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The interdependence of different measurements of natural resources dependence and poverty: Comparative evidence from Vietnam

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Abstract

Poverty and climate change are two major problems developing countries face with severe impacts on wellbeing. While environmental resources support poor households by providing firewood and other non-timber forest products (NTFP), natural resource extraction worsens degradation. The literature shows that NTFP can support poor households' tight budgets and dependence on NTFP is higher for the poorest households. This can be seen as a coping mechanism in times of shocks. Dependence of households on NTFP has been measured mostly by relative income from NTFPs which may not capture dependence correctly if NTFPs are mainly used for home consumption. Additionally, poverty is defined by a scarcity of money but it also captures other aspects of life such as no access to health services. To capture this, researchers developed multi-dimensional poverty indices (MPIs).

Natural resource stocks have been reduced due to economic growth in Vietnam making research especially important. Additionally, the impact of households' dependence on environmental resources on multidimensional poverty has not been studied. As MPIs incorporate aspects such as health and education the results may differ from poverty solely measured by income leading to different policy implications and giving a more deeply insights on the determinants of poverty and dependence on NTFPs.

Therefore, we use a large socio-economic panel data set from Vietnam from 2013 until 2017 to calculate an index measuring dependence on environmental resources (EDI) and a MPI. The aim of this article is, thus, to give a step-by-step analysis to show the different results using different measures for natural resource dependence and poverty of poor rural households in Vietnam.

The results show that dependence on natural resources increases poverty independent on the measurement of poverty and environmental resource dependence. The effect is largest if we use monetary poverty and relative income from natural resources. However, the results are most significant when using MPI and the EDI. This implies that it is important to account for the measurement of poverty and the dependence on natural resources when policy makers try to address poverty as well as environmental issues by restricting the access to forests or non-forests sites for collecting.

Keywords: Climate change, climate change adaptation, multi-dimensional poverty, natural resource dependence, natural resource extraction, poverty