

EVALUATION OF WILLINGNESS TO ACCEPT AND ADOPT CLEAN DEVELOPMENT MECHANISM PROJECTS AMONG SMALLSCALE FARMERS IN NJORO DISTRICT, KENYA

By
Oscar Ingasia Ayuya
&
Job Kibiwott Lagat

Introduction

- ▶ Deforestation in Njoro district has increased considerably over the years(walubengo, 2007).
- ▶ Result in the district –unpredictable rainfall pattern + increased surface run off, the low water levels in river Njoro, loss of biodiversity and the increase poverty in the region.
- ▶ One of the ways of addressing these problems arising from climate change in the district is the embracing of Clean Development Mechanism projects.

Introduction cont'd

- ▶ One of the ways of addressing these problems arising from climate change in the district is the embracing of Clean Development Mechanism projects.

Objective

- ▶ To evaluate the potential acceptance and extent of adoption of potential adopters of carbon trade tree project; & to further identify and quantify factors that influence potential adoption of carbon trade tree project in small-scale in Njoro district, Kenya

Results

First hurdle econometric results

<i>Variable</i>	<i>Coefficient estimates</i>	<i>Standard error</i>	<i>P> z </i>	<i>Marginal effects/elasticity</i>
Age	-0.01348	0.0153	0.378	-0.0003
Gender	-1.04856	0.5359	0.500**	-0.0272
Existence of tree farming	-0.68364	0.57914	0.238	-0.0178
Education level	0.35614	0.30159	0.238	0.0093
Extension	0.07377	0.17884	0.680	0.0019
Level of awareness	-0.38087	0.46882	0.417	-0.0099
Group membership	0.25929	0.62159	0.677	0.0067
Household size	0.21012	0.1103	0.057*	.0055
Farm debt	-0.00001	7.22e-06	0.074*	-3.35e-07
Attitude towards risk	0.84018	0.33819	0.013**	0.0218
Farm size	0.4225	0.1575	0.007***	0.0120
Land tenure	2.18484	0.58398	0.000***	0.2518
Farm income	-0.00001	7.56e-06	0.153	-2.18e-07
Nonfarm income	-0.13268	0.27439	0.629	-0.0034
Availability of voluntary CDM	2.02923	1.05219	0.054*	0.3221
Perception of the technology	1.14324	0.47065	0.015**	0.0297
Constant	-5.20721	2.40551	0.300	

Log likelihood = -241.478; $\chi^2 = 112.27$; Pseudo R²=0.69; ***, **, * significant at 1%, 5% and 10% probability respectively

Results cont. Second hurdle econometric results

<i>Variable</i>	<i>Coefficient estimates</i>	<i>Standard error</i>	<i>P> z </i>	<i>Marginal effects</i>
Age	-2.34322	1.1875	0.051*	-2.3432
Gender	-27.8378	38.9845	0.476	-27.8378
Existence of tree farming	12.4507	41.1743	0.763	12.4507
Education level	19.3012	20.7602	0.354	19.3012
Extension	-22.7305	11.9724	0.060*	-22.7305
Level of awareness	26.1569	29.9130	0.383	26.1569
Group membership	37.1103	44.2893	0.404	37.1103
Household size	8.5086	6.2155	0.173	8.5086
Farm debt	-0.0003	0.0003	0.382	-0.0003
Attitude towards risk	39.6278	23.6868	0.097*	39.6278
Farm size	-5.8826	5.6928	0.303	-5.8826
Land tenure	144.113	52.4967	0.007***	144.113
Farm income	0.0003	0.0005	0.470	0.0003
Nonfarm income	9.9932	14.7440	0.499	9.9932
Availability of voluntary CDM	107.6538	77.5803	0.168	107.6538
Perception of the technology	65.0551	31.9142	0.043**	65.0551
Constant	-381.8351	173.7548	0.30	

Log likelihood = -789.92557; log likelihood $\chi^2 = 60.54$; $R^2 = 0.369$; ***, **, * significant at 1%, 5% and 10% probability level respectively 6/14/2011

Policy implication

- ▶ Enhance collective action among the smallholder farmers.
- ▶ Integrate climate adaptation and mitigation measures in extension services .
- ▶ Enhance farmers access security of tenure–title deeds.

Thank you