# SOCIO-ECONOMIC PARTICULARITY AND CONSTRAINTS OF ARTISANAL FISHERFOLKS IN SELECTED FISHING COMMUNITIES ALONG KANJI DAM, NEW BUSSA, NIGER STATE

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## ABSTRACT
*The study grappled with two important contending matters: the constraints of artisanal fishing in the Kanji dam area of Niger state and the connections between the demographic nature of respondents and their level of income. Data on Socio-economic features, fish species, gear used, and constraints were collected using a structured questionnaire. One Hundred (100) fisher folks were purposively selected from three fishing communities but 78 containing adequate information were retrieved. Analysis using descriptive and inferential statistics (Linear regression analysis) was carried out. The result showed male dominance (78.2%) and a mean age of 37.78±9.071. The major limitations faced by the fisher folks in the study area were low availability of credit with a mean score of 2.21, low access to modern fishing technology (2.13), corruption which include the use of unwholesome fishing gears and fishing practices (2.12). Absence of formal education (for the female gender) had a notable influence on the level of income at 1% while Postgraduate education, fishing experience, and household size had a notable influence on the level of income at 5%. Improving farmers' access to cheap credit and mustering their savings to improve or enhance the constraints imposed by meagre finance, creating access to modern fishing technology use, putting systems in place to reduce corruption level as well as providing a joint cold storage facility in the communities should be encouraged.*

**Keywords:** Artisanal fisher folk's particularity, Fishing communities, Fishers limitations

## INTRODUCTION

Fish plays a requisite part in feeding the world's population and contributing notably to the dietary intake of millions of the populace (Ajao, 2011). Fish also provides key nourishment, especially quality proteins and fats (macronutrients), vitamins, and minerals (micronutrients) (Mohanty, *et al* 2013). It provides an important complement to the predominantly carbohydrate-based diet of many poor people in developing countries. Fish and fishing contribute immensely to the national economy by providing high animal food protein sources, employment, and poverty alleviation. Fish and fish products also contribute to the national Gross Domestic Product (GDP). WorldFish (2018) opined that "fisheries contributed 0.88 % to Nigeria's Agriculture GDP and the contribution of Agriculture to Nigeria's GDP is 22%". The fisheries sector maintains a steady constant contribution of 4% overall GDP from 2008 to 2012 to Nigeria's economy (Oladimeji, 2017). WorldFish (2018) also stated that "the subsector provided employment for 8.632m million people in the primary sector and 19.55million people in the secondary sector". Nigeria's total annual fish demand in 2016 was estimated at 2.7 million metric tonnes (mt). Just 30% of this demand was met domestically, resulting in an annual expenditure of N125bn (US$625m) on fish imports (Proshare, 2016). Also, with a guesstimated annual per caput fish consumption of 17.5 kg by FAO, Nigeria projected fish demand for 2018 was 3.61 million metric tonnes (FDF, 2018) making Nigeria the largest consumer of fish products in Africa. The demand for fish outweighs the supply leaving a dearth of 2.2 million metric tonnes (Kikiope, 2018; NFSR, 2016).

Otubusin (2011) in Giwa *et.al* (2018) stated that "Fish production in Nigeria comes from three sources; artisanal (inland rivers, lakes, coastal and brackish water), aquaculture (fish farm), and industrial fishing" Over the years it has been reported that a larger proportion of Nigeria's total domestic fish production is generated by artisanal fisheries. In 2015 the total domestic production was 1.027, 058.00 million metric tonnes. Artisanal fishery contributed 67.7% (694,867.00 mt); aquaculture contributed 30.8% (316,727.00 mt) and industrial fishery contributed 1.5% (15,464.00) (FDF, 2018). According to Faturoti (2010), in Falaye *et al*, (2015) artisanal fisheries in Nigeria contribute more than 82% of the domestic fish supply employing and enriching livelihood to over 1 million fishers and an estimate of 5.8million fisherfolks in the secondary sector. The artisanal fishery thus maintained the highest contributor to the domestics' fish production in Nigeria

Artisanal or small-scale fisheries that contributed immensely to overall domestic fish production are mainly non-mechanized with low input and output, mainly categorized with few hired labour. This form of fisheries is widespread in tropical developing nations such as Nigeria (Inoni and Oyade, 2007).

To further improve the contribution of this sector to fish production, it is imperative to look at the constraints limiting its growth and development

as well as the factors that can improve their production. The study of the socio-economic characteristics of any fisher group is a necessity for the successful development of policies and or programs aimed at improving the performance of the sector. (FAO, 2005a; Amachree *et al.,* 2019). The following specific objectives were thus addressed.

(i) To describe the socio-economic particularity of the respondents.

(II) To identify the relationship between the socio-economic particularity and the income level of fisher folks.

(iii) To determine the constraints hindering the development of artisanal fisheries in the study area.

**The hypothesis of the study**

$Ho_1$: There is no significant relationship between the socio-economic particularity and level of fish production among fisherfolks.

## METHODOLOGY

**Study Area**

This study was conducted in the Kanji dam area in Niger State. The State is located in the Southern Guinea Savanna ecological zone of Nigeria. Rainfall is steady and is evenly distributed usually between May and November each year, varying from 1,100mm in the North to 1,600mm in the South (Umar *et al*, 2015). The major arable crops grown include maize, cassava, vegetables, rice, yam, millet, cocoyam, potato, cowpea, groundnut, guinea corn, fruits, and sugarcane. Livestock reared includes goat, sheep, cattle, chicken, and donkey (Niger State Agricultural Development Project, 2002).

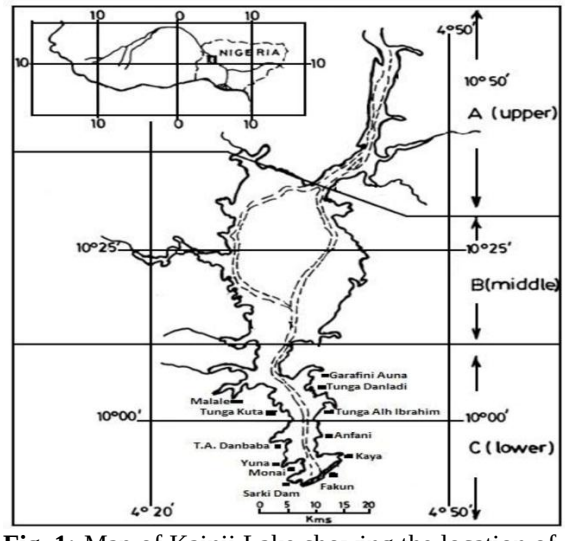


**Fig. 1:** Map of Kainji Lake showing the location of some fishing villages (12 small black squares) Map adapted from (FAO, 1995).

**Study population and sample selection**

Three permanent fishing communities around Kainji dam: Faku, Monai, and Awuru were selected for the study based on ease of accessibility and availability of respondents. Purposive sampling technique was used to select one Hundred (100) fishers from the three fishing communities. Seventy-eight (78) respondents who had sufficient information were used for the computation of result and analysis

**Method of data collection**

Primary data for the study were obtained using a well-structured questionnaire while secondary data were obtained through journals, textbooks, other publications, and through the internet.

**Method of data analysis**

Data obtained from the study were analyzed using both descriptive (frequency distribution and percentages) and inferential statistics (Linear Regression analysis)

**Fishery constraints**

To identify and assess the seriousness of the fishery constraints encountered by respondents, a three-point Likert scale type was used. The scale ranged from 'mild' with a score of 1, ' severe ' = 2 to 'very severe' = 3, '. A factor is considered serious when it's mean score ≥ 2.00 and otherwise if it was ≤ 2.00. The weighted score of 2.00 was determined as follows: [(3+2+1) ÷3]. (Onemolease and Oriakhi, 2011)

**Linear Regression Analysis**

The correlation coefficient measures the extent of the interrelationship between two variables which are simultaneously changing with mutually extended effects. In some cases, the changes in one variable are brought about by changes in a related variable but there need not be any mutual dependence. In order words, one variable is considered to be dependent on the changes in the other variables.

$Y = a + bX_1 + bX_2 + bX_3 + \epsilon$

- Y – Dependent variable (Income level)
- $X_1$, $X_2$, $X_3$ – Independent (explanatory) variables
- a – Intercept
- $b_1$, $b_2$ $b_3$ - Slopes

$\epsilon$ – Residual (error)

$X_1$= Age (years)

$X_2$ = Female (Yes=1, No=0)

$X_3$ =Single (Yes=1, No=0)

$X_4$ =Divorced (Yes=1, No=0)

$X_5$ =Widowed (Yes=1, No=0)

$X_6$ = No formal Education (Yes =1, No=0)

$X_7$ = Tertiary Education (Yes = 1, No=0)

$X_8$ = Quranic Education (Yes = 1, No=0)

$X_9$ = Post graduate (Yes=1, No=0)

$X_{10}$ = Years of experience (Years)

$X_{11}$= Household size (Actual number)

## RESULT AND DISCUSSION

### Socio-economic Particularity

### Gender of the Respondent

The result in Table 1 showed that 71.8%, of the respondents in the study area were males while the females were 28.2%. The presence of more male presumptuously can be attributed to the hazardous and strenuous nature of the fishing occupation and not highly feasible for the female fisherfolks. However, the percentage of female fishers found in this region is higher compared to the observations of Ilemobayo and Ijigbade, 2019; Okwu *et al*, 2011 who reported the absence of any female fisher in Ondo and Niger Delta zone respectively. This may be due to the less turbulence nature of inland water bodies as compared to the coastal areas.

### Age of Respondent

The minimum age sampled was 19 years while the maximum was 57 years. The mean age was 37.78±9.071. The age ranges of 31-40 years were more of a majority (Table 1) as opposed to 1.3% of the age range below 20 years. This indicated the presence of agility for working in the fishing sector. These findings correspond to (Ilemobayo and Ijigbade, 2019; George, 2012; Bello, 2000) who opined that age is a direct function of productivity.

### Marital Status

In Nigeria, marriage bestows some altitude of respect and responsibility on an individual. In the study area, 66.7% of the respondents were married, 28.2% single, 3.8% divorced and 1.3% widowed. This corroborates the belief that the marriage institution is still cherished and an indication of the economic responsibilities of the respondents in caring for their dependents (Okeowo, 2015; Omitoyin and Fawehinmi, 2016).

### Level of Educational Attainment

The level of educational attainment of the respondent as stated in Table 1 depicts that the fishers in this region had some level of formal education with 39.7% having primary education, 2.6% Secondary, 30.8% attaining up to tertiary education, Quranic education (1.3%) and 21.8% having no formal education. Lack of formal education among fishers will impede the sustainable management of fisheries resources in this area thus the number of years spent in formal education showed the inert capability to conform to new practices and adoption of modern technology to boost productivity level.

### Respondents' number of wives

Among the married fisherfolks, about 43.6% had only one wife. However, the remaining 56.4% had more than one wife this can be a result of the need to increase the number of households to reduce the cost of labour-hire. This is corroborated by Kumulu-Johnson and Ndimele, 2010 which stated the importance of large households as a "need" to rural families to reduce labour intensity.

**Table 1:** Percentage Distribution of the socio-economic particularity of respondents

| Variables | Categories | Frequency (%) | Mean / Mode | SD |
|---|---|---|---|---|
| **Gender** | Male | 56 (71.8%) | | |
| | Female | 22 (28.2%) | | |
| | **Total** | **78 (100.0%)** | | |
| **Marital Status** | Single | 22 (28.2%) | | |
| | Married | 52 (66.7%) | | |
| | Divorced | 3 (3.8%) | | |
| | Widowed | 1 (1.3%) | | |
| | **Total** | **78 (100.0%)** | | |
| **Age** | Below 20 Years | 1 (1.3%) | | |
| | 21 – 30 Years | 19 (24.4%) | | |
| | 31 – 40 Years | 30 (38.5%) | | |
| | 41 – 50 Years | 20 (25.6%) | | |
| | Above 50 Years | 8 (10.3%) | | |
| | **Total** | **78 (100.0%)** | **37.78** | **9.071** |
| **Religion** | Christian | 33 (42.3%) | | |
| | Muslim | 45 (57.7%) | | |
| | **Total** | **78 (100.0%)** | | |
| **Level of Education** | No formal education | 17 (21.8%) | | |
| | Primary education | 31 (39.7%) | | |
| | Secondary education | 2 (2.6%) | | |
| | Tertiary education | 24 (30.8%) | | |
| | Quranic education | 1 (1.3%) | | |

| | | |
|---|---|---|
| | Postgraduate education | 3 (3.8%) |
| | **Total** | **78 (100.0%)** |
| **Group Head** | Yes | 22 (28.2%) |
| | No | 56 (71.8%) |
| | **Total** | **78 (100.0%)** |
| **Did you receive any training in Fisheries?** | Yes | 24 (30.4%) |
| | No | 54 (69.2%) |
| | **Total** | **78 (100.0%)** |

***Source: Field Survey, 2019***

**Household size of the respondents in the sampled area**

The distribution of respondents by household size (Table 2) showed that 51.3% of the fishing households were comprised of 1-5 household size, 46.1% had 6 – 12 household members while 2.6% had above 12 members in their household with an average household size of 5.91±3.787. This corresponds with the findings of (Kumulu-Johnson and Ndimele, 2010) which states the need for large families in rural communities attributing it to the need to reduce the labour intensity of artisanal fishing

**Numbers of Income Earners**

The result revealed that 39.7% of the respondents have just one income earner in the household, 37.2% have two income earners, 3.8% have three income earners, 7.7% have four income earners and 11.6% have more than four income earners in their households, this could be a resultant effect of fish decline, the need for diversification or other household members already fending for themselves and also contributing to the household income.

**Table 2: Demographic Particularity of Respondents**

| Variables | Categories | Frequency (%) | Mean / Mode | SD |
|---|---|---|---|---|
| **Household size** | 1 -5 | 40 (51.3%) | | |
| | 6 – 12 | 36 (46.1%) | | |
| | > 12 | 2 (2.6%) | | |
| | **Total** | **78 (100.0%)** | **5.91** | **3.787** |
| **Number of Income Earners** | 1 | 31 (39.7%) | | |
| | 2 | 29 (37.2%) | | |
| | 3 | 3 (3.8%) | | |
| | 4 | 6 (7.7%) | | |
| | 5 and above | 9 (11.6%) | | |
| | **Total** | **78 (100.0%)** | **2.24** | **1.661** |
| **Frequency of operation (fishing)** | Daily | 52(66.7%) | | |
| | Weekly | 21(26.9%) | | |
| | Monthly | 5(6.4%) | | |

***Source: Field Survey, 2019***

**Years of Fishing and Operation**

In Table 3, the minimum years of fishing experience were one year, the maximum is 30years while the mean is 10.179±7.39. The majority of the respondent (62,8%) have been fishing for above six years and above while 37.2% were within 1-5 years of experience (6-10yrs (28.2%), 11-15yrs (14.1%), 16-20yrs (12.8%) and 21-above (7.7%). The result shows that the respondent would be knowledgeable and experienced in fishing activities thus have better efficiency, good skills (such as Navigation and market access), and invariably had a better approach to the fishing business (Olaoye *et al*, 2013; Amachree *et al*, 2019).

**Table 3:** Demographic Particularity of Respondents

| Variables | Categories | Frequency (%) | Mean / Mode | SD |
|---|---|---|---|---|
| **Years of Experience** | 1 – 5 years | 29 (37.2%) | | |
| | 6 – 10 years | 22 (28.2%) | | |
| | 11 – 15 years | 11 (14.1%) | | |
| | 16 – 20 years | 10 (12.8%) | | |
| | 21 and above | 6 (7.7%) | | |

| | | | | |
|---|---|---|---|---|
| | **Total** | **78 (100.0%)** | **10.179** | **7.39** |
| **How often do you operate?** | Daily | 50 (64.1%) | | |
| | Weekly | 21 (26.9%) | | |
| | Monthly | 5 (6.4%) | | |
| | Others | 2 (2.6%) | | |
| | **Total** | **78 (100.0%)** | | |

***Source: Field Survey, 2019***

**Fish species caught and Gears used by fisherfolks**

The species caught and gear in use in the study area are presented in table 4. The most dominant fish species caught were Clupeids, *Synodontis* sp, *Citharinus citharus*, *Oreochromis niloticus*, and *Chysichthys nigrodigitatus* while the gear used include gill nets, beach seine nets, cast nets, drift nets of various mesh sizes, Longline, and traps. The result obtained is similar to the study of the Nigerian- German (GTZ) Kainji Lake Fisheries Promotion Project (1997) and Balogun, (2006) on Fish distribution in Kainji Lake, Nigeria.

**Table 4:** Fish species caught and Gears used by fisherfolks

| | **Fish Species** | **Gears in the study area** |
|---|---|---|
| 1 | Clupeids (Ray-finned) | Gillnet |
| 2 | *Synodontis* sp. (Upside down catfish) | Beach seine net |
| 3 | *Citharinus citharus* (Moonfish) | Cast net |
| 4 | *Oreochromis niloticus* (Nile Tilapia) | Longline |
| 5 | *Chysichthys nigrodigitatus* (Silver catfish) | Drift net |
| 6 | *Mormyrus* sp. (Elephant fishes) | Traps |
| 7 | *Labeo* sp | |
| 8 | *Alestes* sp (Pebbly/Silversides fish) | |
| 9 | *Clarias gariepinus* (African sharp tooth catfish) | |
| 10 | *Distichodus auratus* | |
| 11 | *Heterobranchus longifilis* (African catfish) | |
| 12 | *Heterobranchus bidorsalis* | |
| 13 | *Hydrocynus* sp (Tigerfish) | |
| 14 | *Lates niloticus* (Nile perch) | |
| 15 | *Gymnarchus niloticus* (African Knife fish) | |
| 16 | *Heterotis niloticus* (Bonytongue) | |
| 17 | *Coptodon zillii* (Redbelly tilapia) | |

***Source:*** Field Survey, 2019 (Fishermen's catch at landing sites)

**The relationship between the Socio-economic particularity and fish production/income level of fisherfolks.**

Table5 showed the magnitude of the relationship between the respondent demographic particularity and their income level. The computed F value (0.56) indicated the model was significant at ($P<0.01$) while variability accounted for 59% (58.4) in the income level of the respondent. Age (12.75), Gender (female)(-45.46), and no formal education (29.95) were significant at ($p<0.01$) thereby influencing respondent income level. The negative value of postgraduate education (-135.83) indicated that the higher the level of formal education the lower the level of income fishers would earn thus respondents with low formal education will earn more significantly. The positive coefficient of Age and household suggested that larger households and younger fishers earn more income than older fishers and smaller households. The result was similar to the findings of Onemolease and Oriakhi (2011) in their work in Delta State that found Age, sex, and Household size to have a significant influence on the income of the fisherfolks. Osuji (2019) revealed that education, household size, farm income, and extension contact were the significant determinants of farmers poverty status in Imo State while Ratna *et al.*,(2018) observed that the determinant of fisherman income in the west coastal area of Indonesia was working capital variable, labour, work experience, and technology

**Table 5:** Regression result of the relationship between socio-economic particularity and the level of fish production (income level) among fisherfolks in the study area**:**

**Dependent Variable:** Level of Income

| Independent Variables | B | Standard Error | T - Statistics | Sig. |
|---|---|---|---|---|
| Constant | 588.93 | 90.881 | 6.48 | 0.000*** |
| Age | 12.746 | 2.549 | 5.00 | 0.001*** |
| **Gender** | | | | |
| Female | -45.46 | 4.151 | -10.951 | 0.007*** |
| **Marital Status** | | | | |
| Single | -0.136 | 0.116 | -1.169 | 0.244 |
| Divorced | -0.206 | 0.292 | -0.705 | 0.482 |
| Widowed | -0.292 | 0.219 | -1.335 | 0.183 |
| **Education** | | | | |
| No formal Education | 29.95 | 5.963 | 5.021 | 0.004*** |
| Tertiary Education | 28.074 | 46.384 | 0.605 | 0.547 |
| Quranic Education | 10.985 | 169.81 | 0.065 | 0.949 |
| Postgraduate education | -135.830 | 50.115 | -2.710 | 0.036** |
| Fishing Experience | 4.247 | 1.102 | 3.854 | 0.026** |
| Household Size | 9.05 | 2.33 | 3.890 | 0.015** |
| $R^2$ | 0.584 | | | |
| Adjusted $R^2$ | 0.561 | | | |
| F – Statistics | 76.882*** (0.006) | | | |

***"***', "**", and "*" implies significance at 1%, 5% and 10%***

***Source: Field Survey 2019A***

**The constraints faced by artisanal fisheries.**

The result of the challenges faced by the respondents in the study area showed that access to credit was their main challenge by a mean value of 2.2.1 (Table 6 and Figure1), followed by Access to Modern fishing Technology and Corruption in the third position. Other factors in order of their ranking are Storage, Training, Access to fishing inputs, Transport, Electricity Supply, Access to the fishing ground (due to invasion of aquatic plants), Manpower, Water Supply, and Theft.

These constraints are similar to the findings of Olaoye *et.al* (2012) in their work on Socio-Economic Analysis of Artisanal Fisherfolks in Ogun Water-Side Local Government Areas of Ogun State, Nigeria where the Constraints faced by artisanal fisher folks included inadequate storage (96.3%), infestation by water hyacinth (93.8%), inadequate power (88.8%), inadequate technology (87.5%), inaccessible credits and high cost of fishing inputs. Also, FAO 2005 says support should be provided for initiatives aimed at developing, diversifying, and transferring appropriate harvesting technologies and for initiatives aimed at developing appropriate technologies in processing, preservation, transport, and storage. These can increase value-addition, improve quality, and reduce fish spoilage and wastage. Bonjoru, *et. al.*2019 in their study in 'Characterization and constraints of Artisanal Fishery in the upper Benue River Basin, Nigeria' discovered that difficulty in accessing credit; transporting fresh catch, and lack of storage facilities are the major constraints of the artisanal fishery in the study area. Similar constraints were observed by Ahmed, *et al.* (2005) on Kainj Lake. This means that not much had changed over the years despite various interventions

**Accessibility to Credit**:

The presence of credit facilities aid fishers in the acquisition of relevant tools, gears, and a craft for a successful harvest operation. Credit served as one of the policy measures that categorized productivity, employment generation, technology transfer, and adoption. The importance of credit conforms to the findings of Olaoye *et al*., (2012) and Oladimeji *et al*., (2013) who found that the absence of credit facility will impede the expansion and development of the agricultural sector in both Kwara state and Niger state fishing settlements. Also, Ben-Yami (2001) opined that the size and value of their catches depended on availability and cost of credit which is needed for fuel and food as well as for equipment, be it a small net, an outboard motor, or a new boat. FAO (2005) opined that 'The lack of access to affordable credit and the inability to generate savings, are major constraints for many poor small fishers and fish workers'. Overall, the absence of credit facilities will militate against development as the capacity of artisanal fishers to increase livelihood enhancement, reduce nutritional imbalances, and rely on the implementation and adoption of sustainable practices that could be promoted easily with credit availability.

**Access to Modern fishing Technology**:
Dependence on canoe with paddles which is the traditional fishing craft equipped with low-tech gear requiring labor-intensive fishing methods is prevalent in the study area over motorised outboard engines. This was a limiting factor in the quantity of fish caught and the efficiency of fish catch. This is similar to the findings of Oladimeji *et al*, (2013) and Bolarinwa, (2014) that the artisanal fishery is characterized by low capital outlay, low operational costs, and low technology application using labour-intensive gears of a relatively low level of productivity.

**Training**

The presence of limited access by fishers to modern information does not usually encourage massive capital, input, and labour investment but rather reduces the production level of fishers experiencing such constraint. The need for information, therefore, is without a doubt vital to the continuous growth and development of the sector as most fishers practice laborious traditional methods, time-consuming and hazardous to the environment and the fisher itself. The dissemination of current information will improve technical know-how which was observed by (Mgbenka *et al.,* 2015) to be among the chief constraints facing the Agricultural sector of Nigeria.

Information as portrayed by (Njoku, 2004 and Okwu, *et al.,* 2011), postulated that the highest need for production is awareness and training of fishers with modern information and gears. These were said to be vital for an equilibrium between fishing practices and sustainable fishing.

**Corruption**

This is how to get people to do what they are legally supposed to do**.** This includes the use of unwholesome gear, illegal fishing practices, evasion of dues, and taxes. These practices are strong pointers to overfishing and low fish catch

**Table 6: Frequency Distribution of Constraints faced in Fish Catching**

| Assets | Mildly | Severe | Very Severe | Total | Mean |
|---|---|---|---|---|---|
| Water Supply | 47(60.3%) | 28(35.9%) | 3(3.8%) | 78(100.0%) | 1.44 |
| Electricity Supply | 2(41.0%) | 25 (32.1%) | 21(26.9%) | 78 100.0%) | 1.86 |
| Transport | 27 (34.6%) | 35(44.9%) | 26(33.3%) | 78(100.0%) | 1.86 |
| Corruption | 17(21.8%) | 35(44.9%) | 26(33.3%) | 78(100.0%) | 2.12* |
| Storage | 25(32.1%) | 33(42.3%) | 20(25.6%) | 78(100.0%) | 1.94 |
| Access to the fishing ground | 28(35.9%) | 34(43.6%) | 16(20.5%) | 78(100.0%) | 1.85 |
| Access to modern fishing technology | 18(23.1%) | 32(41.0%) | 28(35.9%) | 78(100.0%) | 2.13* |
| Access to fishing inputs | 27(34.6%) | 30(38.5%) | 21(26.9%) | 78(100.0%) | 1.92 |
| Credit Accessibility | 16(20.5%) | 30(38.5%) | 32(41.0%) | 78(100.0%) | 2.21* |
| Manpower | 39(50.0%) | 26(33.3%) | 13(16.7%) | 78(100.0%) | 1.67 |
| Training | 31(39.7%) | 22(28.2%) | 25(32.1%) | 78(100.0%) | 1.92 |
| Theft | 65(83.3%) | 13(16.7%) | 0(0.0%) | 78(100.0%) | 1.17 |

***Source: Field Survey, 2019***

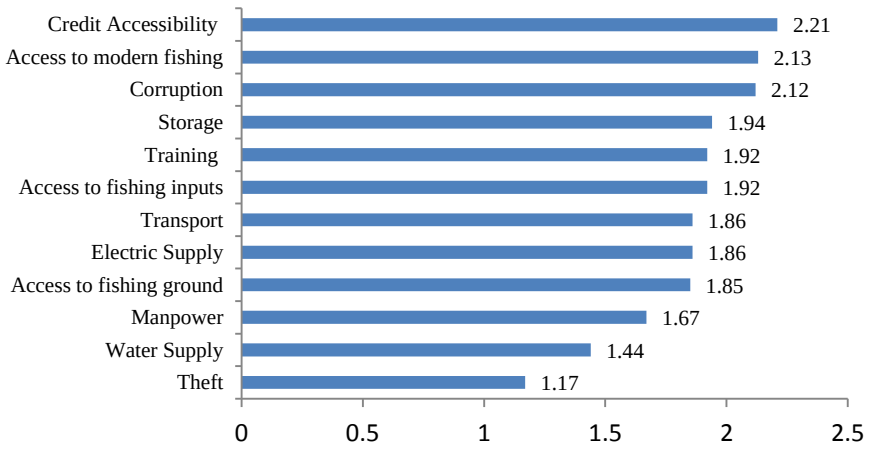


**Figure 1: Ranking by the level of severity the Constraints faced by fisherfolks**
***Source: Field Survey, 2019***

## CONCLUSION

Based on the result of research that was conducted on Socio-economic Particularity and Constraints of Artisanal Fisherfolks in selected fishing communities along Kainji Dam, it was observed that the major limitations faced by the fisherfolks were low availability of credit, low access to modern fishing technology, and corruption which include use of unwholesome fishing gears and fishing practices. Age, Gender (female), No formal education, Postgraduate education, fishing experience, and Household size had a significant influence on the level of income. Improving farmers' access to cheap credit, modern fishing technology use, and putting systems in place to reduce corruption level as well as providing a joint cold storage facility in the communities will enhance and boost the income of the fisherfolks.

## RECOMMENDATION

The fishers in the community should be encouraged to form groups or belong to a cooperative society to improve their access to credit, improved technology, efficient gears, and enjoy the benefit of the economics of scale. Policies geared towards improved access to a credit facility, modern and up to date fishing technology, boosting training through extension services, and strengthening Institutions to stern corruption in the fisheries sector should be encouraged

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