## Resilience against shocks in developing countries: Evidence from panel data for rural Southeast Asia

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## Abstract

The question "How resilient are rural households?" is becoming an important research issue, especially in the context of climate change and extraordinary events such as the Covid-19 pandemic. The resilience of rural households against shocks is now placed at the top of the discussion agenda, along with fighting climate change, for sustainable development. The reason is that unexpected shocks are significantly driving rural households around the globe into poverty. The global extreme poverty is forecasted to rise due to the disruption of the Covid-19 pandemic compounded by regional conflicts and climate change pushing millions of people to extreme poor. This type of events might further hinder the implementation and achievement of the Sustainable Development Goals by 2030. Studies on household's resilience capacities and shock coping strategies are rather unbalanced. While the coping strategies of rural households are wellexamined, evidence on resilience capacities against shocks is scarce. Besides, available research on household's resilience capacities pays more attention to identify the determinants of resilience capacities leaving the examination of their impacts nearly untouched. One reason is that there is a lack of data for socio-economic studies, especially panel data, which incorporate the concepts of resilience. Our study, therefore, aims to fill these research gaps. In this study, we use a balanced panel data from the Thailand - Vietnam Socio-Economic Panel (TVSEP) to estimate the resilience capacities of rural households and communities and examine the effects of resilience capacities on mitigating shocks' impacts and improving household welfare. Our sample includes the data of 1324 identical households from Thailand and 1363 identical households from Vietnam collected in 2010, 2013, and 2016. We employ a generalized structural equation model (GSEM) to estimate two latent variables representing resilience capacities at household and community levels. The results from the GSEM models show that households and communities in Thailand have higher resilience capacities than those in Vietnam. Regarding the second research question, we use improved resilience capacities to estimate their correlation with shock losses in different terms, namely total losses from shocks, losses from covariate shocks, and losses from idiosyncratic shocks. The results from fixed-effects estimations show that an improved resilience has a significant and negative correlation with shock losses. This finding implies that higher resilience capacities help reduce the adverse impacts of shocks. Besides, better resilience capacities can also prevent rural households from reducing their consumption to cope with shocks. Our results further show that the improved capacity of household and community resilience can help rural household increase food expenditure and reduce medical expenditure.

Keywords: Resilience; reported shocks; panel estimation; GSEM; control function.