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Maize Boom in the Uplands of Northern Viet Nam: Economic Importance and Environmental Implications

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Abstract

In Viet Nam, the demand for meat products has grown dramatically due to rapid economic growth and urbanisation and is expected to further increase in the future. Being the primary source of feed for the country's livestock and poultry industry, maize has become the second most important crop after rice. While this maize boom has the potential to reduce rural poverty, it promotes the expansion of agricultural cultivation into fragile agro-ecological zones, often leading to deforestation and soil degradation, especially in the uplands. Using empirical evidence from the mountainous district of Yen Chau in north-western Viet Nam, the objective of this paper is to investigate the current economic importance and the environmental implications of maize cultivation. Furthermore, applying a Tobit regression model, particular emphasis is placed on the identification of factors that influence farmers' decision how much area to allocate to maize in order to derive research and policy recommendations.

Maize is the dominant crop in Yen Chau, covering most of the uplands and generating 65% of households' total cash income, on the average. Although farmers are well aware of soil erosion on their maize plots, effective soil conservation measures are rarely practised. Maize is attractive to farmers from all social strata, notably the poor. It is comparatively easy to obtain in-kind credit for maize production from maize traders or via village-level institutions. Although the interest rates charged are typically high, this is attractive especially for the poorest farmers living in remote areas. We conclude that access to low-interest formal credit should be enhanced to facilitate crop diversification and mitigate farmers' risk of being caught in a poverty trap when maize revenues plummet due to pests, diseases, price fluctuations, or adverse weather conditions. To address the problem of soil degradation in the maize-dominated uplands, research is needed on soil conservation options that are economically more attractive than those promoted thus far. Since the livestock sector in Vietnam is rapidly growing, technologies that produce feed and are easily combined with the current production of maize may be particularly promising.

Keywords: Environmental sustainability, maize area expansion, Tobit regression, Viet Nam