



# Preferences, Uncertainty, and Biases in Land Division: A Bargaining Experiment in the Field

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AUTHOR OR EDITOR Margarita Gáfaró César Mantilla

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## Abstract

Divisions of rural land in developing countries reduce the possibilities of farmers to profit from agricultural returns to scale. We design and conduct a framed bargaining experiment to study whether land overvaluation (due to affective reasons) and uncertainty in land values are drivers for land division. In our bargaining game, two players with different agricultural productivity jointly inherit a land plot and individually inherit some tokens they can use to agree on a land allocation. The possible set of land allocations and the spread of land returns vary across treatment arms in the game. We conduct this experiment with 256 participants in eight rural municipalities of the Northeast of Colombia. We find that when players are allowed to divide the land plot, 75% of the bargaining interactions yield the most egalitarian, but less efficient, land allocations. Based on the predictions of a Nash bargaining model and the observations from a sample of 120 college students, we rule out land overvaluation as a driver for land divisions in the context of our game. We also find that uncertainty in land yields reduces the efficiency of land allocations when we do not allow land divisions, by increasing the likelihood of the least productive player keeping the entire land plot. Our results are consistent with a bounded rationality rule in which subjects incorporate a behavioral response to uncertainty by first bargaining over land, which is a certain outcome, and then bargaining over a token transfer.