

Can land registration and certification reduce land border conflicts?

By

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Introduction

- This study assesses the extent of farm-level land-related conflicts in Tigray region in northern Ethiopia
- Uses data from local (informal) conflict mediators
- Assesses how low-cost land registration and certification has affected land-related conflicts, particularly land border disputes, the most common type of land-related dispute in the area

General Conflict Theory

Struggles over territory among the most pervasive forms of conflicts

- Malthusian hypothesis: Severe land scarcity leads to more conflicts (Malthus, 1798, Homer-Dixon, 1999, Diamond, 2005)
- Resource curse hypothesis, certain valuable resources lead to rent-seeking and conflicts
 - Role of institutions crucial (Mehlum et al. 2006)
- Inequality/relative deprivation enhances conflicts
- How do land reforms affect conflicts over land?
 - Mixed empirical evidence

Objectives of this paper

- To assess the impacts of the low-cost non-freehold land certification implemented in Tigray region in northern Ethiopia on micro-level land border disputes

Hypotheses

- 1. Neo-Malthusian: Population pressure enhances conflicts vs.
- 2. Resource curse hypothesis
- 3. Market access increases opportunity cost of time and reduces conflicts vs.
- 4. Urban expansion leads to conflicts
- 5. Fuzzy borders attract more conflicts
- 6. Land redistribution conflict hypotheses (reduce vs. enhance)
- 7. Quality land reform reduces conflicts hypothesis
 - Better plot border demarcation + area measurement + witnesses + land certificate
 - Local participation reduces conflicts

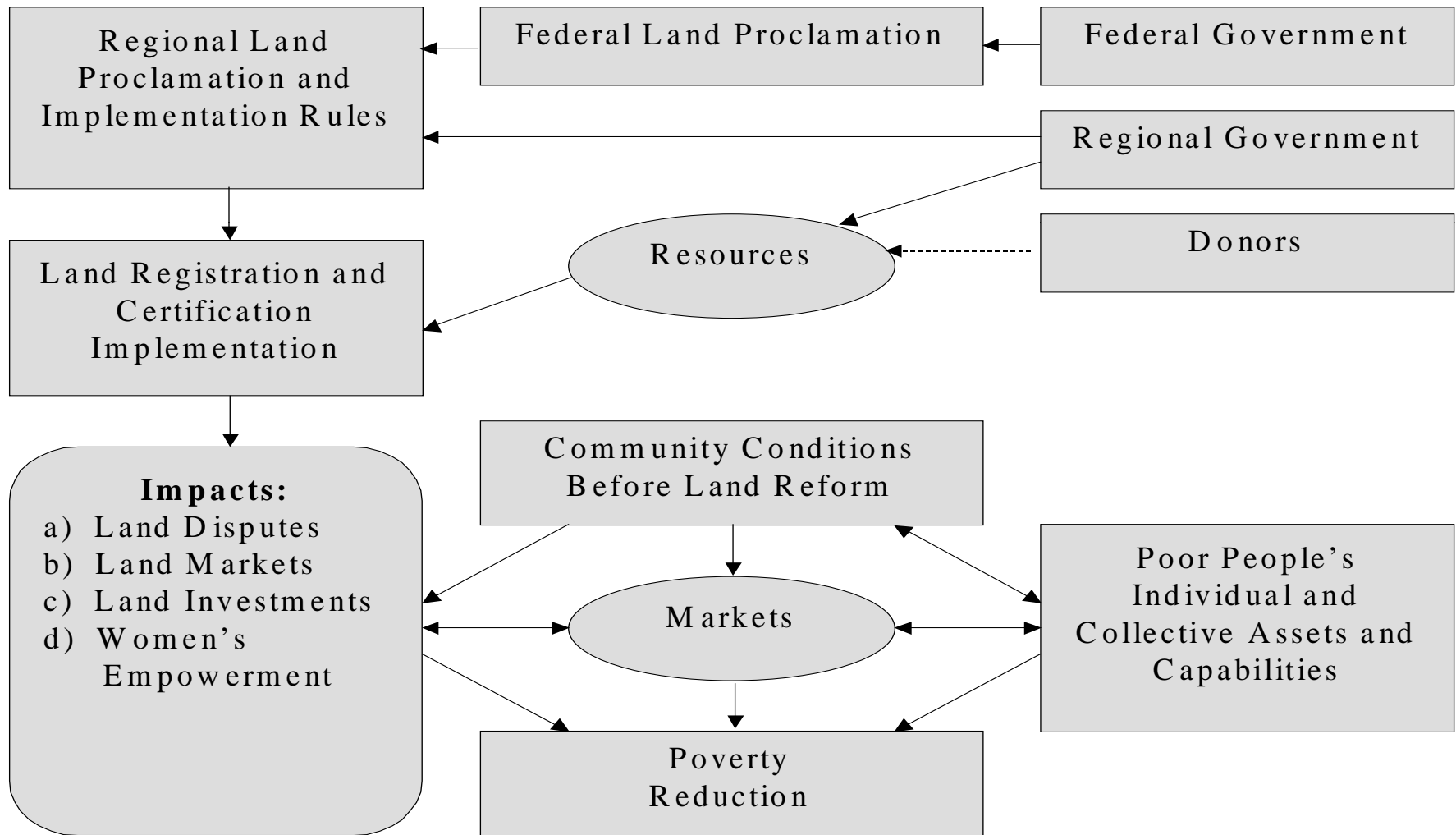
Land tenure in Ethiopia

- All land is owned by the state (since 1975)
 - Land used as a safety net; all residents in a community had the right to get land for free, this was ensured through local land redistributions
 - Egalitarian land distribution based on household size
 - Each household got a share of each land quality class in the village
 - Land renting and hiring of labour was illegal
 - Redistributions created tenure insecurity
- Change in government in 1991
 - More market-friendly policy
 - Land is still owned by the state
- Land rights regulated by Federal and Regional Land Proclamations and Regional Land Regulations

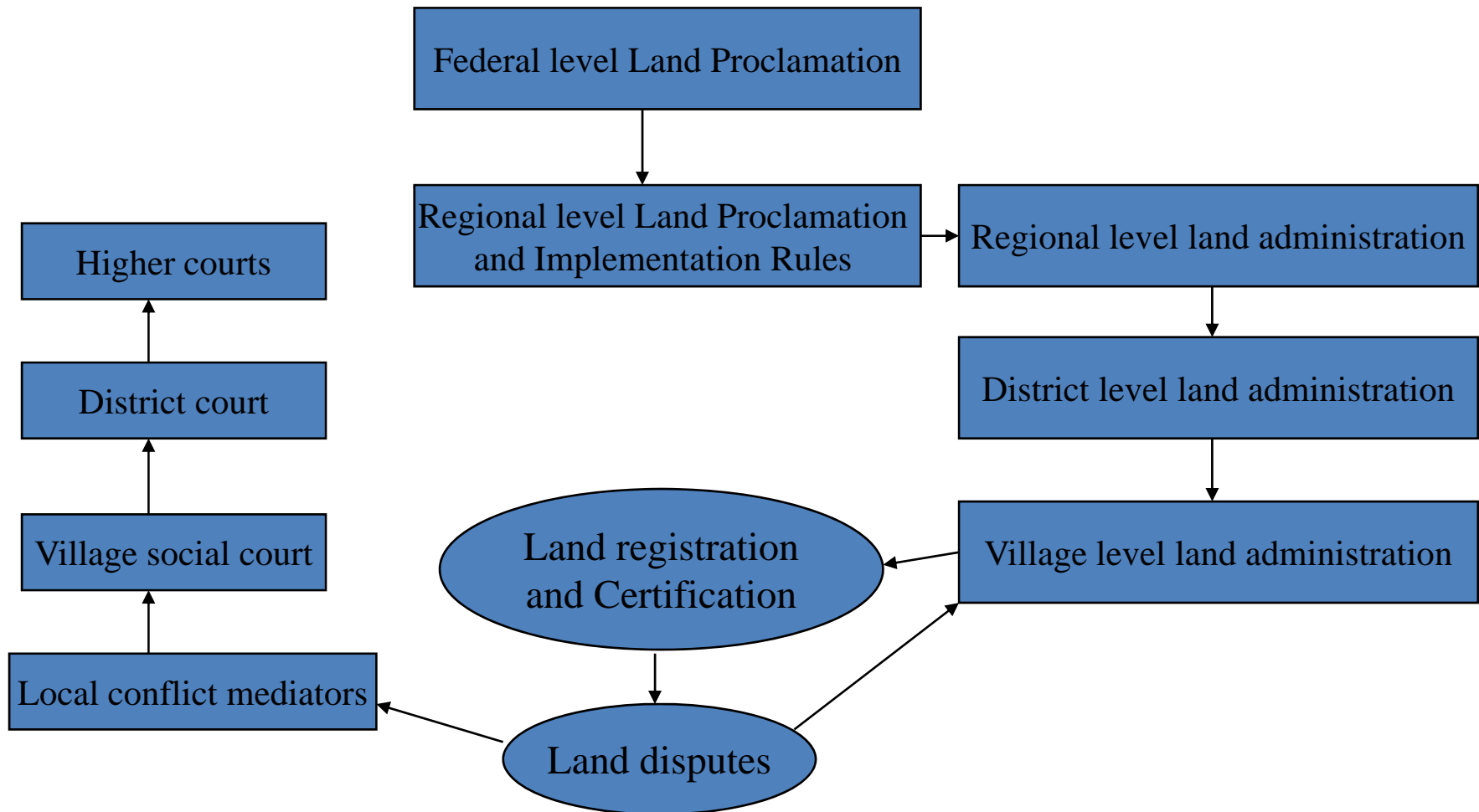
Land certification in Ethiopia

- Certification: Individual households are given user rights
 - Includes rights to use, bequeath, inherit, rent out, invest
 - No right to sell or mortgage
 - Responsibility for land conservation
 - Restrictions on migration and on duration of rental contracts
 - Restriction that maximum 50% of holding can be rented out
 - Obligation to use the land
- Land certification started first in Tigray Region in 1998
- Land certification started in 2003-2005 in three other regions (Amhara, Oromiya, and SNNP regions) of the country

Conceptual model for land certification project

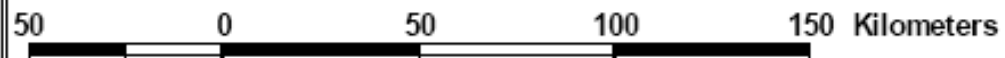
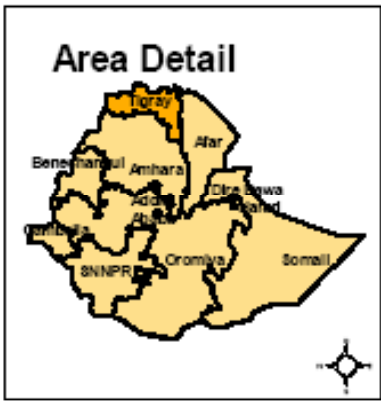


Land laws, land administration and land conflict resolution





Tigra Region Administrative Boundaries



The delineation of national and international boundaries must not be considered authoritative
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Legend

- Region
- Zone
- Woreda
- Town
- ~ Road
- Lake

Sampling and Data

- Land border disputes are a fairly low frequency phenomenon
 - Only about 2.5% of households had experienced it
 - Random sampling of hhs not efficient
- Survey of 400 local conflict mediators in 90 villages in 27 communities in 9 districts
- Sampled communities with high share of conflicts taken to district courts
- Data from local conflict mediators
 - Experiences with conflict mediation before, during and up to 9 years after the land registration and certification

Methods of analysis

- Assessed conflict pattern by
 - type of conflicts,
 - difficulty of resolving conflicts,
 - change in frequency of conflicts over time
- Assessed determinants of the initial frequency of land border disputes using
 - probit models with district fixed effects and community random effects
- Assessed changes in frequency of conflicts with
 - ordered logit (proportional odds) models with district fixed effects and community random effects

Types of conflicts	Total number of conflicts	% of all conflicts	Number of conflicts to woreda courts	% of land conflicts in woreda courts
All conflicts	18620	100		
All land-related conflicts	9705	52.1	1530	100
Border conflicts	3630	19.5	711	46.5
Ownership/inheritance conflicts	1870	10	284	18.6
Divorce-related conflicts	2603	14	353	23.1
Land redistribution conflicts	1155	6.2	98	6.4
Land rental contract conflicts	678	3.6	84	5.5
Conflicts involving violence	1300	7	220	14.4
Cases that went to woreda courts	1530	8.2	1530	100

THE MOST DIFFICULT CONFLICTS TO DEAL WITH

Type of conflict	Most difficult conflict	Second most difficult conflict
Border conflict	170	61
Ownership/inheritance conflict	67	130
Divorce-related conflict	88	112
Land redistribution conflict	13	19
Land rental contract conflict	7	11

BORDER CONFLICTS DURING AND AFTER THE LAND REGISTRATION AND CERTIFICATION

Change	Situation after the registration and certification				
	Less conflicts	No change	More conflicts	Total (%)	
Situation during registration and certification	Less conflicts	198	9	16	223 (58.4)
	No change	33	65	8	106 (27.7)
	More conflicts	30	3	20	53 (13.9)
	Total (%)	261 (68.3)	77 (20.2)	44 (11.5)	382 (100)

DETERMINANTS OF INITIAL FREQUENCY OF BORDER CONFLICTS

Variables	Conflicts before reform
Farm size per capita	-0.011 (0.14)
Distance to market	-0.022 (0.02)
Year of last land redistribution	0.080 (0.03) ***
Border demarcation before reform	0.11 (0.14)
Distance to woreda capital	-0.028 (0.01) **

DETERMINANTS OF CHANGE IN CONFLICTS DURING AND AFTER LAND REGISTRATION AND CERTIFICATION

Variables	Change during reform	Change during reform	Change after reform	Change after reform
Border conflicts before reform	-0.513 (0.42)	-0.431 (0.43)	-0.261 (0.72)	0.086 (0.82)
Distance to woreda capital	-0.012*** (0.00)	-0.025*** (0.01)	-0.028*** (0.01)	-0.018*** (0.00)
Distance to market	0.088** (0.04)	0.153** (0.06)	0.149*** (0.03)	0.107*** (0.02)
Farm size per capita	-0.342 (0.40)	-0.31 (0.39)	0.484** (0.22)	0.543*** (0.14)
Border demarcation before reform	0.106 (0.27)	0.069 (0.25)	-0.171 (0.28)	-0.227 (0.30)
Year of last land redistribution	-0.096** (0.04)	-0.092*** (0.03)	-0.133*** (0.04)	-0.129*** (0.03)
Kushet borders demarcated during reform		-1.303* (0.71)	-1.920*** (0.43)	-1.889*** (0.34)
Unreliability of plot size measurements		0.111 (0.32)	0.510* (0.30)	0.664*** (0.25)
Elders involved in adjudication		0.924** (0.44)	1.732*** (0.38)	1.319*** (0.23)
Border conflicts during reform				1.885*** (0.52)

Main findings

- The land reform in Tigray has contributed to a reduction in land border disputes
- Better market access is associated with less conflicts
- Variation in quality of the reform was reflected in the frequency of conflicts
 - Quality of land demarcation and measurement
 - Involvement of local elders enhanced conflicts
- Some support for the resource curse hypothesis
- Many land border conflicts near district centers remain unresolved
 - Expansion of urban centers into rural areas has not been addressed well by the reform

Conclusions

- Land border disputes are among the most common and most difficult micro-level land disputes
- Formalisation of land rights
 - can contribute to reduce land border conflicts if such formalisation enhances tenure security of those being encroached upon
- Low-cost land registration and certification like implemented in Ethiopia can help to protect land rights of poor households