“Women's property rights and gendered policies: Implications for women’s long-term welfare in rural Tanzania”

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1. Are women’s property and inheritance rights (WPIR) improving and what are the key determinants of WPIR?

2. Do WPIR have significant associations with women’s welfare? (labor force participation and earnings, time use, savings and expenditures).

3. Do WPIR matter more for groups of marginalized women (widows/divorcees, poor and uneducated women) who may not be able to assert their rights, AND what components of WPIR matter most?
Background

- Across sub-Saharan Africa and other parts of the developing world WPIR are restricted, both due to legislation and custom.

> “Women don’t need property of their own. We take care of them...like we take care of our cows.”

(Male elder in Bagamoyo, Tanzania (Tenga and Peter, 1996))

- Even if women have the right to use land, they are often limited in ability to transfer, sell, designate a heir or loan land to other parties.

- Access to, ownership and control of property are fundamental determinants of secure livelihood, in addition to other risks (for example widow inheritance).

> “I don’t know this man’s HIV status, and if I die my children will suffer.”

(Jiwa Felister, 55 year old Luhya widow; Kenya forced by in-laws to undergo ritual cleansing. (HRW, 2003)).
Data: Kagera Health and Development Survey (KHDS)

- Longitudinal panel from the Kagera region in North-western Tanzania.
- Over-sampled communities with high mortality and households with high mortality or morbidity stratified by agronomic zone.

This analysis:

- Uses intersection of baseline rounds (wave 1 for each women ages 15 to 55) and end-line.
- Baseline cross-section of 1,485 women. Approx. 51 percent lost to attrition (3.9 percent/year) resulting in a full panel of 756 women.
- Of these, 16 percent lost to mortality, 17 percent lost to mobility, 16 percent lost to ‘unattributable’ causes.
1. Estimate community-level (N = 254) determinants of high WPIR.

2. Use Inverse Probability Weighting (IPW) method to control for attrition bias due to observables in individual-level outcomes. Estimate probability of re-interview (use (1) presence in all four baseline rounds, (2) community-level morbidity related death rate, (3) price per tablet of paracet, (4) indicator of daughter head of household).

3. Estimate cross-sectional, fixed effects and IPW fixed effects models individual-level women’s welfare.


\[ X_i \text{ (age, education, marital status, ethnicity, religion and wealth); } X_c \text{ (urban, population, bank, hospital, health center, electricity, piped water, regional capital); Additional controls (seasonal indicators, passage controls).} \]
## Trends in Community-level WPIR

<table>
<thead>
<tr>
<th>If her husband dies, is it customary for the...</th>
<th>10 Years Prior (N = 51)</th>
<th>Baseline (1991-94) (N = 51)</th>
<th>Follow-up (2004) (N = 51)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Panel A: Community level distribution:</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Wife to inherit land (=1)</td>
<td>0.00</td>
<td>0.49</td>
<td>0.86</td>
</tr>
<tr>
<td>(2) Wife to inherit house (=1)</td>
<td>0.04</td>
<td>0.53</td>
<td>0.90</td>
</tr>
<tr>
<td>(3) Wife to inherit other assets (=1)</td>
<td>0.08</td>
<td>0.88</td>
<td>0.98</td>
</tr>
<tr>
<td>(4) Wife not to be inherited (=1)</td>
<td>0.39</td>
<td>0.61</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>High WPIR (all four policies =1)</strong></td>
<td>0.00</td>
<td>0.24</td>
<td>0.80</td>
</tr>
</tbody>
</table>

Note: Variables used for column A are collected through recall in the 2004 survey round.

1 For simplicity, community baseline distribution is calculated from passage 1 in 1991.
### Results of Individual-level Welfare Analysis:

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Baseline (N = 1,242)</th>
<th>Fixed-effects with IPW (N = 756)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff</td>
<td>SE</td>
</tr>
<tr>
<td><strong>Employed outside the home (last week = 1)</strong></td>
<td>-0.18</td>
<td>(0.23)</td>
</tr>
<tr>
<td><strong>Working self employed (last week = 1)</strong></td>
<td>0.498***</td>
<td>(0.14)</td>
</tr>
<tr>
<td><strong>Working in agriculture (log hrs spent last week)</strong></td>
<td>-0.137</td>
<td>(0.41)</td>
</tr>
<tr>
<td><strong>Earnings (log shillings)</strong></td>
<td>-0.158</td>
<td>(0.23)</td>
</tr>
<tr>
<td><strong>Fetching water/carrying firewood (log hrs spent last week)</strong></td>
<td>0.227</td>
<td>(0.19)</td>
</tr>
<tr>
<td><strong>Housework (log hrs spent last week)</strong></td>
<td>-0.106</td>
<td>(0.09)</td>
</tr>
<tr>
<td><strong>Individual Expenditures:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clothing and fabrics (log shillings)</td>
<td>0.241</td>
<td>(0.23)</td>
</tr>
<tr>
<td>Food and beverages (log shillings)</td>
<td>-0.028</td>
<td>(0.24)</td>
</tr>
<tr>
<td>Medical (in log shillings)</td>
<td>0.810***</td>
<td>(0.20)</td>
</tr>
<tr>
<td>Total individual expenditure (log shillings)</td>
<td>0.310**</td>
<td>(0.16)</td>
</tr>
<tr>
<td><strong>Savings:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total individual savings (log shillings)</td>
<td>0.462*</td>
<td>(0.27)</td>
</tr>
<tr>
<td>Total household savings (log shillings)</td>
<td>0.367***</td>
<td>(0.13)</td>
</tr>
</tbody>
</table>

Note: Employed and self-employed are estimated using probit and LPM model (fixed-effects), the remaining are estimated using OLS models. Standard errors clustered at the district level are reported in parentheses.

* indicates significant at 10%; ** significant at 5%; *** significant at 1%.
Extensions

1. Interactions between WPIR and (1) widow/separated, (2) poor (lowest wealth quintile) and (3) uneducated (no schooling).

   Expectations: Interaction term will be positive and significant (WPIR are substitutes for wealth or education in determining outcomes). *Results indicate that overall there are few differences between sub-groups.*

2. Test each policy variable separately (1) land, (2) house, (3) assets, (4) widow inheritance.

   Expectations: Certain aspects of WPIR may be more important in determining outcomes. Results indicate that no one property right is as strong as all combined. *Overall land delivers the most significant results, while widow inheritance is the weakest.*
Discussion

• How significant are the effects?
  Simulations show that under a scenario where there are no improvements in WPIR, employment is 7.85 percent; when all communities improve, the average rate is 18.42.

• What is WPIR measuring?
  Two interpretations: (1) a proxy measure for gender equity/women’s status and other gender sensitive policies, or (2) policies surrounding inheritance rights. There is some evidence which points to the former, however remains unclear.

• Are results generalizable?
  Kagera is a unique region and sample selection magnifies potential differences. However, qualitative work from other regions in sub-Saharan Africa paint similar pictures indicating it is likely that women face equity issues surrounding WPIR in other countries as well.
Conclusions & Policy Implications

- Levels of WPIR have shown large improvements in Kagera since the early 1990’s—however 1/5 of communities still restrict one or more domain of WPIR.

- Economic development alone is not sufficient to improve WPIR, as ethnic groups play a significant role.

- In the preferred specification, increases in WPIR are significant in determining employment outside the home and earnings, in addition to increased savings (cross-sectional only).

- Overall, WPIR affect all women and are not localized to marginalized women, with land inheritance being the strongest predictor of outcomes.

- Governments/initiative may want to consider revisiting property/inheritance rights from a gender perspective, not only for equity reasons, but potentially also for development reasons.
Next Steps

• Examine household outcomes (expenditures and savings) to test whether or not improvements for women = improvements for overall household or if they are zero sum gains.

• Examine health outcomes for widow inheritance under the hypotheses that widow inheritance is linked to increased sexual transactions and potential HIV transmission.

• Convince committee that this is a meaningful and unique contribution!


