

# The different effects of risk preferences on the adoption of agricultural technology: evidence from a rural area in Cambodia

Daichi Shimamoto<sup>a,b</sup>, Hiroyuki Yamada<sup>c</sup>, and Ayako Wakano<sup>d</sup>

<sup>a</sup> Faculty of Political Science and Economics, Waseda University, Tokyo, Japan

<sup>b</sup> Research Fellow, Japan Society for the Promotion of Science, Japan

<sup>c</sup> Osaka School of International Public Policy, Osaka University, Japan

<sup>d</sup> Doctor student, Graduated School of Economics, Osaka University, Japan

## Abstract

This paper investigates how farmers' risk attitudes affected the adoption of agricultural technology in a rural area in Cambodia. We incorporated prospect theory to farmers' utility function and examined the effect of the risk attitude of farmers to the adoption of two technologies: adoption of a moisture meter for measuring the moisture content of seeds, a recently introduced post-harvest technology, and a modern rice variety that was introduced in the 1990s. The results indicated that risk averse farmers adopted a moisture meter to measure the moisture contents of seeds significantly. With respect to the modern rice variety, farmers' risk attitude did not affect the adoption. Our results and the results of a previous study imply that the type of risk faced by farmers at the time of decision-making of its adoption partly determine the effect of risk attitude on agricultural adoption.

Key word: prospect theory, risk preferences, technology adoption

JEL codes: O14, O33