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AJAE appendix for “Finding Missing Markets (and a Disturbing Epilogue):
Evidence from an Export Crop Adoption and Marketing Intervention in Kenya”

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Note: The material contained herein is supplementary to the article named in the title and published in the American Journal of Agricultural Economics (*AJAE*).

Figures

Figure 1
Location of SHGs in Gichugu Division: Treatment (black), Control (white).

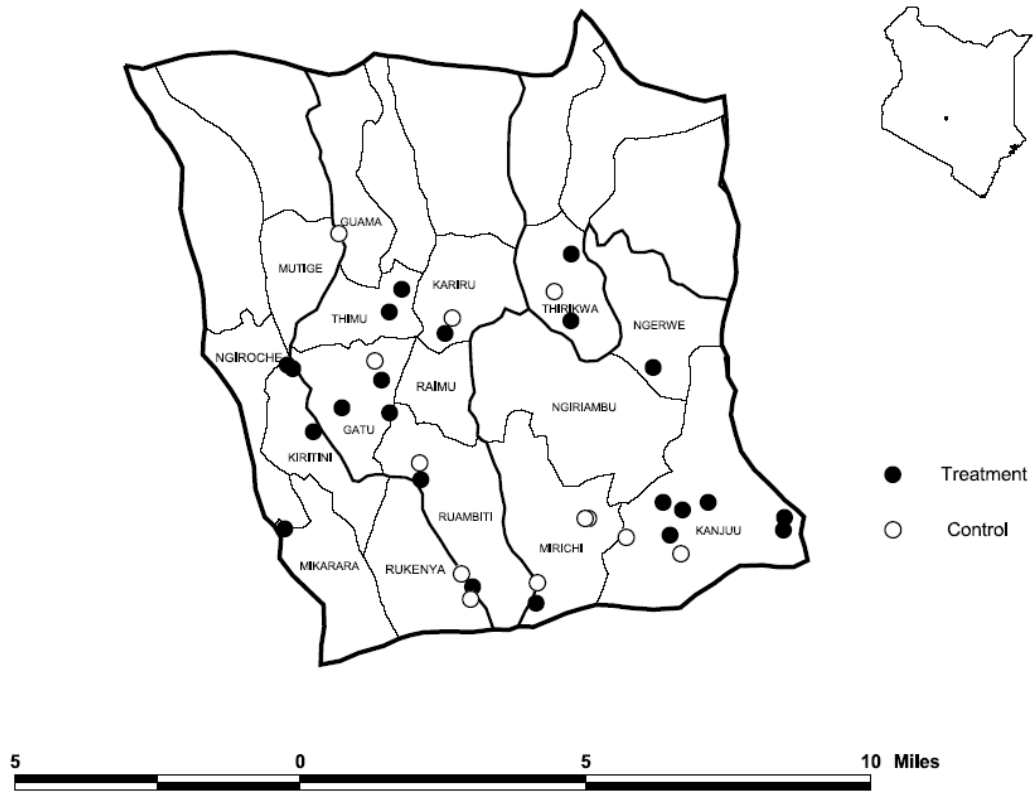


Figure 2
Timeline of Events

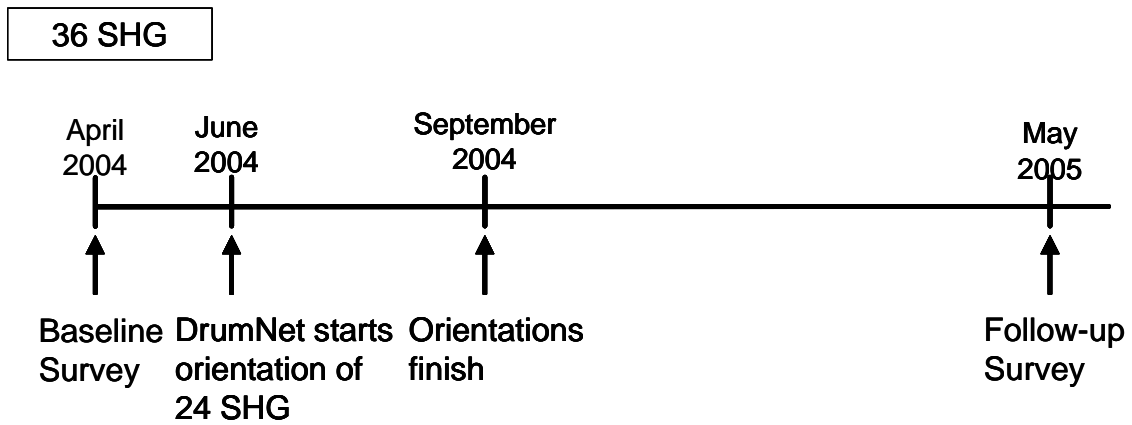
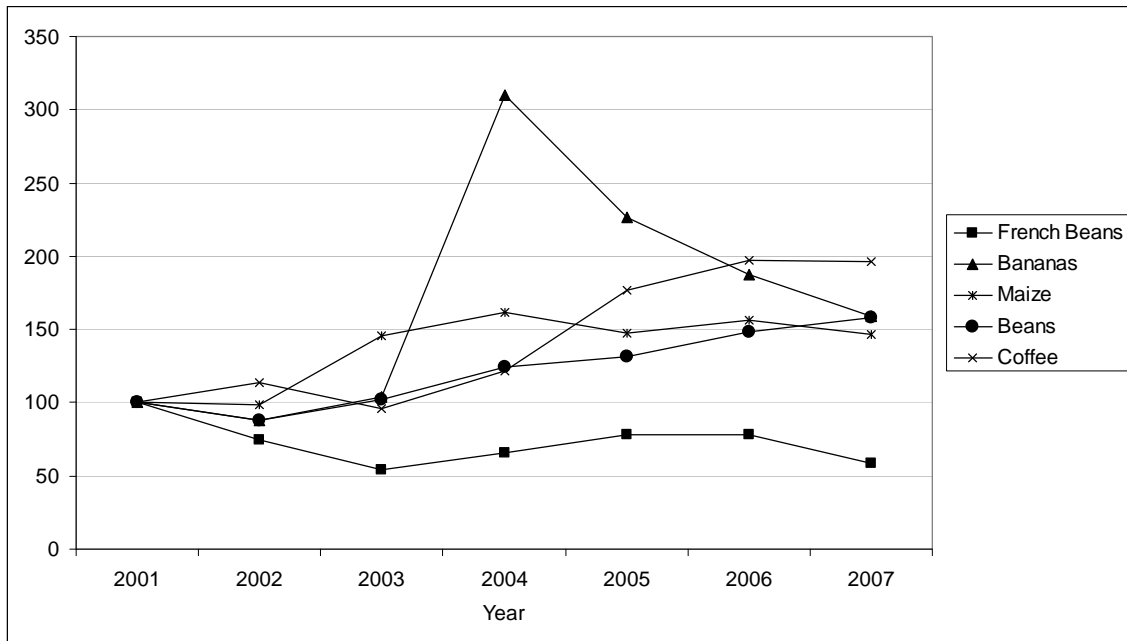


Figure 3
Price Index for main crops



Source: Prices for French Beans and Bananas come from the Horticultural Crops Development Authority (HCDA). Prices for Maize and Beans come from the Regional Agricultural Trade Intelligence Network (RATIN). Prices for Coffee come from the Nairobi Coffee Exchange.

Tables

Table 1
Construction of Variables

Age of member	Age of the SHG member
Literacy	Self-reported ability to read and write
Risk Tolerance	Respondent had to choose among different bets with different risk and return tradeoffs. The available lotteries were: a. 13 USD /13 USD, b. 12 USD /25 USD, c. 11 USD /31 USD, d. 8 USD /39 USD, e. 3 USD /50 USD and f. 0 USD /52 USD. Risk tolerance is the expected value of the bet chosen by the respondent minus the expected value of the 13/13 (riskless) bet.
Months as member in SHG	Number of months since the member became a SHG member.
Member of SHG is an officer	Dummy variable with value 1 if respondent was an officer (president, secretary or treasurer) of the SHG at the time of the baseline.
Deposit in a formal bank	Dummy variable with value 1 if household has at least one deposit in a formal bank.
Loan from formal institutions	Dummy variable with value 1 if household has at least one loan from a formal institution.
Total household income	Total value from the following sources of income: wages from agricultural labor; wages or salaries from other work; non-farm self-employment; sale of crops; sale of livestock, poultry and dairy; remittances from family members; pension, gifts or social assistance and other. It also includes total savings. The variable is reported in 1,000 KSh (12 USD in 2005).
Value of harvested produce	The sum for all crops in each plot cultivated of the total amount harvested times the price per unit in a typical transaction.
Harvest yield per acre	Value of harvest divided by total land holdings (acres) in 100,000 KSh.
Proportion of land that is irrigated	Proportion of total land that uses some source of irrigation other than rain.
Total landholdings (acres)	Total landholdings in acres
Pct. Land devoted to cash crops	Percentage of land devoted to cash crops.
Production of French beans	French beans production in 1,000 Kg
Production of baby corn	Baby corn production in Kg
Sells to market	Dummy variable with value 1 if respondents reports having sold at least a crop at the village or a distant market.
Total spent in marketing	Total cost of transport of a typical transaction times

	number of transactions that required transportation.
Uses hired labor	Dummy variable with value 1 if household used hired labor during the last season.
Grows export crops	Dummy variable with value 1 if household grows French beans, baby corn or passion fruit
Use of Inputs	1 if household used manure or pesticides for crop production

Table 2
Number of observations at baseline and follow-up

	Baseline					Follow-up				
	All	Control	Treatment	Credit	No Credit	All	Control	Treatment	Credit	No Credit
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
<i>Member</i>										
Age of member	1,117	367	750	373	377	956	303	653	316	337
Literacy	1,117	367	750	373	377	956	303	653	316	337
Risk tolerance	726	263	463	216	247	956	303	653	316	337
Months as member in SHG	726	263	463	216	247	956	303	653	316	337
Member of SHG is an officer (1=yes)	1,117	367	750	373	377	956	303	653	316	337
Deposit in a formal bank (1=yes)	725	263	462	215	247	947	300	647	315	332
Loan from formal institutions (1=yes)	726	263	463	216	247	946	301	645	314	331
Logarithm of total annual household income	713	259	454	215	239	853	282	571	295	276
Number of Household members	726	263	463	216	247	956	303	653	316	337
<i>Land</i>										
Harvest yield per acre (in Ksh 100,000)	726	263	463	216	247	956	303	653	316	337
Proportion of land that is irrigated	1,117	367	750	373	377	956	303	653	316	337
Total landholdings (Acres)	1,117	367	750	373	377	956	303	653	316	337
Proportion of land devoted to cash crops	990	302	688	344	344	789	267	522	289	233
<i>Production</i>										
Grows export crops (1=yes)	1,052	334	718	355	363	889	268	621	298	323
Sells to market (1=yes)	726	263	463	216	247	956	303	653	316	337
Uses hired labor (1=yes)	1,117	367	750	373	377	956	303	653	316	337
Uses Machinery and/or animal force (1=yes)	1,117	367	750	373	377	956	303	653	316	337
Value of harvested produce (in Ksh 1,000)	699	257	442	208	234	904	289	615	302	313
Production of french beans (in 1,000 Kg.)	1,051	334	717	355	362	930	294	636	309	327
Production of baby com (in Kg.)	1,051	334	717	355	362	930	294	636	309	327
Total spent in marketing (in Ksh 1,000)	722	263	459	213	246	931	294	637	309	328
Use of inputs	1,032	317	715	354	361	790	267	523	290	233
<i>Follow-up</i>										
Proportion of respondents reached at follow-up	0.86	0.83	0.87	0.85	0.89					

Table 3
Attrition Regressions

<i>Member</i>	All	Treatment	Control	Credit	No credit
	(1)	(2)	(3)	(4)	(5)
Age of member	0.001 (0.002)	0.002 (0.002)	-0.001 (0.002)	0.004 (0.003)	0.000 (0.003)
Literacy	-0.006 (0.061)	0.063 (0.056)	-0.131 (0.109)	0.074 (0.106)	0.068 (0.072)
Risk tolerance	-0.025 (0.037)	-0.039 (0.051)	-0.022 (0.066)	-0.049 (0.079)	-0.048 (0.073)
Months as member in SHG	0.001 (0.000)**	0.001 (0.000)**	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)**
Member of SHG is an officer (1=yes)	0.271 (0.032)***	0.273 (0.039)***	0.277 (0.064)***	0.294 (0.047)***	0.259 (0.066)***
Deposit in a formal bank (1=yes)	-0.010 (0.046)	-0.056 (0.048)	0.075 (0.085)	-0.025 (0.077)	-0.079 (0.059)
Logarithm of total annual household income	0.021 (0.013)	0.021 (0.016)	0.031 (0.029)	0.000 (0.020)	0.061 (0.020)**
Number of household members	0.008 (0.007)	0.013 (0.008)	-0.001 (0.013)	0.016 (0.012)	0.009 (0.010)
<i>Land</i>					
Harvest yield per acre (in 100,000 Ksh)	-0.001 (0.000)*	-0.001 (0.000)*	0.000 (0.001)	-0.002 (0.001)**	0.000 (0.000)
Proportion of land that is irrigated	-0.054 (0.055)	-0.040 (0.055)	-0.033 (0.160)	0.045 (0.094)	-0.092 (0.072)
Total landholdings (Acres)	-0.007 (0.012)	-0.009 (0.017)	0.004 (0.016)	-0.003 (0.022)	-0.022 (0.028)
<i>Production</i>					
Grows export crops (1=yes)	-0.075 (0.033)**	-0.114 (0.041)**	-0.001 (0.059)	-0.083 (0.054)	-0.081 (0.069)
Sells to market (1=yes)	0.044 (0.033)	0.029 (0.039)	0.062 (0.072)	0.086 (0.059)	-0.045 (0.040)
Uses hired labor (1=yes)	-0.011 (0.034)	-0.005 (0.047)	-0.015 (0.048)	0.060 (0.075)	-0.095 (0.046)*
Uses Machinery and/or animal force (1=yes)	0.063 (0.047)	0.112 (0.066)	0.027 (0.061)	0.067 (0.105)	0.196 (0.050)***
Observations	663	427	236	204	223
R-squared	0.10	0.11	0.11	0.15	0.14

The dependent variable takes value 1 if the respondent was also interviewed at follow-up. Robust standard errors are clustered at the SHG level and reported in parenthesis below the coefficient. The symbol *, **, *** represent significance at the 10, 5 and 1 percent, respectively. Only SHG members at the time of the baseline are included in the regression.

Table 4
Impact of DrumNet
Conditional Logit

	Export Crop	Use of inputs	Loan from Formal Institutions	Deposit in Formal Institutions
	(1)	(2)	(3)	(4)
Panel A: Treatment				
Post	-0.018 [0.309]	1,549 [0.611]**	-1,721 [0.541]***	0.795 [0.195]***
Post x Treatment	1,025 [0.367]***	-0.187 [0.781]	1,301 [0.606]**	0.614 [0.274]**
Num. Observations	1,947	1,354	1,058	1,672
Panel B: Credit vs No Credit				
Post	-0.017 [0.309]	1,548 [0.520]***	-1,735 [0.542]***	0.804 [0.196]***
Post x Credit	1,279 [0.445]***	-0.087 [0.815]	0.968 [0.637]	0.892 [0.339]***
Post x No Credit	0.811 [0.384]**	-0.271 [0.724]	2,260 [0.827]***	0.427 [0.284]
Num. Observations	1,947	1,354	1,058	1,672
Mean dependent variable	0.518	0.948	0.052	0.800
<i>P-value of Test Post x Credit = Post x No credit</i>	0.217	0.806	0.103	0.172

The variable Post takes value 1 in year 2005, when Follow-up was conducted. The variable Treatment is an indicator variable equal to one if the member is in a treatment SHG. The variables Credit and No Credit are indicator variables for each treatment group. All regressions are estimated using conditional logit with SHG fixed effects. Robust standard errors are clustered at the SHG level and reported in parenthesis below the coefficient. The symbol *, **, *** represent significance at the 10, 5 and 1 percent, respectively. Only SHG members at the time of the baseline are included in the regression. All regressions include the following controls: Age of member, literacy, member of SHG is an officer (1=yes), proportion of land that is irrigated, total landholdings (Acres), uses hired labor (1=yes) and uses Machinery and/or animal force (1=yes), and indicator variables for any missing values for each of the controls.

Table 5
Impact of DrumNet (Prior Exporters versus New Adopters)
Conditional Logit

Grows export crops at baseline	Use of inputs		Loan from Formal Institutions		Deposit in Formal Institutions	
	Yes (1)	No (2)	Yes (3)	No (4)	Yes (5)	No (6)
Panel A: Treatment						
Post	2,578 [0.000]	1,815 [0.647]***	-2,025 [0.708]***	-1,285 [1.044]	0.666 [0.172]***	0.975 [0.308]***
Post x Treatment	-2,558 [1.771]	-0.219 [0.861]	1,474 [0.914]	1,069 [1.030]	0.812 [0.324]**	0.439 [0.395]
# Observations	189	758	484	332	764	764
Panel B: Credit vs No Credit						
Post	2,582 [31.341]	1,815 [0.641]***	-2,033 [0.712]***	-1,349 [1.059]	0.666 [0.172]***	1,004 [0.313]***
Post x Credit	-5,086 [33.058]	0.213 [0.897]	1,710 [1.032]*	0.234 [0.852]	0.809 [0.510]	1,171 [0.460]**
Post x No Credit	-0.094 [0.000]	-0.514 [0.872]	0.672 [1.124]	16,784 [1.211]***	0.816 [0.346]**	0.123 [0.383]
#Observations	189	758	484	332	764	764
Mean dep. Var	0.984	0.913	0.060	0.069	0.804	0.772
<i>P-value of Test Post x Credit = Post x No credit</i>	0.880	0.412	0.426	0.000	0.991	0.016

The variable Post takes value 1 in year 2005, when Follow-up was conducted. The variable Treatment is an indicator variable equal to one if the member is in a treatment SHG. The variables Credit and No Credit are indicator variables for each treatment group. All regressions are estimated using conditional logit with SHG fixed effects. Robust standard errors are clustered at the SHG level and reported in parenthesis below the coefficient. The symbol *, **, *** represent significance at the 10, 5 and 1 percent, respectively. Only SHG members at the time of the baseline are included in the regression. All regressions include the following controls: Age of member, literacy, member of SHG is an officer (1=yes), proportion of land that is irrigated, total landholdings (Acres), uses hired labor (1=yes) and uses Machinery and/or animal force (1=yes), and indicator variables for any missing values for each of the controls.