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Does Diversification Reduce Inequality in Farming? the Case of Smallholder Rubber Farmers in Southern China

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Abstract

Inequality is one of the main consequences of economic growth. Over the last three decades the rapid expansion of rubber farming driven by high prices for natural rubber has occurred among formerly small scale subsistence farmers in the ethnically diverse autonomous region of Xishuangbanna in Southern China. Many farm households increasingly relied on rubber as their main source of income. It has resulted in rising inequality among local farmers while at the same time has increased vulnerability to downside risks. As rubber prices declined since 2010s such risks have materialized and a change in livelihood strategies is taking place. Moving away from rubber monoculture and returning to a more diversified farming system may be a good coping strategy for individual farmers and may reduce existing inequality among farming.

This study explores the connection between rural livelihood diversification and equity among smallholder farmers in Southern China. We use panel data of some 600 rubber farmers from Xishuangbanna in 2012 and 2014, i.e. before and after the snapping decline in rubber prices. Livelihood diversification is expressed by computing Shannon for land and labour. We employ two models in this study: (i) a Tobit model to identify the determinants of livelihood diversification; (ii) OLS and Quantile regression models to analyse the correlation between diversification and household income. Analysis of the association between diversification and inequality is further conducted conditional on the predicted income from (ii). Initial results show that the income inequality for the households performing less diversity of livelihood strategies is worse-off due to the decline in rubber prices, while the change for other households is insignificant. Wealthier farmers who normally own larger scale of rubber lands depict less livelihood diversity for both labour and land. While accumulating more wealth in the booming rubber economy, those farmers sacrifice their livelihood mobility due to their overdependence on rubber farming. Poorer farmers, however, are more efficient in response to the declining rubber prices because of their more diverse strategies for land and labour. In this regard, the crisis in rubber farming might be a chance to reshape the income distribution.

Keywords: China, Income inequality, livelihood diversification, Smallholder rubber farming