

Research Application Summary

Policy implications for wide scale adoption of sustainable land management technologies in eastern Uganda

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Abstract

This study, to be conducted in the highlands of eastern Uganda, will document existing local policies and incentive systems in relation to sustainable land use management. Various techniques, including questionnaire surveys, group discussion, and economic analyses will be used to generate data to inform policy. Best bet practices for sustainable land use management will be documented.

Key words: By-laws, incentives, land use management, Mt. Elgon, Uganda

Résumé

Cette étude, qui sera conduite dans les montagnes de l'Ouganda oriental, fournira des informations nécessaires sur les politiques locales existantes et les systèmes de stimulation en rapport avec la gestion durable d'utilisation de terre. Les diverses techniques, incluant les enquêtes sous forme de questionnaire, les discussions en groupe et les analyses économiques seront employées pour produire des données en vue d'informer le programme d'actions. Les meilleures pratiques en matière de pari pour la gestion durable d'utilisation de terre seront documentées.

Mots clés: Statuts, stimulations, gestion d'utilisation de terre, Mt. Elgon, Ouganda

Background

Land is a fundamental factor of production and is indeed Uganda's prime and critical asset in development (MFPED, 2000). Despite the fact that Uganda has a large percentage (75%) of arable land, land degradation is widespread in the country. The worst affected areas are the highlands (Zake *et al.*, 1999; Olson *et al.*, 2003), which account for 27% of land area and accommodate close to 40% of the total population. NEMA (2001) reported that about 85% of the land degradation is accounted for by soil erosion and nutrient depletion. At

household level, signs of land degradation impacts include declining crop yields and switching to crops that demand relatively lower nutrient levels. At national level, the country is estimated to lose between 4% to 12% of total Gross Domestic Product because of land degradation impacts (Slade and Weitz, 1991).

Several sustainable land management (SLM) technologies have been developed to reverse the problem of land degradation and its impacts (Keely, 2001). Mowo *et al.* (2002) reported that farmers in eastern and central Africa can increase their farm productivity by up to 5 times upon adoption of SLM technologies. However, adoption of SLM technologies is still low and inadequate policies are cited among the reasons for the limited adoption (Mmbaga *et al.*, 2007; Sanginga *et al.*, 2007). Examples of land management related policies include the land bill, local Government Act, Minimum Standards on Soil Use Act and Wetlands and River Banks management bill. Two major policy problems reported by the AHI-PAAP project in Uganda include rigid/strict land policies and policy implementation failures resulting from frequent changes in policies, lack of laws required for policy implementation, weak enforcement of laws (in cases where they have been formulated) and resistance from communities to abide by the laws.

While proximate impacts of national policies and policy reforms on land management in Uganda are well documented by Nkonya *et al.* (2004), there is hardly any information about the existing local policies and how they affect land management decisions. Besides, past projects promoting SLM technologies did not take into consideration the possible effects that local policies could have on land use and management. This study, therefore, seeks to find out the existing local policies and economic incentives in the highlands of eastern Uganda and further determine their likely influence on adoption of SLM technologies. The study will also test the profitability of the technologies because their adoption at the farm level is strongly influenced by their profitability.

Literature Summary

Land degradation is one of the major constraints to improved agricultural productivity and household welfare in most countries in East and Central Africa (ASARECA, 2004). Land degradation processes impair the capacity of ecosystems to provide critical environmental services such as fertile soils (Sanchez, 2002; Hellin, 2003; Pender *et al.*, 2004). The problem

is more complex in the highlands where land degradation is intricately embedded in the poverty trap (Sachs *et al.*, 2004). With increasing number of people to feed arising from a projected doubling of the population in the next 50 years, a major crisis is looming in the region unless corrective measures are taken now (UNPF, 2007). It is estimated that 95 million hectares of land in the region have reached a state of degradation where only huge investments can make them productive again. The total nitrogen, phosphorus and potassium (NPK) loss is estimated at 1.5 million tons (Henao, 2006).

Study Description

A multi-stage (six stages) cluster sampling procedure involving a combination of purposeful and random sampling procedures will be used to draw the sample. The first step will be purposive selection of districts, counties, sub-counties, parishes and villages where the AHI-PAAP project is operating. Project sites will be purposively selected in order to increase the likelihood that farmers in these areas will be practicing at least one of the SLM technologies introduced by the project. The second stage will be the simple random sampling of households from the list of villages, ensuring that villages with larger population have proportionally greater chance of containing a selected household. To facilitate this final stage, lists of names of households in each selected village will be obtained from the Local Community leader or any other key informant such as the field extension officers and technical support organisations operating in the study areas. The names will be assigned numbers and using a table of random numbers, a total of 384 households will be selected for interview.

A checklist will be used during the exploratory survey. During the main survey, primary data will be collected through face-to-face interviews. A pre-tested semi-structured questionnaire will be the main instrument for collecting quantitative and qualitative data required for the study. Additional information will be obtained from focus group discussions (FGDs) and key informant interviews with community leaders, farmer groups, field extension workers and technical support organisations operating in the study sites. In each district and for each study site selected, meetings will be held in three categories of FGDs, one for men alone, another one for women only and another one for the youths.

Expected Findings

The study is expected to document evidence-based findings about possible ways of making the policy process participatory,

particularly involving local people in policy decision making process. It will also identify possible policy reforms to ensure that policies are appropriate and localized. It will also provide recommendation for developing strategies for effective policy implementation to facilitate adoption of SLM technologies. In addition, the study will recommend economic incentives to farmers that hopefully will facilitate wide scale adoption of introduced SLM technologies. Additionally, the study will document best bet SLM technologies for farmers in the highlands of eastern Uganda.

Research Application

The findings of this study will be used to advocate for appropriate policy reforms and provision of incentives to farmers to encourage wide scale utilization of sustainable land management technologies.

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