Factors affecting adoption of Agroforestry by women and youths in Mt. Elgon Region, Uganda

C. Galabuzi[a],, J. Sekatuba[a] H. Agaba[a], G. Werikhe[b], I. Sekitto[b], S. Carsan[c], C. A. Okia[c], C. Muthuri[c]

[a]National Forestry Resources Research Institute (NaFORRI) P.O. Box 1752, Kampala Uganda
[b]World Vision Uganda Plot 15B, Nakasero Road P.O Box 5319 Kampala-Uganda
[c]World Agroforestry Center,United Nations Avenue, P. O. Box 30677, Nairobi, Kenya

INTRODUCTION: With the majority of the world's poor living and working in developing countries, investment in agroforestry will only make sense if it addresses challenges of specific farming contexts. Even though agroforestry is beneficial to stakeholders in several ways, it has received mixed reactions from farming communities in the developing countries. Accordingly, adoption of "new" technologies has not been as fast as desired (Mwase 2015). In Uganda agroforestry is spearheaded by the women and youth because they comprise a critical labor force on farm. In the Mt. Elgon region, interest in agroforestry technologies is low and yet prevailing soil and water management challenges require robust mechanism to address them. Amongst them, is the integration of specific trees/shrubs on farms. A survey was undertaken in this region to assess the factors affecting adoption of agroforestry amongst women and youths. The objectives were to i) assess the socio-economic characteristics of farmers, ii) assess the benefits from agroforestry technologies and iii) identify challenges, incentives and strategies towards adoption of agroforestry among the women and youths.

STUDY AREA AND METHODS: The study was conducted in three districts including Mbale (01°00'36"N 34°19'54"E), Manafwa (01°01'N 34°21'E) and Bududa (01°00'36"N 34°19'54"E in Eastern Uganda (Figure 1). The area supports mixed agriculture also known as the coffee–banana farming system. Within this system, agroforestry is practiced on widely fragmented landholdings (0.25-2 acres). Coffee (*Coffea Arabica* L.) is commonly grown in combination with multipurpose shade trees, while stream valleys are often planted with Eucalyptus woodlots. Data were collected using 10 Focus Group Discussions, 13 Key Informant Interviews and 170 individual household interviews. A logit model was use to analyze decisions to adopt or not to adopt agroforestry technologies on farm.

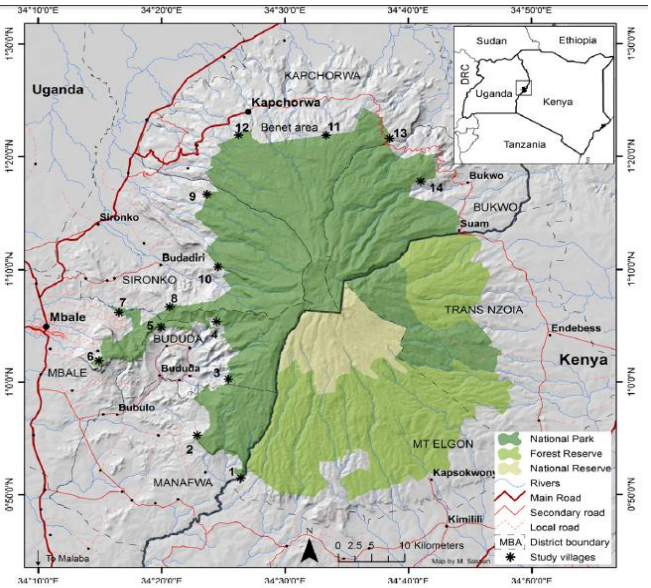

Figure 1: Location of the study districts in Eastern Uganda. Adopted from Sassen et al. 2013.

Figure 2:Constructing trenches along the slope to trap soil erosion is labor intensive in Mt. Elgon region. Photo: Bonny Woniala, 2018.

RESULTS

Up to 86% of the participant households were male headed. They owned some land and integrated trees for various purposes on farm. Over 80% of the farmers were illiterate, and used local methods/ tools to farm. As much as most of the land under cultivation was "legally" acquired, 65% of the owners did not have tittle deeds, explaining the tensions and rampant conflicts over land in the region. Almost one half of the farming households hired labor during construction of soil erosion trap trenches, land clearing, tilling and crops staking (Figure 2).

Among the factors, land (Wald χ^2=21.633, β=4.673, SE=1.0047, P>.0001) and family size (Wald χ^2= 239.129, β= 1.287, SE= .0832, P>.0001) had a positive effect on adoption. The other factors included inadequate supply of quality tree germplasm, lack of market information, limited technical knowledge, lack of capital as well as pest and disease outbreak (Figure 3).

The incentives on one hand included farmer trainings, increase in demand for tree products and access to free tree germplasm. In some places, supply of fertilizers, prevailing weather conditions, farmer cooperation and government policy on tree planting motivated farmers to adopt agroforestry.

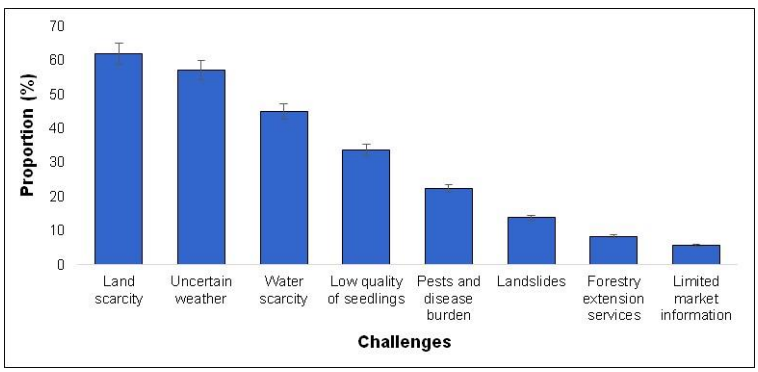

Figure 3:Challenges towards adoption of agroforestry by women and youths in the Mt. Elgon, Uganda.

CONCLUSION: Agroforestry presents an opportunity to undo the effects of deforestation including landslides, water stress and food insecurity. A careful selection of incentives for adoption is likely help encourage more farmers to adopt new technologies. The incentives should be tailored and kept updated to address specific farming challenges including measures to address soil erosion, water stress, and food security.

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