## Summary

## **Essays on Impact Evaluations of Land Consolidation Program in Vietnam**

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In Vietnam, approximately 65% of the population lives in rural areas and operates farms as the primary means of living. Agricultural land is one of the important production factors. However, farmland in Vietnam is small-scale and fragmented, which raises production costs such as travel costs between plots and monitoring costs of dispersed plots. Moreover, it prevents farmers from using machine and, hence, fails to utilize the economy of scale, which negatively affects land-use efficiency and agricultural growth. Land consolidation, which is defined as restructuring fragmented plots to form a larger plot, has often been suggested as a good instrument to deal with land fragmentation.

This dissertation evaluates the impact of a land consolidation program (LCP) using a case study of two provinces in rural Vietnam. Under these programs, local governments conducted collective and centralized plot exchanges based on a top-down plan, merging small plots into larger ones, and reallocating land to farmers. They played the dominant role in planning, design, construction, and supervision during the whole process.

The first main chapter examines the economic and social impacts of the LCP using five-wave household panel data from the Vietnam Access to Rural Household Survey (VARHS 2010-2018). I use a sample of more than 700 farm households, of which 40% participated in the plot exchange started in late 2012, and employ a Difference-in Differences (DID) approach. Empirical results suggest that the LCP promoted technology adoption, reduced on-farm labor inputs, and increased migration. However, there is no program impact on land investment, land transfer, and land productivity. In addition, the program led to a significant reduction in land use right certificates (LURC) from 2012 to 2018. Specifically, households lowered approximately 50% LURC share in the first four years; and about 25% in the sixth year since the program started. Moreover, the regression results suggest that households reduced collective action in farming and mutual trust with people within the community. The decline in land tenure security and social capital may have some implications for the program impacts. The results are robust using alternative approaches such as DID with propensity score matching; and DID with multiple time periods, which was developed by Callaway and Sant'Anna (2021).

The second main chapter investigates if political connections play a role in this land consolidation program. I define household's political connections by identifying whether any relative living outside the household works in a bureaucratic position with political power. Using the four latest rounds of the VARHS 2012-2018, I found that political connections neither affected the program selection process nor the progress of obtaining LURC. The households participating in the LCP reduced the LURC share regardless of their political connection status to a similar extent (approximately 40 percentage points). In addition, there is no evidence that connected households achieved higher agricultural productivity than those unconnected.

The dissertation provides some policy implications for policy makers in designing the land consolidation program, specifically, improving land tenure security as the key factor for farmers so as to fully exploit the potential benefits of land consolidation in agricultural production.