



Effect of Community-based Natural Resources Management Programme on Poverty Status of Fishing Households in the Riverine Areas of Ondo State, Nigeria

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INTRODUCTION

- Low yield, deplorable state of the fisheries resources pervade the fisheries sector of Nigeria.
- Government attempts to conserve natural resources through top-down regulatory systems have often failed.
- Globally, community-based natural resources management (CBNRM) is an approach under which communities become responsible for managing natural resources within a designated area.
- Poverty is a serious problem all over the world. People can be said to be in poverty when they are deprived of income and other resources needed to obtain the conditions of life; the diets, material goods, amenities, standards and services; that enable them to play the roles, meet the obligations and participate in the relationships and customs of their society (Dag Ehrenpreis, 2006).
- Nigeria as a country is richly endowed with abundant human and natural resources but is still trapped in the poverty net (Ogujiuba, 2014).

MATERIALS AND METHOD

Data

- Primary data.
- A Multi-stage sampling procedure

Analytical Technique

- Descriptive statistics
- Foster Greer Thorbecke (FGT) poverty index
- Probit regression model

EMPIRICAL RESULTS AND DISCUSSION

Table 1: Distribution of Respondents According to Socio-Economic Characteristics

Variables	Participants		Non-Participants		Pooled	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Age						
4-50	34	56.6	30	50.0	64	53.3
51-60	25	41.7	29	48.3	54	45
>60	1	1.7	1	1.7	2	1.7
Mean	47		48		47.5	
Total	60	100.00	60	100.0	120	100.00
Sex						
Male	8	13.3	11	18.3	19	15.8
Female	52	86.7	49	81.7	101	84.2
Total	60	100	60	100	120	100.00
Household Size						
≤ 5	20	33.3	25	41.7	45	37.5
6-10	39	65.0	31	51.7	70	58.35
>10	1	1.7	4	6.6	5	4.15
Mean	6		7			
Total	60	100.00	60	100.00	120	100.00
Marital Status						
Married	52	86.7	57	95	109	90.85
Divorce	2	3.3	1	1.7	3	2.5
Single	6	10.0	2	3.3	8	6.65
Total	60	100.00		100.00	120	100.00
Education						
No formal Education	1	1.7	5	8.3	6	5.0
Primary Education	25	41.6	29	48.4	54	45.0
Secondary Education	24	40.0	18	30.0	42	35.0

Source: Computed from Field Survey Data, 2019

The results revealed that majority of the fish farmers are females and are in their economically active age, with an average household size of 6 and 7 for participants and non-participants respectively.

Table 2: Estimate of Poverty of Incidence, Depth and Severity

Poverty	Participants	Non-Participant
Headcount ratio-P0	0.35	0.47
Poverty gap-P1	0.10	0.15
Squared poverty gap- P2	0.04	0.07

Source: Computed from Field Survey Data, 2019

- Results of the Foster-Greer-Thorbecke (FGT) poverty measure revealed that 35% of the participants and 47% of the non-participants fell below the poverty line.
- The poverty depth indicated that the participants needed 10% of the poverty line to get out of poverty while the non-participants needed 15% of the poverty line to get out of poverty.
- The poverty severity or intensity (P_2) for participants indicated that poverty was a bit more severe among non-participants (7%) than the fish farmers who participated in the programme (4%) in the study area.

Table 3: Estimates of Probit Regression Model

Variables	Participants			Non-participants		
	Coefficient	Marginal Effect	P-Value	Coefficient	Marginal Effect	P-Value
Age	0.078	0.015	0.066	0.064	0.017	0.060
Household size	1.212	0.237	0.000***	-0.465	0.120	0.008***
Sex	-0.670	-0.131	0.469	-0.548	-0.141	0.423
Years of Education	-0.028	-0.005	0.007***	-0.086	-0.022	0.044**
Participation in CBNRM	-0.485	-0.095	0.027**	-0.582	-0.149	0.052**
Marital status	1.484	0.289	0.875	0.532	0.137	0.512
Share of farm income	-0.024	-0.004	0.007***	-0.057	-0.0024	0.048**
Cooperative Membership	1.290	0.325	0.736	0.662	0.159	0.723
Years of Experience	0.592	0.082	0.036	0.691	0.152	0.070
Access to credit	-0.032	-0.006	0.030**	-0.003	-0.006	0.041**
Constant	0.147			9.625		

Pseudo $R^2 = 0.7283$

*, **, *** represent significant at 10%, 5%, 1%

Source: Computed from Field Survey Data, 2019,

- Household size, years of education, share of farm income, access to credit and participation in the community-based natural resources management programme are the determinants of poverty among the respondents.

CONCLUSION AND POLICY RECOMMENDATION

- Participation in community-based natural resources management programme had significant effect on the poverty status of respondents.
- In order to reduce poverty, non-participants should be encouraged to engage in participation in community-based natural resources management programme.
- Finally, policies that facilitate increased level of education, increased access to credit facilities are essential to help reducing poverty among fishing households in the study area.