Assessment of the training needs of artisanal fishers' in Asa Local Government Area of Kwara State Nigeria

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ABSTRACT

The study examined the training needs of artisanal fishers' in Asa Local Government Area of Kwara State Nigeria. All the artisanal fishers at Oloko fishing settlement in Asa local Government Area of Kwara state were selected for the study. Data were collected with the use of interview schedule and analysed using frequency, percentage and mean. Results show that mean age of the fishers was 37.4 years, all the respondents were married, 85.7 % had no formal education, the mean years of experience was 20.8 and the average monthly income was ₦31, 571 naira. The areas of training needs identified in this study were canoe/boat safety navigation measures (10.6), Fish marketing/ distribution (10. 21), canoe handling and maintenance (9.15), Construction of cast and gill net (8.9), use of cast and gill net (8.8). The major occupational health hazards of the respondents were back/general body pain (4.7), chest pain (4.6), boat capsizing/ water accident (3.9), minor cuts and scrapes (3.6) and exposure to sunburn during work (3.2). The study recommended that government should provide agricultural extension workers and health officers to educate artisanal fishers on the identified areas of training needs.

Keywords: Artisanal fishers, Training needs, Health hazards

INTRODUCTION

Fish harvesting, handling, processing and distribution provides livelihood for millions of people as well as providing foreign exchange to many countries (Al-Jufaili & Opara, 2006). Artisanal fishing is described as the process of capturing fish from the natural water using traditional fishing gears, canoes and boats. It involves the use of small scale and less technology for commercial or subsistence purpose. Many artisanal fisheries along shoreline areas in most places in the world are of the "S" type: Small-scale, Spatial-structured and catching Sedentary stocks (Orensanz *et al.,* 2005). It is an important source of protein for rural fishing households, artisanal fishing also provide income and employment opportunities for the fish value chain actors (fishers, processors and marketers). Artisanal fisheries production is much favoured as a result of numerous tentacles of inland waters and streams as well as flood plains of River Niger and River Benue in Nigeria (Oladimeji *et al.,* 2013). Fishing in the inland waters of Nigeria is basically artisanal.

Training is the acquisition of skills and knowledge required to perform a task better. Training is an important tool of extension which helps in improving the knowledge, skills as well as changing the attitude of an incumbent with respect to doing a specified job properly (Sanni *et al,* 2009). Training will improve the fishing skills and attitude of artisanal fishers. The identification of the training needs of the fisherfolks and suitable training deliveries are the most sought after interventions to reverse the decline in level of fish production (Belwal & Belwal, 2014).

Hazard is a biological, chemical or physical agent with the potential to cause an adverse health effect. Hazards are defined as the presence of a material or conditions that has the potential for causing loss or harm or a combination of the severity of consequences and likelihood of occurrence of undesired outcomes. There are more occupational and health hazards in fishing industry than other occupational categories in the world Udolisa *et al.,* (2013). Fishing is a difficult task. Fishing has been reported as probably the most dangerous occupation in the world (Rodrigues and Kiran 2013). Traditional fishing methods expose fisher folks to a lots of health hazards as reported by Anon (1971) and Adelowo *et al,* (1999) had that the health of artisanal fishers were at risk.

According to Raw Materials Research and Development Council (2007), over 10 million people are directly or indirectly engaged in fishery in Nigeria. Samson (2006) reported that there are no well organized extension services for fisheries in Nigeria. Hence, artisanal fisherfolks lacks basic information because most of the fishing settlements are situated far from cities and they don't have basic infrastructures like clinics, health centres, schools, pipe borne water and health personels.

Fishing is a be a risky job since there are more inherent occupational hazards than most other jobs in the world as reported by Udolisa *et al.,*(2013). Therefore there is need to assess the training needs of artisanal fishers in Asa local government area of Kwara state, Nigeria.

The specific Objectives were to;

i. describe the Socioeconomic characteristics of artisanal fishers in Asa Local Government Area of Kwara state, Nigeria
ii. determine the areas of training needs of the respondents
iii. identify the occupation health hazards of the respondents
iv. determine the constraints affecting the respondents

METHODOLOGY

The study was carried out in Asa River at Oloko fishing settlement in Asa local Government area of Kwara state. Majority of the people in Oloko fishing settlement are farmers and artisanal fishers. Asa local government area of Kwara state has an area of 1,286 km^2 and a population of 126, 435 as at 2006 census.

Sampling and data collection

To achieve the objective of the study, all the artisanal fishers were selected for the study. A total of 28 artisanal fishers at Oloko fishing village in Asa local government Area were selected for the study. FAO (1992) method of need determination was used through job analysis by ascertaining the frequency of performance, importance of and difficulties faced when performing the fishing tasks. (a) Frequency of performance was measured on a 5 point. Likert type scale of seldom, occasionally, weekly to monthly, daily to weekly and daily and scores of 1, 2, 3, 4 and 5 were assigned, respectively. Importance of fishing practices was measured on a 3 point Likert type scale of slightly important, moderately important, and extremely important with scores of 1, 2 and 3. Difficulty in performing the fishing tasks were measured as easy, moderately difficult, very difficult and extremely difficult with scores of 1, 2, 3 and 4. All the scores were pooled and means standardized. Thereafter, all practices with means score above 8.10was a practice or task where training is required. Data were analysed using frequencies, mean, percentages.

RESULTS AND DISCUSSION

Artisanal fishers' socioeconomic characteristics

Table 1 shows that the mean age of the fishers was 37.4 years, all the respondents were married, 85.7 % had no formal education, the mean years of experience was 20.8, the average monthly income was ₦31, 571. This implies that the fishers are well off since the average income is above the 2 dollar poverty line bench mark. All the respondents were males implying that fishing in the area is seen as a male work probably due to the energy requirements and the risk involved in fishing activities.

The average family size of the fishers was 7.8 persons. Majority (78.6%) of the respondents used plank canoe for fishing. About 78.6% of the respondents sold the fish caught in fresh form, while 21.4% sold both fresh and processed fish.

Table 1: Distribution of artisanal fishers by their socioeconomic characteristics

Variables	Frequency	Percentage	Mean
Age			**37.43**
20-30	8	28.6	
31-40	12	42.9	
41-50	6	21.4	
51-60	2	7.14	
Gender			
Male	28	100	
Marital status			
Married	28	100	
Married	28	100	
Educational level			
No formal education	24	85.7	
Primary education	4	14.3	
Religion			
Christianity	6	21.4	
Islam	22	78.6	
Years of experience			**20.79**
≤10	2	7.14	
11-20	14	50.0	**20.8**

Variables	Frequency	Percentage	Mean
21-30	10	35.7	
31-40	2	7.14	
Monthly Income			
₦20,000-40,000	24	14.3	**31, 571**
₦41,000-60,000	4	85.7	
Tribe			
Urhorobo	4	14.3	
Hausa	24	85.7	
Household size			**7.47**
Source of credit			
Own saving	24	85.7	
Borrow from friends/family members	4	14.3	
Type of craft use			
Dugout canoe	6	21.4	
Plank canoe	22	78.6	
Form of selling fish			
Fresh	22	78.6	
Both fresh and processed	6	21.4	

Areas of training needs of artisanal fishers

The areas of training needs identified in this study were canoe/boat safety navigation measures (10.64), Fish marketing/ distribution (10. 21), canoe handling and maintenance (9.15), Construction of cast and gill net (8.93), Use of cast and gill net (8.78). The result is in conforms to the study of Asa and Inyang (2016).

Table 2: Distribution of artisanal fishers by areas of training needs

Fishing Practices/Tasks	Difficulty	Importance	Frequency	Training needs
Hygienic fish handling	1.79	1.79	4.71	8.29*
Hook and long lines fabrication and repair	3.64	2.29	2.5	8.43*
Construction of cast and gill net	3.5	2.29	3.14	8.93*
Use of cast and gill net	3.21	2.14	3.14	8.78*
Trap and line casting	2.86	1.64	2.5	7.0
Outboard engine use/repairs	3.93	2.0	1.57	7.5
Use of bait	3.5	1.86	1.57	6.93
Canoe handling/maintenance	3.29	2.29	3.57	9.15*
Canoe/boat safety navigation measures	3.14	2.79	4.71	10.64*
Construction/use of chorkor smoker	3.21	2.43	1.29	6.93
Use/ Maintenance of Smoking Trays	3.64	2.57	1.29	6.72
Fish processing	3.36	2.00	1.36	6.72
Branding / packaging of fish	3.43	2.14	1.57	7.14
Fish marketing/ distribution	2.86	2.64	4.71	10.21*
Record keeping	3.5	2.79	1.29	7.58
Credit Acquisition	3.64	2.79	1.00	7.43
THESHOLD				**8.10**

8.10 is the threshold; practices with training need value above 8.10 require training
*** - practices that required training**

Artisanal fishers' occupational hazards and risks

Results in Table 3 show the occupational health hazards of fishers. The major occupational health hazards are back/general body pain (4.71), chest pain (4.57), boat capsizing/ water accident (3.86) minor cuts and scrapes (3.57), and exposure to sunburn during work (3.17).

Table 3: Distribution of artisanal fishers by occupation health hazards they face

Occupational health hazards and risk	Mean score
1. Back/general body pain	4.71**
2. Burns Injury	2.07*
3. Eye irritation from smoke	1.21*
4. Sting from fish spines	2.93*
5. Whitlow	2.64*
6. Asthma	2.14*
7. Exposure to sunburn during work	3.17**

Occupational health hazards and risk	Mean score
8. Broken bone/dislocation	1.57*
9. Malaria	2.71*
10. Chronic cough due to smoke	2.14*
11. Bronchitis	2.85*
12. Minor cuts and Scrapes	2.64*
13. Exposure to heat and cold	3.57**
14. Snake bite	1.29*
15. Typhoid fever	1.29*
16. Tuberculosis	1.43*
17. Chest pain	4.57**
18. Boat Capsizing/ Water accident	3.86**

*≤ 3is minor occupational health hazard and **≥ 3 is a major occupational health hazard

Constraints faced by artisanal fishers

The result in Table 4 shows the constraints affecting artisanal fishers. The constraints were health risks/ hazards (3.43), lack of storage facility (2.93), lack of credits (2.64), drought (2.50), problem of middle men (2.29), high cost of fishing inputs (2.13), lack of readily available market(1.92), Inadequate technical skill(1.50), lack of extension personnel(1.43) and poor access road to/from fishing ground (1.32). There is need for government to pay attention to the needs of artisanal fishers in order to increase their productivity and to raise their standard of living. The finding is in agreement with the result of Ogunremi (2016).

Table 4: Distribution constraints affecting artisanal fishers

Constraints	Mean	Rank
Lack of readily available market	1.92*	7
Inadequate technical skill	1.50*	8
Poor access road to/from fishing ground	1.32*	10
Lack of credit	2.64**	3
Drought / Drying up of river during dry season	2.50**	4
Problem of middle men	2.29*	5
Lack of extension personnel.	1.43*	9
Lack of storage facility (Cold room / refrigerators)	2.93**	2
Health risks/ hazards	3.43**	1
High cost of fishing inputs	2.13*	6

**≥ 2.5 – serious constraints, *≤ 2.5 – less serious constraints

CONCLUSION AND RECOMMENDATION

Based on the findings of this study, the study identified areas of training needs and the occupational health hazards affecting fishers. The occupational health hazards were back/general body pain, burns injury, eye irritation from smoke, sting from fish spines, whitlow, asthma, exposure to sunburn during work and boat capsizing/ water accident. The study therefore recommends that government should provide fishery extension officers and health officers to train artisanal fishers on the identified areas of training needs and there is need to provide basic infrastructures within the fishing settlement.

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