How does the subdivision survey of collective land titles shift women’s perceived property rights and agency over land?

Preliminary evidence from an RCT in the Philippines

Rosa Castro-Zarzur, Prudenciano Gordoncillo, Snaebjorn Gunnsteinsson, Forest Jarvis, Hillary Johnson, Elizaveta Perova, Peter Srouji, Tristan von Zahn
Key messages

1. Land tenure programs often span multiple years: the process of a transition in land rights can create concerns of tenure insecurity.

2. Although important, laws that mandate land be issued as conjugal property are not necessarily sufficient in themselves to ensure women’s agency over the land.
Context

Comprehensive Agrarian Reform Program

Law provides for conjugal property rights
Beneficiaries prefer to have individual land titles

FIGURE 1: ALMOST ALL FARMERS PREFER INDIVIDUAL TITLES

"Would you prefer to own 1 hectare of land with an individual title, or 3 hectares of land owned collectively with another farmer in your community?"
Research questions

Does the subdivision of collective titles:

1. Increase feelings of tenure security among beneficiaries?
2. Increase agricultural output and investment?
3. Lead to more equal intra-household bargaining between spouses?

Results are from an intermediate stage in the parcelization process.
Subdivision surveys lowered perceptions of tenure security for male and female beneficiaries

FIGURE 2: THE SUBDIVISION SURVEY LOWERS ARBS’ FEELINGS OF TENURE SECURITY

Effect of subdivision survey on selected tenure security outcomes

➢ Results of an intermediate stage
➢ Long duration of process with little information
➢ Must relinquish owner copy of collective title certificate for cancellation and new title processing
➢ After subdivision, it is possible to calculate amortization payments and land taxes

Note: Graphs show the TOT impacts of the intervention compared to the control group; dark bars indicate statistical significance at p < .05
Subdivision surveys lowered trust in the ability of institutions to enforce land rights

Effect of subdivision survey on trust that local government entities can protect their land rights in the case of disputes.

➢ Both men and women experienced declines in trust

➢ Declines for women were a bit stronger

Note: Graphs show the TOT impacts of the intervention compared to the control group; dark bars indicate statistical significance at p < .05
Subdivision surveys increased anxiety and decreased life satisfaction

➢ Increases in anxiety were higher for women
➢ Any change breeds anxiety
➢ Lack of information and delays may contribute

FIGURE 3: THE SUBDIVISION SURVEY INCREASES ANXIETY AND LOWERS LIFE SATISFACTION
Effect of subdivision survey on anxiety, life satisfaction, and optimism.
Subdivision surveys decreased investment and increased leasing, especially for women.

**FIGURE 5: FEMALE ARBS WHO RECEIVED THE TREATMENT WERE MORE LIKELY TO LEASE OUT THEIR PARCELS AND LESS LIKELY TO MAKE INVESTMENTS IN THEIR LAND**

Effects of subdivision survey on selected plot-level outcomes by gender, compared to control group.

- Stronger impacts for female beneficiaries
- Female beneficiaries have higher education levels, less agricultural experience, and are more likely to engage in non-farm work
- Clarification on boundaries may enable them to lease the land and focus on non-farm work.

Note: Graphs show the TOT impacts of the intervention compared to the control group; dark bars indicate statistical significance at p < .05.
Subdivision surveys decreased agency over land for wives of male beneficiaries

FIGURE 6: THE SUBDIVISION SURVEY HAD NEGATIVE EFFECTS ON THE WIVES OF MALE ARBS
Impacts of subdivision survey on selected gender outcomes of female spouses compared to control group

- No declines for husbands of female beneficiaries
- Intervention activities typically targeted main beneficiary
- Conjugal property rights typically not discussed in parcelization process unless concerns are raised

Note: Graphs show the TOT impacts of the intervention compared to the control group; dark bars indicate statistical significance at p < .05
<table>
<thead>
<tr>
<th>Challenge identified</th>
<th>Action taken with support of the SPLIT project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lengthy, opaque process</td>
<td>Digitization – workflows and M&amp;E Inter-Agency Agreements Joint Administrative Orders</td>
</tr>
<tr>
<td>Lack of information</td>
<td>Detailed stakeholder engagement plan (SEP) Training for field officers</td>
</tr>
<tr>
<td>Exclusion of conjugal property owners from process</td>
<td>Development and testing of informational intervention Spouses included in SEP</td>
</tr>
</tbody>
</table>
Global policy implications

Process of a transition in land rights can generate anxiety
- Need to design in way to minimize potential concerns
- Clear, transparent, easily accessible information
- Address potential bottlenecks for timely delivery

Conjugal property rights alone are insufficient to ensure women’s agency over land
- Information provision of conjugal rights
- Involvement of spouses
- Ensuring de facto adherence to conjugal titling
Thank you
Additional slides
Road Map

- Context
- Research questions
- Study design
- Results
- Policy implications
Context

- Current land distribution program started in the late 80’s
  - Agricultural land distributed to poor landless or land-poor farmers (Agrarian Reform Beneficiaries, or ARB)
  - To move quickly, distributed as collective titles
  - Now, Government is parcelizing those collective land titles and giving individual land titles

- Although the land titles are collective, farmers typically manage one plot of the collective landholding independently
  - The intervention formalizes these individual rights
  - The intervention is not typically breaking up collective farming practices
## Differences in collective and individual titles

<table>
<thead>
<tr>
<th></th>
<th>Collective</th>
<th>Individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Who is on title?</td>
<td>ARBs (and spouses if applicable) from multiple households</td>
<td>One ARB (and their spouse if married)</td>
</tr>
<tr>
<td>Can sell land?</td>
<td>No</td>
<td>Yes, once amortized</td>
</tr>
<tr>
<td>Can lease land?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Can use as collateral?</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Can pass land onto heirs?</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Land reimbursement in practice</td>
<td>Some ARB start making payments, but complications with enforcement</td>
<td>Area known so payments is easier to enforce</td>
</tr>
<tr>
<td>Paying property taxes in practice</td>
<td>Complications with enforcement</td>
<td>Easier to enforce</td>
</tr>
</tbody>
</table>
Study design

Identify eligible collective CLOA

Group collective CLOA with very similar characteristics (pair-wise matching)

Within each pair, randomly select one treatment and one control CLOA
Sampling process

1. Identification of provinces
   - Large backlog of collective titles
   - Targeted crops (rice, corn, coconut)
   - No recent peace and order issues or major natural disasters

2. Validation of title lists by regional and provincial DAR offices
   - Clarify subdivision status and willingness to parcelize
   - Registered over 10 years ago
   - Priority CLOA
   - Less than 30 ARB per title
   - Not problematic (A&D land, no ongoing legal disputes, no peace and order issues)

3. Projection of prospective sample titles by DAR and DENR
   - Ensure Alienable and Disposable

4. On-the-ground validation of titles and ARB
   - ARB living in the area and still owning and tilling parcel
   - No land disputes
   - Land not yet subdivided
Sample characteristics

• **Sample location:** 11 provinces of the Philippines, including 9 in Mindanao and 2 in Bicol (southeastern Luzon)
  • Sample regions cover 34% (126,654 ha) of workable collectively titled land remaining to be subdivided in 2019

• **Sample Characteristics:**
  • 855 Agrarian Reform Beneficiaries (ARBs) in 475 collective titles enrolled at baseline
    • 2 provinces dropped at endline due to low compliance
  • 493 ARBs in 279 collective titles interviewed at endline
    • 31% of ARBs female
    • Mean (median) age: 52 (54)
    • Mean (median) education: 6.7 (6) years
    • 81% of households below national food poverty income threshold
Data and timeline

- **December 2018**: Completion of baseline survey
  - Household demographics
  - Parcel characteristics
  - Agricultural inputs and outputs
  - Income, consumption, assets and credit
  - Tenure security, trust in government

- **May 2018**: Completion of follow-on spousal survey
  - Intra-household decision-making
  - Agency, locus of control

- **July 2018**: Final randomization

- **February 2020**: Completion of endline survey
  - Parcel characteristics
  - Agricultural output
  - Consumption
  - Tenure security, trust in government
  - Household decision-making
  - Agency, social norms
Parcelization steps

1. DAR processes the request for survey subdivision
2. “Pulong-pulong” is held
3. The subdivision survey takes place and is approved by DENR and ARB
4. The approved subdivision survey is submitted to LRA which processes the individual titles
5. The LRA sends the individual titles to the local DAR office, which distributes them to the ARB

Most only reached this stage before endline survey

57% compliance
Methodology: Plot-level regressions

\[ Y_{csjt} = \beta_0 + \beta_1 T_{csj} + \beta_2 Y_{csjt=0} + X_{csj} + \lambda_s + \varepsilon \]

- \( Y_{csjt} \): Outcome of plot \( j \) in collective title \( c \) of strata \( s \) at time \( t \)
- \( T_{csj} \): Treatment status
- \( Y_{csjt=0} \): Baseline values of the outcome of interest (where available)
- \( X_{csj} \): Vector of controls
  - For plot-level analysis: area, irrigation, slope, drainage, and risk index
- \( \lambda_s \): Strata pair fixed effects

- Standard errors are clustered at collective title level (unit of randomization)
- Test hypotheses with and without control variables
- For treatment on the treated (TOT) regressions: Instrument subdivision survey completion with the random assignment to the treatment group
- Note: The impacts of the TOT estimates are similar to the intention to treat estimates, but with a larger magnitude and greater statistical significance (to be expected)
Methodology: ARB-level regressions

\[ Y_{ijcst} = \beta_0 + \beta_1 T_{jcs} + \beta_2 Y_{ijcst=0} + X_{ijcst} + \lambda_s + \varepsilon \]

- \( Y_{ijcst} \): Outcome of individual \( i \) of plot \( j \) in collective title \( c \) of strata \( s \) at time \( t \)
- Control values for individual-level analysis: Gender, age, education, household size, Number of years farming
Methodology: Regressions on intra-household decision making

\[ Y_{ijcst} = \beta_0 + \beta_1 T_{jcs} + \beta_2 Y_{ijcst=0} + X_{ijcst} + \lambda_s + \epsilon \]

- \( Y_{ijcst} \): Outcome of individual \( i \) of household \( h \) in collective title \( c \) of strata \( s \) at time \( t \)
- Control values for household-level analysis: Gender of ARB, age, education, and gender of enumerator
- Using data from spousal survey section of endline questionnaire
  - 384 spouses interviewed; 316 matched couples
- Hypotheses test 3 types of outcome:
  - Outcomes on ARBs
  - Outcomes on spouses
  - Outcomes on decision-making equality between spouses
- Decision equality hypotheses tested on a couple-level dataset; all others on individual-level datasets
Robustness

Two methods of controlling for multiple hypothesis testing:
- Most primary outcomes aggregated as z-score indices
  - See: Kling, Liebman & Katz 2007
- Sharpened q-values using False Discovery Rate procedures
  - See: Benjamini, Krieger & Yakuteli 2006

Replication of results
- 2 people coded the same analysis to ensure we get consistent results

Robustness to differential attrition
- Have already checked with controls for any imbalanced characteristics
- Will be testing using another method (Lee bounds)
Survey subdivision *decreased* perceptions of tenure security

Ancova and OLS: TOT Impact on Tenure Security (Likert Scale)

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Impact (Unadj. N1)</td>
<td>-0.270</td>
<td>-0.346</td>
<td>0.194</td>
<td>-0.102</td>
<td>0.054</td>
<td>0.043</td>
<td>0.184</td>
<td>-0.407</td>
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<td>(0.145)*</td>
<td>(0.178)*</td>
<td>(0.333)</td>
<td>(0.119)</td>
<td>(0.252)</td>
<td>(0.252)</td>
<td>(0.225)</td>
<td>(0.280)</td>
<td>(1.878)**</td>
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<td>Impact (Unadj. N2)</td>
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<td>0.264</td>
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<td>0.052</td>
<td>0.144</td>
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<td>(0.151)*</td>
<td>(0.181)**</td>
<td>(0.355)</td>
<td>(0.125)</td>
<td>(0.260)</td>
<td>(0.252)</td>
<td>(0.239)</td>
<td>(0.295)</td>
<td>(1.960)**</td>
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<tr>
<td>Impact (Adj. N2)</td>
<td>-0.311</td>
<td>-0.420</td>
<td>0.269</td>
<td>-0.127</td>
<td>0.083</td>
<td>0.143</td>
<td>0.299</td>
<td>-0.558</td>
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<tr>
<td>(0.152)**</td>
<td>(0.183)**</td>
<td>(0.353)</td>
<td>(0.126)</td>
<td>(0.258)</td>
<td>(0.261)</td>
<td>(0.224)</td>
<td>(0.293)*</td>
<td>(1.980)*</td>
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<td>Control Endline Mean</td>
<td>4.78</td>
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<td>420</td>
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<td>$R^2$</td>
<td>0.319</td>
<td>0.285</td>
<td>0.349</td>
<td>0.412</td>
<td>0.350</td>
<td>0.385</td>
<td>0.337</td>
<td>0.362</td>
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</table>

Ancova and IV models with marginal effects. CLOA-clustered standard errors in parentheses. *p<0.1 **p<0.05 ***p<0.01

N1 corresponds to the total number of observations for which the outcome is not missing.

N2 corresponds to the total number of observations for which the outcome and the controls are not missing.

$R^2$ of the adjusted models is reported. Controls include plot-level baseline indicator of irrigation, slope, drainage, and risk index. Randomization strata is included in all specifications.

BKY (2006) Sharpened Q-Values of Impact (Adj. N2): 0.191, 0.191, 0.468, 0.555, 0.491, 0.491, 0.224, 0.191, 0.191.
Subdivision also decreased confidence that local authorities could effectively protect ARB land rights

### OLS: TOT Impact on Perceived Effectiveness of Barangay Council & Municipal entity Effectiveness in Protecting Land Rights under Hypothetical Conflicts (Likert Scale)

<table>
<thead>
<tr>
<th></th>
<th>Barangay: Dispute with Neighbor</th>
<th>Barangay: Dispute with Govt</th>
<th>Barangay: Dispute with Private Company</th>
<th>Municipal: Dispute with Neighbor</th>
<th>Municipal: Dispute with Govt</th>
<th>Municipal: Dispute with Private Company</th>
<th>Barangay: Raw Sum</th>
<th>Municipal: Raw Sum</th>
<th>Barangay: Index PCA</th>
<th>Municipal: Index PCA</th>
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<tbody>
<tr>
<td>Impact (Unadj. N1)</td>
<td>-0.697</td>
<td>-0.521</td>
<td>-0.496</td>
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<td>-0.214</td>
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<td>(0.176)**</td>
<td>(0.199)**</td>
<td>(0.153)**</td>
<td>(0.169)**</td>
<td>(0.208)**</td>
<td>(0.168)**</td>
<td>(0.483)**</td>
<td>(0.509)**</td>
<td>(0.302)**</td>
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<td>Impact (Unadj. N2)</td>
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<td>-0.574</td>
<td>-0.501</td>
<td>-0.466</td>
<td>-0.385</td>
<td>-0.460</td>
<td>-1.768</td>
<td>-1.319</td>
<td>-1.113</td>
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<tr>
<td></td>
<td>(0.183)**</td>
<td>(0.204)**</td>
<td>(0.162)**</td>
<td>(0.179)**</td>
<td>(0.212)**</td>
<td>(0.178)**</td>
<td>(0.509)**</td>
<td>(0.532)**</td>
<td>(0.319)**</td>
<td>(0.358)**</td>
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<td>Impact (Adj. N2)</td>
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<td>-1.186</td>
<td>-0.999</td>
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<td>(0.180)**</td>
<td>(0.198)**</td>
<td>(0.158)**</td>
<td>(0.181)**</td>
<td>(0.206)**</td>
<td>(0.182)**</td>
<td>(0.490)**</td>
<td>(0.528)**</td>
<td>(0.307)**</td>
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<td>Control Endline Mean</td>
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<tr>
<td>$R^2$</td>
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<td>0.371</td>
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</tbody>
</table>

IV models with marginal effects. CLIOA-clustered standard errors in parentheses. * $p<0.1$ ** $p<0.05$ *** $p<0.01$
N1 corresponds to the total number of observations for which the outcome is not missing.
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BKY (2006) Sharpened Q-Values of Impact (Adj. N2): 0.001, 0.004, 0.002, 0.004, 0.006, 0.004, 0.001, 0.004, 0.001, 0.004.
ARB shift to leasing out their land rather than tilling it themselves

<table>
<thead>
<tr>
<th></th>
<th>Plot Leased</th>
<th>Plot Sold</th>
<th>ARB Tiller</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact (Unadj. N1)</td>
<td>0.131</td>
<td>0.024</td>
<td>-0.130</td>
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<tr>
<td></td>
<td>(0.055)**</td>
<td>(0.012)*</td>
<td>(0.045)***</td>
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<tr>
<td>Impact (Unadj. N2)</td>
<td>0.149</td>
<td>0.025</td>
<td>-0.140</td>
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<td></td>
<td>(0.059)**</td>
<td>(0.013)*</td>
<td>(0.049)***</td>
</tr>
<tr>
<td>Impact (Adj. N2)</td>
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<td></td>
<td>(0.060)***</td>
<td>(0.012)*</td>
<td>(0.049)***</td>
</tr>
<tr>
<td>Control Endline Mean</td>
<td>0.09</td>
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<td>0.96</td>
</tr>
<tr>
<td>N1</td>
<td>470</td>
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<tr>
<td>N2</td>
<td>451</td>
<td>471</td>
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<tr>
<td>$R^2$</td>
<td>0.355</td>
<td>0.377</td>
<td>0.372</td>
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</table>

IV models with marginal effects. CLOA clustered standard errors in parentheses. * p<0.1 ** p<0.05; *** p<0.01
N1 corresponds to the total number of observations for which the outcome is not missing.
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$R^2$ of the adjusted models is reported. Controls include plot-level baseline indicator of irrigation, slope, drainage, and risk index.
Randomization strata is included in all specifications.

BKJV (2006) Sharpened Q-Values of Impact (Adj. N2): 0.011, 0.031, 0.011.
Consistent with a decrease in tenure security, ARB report more anxiety and lower life satisfaction.
Also consistent with a decrease in tenure security, land was less likely to be fallowed

### Ancova and OLS: TOT Impacts on Investments

<table>
<thead>
<tr>
<th></th>
<th>Irrigation &amp; Shed Index - 1st PCA</th>
<th>Irrigation &amp; % of Shed Index - 1st PCA</th>
<th>Attempt to build Irrigation or Shed</th>
<th>Left to Fallow for Productivity Reasons</th>
<th># of Trees Planted</th>
<th># of Trees Planted per Ha</th>
<th>Prop. of Parcel with Ground Crops</th>
<th>Total number of Ha Cultivated</th>
<th>All Land is Planted or Left to Fallow for Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact (Unadj. N1)</td>
<td>-0.020 (0.170)</td>
<td>-0.311 (0.000)</td>
<td>0.027 (0.068)</td>
<td>-0.066 (0.030)**</td>
<td>15.476 (109.840)</td>
<td>19.873 (57.692)</td>
<td>0.006 (0.045)</td>
<td>-0.065 (0.096)</td>
<td>0.064 (0.084)</td>
</tr>
<tr>
<td>Impact (Unadj. N2)</td>
<td>-0.024 (0.172)</td>
<td>-0.311 (0.000)</td>
<td>0.069 (0.069)</td>
<td>-0.069 (0.032)**</td>
<td>57.553 (104.462)</td>
<td>25.914 (57.203)</td>
<td>0.002 (0.047)</td>
<td>-0.068 (0.101)</td>
<td>0.060 (0.087)</td>
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<tr>
<td>Impact (Adj. N2)</td>
<td>-0.050 (0.179)</td>
<td>0.113 (0.341)</td>
<td>0.071 (0.071)</td>
<td>-0.070 (0.035)**</td>
<td>71.977 (103.510)</td>
<td>31.437 (57.349)</td>
<td>0.031 (0.049)</td>
<td>-0.014 (0.110)</td>
<td>0.104 (0.093)</td>
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<tr>
<td>Control Endline Mean</td>
<td>0.06 (0.07)</td>
<td>0.07 (0.07)</td>
<td>0.22 (0.07)</td>
<td>0.05 (0.09)</td>
<td>340.59 (504)</td>
<td>178.70 (482)</td>
<td>0.19 (475)</td>
<td>0.37 (504)</td>
<td>0.59 (455)</td>
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<td>490</td>
<td>504</td>
<td>482</td>
<td>475</td>
<td>504</td>
<td>455</td>
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<tr>
<td>N2</td>
<td>432</td>
<td>201</td>
<td>433</td>
<td>471</td>
<td>483</td>
<td>482</td>
<td>456</td>
<td>483</td>
<td>437</td>
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<tr>
<td>R²</td>
<td>0.460</td>
<td>0.713</td>
<td>0.384</td>
<td>0.305</td>
<td>0.512</td>
<td>0.465</td>
<td>0.492</td>
<td>0.518</td>
<td>0.348</td>
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</table>

Ancova and IV models with marginal effects. CLOA clustered standard errors in parentheses. * p<0.1 ** p<0.05; *** p<0.01

N1 corresponds to the total number of observations for which the outcome is not missing.

N2 corresponds to the total number of observations for which the outcome and the controls are not missing.

R^2 of the adjusted models is reported. Controls include plot-level baseline indicator of area, type of irrigation, slope, drainage, and risk index.

Randomization strata is included in all specifications.

BKJ (2006) Sharpened Q-Values of Impact (Adj. N2): 1.000, 1.000, 1.000, 0.868, 1.000, 1.000, 1.000, 1.000, 1.000.
Plans to invest in barns/granaries also declined

<table>
<thead>
<tr>
<th>OLS: TOT Impact on Investment Plans</th>
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<tr>
<td>Impact (Unadj. N1)</td>
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<tr>
<td>Impact (Unadj. N2)</td>
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<tr>
<td>Impact (Adj. N2)</td>
</tr>
</tbody>
</table>

Control Endline Mean
0.24 0.55 0.57 0.45 0.50
N1 423 421 421 424 421
N2 408 406 406 409 406
R² 0.373 0.424 0.401 0.340 0.391

IV models with marginal effects. CLOA-clustered standard errors in parentheses. *p<0.1 **p<0.05 ***p<0.01
N1 corresponds to the total number of observations for which the outcome is not missing.
N2 corresponds to the total number of observations for which the outcome and the controls are not missing.
R² of the adjusted models is reported. Controls include plot-level baseline indicator of irrigation, slope, drainage, and risk index.
Randomization strata is included in all specifications.

BKY (2006) Sharpened Q-Values of Impact (Adj. N2): 0.569, 0.180, 0.829, 0.829, 0.829.
Impacts on intra-household bargaining

Overview

• Impacts are very different for male and for female ARB
• For male ARB:
  • Survey subdivision seems to consolidate decision making authority on the land in the husband’s control and reinforce more traditional gender norms
  • Wives of male ARB report a loss in agency and influence over the final decision on the land
  • Gender views seem to diverge between spouses, in particular on who should make decisions—while male ARB tend to shift toward more conservative viewpoints, their wives shift more toward more gender-equal positions
• For female ARB:
  • Survey subdivision leads to more equal bargaining power on land
  • This shift seems to come from female ARB gaining more authority over their land
  • At the same time, husbands of female ARB report greater agency
  • Both female ARB and their husbands shift to more progressive gender views
What might explain why the results were different than expected?

- Short-term results
  - Impacts of subdivision survey, not of individual titles
  - Positive impacts may take longer to materialize – the process of subdivision may breed some uncertainty and raise some disputes
    - In particular in a context with lengthy duration
  - ARB relinquish collective titles while individual titles are being processed
  - Any change can breed some anxiety, especially change in land tenure that has been set for over 10 years
- ARB were ill informed about the process and lacked critical information and participation in all stages
  - Uncertainty about the program can breed anxiety
  - Lack of involvement in the initial stages can lead to lack of trust in local officials
- Concerns about amortization payments
  - Negative impacts on tenure security, perceptions of local officials, and investment plans and increase in leasing are concentrated in compensable lands and non-ARC communities
ARB were not well informed about the program
ARB were not well informed about the program

Were all ARBs or their representatives present during the pulong-pulong?

If you wanted more information on the subdivision process, do you think you could easily obtain this information?
Lack of information doesn’t mean lack of interest in parcelization

Would you prefer to own 1 hectare of land individually, or 2.5 hectares of land owned jointly with another farmer in your community?

- Own 1 hectare individually: 93.6%
- Own 2.5 hectares jointly: 6.4%
However, some concerns on consent

Note: The pressure could come from DAR, other ARBs, or their family.
Why might parcelization lower intra-household bargaining of wives of male ARB?

• The program leads households to recall which spouse was the original ARB
  • When the ARB is notified of the pulong-pulong, the letter is addressed to the ARB and not the ARB and spouse
  • For both genders, we see the original ARB is gaining decision-making authority
  • Because baseline bargaining power is different for men and women, this consolidation of power in the hands of the ARB has different implications for male and female ARB

• Wives of male ARB have even less information about the parcelization program than their husbands, putting them at a disadvantage in intra-household bargaining

• Anxiety about tenure security → men seeking to assert their authority in other ways
Conclusion

1. As it was implemented over the past few years, the subdivision of collective land titles lowers tenure security, ARB psychological welfare, and agency of wives of male ARB in the short-run
   a) Need for longer term follow-up to understand whether the impacts reverse in the long term

2. These negative impacts may be coming from:
   a) Not yet receiving individual paper title
   b) Duration of parcelization process erodes trust will receive the title
   c) Lack of information about the program (among both ARB and spouses)
   d) Lack of ARB involvement in the process
   e) Worry about amortization
   f) Reassertion of gender roles or emphasis on role of ARB

3. It remains to be seen whether receiving the individual titles may reverse the short-term negative impacts on tenure security and anxiety.