

Appendix

Appendix 1. Results of fixed effect model based on the panel data of 51 farmers.

Annexe 1. Résultats du modèle d'effet corrigé basé sur les données de l'échantillon de 51 agriculteurs.

VARIABLES	riceinc_ha	ln(riceinc_ha)
treat	6.237*	0.114*
	(3.474)	(0.0646)
Constant	54.27***	3.973***
	(1.027)	(0.0191)
Observations	102	102
R-squared	0.061	0.059
Number of hhid	51	51

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; Standard errors in parentheses.

Appendix 2. Quantile regression on the effect of membership of the farmer organization on sticky rice yield in 2013.

Annexe 2. Régression quantile sur l'effet de l'adhésion à l'organisation paysanne sur le rendement du riz gluant en 2013.

Main	q10	q25	q50	q75	q90
_Imember_1	-0.179*	-0.117**	-0.113***	-0.0634*	-0.0665
	(-1.87)	(-2.41)	(-2.75)	(-1.67)	(-1.40)
Inseed	0.260**	0.0518	-0.0395	0.0133	0.00583
	(2.06)	(0.69)	(-0.75)	(0.31)	(0.11)
lnN	0.142	0.0248	0.0034	0.0040	0.0476
	(1.26)	(0.37)	(0.06)	(0.09)	(1.31)
lnP	0.0401	0.0398	0.0117	0.0096	-0.0180
	(0.53)	(0.98)	(0.37)	(0.32)	(-0.50)
lnK	-0.174	0.0370	0.0085	-0.0153	-0.0026
	(-1.11)	(0.49)	(0.18)	(-0.46)	(-0.09)
Inpestcost	0.103*	0.105**	0.0884***	0.0302	0.0034
	(1.81)	(2.18)	(2.65)	(0.68)	(0.10)
lnlabor	-0.213	-0.0435	-0.0336	-0.0134	0.0583
	(-1.33)	(-0.48)	(-0.60)	(-0.25)	(0.99)
_cons	0.269	-0.0247	0.863**	1.223***	1.051***
	(0.25)	(-0.04)	(2.55)	(2.68)	(2.95)
<i>N</i>	185	185	185	185	185

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Appendix 3. Quantile regression on the effect of membership of the farmer organization on household income in 2015.

Annexe 3. Régression quantile sur l'effet de l'adhésion à l'organisation paysanne sur le revenu du ménage en 2015.

Main	q10	q25	q50	q75	q90
_Imember_1	0.240 (0.27)	-0.0616 (-0.07)	-1.671* (-1.67)	-1.855* (-1.71)	-2.746* (-1.78)
lnhhsiz	-2.737 (-1.14)	-1.157 (-0.49)	0.164 (0.06)	-0.469 (-0.12)	-7.684 (-1.36)
lnavgedu	0.706 (1.29)	0.211 (0.43)	0.264 (0.55)	-0.566 (-0.77)	0.488 (0.58)
Intarea	6.274*** (8.10)	6.458*** (7.76)	6.109*** (7.27)	8.020*** (7.85)	7.758*** (6.93)
lnseed	1.652*** (2.62)	1.390** (2.21)	1.306* (1.80)	2.064* (1.95)	2.194 (1.54)
lnN	0.144 (0.34)	-0.391 (-0.68)	-0.347 (-0.62)	-0.601 (-0.85)	-0.967 (-0.95)
lnP	-0.0906* (-1.69)	-0.0336 (-0.56)	-0.0744 (-0.96)	-0.103 (-1.20)	0.105 (0.87)
lnK	0.100 (0.60)	0.147 (0.81)	-0.0244 (-0.11)	-0.322 (-1.04)	-0.398 (-0.87)
lnpestcost	0.311 (0.70)	0.344 (0.76)	0.458 (0.76)	0.998 (1.04)	1.561 (1.18)
lnlabor	-0.0750 (-0.09)	0.0484 (0.05)	0.454 (0.39)	0.135 (0.08)	0.245 (0.12)
_cons	16.53** (2.35)	18.13** (2.53)	15.64* (1.87)	25.12** (2.49)	36.60*** (2.67)
<i>N</i>	140				

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Note: Results of region dummy variable omitted.

Appendix 4. Average treatment effect of membership of the farmer organization on income with the PSM method.

Annexe 4. Effet moyen du traitement de l'adhésion à l'organisation paysanne sur le revenu avec la méthode PSM.

Matching	Rice income per ha in 2013 (MVND/ha)			Household income in 2015 (MVND/hh)		
	Neighbor	Radius	Kernel	Neighbor	Radius	Kernel
Unmatched						
Treated	46.871	46.871	46.871	5.996	5.996	5.996
Controls	52.706	52.706	52.706	9.336	9.336	9.336
_diff	-5.836***	-5.836***	-5.836***	-3.340***	-3.340***	-3.340***
	(-3.61)	(-3.61)	(-3.61)	(-3.12)	(-3.12)	(-3.12)
ATT						
Treated	46.740	46.740	46.740	6.179	6.179	6.114
Controls	47.540	49.441	49.126	6.136	6.094	6.023
_diff	-0.799	-2.701	-2.386	0.044	0.085	0.091
	(-0.21)	(-1.20)	(-1.06)	(0.04)	(0.07)	(0.07)
_cons	52.71***	52.71***	52.71***	9.336***	9.336***	9.336***
	(49.63)	(49.63)	(49.63)	(12.70)	(12.70)	(12.70)
<i>N</i>	185	185	185	142	142	142

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.