

CRAFT USAGE AND POLICY COMPLIANCE IN TWO FISH LANDING SITES ALONG BONNY RIVER, RIVERS STATE, NIGERIA

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ABSTRACT

Craft usage for fishing purposes is guided by the Inland Fisheries Act Of 1992 in Nigeria. The Inland Fisheries Act made provision for users of motorised craft to be licenced in section 1, apply for licence in section 2 and exhibition of registration number in section 4. This study investigated craft usage and compliance of its provision of The Act at two fish landing sites (Isaka-Bundu and Rex-Lawson, Borikiri) along Bonny River, Port Harcourt, Rivers State, Nigeria. Structured questionnaires were used to collect primary data from the fishers. The results showed that 62.5% of fishers at Isaka-Bundu and 50.65 % at Rex-Lawson, Borikiri possessed none-motorized crafts while 9.72% of fishers at Isaka-Bundu and 3.90% at Rex-Lawson, Borikiri possessed motorized craft without licence. There were zero (0 %) compliance to the provisions of the Act for craft usage at both landing sites. In conclusion, there was no compliance with the provisions of the Act for craft usage in the study area, hence the need for intervention through an awareness programme for fishers, review of the Act to include licencing of none-motorised craft and ensure enforcement of the Inland Fisheries Act Of 1992.

Keywords: Policy, artisanal, Awareness and Criminal-Code

INTRODUCTION

In Nigeria, the use of craft for fishing purpose is guided by the Inland Fisheries Act Of 1992 with provisions in sections 1, 2 and 4 as published. The provisions of the Inland Fisheries Act states: Section 1; No person shall operate a motor fishing craft within the Inland Waters of Nigeria unless with a licence in respect of that craft had been issued to the owner or operator of the craft under this Decree; Section 2, sub-section 1; an application for a licence under this Act shall be made in writing to the Commissioner in such form and manner as may be prescribed by the Commissioner and; Section 4, sub-section 1; the owner or operator of a craft shall exhibit the registration number of the craft on both sides of the craft in bold letters with a prefix reflecting the State of registration. Also, the enforcement of the Act is provided in Sections 3, sub-section 1 and section 13 and states: Section 3; The Commissioner shall issue to a successful applicant a licence for the craft subject to such conditions as he may deem necessary; and section 13, sub-section; The provisions of this Act shall be enforced by such officers as may be authorised by the Minister or Commissioner, as the case may be.

Nigeria is blessed with 8, 600 kilometres of inland waterways and an extensive coastland of about 852 kilometres (Obed, 2013). As such most Communities along the coast has fishing as their vocation. These fishing activities are usually in

small-scale and are utilised for subsistence or commercial purposes. The exploration of aquatic resource in coastal communities is majorly artisanal

fishing, using motorised crafts and dug-out wooden canoes (Sikoki, 2013; Emmanuel, 2010; Solarin, 1998). While dug-out wooden canoes are mostly propelled by paddles, planked canoes and fibreglass boats are mostly fitted with out-board engine (Emmanuel, 2010; Udolisa *et al.*, 1994). There are few reports on craft usage by artisanal fishers in Nigerian waters (e.g., Holzlöhner and Nwosu, 2014). These reports only described the kind of crafts in use without any evidence to the awareness and compliance with the provisions of the Act hence the need of the present study. The study aimed to investigate the crafts in use, examine if the fishers were aware of the Act and to investigate the compliance to The Act (Inland Fisheries Act Of 1992) at two fish landing sites (Isaka-Bundu and Rex-Lawson, Borikiri) along Bonny River, Port Harcourt, Rivers State, Nigeria.

MATERIALS AND METHODS

Two landing sites, Isaka-Bundu (4.756 °N and 7.013 °E) and Rex-Lawson, Borikiri (4.749 °N and 7.035 °E) along the Bonny River (4°22'60" N and 7°6'0" E) in Port Harcourt were studied. The landing sites lie within the wet and humid tropical hot climate with a mean annual temperature of 26 °C and 27 °C and precipitation of 232.7 mm (Ayo *et al.*, 2017). The predominant coastal vegetation of the Bonny River due to its tidal influence is Nypa palm and mangrove. The mangrove species are the red (*Rhizophora racemosa* and *Rhizophora mangle*) and white mangroves (*Avicennia africana*) (Nwilo and Badejo, 2005). The sites have notable markets where fishes and other goods are sold.

Sampling and Data analysis

The Simple random sampling technique was used to select the fishers from each landing site. The selected fishers (80 fishers/landing site, a total of 160 fishers) were interviewed with the aid of structured questionnaires. Some entries were made in the presence of the fishers while most were entered by the fishers and collected at a later time. The total number of questionnaires used for the analysis represented 90.00% (72) and 96.25% (77) for Isaka-Bundu and Rex-Lawson, Borikiri respectively, the remainder were not retrieved. The structured questionnaires used for this study contain seventeen (17) questions under four (4) sections viz: (A) socioeconomic characteristics of fish farmers; (B) Awareness of The Act; (C) Compliance to The Act and (D) Level of Enforcement of the Act. Data were analysed for Simple descriptive statistics using IBM SPSS version 20 statistical package.

RESULTS

The Social Characteristics, Distribution of Fishers in Two Fish Landing Sites along Bonny River in Port Harcourt, Rivers State, Nigeria.

Sex distribution

The result of the social characteristics is shown in Table 1. The result of the sex distribution showed that there were 94.44% male and female 5.56% fishers Isaka-Bundu landing site. Similarly, Rex-Lawson, Borikiri landing site showed more male fishers (92.21%) than female (7.79%).

Age distribution

The result of the age distribution showed that fishers were within the age of 1 to 60 years for Isaka-Bundu and 11 to 70 years for Rex-Lawson, Borikiri. The result indicated that 76.39 % and 83.12% of fishers in Isaka-Bundu and Rex-Lawson, Borikiri respectively, fell within the active age range of 21 and 50 years (Table 1). Fishers (1.39%) within the age of 1-10 years were also found at Isaka-Bundu but not at Rex-Lawson, Borikiri.

Years of Fishing experience distribution

The result showed that the fishing experience were within 3 to 52 years for both Isaka-Bundu and Rex-Lawson, Borikiri landing sites. However, the majority of fishers at Isaka-Bundu (38.89%) and Rex-Lawson, Borikiri (36.36%) have within 13-22 years of fishing experience. The least experience were within 43-52 years for both Isaka-Bundu (8.33%) and Rex-Lawson, Borikiri (5.2%) respectively. None was recorded for 53-60 years of experience at both landing sites.

Marital status distribution

The result showed that the fishers were either married or single at both landing sites (Table

1). While Isaka-Bundu recorded more married (54.17%) than single (45.83%) fishers, Rex-Lawson, Borikiri recorded the opposite, more single (55.84%) than married (44.16%).

Educational qualification distribution

The result of the present study showed that 88.89% of fishers had formal education while 9.72% had no formal education at Isaka-Bundu landing site. Similarly, majority (88.31%) of the fishers had formal education while 11.69% had no formal education at Rex-Lawson, Borikiri landing site (Table 1).

Crafts usage of fishers in two fish landing sites along Bonny River in Port Harcourt, Rivers State, Nigeria

The crafts in use at the landing sites were the dug-out wooden canoe, plank constructed boats and fibre glass boats. Percentage distribution of crafts usage is shown on Table 2. The result showed that at Isaka-Bundu 62.50% had none-motorised craft, 9.72% had motorised craft while 27.78% do not possess any craft (Table 2). At Rex-Lawson, Borikiri, 50.65% had none-motorised craft, 3.9% possess motorised craft and 45.46% do not have any craft.

Awareness of the provisions of The Act concerning craft usage

The percentage distribution of the level of awareness of the provisions of the Act concerning craft usage in Sections 1, 2, & 4 are shown (Table 3). The results showed that none (i.e., 0%) of the fishers from both landing sites were aware of the provision of sections 1, 2 and 4 of The Act (Table 3).

Compliance to the Provisions of The Act

The result showed that at Isaka-Bundu majority (62.5%) of fishers possessed none-motorized crafts while 9.72% possessed motorized craft without licence. Similarly, at Rex-Lawson, Borikiri majority (50.65%) of the fishers possessed none-motorized while only 3.90% fishers possessed motorized craft are without licence. Overall, there was no compliance to the provisions of The Act concerning the use of craft in Isaka-Bundu as well as Rex-Lawson, Borikiri landing sites (Table 4).

Enforcement of the provisions of the inland fisheries decree by the authorities

The enforcement of the Inland Fisheries Act of 1992 was surveyed and the result provided in table 5. All the fishers (100%) from the Isaka-Bundu as well as Rex-Lawson, Borikiri landing sites indicated no issuance of licence neither were there any physical presence of an enforcement officer.

Table 1. Socio-economic characteristics distribution of fishers

Social characteristics of fishers		Isaka-Bundu		Rex-Lawson, Borikiri	
		N	%	N	%
Sex distribution	Male	68	94.44	71	92.21
	Female	4	5.56	6	7.79
Age Distribution	1-10	1	1.39	0	0.00
	11-20	12	16.67	8	10.39
	21-30	21	29.17	25	32.47
	31-40	17	23.61	24	31.17
	41-50	17	23.61	15	19.48
	51-60	4	5.56	3	3.90
	61-70	0	0.00	2	2.60
Fishing experience	3-12	11	15.28	8	10.39
	13-22	28	38.89	28	36.36
	23-32	13	18.06	23	29.87
	33-42	14	19.44	14	18.18
	43-52	6	8.33	4	5.2
	53-62	0	0.00	0	0.00
Marital status	Married	39	54.17	34	44.16
	Single	33	45.83	43	55.84
Education	No formal education	7	9.72	9	11.69
	primary	18	25.00	14	18.18
	secondary	35	48.61	49	63.64
	Tertiary	11	15.28	5	6.49
	No response	1	1.39	0	0.00

Source: Field survey from the questionnaire. N = number of fishers.

Table 2: Percentage distribution of crafts usage

Craft usage	Isaka-Bundu		Rex-Lawson, Borikiri	
	N	%	N	%
None-motorised craft	45	62.50	39	50.65
Motorised craft	7	9.72	3	3.90
No craft	20	27.78	35	45.46
Total	72	100.00	77	100.00

Source: Field survey from the questionnaire. N = number of fishers.

Table 3. Percentage distribution of awareness of the provision of the Act

Level of awareness of the required provisions of the Act concerning craft usage	Levels	Isaka-Bundu		Rex-Lawson, Borikiri	
		N	%	N	%
Section 1: Possession of licence	Yes	0.00	0.00	0.00	0.00
	No	72.00	100.00	77.00	100.00
Section 2: Application for Licence	Yes	0.00	0.00	0.00	0.00
	No	72.00	100.00	77.00	100.00
Section 4: Identification mark on craft	Yes	0.00	0.00	0.00	0.00
	No	72.00	100.00	77.00	100.00

Source: Field survey from the questionnaire. N = number of fishers

Table 4. Percentage distribution of compliance to the Act

Landing sites	Crafts	Act	Compliance		None-compliance	
			N	%	N	%
Isaka-Bundu	None-motorised craft	No established Act	0	0.00	45	62.50
		Section 1: Fishers with licence	0	0.00	7	9.72
		Section 2: Fishers application for licence	0	0.00	7	9.72
		Section 4: Fishers exhibition of registration number	0	0.00	7	9.72
Rex-Lawson, Borikiri	None-motorised craft	No established Act	0	0.00	39	50.65
		Section 1: Fishers with licence	0	0.00	3	3.90
		Section 2: Fishers application for licence	0	0.00	3	3.90
		Section 4: Fishers exhibition of registration number	0	0.00	3	3.90

Source: Field survey from the questionnaire. N = number of fishers.

Table 5. Percentage distribution of the level of enforcement

Provisions of the law	Level of enforcement based on fishers response	Isaka-Bundu		Rex-Lawson, Borikiri	
		N	%	N	%
Section 3: Issuance of licence	Enforcement	0.00	0.00	0.00	0.00
	Non-enforcement	72.00	100.00	77.00	100.00
Section 13: Enforcement of the Act	Enforcement	0.00	0.00	0.00	0.00
	Non-enforcement	72.00	100.00	77.00	100.00

Source: Field survey from the questionnaire. N = number of fishers.

DISCUSSION

The Social Characteristics Distribution of Fishers in Two Fish Landing Sites along Bonny River in Port Harcourt, Rivers State, Nigeria.

Sex distribution

The result of the present study showed that there were both male and female in the landing sites. However, the males were more than the females in

both landing sites (Table 1). Although, it is generally believed that male performs better than female in physical work, the result indicated that fishing is not gender bias hence the active participation of women. This is in agreement with reports of women actively participating in fishing in Nigeria (Lahia *et al.*, 1999; Adeyemo, 2011; Olaoye *et al.*, 2011; Kwen *et al.*, 2013).

Age distribution

Age is an important factor that affects overall stamina and level of productivity. According to the National Bureau of Statistics (NBS, 2016), Nigeria's economically active age for work force is between 15 and 64 years. The result of the present study showed that the age distribution of fishers were within 1 to 60 years for Isaka-Bundu and 11 to 70 years for Rex-Lawson, Borikiri. This indicates that children below the age of 15 have started contributing to the economy of the family. However, 76.39 % and 83.12% of fishers in Isaka-Bundu and Rex-Lawson, Borikiri respectively, fell within the age range of 21 and 50 years (Table 1), indicating that majority of the fishers were young and active (Olaoye *et al.*, 2013), and within the age range for the country's work force (NBS, 2016).

Years of fishing experience distribution

The result of the present study showed that the fishing experience based on years of fishing of fishers were within 3 to 52 years for Isaka-Bundu and for Rex-Lawson, Borikiri. The fishers sampled had a significant fishing experience which is in agreement with (Enaikele and Olutayo, 2010).

Marital status distribution

In Nigeria, marriage is sacred and confers some levels of responsibility on the individuals involved (Fakoya, 2000; Ekong, 2003). The variation (ie., 54.17% married at Isaka-Bundu and 44.16% married at Rex-Lawson, Borikiri) in the marital status indicates that marital status is not a barrier to fishing at both landing sites.

Educational qualification distribution

The level of education of fishers indicates that most of the fishers sampled had formal education and can read and write, this is contrary to report from (Enaikele and Olutayo, 2010; Nwabeze and Erie, 2013).

Crafts usage of fishers in two fish landing sites along Bonny River in Port Harcourt, Rivers State, Nigeria

The fishers with motorised craft are few compared to those with none-motorized craft for both Isaka-Bundu and Rex-Lawson, Borikiri landing sites (Table 2). The crafts in use included plank constructed canoes, dug-out wooden canoes and the fibre glass boats which is the same with types of crafts used for fishing in Nigeria as reported by (Udolisa *et al.*, 1994; Solarin, 1998; Holzlohner and Nwosu, 2014).

Awareness of the provisions of The Act concerning craft usage

The results showed that none of the fishers from both landing sites were aware of the provision

of sections 1, 2 and 4 of The Act (Table 3). This implies that there is ignorance of the provisions of the Law. These sections made provision for only motorised craft operations within the inland waters of Nigeria. Section 1 made provision for fishers with motorised craft to be licenced while operating within the inland waterways of Nigeria; Section 2 made provision for the application for licence by the fisher for motorised craft, and section 4 which made provision for licenced fishers to boldly display identification mark on their motorised craft. The result is in agreement with Raji *et al.* (2012) who in their works suggested that low level of the awareness of any law militates against management.

Compliance to the Provision of the Act

The Inland Fisheries Act Of 1992 made provision for users of motorised craft only to be licenced in section 1, apply for licence in section 2 and exhibition of registration number in section 4. There were no (0%) compliance to the provisions concerning craft usage of The Act by fishers at both Isaka-Bundu and Rex-Lawson, Borikiri, landing sites (Table 4). However, in Nigeria ignorance of the law is not an excuse and it is a criminal offence according to Section 22 of The Criminal Code Act 2004 of Nigeria as published. The crafts usage at both landing sites are similar to those previously reported (Emmanuel, 2010; Holzlohner and Nwosu, 2014; Solarin, 1998; Udolisa *et al.*, 1994).

Enforcement of the provisions of the Inland Fisheries Act by the authorities

Section 3 of the Inland Fisheries Act Of 1992, made provision that a fisher must be issued a licence for his or her motorized craft and; Section 13 made provisions for the physical presence of the enforcement agent to inspect the craft, catch, and licence status. The enforcement of the Inland Fisheries Act Of 1992 was surveyed at Isaka-Bundu and Rex-Lawson, Borikiri landing sites. The result indicated that the fishers had no encounter with enforcement agencies to enforce any of the provisions of the law (Table 5). The result of the present study is contrary to those reported earlier (Nwabeze and Erie 2013). Nwabeze and Erie (2013) reported poor enforcement of formal sanctions provided in the law. It is important to note that, none compliance of Nigerian laws by relevant authorities is an offence according to Section 518, sub-section 1 of the Criminal Code Act 2004 of Nigeria as published <http://www.lawyard.ng/wp-content/uploads/2015/11/CRIMINAL-CODE-ACT-2004.pdf>.

CONCLUSION AND RECOMMENDATION

The survey of the craft usage and policy compliance at Isaka-Bundu and Rex-Lawson landing sites in Port Harcourt in Rivers State, Nigeria call for the urgent need for policy review and implementation.

Although, majority of fishers at Isaka-Bundu and Rex-Lawson Borikiri had none-motorised craft, they cannot be prosecuted as the law made provision for only fishers with motorised craft to be licenced. There is therefore the need for awareness programme through the Ministry of Agriculture to educate the fishers; review The Inland Fisheries Act Of 1992 on craft usage by including licencing of none-motorised crafts and ensure enforcement.

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