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Tenure Theory and Evidence: Agriculture and Rural Development

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and Best Practices Workshop**

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Standard Economic Theory

Land rights can affect agricultural productivity, and more broadly rural development, through:

- Agricultural investment: act as an incentive to invest in long-term improvements in the land
- Credit: provide collateral for loans
- Land allocation: make transfer of the land possible and favors a more efficient allocation of land



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Key Empirical Questions

1. How to increase tenure security (or decrease the expected probability of expropriation)?
2. Does higher tenure security lead to higher agricultural productivity? If yes, to what extent and through which intermediate(s) outcome(s) (investment, credit and/or land allocation)?



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Securing Land Rights: 60s-90s Approach

- Strength of the a priori theoretical argument was sufficiently persuasive that the dominant theme of land policy in international organizations and in many countries was focused on providing secure, individual title to smallholder farmers (World Bank approach until end of 1990s)
- No benefits are possible when land is communally held (customary, or communal, systems in Africa perceived as a constraint to economic development)



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Securing Land Rights: 60s-90s Approach

- Weak empirical foundations
- Observations:
 - Costs and insecurity to vulnerable groups that systems of formal property brought about was too high (e.g. speculation) versus the improvements that they offered
 - Many examples of land tenure arrangements in Africa that were flexible, negotiable, complex, and that seemed compatible with a great deal of investment and agricultural intensification (in context of missing or imperfect markets)



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Securing Land Rights: Paradigm Shift

- From direct provision of individual title to support for better integration of customary tenure with the formal legal system
- Formal registration works in cases where customary systems have become extinct, major tensions exist between different groups which cannot be handled by local institutions (resettlement or newly settled areas; areas of high value land, such as urban and peri-urban areas...) (Quan & Toulmin 2004)
- Context is key



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Securing Land Rights: Tools

- Legal and policy changes (e.g. conflict resolution mechanisms)
- Systematic regularization
- Cadastral survey and mapping
- Land-titling
- Registration
- Clarification of individual rights



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Securing Land Rights: Lack of Evidence

- Focus is more on « what is the impact of a change in land rights » than « how a particular intervention changes land rights »
- A key empirical question for future projects



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Evidence on Standard Theory

- Recap: tenure security leads to productivity gains through changes in:
 - Investment
 - Credit
 - Land allocation



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Evidence on Productivity

- Little evidence for a strong causal link from tenure security (via either formal titling programs or variations in informal tenure security) to agricultural productivity
- Correlation between tenure security and agricultural productivity has been observed but:
 - Correlation is not causation
 - Third factors that might drive this correlation (e.g. an effective local government that reduces conflicts and provides infrastructures)



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Evidence on Agricultural Investment

- Increased tenure security led to:
 - Increase in expected time horizon of land-users (+)
 - But also decrease investment incentives of tenants (-)
- Endogeneity problem : investment activities also directly influence the probability of expropriation:
 - Leaving land fallow increases expropriation probability
 - Planting trees decreases expropriation probability (shows good land use)



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Evidence on Other Mechanisms

- Credit:
 - Evidence show an increase in the use of land as collaterals (but land size matters)
 - But no impact on demand for credit (other factors at play: credit rationing, risk aversion...)
- Land allocation:
 - Sales: most empirical studies find no impact
 - Rentals: increase as owners less fearful of renting out land



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Evidence Summary

- Empirical evidence is mixed:
 - Little evidence for a strong causal link from tenure security to agricultural productivity
 - Impacts on investment and land allocation are weak
 - Existing evidence for credit, if anything, mostly suggests no impact
- Shall we conclude that economic theory is wrong (i.e. tenure security doesn't affect agricultural productivity)?



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Evaluation Challenges

- Difficult to quantify insecurity of land (perception)
- The problem of causality:
 - Rigorous impact evaluations can help solve this problem
 - National policies have no counterfactual
- Heterogeneity of impact: gender, wealth...
- Other binding constraints (imperfect markets):
 - Credit rationing (for investment)
 - Limited access to new technologies
 - Liquidity constraint
 - No commercial opportunities
 - Risk-aversion...



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More research is needed

- Better understand the “how” question (mechanisms leading to changes)
- Provide more rigorous and context-based evidence on the causal chain that might link land tenure regimes to investment, credit and land allocation, and ultimately to productivity (measure changes in outcomes)



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Useful Readings

- Brasselle, A., Gaspart F. & Platteau J., 2002. 'Land tenure security and investment incentives: puzzling evidence from Burkina Faso', *Journal of Development Economics* 67.2, 373–418.
- Gignoux, J., Macours K. & Wren-Lewis L., 2013. 'Evaluating the impact of land administration programmes on agricultural productivity and rural development', *Inter-American Development Bank Technical Note*.