

# Equilibrium Selection and Strategy: Experimental Evidence from an Infinitely Repeated Transboundary Public Goods Game

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## Abstract

We design a transboundary public goods (TPG) game, in which participants have simultaneous interaction within and between groups. We design the TPG game under an infinitely repeated situation in order to explore the types of strategies that participants employ in infinitely repeated games. We theoretically identify a condition in which the grim-trigger strategy is supported as a strategy minimizing strategic risk in the TPG game. We experimentally investigate the types of strategies by eliciting all possible one-period-ahead strategy choices using the strategy method. We replicate the history of the game by simulation and classify the strategies using the affinity propagation clustering method. We find that the frequency of strategies in cooperative clusters is higher in the treatment with high continuation probability than that with low continuation probability. We find that participants employ strategies minimizing strategic risk in an infinitely repeated TPG game.

**JEL Classification:** C7, C72, C73

**Keywords:** affinity propagation clustering method; infinitely repeated game; strategy method; strategic risk; subgame perfect equilibrium