

# ARTISANAL PRACTICES, PROSPECTS PERCEPTION AND CHALLENGES AMONG FISHERS IN LOWER RIVER NIGER, KOGI STATE NIGERIA

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## ABSTRACT

Artisanal fishery and its potentials are threatened in Nigeria due to overexploitation of the natural stock. The study investigated artisanal practices, prospects perception and challenges among fishers in lower river Niger, Kogi State Nigeria. All the four Local Governments along lower River Niger were purposively selected and thirty percent (30%) artisanal fishers were randomly selected from each community in each of the four Local Governments to make up one hundred and ninety-four (194) respondents. Data were collected through structured questionnaire and scheduled interview administered to the artisanal fishers. Data were analyzed with descriptive analyses which include frequency, percentage and mean. The results showed that *Catfish spp* (43.1%) was the dominant fish species caught and , fishing is mostly done in the evening by half (54.1%) of the fishers , more than half (69.1%) of the fishers used planked canoe while only 56% used outboard engine for, only 54.1% used cast net while few (41.8%) used subsidized fishing craft. Prospect perception of artisanal fishers ranked by mean weighted score revealed that hobby  $\bar{x} = 3.91\%$ , food security  $\bar{x} = 3.88$  and income  $\bar{x} = 3.27$ . Lack of sufficient capital  $\bar{x} = 3.70$  and decrease in catch  $\bar{x} = 3.68$  were the major challenges encountered by the artisanal fishers. The study recommended that artisanal fishermen should form an association through which resources can be pulled together and made available to members in form of loan and the enforcement of fishing regulations.

Key word: Artisanal, craft, fishing gear, fish, fishers

## INTRODUCTION

Nigeria is blessed with vast and valuable fresh water resources. The fresh water habit covers an area of over 4,212,500ha distributed within river systems, lake, flood plains and reservoir of varying sizes and geographical locations on land (Ssentongo *et al.*). These water bodies harbor diverse aquatic fauna including numerous fish species. The fresh water bodies in the country, with abundance fish species, are the richest in fish diversity in West Africa (Odiko *et al.*, 2010). The term “artisanal fishery” evokes a mental image of small, traditional fishing craft equipped with low- tech gear requiring labor-intensive fishing methods. Fishermen are typically the central subjects of this platonic scene, operating boats individually or in small-crews in the pursuit of fish. Even individual fishing strategies are often presumed to follow one of several archetypical models of behavior, whether inherently, ecologically and socially harmonious, and therefore sustainable (Smith and Basurto, 2019) Omorinkoba *et al.*, (2011) defined artisanal fisheries as small scale fisheries where the fishers operate in small units. Ekpo and Essien-Ibok (2013) stated that artisanal fisheries’ characteristics is labour intensive, involves very low capital investment, infrastructure facilities such as cold storage and processing plants are very poorly developed and fishing units are numerous and generally highly scattered in remote hardly inaccessible settlements which makes evacuation, distribution and marketing of their products rather difficult. The diversity and plurality of SSF frustrate efforts to systematically and reliably count them at higher scales, and these challenges are further exasperated by a chronic lack of institutional capacity and meager political will to prioritize SSF, their specific data needs, and unique methodological challenges (Welcomme *et al.*, 2010; Kittinger *et al.*, 2013; Basurto *et al.*, 2017a). Despite the current contributions of artisanal and its potentials in Nigeria, its sustainability is threatened due to overexploitation of the natural stock (which is getting to its limit) and the use of unsustainable and destructive fisheries practices by the fishers (Sogbesan and Kwaji 2018). The study therefore investigated artisanal practices, prospects perception and challenges among fishers in lower river Niger, Kogi State Nigeria. Specific objectives were to :(i) examine prospect (ii)analyze perception (iii) and identify challenges of artisan fisheries among fishers in the study area.

## METHODOLOGY

The study area comprises of four different Local Government areas in Kogi State, which include Idah, Igalamela-Odulu, Ofu and Ibaji. Idah is a town located at 7°05'N 6°45'E on the Eastern bank of the Niger River in the middle belt region of Nigeria. It is the Headquarters of the Igala Kingdom with an area of 36 km<sup>2</sup> and population of 79,815 at the 2006 census. Igalamela-Odulu is located at 7°10'16"N 6°49'35"E, bordered by the Niger River in the West and Enugu State in the East. Its Headquarters is Ajaka town in the north. Ofu is located at 7°14'09"N 6°55'32"E, the River Niger formed its Western boundary; its Headquarters is in Ogwoawo (or Ugwalawo or Gwalawo) town to the South. Ibaji is located between Latitude 06°52'00"N 06°87'00"N of the Equator, and Longitude 06°48'00" E 06°80'00"E of the Greenwich meridian, located in the Eastern part of Kogi state and has an extension of 1, 377km<sup>2</sup>, separated from Edo Sate to the West by the river Niger, and bordering Delta Sate in the South, its Headquarters is Onyedega. The major activities of the four Local Government areas are farming and fishing (Wikipedia, 2022). Multi-staged random sampling procedure was adopted in selecting the fishers. In first stage all the four Local Governments along lower River Niger were purposively selected and thirty percent (30%) artisanal fishers were randomly selected from each community in each of the four Local Governments to make up one hundred and ninety-four (194) respondents. The fishing communities in the Local Governments are; Idah: IdokolikoEgah (28), Ofurubber (26), Ogegele (16) and Efulu (18). Igalamela: Okpakpata (18), Ujagba (17) and Aya (12). Ibaji: Ejule-Ojebe (22), Odogwu (14) and Onyedega (16). Ofu: Ummomi (12), Akpagidigbo (14), Ofakete (9) and Olofu (11). Data were collected through structured questionnaire and scheduled interview administered to the artisanal fishers. Descriptive data analyses that were used include frequency, percentage and mean score determined through 4 points Likert scale.

## RESULTS AND DISCUSSION

Table 1 presents the practices of the fishers, *Catfish spp* was the dominant fish species caught (43.1%) and others (30.1%), fishing is mostly done in the evening (54.1%). More than half of the fishers used planked canoe (69.1%) for fishing, not powered by outboard engine (71.1%), only 54.1% used cast net while 30.4% used hook and line. Fishing craft (41.8%) and fishing gear (30.9) were subsidized for the fishers. Cat fish species are mostly abundant in Nigeria inland waters because of the ability to with stand wide variation of the environmental conditions. The implication of using canoe not powered by outboard engine is that the artisanal fishers would not be able to cover long distance on water while fishing

**Table 1 Artisanal practice of the fishers**

Variables	Frequency	Percentage
Types of fish caught: <i>Catfish spp</i>	84	43.1
<i>Tilapia spp</i>	50	25.8
Others	60	30.1
Time of fishing: Morning	44	22.7
Afternoon	45	23.2
Evening	105	54.1
Type of craft used: Dugout canoe	60	30.9
Planked canoe	134	69.1
Powered craft (Outboard engine): Yes	56	28.9
No	138	71.1
Types of fishing gear: Gill net	2	1.0
Lift net	3	1.5
Cast net	105	54.1
Hook and line	59	30.4
Pole and line	24	12.4
Subsidized fishing craft	81	41.8
Subsidized fishing gear	19	9.8
Smoking kiln	60	30.9
Loan	10	5.2
Relief materials during flood	24	12.4

**Source: Field survey, 2022**

### Prospect perception of artisanal fishers

Table 2 shows the prospect perception of artisanal fishers revealed hobby  $\bar{x} = 3.91\%$ , food security  $\bar{x} = 3.88$ , income  $\bar{x} = 3.85$  and employment  $\bar{x} = 3.27$ . It is evident that artisanal fishing has lots of prospect which is reflected among the dwellers in reverie areas. Sogbesan and Kwaji (2018) reported that that inland fishery have been contributing significantly to human existence in the areas of food and nutritional security, employment creation, national economy development, raw materials for industries. Experts suggest that inland artisanal fishery likely provide even more jobs than their marine counterparts and play an especially important role in local nutrition and food security (Welcomme *et al.*, 2018). Women are found along the entire fishery value chain and dominate the post-harvest sector in many parts of the World (Kleiber *et al.*, 2015). Globally, the potential of catch fishery as an engine of economic growth in both micro and macroeconomic environments seem presently unlimited particularly in developing country like Nigeria (Oladimeji, 2018).

Table 2: Prospect perception of artisanal fisher

Variables	Strongly Agree	Agree	Undecided	Disagree	Mean
Employment	30	170	2	2	3.27*
Income	166	26	2	0	3.85*
Food security	182	11	1	0	3.88*
Socializing	18	165	3	8	2.99
Poverty alleviation	98	28	68	0	3.11*
Preservation of cultural heritage	26	26	82	79	2.65
Hubby	180	10	4	0	3.91*

Source: Field Survey, 2022

### Challenges of artisanal fishers

Table 3 presents the challenges of artisanal fishers which were ranked by weighted mean scores (WMS) include lack of sufficient capital (3.70), decrease in catch (3.68), Aquatic weed (3.65), and problem of middle men/women (3.61). Capital is a major challenge because others revolve on it. Some of these challenges are interwoven; one depending on the other and vary from one fishing community to another because of peculiarity associated with different locality that directly or indirectly influences the fishers. Inadequate access to credit pose barrier to fisheries investment and aggravated by high cost of equipment. While high cost of equipment may impact on the catch a serious problem to profitability of the fishers, climatic conditions may trigger fish spoilage due to inadequate technology (Okeowo *et al.*, 2015). Also, non-availability of a credit schedule is a peculiar problem of artisanal or small scale fisheries which influence capital –intensive expansion. Artisanal fisheries is not regulated been an open access fishery, the catches decreases with time. Akankali and Jamabo (2011) opined that the reasons center on indiscriminate fishing, and destruction of breeding sites.

Table 3: Challenges of artisanal fishers

Variables	Strongly Agree	Agree	Undecided	Disagree	Mean
Decrease in catch	150	30	110	4	3.68*
Obnoxious fishing methods	40	30	15	9	3.53*
High cost of fishing inputs	40	150	2	2	3.18*
Lack of sufficient capital	160	17	10	7	3.70*
Lack of modern processing facilities	140	130	14	10	3.07*
Post harvest loss	110	60	15	9	3.39*
Problem of middle men/women	140	40	6	8	3.61*
Aquatic weed	150	25	15	4	3.65*

Source: Field Survey, 2022

### CONCLUSION AND RECOMMENDATIONS

Artisanal fishers mostly used local crafts powered manually though the profession has prospects in the study area. The study recommended that artisanal fishers should form association through which resources can be pulled together and made available to members in form of loan and for the procurement of input that can be subsidized among the fishers. Government should also assist artisans through loan.

Inland fisheries regulations should be adequately implemented and monitored to control decrease in catches caused by over fishing and use of obnoxious fishing methods.

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