WOMEN FARMERS IN TIMOR-LESTE: BRIDGING THE PRODUCTIVITY GAP

with Elizaveta Perova, Sunita Caminha and Teresa Verdial
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Why this analysis


Women represent nearly half (46 percent) of the agricultural labor force (2016 Labor Force Survey).

A third of people in Timor-Leste live with moderate to severe food insecurity (Ministry of Agriculture and Fisheries 2019).

TL Strategic Development Plan 2011-2030: “To achieve our primary goal of food security by 2020 and to expand our agriculture sector, we will improve our farming practices and take action to boost the production of specific crops.”

Addressing gender gaps in agricultural productivity can boost overall output, reduce poverty and improve food security (Goldstein et al. 2015)
What we did: the data

- **Data**: 2014 Timor-Leste Survey of Living Standards (TLSLS)
- Focus on 3,561 agricultural households (84% of all agricultural households) with only 1 female or 1 male manager of agricultural holdings.
- Information on:
  
  **Household level**: region, number of members (incl. children), religion, wealth index, ownership of implements, hired labor etc.
  
  **Individual level**: age, schooling, literacy, marital status, relationship to HH head etc.
  
  **Plot level**: size, distance from home, plot manager ID in HH, irrigation, etc.
  
  **Crop level**: amount harvested, amount sold, value of amount sold
What we did: the method

- We measure productivity as Value* of Harvest per unit of land (hectare).
- We estimate the productivity difference (or gap) between female and male farmers for the entire country and 2 main agricultural regions, Coastal & Central.
- We adjust the gap so it compares plots of similar size and in the same region.
- We break down the findings in two categories using the Oaxaca-Blinder method:
  - Gender Gap due to difference in inputs and characteristics (factors of production), such as availability of agricultural tools or years of education
  - Gender Gap due to difference in returns to inputs and characteristics (such as amount of output attributable to using an agricultural tool)

*Using the median reported price for the corresponding crop at the sub-district level or at a higher enumeration area level when necessary.
What we found: the gap

- Female farmers produce, on average, **15.3** percentage points (pp) less per hectare of land.
- The gender gap doubles to **31** pp and is identical across agro-ecological zones, once we account for differences in land area operated by men and women.
What we found: the drivers

- The decomposition does not find evidence of gender differences in returns to inputs.
- The observed productivity gap is almost entirely driven by male and female farmers' different access to factors of production, including:

<table>
<thead>
<tr>
<th>Female Farmers</th>
<th>Male Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy rate among farmers&lt;sup&gt;11&lt;/sup&gt;</td>
<td>20%</td>
</tr>
<tr>
<td>Household Size</td>
<td>3.9</td>
</tr>
<tr>
<td>Hired Labor (male)</td>
<td>0.64 days per ha</td>
</tr>
<tr>
<td>Agricultural Implements Index&lt;sup&gt;12&lt;/sup&gt;</td>
<td>−0.19</td>
</tr>
<tr>
<td>Participated in a Farming Group</td>
<td>2%</td>
</tr>
<tr>
<td>Produced Processed Coffee Beans (cash crop)&lt;sup&gt;13&lt;/sup&gt;</td>
<td>16%</td>
</tr>
<tr>
<td>Sold Any Crops</td>
<td>52%</td>
</tr>
</tbody>
</table>
What the findings tell us

1. Disparity in literacy among male and female farmers needs to be taken into account in the provision of extension services.

2. Analysis of barriers to extension services and farmers' organizations for women (e.g. childcare, only 11 percent of extension service officers are female) is instrumental to addressing the gender gap.

3. Access to markets and crop selection within the household: we need better understanding of barriers and choices faced by male and female farmers.

4. Investment in better quality data on male and female farmers within households is needed.
Thank you

Additional information:

Dimitria Gavalyugova
Economist – Gender Specialist (ETC)
dgavalyugova@worldbank.org

Elizaveta Perova
Senior Economist
everova@worldbank.org