

TH2.3: A gender-responsive approach to designing agricultural risk management bundles

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Introduction

- **Motivation** – Insurance protects farmers against the loss of crops due to natural disasters, extreme weather, or revenue loss owing to price fluctuations in the agricultural market
- **The problem** - Large risk exposure leads to high insurance premium which is not affordable by small holder farmers.
- **The idea** – If farmers reduce their risk exposure by adopting risk-reducing practices they can lower insurance premiums.
- Potential gender gaps in access to such practices/technology
- **Question** - What can male and female farmers do to reduce their risk exposure, without lowering their average or expected yields? And which of these practices / technologies are expected to have the greatest benefits for women smallholder farmers?

Research Method

- Survey conducted with 900 farmers (462 male and 447 female) in the state of Odisha to collect data on their current agricultural management practices

Objective: To find out gender gaps in management practices, yield, cost of production and output prices

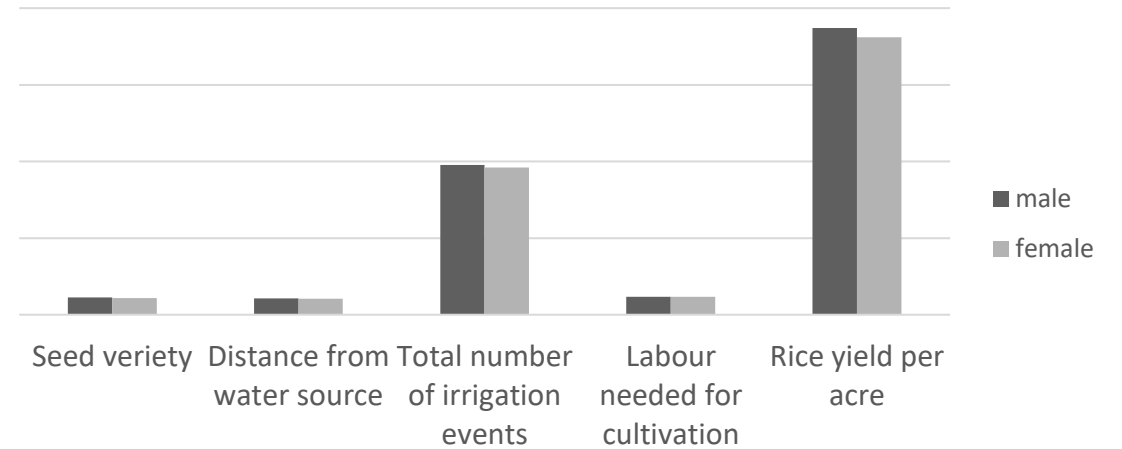
Findings

No significant differences in using stress tolerant seed, distance from irrigation source, number of irrigation events, yield per acre and labour requirement for cultivation.

However, when it comes to labour cost, challenges faced for hiring labour we see significant difference between male and female farmers.



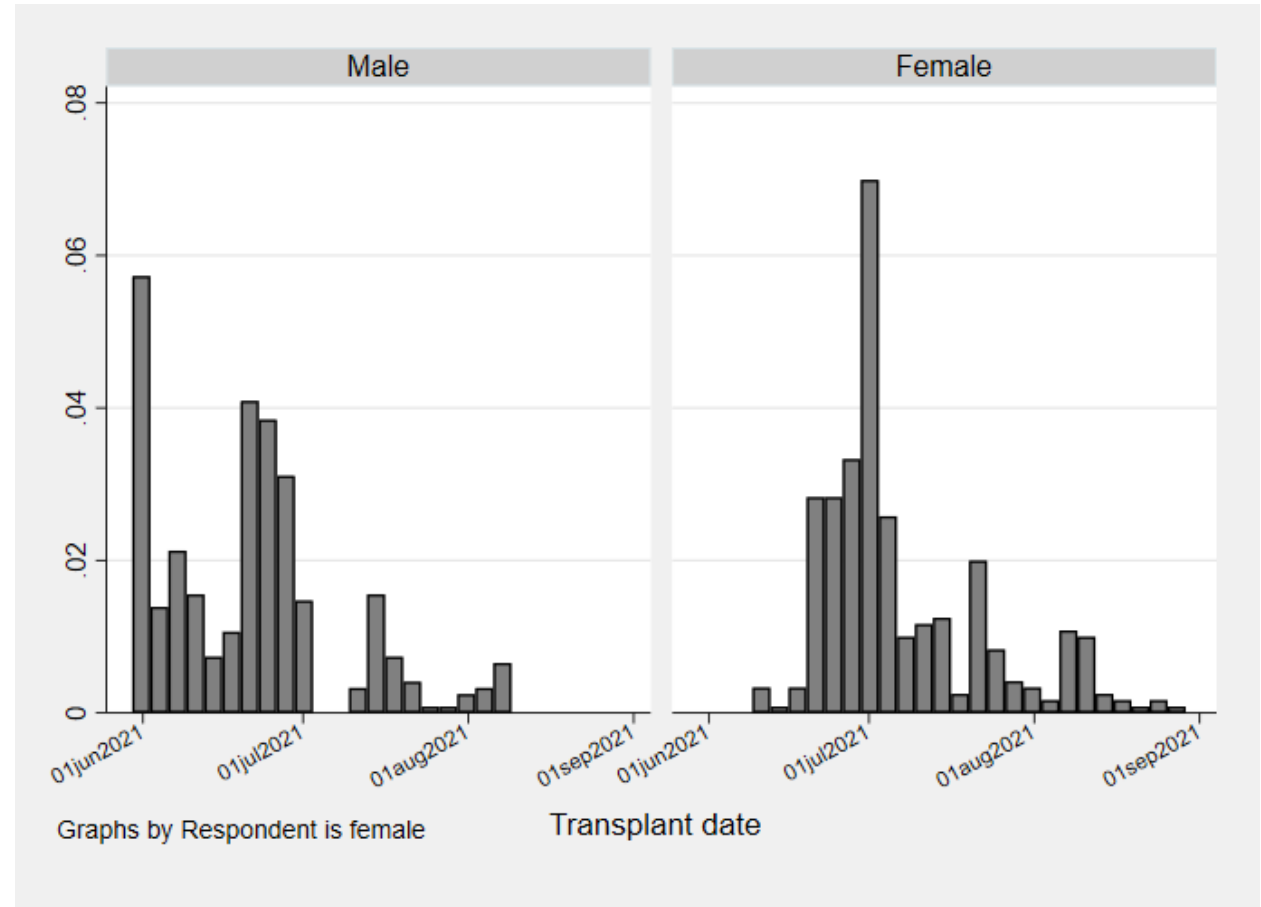
Management practices



	Male	Female	
	Mean	Mean	p-value
Labour cost per acre	9299.04	12306.44	0.0000
Challenges faced for hiring labour	0.144	0.532	0.0000
Had to pay extra	0.083	0.257	0.0055
Finding labour is time consuming	0.625	0.686	0.5015
Labourers engaged in other jobs	0.521	0.349	0.0713
Labourers don't respect me	0.080	0.309	0.0000
Wage - male labour per day	351.51	366.12	0.0013

Findings

“**Late transplanting**” - Possible reason for high labour cost incurred by female farmers.



“**Dependency on availability of labour**” – A key factor to consider for female farmers before transplanting

	Male			Female			
	N	Mean	Std.	N	Mean	Std.	p-value
Decision on transplanting							
With the onset of rains	423	0.695	0.461	391	0.465	0.499	0.0001
Availability of irrigation	423	0.035	0.185	391	0.036	0.186	0.9792
Availability of labour	423	0.16	0.37	391	0.40	0.49	0.0000

Discussion and Conclusion

- Significant gender differences in labour input – cost and challenges and timing of transplanting.
- Direct seeding is a risk-reducing technology that could help address this gender gap, and women value direct-seeded rice more than men (Khan Kishore and Joshi 2016*)
- Emphasizing on direct seeding to minimize the labour cost especially for female farmers can be a gender-responsive strategy to lower insurance premiums
- Next steps - Using biophysical crop models to simulate the implications of direct-seeded rice vs ongoing practices for risk exposure and insurance premiums

* Khan, Md. Tajuddin; Kishore, Avinash; Joshi, Pramod Kumar. 2016. Gender dimensions on farmers' preferences for direct-seeded rice with drum seeder in India. IFPRI Discussion Paper 1550. Washington, D.C.: International Food Policy Research Institute (IFPRI).

A group of women are working in a rice paddy field. They are wearing colorful saris and headscarves. The field is filled with young rice plants, and the water is shallow. The women are walking through the field, some carrying bundles of rice. The background is a vast expanse of green rice plants under a bright sky.

THANK YOU
