

How Can the Poorest Smallholder Farmers Benefit More From Staple Food Markets?

Duncan Boughton, David Mather, Nango Dembele,
T.S. Jayne and Abdoul Murekezi

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Three broad policy questions

- Do the poorest smallholders benefit from the same kinds of investments to improve food staple markets as the less poor?
- If yes, will these investments be sufficient to lift them out of poverty and assure food security?
- If not, what kinds of complementary investments are needed?



Three specific research questions

- How do the poorest smallholders participate in food staple markets?
- How do improvements in food staple markets affect participation by the poorest?
- How can we increase benefits to the poorest from food staple market participation?

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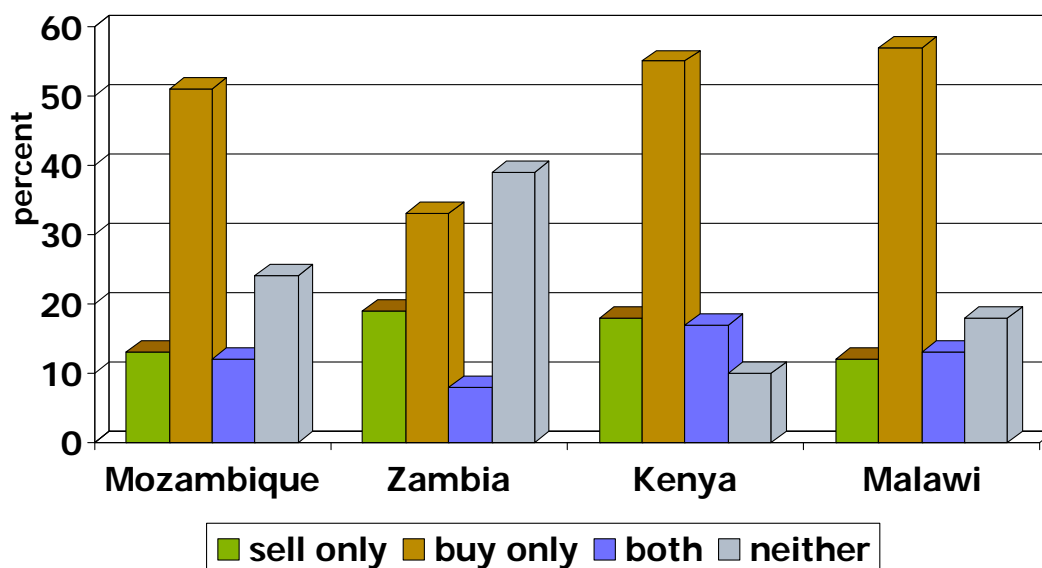


1) How do the poorest participate in food staple markets?

- Evidence indicates that:
 - Most African smallholders participate in food staple markets as buyers rather than sellers
 - The fewer assets smallholders have the more likely they are to be buyers than sellers

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Smallholder Households' Position in the Maize Market



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Household maize market position by landholding
quartile, Mozambique, 2005

Quartiles of landholding	Net seller	Net buyer	Autarkic	Total
1-low	5%	65%	30%	100%
2	10%	58%	32%	100%
3	14%	57%	29%	100%
4-high	25%	49%	27%	100%
Total	14%	57%	29%	100%

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Terciles of Landholding per capita	Marginal Rainfed Cereal (Tominian, Mali 2008-9)			Rainfed Cereal-Cotton (Koutiala, Mali 2008-9)		
	Net sell	Net buy	Autarkic	Net sell	Net buy	Autarkic
1 - low	4	70	26	45	26	29
2	10	55	35	64	14	22
3 - high	28	30	42	70	8	22

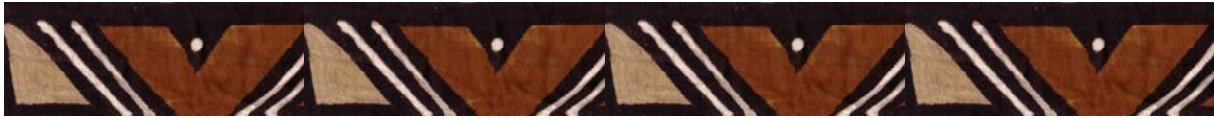
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Mozambique, Zambia, 2008
Quantity (kg) of maize sold sellers

Quartiles of landholding	Mozambique		Zambia	
	mean	median	mean	median
1-low	193	87	1,107	288
2	162	100	1,232	460
3	236	100	1,296	575
4-high	337	139	2,233	804
Total	241	100	1,523	575

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A displaced sales “poverty trap”?

- Anecdotal (mainly) evidence indicates that some households sell grain at harvest and buy or borrow later at higher prices:
 - Kenya 1 in 8 (Jayne et al)
- Unobserved transactions problem
 - Borrowing from traders in hungry season to sell at harvest in parts of Mali
 - “ganyo ganyo” labor for food in Malawi, Mozambique

Lack of liquidity -> cycle of low productivity⁹ and debt



2) How do improvements in food staple markets affect the poorest?

- Evidence indicates that:
 - Investment in market information has highest impact on sales by farmers with higher asset households
 - Investment in divisible technologies (e.g., improved varieties) has broader impacts on sales across asset levels

Effect of receipt of market price information on probability of maize sale (Mozambique)

Landholding		
quartile	APE	p-value
1 - low	0.016	0.688
2	-0.017	0.620
3	0.120	0.001
4 - high	0.031	0.233
National	0.038	0.040

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Effect of receipt of market price information on log quantity of maize sold (Mozambique)

Landholding		
quartile	APE	p-value
1 - low	0.291	0.413
2	-0.075	0.777
3	0.658	0.014
4 - high	0.346	0.042
National	0.271	0.018

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Effect of hybrid use on
probability of maize sale
(Zambia)

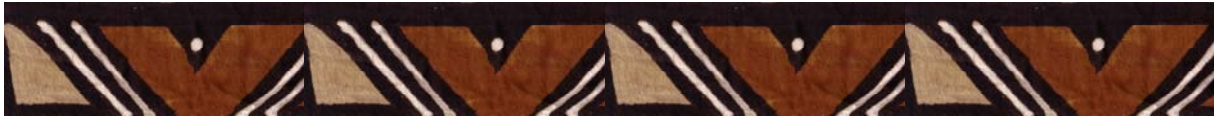
Landholding quartile	APE	p-value
1- low	0.123	0.112
2	0.102	0.005
3	0.188	0.000
4 - high	0.176	0.000
National	0.149	0.000

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Effect of hybrid use on log
quantity of maize sold
(Zambia)

Landholding quartile	APE	p-value
1- low	0.993	0.022
2	0.894	0.003
3	1.259	0.003
4 - high	0.634	0.010
National	0.945	0.000

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3) How can we increase benefits for the poorest from food staple markets?

- Three strategies to increase real purchasing power and liquidity:
 - Decreases in the cost of food (whether purchased or own production)
 - Increases in asset holdings of the poorest
 - Increases in returns to those assets

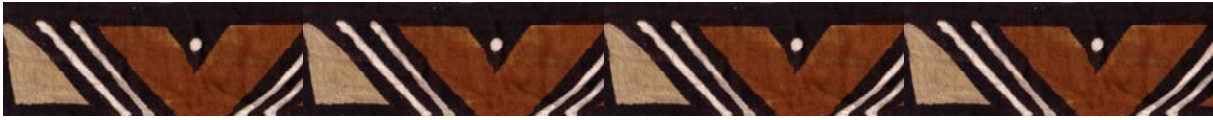
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Decreases in the cost of food

- Highest returns to investment from:
 - Increases in food staple productivity through R&D and extension
 - Decreased marketing costs from improved road infrastructure
 - Improved policy environment
- Investment in these drivers increasingly important for the poor (as net buyers) given rapid urbanization / income growth

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Increase assets of the poorest

- Examples of productive assets:
 - Animal traction where land is available
 - Dual purpose goats
 - Fish ponds
 - Functional literacy
- Need more careful studies of factors affecting successful (i.e., sustained) adoption by the poorest

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Examples of ways to increase returns to assets of the poorest

- Conservation Farming (Haggblade and Plerhoples)
 - Farmers increase returns by undertaking land preparation and soil improvement in the dry season, alleviating labor bottlenecks at planting and weeding.
 - Question: will the poorest need “cash for work” to establish CF system in some situations?

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Examples of ways to increase returns to assets of the poorest (cont.)

- High value crops with low purchased inputs and/or peak seasonal labor requirements (sesame, fonio)
 - Allow farmers to sell labor to other farmers at peak times (but typically higher post harvest labor needs)
 - Potential for value added processing

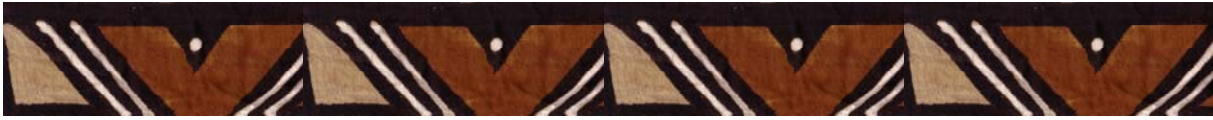
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Do we know enough?

- Food staple market access problems of the poorest (net buyers) not as well understood as those of net sellers
 - How does access to local traders for buyers in the hungry season compare to access for sellers at harvest?
 - What could be done to increase *local* availability of grain during “hungry season”?
- Factors affecting successful adoption of non-divisible technologies by the poorest less well understood than better off smallholders

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What's the right balance?

- Need to maintain balance between investments specifically for the poorest and for better off smallholders:
 - Many of the poorest will migrate out of farming (but need food security to build human capital for successful transition)
 - Staple food cost reductions from increases in productivity of the less poor benefit the poorest (if they can access food when they need it)