Gender roles and poverty determinants of fish farmer's households in Oyo state, Nigeria

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Introduction

- Fish farming has become an important livelihood in the quest for food and nutrition security for household wellness.
- One of the major constraints to the sustainable development of this vital sector is undefined gender roles and poverty which is prevalent among the fish farmers.
- This study examines gender roles and poverty determinants of fish farmer's households in Oyo State, Nigeria.

- Oyo state the study area is located in the rainforest vegetation belt of Nigeria within longitude 7°23'47"N and 3°55'0"E. (Figure 1).
- A multistage sampling technique was used to select 250 respondents using well-structured questionnaires based on the four Agricultural Development Programme zoning in Oyo State. Information on demographic characteristics, roles performed, household income and expenditure were collected. Descriptive statistics, t test, Foster-Greer-Thorbecke (FGT) and Probit models were used to analyse the data at $\alpha_{0.05}$

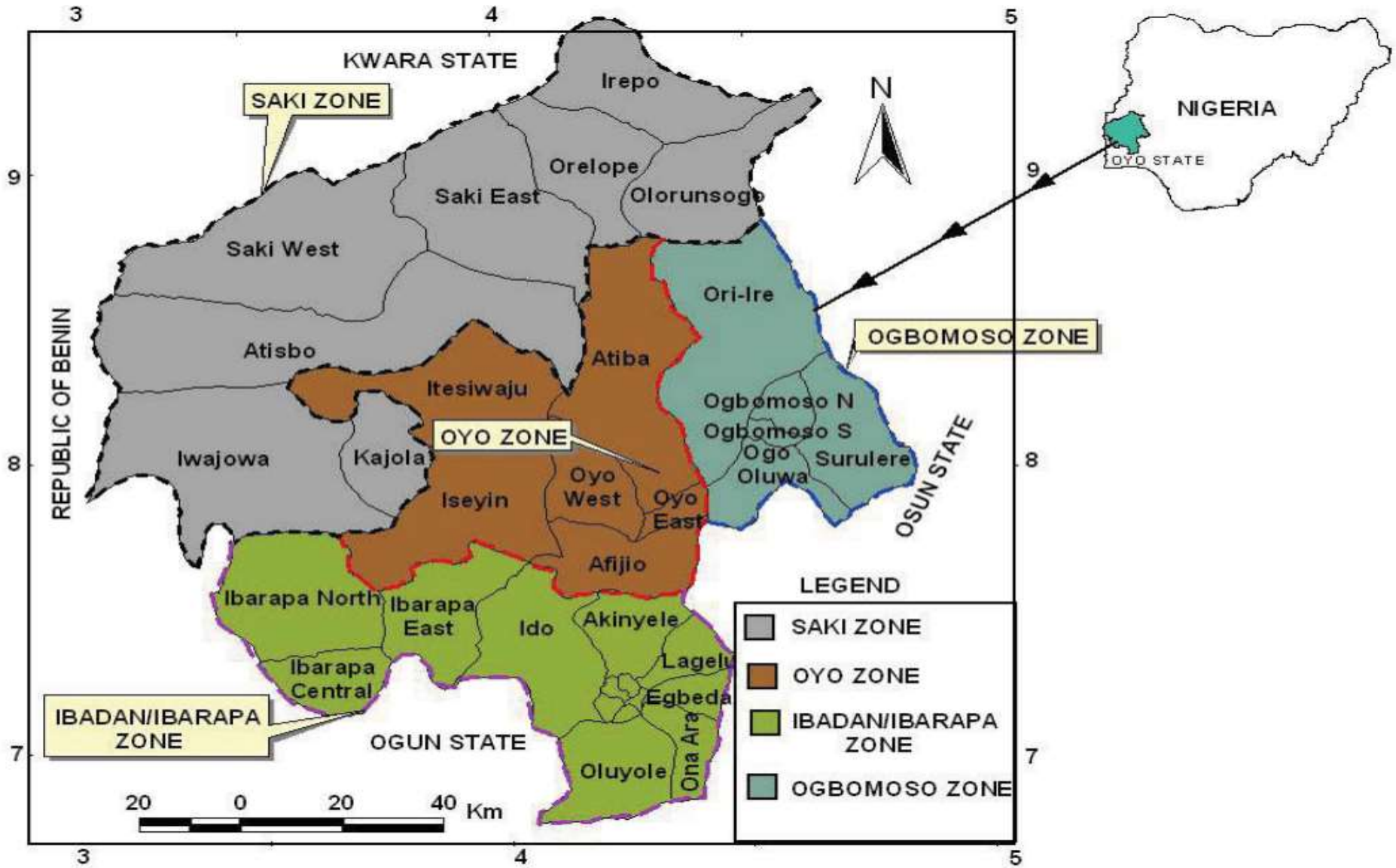

Figure 1: Map of Oyo State showing the four ADP zones

Table 1: Roles performed in fish farming disaggregated by gender

	Male		Female				
Roles	Frequency	Percent (%)	Frequency	Percent (%)	Chi-square	Df	Sig
Pond construction	185	74.0	57	22.8	332.176	3	.000
Pond stocking	175	70.0	57	22.8	179.816	2	.000
Weed control	143	57.2	55	22.0	5.184	1	.023
Transportation of fish	164	65.6	54	21.6	24.336	1	.000
Processing of fish	117	46.8	28	11.2	1.024	1	.312
Pond preparation	171	68.4	61	24.4	33.856	1	.000
Pond management	170	68.0	62	24.8	166.304	2	.000
Cropping of fish	167	66.8	65	26.0	28.224	1	.000
Fish marketing	87	34.8	37	14.8	23.104	1	.000
Feeding of fish	96	38.4	46	18.4	127.304	2	.000
Hatchery management	125	50.0	52	20.8	105.176	2	.000
Sale of fish (processed)	58	23.2	33	13.2	228.152	2	.000
Sale of fish (fresh)	66	26.4	36	14.4	55.696	1	.000
Integrated farming	91	36.4	49	19.6	18.496	1	.000
Feeding of livestock	99	39.6	33	13.2	10.816	1	.001
Sale of livestock	79	31.6	31	12.4	33.856	1	.000
Planting vegetables	96	38.4	40	16.0	13.456	1	.000
Sale of vegetables	44	17.6	118	47.2	104.976	1	.000
Fertilizer application	80	32.0	22	8.8	1.064	2	.587

Source: Field work, 2018

Table 2: Probit Model Result on the Determinants of Poverty Status among Fish Farming Households in Oyo State

Poverty status	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
Farm Size	0.00	0.00	4.26**	0.00	0.00	0.00
Marital status	0.05	0.29	0.18	0.86	-0.51	0.61
Education	-1.05	0.23	-4.63**	0.00	-1.50	-0.61
Household size	0.78	0.17	4.65**	0.00	0.45	1.12
Gender of household head	0.24	0.49	0.48	0.63	-0.72	1.20
Age of household head	0.13	0.03	4.29**	0.00	0.07	0.19
Experience	0.02	0.04	0.63	0.53	-0.05	0.10
Female fish labour	-0.94	0.28	-3.35**	0.00	-1.49	-0.39
Farm type	-0.39	0.16	-2.47**	0.01	-0.69	-0.08
Access to infrastructure	0.34	0.20	1.73	0.08	-0.04	0.72
Source of capital	-0.93	0.36	-2.59**	0.01	-1.64	-0.23
Cooperative Membership	1.19	0.48	2.50**	0.01	0.25	2.12
Benefits From membership	0.53	0.30	1.74	0.08	-0.07	1.12
Income Primary	-0.08	0.18	-0.42	0.68	-0.43	0.28
Income from Secondary occupation	-0.42	0.23	-1.87	0.06	-0.86	0.02
Fish Farming Experience	-0.49	0.37	-1.31	0.19	-1.21	0.24
_cons	-7.41	2.21	-3.35	0.00	-11.74	-3.08

Log likelihood = -54.422578; LR chi2 (16) = 97.23; prob. > chi2 = 0.0001; Pseudo R^2 = 0.4718

Source: Field Survey Data, 2018.

Table 3: **Poverty Incidence Showing Poor and Non-Poor Households**

Poverty status	Freq.	Percent	Cum.
Non-Poor	214	85.60	85.60
Poor	36	14.40	100.00
Total	250	100.00	

Poverty Incidence, P0 = 1/250 (36)0 = 0.144

Result

- 64.4% of the fish farmers were males, with mean age to be 44±10.1 years, 49.2% have tertiary education and a household size of between 5 – 6 persons. Other sources of livelihood include; civil service, trading, artisanal jobs, animal and crop production.
- Nineteen fish farming activities were considered but only three activities were not significant.
- The result of probit regression indicated that farm size, age, education, household size, farm type, source of capital and membership of cooperative society are the major determinants of poverty in the study area.

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Conclusion

- Larger farm size, membership of cooperative society and improved access to credit to enhance the gender roles for improved productivity should be encouraged among the fish farmers to help improve their output