



Abstract

Humans have altered much of the natural land cover, resulting in ecosystem degradation and biodiversity loss worldwide. Many countries have implemented conservation payment programs for agricultural land conversion to counter this trend. However, the sustainability of ecosystem services from these programs is unknown due to uncertainty about land uses when payments cease. We studied post-program land use plans for China's Grain-to-Green Program (GTGP), one of the world's largest ecosystem service payment programs, in Wulong Nature Reserve for giant pandas. Although farmers in the reserve planned to reconvert only 22.6% of the land that was enrolled in the GTGP to agriculture after payments cease, these GTGP plots are distributed across the landscape and may be important for many ecosystem services. Along with regional differences, the amount of GTGP land households planned to reconvert was significantly reduced by the respondent's age and off-farm household income and was significantly increased by the number of household laborers and total amount of land the household had enrolled in the GTGP. Thus, regional, demographic and economic factors should be considered to more efficiently sustain conservation benefits from payment for ecosystem service programs.

Keywords

China; Grain-to-Green Program; Post-program land use; Sustainability; Tobit; Wulong Nature Reserve

Figures and tables from this article:

