

Farmers' preferences for watershed conservation incentives in the Mt. Elgon region, Uganda

Preferenties van boeren betreffende stimulansen voor de conservering van stroomgebieden in de Mt. Elgon regio, Oeganda

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Abstract

The Mount Elgon region in Eastern Uganda is an infamous example of how overpopulation, deforestation and unsustainable agriculture can lead to serious degradation of the ecosystem. Strategies that promote the conservation of ecosystem functions in this area are thus urgently required. However, the environmental costs created by overexploitation of natural resources is external to the economic system. Payments for Ecosystem Services (PES) is a policy instrument that internalises these external costs by making ecosystem service users compensate land users for environmentally friendly behaviour.

This study assesses the potential of PES to enhance the supply of soil and water related ecosystem services, such as erosion control, reduced landslide risk and improved water quality, in the Mount Elgon region. This is achieved by evaluating past and current PES project, scoping for potential ecosystem service buyers and assessing the preferences of upstream land users for conservation contracts. The first two objectives are achieved using qualitative methods, while a discrete choice experiment is used for the latter objective. The choice experiment assesses the preferences of farmers that cultivate riparian land for three soil conservation techniques and different compensation methods.

The results indicate that both from the side of the ecosystem service seller and buyer, there is great interest in a PES project. At least one possible buyer was identified and farmers have a high preference for entering a conservation project. However, preferences for contract attributes are heterogeneous among farmers. Two groups of farmers can be distinguished, the largest of which has a positive preference for all three soil conservation techniques of the choice experiment. The other group has a strong negative preference towards creating a buffer along the river. Furthermore, the results point to three constraining factors: land, labour and farming equipment. Finally, farmers have highly negative preferences for a communal payment. PES designers should take these preferences and their heterogeneity into account when designing an effective and cost-efficient project.