Eliciting Demand for Flood Insurance under Climate Change: A Choice Experiment Approach
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The purpose of this study is to unveil the nature of individual’s preference for PPP flood insurance alternatives under climate change using the choice experiment method and a case study in Tainan City in Taiwan. Our estimates shows that respondents who perceived increasingly higher risks in agriculture and fishery industry were less likely to buy flood insurance. Several reasons could account for their inactiveness in insurance purchase, including insufficient knowledge and financial capacity, over-reliance on government relief, and the lack of diverse insurance alternatives to meet local industrial needs. The simulated market penetration under different climate scenarios also reveals the market potentials do exist and will grow in the future while climate conditions get worse.

1. The Analytical Framework for Adaptive Tools under Climate Change

2. Survey on Risk Perceptions and Adaptation

3. Sampling Districts

4. Risk Ladder and Choice Experiment

5. Nested Logit Model

6. Market Share Simulation under Climate Change

7. Summary

Our results shows that respondents who perceived higher risks on losses and experienced psychological distress are more likely to buy insurance. The willingness to pay for flood insurance under different climate scenarios reveals that market potentials do exist in Taiwan and will grow in the future if climate conditions worsen. The key determinant is the expected value of flood damage and coverage.