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Title: Comparison of Targeting Methods for the Diffusion of Farming Practices: Evidence from Shrimp Producers in Vietnam

To identify a targeting method which can diffuse accurate agricultural information to farmers, this study examines which targeting method (i) improves the knowledge of good farming practices of the treated and their neighbors the most, (ii) enhances information sharing with their neighbors the most, and (iii) improves the farming knowledge of those who receive information from the treated.

To test these research questions, a baseline survey was conducted in Vietnam in September 2016 to collect information from 173 shrimp farmers. The data include information on shrimp farmers’ social networks and better management practices (henceforth, BMPs) knowledge, as well as their socio-economic characteristics. 40 shrimp farmers were invited to our BMPs workshop in December 2016 to disseminate BMPs to the farmers. The participants were selected using three targeting methods. Treatment group 1 includes farmers selected by simple random sampling (SRS), while treatment group 2 includes individuals chosen by systematically unaligned random sampling (SURS) using individual location information. Treatment group 3 is selected using social network targeting (SNT). In August 2017, we conducted a follow-up survey to investigate how well shrimp farmers’ knowledge of BMPs improved in comparison to the status before our treatment.

Using the balanced panel data, this study employs the difference in difference and two-way fixed effects models to test the research questions mentioned above. As a result, this study identifies that SRS shows the highest increase in BMPs knowledge in comparison to other treatments. Second, systematically unaligned random sampling SURS shows a lower improvement in BMPs knowledge than SRS. On the other hand, unlike other groups, treated farmers in SURS increase their neighbors’ scores. Third, SNT increases information sharing between villagers in the treated village, but untreated farmers who receive information from treated farmers of the SNT group have a lower improvement score in their BMPs knowledge.

These findings can conclude that SNT appears to be a method to disseminate information to more people, and SURS may be suitable to enhance the knowledge level of neighboring farmers. However, both the methods are less likely to deliver accurate information than SRS owing to the bias generated by the samplings.