Influence of Agricultural Credit Guarantee Scheme Fund (ACGSF) on Fishery Development in Nigeria

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Background Information

- Fish has become the important source of protein to people in order to substitute for other animal proteins
- Many people derive their livelihood from fishing
- Credit is a crucial tool in increasing fish production
- **Problem Statement**
- Inspite of ACGSF, fish demand is still more than supply
- Huge amount is spent on fish importation

Objectives: Specific objectives are to;

- examine the sub-sectoral ACGSF loan allocation in agricultural sector
- examine growth rate of fishery contribution to GDP in Nigeria
- analyse the effect of ACGSF loan to fishery sub-sector on the GDP contribution from fishery sub-sector.

- **Data Sources and Collection:**

- Secondary data on relevant variables between 1981and 2012.

- Data collected from various issues of Central Bank of Nigeria Annual Reports and other relevant publications.

- **Analytical Tools**
- Descriptive Statistics (such as frequency, %, table)
- Growth Function Analysis
- Linear Regression Analysis
  - **Model Specification**
  - Growth Function Analysis:
- $Y = b_0 e^{bt}$ .....(1)
- After linearizing in logarithm, equation 1 turns to:
- $LogY = b_0 + b_1 t$ .....(2)
- Where:
- Y= GDP from fishery sub-sector
- t = Time trend variable
- b_0, b_1, = Regression parameters to be estimated
- The growth rate (r) is given by
- $r = (e^b - 1) \times 100$ .....(3)
- where e is Euler's exponential constant (2.7183).

- To investigate the existence of acceleration, deceleration or stagnation in growth rate of GDP from fishery subsector, quadratic equation in time variables was fitted to the data for the period (1981-2012) following Akpaeti *et al*. (2014) as follows:

- $$LogY = b_0 + b_1 t + b_2 t^2 \quad \text{.....(4)}$$

Significant positive b_2 = acceleration in growth, significant negative b_2 =deceleration in growth while non-significant b_2 = stagnation or absence of either acceleration or deceleration in the growth process.

- **Multiple Linear Regression:**
- $GDP_{Fishery} = a + bValloan_{Fishery} + cNumbloan_{Fishery} + dValloan_{Agric} + eNumbloan_{Agric} + u_i$ .....(5)

Where;

- $GDP_{Fishery}$ = Gross Domestic Product from fishery sub-sector
- $Volloan_{Fishery}$ = Volume of ACGSF loan to fishery sub-sector
- $Numbloan_{Fishery}$ = Number of ACGSF loan to fishery sub-sector
- $Volloan_{Agric}$ = Volume of ACGSF loan to Agriculture
- $Numbloan_{Agric}$ = Number of ACGSF loan to Agriculture
- u_i = Error term

Figure 1: ACGSF Loan Allocation in Agricultural Sector Between 1981-2012

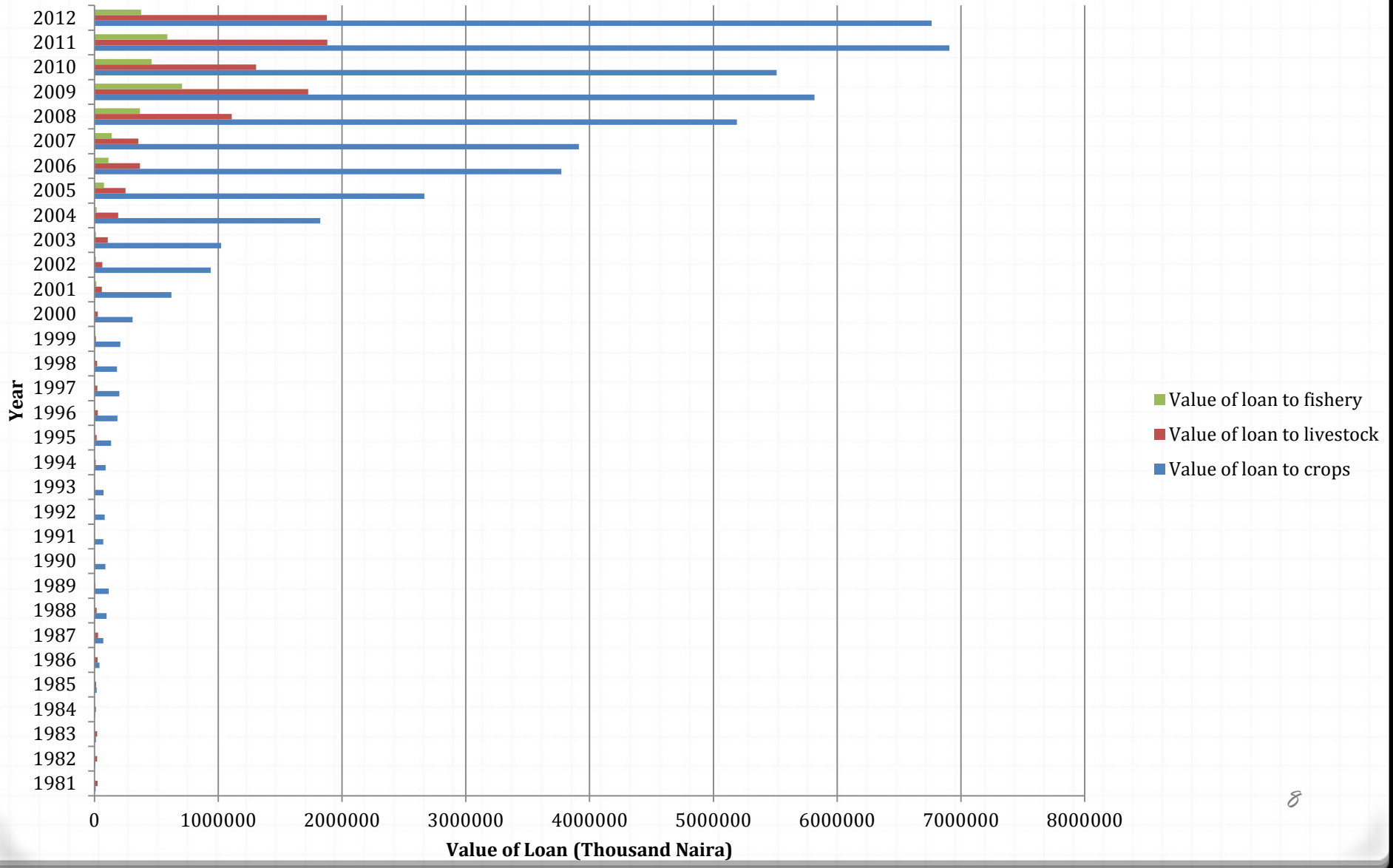

Table 1: Estimated Equation for Fishery Contribution to GDP and Growth Rates

Variable/Period	Coefficient	T-value	R^2	Growth Rate (%)
2000-2012				
GDP from Fishery	0.164***	27.998	98.6	17.8
Proportion of GDP from Fishery to Agriculture	0.001	0.206	0.4	0.1
1981-1999				
GDP from Fishery	0.259***	15.108	93.1	29.6
Proportion of GDP from Fishery to Agriculture	-0.018	-1.479	11.4	-1.8
1981-2012				
GDP from Fishery	0.101***	32.443	97.2	10.63
Proportion of GDP from Fishery to Agriculture	5.121E-5	0.244	2.2	0.005

*** Statistically different from zero at 1% level of significance.

Table 2: Estimated Quadratic Equations for Fishery Contribution to GDP

Variables/Period	b_1	b_2	R^2
2000-2012			
GDP from Fishery	0.239***	-0.005***	99.8
	(22.359)	(-7.217)	
Proportion of GDP from Fishery to Agriculture	0.019**	-0.001**	39.0
	(2.389)	(-2.514)	
1981-1999			
GDP from Fishery	0.056	0.010***	96.5
	(1.048)	(3.938)	
Proportion of GDP from Fishery to Agriculture	-0.114**	0.005**	29.6
	(-2.354)	(2.030)	

** Statistically different from zero at 5% level of significance, *** Statistically different from zero at 1% level of significance.

Table 3: Regression Results of Relationship between ACGSF Loan and GDP Contribution from Fishery Sub-sector.

Variable	Coefficient	T-value
Constant	6832.019	1.375
Number of loan for fishery	17.000	0.974
Value of loan to fishery	-0.352***	-3.256
Number of loan to agriculture	0.040	0.387
Value of loan to agriculture	0.056***	13.450
R^2	98.2	
F- value	359.7***	

** Statistically different from zero at 5% level of significance, *** Statistically different from zero at 1% level of significance.

CONCLUSION::

- Fishery sub-sector was the least financed in the Agricultural sector by Agricultural Credit Guarantee Scheme Fund (ACGSF)
- Also, the growth rate for GDP contribution from fishery in 1981-1999 was more than that of 2000-2012 when ACGSF was operating with larger funds.
- Value of ACGSF loan to fishery did not positively influence the GDP contribution from fishery sub-sector

- Volume of ACGSF loan devoted to fishery sub-sector should be significantly increased

- Also, loan given to the sub-sector should be monitored in order to prevent diversion and poor management.

- European Association of Fisheries Economists (EAFE)
- Ann Shriver
- Hazel Curtis

Thanks for your attention

Comments ??