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“Bridging the gap between increasing knowledge and decreasing resources”

Economics Analysis in Rice Production Providing Environmental Services in Central Region of Cambodia

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Abstract

Payment for environmental services is a programme providing payment to people who join to preserve the environment or keep the environment clean. These payments will contribute to decrease poverty and involve both consumers and suppliers to promote a clean environment through direct and indirect payments funded by environmental service users. This study compares the cost-margin and efficiency of using inputs between rice production providing environmental services and rice production not providing environmental services. It has two specific objectives: (1) define rice production in the study area; (2) analyse the cost-margin and efficiency of using inputs to each type of rice production. Three villages in the central region of Cambodia were selected. To get both qualitative and quantitative data, semi-structured interviews were conducted with 6 key farmers, group discussions were held with farmers and other stakeholders involved in the rice sector, and 86 farm households were selected for an interview based on a quantitative questionnaire.

The study identified 6 rice types: early duration maturity rice, recession rice, medium duration maturity rice, long duration maturity rice, floating rice and organic rice growing in different rice ecosystems. There are currently many changes in rice production in the study area, because many companies and farmers invest much capital in short period rice (early season and recession rice) by building reservoirs, cutting flooded forests, which are fish habitat in the wet season, preparing land, using intensive techniques, modern agricultural equipment and increasing the use of chemical fertilisers, pesticides and herbicides. According to the farmers' perceptions and experiences, these changes in rice production have a strong impact on the environment and human well-being. As a result, the benefit and efficiency of using inputs in rice production providing environmental services is higher than in rice production using much chemical fertilizer, pesticide and herbicide. Value added by the consumers to rice production providing environmental services improves farmers' income and has less negative impact on the environment.

Keywords: Cambodia, economics efficiency, environmental services, rice production