



Experts' perceptions of the sloping land conversion program in the Loess Plateau, China



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ABSTRACT

China's Sloping Land Conversion Program (SLCP) is the world's largest payment for ecosystem services program for improving ecological conditions and farmers' livelihood. Communicating the SLCP outcomes across diverse stakeholder groups in ecological, socio-economic, political and institutional contexts can facilitate the effective implementation of the new round of the SLCP. Experts from various fields involved in the SLCP have developed good connections with governments, agencies, and farmers; therefore they can play an invaluable role in informing urgent policy changes. This study is based upon 24 interviews with the SLCP experts with the aims of assessing their perceptions of ecological, economic, political and social impacts of the SLCP on the Loess Plateau of China, and then gathering their policy recommendations to ensure that the new round of the SLCP would be implemented efficiently. Content analysis based on the grounded theory is used in present study. Judging from expert-based consensual statements from this study's interviews, the main concerns about the first round of the SLCP on the Loess Plateau are that the dramatic increase in the farmer's income and livelihood is mainly from off-farm sources rather than the SLCP subsidy, that equitable government compensation is dependent on the outcome of the SLCP, that the aggressive SLCP causes soil drought which have negative effects on ecological restoration, and that the stakeholders' interaction could be improved. Based on the analyses of the experts' interviews, the recommendations are summarised as follows: strengthening the farmers' environmental awareness and vocational skills, establishing multi-source financial supports and flexible compensation mechanisms, establishing participatory planning that requires stakeholder involvement especially farmers and insisting that scientific studies on the ecological restoration of the Loess Plateau must be shared with local governments and farmers.

1. Introduction

China's Sloping Land Conversion Program (SLCP) was launched in 1999 and is the most significant ecological restoration project in the World. The SLCP is a typical payment for ecosystem services program and its main objective is to improve ecological conditions and rural households' livelihood. It uses a public payment scheme to propel the participation of rural households and to make the program acceptable, appealing and stimulating. Between 1999 and 2012 the SLCP afforested 24.86 million hectares (M ha), including 9.06 M ha of farmland and

15.8 M ha of barren hills and wasteland, and more than 32 million rural households were directly involved (Delang and Wang, 2013; Delang and Yuan, 2015). The SLCP has unambiguously reduced soil erosion and sandstorm hazards, promoted agricultural structural adjustments, optimised agricultural planting structures, increased farmers' income and improved the livelihood of hundreds of millions of people (Tang et al., 2013; Lin and Yao, 2014; Chen et al., 2015a; Delang and Yuan, 2015; Liu and Lan, 2015).

Farmers, as the main SLCP stakeholders, have been the most efficient in terms of participation and feedback-providing. The

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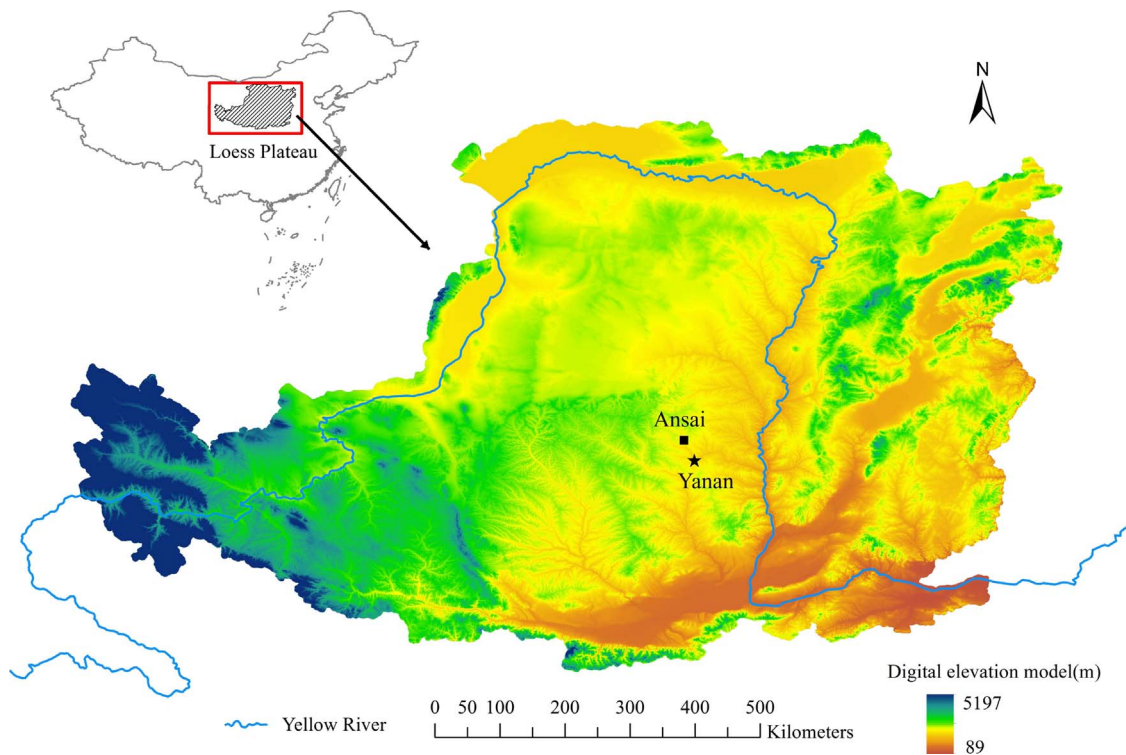


Fig. 1. The location of the Loess Plateau in China.

implementation of the SLCP has brought about changes to the farmers' lifestyle, sources of income and the security of farmers' livelihood. To help policy makers establish extended policies that can enhance the sustainability of the achievements, many previous studies focus on the farmers' perceptions and motivations in order to identify the underlying factors determining their intentions and behaviours (Hu et al., 2007; Cao et al., 2009; Chen et al., 2013). The farmers' socio-economic characteristics, including their sex, education, age, location, number of family members, crop land area, distance from the house to land and per capita annual net income, are closely related with their attitudes and behaviours towards the SLCP (Cao et al., 2009; Bo et al., 2014). Moreover, the amount of subsidies, the duration of the program and the farmers' degree of satisfaction with the compensation are the most significant factors affecting farmers' willingness to preserve the achievements of the SLCP as well (Cao et al., 2009; Chen et al., 2013; Deng et al., 2016).

The existing studies regarding the interests and concerns of farmers might provide helpful insights to improve the SLCP policies; however, the data has some shortcomings because the first round of the SLCP was generally conducted via a broad top-down approach and involved several irresponsible management decisions: simplified contract structure, insufficient consultation with local communities and rural households, and insufficient consideration of farmers' willingness (Bennett, 2008; Chen et al., 2015a). And the inconsistent goals between governments and farmers have reduced the efficiency of the program (Song et al., 2014). To our best knowledge, there will be research limitations only from farmers' perspectives. Moreover, the divergent interests of central and local governments have been realized as a major factor that led to inefficient implementation of the SLCP (Chen et al., 2015a; Delang and Yuan, 2015; He and Sikor, 2015). Therefore, communicating the SLCP outcomes across diverse stakeholder groups, especially experts, in environmental, socio-economic, political and institutional contexts can facilitate effective implementation of the new round of the SLCP (Reid et al., 2006; Adhikari and Boag, 2013; Hauck et al., 2013; Chen et al., 2015a).

Experts may clarify different roles of farmers and governments in

the SLCP and may provide policy advice and present their ideas in highly politicised contexts when interacting with policy makers. Experts, in this context, represent individuals with specialized knowledge relevant to our research questions. Taking the experts' perspectives on the issues that arose in the first round of the SLCP into consideration can improve the validity and efficiency of the new round of the program. For example, knowledge generated from expert opinions has been widely used to solve problems related to environmental hazards (Rust, 1988; Messing et al., 1989). Expert knowledge is always based on the long-term experience and readily available (Gonzalez et al., 2007). Experts provide society with knowledge that is an important resource for making policy when promoting technological developments and in the project implementation process (Pregernig, 2000; Scheba and Mustalahti, 2015). Various examples have demonstrated the effectiveness of integrating experts' knowledge into operations of environmental management and ecosystem services (Giessen and Böcher, 2009; Kleinschmit et al., 2009; Nightingale and Ojha, 2013; Ruskule et al., 2013; Scheba and Mustalahti, 2015). Therefore, integrating experts' opinions can enhance interest and engagement among different stakeholders to ensure that the program is implemented in an efficient manner. In conclusion, the research questions in this study are how to meet the demand of ecological construction and development of regional economy at both country and local levels, and how to realize the efficient utilization of limited resources and achieve coordinated development of ecology and economy in the new round of the SLCP. In this study, we will assess the perceptions and opinions of experts in forestry, agriculture, ecology, economics and social sciences on the first round of the SLCP in the Loess Plateau; then we will summarise their policy recommendations to effectively improve the performance of the new round of the SLCP.

The structure of the paper is as follows: Section 2 presents the methodology and data in more detail; Section 3 presents the results from the experts' perceptions and recommendations; and Section 4 presents the discussion and conclusions.

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