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Effectiveness of Information Sources on Livelihood of Artisanal Fisherfolk in Inland Fishing Communities in Delta State, Nigeria

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Abstract

This study was carried out to examine the effectiveness of information sources on livelihood of artisanal fisherfolk in inland fishing communities in Delta State, Nigeria. Data were collected from 169 respondents randomly selected through face to face interview with semi-structured questionnaire. Collected data were analysed and presented using descriptive statistical tools, mainly frequency distribution and percentage. The study revealed that fisherfolk make better use of close associates in fishing business and community as information sources compared to public extension agency owned by State government and mass media. Major sources of information used by the fisherfolk were friends (97.0%), neighbours (96.4%), relatives (92.3%) and town criers (80.4%). Only friends, relatives and town criers showed relative effectiveness in terms of clarity of message and adequate content compared to timely contact found to be low in all the information sources on livelihood of fisherfolk in the area. It is recommended that increase extension contact and introduction of modern communication facilities in extension delivery services to fisherfolk in inland fishing communities will improve access and timely usage of messages to enhance livelihood.

Keywords: Information, Fishfolk, Livelihood and Delta State

Introduction

The term 'inland fisheries' covers a vast gamut of water bodies, from rivers, streams and lakes to swamps, coastal lagoons, ponds and floodplains (Spore, 2004). Between them, these expanses of water account for more than 6 percent of the world's total fisheries capture and aquaculture production. It was observed that in many countries, especially in Africa, they are important sources of income and animal protein that have been consumed since 1961 (FAO, 1996). In the Nigerian economy, fish occupies a unique position in the agricultural sector as it provides the bulk and most affordable source of animal protein (FDF, 2003). Nigeria has an

abundance of important inland water resources with diverse fish species (FAO, 1990; FDF, 2003). The major groups whose livelihoods are linked to the fishery resources of Nigeria inland waters include fishers, primary fish mongers/processors, fish wholesalers, fish retailers, fish gear and craft dealers (SFLP/DFID-FAO, 2002). In a study conducted by Ovie, Ladu, Sule, Olorok and Bankole, (2000) in the rural fishing communities in Lake Kanji/Jebba and Chad basins respectively confirmed that fisheries account for about 90 percent and 95 percent of the activities of fishers. Fisheries also account for 74 to 90 percent of annual income generated by this group. In 2003, FDF estimated that artisanal fisheries are a major employer of labour, accounting for about 60 percent of those living within the riverine/estuarine areas of the country. It suggests that not less than 3.0 million people in Nigeria are engaged in artisanal fish production. In addition, there are large numbers of people; perhaps as many as 80 percent of rural household living in the Fadama areas who engaged in seasonal subsistence fishing.

Despite the enormous fishery potentials, local fish production, especially over the past two decades has failed to meet the country's demand (FDF, 2003). Fish catch from artisanal fisheries has decreased while fish imports have on the contrary increased from 61 to 217 metric tones in 1995 (FDF, 1996); 648,197 metric tones in 2001; 681,152 metric tones in 2002; 663,180 metric tones in 2003 and 648,033 metric tones in 2004 (FDF, 2004) and 740,000 metric tones in 2007 (FDF, 2008). Stagnation and decline in capture fisheries contribute in no small way to the characterization of the fishing communities and indeed the fisherfolk as the poorest of the poor (Bailey, 1995). In the effort to cope with the dwindling fisheries resources, fisherfolk are involved in diverse livelihood. Graham, Harvey, Nick, Peter, and Eric (2000) defined livelihood as 'means, capabilities, assets and activities that are required for a means of living'. Ineffectiveness and failure of government policies and the private sector's initial reluctance to appreciate fish as an economic resource, contributed in no small way to the slow pace of the sub-sector in assuming its vital position within the agricultural and food sectors of the economy (Raji and Omoyeni, 2001; FDF, 2003). Innovations on improved practices are disseminated to the target audience (fisherfolk) through different methods by a number of institutions and government agencies responsible for creating awareness and facilitating the adoption of these innovations. However, most of these innovations have been observed not to reach the end users as a result of ineffective information dissemination system (Ozowa, 1995 as cited by Okwu, Obinne and Umeh, 2006). This is further confirmed in a study by Centre for Tropical Agriculture (1996), where inadequate access to agricultural information has been highlighted as one of the serious limitations to agricultural advancement in West Africa.

In view of this, the effectiveness of information sources is significant to achieving livelihood goals and aspirations. It is against this background that this study attempts an empirical validation of effectiveness of information sources on livelihood of fisherfolk in inland fishing communities in Delta State, Nigeria. The research questions for the study were; what are the selected personal characteristics of the respondent, what are their sources of information and the

effectiveness of these sources. The specific objectives of the study were to; describe the selected personal characteristics of artisanal fisherfolk in the study area, determine their sources of information and assess the effectiveness of these sources.

Methodology

The study was conducted in Delta State, Nigeria. The population comprised of all artisanal fisherfolk in inland fishing communities in Delta State. Out of twenty-five Local Government Areas (LGAs) in Delta State, six LGAs (Patani, Ndokwa-West, Ethiope-East, Ukwuani, Ndokwa-East and Oshimili-North) are involved in active inland fishing in the state. The six LGAs involved in fishing were stratified into high producing (Ndokwa-East, Patani and Ndokwa-West) and low producing (Ethiope-East, Ukwuani and Oshimili- North). From the two strata, one LGA was randomly chosen from each group; Ndokwa-East from high producing group and Oshimili-North from low producing group for the study. From the two selected LGAs, three fishing villages each were randomly selected for the study from 11 fishing communities thus: From Ndokwa-East LGA was Iselegwu, Okpai and Umuolu while from Oshimili-North was Ngegwu, Ugbelu, Ebu. From list of registered 935 fisherfolk as sample size, 18% (169) was randomly selected as respondents for the study as shown in the Table 1. In Ndokwa-East LGA, 98 respondents were selected out of 540 fisherfolk while in Oshimili North LGA, 71 fisherfolk were selected out of 395 fisherfolk. Total respondents for the study were 169 respondents out of 935 fisherfolk. A semi-structured questionnaire was used for data collection while descriptive statistical tools such as frequency counts and percentages were used for data analyses.

TABLE 1
Local Government Areas and Villages Sampled

L.G.A. Sampled	Fishing Communities	Selected Fishing Village	Fisherfolk Population (18% of fisherfolk)	No.
Ndokwa East	Iselegwu	Iselegu	180	33
	Okpai	Okpai	215	39
	Umuolu	Umuolu	145	26
	Ossisa			
	Iberede			
Oshimili North	Aboh			
	Ngegwu	Ngegwu	140	25
	Ugbelu	Ugbelu	105	19
	Ebu	Ebu	150	27
	Ngene			
	Onyia			
Total			935	169

Measurement of variables

The most important variable measured was;

- Effectiveness of information sources on livelihood of artisanal fisherfolk was measured by timely contact, adequate content and clarity of message, taking cue from the work of Anderson and Feder (2004) as cited by Ifejika *et. al.* (2008).

Results and Discussion

Selected Personal Characteristics of the Artisanal Fisherfolk

The study found that the modal class in the age distribution of the respondents was 41 – 60 years age bracket (44%) (see Table 2). The mean age of the respondents was 42 years. This result suggests that artisanal fisherfolk in the age bracket of 41 to 60 years and 21 to 40 years are more economically active and independent than those in the age group of less than 21 years and those above 60 years respectively. Majority (74.0%) of the artisanal fisherfolk in the study were males while the rest (26.0%) were females (Table 2). The low percentage of the female artisanal fisherfolk in inland fishing may be as a result of their limited access to water bodies, information, credit facilities and cultural constraints. In fisheries, women are mainly involved in processing and marketing (Uchola 2000 and Alamu 1999).

Most (65.0%) of the respondents were married. Twenty three percent of them were single, 1.0 percent and 11.0 percent are widowed and divorced (separated) respectively (Table 2). The dominance of married households implied that appreciable numbers of the households were likely to seek information to diversify their livelihood strategies because of its immense benefit of ensuring food security, income generation and reduced vulnerability within the household.

Table 2 shows that 40.0 percent, 34.0 percent, 21.0 percent and 5.0 percent of the respondents had primary education, no formal education, secondary education and tertiary education respectively. The findings indicate that 66 percent of the respondents were literate to some extent. This will affect fisherfolk positive responses to improved techniques of fishing, processing, preservation and other livelihood activities. The study further found that 49.0 percent of the respondents had family size of 4 to 6 persons, 33.0 percent had 1 to 3 persons, 12.0 percent had 7 to 9 persons, while 5.0 percent had 9 persons and above. The mean family size of the respondents is 5 persons. It is conjectured that rural-urban migration of youths to cities in search of job opportunities may have contributed to low family size of the respondents as found by Jibowo (1992).

TABLE 2
Distribution of respondents according to selected personal characteristics

Variable	Frequency	Percentage
Age (in years)		
Below 20	13	8.0
21 – 40	65	39.0
41 – 60	75	44.0
Above 60	16	9.0
Sex		
Male	125	74.0
Female	44	26.0
Total	169	100.0
Marital status		
Single	39	23.0
Married	109	65.0
Divorced	2	1.0
Widowed	19	11.0
Educational level		
No formal education	58	34.0
Primary	67	40.0
Secondary	36	21.0
Tertiary	8	5.0
Family size		
1 – 3	55	33.0
4 – 6	83	49.0
7 – 9	21	12.0
Above 9	10	6.0

Source: Field survey, 2006

Sources of information

Data in Table 3 shows that individual contact methods of communication; friends (97.0%), neighbours (96.4%), relatives (92.3%) and town crier (80.4%) were the prominent sources of information sharing and distribution whereas, the mass contact methods of print media (14.2%) and television (36.7%) among others were highly underutilized by the fisherfolk. The finding corroborates the study by Ejembi, Ejembi and Okwuoche (2006) which found high use of face-to-face methods to receive information by farmers compared to mass method. Low use of television and print media has implication on poor rural infrastructure, low income and high level of poverty among fisherfolk. Therefore, it will be counter productive for extension and other development agencies to strongly rely on mass media in information dissemination.

TABLE 3
Percentage distribution on multiple responses on of information sources

Information sources*	Frequency	Percentages
Extension agent	82	48.5
Neighbour	163	96.4
Friends	164	97.0
Relatives	156	92.3
Radio	96	56.8
Television	62	36.7
Print media	24	14.2
Town crier	136	80.4

Source: Field survey, 2006

** Multiple responses*

Effectiveness of information sources

The result in Table 4 shows response of fisherfolk on the effectiveness of information sources. The aggregate effectiveness of information sources is found low in print media (14.2%), television (37.3%) and extension agent (48.5%). The majority (85.8%) of the respondents stated that the print media were ineffective; 62.7% of them stated that the television was ineffective; and (51.5%) said that extension agents were ineffective as information sources of fisherfolk on livelihood. Effectiveness of information to fisherfolk on livelihood is weak in respect of all the sources in terms of timely contact. Adequate content in relation to effectiveness of information sources is high in friend (63.0%), whereas, majority claimed clarity of message to “neighbours” (75.1%). Further analysis indicated that interpersonal methods showed relative effectiveness of information sources compared to mass methods. Extension agent service and guidance in the area was found to be low.

TABLE 4
Percentage distribution of respondents on effectiveness of information sources

	Extension agent	Neighbour	Friends	Relatives	Radio	Television	Print media
Town crier							
Effectiveness	%	%	%	%	%	%	%
Timely contact	4.7	3.0	11.8	10.7	6.0	2.4	11.2
Adequate content	30.8	16.7	63.0	55.6	23.7	22.5	35.5
Clarity of message	13.0	75.1	24.9	32.0	24.9	12.4	34.9
Not effective	51.5	5.2	0.3	1.7	45.4	62.7	18.4
Aggregate effectiveness	48.5	94.8	99.7	98.3	54.6	37.3	81.6

Source: Field survey, 2006

Conclusion and recommendations

The result of the study showed that fisherfolk were within the ages of 41 to 60 and are married. Majority were male and had at least primary education. Forty nine percent had household size of 4-6 members. Eighty percent and above of the fisherfolk sourced information through friends, neighbours, relations and town criers.. Timely contacts were low from the entire information source available to the fisherfolk implying ineffective utilization of information to improve productivity.

Based on the major findings of the study, the following recommendations are made:

- (i) Extension service and guidance of the fisherfolk in the study area should be intensified on effective dissemination of technical information in livelihood among the household for efficient production, increased income and improved standard of living.
- (ii) Modern communication facilities such Global System of Mobile Communication (GSM) be introduced in the fishing communities to enable them readily harness messages for livelihood improvement.

References

- Anderson, J. R and Feder, G. (2004) Agricultural extension: Good intentions and hard realities. *Research observer, the world bank*. 19 (1): 44p.
- Alamu, S.O. (1999). The role of women in artisanal fish production in Jebba Lake Area. 1999 NIFFR Annual Report, New Bussa. p.61.
- Bailey, C. (1995). The blue revolution. The impact of technological innovation on third world fisheries. *The Rural Sociologist*, 5(4) pp. 259-266. Centre for Tropical Agriculture (1996). The role of information for rural development in ACP Countries: Review and perspective. Proceedings of an international seminar, Montpellier, France, 12-16th June: 117-132.
- Ejembi, S.A, Ejembi, E.P and Okwuoche, V.A (2006). Problem of effective decision among Farmers in Markurdi, Benue State. In: Madukwe, M.C, Olowu, T.A, Igbokwe, E.M, Garforth, C.J and Dube, M.P (eds). 'Changing perspective in extension innovation system in Nigeria'. *Proceeding of Agricultural Extension Society of Nigeria*, 3rd-6th April: 234-240.
- FAO (1990). *Source book for the inland fishery resources of Africa*. CIFA technical paper. 18/2. Rome.
- FAO (1996). Fisheries and aquaculture in sub-saharan Africa: Situation and outlook in 1996. FAO
- Fisheries Circular No. 992 FIPP/C922.
- FDF (1996). Fisheries statistics of Nigeria. 3rd Edition. Federal Department of Fisheries, Abuja.

- FDF (2003). *Fisheries development sub-sector*. Paper presented at presidential forum, Abuja: 1-11.
- FDF (2004). Fisheries statistics of Nigeria Federal Department of Fisheries, Abuja.
- FDF (2008). Fisheries statistics of Nigeria. 4rd Edition. Federal Department of Fisheries, Abuja. 41pp.
- Graham, H., Harvey, D., Nick, I.T., Peter, E. and Eric, M. (2000). *Aquatic resources management for sustainable management for livelihoods of poor people*. Paper presented at conference on livelihood strategies, June, Cotonou, Republic of Benin.
- Ifejika, P.I, Ayanda, J.O, Nwabeze, G.O and Obetta, N.C (2008). Contribution of information channels to adoption of aquaculture technologies among fish farmers in Anambra State and Implication for Training. *Journal of agriculture and social research*. 8 (2): 8-12.
- Jibowo, A.A. (1992). Essentials of rural sociology, Gbemi Sodipo Press Ltd., Abeokuta, Ogun State. 15-25.
- Okwu, O.J, Obinne, C.P.O and Umeh, J.C (2006). A study of mass media usage in agricultural extension in Benue State of Nigeria. *Proceeding of Agricultural Extension Society of Nigeria*, 3rd-6th April: 9-17.
- Ovie, S.I, B.M.B. Ladu, O.D. Sule, J.O. Olokor and N.O. Bankole (2000). Characterisation of rural livelihoods on the Nigerian shore of the Lake Chad Basin: The Chad Basin Fisheries Project. NIFFR, New Bussa. 22pp.
- Ozowa, V.N. (1995). Information needs of small-scale farmers in African: the Nigerian example. *Quarterly Bulletin of the International Association of Agricultural Information Specialists*, IAALD/CABI 40 (1):15-20.
- Raji A. and Omoyeni B. (2001). An assessment of the socio-economic problems and potentials of the artisanal fishermen of the Lake Chad Basin against the background of the national fisheries Policies. *JAZFI*. 1: 100.
- SFLP/DFID-FAO (2002). Contribution of fisheries research to the improvement of livelihoods in West African fisheries communities Case study: Nigeria. SFLP/DFID-FAO, March 2002. p.1.
- Spore (2004). Fishing for food. Spore, No. III, June 2004. Centre for Tropical Agriculture, The Netherlands. p.13.
- Uchola, E.B. (2000). An economic analysis of fish farming in Western Extension Zone of Lagos State. M. Sc. Thesis, Dept of Wildlife and Fisheries Management, University of Ibadan, Ibadan