

# Effects of Threshold Uncertainty on Common-Pool Resources

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*Many natural and common-pool resources have inherent thresholds determining the onset of deleterious environmental impacts. Group and individual behavior were examined in an experimental setting designed to model common-pools with thresholds using three distinct treatments: one with Complete Threshold Information, one with Incomplete Threshold Information and one with Sporadically Enforced Targets. By design the true threshold was unknown to the players in the role of policymaker, and the guesses of the threshold value were allowed to change during every round. Sporadically enforced targets had a significant negative effect on the lifespan of a common-pool resource and individual gains. Allowing the participants to develop and act on their own beliefs for the location of the threshold improved both individual benefit and conservation of the common-pool. These experiments indicate that conservation of common-pool resources will be best achieved through policies which allow users of the resource access to reliable information regarding the status of the common-pool and which enable users to develop and act on their own beliefs regarding the location of threshold.*

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