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## The Effects of Green Microcredit on Land Use Practices among Rural Farmers in Sudan? The Battle Ahead

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### Abstract

Although green microcredit is seen as a viable tool being used by NGOs and government institutions to protect and use the natural resources in a sustainable manner, much more needs to be done for the security and sustainability of livelihood. This study intends to assess the effects of green microcredit on land use practices in rural Sudan. On top, it tries to answer the question - how farmers would use sustainably the green microcredit (finance for specific activities) to protect the ecological services and to enhance livelihood security? More precisely, the paper also attempts to explore the perceptions of farmers towards green activities that do not involve degradation of natural resource or any chemical fertilisers and insecticides. A survey of 450 households (250 represent credit users and 200 non - credit users) in 10 different localities in North Kordofan State was carried out from August through mid-October, 2014, using structured questionnaire. A multi-stage stratified random sampling technique was used for the selection of sampling. Subsequently, focus group discussions with the key informants in the village communities were also conducted. Descriptive statistical analysis and dynamic non-separable farm household model were applied to analyse the data. The results of descriptive analysis show that 90 % of rural farmers repayed their loans on time, while 88 % of rural farmers have used their loans in green activities. Interestingly, the results of the model simulation demonstrate that, about 92 % of households decided to invest in crop production, of which 23 % and 12 % did so in livestock raising and forest activities, respectively. While only 8 % of households have used their loans for non green activities. To avoid misleading results, a test of auto-correlation, heteroscedasticity and multicollinearity for variables is carried out using relevant commands in Stata software. The study suggests that in order for green microcredit to be an efficient tool for promotion of land use practices, larger and longer-term credit services at lower interest rates should be provided to farmers who agreed to invest in green activities. This could be possible through improving market facilities and providing training to the farmers in remote areas.

**Keywords:** Dynamic farm household model, green microcredit, livelihood, perception