

The Role of Social Capital in the Adoption of Firewood Efficient Stoves in the Northern Peruvian Andeans

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Abstract

This paper explores rural households' adoption of a new cooking technology in the Northern Peruvian Andeans. It exploits a development intervention which distributed and installed at no cost, firewood efficient stoves in the rural communities of Chalaco District. Using first hand data, collected from the beneficiary villages, this research explores the interaction between village adoption patterns, village social capital and household level adoption. In first place this study shows that not all stove adopters influence adoption decisions in the same manner; only adopters who did not experience problems with their own stoves have a positive effect on the household's likelihood of adoption. In second place, it is shown that bonding social capital significantly affects the likelihood of adoption; more precisely, the results indicate that the impact of others adoption on the household's adoption decision is significantly higher in villages with stronger bonding links. This result constitutes the most important contribution in this paper and indicates that social capital plays an important role in the diffusion of information within the village. In this study, measures of social capital were collected prior to the intervention; therefore, it is not likely that the adoption process drastically influenced village social capital; in other words reverse causality should not be a critical issue in identifying the effects of this social variable. The results in this paper constitute strong evidence towards the presence of social learning during the stove adoption process. Village unobservable factors are not likely to drive the observed patterns in the data; it is also shown that village success in adoption has a negative effect on the decision to uninstall the stove among beneficiary non users and that this effect is also increasing in village bonding links. The results point to the importance of village social structures in the success of development interventions.

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