/2yXVwBF
- CCAFS Summary report: https://csa.guide/csa/464

biovision
Foundation for ecological development

Biovision Stiftung für ökologische Entwicklung
Policy&Advocacy
Heinrichstr. 147
CH-8005 Zürich

www.biovision.ch
advocacy@biovision.ch