Incorporating the gender dimension on the use of rice technologies in Latin America

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Consultative Group on International Agricultural Research

CGIAR
Research Program on Rice
Global Rice Science Partnership

Introduction: What we know about gender and rice production in LAC

- Little literature of women's role in rice production.
- Studies have shown the importance of women in other agricultural systems in three important issues:

  1. Access to resources
  2. Division of labor
  3. Decision making power

Gender studies CIAT-GRiSP

1. Peru. 2012
2. Bolivia. 2013
3. Ecuador. 2014

Peru

Women's Roles in Rice Production in Northern Peru

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Setting

- 93% of the grain is produced under irrigated system
- Most sowing system is Peru is transplanting

- Sampled area: Lambayeque, San Martín, Piura, La Libertad, Arequipa, Amazonas, and Cajamarca
- The average rice yield was 8.3 tons per hectare.

Women's Roles in Rice Production in Northern Peru. 2012

Status: Research results

- **Objective:**

Document women's roles in rice production in Peru, specifically in terms of access to resources, division of labor and decision making power.

- **Method:**

497 households were surveyed for their involvement in the cultivation of irrigated rice on plots of land between 0.5 and 10 hectares.

Yield Gap

Group	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf.	Interval]
men	394	**8610.488**	111.1588	2206.439	8391.948	8829.029
women	90	**8242.094**	172.1568	1633.223	7900.023	8584.166
combined	484	8541.985	96.1374	2115.023	8353.086	8730.885
diff		**368.3939**	204.925		-36.09915	772.887

diff = mean (men) - mean (women) t = 1.7977

Ho: diff = 0 degrees of freedom = 171.912

Ha: diff < 0 Ha: diff !=0 Ha: diff > 0

Pr(T < t) = 0.9630 Pr(|T| > |t|) = 0.0740 Pr(T > t) = 0.0370

Plots managed by women have 4.5% less yield than men's plots.

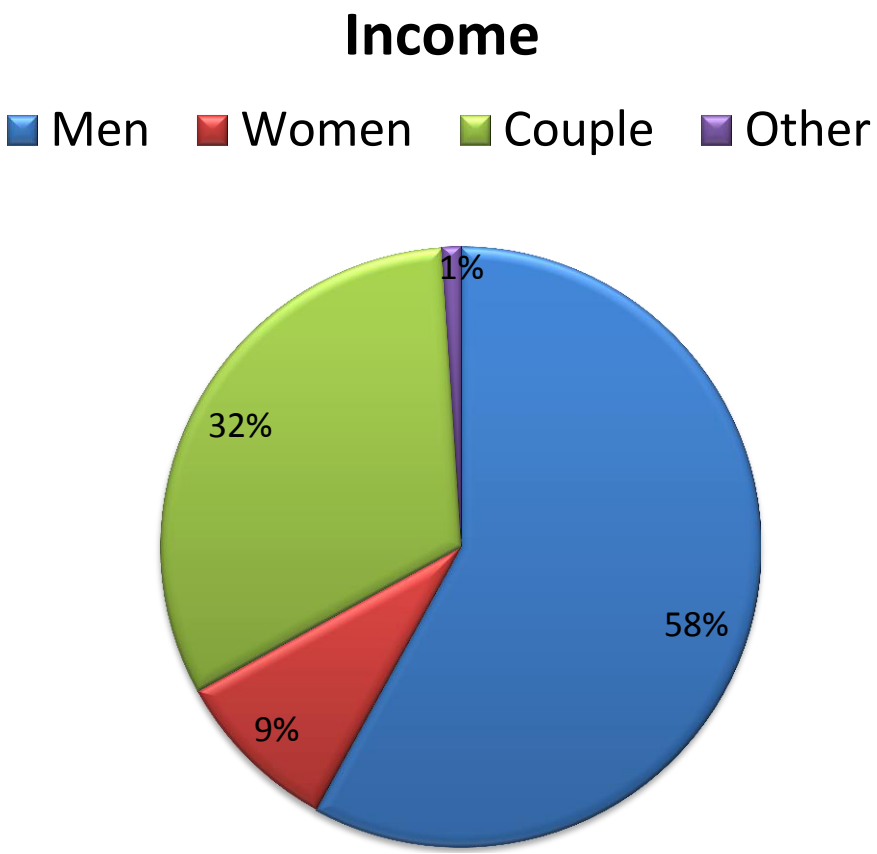
Landownership

- In the area, there are 617 plots of rice.
  - 85.6% owned, 9% rented and 5.4% other type of tenure.
- Women have individual property rights or joint in 23% of all plots.
- Women are less prone to manage rice plots.
  - Biased in men's favor.
  - Women participate in most of the production activities and in the decision making process.

Division of labor

Activity	Hired labor				
	Men		Women		Total
	person/day	%	person/day	%	person/day
Watering	3	75.0	1	25.0	4
Preparation and sowing of seeds	**2**	**40.0**	**3**	**60.0**	**5**
Land preparation	2	100.0	0	0.0	2
Seedling removal	4	66.7	2	33.3	6
Transplantation	9	69.2	4	30.8	13
Sowing of seeds	2	66.7	1	33.3	3
Early weed control (chemical)	2	66.7	1	33.3	3
Late weed control (chemical)	**1**	**50.0**	**1**	**50.0**	**2**
Weed control by hand	4	63.7	2	36.3	6
Apply chemical fertilization	2	66.7	1	33.3	3
Apply organic fertilization	2	66.7	1	33.3	3
Pest and disease control	**3**	**60.0**	**2**	**40.0**	**5**
Harvesting	4	66.7	2	33.3	6
Transporting the product	2	100.0	0	0.0	2
Drying the product	3	100.0	0	0.0	3
Husk removal	2	100.0	0	0.0	2
Total	**47**	**68.9**	**21**	**31.1**	**68**

Decision making



Learnt lessons

- ✓Asking who is the main decision maker tends to bias the answer: both men and women often respond the man whether or not he is actually making most of the decisions (cultural bias).
- ✓Robust analysis requires a more balanced data by gender: necessary to survey the same amount of men and women.

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Women's Role in Rice Production. Bolivia. 2013

Status: Data analysis in progress

- **Objective**: Identify and document women's and men's role in rice production in households of small and medium rice producers in Bolivia.

- **Specific objectives:**

1. Identify women participation in rice production: family labor in each agronomic activity;
2. Identify women's role in the adoption of rice varieties; and
3. Identify women participation of decision making processes: commercialization and spending of the earned income.

Women's Role in Rice Production. Bolivia. 2013

Status: Data analysis in progress

- **Method:** The sample was determined by a multi-stage sampling procedure. In total 855 households located in 75 communities of the departments of Santa Cruz, Beni, and Cochabamba were surveyed.

Gender Roles in the Rice Production System. Ecuador. 2014

Status: Field work in progress

- **Objective**: Understanding the role of women and men in rice production system, including decision making, division of labor, access and control of resources; in households of small rice producers.

- **Specific objectives:**

1. Identify decision making of men and women in rice producers households, including variety adoption and expending.
2. Describe men and women's tasks in rice production and in the household; and
3. Identify gender norms in the community.

Gender Roles in the Rice Production System. Ecuador. 2014

Method: Surveys and qualitative techniques (focus groups and interviews)

1. Quantitative: 1008 surveys in rice households

Targeting 84 communities located in the provinces of Guayas, Los Rios, Manabi and El Loro; aimed at large, medium and small rice producers, with a gender disaggregation.

2.Qualitative: Focus groups and interviews in 4 communities

The four communities have different types of production system: rainfed and irrigated. Focus groups aim to understand general aspects of the community and semi-structured interviews try to understand the daily interactions involved in the decision-making.

Next steps

Analysis of women's role in rice production in Latin America.

- Relevance for reducing yield gaps.
- Gives baseline or current status of indicators of women's empowerment in rice production
- Any future work with the same indicators could be compared to show changes in women's empowerment (the gender IDO).

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