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“Solidarity in a competing world —
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Collective Action Effects on Farm Productivity and Efficiency of Rice Producers in Vietnam

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Abstract

Rice is an important staple food in Vietnam. Increasing productivity and efficiency of its production could therefore reduce poverty and food insecurity among the rural farmers. Despite the extensive literature on efficiency and productivity determinants of rice production, empirical work on effects of collective action has remained underrepresented so far. To close this research gap, we analyse effects of collective action on productivity and technical efficiency from a sample of 280 specialty rice (SR) farmers randomly selected from the Red River Delta in Vietnam, consisting of 170 producers in specialty rice farmer associations and 110 non-members producers. The results reveal that expenditure on labour and chemicals variables positively contribute to specialty rice productivity while expenditure on other costs has a negative sign. Estimates of the stochastic frontier analysis show an average technical efficiency of 77 %, implying that specialty rice production could potentially be increased by 30 % without raising the current inputs levels. The average technical efficiency of specialty rice producers ranged between 50.4 % and 97.8 %. With regard to the SR farmer associations the average technical efficiency are 79.4 % and 73.5 % for members and non-members respectively. Furthermore, specialty rice association membership has a positive significant effect on farmers' technical efficiency, however the magnitude is small: 9.4 % ($p < 0.01$). That might be due to the fact that many members do not fully respect the technical protocol of their specialty rice associations. Other factors such as planted area under specialty rice, gender and off-farm employment of the household head, and rice farming experience significantly contribute to specialty rice production efficiency ($p < 0.05$), whereas advancement in age of household head reduces production efficiency ($p < 0.1$). There is need to develop and enhance specialty rice farmer associations to increase producers' efficiency. Based on the empirical findings, other wider policy recommendations are proposed.

Keywords: Collective action, specialty rice, stochastic frontier analysis, technical efficiency, Vietnam