CCDA-V
Africa, sustainable development and climate change
Prospects of Paris and beyond

ClimDev-Africa

AFRICA'S CLIMATE CHANGE TRAJECTORIES FOR SUSTAINABLE DEVELOPMENT UNDER UNFCCC ARTICLE TWO FOR COP21 IN PARIS

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UKaid from the British people

Problem statement 1/2

- About 70% of the population of sub-Saharan Africa live in rural areas, with about 85% agriculture source of livelihoods (Shah et al., 2008)

- Paradoxically, overall warming and drying conditions may reduce crop yields by 10–20% by 2050, with severe losses in some places, in Africa Jones and Thornton (2008).

- To a larger extent, sub-Saharan Africa's performance under the UNFCCC Article 2 still remain stymied

Problem statement 2/2

- The fact still remains that there is an intricate connection between rural poverty, livelihoods and climate change in Africa; a case in point is the Offinso Municipality in the Ashanti region of Ghana.

- Conscious of the vagaries of climate change, smallholder farmers are expected to develop concrete off-farm adaptation measures to obviate vagaries of climate variability and change

- This paper evaluates the performance of sub-Saharan Africa (SSA) in the implementation of the UNFCCC Article 2, to justify a negotiation engagement disposition for Africa at COP21 in Paris, France.

Methods

- Cross-sectional design using a triangulation of quantitative and qualitative research design, 300 smallholder farmer-headed households were purposively sampled and surveyed from 6 out of 24 communities in the Offinso Municipality

- The data analyzed with tools such as logistic regression, Chi-square tests of association embedded in the statistical package for Social Scientists (SPSS).

- The logistic regressions

$$p = \left[\frac{e\{a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ...\}}{1 + e\{a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + ...\}} \right]$$

Key Findings

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Table 1

Identified Effects	Freq.	Percent
Increased expenditure on agric inputs	59	19.9
Reduced income from agriculture	122	41.1
Insecure household food supply	22	7.4
All responses	94	31.6
Total	297*	100.0

Fig. 1

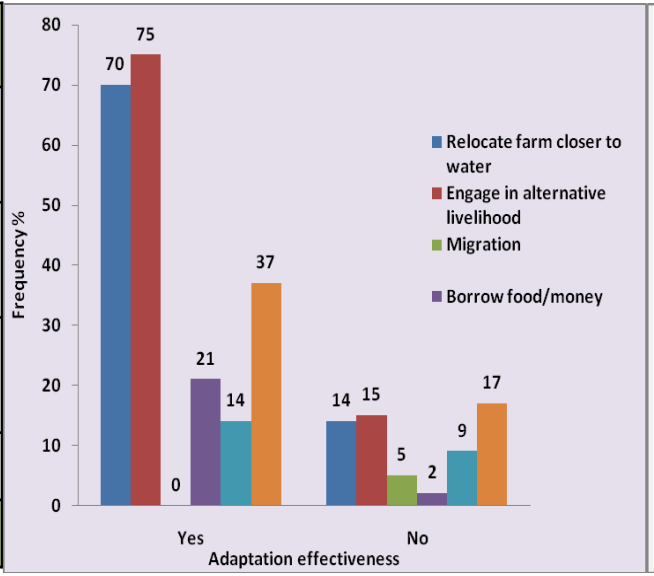

Fig. 2

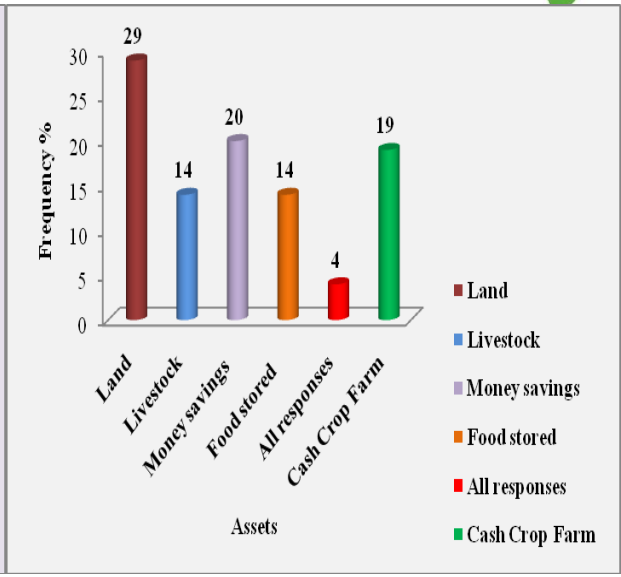

Table 2: Logistic regression table of variable in the equation

Predictive variables	*B*	*S.E.*	*Wald*	*df*	*Sig.*	*Exp(B)*	*95.0% C.I. for EXP(B)*	
							Lower	Upper
Location of the farm (L_f)	-.420	.142	8.720	1	.003*	.657	.497	.868
Gender	.229	.294	.606	1	.436	1.258	.706	2.239
Age of respondents (A_r)	.239	.115	4.308	1	.038*	1.269	1.013	1.590
Adaptation effectiveness (A_f)	.825	.336	6.031	1	.014*	2.283	1.181	4.412
Off-farm income activities	.025	.032	.645	1	.422	1.026	.964	1.091
Constant	-2.174	.819	7.048	1	.008	.114		

Key Findings

- Africa, unlike other regions, continues to exhibit weak responsive mechanisms and capacity to adapt convincingly to the impacts of climate change.

- These reinforce the weak capacities of sub-governance institutions, to integrate and execute the development agenda within the context of climate change adaption in sub-Saharan Africa.

- Recently, agriculture-related climate change mitigation and adaptation efforts have been advocated for integration into national budgeting schemes AGRA (2013).

- As Africans to make legitimate claims on their governments for climate change accountability.

Conclusions/Recommendations

- Smallholder farmers' exhibited weak adaptation to climate variability and change, using the Offinso Municipal in Ghana, as a case.

- Africa at COP21 and beyond should legitimately claim *'commitment accountability'* on Annexes 1 and 2 countries, to make life bearable for SSA under climate change.

- African negotiators should be mindful of ensuring medium to long-term livelihood security and biodiversity protection under climate change.

- A deviation from 'business as usual' is imperative to change the African climate change adaptation and mitigation trajectories.