

Land Tenure Security, Land Holding and Migration in Ethiopia

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World Bank: Land and Poverty Conference

Thursday 22nd March, 2018

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Motivation

- Land and labor are the key assets for rural households of many developing countries
- However, insecure or unclear land rights constrain rural households from using their land efficiently
- In Ethiopia, eligibility and access to land was contingent on physical presence on land
- which prevents migration of rural landholders

Tenure Security

- A secure and easily transferable right to land - Rural development and poverty reduction
- Reduce uncertainties - Encouraging long term investment
- Maximize allocative efficiency - Reallocation of factors of production
- Used as a collateral - Credit

Tenure Policy

Historical

- Haile Selassie regime (1930-1974) - Elite held all land
- Derg regime (1975-1991) - State owned
- EPDRF regime (1991- present) - State Owned

Main Characteristics

- Insecure property rights of land
- The right to use land was conditional on permanent physical presence, which restrict Migration

Tenure Policy

- Restricted transfer of land
i.e. Sale, renting and collateral are not allowed
Govt Justification : increased Land concentration and Migration

Recent Policy Changes

- Introduction of land certification program
- Decentralization of land tenure policies
- Tigray (1998), Amhara (2004), Oromia (2004), and SNNP (2007)

Land Certification Program

- Intended to reduce the long standing tenure insecurity
- Formalize traditionally held farm lands

Holders of the land certificate have the right

- To transfer their land holdings to family member or friends
- To rent out their land holdings for up to 25 years

Program Roll-out

The program was implemented sequentially due to:

- shortage in manpower
- Shortage in financial resources

First:

- villages were selected

Second:

- households within the village participated in the certification program

Objective

- Examine the impact of land tenure security on rural migration and land holding
- Examine the effect of the program on households labor allocation decision
- Test if there is heterogeneity in average treatment effect of the program across regions and gender

Data

Three rounds of Panel data

- 2002, 2004 (baseline) , and 2007
- Collected by: EDRI, AAU, WB, and University of Gothenburg
- Data before and after the implementation of the program
- Use Difference in Difference (DID)

Treatment Indicator

- The non-uniform timing of certification is used to exploit the variation between treatment and control groups
- Treated Households: HH who got certified before 12 months of the last survey
- Control Households : otherwise

Regression equation

- Estimate using fixed effect model for household i at time t

$$Y_{it} = \beta_0 + \beta_1 P_t + \beta_3 (P_t * Treatment_i) + \beta_4 X_{it} + u_{it}$$

Effect of Land Certification on Household Level Migration

	Model 1	Model 2	Model 3	Model 4	Model 5
Year	0.033** (2.50)	0.017 (1.13)	0.013 (0.79)	0.032* (1.94)	0.016 (0.86)
Certified	0.040** (2.01)	0.042** (2.11)	0.041** (2.06)	0.038* (1.90)	0.039** (1.96)
Household size		0.006 (0.47)	0.005 (0.43)	0.005 (0.40)	0.005 (0.38)
Rent out		0.055** (2.37)	0.053** (2.29)		0.051** (2.06)
Farm size			0.007 (0.60)	0.009 (0.78)	0.007 (0.60)
Age			0.003 (1.13)	0.003 (1.16)	0.003 (1.19)
Rent in				-0.016 (-0.77)	-0.001 (-0.06)
Head Education					0.027 (1.13)
Number of Obs.	3062	3062	3062	3062	3062

Notes: Asterisks indicate statistical significance at 1% ***, 5% **, and 10% * levels. The dependent variable in all regression is an indicator variable which takes a value of 1 if a household has a migrant member. All regressions are

Impact of certification on rental market participation

	Model 1	Model 2	Model 3
Year	0.360*** (21.24)	0.355*** (19.85)	0.365*** (18.93)
Certified	0.149*** (5.87)	0.148*** (5.86)	0.145*** (5.70)
Household size		0.014 (0.86)	0.126 (0.77)
Age			-0.002 (-0.60)
Head Education			0.058* (1.90)
Number of Obs.	3062	3062	3062

Note: Asterisks indicate statistical significance at 1% ***, 5% **, and 10% * levels. Dependent variable-rental market is an indicator variable which is equal to 1 if a household participated in rental market. All regressions are the standard DID using fixed effect estimation.

Labour Allocation Effects of Certification

	Family Labour	Hired labour	Community Labour
Year	-60.976 (-0.58)	-21.977 (-0.63)	141.767*** (6.09)
Certified	-635.233*** (-4.30)	48.064 (0.98)	-11.212 (-0.34)
Household size	168.211* (1.91)	20.488 (0.68)	-3.531 (-0.18)
Farm size	62.302 (0.74)	2.995 (0.11)	8.998 (0.49)
Number of Obs.	2952	2860	2860

Note: Asterisks indicate statistical significance at 1% ***, 5% **, and 10% * levels. Dependent variable- hours spent by family, hired, and community labour in the production process. All regressions are the standard DID using fixed effect estimation.

Activity choice Effects of Certification

	Professional	Unskilled	Food for work
Year	0.047*** (5.07)	-0.021 (-1.25)	0.005 (0.40)
Certified	0.017 (1.27)	0.045* (1.89)	-0.062*** (-3.62)
Farm size	0.004 (0.52)	0.010 (0.70)	0.008 (0.84)
Household size	0.009 (1.04)	0.018 (1.17)	0.001 (0.08)
Number of Obs.	3062	3062	3062

Note: Asterisks indicate statistical significance at 1% ***, 5% **, and 10% * levels. Dependent variable - activity choice variables which is equal to 1 if a household head participated in professional, unskilled, or food for work activities. All regressions are the standard DID using fixed effect estimation.

Parallel Trend Analysis

	Model 1	Model 2
Year	0.083*** (7.20)	0.080*** (6.75)
Certified	-0.019 (-0.74)	-0.020 (-0.79)
Farm size		0.016 (1.38)
Constant	0.063*** (8.63)	0.046*** (3.24)
Number of Obs.	3274	3251

Note: Asterisks indicate statistical significance at 1% ***, 5% **, and 10% * levels. The dependent variable is an indicator whether the household has a migrant member. Both regressions are the standard DID methods.

Summary

- A positive and significant effect of land tenure security on rural migration
- Channel: Land rental market participation :
- Certification led to a decrease in the use of family labour in their production process.
- The land certification program is associated with an increase in participation of unskilled non-agricultural work.

Thank You