



Nexus between Climate Change Adaptation Strategies and Poverty:

Evidence from Rural Farming Households in Kwara State, Nigeria

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Introduction

- Poverty is a discouraging challenge in Nigeria, with over 94 million people living in extreme poverty.
- The World Bank reports as many as 4 out of 10 Nigerians live below the poverty line (World Bank 2022).
- Climate change always has two effects: positive and negative effects.
- The negative effects are more pronounced than the positive effects (IPCC, 2018).
- They include shocks such as floods, heat waves, increased temperatures, irregular rainfall, droughts, etc.
- These lead to crop failure, death of livestock, environmental degradation, pest infestation, etc.
- These damages/losses expose rural farmers to more poverty and deplete their resources.

Objectives

- this study examines the relationship between climate change adaptation strategies and poverty level
- identify the factors influencing climate change adaptation strategies among rural farming households in Kwara State, Nigeria.

Material and methods

- The study was conducted in Kwara State, North Central, Nigeria.
- Primary Data was collected from rural farming households using a well-structured questionnaire.

Using a Cochran formula, a multi-stage sampling technique was used to select 120 farmers.

Analytical Techniques:

- Descriptive Statistics
- The Foster Greer Thorbercke (FGT) poverty measures determined farming households' poverty status
- Logit Regression Model was used to examine various factors influencing climate change adaptation strategies. It is specified as below;

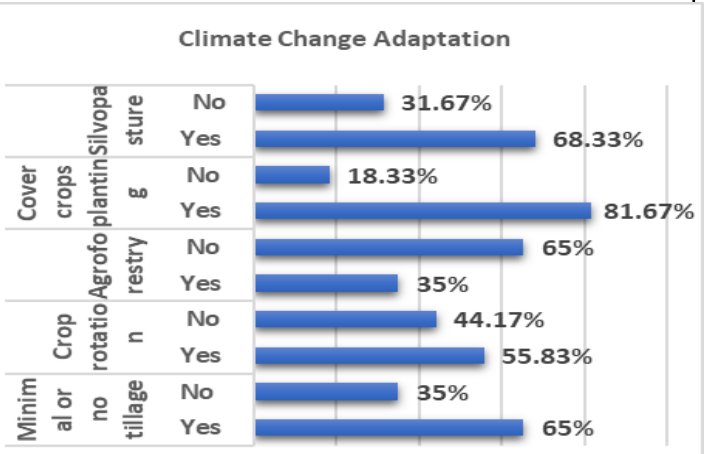
$$Y_i^* = \alpha + X_i' + u_i$$

Five climate change strategies were used as dependent variables. They are

- Minimal or no tillage
- Crop rotation,
- Cover crops planting
- Agroforestry
- Silvopasture

A number of socio-economic and demographic variables were used as independent variables.

Results and Discussion



Socioeconomic characteristics

Variables	Items	Values
Sex	Male	67.50
	Female	32.50
Age	Mean	51
	Min	24
	Max	75
Marital Status	Married	80.00
	No-married	20.00
Household size	Mean	7
	Min	2
	Max	25
Farm size	Mean	5
	Min	2
	Max	15
Education	Yes	67.5
	No	32.50

Poverty Level	Freq.	Percent
Core poor	82	68.33
Moderately poor	18	15.00
Non-poor	20	16.67
Poverty line	843.63	
Mean PCE	2153.39	
Total PCE	218406.9	

Logit Regression Result(s)

Adaptation Strategies	Significant Variables
Minimum tillage	Education level, Farming experience, access to agriculture information, and core-poor
Cover cropping	Income, access to credit, moderately poor
Agroforestry	Age, income, access to agriculture information, and moderately poor.
Silvopasture	Marital status and access to credit.
Crop Rotation	Income and moderately poor

Conclusion and Outlook

- The study concluded that there is a connection between climate change adaptation strategies and rural poverty.
- Farmers in rural areas are usually affected by the adverse effects of climate change because they have low income, low productivity and low resources (socioeconomic resources) to counter the effects.

Recommendations

- Focus on practical channels for dissemination of better production techniques to the farmers
- Credit support should be made available to the farmers across age categories.
- Continuous education on appropriate Climate Change Adaptation strategies that can be adopted in a particular locality should be provided.

