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Thanks but no thanks: A new policy to reduce land conflict



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ABSTRACT

Land conflicts in developing countries are costly both directly and through increased land degradation. An important policy goal is to create respect for borders. This often involves mandatory, expensive interventions. We propose a new policy design, which in theory promotes neighborly relations at low cost. A salient feature is the option to by-pass regulation through consensus. The key idea combines the insight that social preferences transform social dilemmas into coordination problems with the logic of forward induction. As a first, low-cost pass at empirical evaluation, we conduct an experiment among farmers in the Ethiopian highlands, a region exhibiting features typical of countries where borders are often disputed.

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Introduction

Property rights, trust, and neighborly relations are important to individuals' willingness to invest in their land and to environmental sustainability.¹ Lack of institutions that secure property rights for land has been deemed a fundamental reason why many sub-Saharan African countries remain comparatively poor (Knack and Keefer, 1995, 1997; Goldsmith, 1995; Acemoglu et al., 2001). Others, such as Deininger and Feder (2009), point out that formalization of land rights should not be viewed as a panacea and that the literature contains little rigorous analysis of cost-effectiveness and long-term sustainability of impacts. An important goal for development assistance is therefore to develop cost-effective means to

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¹ The relevant literatures in support of these claims are too numerous to attempt any serious survey; see e.g. Skaperdas (1992) on property rights, Besley (1995), Friedman et al. (1988), Hayes et al. (1997), Gebremedhin and Swinton (2003), Smith (2004), Deininger and Jin (2006), Goldstein and Udri (2008), and Mekonnen (2009) on the role of tenure for investments and agricultural productivity, Holden et al. (2009), Mekonnen et al. (2013) and Deininger et al. (2011) on impacts on sustainable land management, Knack and Keefer (1997) on trust, Alston et al. (2000), and André and Platteau (1998) on conflict.

define and ensure respect for property.² We bring to the table a design feature of how such interventions could be implemented in a way that encourage cooperation, make the interventions cheaper, reduce conflict and prevent land degradation.

Poorly defined tenure rights can also contribute to land related conflicts. During the last decades, there has been an increase in land conflicts in sub-Saharan Africa (Peters, 2004). Interestingly, the conflict implications of the structure of land property rights have often been neglected in the design and implementation of land reform policies. It is even argued that land policy and titling programs have exacerbated conflicts (Peters, 2009). Land conflicts in rural areas can take many forms: between communities, between farmers and investors or the state, and between farmers themselves. We focus on farmer-to-farmer land conflicts. At first glance, such situations resemble dilemma games, in which individual rationality conflicts with social efficiency. One way to avoid conflict is to use state enforcement power to provide all those services that can ensure peace: detailed surveying and registration and then police, courts, judges, legal counsel, etc. With some local variations, this is the strategy now embraced by many governments and donors as part of mandatory land titling programs. It can be costly.

We consider a new proposal which may generate a good outcome at low cost. Our suggestion is not to impose state enforcement, but rather to have this be a costly option which farmers may reject if that's what everyone wants. Alternatively put, any individual can trigger state enforcement but it will not happen otherwise. We conjecture that individuals who reject the intervention signal the intention and expectation that subsequent play will conform with a cooperative pattern, and that those beliefs become self-fulfilling.³

The logic of the argument builds on and combines recent work in behavioral economics, on *social preferences*, and somewhat less recent work in game theory, on *forward induction*. We first argue that land-conflict games may actually not be social dilemmas. If parties care about other things than their own material gain (as recent work in behavioral and experimental economics suggests) then the situation is best thought of as a coordination game with multiple Pareto-ranked equilibria. Add to such a setting the opportunity to say thanks-but-no-thanks to state enforcement, and deductive reasoning by all parties will help them coordinate on an efficient outcome.

It would be incorrect to say that our proposal does not concern costly government intervention at all. It involves *counterfactual* costly government intervention. Intervention is feasible but shunned, and hence no actual intervention cost is incurred. In reality, the government will always need to ensure at least a minimum of legal institutions. This makes the government intervention credible. Still, by *allowing for* cooperation, the cost to these institutions could be reduced substantially. There is a well-documented allegory to such cooperation in Elinor Ostrom's design principles for long-enduring Common Pool Resource institutions and in Ostrom et al. (1992, 1990). Ostrom shows that cooperation in management is possible, and that individuals can make credible commitments and achieve higher joint outcomes without an external enforcer, given conducive institutional settings.

The formal articulation of our ideas is the first contribution of our paper. We view such arm-chair reasoning as valuable *per se*. Empirical relevance should not be taken for granted though. A second goal of our study is to take first steps toward testing the proposal in practice. To that end, we report the results from a framed field experiment run in the Ethiopian highlands.⁴

The design mixes abstract and realistic features. We rely on an experimental game directly reflecting the behavioral theory we test rather than on allotments of real land. This has the advantage of being affordable. While the game is more abstract than a true land conflict setting, the payoffs are designed to resemble those relevant in the field. In other dimensions the setup is close to that of actual developing economies. We conducted the experiment in the Amhara Region, where borders are often not well defined and often disputed. The current government has ambitions to engage in land certification procedures whereby farmers obtain formal user-right status. Our subjects are farmers from this area, and the game they play is described by drawing realistic analogies to local conditions concerning land borders and conflicting neighbors' claims. We conducted our experiments in villages with relatively high and low levels of reported land conflicts.

This study thus proposes a specific and comparatively inexpensive form of policy that may help to define land property rights and to promote respect for borders. The salient features of this policy would be the availability of a *Divider* institution and the option to by-pass this *Divider* for a cooperative solution. Such a policy is particularly relevant when the government formally owns the land but tenure rights are about to be individualized.

Ethiopia is actually a very good example of a country where such a policy is relevant. Large parts of the country have already carried out a first-stage land certification that is based on neighborly recognition of borders. Work has now started for a more elaborate second-stage land certification that includes GPS measurements of each plot and more formal registration and management of the records. The second-stage certificates include a more precise mapping of land-holdings; making them a potentially good tool to resolve land-related conflicts. But these certificates will be much more costly, more

² The World Bank has recently stressed the need for research that evaluates the impacts of such reforms, including their cost-effectiveness. A number of papers have evaluated the Ethiopian experience, which in general is positive. For example, Holden et al. (2009) and Deininger et al. (2011) show both an increase in soil and water conservation structures and in plot level productivity, Mekonnen et al. (2013) show an increase in tree plantation.

³ Our proposal shares some features with the literature on voluntary environmental agreements, in that it encourages a pro-active cooperative approach and reduces conflict (Segerson and Miceli, 1998), although our context and mechanism are different.

⁴ See Harrison and List (2004) for a general discussion of field experiments, Cardenas and Carpenter (2008) for an overview on experiments conducted in developing countries, and Reichhuber et al. (2009) for a previous framed field experiment run in Ethiopia.

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