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## ASSESSMENT OF RURAL CHILDREN'S INVOLVEMENT IN FISHERY ACTIVITIES IN OGUN WATERSIDE LOCAL GOVERNMENT AREA OF OGUN STATE, NIGERIA

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### ABSTRACT

The study assessed rural children's involvement in fishery activities in Ogun waterside Local Government Area of Ogun State, Nigeria. Eighty rural children were sampled from four fishing communities across two wards in the LGA through the use of multistage sampling technique. Data were collected with structured interview schedule. The study identified fishery activities involved in by rural children, determined their level of involvement, identified their educational activities and also identified reasons for children's involvement in fishery activities. The results indicated that majority of the rural children were male (71.25%) with mean age of 14 years, Christians (61.25%) and had large household sizes between 6 and 10 persons (77.50%). Smoking of fish (96.25%), fish catching (93.75%), firewood gathering (92.5%) and selling of fish (88.75%) were some of the fishery activities involved in by rural children. The study also revealed that high level of involvement was observed with fish processing and fish marketing activities. Despite children's involvement in fishery activities, their educational activities were not affected. The results of Chi-square analysis also showed significant associations between rural children's involvement in fishing activities ( $\chi^2 = 210.772$ ,  $p < 0.05$ ), fish marketing activities ( $\chi^2 = 163.547$ ,  $p < 0.05$ ) and their educational activities. The study concludes that if children's level of involvement in fishery activities is low, their educational performance will not be affected. It is therefore recommended that children's involvement in fishery activities should only be tailored towards socializing the children and not for children to be exploited through child labour.

**Keywords:** Fish marketing, Educational activities, Artisanal fishery, Socialization, Child labour

### INTRODUCTION

Fishery is an important sub-sector in the economic development of many developed and developing countries. About 40 million people are employed directly in the fishery sub-sectors of artisanal (small-scale) fishing, fish farming, processing, preservation and

marketing worldwide (Ajao *et al.*, 2004). Fish is a source of high-quality protein that can be produced more cheaply than any other animal protein for human consumption. It is also medically recommended for pregnant women, children and adults because of its high-level protein, digestibility and lack of

cholesterols, preventive recipe for heart attack or failure and stroke (Ajao *et al.*, 2005).

In developing countries like Nigeria, small scale fishery is a prominent feature in the nation's fisheries because the country has a large population of artisanal fishermen of over 264,557 fisher-folks earning their living by operating the coastal non-trawling zone of five nautical miles from the nation's coastline (FDF, 1994). Artisanal fisheries utilize open access resources in which the only human intervention is the harvesting of fish stocks (Ajenifuya, 1998). FAO (2005a) has opined that Nigeria is one of the countries in Africa with great potentials to attain sustainable fish production since the country is blessed with about 960 km of coastline comprising lagoons, estuaries, wetland and series of interconnecting creeks.

The subsistence nature of the nation's artisanal fishing in Nigeria made family members to be the cheapest, most available and reliable source of labour. Children, however, are the most commonly available family labour due to their dependence on parents, vulnerability and weak nature that made them to be easily manipulated by adults. Children's involvement in fisheries starts from mere observing the parents/adults while catching the fishes, transporting, processing and marketing the processed fishes to practical involvement by trying out what the adults were doing. The child is expected to carry farm produce from the farm or market, preparing the marketing of farm surplus, fetching and carrying goods and looking after Animals (Arokoyo, 1992). This is learned through the process known as socialization.

There are relatively few anthropological studies of the work that children in fishing communities are involved in and most ex-

isting evidence is also dated. The fisheries-related work that children do may, according to Nieuwenhuys (1994) be classified into four broad categories: (a) Fishing and foraging for Subsistence, (b) Small-scale fish vending (c) Rendering services to a boss and its crew during operations on a beach and (d) Work in a shore-seine crew. With the exception of (a) whereby from the age of 7, boys and girls are encouraged to forage for fish during their spare-time, these tasks are distinctly gendered and contain a strong element of "apprenticeship" and the acquisition of what many observers researching children's work would describe as "critical survival skills" as well as providing preparation for a career as either a fish vendor or as crew of one of the local fishing vessels.

There are empirical data on the involvement of children in agriculture or its sub-sectors such as fisheries. For instance, ILO (2009) reported that 70 percent of working children (over 132 million girls and boys) aged 5 – 14 years old is in agriculture.

At times, children, especially those in riverine areas may be forced by adults to be involved in fishery activities. Failure to abide usually attracts punishments ranging from scolding to deprivation of food, severe beating or corporal punishment. While carrying out fishing activities, children may also be injured by fishes or other aquatic animals in rivers. Most of the times, the injuries lead to illnesses that may be too much for the children to bear due to their weakened immune system caused by malnutrition which characterized the rural areas of the country.

According to Staff (1998), pupils work for long hours pulling heavy fish nets from the water, loading and offloading fish from motor or boat to lorries which ferries them to factory. This makes some of them to devel-

op chest problems and bronchitis which may further lead to mental and psycho social impairment. They are also vulnerable to illness such as malaria, typhoid, cholera, and skin infection which are prevalent in their areas (Staff, 1998).

Based on preliminary observation in Ogun waterside Local Government Area of Ogun State, most of the children involved in fishery activities are either deprived education or do not have sufficient time for educational activities. Most of them could not do assignments given to them from school not to talk of reading in preparation for continuous assessment test or examinations. A study of three riverine areas in Nigeria's southern region reveals that 76 percent of children aged 6 to 16 did not attend school because of difficulty in accessing school facilities or because of involvement in the fishing industry (Hodges, 2001).

Children are regarded as an important element of development. Therefore, their welfare in society is an index of social and economic development of that society. As such, child welfare is included in the Millennium Development Goals (MDGs) (UNESCO, 2004). It is against this background that the study assessed the effects of rural children's involvement in fisheries on their educational activities in Ogun Waterside Local Government Area of Ogun State.

The study specifically described the socioeconomic characteristics of riverine children involved in fishery; identified the fishery activities involved in by rural children; determined the rural children's level of involvement in fishery; and examined the educational activities of the rural children. The study hypothesized that:

No significant association exists between ru-

ral children's level of involvement in fishery activities and their educational activities.

## **METHODOLOGY**

The study was conducted in Ogun waterside Local Government Area of Ogun State. It is bounded in the west by Ijebu East Local Government, in the north and the east by Ondo State and in the south, by Lagos State and the Atlantic Ocean. The area comprises over 50 towns and villages with headquarters at Abigi and located on 6°29'N4°24' E /6.483°N4.4°E (Wikipedia, 2015). It covers a total area of about 860Km<sup>2</sup> with a total population of 74, 222 persons which ranked it 17<sup>th</sup> out of the 20 LGAs in the state. Major economic activities in the area include farming, fishing and lumbering. Ogun Waterside was purposively chosen for this study because it is known for its artisanal fishing activities in Ogun State.

A total of 80 rural children were sampled for this study through multistage sampling technique as indicated below:

Stage 1 involves the purposive selection of two (Makun-Omi and Iwopin) out of the 20 wards. The choice of these wards was due to the prevalence of rural children involvement in artisanal fishing activities than other wards. Stage 2 involved the random selection of 20% of the 20 fishing communities in the selected wards while stage 3 involved the convenient sampling of 80 children engaged in artisanal fishing activities in the 4 randomly selected fishing communities.

Data used for the study were elicited through the use of pretested interview schedule on respondents' socioeconomic characteristics, fishery activities, fishery activities involved in by children and their level of involvement and the educational activities of the rural

children. The objectives of the study were analyzed using descriptive statistics such as frequency counts, percentages and mean. The hypotheses were analyzed with the use of Chi-square analytical technique.

## RESULTS AND DISCUSSION

Table 1 shows that 71.25% of the rural children involved in fish farming in the study area were within the age brackets of 12 – 16 years old while 12.50% and 16.25% of them were older than 17 years and within 6-11 years respectively. The mean age of the children who participated in fishing in Ogun water side Local Government Area was 14.15years. The implication is that a rural child starts fishing activities as early as 6 years. This agrees with the findings of Adeokun *et al.* (2006) who reported that majority of the children involved in fishery activities were between the ages of 13 and 17 while a lower percent were between the ages of 7 and 12 years.

Also, 95% of the children involved in fishing activities in the study area were found to be currently in school. Of the sampled rural children, majority (71.25%) were males. This corroborates the findings of Adeokun *et al.* (2006) and Brandt (1984) who acknowledged gender roles in fishery activities by revealing that the male children accompanied their parents on on-shore processing of fish. Adekoya (1991) also posited the dominance of male folks in fishing activities due to the fact that fish catching activities require great strength. Perhaps the additional reason for this high number of children participating in fishing was because more than two-thirds (68.75%) of the children's fathers were fishermen as shown in Table 1. This implies that parents' occupation could be a major factor that determines the children's involvement in fishing activities.

Also, more than two-fifths (43.75%) of the sampled children's mothers were involved in fish processing (such as smoking of fish) while 37.5% were involved in fish trading. This corroborates Adeokun *et al.* (2006) who discovered that women are very active in the production, processing and post-harvest handling e.g. marketing of fish by-products. It could be deduced from Table 1 that parents' involvement in fishing activities is a motivating factor for children's involvement in fish catching and other fishing activities. Table 1 reveals that sampled children were either Muslims (38.75%) or Christians (61.25%) implying that the two major religions of the study area are Islam and Christianity.

Table 1 also shows that the mean household size in the study area was approximately 8 persons with 77.5% of the children having between 6 and 10 persons per household. This implies that there are large family sizes in the study area. This might be the reason for the children's involvement in fishery activities as they need to support the family income as well as cater for their personal needs.

### Fishing characteristics of the rural children

Table 2 reveals that 38.75% and 37.50% of the rural children owned fishing equipments through purchase and inheritance respectively while others owned fishing equipments through leasing (11.25%) or joint ownership (12.5%). This implies that fishing in the study area is seemingly sustainable since majority of the children owned fishing equipments by themselves. This is possible as most parents had succession plans for their children to take over fishing from them.

The sampled rural children had a mean fishing experience of 4.11 years with the highest

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proportion (58.75%) having 1 – 4 years of experience while 38.75% and 2.50% had 5 – 8 years and more than 8 years respectively. This, in relation with the mean age of the rural children indicated that most of the children started fishing activities at the age of 10 years old. Furthermore, Table 2 also reveals that the mean estimated annual income of the children was N43, 146.25 with exactly half (50%) of the children earning between N20, 000 and N50, 000 on annual basis. This implies that the children earned

an average of N3,596 on monthly basis. Hence, children can contribute significantly to households' income through their involvement in fishery. Table 2 further shows that majority of the children made use of net as their mode of fishing (36.25%). However, a sizeable number (22.50%) of them still made use of hook while 26.25% made use of net and hook. This implies that, although the children made use of more than one fishing modes, nets were used by close to two-thirds (65.05%) of the children.

**Table 1: Socio-economic characteristics of children involved in fishing activities in Ogun Waterside Local Government Area, OgunState (n = 80)**

Socioeconomic characteristics	Frequency	Percentage (%)	Mean
Age (years)			
6-11	13	16.25	14.15 years
12-16	57	71.25	
≥17	10	12.50	
Sex			
Male	57	71.25	
Female	23	28.75	
Educational status			
Secondary school dropout	2	2.50	
Completed secondary school	2	2.50	
Currently in school	76	95.00	
Religion			
Christianity	49	61.25	
Islam	31	38.75	
Traditional	0	0.00	
Nativity			
Indigene	50	62.50	
Non-indigene	30	37.50	
Fathers' occupation*			
Fishing	55	68.75	
Farming	20	25.00	
Civil service	3	3.75	
Trading	30	37.50	
Artisans	27	33.75	
Mothers' occupation*			
Fishing	23	28.75	
Fish processing	35	43.75	
Fish trading	30	37.50	
Petty trading	17	21.25	
Farming	16	20.00	
Artisans	8	10.00	
Household size (persons)			
1-5	13	16.25	7.55 persons
6-10	62	77.50	
11-15	5	6.25	

\*indicate multiple responses

Source: Field survey (2013)

**Table 2: Fishing characteristics of rural children (n = 80)**

Fishing characteristics of children	Frequency	Percentage (%)	Mean
Ownership of fishing equipment			
Inherited	30	37.50	
Purchased	31	38.75	
Leased	9	11.25	
Jointly owned	10	12.50	
Fishing experience (years)			
1-4	47	58.75	4.11 years
5-8	31	38.75	
9-12	2	2.50	
Estimated annual income (Naira)			
≤20000	16	20.00	N43146:25
20001-50000	40	50.00	
50001-75000	19	23.75	
75001-100000	5	6.25	
Mode of fishing*			
Net	29	36.25	
Hook	18	22.50	
Net and hook	21	26.30	
Net and basket	1	1.25	
Net, hook and Basket	1	1.25	
"Opaye"	10	12.50	

Source: Field survey (2013)

### Rural children's involvement in fisheries activities

The fisheries activities of the rural children were broadly grouped into three; namely fishing activities, fish processing and fish marketing activities. Table 3 shows that majority of the rural children were involved in canoe paddling (65.00%), fish catching (93.75%), repair and making of fishing nets (53.75%) and loading and off-loading of fishes (66.25%). This implies that rural children are more involved in fish catching than any other fishing activities.

With regards to fish processing activities, majority of the rural children were involved in fish smoking (96.25%), sorting of fishes (60.00%) and gathering of firewood for fish smoking (92.50%). This implies that all fish processing activities were engaged in by rural children. Also, 88.75% and 78.75% of

the rural children were involved in selling of fishes and transportation of smoked fishes respectively. This is an indication that fish marketing is a component of fishery activities that rural children in the study area are involved in.

### Rural children's level of involvement in fishery activities

Table 4 shows that rural children's involvement in fishing activities was low (pooled mean = 0.65). However, their involvement in fish processing (pooled mean = 1.03) and fish marketing (pooled mean = 1.01) activities was high. Table 4 also reveals that rural children were highly involved in 4 out of 12 fishery activities while their involvement in other activities was low. The implication is that the educational activities of the rural children may not be significantly affected by their involvement in fishery activities.

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**Table 3: Rural children's involvement in fisheries activities (n = 80)**

<b>Fishery activities</b>	<b>Fisheries activities</b>	<b>Frequency</b>	<b>Percentages (%)</b>
Fishing activities	Canoe paddling	52	65.00
	Fish catching	75	93.75
	Repair and making of net	43	53.75
	Maintaining gears	19	23.75
	Maintaining boat	33	41.25
	Loading & off-loading of fish	53	66.25
Fish processing	Smoking of fish	77	96.25
	Sorting of fish	48	60.00
	Collecting firewood	74	92.50
Fish marketing	Selling fish on shore	71	88.75
	Transporting smoked fish	63	78.75

**Source: Field survey (2013)**

**Table 4: Rural children's level of involvement in fishery activities (n = 80)**

Fisheries activities		Level of involvement			Mean	Pooled mean
		Never	Occasionally	Regularly		
Fishing activities	Canoe paddling	28	45	7	0.65	0.65
	Fish catching	5	61	14	1.11	
	Repair and making of net	37	36	7	0.63	
	Loading & off-loading of fish	27	45	8	0.76	
	Maintaining gears	61	19	0	0.24	
	Maintaining boat	47	28	5	0.48	
Fish processing	Smoking of fish	3	63	14	1.14	1.03
	Sorting of fish	32	34	14	0.78	
	Collecting firewood	6	55	19	1.16	
Fish marketing	Selling fish on shore	9	57	14	1.06	1.01
	Transporting catch	17	49	14	0.96	

**Source: Field survey (2013)**

**Educational activities**

Table 5 reveals that about 88.75% of the rural children were punctual in school for at least 4 days of the week with highest proportion (71.25%) been punctual throughout the week. This implies that rural children's involvement in fishery activities seem not to affect their attendance in school. This may be attributed to the fact that children were

involved in the different fishery activities at low levels.

Table 5 further shows that majority of the children had enough time to do their school assignment at home (86.25%), participate in class work (81.25%) and sporting activities (82.50%). However, majority (55.00%) of the children do not engage in excursion activi-

ties. This may be because most schools especially in rural areas do not organize excursion programmes for the children. Hence, the children's right to play and leisure as

contained in the Child's Rights Act (2003) was not adequately taken care of in the study area.

**Table 5: Rural children's educational activities (n = 80)**

Educational activities	Frequency	Percentage (%)	Mean
Punctuality (number of days per week)			4.59 days
1	1	1.25	
2	8	10.00	
3	14	17.50	
4	57	71.25	
5			
Had time for assignment			
Yes	69	86.25	
No	11	13.75	
Participation in class work			
Yes	65	81.25	
No	15	18.75	
Participation in sporting activities			
Yes	66	82.50	
No	14	17.50	
Participation in school excursion			
Yes	36	45.00	
No	44	55.00	

Source: Field survey (2013)

#### Reasons for children's involvement in fishery activity

The reasons for children's involvement in fishery activities as presented in Table 6 include poverty (86.25%), born into fishery (85.00%), fishery is lucrative (96.25%), for pleasure (95.00%), contribution to family income (96.25%) and as means of survival (92.50%). This implies that contribution to family income and fisheries as a lucrative work were the most important reasons for children's involvement in fishery. However, parents' sickness, death of parents and education not valued by children were not reasons for rural children's involvement in fishery.

#### ment in fishery and their educational activities

The results of Chi-square statistical analysis in Table 7 shows that there are significant associations between children's involvement in fishing activities ( $\chi^2 = 210.772$ ,  $df = 6$ ,  $p < 0.05$ ), fish marketing ( $\chi^2 = 163.547$ ,  $df = 2$ ,  $p < 0.05$ ) and their educational activities. This implies that children's involvement in fishing activities and fish marketing activities is expected to affect their educational activities. This corroborates the finding of FAO (2005b), which reported that fishing communities often lack access to basic education.

#### Association between children's involve-



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**Table 6: Reasons for children's involvement in fishery activity (n = 80)**

Reasons	Frequency	Percentage (%)
Poverty	69	86.25*
Education not valued	5	6.25
Death of parent(s)	5	6.25
Parent(s) is sick	8	10.00
Born into fishery	68	85.00
Fishery is lucrative	77	96.25
For pleasure	76	95.00
Contribution to family income	77	96.25
Means of survival	74	92.50

\*means multiple responses were given

Source: Field survey, 2013

**Table7: Test of association between fishery and education and educational activities**

Variables	Chi-square( $\chi^2$ )	df	p-value	Decision
Fishing activities	210.772	6	0.03	S
Fish processing	272.404	3	0.43	NS
Fish marketing	163.547	2	0.00	S

Source: Field survey, 2013

P-value is significant at 0.05 level

df = degree of freedom

P-value = pearson value

S = significant

## CONCLUSION AND RECOMMENDATIONS

Most of the rural children involved in fishery activities were male, still schooling and lived in households with large family size. Their parents occupation were fishery based (fish catching for fathers, fish processing and trading for mothers). Rural children involvement in fishery activities starts as early as 6 years in the study area. Children are more involved in fish processing and fish marketing activities. Generally, children's level of involvement in fishery is low. The study concludes that although rural children were involved in fishery activities, their level of involvement was generally low such that their educational activities were

not affected as children had time to do school assignments and other educational activities.

It is therefore recommended that children's involvement in fishery and other agricultural related activities should be regulated such that children are not exposed to activities that can impair them mentally and physically. Awareness should also be raised on the importance of punctuality in school among fishing communities.

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