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Farm Household Adjustment to Price Shocks in Thailand

SONGPORNE TONGRUKSAWATTANA¹, ERICH SCHMIDT², HERMANN WAIBEL¹

¹*Leibniz Universität Hannover, Institute of Development and Agricultural Economics, Germany*

²*Leibniz Universität Hannover, Environmental Economics and World Trade, Germany*

Abstract

The 2008 price crisis in the world markets for fuel, chemical fertiliser and agricultural commodities, including rice, came as a shock to producers and consumers. While rice producers in principle will gain from high international prices of rice these price effects were not completely translated to equivalent increases in farm gate prices. However, the 2008 food price crisis may have raised the expectations of rice farmers even in low productivity areas of Northeastern Thailand and prompted them to intensify production in spite of price hikes for chemical fertiliser and fuel. The data collected in three provinces in Thailand (Buriram, Ubon Ratchathani, Nakon Panom) under the DFG research project “Impact of Shocks on the Vulnerability to Poverty: Consequences for Development of Emerging Southeast Asian Economies” provides a good basis to study adjustments of rural farm households to these recent price changes. On the basis of a mathematical programming model using the concept of typical farm households, the effects of adjustments decision on household income-generating activity to changes in relative prices was simulated. Results show that adjustments are strongly influenced by the household’s resource endowment and their objective function. Households with a high share of non-residential household members and those who put emphasis on household food security are unlikely to show a strong supply response. Under a profit maximisation regime, however, an expansion of rice production is more likely to take place. Incorporating risk into the model allows the analysis of the effects of price changes on expected poverty by comparing cumulative distribution functions of household income with existing provincial poverty lines.

Keywords: Farm households, household adjustment, price shocks, typical farms