ASSESSMENT OF SOCIAL INFRASTRUCTURE IN FISHING VILLAGES OF IKERE-GORGE, ISEYIN, OYO STATE, NIGERIA

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ABSTRACT
Fisherfolks are vulnerable and marginalised. They are living in areas with little or no access to infrastructure needed to have a meaningful life. The study examined the availability of basic infrastructure to assess the level of vulnerability and marginalisation of fisherfolks in Ikere-gorge. This study employed the use of interview guide, observation, survey and Focus Group Discussion (FGD) to elicit information from the fisherfolks. The information obtained was analysed using descriptive statistics. The result shows non-availability of electricity, portable water and health centre. However, there are controversies about the availability of market place and education centre (school) because of non-accessibility. Therefore, the fisherfolks engage their children in child labour and the number of drop-out students is increasing yearly. The only certain and reliable way of connecting to the cities is by listening to radio. There is high rate of mortality especially infants and pregnant women because of non-availability of health centres. However, these people are integral part of fisheries stakeholders and failure to manage them may increase pressure on already overexploited fishery resources.

Keywords: Vulnerability, marginalised, fisherfolks, education, fishing

INTRODUCTION
Fishing is often taking place on the neglected and poorly regulated places of society. Inland water small-scale or artisanal fishermen are faced with three sociological problems that involved poverty, vulnerability and marginalization (Asiedu *et al*. 2013; Allison *et al*. 2011; Béné, 2003). These are interrelated and overlapping conditions. Poverty and vulnerability are sometimes thought of as 'end results' of natural stresses combined with policy failures of various kinds. Marginalization or social exclusion is conceived as a result of negative social and power relations with others. Fisherfolks are often excluded from political, social and economic opportunities enjoyed by other citizens and are often overlooked in development planning processes (Allison *et al*. 2011).

Béné *et al*. (2000) reported that most, if not all, small scale fishing communities, particularly in tropical countries, represent the poorest and most disadvantaged part of rural societies. They are vulnerable due to the risky nature of many fishing operations, lack of access to education, basic health care, security, information and other infrastructure. DFID/FAO (undated) stated that in order to make fisheries management work, there is a need to address the factors that most immediately and directly threaten the sustainability of fisherfolk's livelihoods. Often, these factors are not related to fishing activities and the status of the resource. These situations represent the condition of fisher folks of Ikere-gorge. It is needful to study the level of their marginalisation and assess the availability of social infrastructure in the area for the purpose of fisheries management. This is because fishermen that are

described to be poor, vulnerable and marginalised cannot be good managers of fisheries resources, but can only intensify pressure on heavily exploited fisheries resources.

METHODOLOGY

Ikere-gorge is located at Ikere village, about 28km, North East of Iseyin in Oyo State. Ikere-gorge is located between longitude 8°10' and 8° 20'N and latitude 3° 40' and 3° 50'E. Ikere-gorge is under the management of Ogun Oshun River Basin Authority (OORBDA). Ikere-gorge has 12 fishing villages with numerous adjoining communities. The twelve fishing villages were assessed for the availability of social infrastructure to support the livelihood of the fisher folks in the gorge. The fishing villages in Ikere-gorge include Spillway, Bendel, Dwellings, Apata, Irawote, Owu, Agatu, Saka, Dobe, Asamu, Alagbon and Alagbede.

The primary data were collected through interview guide, survey, focus group discussion (FGD) and observation. The study was carried out between October 2018 and March 2019. Also, 120 interview guides were administered among the fisherfolks of Ikere-gorge with respect to the number of households in each fishing village; but 117 interview guides were properly responded to. The information obtained was analysed using descriptive statistics.

RESULTS AND DISCUSSION

Socio-Economic Characteristics of Fisherfolks

Table 1 presents the socio-economic characteristics of fisherfolks of Ikere-gorge, Iseyin, Oyo State.

Table 1: Socio-Economic Characteristics of Fisherfolks in the study area

Variables		Frequency	Percentage (%)
Age group (Years)	30 – 39	16	13.67
	40 – 49	71	60.68
	50 – 59	25	21.37
	>60	5	4.27
Sex	Male	52	44.44
	Female	65	55.56
Education	Primary	60	51.28
	Secondary	57	48.72
Marital	Single	11	9.4
	Married	106	90.6
Household	1 – 3	30	25.64
	4 – 6	54	46.15
	7 – 9	33	28.21
Occupation	Fishing	81	69.23
	Fishing Trade	22	18.6
	Farming	5	4.27
	Petty trading	3	2.56
	Artisan	6	5.13

Source: Field Survey (2019)

The result shows that most (60.68%) fisherfolks are between the age of 40 – 49 years old and most (55.56%) of them are women. This shows that majority of people living in Ikere-gorge and environs are youths and women are predominated. The age distribution of the fisherfolks in Ikere-gorge is between 30 and 60 years. The majority of the fisherfolks are between the

ages of 40 and 49 years old. But Das *et al*. (2015) reported higher participation of people between the ages of 16 and 30 years old.

Majority (90.6%) of them are married. The household varied between 1 and 9, but most (46.15%) of them had household size varied between 4 and 6. Most (51.28%) fisherfolks had primary school education but were dropped-out. Most (69.23%) people in Ikere-gorge had fishing as their primary occupation and 18.6% involve in fishing trade.

The result shows that there are more women than men in the fishing communities. This allowed polygamous among some fishermen. Das *et al*. (2015) reported more men than women in fishing villages in the south west region of Bangladesh.

The family size observed among the fisherfolks varied between 1 and 9, with majority household varied between 4 and 6. This is in agreement with the report of Das *et al*. (2015) that majority of fishermen in south west region of Bangladesh have household size between 4 and 6. Likewise, Baki *et al*. (2015) reported that fisherfolks households are between 2 and 10, with majority varied between 5 and 6 households in fishing community in adjacent area of Turag-Buriganga River, Dhaka,Bangladesh.

Availability of Social Amenities

The availability of social amenities is presented in Table 2

Table 2: Availability of Social Amenities in the study area

	Available		Not Available	
	Frequency	Percentage	Frequency	Percentage
Electricity	11	9.4	106	90.6
Portable water	11	9.4	106	90.6
Clinic / Health centre	5	4.27	112	95.73
Good road network	0	0	117	100
Telecommunication	0	0	117	100
Banks	0	0	117	100
Market place	68	58.11	49	41.88
School	49	41.88	68	58.11
Religion centre	117	100	0	0
Petrol Filling Station	0	0	117	100

Source: Field Survey (2019)

Ikere-gorge like most rural areas especially fishing villages lack basic infrastructure that can make them live a meaningful life. All fisherfolks in Ikere-gorge confirmed non-availability of good road network, telecommunication, banks, and petrol station (Table 3). But they all agreed that there is availability of religion centres in the area. However, majority (more than 90%) of the inhabitants of Ikere-gorge and environs confirmed non-availability of electricity, portable water and health centre. However, there were controversies about the availability of market place and education centre (schools). Most (58.11%) fisherfolks confirmed the availability of market place while 41.88% of them disagreed. Likewise, most (58.11%) fisherfolks confirmed non-availability of school in Ikere-gorge but 41.88% of them confirmed the availability of school. The mixed reactions may be due to the facts that both the market and the school are located at the Spillway fishing village; the centre of administration of Ogun Oshun River Basin Authority (OORBDA). This is at a very long distance to some fishing villages. Therefore, to some very far fishing villages both the market and school are not accessible. The result showed total non-availability of social infrastructure such as health centres, portable water, good road network, telecommunication network, banks, petrol station and electricity. However, there is partial availability of primary school

and market place. Ojijo and Kibera (2017) reported absenteeism of students from school in fishing villages to engage in fishing activities and as such students perform poorly in academic work. Baki *et al*. (2015) reported high level of illiteracy in fishing community in adjacent area of Turag-Buriganga River, Dhaka, Bangladesh.

Non-availability of social infrastructure in Ikere-gorge and environs is in agreement with the report of (Allison *et al*. 2011). They reported that Fisherfolk are often excluded from access to social services such as health and education, and may have weak political representation. They may also be poorly served by roads, markets and other infrastructure. Maddox (2007) reported that fishing communities are educationally disadvantaged because they are socially marginalised, engage in child labour, and common activities of post-catch processing and marketing. Das *et al*. (2015) reported absent of educational institutions in fishing villages as the major cause of high illiteracy among fishermen.

In some areas where school or educational centres exists, it is not geographically located and distributed among the fisher folks. Greater percentage of their children found it stressful to attend these schools because of distance. Those that attend have to trek several kilometres and skip school days. The better option for parent that insists that their children must have education is to send them to their relative in the cities. In addition, in the available schools or educational centres the facilities are in deplorable state and their teachers are not motivated (Figure 1 – 4). The effect of this is high level of drop-out among the fisherfolks children. This observation is in agreement with reports of (Maddox, 2007; Fatunla, 1996). Maddox (2007) reported that statistically speaking, areas with high concentrations of non-literate people are also home to many of the worlds' fisherfolk. Fatunla (1996) argued that educational provision is of poor quality, and unresponsive to the culture and livelihoods of fishing communities. Teachers are reluctant to be posted to those areas, and educational buildings and resources are of poor quality and many children dropped out of school.

Figures 1 – 4: Deplorable state of school in Ikere, Iseyin, Oyo State, Nigeria

There is absence of clinic or health centres in Ikere-gorge. Therefore, individual that needs medical attention use herbs or goes to the city. Das *et al*. (2015) reported different types of diseases or illness common among the fisherfolks. The diseases include diarrhoea, fever, jaundice, typhoid, gastritis and other water related diseases. DFID/FAO (undated) linked fisherfolks lack of access to social services such as good road network, markets, education, health facilities and other infrastructure as factors that lead to marginalisation. Lack of market in many fishing villages makes fisherfolks to be vulnerable; some may have money but have nothing or desired or satisfying items to buy. Das *et al*. (2015) reported that most fishermen had no access to electricity. Hasanuddin *et al*. (2013) reported that these are the conditions and problems commonly experienced by fishermen and they described the fisherman house as slum and unhealthy. Figure 5 shows activities of child labour.

Figure 5: Child Labour and Living Conditions of Fisherfolks in the study area.

Surviving strategies to lack of Social Infrastructure

The surviving strategies to lack of social infrastructure in the study area are presented in Table 3.

Table 3: Surviving strategies to Lack of Social Infrastructure in the study area.

	Often		Sometimes		Not at all	
	Freq	%	Freq	%	Freq	%
Generator	49	41.88	54	46.15	14	11.97
Bike	38	32.48	60	51.28	19	16.24
Herbs	60	51.28	49	41.88	8	6.84
Treat sickness in the cities	117	100	0	0	0	0
Send people on errand	117	100	0	0	0	0
Search for network	117	100	0	0	0	0
High cost of goods	111	94.87	6	5.13	0	0
Students school in town	111	94.87	6	5.13	0	0
Students skip school days	106	90.6	11	9.4	0	0
Black-market of petrol	117	100	0	0	0	0

Source: Field Survey (2019)

Table 3 presents some measures taking as surviving strategies by the inhabitant of Ikere-gorge to cushion the effects of lack of basic infrastructure. Most (41.88%) inhabitant of Ikere-gorge often use generator as a source of energy while 46.15% of the people use it sometimes.

Likewise, 32.48% often use bike for mobility while 51.28% use it sometimes. Most (51.28%) people in Ikere-gorge often rely on herbal concoction for treatment of ailment while 41.88% take concoction sometimes. All (100%) people in Ikere-gorge travel to the cities to receive treatment whenever they are sick. They jointly delegate or send someone on errands to the cities to save cost. They search for mobile networks whenever they want to make call and buying petrol (black-market) at high cost to power their generator or fill their motorbike. Likewise, majority (>90%) of people in Ikere-gorge send their children to schools in the cities, but many usually skip school days. Majority (94.87%) confirmed that they buy goods at high cost due to the distance and lack of good roads to bring in those goods to Ikere-gorge.

Effects of Lack of Basic Infrastructure

Effects of lack of basic infrastructure in the study are presented in Table 4.

Table 4: Effects of Lack of Basic Infrastructure in Ikere-gorge, Iseyin, Oyo State

	Yes		No	
	Freq	%	Freq	%
High cost of living	114	97.44	3	2.56
Loss of life	76	64.96	41	35.04
Severe pain	109	93.16	8	6.84
Loss of contact	117	100	0	0
Missed Business contact	114	97.44	3	2.56
Delay information delivery	106	90.6	11	9.4
Post harvest losses	103	88.03	14	11.97
High school dropout	117	100	0	0
High level of illiteracy	117	100	0	0
High cost of education	117	100	0	0
Motobike accidents	87	74.36	30	25.64
High cost of spare parts	106	90.6	11	9.4
High cost of petrol	109	93.16	8	6.84

Source: Filed Survey (2019)

Table 4 presents effects of lack of basic social infrastructure in Ikere-gorge. Majority (97.44%) of the fisherfolks agreed that the cost of living in such a rural area is high. This is because they buy fuel at high price to power their generator, buy spare parts of the motorbike and generator at high price and pay high fee for transportation. The most unfortunate effect is the loss of life. Most (64.96%) of the fisherfolks agreed that there is loss of lives due to absence of health centre and many people died in transit between Ikere to the cities in case of emergency due to poor road network. This is more pronounced among the pregnant women at time of delivery. There is high rate of infants and maternal mortality in Ikere. Majority (93.16%) of the fisherfolks confirmed that people of Ikere suffer severe pain before getting to the city to receive medical treatment whenever there is accident or illness.

CONCLUSION

Fisherfolks are the major stakeholders in fisheries management. Sustainable fisheries management principles cannot be successful if the people who are directly involved in the exploitation of fishery resources are not properly managed. These people are closer to fisheries than other stakeholders. This shows that no fisheries management policy will adequately work out without these vulnerable and marginalized people are effectively

managed. Therefore, any strategies to improve livelihood of fisherfolks are integral part of fisheries governance.

RECOMMENDATIONS

Based on the findings, strategies to improve livelihood of fisherfolks can be achieved by investment in their health, education, supporting gender equity, addressing justice and security issues as well as upholding basic human rights.

REFERENCES

Allison, E. H., Béné, C & Andrew, N. L. (2011). Poverty Reduction as a Means to Enhance Resilience in Small-scale Fisheries. *In* Pomeroy, R. S., & Andrew, N. L. (Eds.). (2011). Small-scale fisheries management: frameworks and approaches for the developing world. Retrieved from http://ebookcentral.proquest.com

Asiedu, B., Nunoo, F. K. E., Ofori-Danson, P. K., Sarpong, D. B & Sumaila, U. R. (2013). Poverty Measurements in Small-scale Fisheries of Ghana: A Step towards Poverty Eradication. *Current Research Journal of Social Sciences,* 5(3), 75-90.

Baki, M. A., Islam, M. R., Hossain, M. M & Bhouiyan, N. A. (2015). Livelihood status and assessment of fishing community in adjacent area of Turag-Buriganga River, Dhaka, Bangladesh. *International Journal of Pure and Applied Zoology*, 3(4),347 – 353.

Béné, C. (2003). When fishery rhymes with poverty, a first step beyond the old paradigm on poverty in small-scale fisheries. World Development 31, 949–975.

Béné, C., Mindjimba, K., Belal, E & Jolley, T. (2000). Evaluating Livelihood Strategies and the Role of Inland Fisheries in Rural Development and Poverty Alleviation: The Case of the Yaéré Floodplain in North Cameroon IIFET 2000 Proceedings

Das, M. R., Ray, S., Kumar, U., Begum, S & Tarafdar, S. R. (2015). Livelihood assessment of the fishermen community in the south west region of Bangladesh. *Journal of Experimental Biology and Agricultural Sciences*, 3(4), 353 – 361.

DFID/FAO (Undated) Reducing fisherfolk's vulnerability leads to responsible fisheries. DFID/FAO Sustainable Fisheries Livelihoods Programme (http://www.sflp.org).

Fatunla, G. (1996). Socio-Economic Issues in the Education of Children of Migrant Fishermen in Nigeria. *Journal of Sustainable Agriculture,* 9(1), 31- 55.

Hasanuddin, N. L., Noor, N & Santosa, H. R. (2013). Is it possible to eradicate poverty in the fishermen village? *International Journal of Environmental Sciences*, 4(2), 1 – 5.

Maddox, B. (2007). Literacy in fishing communities. Sustainable Fisheries Livelihoods Programme FAO/DFID. Pp21.

Ojijo, G. A & Kibera, L. W. (2017). Fishing activities and academic performance of secondary school students in Rachuonyo North sub-county, Kenya. *International Journal for Innovation Education and Research,* 5(7), 109 – 117.