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Changing Socio-Economic Environment and Sustainable Development in Agriculture: the Case of Fisheries Production in Rivers State, Nigeria

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Abstract

This study examines the effect of changing socio-economic environment in Nigeria on sustainable development in agriculture, with particular reference to fisheries production in Rivers State. Primary data were sourced with questionnaire administered on the relevant respondents, fish farmers in the state. Secondary data used were sourced from official publications of the National Bureau of Statistics, the Central Bank of Nigeria, as well as Food and Agriculture Organization Database. Simple descriptive statistics such as tables, charts, averages and percentages were used. We also used the chi-square (x^2) test of significance to test the hypothesis of the study. The results of the study show that the changing socio-economic factors prevalent in Rivers State and entire Niger Delta Area constitute reasonable impediments to fish production in the region. The results further indicate that fisheries production in Rivers State and indeed the whole of Niger Delta region is at its lowest level. Also food security is more threatened now than ever before in the region due to so many vices like cult wars, political killings and commercial kidnapping among others. It is recommended that the Nigerian government should take more decisive actions to ensure peace in the Niger Delta region otherwise the nation's economic base and indeed her survival will run into chaos. Besides, the much talked about diversification of the economy in the face of dwindling oil revenue, must be made more concrete through improving the environment of oil bearing communities about to begin with the cleanup of Ogoni land. Also more attention should be paid to fish farming or aquaculture as practiced in other countries like China.

Keywords: *Socio-economic, Environment, Sustainable, Development, Fisheries.*

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Background to the Study

Agriculture remains a vital sector in the developmental process of nations, whether developed or developing. Economic history of the world reveals the obvious fact that growth in agriculture has always preceded over all national development of many nations. This is because it acts as a precursor to other activities. The sector plays significant roles in diverse areas of an economy. It is a major source of income, employment, foreign exchange as well as raw materials for the industrial sector. Agriculture is also believed to provide strong cushion against global economic and financial turmoil, often more effective than other sectors of the economy (Bertow and Schultheis, 2007 and Hurungo 2006). The World Bank (2009) has equally recognized that growth in agriculture is more effective at reducing poverty than growth in other sectors.

The fisheries sub-sector is an important component of the agricultural sector of any economy. It is a strategic economic activity especially for coastal regions of the world such as Nigeria's Niger Delta region. The subsector contributes enormously to the rural people who actively engage in it. Firstly, it is a rich source of man's basic nutritional needs for protein. The Food and Agriculture organization FAO (2014) has observed that about 17 percent of the animal protein supply throughout the world is derived from fisheries. The figure could even be higher in coastal regions of sub-Saharan Africa where there is greater dependence on fish consumption.

As observed by Bada (2004), animal protein, a vital food component needed for growth has been in short supply in Nigeria. This is attributable to the declining population of animals, and the continuous increase in human population in the country. Thus, with a high population growth rate of about 3.5 percent per annum and the obvious declining rate of animal protein, the demand for fish has become quite high in Nigeria, by far outstripping the supply. There is therefore the need to boost domestic fish production to meet local demand. This can only be done in the coastal states like Rivers State. The state is located in Nigeria's Niger Delta region reputed to be the second largest delta system in the world and spans a distance of about 500 kilometers. It is rich in aquatic life where most fin and shellfish resources of the Nigerian marine waters are found. Inspite of its seeming advantageous location, as well as concerted efforts by both the government and private individuals, fish production seems to be on a very fast decline in the state.

Objective of the Study

The objective is to paper examine the factors militating against genuine efforts in fisheries production in Rivers State in particular and Niger Delta region in general.

Stylized Facts about Nigeria's Niger Delta Region and Rivers State

The Niger Delta region in Nigeria comprises six core riverine states – Akwa Ibom, Bayelsa, Cross River, Delta, Edo and Rivers States. The region is sometimes expanded for economic reasons to include Abia, Imo and Ondo States, to form the oil producing states in Nigeria. According to the Niger Delta Human Development Report, 2006,the region has a total land mass of about 75,000 square kilometers, made up of 185 Local Government Areas. It equally contains the world's third largest wet land with an

extensive fresh water swamp forest and rich bio-diversity (NDHD Report 2006). The region is, no doubt, regarded as the economic hub of Nigeria with rich oil deposits and extensive exploration and exploitation activities. If it is remembered that oil revenue is the mainstay of the Nigerian economy, then the strategic importance of the region to the nation is better appreciated. Ordinarily, the region is supposed to receive special attention from the Nigerian federation, being the host of its fortune.

However, the paradox is that the entire landscape of this region of economic abundance is characterized by mass poverty, absence of vital social infrastructure, unfulfilled expectations, frustration, and high level of unemployment and years of total neglect by all the operators in the oil and gas industry, including the governments. Worse still, the major means of livelihood for the people of the region, agriculture, has been greatly devastated by high level of environmental pollution, as exemplified in Ogoniland. Rivers State is the epicenter of activities in the region as Port Harcourt, the state capital, is the zonal headquarter of the region. It hosts so many of the multinational oil companies in the industry. There are also government agencies established to offer intervention services in the industry. This makes the city unarguably one of the most expensive in West Africa in terms of cost of living.

These despicable conditions prevalent in the region have enthroned an unprecedented regime of vices and criminality. There are continued agitations, restiveness, conflicts, violence and militancy. In recent times much dangerous dimensions of the vices have been introduced, such as piracy, commercial kidnapping, cultism and incessant political killings. Hardly does any day pass by without one form of criminal activity or the other. There is therefore general insecurity in the region which affects every activity including fish production. It is in the face of these frightening challenges that agricultural activities like fishery are expected to be carried on. Thus, this study tries to examine the issue of sustainability of the fisheries activities in the face of these challenging socio-economic factors.

Trends in Fishery Production in Nigeria

Globally, fish production is reported to be increasing in response to increasing demand for fish as a source of animal protein. Gordon et al (2013), report that the growth in fish production being witnessed in other regions of the world is not the same in Sub-Saharan Africa. In a listing of the top ten fishing countries worldwide, no African country made the list.

Table 1: Top Ten Fishing Nations in the World in 2013

Country	Fish Production (in tonnes)
China	16,274,926
Indonesia	6,101,725
Peru	5,854,233
United States	5,230,874
India	4,645,182
Russian Federation	4,345,868
Myanmar	3,786,840
Japan	3,656,854
Vietnam	2,803,800
Philippines	2,331,721
Nigeria	888,067*

Source: FAO Database, 2013, * Estimate by FDF 2015.

Table 1 above shows that Asian countries dominate world fish production with China leading the rest of the world producing over 16.2 million metric tonnes. Indonesia comes a distant second with 6.1 million metric tonnes, while Peru, United States, India and Russian Federation are third, fourth, fifth and sixth in that order producing 5.8 million, 5.2 million, 4.6 million and 4.3 million metric tonnes respectively. Other countries so listed include Myanmar 3.7million tones, Japan 3.6 million metric tonnes, Vietnam 2.8 metric tonnes and the Philippines 2.3 million metric tonnes.

Nigeria has a good prospect in human and natural resources to produce and supply fish to the whole of West Africa and other parts of the world; or come close to making the list, (Alabi and Chime, 2010). This is buttressed by the fact that the nation has about 853 km coastline and maritime waters of about 210,900 km^2, which includes Exclusive Economic Zone (EEZ) of almost 200 nortical miles (nm) that has given her a wide area of maritime influence conducive for fishing in a large scale.

Despite all these, performance in fish production is at a dismal level in the country and this is worrisome. Table 2 in this study shows Nigeria's fish production by sector between 2000 and 2011.

Table 2: Nigeria's Fish Supply by Sectors (2000 – 2011)

Year	Artisanal	Agriculture	Industrial	Distant Water	Total
2000	418,069	25,720	23,308	557,884	1,024,982
2001	433,537	24,398	28,378	648,197	1,134,510
2002	450,965	30,664	30,891	681,152	1,192,872
2003	446,203	30,677	33,882	663,180	1,173,942
2004	43,830	43,950	30,421	648,033	1,157,234
2005	490,594	56,355	32,595	611,521	1,191,065
2006	518,537	84,533	33,778	646,484	1,283,333
2007	504,227	85,087	26,193	739,666	1,355,173
2008	511,380	143,207	29,986	937,428	1,622,003
2009	598,210	152,796	29,698	946,851	1,727,555
2010	616,981	200,535	31,510	956,275	1,805,301
2011	638,486	221,128	33,485	965,699	1,858,798

Source: Federal Department of Fisheries, Abuja

As is shown on the table, fishery sector in Nigeria is comprised of artisanal, aquaculture, industrial and distant water fish. A careful study of the table shows that fish supply in the country was dominated by distant water source which is described as imported fish (NBS, 2013). Domestic fish production centers mainly on artisanal supply. This is followed by industrial fishing. Aquaculture or fish farming keeps a distant pace in fish production in the country. This is quite different from what obtains in some other countries like China where aquaculture based fish production is given very serious boost, while sea capture fish production is discouraged,(Ramesh, 2013). The poor performance in the overall fish production in Nigeria may be basically due to so many factors. Among such factors is the production conditions in the coastal states like those of the Niger Delta, such as pollution and insecurity (Garcia and Grainger, 2005).

Table 3 below shows the fish production record for six of the states-Akwa Ibom, Bayelsa, Cross River Delta Edo and Rivers State between 2000 and 2011.

Table 3: Artisanal Fish Production in Niger Delta States of Nigeria (in tones)

Year	A/Ibom	Bayelsa	C/River	Delta	Edo	Rivers
2000	87,586	16,282	11,906	26,038	7,284	48,845
2001	80,724	26,112	13,959	22,661	9,489	55,450
2002	94,652	30,165	10,972	25,025	10,934	52,301
2003	87,654	24,186	12,279	24,575	10,024	52,730
2004	85,452	21,718	11,074	23,933	8,474	48,639
2005	92,450	27,717	12,381	24,183	9,384	49,639
2006	96,707	26,956	12,438	30,378	14,105	56,655
2007	92,043	25,470	13,775	26,539	15,621	52,903
2008	94,375	26,213	13,106	28,459	14,863	54,779
2009	110,399	30,664	15,331	33,291	17,387	64,080
2010	116,788	32,451	17,688	33,600	17,231	67,081
2011	123,635	33,880	18,160	35,945	1,267	75,438

Source: Federal Department of Fisheries, Abuja

It is observed from the table that apart from Akwa Ibom, Rivers State produces the highest quantity of fish within the region. Production figures merely rose from 48,845 in 2000 to 75,438 in 2011. This is considered to be a poor performance considering the fact that the biggest fishing settlement in the country Oyorokoto in Andoni Local Government Area is located in the state.

Research Methodology

The study was conducted in Rivers State, one of the Niger Delta states in South – South zone in Nigeria. The state occupies an estimated land area of about 10,575 square kilometers. It has the highest population among the six core states in the geographical region. By the 2006 census, the population of the state is 5,185,400, although current estimates put the population at little above eight million. The state has twenty-three (23) local government areas divided into three (3) senatorial districts namely; Rivers East, Rivers South-East and Rivers West.

Data Collection

The data used for this study were sourced from both primary and secondary sources. Secondary data were got from official fisheries statistics for Nigeria published by National Bureau of Statistics and the Federal Department of Fisheries Abuja as well as publications of the Central Bank of Nigeria. We equally utilized data from the database of the Food and Agriculture Organisation FAO.

Primary data, on the other hand, were generated from a well structured questionnaire administered on fish producers in the three (3) senatorial districts of the state.

The sample for the study was drawn from the registered members of the Nigerian Union of Fishermen and Seafood Dealers (NUFAS). There were 263 registered members. Thus, to choose our sample size we used the famous Taro Yamane technique for choosing sample sizes. Symbolically, the technique is stated as:

$$n = \frac{N}{1+N(e)^2}$$

Where: n = sample size, N = population of the study while e = significance level: in this study the significance level is 5%. Accordingly our sample size is calculated thus:

$$n = \frac{263}{1+263\ (0.05)^2} = \frac{263}{1.6575} = 158.67$$

We made a round off of the sample size (n) to 159. This implies that a total set of 159 questionnaires were distributed among the fish farmers in Rivers State.

To ensure good coverage of the state we distributed the questionnaire equally in the senatorial districts. This means fifty-three (53) questionnaires per district. A four point scale was raised and respondents were requested to indicate the extent to which they considered each of the eight (8) factors as a challenge to their fish production efforts. Specifically, the scale required the identification of a factor as:

(a) A major challenge
(b) A minor challenge
(c) A negligible challenge
(d) No challenge at all

Analytical Technique

We adopted simple descriptive statistical tools such as frequency distribution, averages, percentages and tables in our analysis. Also we used chi-square (X^2) test of significance to test the hypothesis that fish production in Rivers State is not affected by the socio-economic factors identified in the state. That is:

H_0 = there is no significant relationship between fish production in the state and the identified socio-economic factors;

H_1 = there is significant relationship between fish production in the state and the identified socio-economic factors;

Results and Discussion

The results of our survey are presented in this section and discussed accordingly.

Table 4: Questionnaire Distribution and Response Rate

S/N	Senatorial District	Total No. of Questionnaire Distributed	Total No. Retrieved
1.	Rivers East	53	53
2.	Rivers South-East	53	53
3.	River West	53	53
	Total	**159**	**159**

Source: Authors Field Survey, 2016.

A total of 159 questionnaires were distributed and the same number was retrieved in course of the research. Table 5 below shows the distribution of respondents' fish farmers by their selected characteristics such as age, education, primary occupation and years in fishing business.

Table 5: Distribution of Fish Farmers by Selected Characteristics

Age			Education			Primary Occupation			Years in fishing		
Range	**No.**	**%**	**Level**	**No**	**%**	**Type**	**No.**	**%**	**Range**	**No**	**%**
20-30	2	1.26	Primary	51	32.08	Fishing	49	30.81	Up to 1 yr	12	7.50
31-35	8	5.03	Secondary	68	42.77	Other faming	21	13.21	2-3 yrs	34	21.38
36-40	58	36.48	OND/NCE	26	16.35	Public Service	36	22.64	3-5 yrs	61	38.37
41-50	71	44.65	First Degree	10	6.28	Private Service	30	18.87	6-10 yrs	23	14.47
Above 50	20	12.58	Higher Degrees	4	2.52	Others	23	14.47	Above 10 yrs	29	18.28
Total	**159**	**100**		**159**	**100**		**159**	**100**		**159**	**100**

Source: Computed from Responses to Questionnaire

Distribution of Fish Producers by Characteristics

Table 5 reveals the characteristics of fish farmers in Rivers State. In terms of age, most of the fish farmers fall within the age bracket of 41 – 50 years old. As the table shows, 71 out of the 159 fish farmers sampled or 44. 65% fall within this age group. Also 58 of the farmers or 36.48 percent of the respondents are within the age group of 36 – 40 years. This means that most of the fish farmers in Rivers State currently are middle aged people. The implication of this is that young farmers are either not interested, or have been prevented from actively taking part in fish production activities in the state.

The educational level of the respondent fish farmers is also a cause for concern. A total of 119 of them or 74.85 do not have higher education. They stopped at the primary and/or secondary school levels. Besides, they are small time fish farmers, which further buttresses the difficult times fish farming and indeed agriculture suffers in the region of Niger Delta. The younger and much more vibrant youths are not found in the fishing activities.

Table 6: Perceived Major Challenges to Fish Production in Rivers State

S/No.	Category of Challenge	Frequency	Percentage (%)
1.	Level of insecurity	56	35.22
2.	Marketing factors/Competition	15	9.44
3.	Finance	18	11.32
4.	Infrastructure	10	6.28
5.	Environmental Pollution	36	22.65
6.	Government Policies	5	3.14
7.	Input Problems	6	3.77
8.	Technical Problems	13	8.18

Source: Computed from Responses to Questionnaire

The various factors which pose as challenges which hinder fish production in Rivers State and the entire Niger Delta are shown in table 6. The barriers or challenges are categorized into eight (8) – insecurity, marketing/competitive factors, finance, infrastructure, environmental pollution, government policies, input and technical problems.

The table reveals that 56 of the respondents or 35.22 percent indicate that insecurity in the Niger Delta is the chief challenge inhabiting serious fishing activities. This is not a surprise as the region is characterized by a lot of criminal activities such kidnapping, political killings, piracy, cultism and even robbery which would naturally disrupt any agricultural activity. Aside from insecurity the next prominent factor which poses serious challenge to fish production in Nigeria is environmental pollution. Specifically, 22.65 percent of the respondents identify it as being a problem. The level of water pollution in the coastal areas of Nigeria and Niger Delta in particular has become an international issue. The case of Shell Petroleum Development Company (SPDC) and Ogoni ethnic nationality in Nigeria is well known, although the condition is not peculiar to Ogoniland but the entire region. This, no doubt, raises the question of sustainability in the development of the fisheries sub-sector.

Also the respondents agreed to the fact that poor financing, worrisome marketing and competitive factors as well as none existent or poor technical assistance hamper fish production in Rivers State. These factors are variously assigned 11.32 percent, 9.44 percent and 8.18 percent respectively. Specifically, the financial challenge seems more intractable as fish producers could hardly access loan facilities from conventional deposit money banks. Government efforts in forms of financial grants or technical assistance are corruptly diverted by politicians. The case of the squandered N2 billion cooperative facility meant for farmers in Rivers State in 2014/2015 financial year is still fresh in mind. Also the fish producers point out that the inability of governments at various levels to provide them with the requisite inputs, absence of social infrastructure, fishing gears and preservative facilities as enshrined in the national fishing policy pose as major cogs in the wheel of progress (Lawson, 2008). Up to 10 respondents or 6.28 percent state that infrastructure was a problem. This agrees with the views of Evbuomwan et al (2004), that

the fisheries industry requires various expensive inputs, substantial capital investment as well as requisite infrastructure on a recurrent basis if any meaningful growth is to be achieved and sustained in the sector.

A factor which was quite identified as posing visible problem to fish farmers in Nigeria as a whole is competition from foreign imported fish. Respondents are of the view that the policy of pre-mature economic liberalization by many developing countries like Nigeria, constitute reasonable impediment to agricultural sector development in general.

Test of Hypothesis

Tables 7 and 8 are used for the calculation of chi-square (x^2) test of significance to test the hypothesis of this study.

Table 7: Fish Producers Perceived Challenges Impeding Fish Production

	Category of Challenges	Major Challenge	Minor Challenge	Negligible Challenge	No Challenge	Total
1.	Level of insecurity	56	42	35	26	159
2.	Marketing factors/competition	15	39	80	25	159
3.	Finance	18	56	43	42	159
4.	Infrastructure	10	66	54	29	159
5.	Environmental pollution	36	67	29	27	159
6.	Government policies	5	35	48	71	159
7.	Input problems	6	21	64	68	159
8.	Technical problems	13	72	47	27	159
	Total	**159**	**398**	**400**	**315**	**1,272**

Source: Authors Field Survey, 2016.

Table 8 shows the chi-square (x^2) calculation based on our survey data. The table shows calculated chi-square, i.e. x^2_{Cal} to be 257.1. With a degree of freedom of 21 at 5% significance level the critical value of chi-square is 32.7.

Table 8: Chi – Square (X^2) Calculation

Of	Ef	of – ef	(of – ef)^2	$\frac{(of - ef)^2}{ef}$
56	19.9	36.1	1,303.2	65.5
42	49.8	-7.8	60.8	1.2
35	50.0	-15.0	225.0	4.5
26	39.4	-13.4	179.6	4.6
15	19.9	-4.9	24.0	1.2
39	49.8	-10.8	116.6	2.3
80	50.0	30.0	900.0	18.0
25	39.4	-14.4	207.4	5.3
18	19.9	-1.9	3.6	0.2
56	49.8	6.2	38.4	0.8
43	50.0	-7.0	49.0	1.0
42	39.4	2.6	6.8	0.2
10	19.9	-9.9	98.0	4.9
66	49.8	16.2	262.4	5.3
54	50.0	4.0	16.0	0.3
29	39.4	-10.4	108.2	2.7
36	19.9	16.1	259.2	13.0
67	49.8	17.2	295.8	5.9
29	50.0	-21.0	441.0	8.8
27	39.4	-12.4	153.8	3.9
5	19.9	-14.9	222.0	11.2
35	49.8	-14.8	219.0	4.4
48	50.0	-2.0	4.0	0.1
71	39.4	31.6	998.6	25.3
6	19.9	-13.9	193.2	9.7
21	49.8	- 28.8	829.4	16.7
64	50.0	14.0	196.0	3.9
68	39.4	28.6	818.0	20.8
13	19.9	-6.9	47.6	2.4
72	49.8	22.2	492.8	9.9
47	50.0	-3.0	9.0	0.2
27	39.4	-12.4	153.8	3.9
			X^2 cal =	**257.1**

Source: Authors Field Survey, 2016.
Note: *of = observed frequency; ef = expected frequency.*

Decision Rule

i. Reject H_0: If x^2cal is greater than critical value.
ii. Accept H_0: If x^2cal is less than critical value.

Since x^2cal is greater than x^2crit, we therefore reject the null hypothesis (H_0) and accept the alternative (H_1). The policy implication of this is that the identified socio-economic factors seriously affect fish production in Rivers State, Nigeria and indeed the entire Niger Delta region of Nigeria.

Conclusion and Recommendations

This study was aimed at examining the effect of changing social, economic and political climate in Rivers State Nigeria on sustainable development in Fisheries production. It is observed that there is increasing demand for fish as a source of protein and other minerals. However, there is no corresponding increase in fish production to meet up demand.

The reasons are that the nation depends mainly on artisanal fish production which has increasingly come under threat by many social vices as well as environmental degradation arising from oil and gas production.

Based on the results of this study the following recommendations have been made:

(i) governments at various levels – local, state and federal should take decisive efforts to arrest or curb the high level of crime and criminality in Rivers State and Niger Delta in general. This will help to create the needed conducive atmosphere for fish production activities in the country.

(ii) aquaculture or fish farming which is not so much prone to some of the challenging factors should be encouraged. This is the practice in other countries like China which incidentally is the world leader in fish production.

(iii) to ensure sustainable development in Nigeria, agriculture generally should be given massive boosts in terms of financing, infrastructure and protection from competition. This will provide succor for the nation in the face of dwindling oil revenue.

References

Alabi, R. A. & C. C. Chima (2010). *Impact of Food Production on Food Import in Nigeria.* Final Research Report Submitted to African Economic Consortium (AERC), Kenya.

Alabi, R. A. & Erie, G. (2010). *Effect of Trade and Agricultural Policies on Fish Trade and Production in Nigeria.* IIFET Montepeller Proceedings.

Amadi, S. (2015). The Role of Microcredit in Sustainable Development in Agriculture. A Study of Fish Farmers in Rivers State. *Reiko International Journal of Business and Finance,* 8(2): 79 – 90.

Bada, A. S. (2004). *Homestead Catfish Farming in Concrete Tanks.* Proceedings of the African Farm Management 7th Biennial Congress. In Okuneye, P. B. and Evbuomwan G. O. (eds) p. 165 – 170.

Evbuomwan, G. O., E. U. Ukeje, M. F. Out, B. A. G. Amoo, E. A. Essien, L. I. Odey & M. A. Abba (2003). *Agricultural Development: Issues of Sustainability; in Contemporary Economic Policy Issues in Nigeria;* CBN

FAO (1996). *Fisheries and Aquaculture in Sub-Saharan Africa: Situation and Outlook in 1996: FAO – Fisheries Circular* No. 922 FIPP/C922

FAO (2014). *State of Fisheries in the World.* Rome.

Garcia, S. M. & Grainger, R. J. R. (2005). Gloom and doom? The future of marine capture fisheries. Philosophical Transactions of Royal Society.

Gordon Ann, Cambria Finegold, Charles C Crissman & Alan Pulis (2013). *Fish Production, Consumption, and Trade in Sub-Saharan Africa: A Review Analysis.* Worldfish.

Lawson, M. I. (2008). *Gender / Youth in Agriculture.* A paper presented at the Training of Facilitators for Farmers Field Schools (FFS). Extension Approach. Rivers State.

Niger Delta Human Development Report (2006). Abuja. UNDP.

Ramesh, Sangaralingam (2013). *Aquaculture: Evidence from China and Nigeria. Developing country studies*. http://www.iiste.org. Downloaded 14/04/2016.

Yamane, T. (1967). *Statistics: An Introductory Analysis, 2nd ed.* New York: Harper and Row.

World Bank (2009). *World Economic Outlook.* New York.