Resilient organic Farming systems: The case of the FFLGs in Uganda and Tanzania



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Outline

- Context
- Resilience in our context
- Approaching resilience in our context (The organic FFLG approach)
- •Ecological resilience (how and what?)
- Social resilience
- Economic resilience
- Conclusion
- Forward with resilience



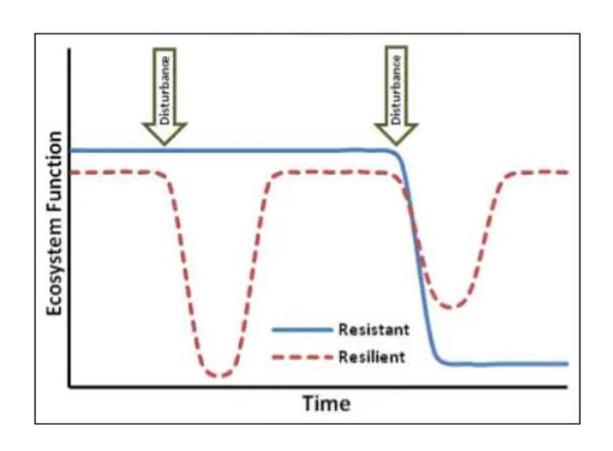
Context

- Uganda and Tanzania dominated by smallholder farmers (0.5-2 acres)
- Family farming (with unsecured land ownership)
- Majority do not have formal training in agriculture
- Varied farming conditions (soils, weather, income)
- Vulnerability to shocks and stresses
- A young population



Resilience

The ability to bounce back after a disturbance (natural or human)



Resilience (Social Economic Ecological)

The organic principles
(Health, care, Ecology and Fairness)



Disturbances



Tradition cut and burn-Rwenzori Mountain, Uganda



Prolonged drought-Chamwino Tanzania

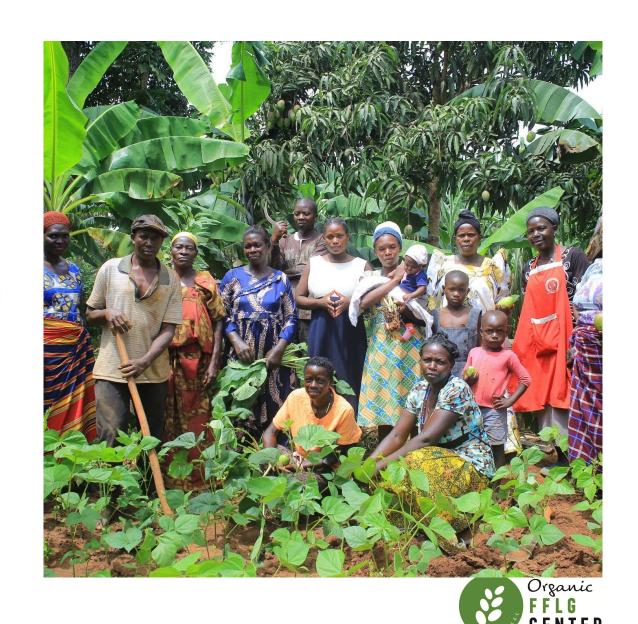


Land slides, Rwenzori mountain, Uganda



Approaching resilience in our context (The organic FFLG approach)

- •Each farm is unique and requires different resilience strategies
- •Agroecosystem analysis, integrated farm planning and GALs used to develop transition plans for the different farms
- •5-30 farmer farmer families come together, learn together, work together, sell together
- •Whole farmer family participation



Ecological resilience



Farmer in Uganda showing diversity on the Rwenzori slopes



Diversity

- Different crops (Between and within varieties-Herbal plants, Repelling plants)
- Integration of animals and plants

Diversity as a backbone to organic farming

- Food nutritional security
- Cover in case if one crop fails
- Synergy
- Recycling of nutrients
- Micro climate modification
- Natural ecosystem balancing
- Optimum space utilization



Meals	Average number of organic
pr. Day	farming methods used
2	11
3	13,5



Feeding the soil

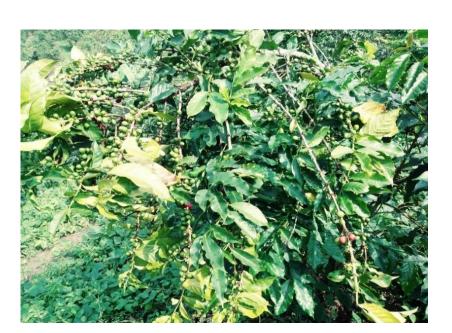
- Soil cover (OM 3%, live mulch, tree canopy)
- Legume mixtures
- Agro forestry

Fertile soil as a backbone of organic farming

Stronger crops and animals tolerant to disturbances and living soils that have a memory to recover ecosystem functions

(...in FFLGs, 3 years feeding the soil we have 10% and 13 % increase in yield of annual and perennial crops.)











Rain water harvesting

Several context specific low cost rain water harvesting technologies (Hillside Runoff Capture, Hybrid RWH and Drip Irrigation System, Spate Irrigation)

Rain water harvesting as a backbone to organic farming

- Conducive micro climate for different crops and animals
- Disrupt flash floods and their impacts
- All year around production (contributes to social and economic resilience)
- In FFLGs the aim is adoption of low cost context rain water harvesting methods on each farm









FFLG in northen Uganda developing the integrated farm plan

Social resilience



Social resilience

Planning together, Working together on each others farm (complete work of 3 days in one day)

Better planning and collaboration in the family Diverse interactions in the agroecosystem require diverse knowledge and experience shared in the FFLG







Social resilience

"... Family farming, family learning. The first manure in the field is the farmers feet..."

How social resilience is a backbone in organic farming

- •Timely implementation of activities enables catching up with short rains
- •Harmony in families enables joint solving of problems and bouncing back
- Sharing seed increases diversity
- •Sharing knowledge enables timely implementation of solutions
- •Social capital enables access to interest free loans which facilitate recovery from shocks

Economic resilience





Farmers in FFLG maintain their own road to access markets (social capital)

Economic resilience in FFLGs

- 20% increase in income
- 30% increase in sales
- Self reliance (87% farm internal systems functioning)



How Economic resilience is a backbone to organic farming in FFLGs

Avoid labour costs through working together

- Easy access to markets
- Avoid external input costs
- Produce year round and sell during scarcity at high price
- Good quality, higher price
- More quantity through collective marketing and bulking, higher price
- Joint buying saves costs
- Accumulated savings makes easy to re-invest in organic farming



Who will produce tomorrows organic food?





...hmmm, depends on how resilient today's organic farms are!



Conclusion

- Resilience is key for sustainable organic farming
- •Organic farming inherently builds the: social, economic and ecological resilience. Resilience in turn carries organic through the disturbances. It is thus a self reinforcing system. Thus worthwhile investing in resilience
- •Which aspect of resilience is prioritised depends on the context (economic resilience may enable ecological resilience and not necessarily the reverse)



Taking resilience higher

Research

- -Establish exact crop/livestock combinations that maximise resilience and productivity
- -Better crop/livestock systems with minimum damage to crop by livestock

Finance

-Farmer tailed financial products cognizant of resilience building

Institutions

- -Embrace participatory farmer learning methods
- -Enhance harmony between scientific and indigenous knowledge systems (2 eyed seeing)



When asked what the respondents

believe is most important for securing enough food in the coming year, 33% of respondents highlighted the need to adopt more resilient organic farming methods, and 23% pointed to more collaboration within their FFLG. This



THANK YOU





















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About Thaddeo

Born in the rural Rwenzori mountain, Uganda, Thaddeo Kahigwa Tibasiima (PhD) is the CEO of Kilimo Organic Farmer learning Centre (KOFLEC). Thaddeo has worked with smallholder farmers in East Africa since 2008. He has contributed to the development of the participatory organic farmer family learning group (FFLG) approach for adoption of organic farming on over 15,000 family farms with support from Organic Denmark. Thaddeo trains farmers, advocates for organic farming and conducts research on sustainable organic farming systems.

For Thaddeo, it is worth that our food systems should continue to be trusted in the hands of smallholder family farming, empower farmer families to become dignified food producers, processors, consumers and social enterprise.



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