

Can government-sponsored sustainable agricultural farming practices reduce land decay through crop biodiversity conservation under production uncertainties?

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Under income uncertainties, agricultural farmers might be influenced by government-sponsored programs that might lead to higher income opportunities by focusing on monoculture at the expense of crop diversification strategy. However, the latter strategy is likely to reduce production uncertainties for agricultural farmers and hence, ensuring sustainable agricultural development in the targeted area. A theoretical model is proposed to understand such possible economic trade-offs between high income-lower crop diversification and lower income-higher crop diversification outcomes resulting from government-sponsored programs and institutions. Empirically testing the findings of the theoretical model in low-income regions that rely on conventional agriculture, such as South Asian countries of Bangladesh and Nepal, could provide new policy insights on encouraging farmers to adopt appropriate crop biodiversity conservation practices that not only reduce land decay but also ensure sustainable income flows under abject poverty.

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