ASSESSMENT OF LIVELIHOOD DIVERSIFICATION AND FISHERIES CONSERVATION STRATEGIES AMONG FISHERMEN IN COASTAL AREAS OF OGUN STATE, NIGERIA

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ABSTRACT

In response to increasing anthropogenic activities that exacerbate environmental and economic pressures, livelihood diversification has become a crucial strategy for sustaining fisheries dependent households while ensuring the effective implementation of conservation policies for the sustainable development of coastal fishing communities.. This study assessed the association between household livelihood diversification and fisheries conservation policies among fishermen in coastal areas of Ogun State, Nigeria by adopting a multi-stage sampling procedure. Sample size was 90 fishermen from six randomly selected fishing communities (Abureji, Agbalegiyo, Ilamo, Imosan, Iseku and Wharf) along the coastline in Ogun State, Nigeria. Data were collected using pre-validated interview schedule and subjected to descriptive and inferential analytical techniques. Majority of the fishermen (98.9%) were married, in the age bracket of 41-60 years (71.1%) with average age of 49 years, had household size of 6-15 persons (91.1%) with average household size of 9 persons. About 90.0% were from extended families, with either no formal education (43.3%) or only primary education (41.1%); 62.2% were non-members of social groups, and 93.3% had no other occupations. There was generally low level of household livelihood diversification across the fishing communities. Gill nets were the most commonly used fishing gears across the fishing communities (80.0%),followed by seine nets (63.3%), traps (56.7%) and trawl nets (53.3%) while fish aggregating devices (35.6%), cast nets (37.8%) and hook and line (24.4%) were the least used fishing gears. Coastal fishery was characterised by conflicts among water users (64.4%), absence of protected fishing areas (81.1%), and experience of water pollution (36.7%). Majority (71.1%) of the fishermen agreed with closed season policy as a coastal fisheries conservation strategy, followed by gear restriction (30.0%). There were significant associations between level of household livelihood diversification and fishermen's agreement with gear restriction (χ^2 = 15.545, df = 5), and closed season (χ^2 = 11.214, df = 4). The study concluded that coastal fisheries are in a poor state and that it could be improved through the introduction of gear restriction and closed season policies. The study recommended that youths in the coastal areas could venture into fishing, and that government and non-governmental agencies could organize sensitization programmes on fisheries conservation policies across the coastal areas in Ogun State.

Keywords: Closed season, Gear restriction, Household, Multi-stage sampling, Policies

INTRODUCTION

The fisheries subsector plays a crucial role in the lives of billions of people in the world, including Nigeria. This subsector of agriculture is an important source of fish food and livelihood for many residents of coastal communities, supplying the required animal protein for growth and as income to many rural households (Niyogi, 2016). Across the world, fish production is primarily from capture and culture fisheries from either marine or inland waters. Data from the Food and Agriculture Organisation, (FAO 2020) State of World Fisheries and Aquaculture indicated that with approximately 96 million metric tonnes, the capture fisheries accounted for about 54 % of global fish production in 2018 (FAO, 2020). When disaggregated by water bodies, the same report posited that marine waters along coastal areas contributed 115 million metric tonnes, equivalent to 64% of total fish produced in the world in 2018 (FAO, 2020). According to Agbebi *et al.* (2020), coastal fisheries contribute significantly to global fish production. Coastal areas are characterized by diverse, varied and complex livelihoods, and seasonal variations which affect fisheries production in terms of the availability of different species (Agbeja and Jenyo-Oni, 2013). Different institutions (agriculture, fisheries and industrial activities) within the coastal areas have related and overlapping characteristics with conflicting policies and priorities (Agbeja and Jenyo-Oni, 2013). According to Agbeja and Jenyo-Oni (2013), coastal areas are also associated with seasonal changes which have influence on residents' livelihoods by providing peaks of employment, income and expenditure as well as seasonal underemployment and migration of both skilled and unskilled labour.

In Nigeria, domestic fish production follows the trends in global records as capture fisheries, especially from marine waters contribute the bulk of the fish produced in the country over the years (Agbebi et al., 2020). This is attributed to the fact that Nigeria is a maritime nation that shares borders with the Atlantic Ocean in the South and has a landmass of 923,766 km² (Adewumi, 2015; Agbebi et al., 2020). Adewumi (2015) further characterised the Nigerian coastal fishery sector as having a rich resource base, comprising offshore waters between the 30 mile territorial limit and the 200 miles Exclusive Economic Zone (EEZ); coastal waters adjacent to the country's 853-km coastline, and a continental shelf varying in width between 2 and 12 miles off the coast, from the western to the eastern borders; and River Niger delta which form the basis for the long established industrial and artisanal capture fisheries in the country.

Due to the country's increasing human population and the competing needs of fish for alternative uses in the commercial production of livestock feeds, Nigeria remains the largest fish consumer in Africa and among the largest fish consumers in the world, with about 3.2 million metric tons of fish consumed annually (FAO, 2022) despite the fact that its fisheries and aquaculture are among the fastest growing subsectors in the world. Total fish production per year is close to 1 million metric tons - 313,231 metric tons from aquaculture and 759,828 metric tons from fisheries (WorldFish, 2017). It was estimated in a recent study that Nigeria ranks third globally for the number of people dependent on coastal fisheries for food and nutrition security, and the demand for fish is growing, alongside growth in population and incomes (Bradley et al., 2020).

Agbeja and Jenyo-Oni (2013) estimated that with nine out of the 36 States of the Federal Republic of Nigeria being along the coastlines, approximately 25% of the nation's populations live in coastal areas, and that their livelihood is dependent on the lagoons, estuaries, creeks and inshore waters. In recent times, more attention seems to have been directed to the aquaculture sector through the establishment of reservoirs, purpose-built ponds, mining paddocks and animal watering lots implemented through development projects across the country which led to the recent fast growth of the Nigerian aquaculture industry at the expense of the capture fisheries (Adewumi, 2015). In spite of these resources and efforts to increase domestic fish production, Nigeria is yet to bridge the fish supply-demand deficit.

Globally, there is a heavy reliance of billions of the world's poorest on healthy oceans as a source of jobs and food (WHO, 2022). Despite the potentials of marine fisheries resources such as ocean resources to increase domestic fish production, they have been brought to the brink due to anthropogenic impacts – overfishing, illegal and unregulated fishing, etc. (WHO, 2022). Fish stocks managed beyond biologically sustainable levels rose from 10 % in 1974 to 34.2% in 2017, while in the same year approximately 60% of fish stocks were fully exploited (FAO, 2020). At global level, fish stocks are significantly affected by illegal, unregulated and unreported (IUU) fishing, though the exact magnitude of the matter is difficult to assess accurately (WHO, 2022). Critical fish habitats are also under pressure from pollution, coastal development, and destructive fishing practices that undermine fish stock recovery. FAO (2022) attributed the poor and deteriorating status of fish stocks to either absence or ineffective fisheries management and conservation. The implication of this assertion by FAO is that effective coastal fisheries conservation will contribute meaningfully to the bridging of the widening gap between the supply and demand for fish in coastal areas as failure to put adequate measures in place threatens the contribution of the fisheries subsector to food security and livelihoods (FAO, 2022). This underscores the urgent need to sustainably use, manage and protect this natural resource.

The broad objective of this study was therefore to assess livelihood diversification and fisheries conservation strategies among fishermen in Ogun State, Nigeria. The specific objectives were to determine the socio-economic characteristics of fishermen in coastal areas of Ogun State, Nigeria; determine the livelihood diversification of each household of the fishermen; identify the fishing gears used by the fishermen across the study locations; evaluate the condition of coastal fisheries; and identify the coastal fisheries conservation policies among the coastal fishermen.

MATERIALS AND METHODS

This study was conducted in the coastline of Ogun State, which is one of the nine coastal States in Nigeria (Agbeja, 2017; Olaoye and Ojebiyi, 2018). It is one of the South-western States in the country, situated between 4^0 15' E – 4^0 30'E and 6^0 20'N - 6^0 45'N; and bounded in the east by Lekki lagoon and in the south by Bight of Benin. Fishing activities within the coastal areas are carried out with both motorised and non-motorised canoes (Abdul *et al.*, 2016). Commonly used fishing gears included gill net, seine net, cast net, trawl nets and traps. A multi-stage sampling procedure was adopted in this research.

The first stage entailed the purposive selection of Ogun Waterside Local Government Area because it is the only area of the state with a coastline on the Bight of Benin and also borders Lagos Lagoon. The second stage involved the random sampling of six (6) fishing communities along the coastline while at the third stage, about 50% of the fishermen in the selected fishing communities were selected by simple random sampling technique. This resulted in a total of 90 fishermen from the coastal areas of Ogun State which served as the sample size for this study.

This study was based on primary research which collected data with the aid of a pre-validated interview schedule from the selected fishermen at their respective fishing communities. The livelihood diversification classification was based on number of livelihood activities that an individual fisher diversified into to increase his source of income, as: No livelihood diversification = 0 livelihood activity; Low livelihood diversification = 1-3 livelihood activities; Moderate livelihood diversification = 4-6 livelihood activities, and High livelihood diversification = more than 6 livelihood activities. Data were subjected to both descriptive (frequency, percentage, mean and standard deviation) and inferential (Chi-square analytical technique) statistics using the Statistical Package for Social Sciences – SPSS version 21.0. Results are presented in frequency distribution, charts and graphical methods. Significant differences were determined at $p<0.05$.

RESULTS

Socio-economic characteristics of fishermen in coastal areas in Ogun State

About 46% and of the fishermen were in the age brackets of 41-50 years while (26%) were 51-60 years. The mean age was 49.12 years and standard deviation 8.791(Table 1). The majority of the fishermen (98.9%) were married, 90.0% were from extended families, and 90.0% professed the practice of Islam. More than half (53.3%) of the fishermen had a household size of 6-10 persons while 37.8% were from households with 11-15 persons, with average household size of 9. A high proportion (43.3%) of the fishermen had no formal education while 41.1 % completed only primary education.

With regards to membership in social organizations, 20.0% of the fishermen were members of community development Associations, 15.6% belonged to fishermen associations, while 62.2% belonged to no social organizations. Majority (93.3%) of the fishermen had no other occupation apart from fishing. Going by monthly income distribution, 36.7% of the fishermen earned ₦250001 - ₦500000, 28.9% earned ₦100,001 - ₦250,000 and 27.8% earned at most ₦ 100,000 per month. Average monthly income of the fishermen was ₦274,732.69.

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Table 1: Socioeconomic Characteristics of Coastal Fishermen in Ogun State

Socio-economic variables	Frequency	Percentage	Mean
Age (years)			
21-30	2	2.2	
31-40	13	14.4	**49.12 years**
41-50	41	45.6	**(8.791)**
51-60	23	25.6	
>60	11	12.2	
Marital status			
Single	1	1.1	
Married	89	98.9	
Family type			
Nuclear	9	10.0	
Extended	81	90.0	
Religion			
Christianity	7	7.8	
Islam	81	90.0	
Traditional	2	2.2	
Household size (persons)			
1-5	8	8.9	**9 persons (3)**
6-10	48	53.3	
11-15	34	37.8	
Educational status			
No formal education	39	43.3	
Incomplete primary education	10	11.1	
Complete primary education	37	41.1	
Incomplete secondary education	0	0.0	
Complete secondary education	3	3.3	
Incomplete tertiary education	0	0.0	
Complete tertiary education	1	1.1	
Membership of associations/groups			
Cooperative societies	2	2.2	
Fishers' associations (e.g. Fadama)	14	15.6	
Community Development Associations	18	20.0	
None	56	62.2	
Other occupations			
Fish processing	2	2.2	
Fishing	2	2.2	
Farming	4	4.4	
Trading	2	2.2	
Others (gleaning, motorcycle transport, artisanal works, menial jobs)	3	3.3	
None	84	93.3	
Income from fisheries (Naira)			
≤100000	25	27.8	274732.69
100001 - 250000	26	28.9	(171976.87)
250001 - 500000	33	36.7	
>500000	6	6.7	

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Household livelihood diversification of the fishermen

40% of the fishermen in Abureji had household members who diversified into gleaning and marketing while 40% of the fishermen in Agbalegiyo village had household members who were into gleaning. A few of the fishermen in Iseku village (29.4%), Imosan village (11.1%) and Ilamo village (9.1%) were into gleaning. About 18% of the fishermen in Iseku village diversified into marketing and 17% of those in Ilamo village had household members who diversesified into mariculture.

The highest proportions of fishermen, 94.7% in Wharf, 66.7% in Imosan, 90.9% in Ilamo, 60.0% in Agbalegiyo and 46.7% in Abureji had no household member who diversified into any of the above livelihood activities (Figure 2). More than half (52.9%) of the fishermen in Iseku had a low level of household diversification. Only 6.7% of the fishermen in Abureji had household members with a high level of livelihood diversifi-
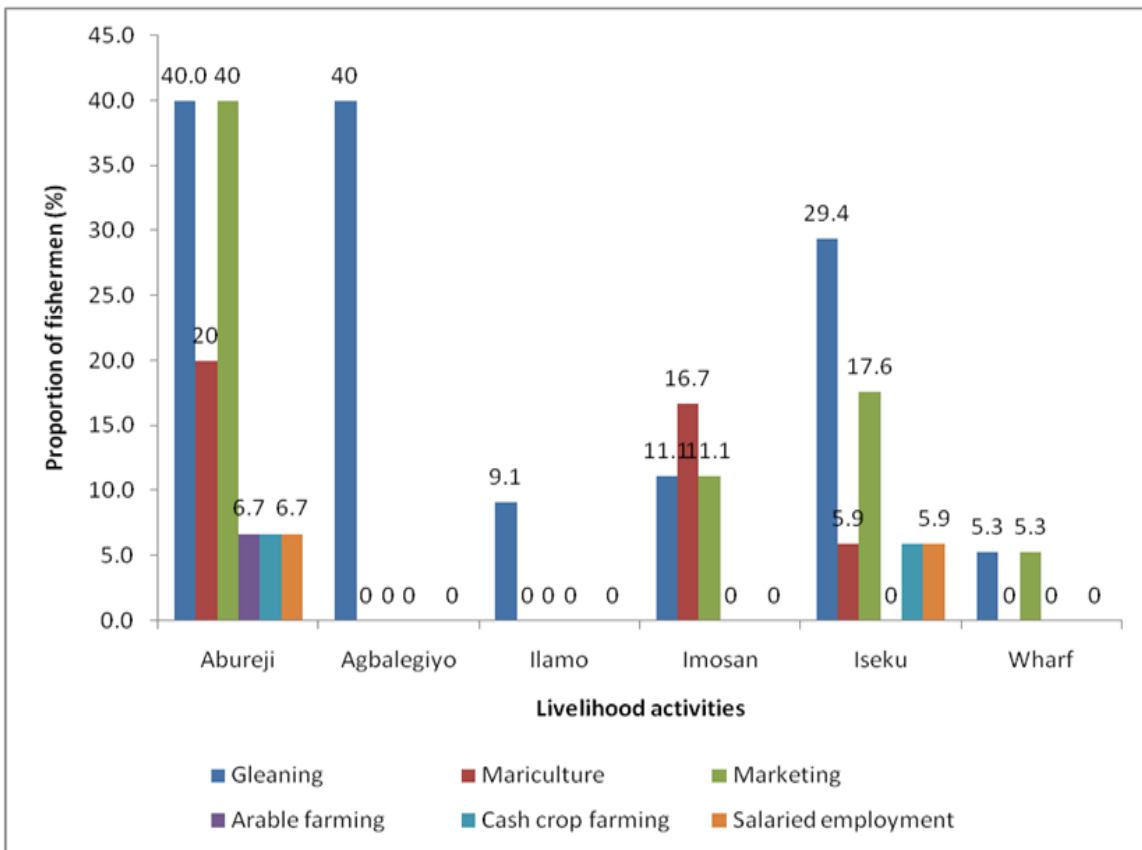

Figure 1: Livelihood activities of fishing households by fishing villages
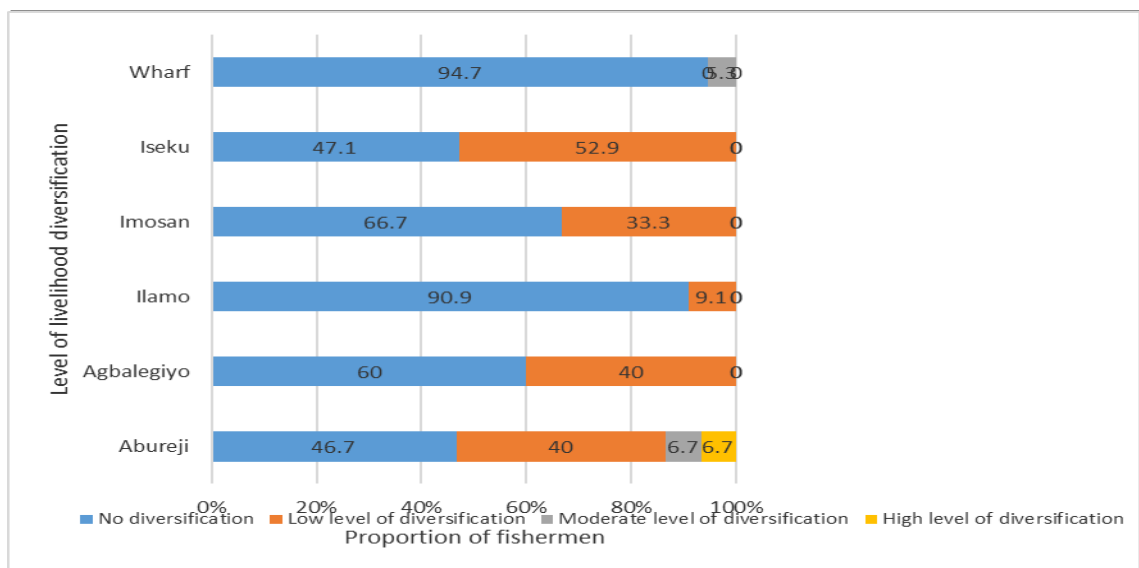
Figure 2: Levels of fishing household livelihood diversification by communities Coastal fisheries conservation

Fishing gears used by fishermen

Use of gill nets was observed varied between the communities, ranging from the highest of 100% from Abureji to the lowest of 50% from Agbalegiyo (Table 2). Majority of the fishermen in Abureji (93.3%), Imosan (72.2%) and Iseku (94.1%) use seine nets. Fish aggregating devices and cast nets were used by 60.0%, 50.0% and 70.6% of the fishermen in Abureji, Imosan and Iseku, respectively. 93.3% of the fishermen in Abureji, 61.1% in Imosan (and 88.2% in Iseku were making use of trawl nets. Most of the fishermen in Abureji (80.0%), Ilamo (54.5%), Imosan (55.6%) and Iseku (94.1%) were making use of traps (Table 2).

Table 2: Percentage distribution of fishermen by fishing gears used across the coastal areas

Fishing gears	Abureji (n = 15)	Agbalegiyo (n = 10)	Ilamo (n = 11)	Imosan (n = 18)	Iseku (n = 17)	Wharf (n = 19)	Total (n = 90)
Gill net	100.0	50.0	63.6	88.9	94.1	68.4	80.0
Seine net	93.3	50.0	9.1	72.2	94.1	42.1	63.3
Fish aggregating devices	60.0	0.0	0.0	50.0	70.6	10.5	35.6
Cast net	60.0	0.0	9.1	50.0	70.6	15.8	37.8
Trawl nets	93.3	20.0	27.3	61.1	88.2	15.8	53.3
Hook and line	26.7	10.0	54.5	16.7	41.2	5.3	24.4
Trap	80.0	40.0	54.5	55.6	94.1	15.8	56.7

Condition of coastal fisheries

At least half of the fishermen in Abureji (66.7%), Agbalegiyo (50.0%), Ilamo (90.9%) and Imosan (50.0%) indicated that they experienced conflicts with other fishermen (Table 3). Higher proportions of the fishermen across the study locations reported conflicts among water users. Less than 30% of the fishermen across the study locations were aware of protected areas against fishing activities. More than half of the fishermen in Abureji (53.3%) and Iseku (52.9%) claimed to have experienced water pollution (Table 3). Less than 30% of the fishermen experienced dumping of fishing gears around the coast.

Table 3: Condition of coastal fisheries in Ogun State

	Abureji (n = 15)	Agbalegiyo (n = 10)	Ilamo (n = 11)	Imosan (n = 18)	Iseku (n = 17)	Wharf (n = 19)	Total (n = 90)
Conflict with other fishermen	66.7	50.0	90.9	50.0	29.4	26.3	48.9
Conflict among water users	60.0	50.0	90.9	61.1	58.8	68.4	64.4
Areas protected against fishing activities	20.0	0.0	20.0	20.0	29.4	15.8	18.9
Experience of water pollution	53.3	0.0	0.0	38.9	52.9	47.4	36.7
Dumping of fishing gears around the coast	6.7	10.0	27.3	16.7	5.9	5.3	11.1

Coastal fisheries conservation strategies

80.0% and 54.5% of the fishermen in Agbalegiyo and Ilamo were aware of fishing policies in coastal areas of Ogun State (Fig 3). Abureji and Iseku had no awareness; while, Imosan and Wharf had low awareness of fishing policies (5.6% and 15.8, respectively).
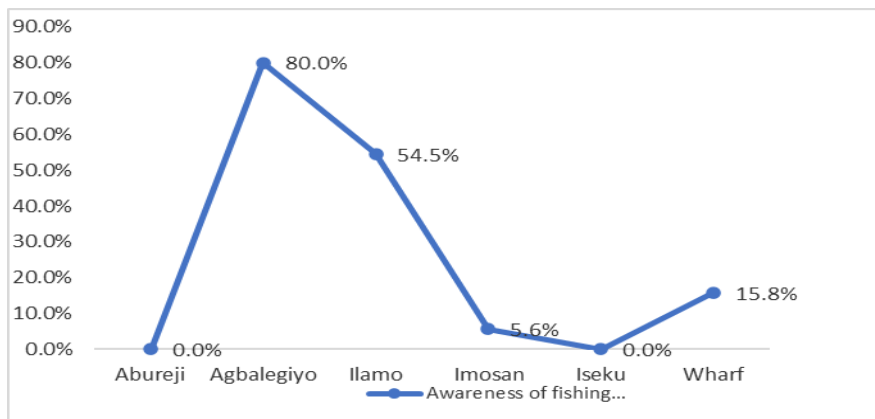

Figure 3: Fishermens' awareness of fishing policies across study locations in Ogun State

Higher proportions of the fishermen in Agbalegiyo were aware of the policies on gear restriction (60.0%) and mesh size regulation while only 30.0% were aware of the policy on the control of the number of fishermen per trip. On the other hand, 54.5% of the fishermen in Ilamo were aware of the policies on mesh size regulation, number of fishers per trip control, and closed season. Across Ogun State, only 14.4%, 20.0%, 12.2%, 7.8% and 4.4% of the fishermen in coastal areas were aware of the policies on gear restriction, mesh size regulation, and number of fishers per trip control, closed season and closed area, respectively (Figure 4).
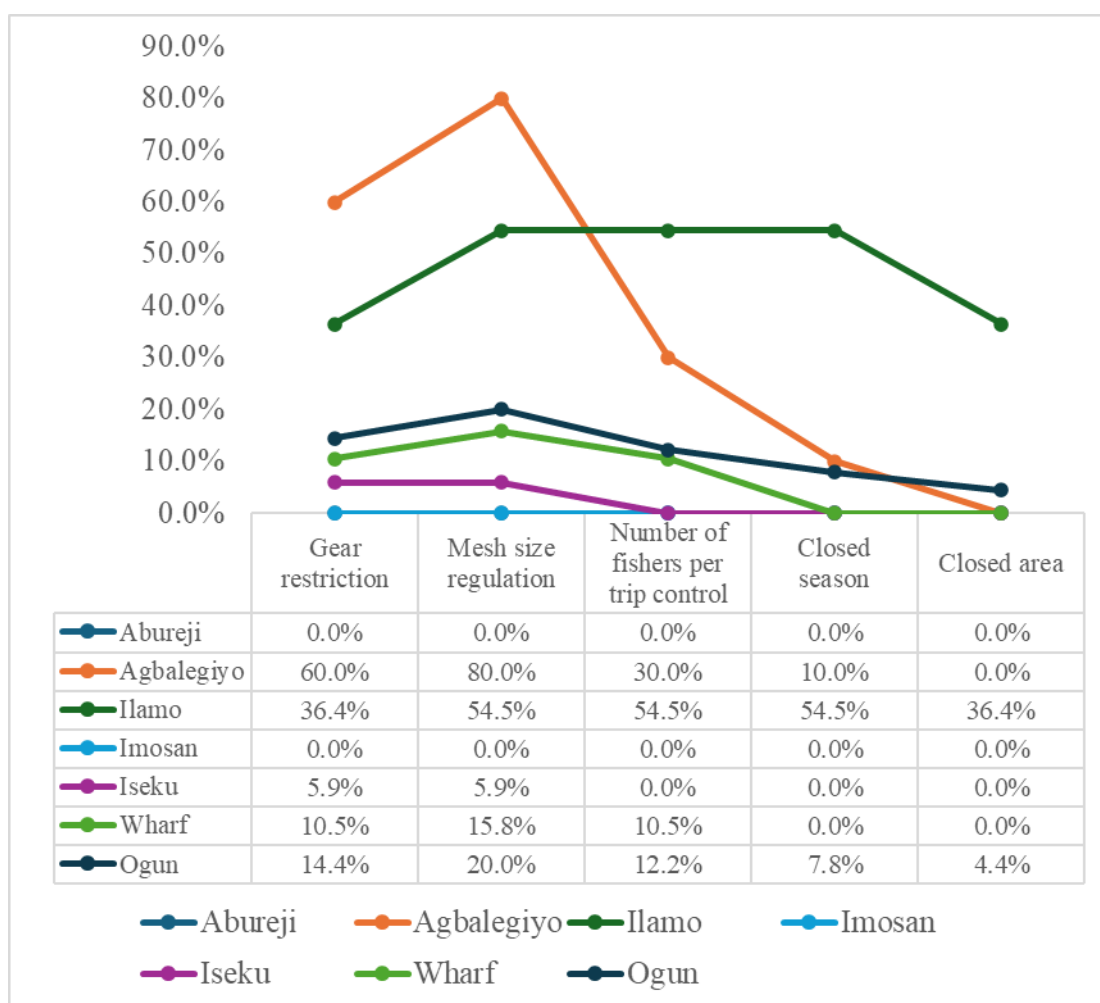

	Gear restriction	Mesh size regulation	Number of fishers per trip control	Closed season	Closed area
Abureji	0.0%	0.0%	0.0%	0.0%	0.0%
Agbalegiyo	60.0%	80.0%	30.0%	10.0%	0.0%
Ilamo	36.4%	54.5%	54.5%	54.5%	36.4%
Imosan	0.0%	0.0%	0.0%	0.0%	0.0%
Iseku	5.9%	5.9%	0.0%	0.0%	0.0%
Wharf	10.5%	15.8%	10.5%	0.0%	0.0%
Ogun	14.4%	20.0%	12.2%	7.8%	4.4%

Figure 4: Awareness of specific fishing policies

72.7% of the fishermen in Ilamo agreed with gear restriction as a coastal fisheries conservation policy. The majority of the fishermen in Abureji (80.0%), Ilamo (81.8%), Imosan (77.8%) and Iseku (94.1%) also agreed with the introduction of the closed season as a policy for conserving coastal fisheries. 71.1% of the fishermen in Ogun State agreed to conserve coastal fisheries with a closed season. (Figure 5)
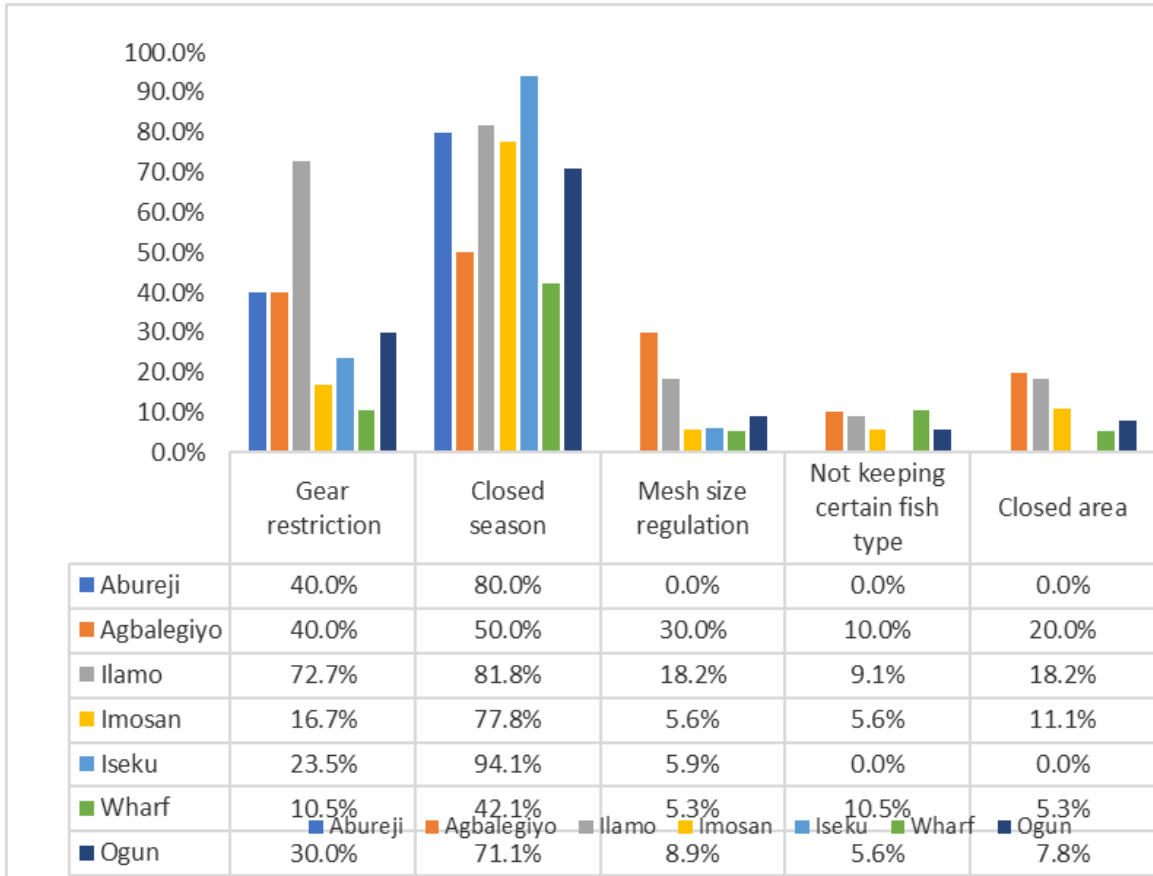
	Gear restriction	Closed season	Mesh size regulation	Not keeping certain fish type	Closed area
Abureji	40.0%	80.0%	0.0%	0.0%	0.0%
Agbalegiyo	40.0%	50.0%	30.0%	10.0%	20.0%
Ilamo	72.7%	81.8%	18.2%	9.1%	18.2%
Imosan	16.7%	77.8%	5.6%	5.6%	11.1%
Iseku	23.5%	94.1%	5.9%	0.0%	0.0%
Wharf	10.5%	42.1%	5.3%	10.5%	5.3%
Ogun	30.0%	71.1%	8.9%	5.6%	7.8%

Figure 5: Coastal fisheries conservation policies agreed by fishermen across the study locations

Relationship between livelihood diversification and fishermen's agreement with coastal fisheries conservation policies
There were significant associations between level of household livelihood diversification and fishermen's agreement with gear restriction ($\chi^2 = 15.545$, df = 5), and closed season ($\chi^2 = 11.214$, df = 4) as coastal fisheries conservation policies at $p \leq 0.05$ while level of household livelihood diversification was not significantly associated with fishermen's agreement with other coastal fisheries policies (Table 4).

Table 4: Results of Chi-square analysis on association between level of household livelihood diversification and agreement with coastal fisheries conservation policies

Conservation policies	Chi-square (χ^2)	df	p-value
Gear restriction	15.545	5	0.035*
Closed season	11.214	4	0.039*
Mesh size regulation	1.024	1	0.795
Not keeping certain fish type	1.507	1	0.681
Closed area	3.281	1	0.194

*means that the association was significant at 0.05 levels of significance, df = degree of freedom

DISCUSSION

Age distribution of the respondents indicated that the bulk of the fishermen were within 41-60 years, with a lower proportion of youths younger than 40 years. This depicted a clear contradiction of previous findings (Odebiyi *et al.*, 2013; Olopade *et al.*, 2017; Agbebi *et al.*, 2020) which reported that most of the fishermen in Nigeria were youths within their active ages. Though the average age implies that coastal fishing in Ogun State was dominated by persons within the economically active and productive age group, most of the fishermen were age-ing. This does not support the sustainable development of the coastal fisheries sector as youths are known as the engine of growth and economic development in any sector. Agbebi et al. (2020) also described youths as having high vigour and energy to contribute meaningfully to fishery development. Olopade et al. (2017) added that youths are matured, able to withstand stress in fishing operations; and put more time and other resources in the business.

It was further deduced that fishing was dominated by married persons with extended families. Previous studies (Agbebi et al., 2020; Kumolu-Johnson and Ndimele, 2010) also reported the dominance of married persons in the fishing enterprise. This implies that the fishermen were mature and responsible individuals as marriage comes with inherent responsibilities which include the provision of basic needs such as food, clothing, shelter and medical care for family needs. Similar to the findings of Agbebi *et al.* (2020), results from this study suggest strong attachment with the matrimonial institutions. Okeowo et al. (2014) affirmed that marital status has influence on production performance of coastal fishers as family members could facilitate fishing activities.

The results also indicated that coastal fishing is dominated by large household sizes which could have resulted from the accommodation of members of the extended families. This finding agree with the report of Agbebi *et al.* (2020) who submitted that fishermen could take great advantage of the large family size in terms of needed labour for fishing activities. This implies that the fishermen were likely to have access to labour from family members at little or no cost. Though family members could be a good source of labour, large household size also suggest

high dependency ratio in the fishing households.

Education remains the bedrock of development and an essential indicator for enhancing human resource capital development (Olopade *et al.*, 2017). Specifically, Ogunsola (2018) argue that education affects productivity via choice of better inputs and outputs, and better utilization of existing inputs. On educational attainment, it was found that the fishermen either had no or a low level of education. This finding is consistent with those of similar research (Olubanjo *et al.*, 2007; Odebiyi *et al.*, 2013; Olopade *et al.*, 2017; Agbebi *et al.*, 2020) that reported fisher-folks are either illiterates or semi-illiterates who dropped out of the formal school system. The low level of education among the fishermen could be linked to the remoteness, difficult terrain and isolation of coastal fishing communities from cities where schools could be easily accessed. The low level of educational attainment has negative implications for their participation in coastal fisheries conservation as only educated persons could meaningfully contribute to the sustainable development of coastal fisheries. According to Olopade *et al.* (2017), educated fishers could contribute to increased fish production through the use of improved fishing methods and techniques. Horemans (2006) argued that fishers do not have enough functional skills to access resources and to understand official documents. With the low level of education, the fishermen were not likely to diversify into economic activities that are non-agriculture related because most of those activities would require some skills and a high level of education. It was deduced that most of the fishermen were non-members of social groups or associations although some belonged to community development associations and fishermen's associations. Fishermen who belonged to social groups were more likely to participate in coastal fisheries conservation than those who are non-members of social organizations. It was also deduced that almost all of the sampled respondents were full-time fishermen as they had no other occupations apart from fishing. This contradicted the findings of Olopade *et al.* (2017) which reported that just about half of the fishermen were on full-time fishing. It could be inferred from the results that fishermen in the coastal areas of Ogun State were somehow confined to fishing. This opinion negates Bene and Friend (2009) who posited that fishers are not restricted to fishing only but are involved in a diversity of livelihood activities. The average monthly income of the fishermen which was higher than the minimum monthly salary/wages of most of the people involved in white-collar jobs indicated that coastal fishing was an attractive enterprise. This was confirmed from the findings of Agbebi et al. (2020) which reported that artisanal fishing in coastal communities of Ilaje, Ondo State was highly profitable. This explains why fishing was the sole occupation of the respondents.

It was evident that though some fishermen were engaged in some other livelihood activities such as gleaning, marketing and mariculture, there was generally low level of household diversification of livelihood among the fishermen across the study locations. This could be as a result of lower chances of choosing alternative livelihood activities as they mostly relied on fisheries and other natural resource-based activities which were highly competitive among rural dwellers. This scenario could be attributed to the low educational attainment of the fishermen which limited their opportunities to liveli-

hood activities requiring high level of education and skills. Horemans (2006) is of the opinion that education is important for fisheries management, environmental conservation, and livelihoods diversification.

Further evidence indicates that different fishing gears were in operation across the selected study locations. Despite this, gill nets, seine nets, trawl nets and traps were the prevalent fishing gears in coastal areas of Ogun State. Olaoye and Ojebiyi (2018) found that gill nets, seine nets and various kinds of traps were among the commonly used fishing gears in coastal fishing in Nigeria. This means that most of the commonly used fishing gears among the coastal fishermen are passive and selective, mainly depending on mesh sizes. This corroborates the findings of Mohammed and Ali (2019) which grouped gill nets and seine nets as selective fishing gears. This implies that overfishing, which has negative consequences on coastal fisheries management could be limited through appropriate fisheries conservation policies. Carvalho and Humphries (2021) observed that gear-based management is a very good way of protecting important functional groups of fishes.

It could be interpreted from the findings on the condition of coastal fisheries that the coastal fishery in Ogun State is currently in a poor condition which could not ensure sustainability as an important fish supply source. The sampled coastal areas were characterized by conflicts among fishers and other water users, experience of water pollution, and absence of areas protected against fishing activities. The reported poor status of the coastal fisheries was in tandem with the position of Agbeja (2017) who identified overfishing, and pollution from industrial, domestic and agricultural effluents as among the numerous problems that

predisposed the Nigerian coastline to rapid and ill- managed degradation as a result of the diversified uses of the Exclusive Economic Zone. The conflicts among the fishermen could be due to the dwindling coastal fisheries resources which increasing population of fishers were relying on for exploitation, thereby suggesting high fishing intensity. High fishing intensity could have been responsible for the water pollution experienced by the fishermen, which also explained the ensuing conflicts between fishermen and other users of the water bodies.

A fishing conservation policy is a strategy of rules and regulations with a goal of sustainable fisheries management (Whitcomb, 2018). The findings further portrayed that substantial proportion from only Agbalegiyo and Ilamo out of the six fishing communities were aware of existing regulatory policies on coastal fisheries conservation. It was further established that while most of the fishermen in Agbalegiyo were only aware of policies on gear restriction and mesh size regulations, those in Ilamo had knowledge of policies on mesh size regulation, control of fishers' population per fishing trip and closed season. It was generally evident that awareness of existing policies of coastal fisheries conservation in Ogun State was very low. This provided a valid explanation as to the poor status of coastal fisheries which is among the reasons for dwindling fish catch from the coastal areas. Varying proportions of the fishermen agreed with adopting the different policies in the different study locations. It was established that fishermen across the study locations mostly agreed with closed season and gear restrictions as policies that could conserve coastal fisheries in Ogun State. According to McClanahan (2010), gear restrictions resulted in reduced fishing cost and

increased the proportion of self-employed fishers. Results of inferential statistics indicated that fishermen's agreement with gear restriction and closed season as fisheries conservation policies was statistically associated with household's level of livelihood diversification, and this implies that only fishermen with moderate to high levels of household's livelihood diversification are more likely to agree with coastal fisheries conservation policies because they are likely to be more affected by the negative consequences of poor condition of coastal fisheries.

CONCLUSIONS
 Coastal fishing in Ogun State, Nigeria is dominated by married men who are ageing, with large household size from extended families, and earned considerably higher monthly income than most salary earners in the State.

The fishermen mostly operate on full time basis with very low level of livelihood diversification.

Although the fishermen were making use of selective fishing gears, the current situation of coastal fisheries was associated with conflicts between fishermen and other water users as well as among the fishermen, pollution of the water bodies, with no protected areas against fishing activities.

 Household livelihood diversification of the fishermen was associated with the coastal fisheries conservation policies they might agree with. This implies that the various ways fishermen make a living (household livelihood diversification) is linked to the coastal fisheries conservation policies they support; the fishermen's willingness to agree with certain conservation policies may influence how they diversify their income sources beyond fishing.

RECOMMENDATIONS
The study recommends that youths, younger than 40 years, should be more involved in coastal fishing;

Adult literacy education should be encouraged among the fishers;

Fishermen and their household members should diversify into other livelihood activities within their communities;

Government and non-governmental agencies should partner with localities of fishermen to organize sensitization programmes on different coastal fisheries conservation policies across the coastal areas in Ogun State.

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