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“Bridging the gap between increasing knowledge and decreasing resources”

Sustainability Analysis of PES: Case Study of Sloping Land Conversion Program in China

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Abstract

Payment for ecosystem services (PES) has attracted considerable attention around the world recently, and a rapid progress on PES research and practice has been achieved. However, PES still faces many difficulties, for example some case studies of PES show, e.g. in land use change programs, that the phenomena of reconverting often happen especially when the payments end. In this article, we chose China-Sloping land conversion programme as example, based on the data from a farmers' survey, to analyse factors which may affect the participants' decisions of keeping the forest or reconverting from forest back to croplands.

To alleviate ecological problems such as serious soil erosion and extreme flooding, China implemented Sloping Land Conversion Program (SLCP) since 1999 firstly in western China, then this program spread quickly to other parts. Till now it led to millions of hectares of marginal croplands being converted to forests across 25 provinces involving 124 million people and costing the government 358 billion Yuan (US\$51.1 billion).

Although SLCP has extensively been implemented in China, sustainability of the programme is not sure. Based on the survey data of the households in the SLCP area in Anhui province, this paper analyses the sustainability of the programme from farmers' perspective, who are the direct implementers of the program. As the compensation will end in a few years, the decisions of farmers whether to keep the forest or reconvert them back to cropland directly influence the program's sustainability. Current studies on SLCP mainly focus on West China, very little is done in southern China. This study selected Anhui Province which is located in South China as study area, and there will try to fill the locational gap.

A decision making model using Tobit approach was employed to analyse the data. The results showed that factors as income source, share of SLCP to cropland, labour availability, importance of subsidies for household's income, whether cropland can produce enough food for households etc. have significant influence on the decisions of participants.

Keywords: Payment for ecosystem services, sloping land conversion program, sustainability, Tobit