Beyond Titling: Impacts of a Multifaceted Land Governance Intervention on Land Conflict in Burkina Faso

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Introduction

- Focus of interventions to strengthen land rights has shifted from titling (quantity) to more holistic approaches (quality)
- Research on impacts of more recent holistic interventions is limited
- MCC Rural Land Governance (RLG) pilot in Burkina Faso is an example of the holistic approach
- This paper measures impact of RLG on incidence of land conflict

Context

- Rural Burkina Faso
  - Mostly subsistence agriculture
  - Virtually no land titling / formal land markets
  - Anecdotal evidence suggests land conflicts are an increasing problem

- MCC Rural Land Governance Pilot (2011-12)
  1. Participatory land use planning
  2. Preparation and validation of community land use charters
  3. Institutional capacity building (dispute resolution)
  4. Outreach and communications

Data

- Longitudinal household survey:
  - Baseline collected in 2010, endline in 2012
  - 3,600 households (6,500 parcels, 450 villages)
  - 17 treatment and 17 comparison communes
  - Mostly poor small holders, 89.2% ag. producers- millet, corn, sorghum, beans most common crops

- Detailed land conflict module
  - Land conflict incidence, type, severity, resolution, etc.
  - Covers a total of 5 years (2007/8- 2011/12)
  - Survey questions at parcel and individual level

Methodology

- Household level difference-in-difference
- Random effects probit (also fixed effects conditional logit for robustness)

$$Pr(y_{it} = 1|\delta_t, T_i, c_i) = f(\beta_1(\delta_4 * T_i) + \beta_2(\delta_5 * T_i) + \gamma' \delta_t + \theta T_i + c_i)$$

Where:

y_{it} is the probability that household i has experienced a conflict at time t,
δ_t is a vector of time dummy variables,
T_i is a dummy equal to one for households in the treatment area,
c_i is a household specific randomly distributed error term
ε_{it} is a random error term, and
β, γ, θ are parameters to be estimated

Outcome Variables

- 3 versions of dependent variable- in each year, probability that any household member/parcel:

1. Experienced any land conflict

2. Experienced a land conflict that respondent characterizes as "somewhat serious" or "very serious"

3. Experienced a land conflict that respondent characterizes as "very serious" only

	All Conflicts	Excluding "Not Serious" Conflicts	"Very Serious" Conflicts Only
1st Year Treatment Effect	-0.0891	-0.2177	-0.9139***
	(0.17)	(0.18)	(0.34)
2nd Year Treatment Effect	-0.2675	-0.3786**	-0.9760***
	(0.17)	(0.19)	(0.32)
2008-09	0.3035**	0.3096**	0.3048
	(0.09)	(0.11)	(0.20)
2009-10	0.0337	0.0791	0.0279
	(0.10)	(0.11)	(0.22)
2010-11	0.0531	0.1775	0.7253**
	(0.14)	(0.15)	(0.28)
2011-12	0.0850	0.1731	0.8991***
	(0.14)	(0.15)	(0.27)
Treatment Group	0.1945*	0.1852	0.5357*
	(0.09)	(0.10)	(0.22)
Constant	-2.5645***	-2.7836***	-4.1272***
	(0.12)	(0.15)	(0.40)
Observations	9,430	9,430	9,430

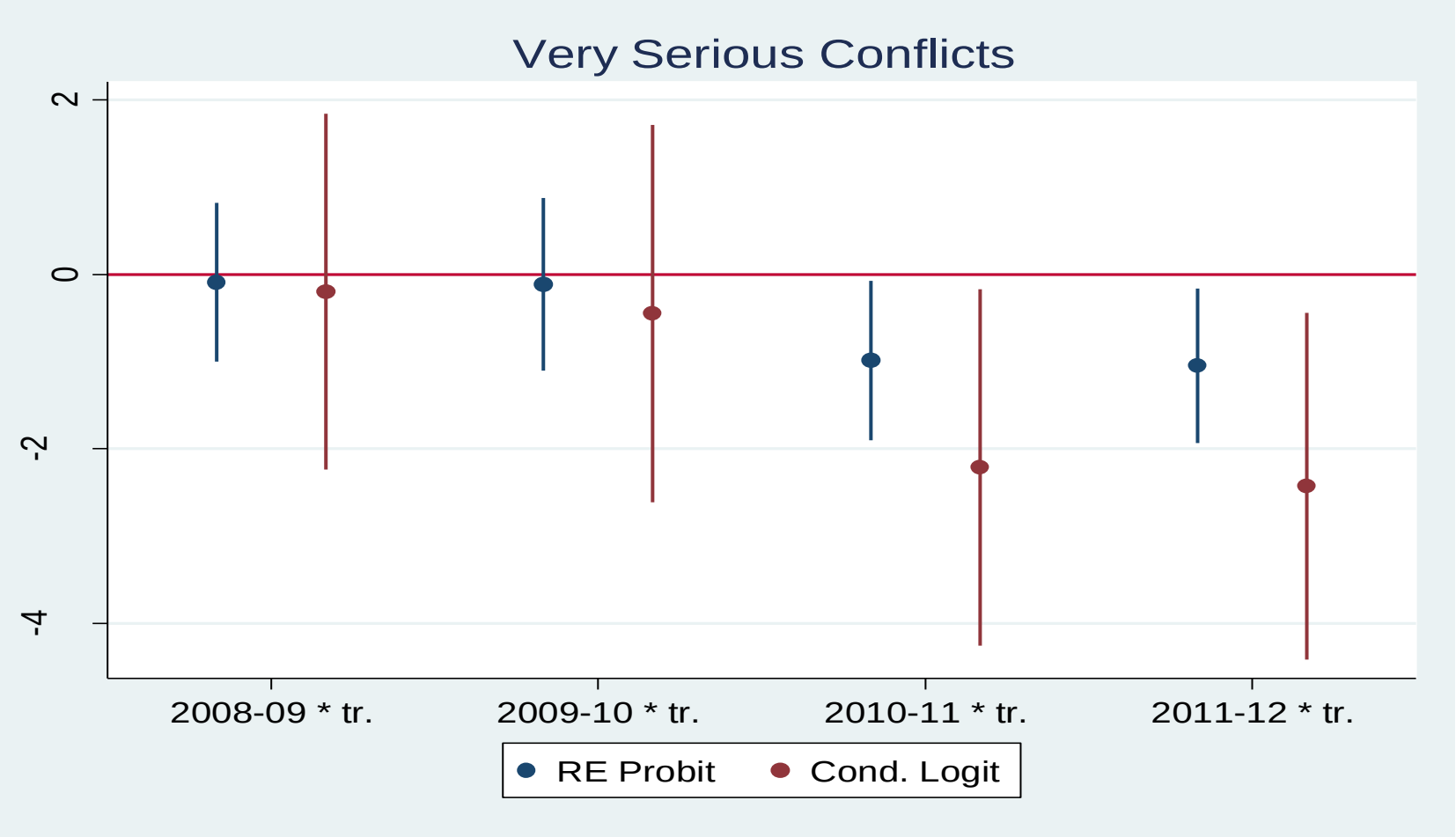
- Fixed effects conditional logit model corroborates statistical significance of all treatment effect estimates

Identification: Parallel Trends Test

- How do we know that RLG program caused the observed reduction in land conflict?

- With multiple pre-treatment time periods in dataset, we can use placebo test for "parallel trends" in pre-treatment period (Autor 2003)

Identification: Parallel Trends Test



- Conclusion: treatment and comparison groups on very similar trajectories prior to RLG, only began to differ afterwards

Caveats and Conclusions

- Magnitude of impacts: predicted probabilities of land conflict at household level

	Without project	With project
Excluding "not serious"	153 per 1,000	67 per 1,000
"Very serious" only	56 per 1,000	2 per 1,000

- Holistic interventions like RLG can have substantial impacts, in contrast to earlier land titling programs

Caveats and Conclusions

- Survey questions to measure land conflict incidence must be carefully defined (large impact on "very serious" conflicts, no impact on all conflicts)

- Caveats:
  - "Very serious" conflicts were rare
  - Data quality issues