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Influences of Education Level and Age on Socio-economic Status of Fishermen at Gezira State, Sudan (Case Study)

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Abstract

The present investigation was conducted to provide baseline information of socio economic status in Gezira State localities and to study Influences of Education Level and Age on Socioeconomic Status of Fishermen at Gezira State, Sudan. The study was conducted through visits and personal interviews of fishermen using specific designed questionnaire to study the education levels and age influences on fishermen community. The fishermen were asked specific questions through questionnaire. A total of 144 fishermen were investigated and interviewed. 12 representative fishing sites were visited though the proposed investigation. The findings of the study showed that, There was no significant differences ($P>0.05$) in age levels among fishermen on all localities. And there were a highly significant difference ($P\leq0.01$) in education levels among all localities. The localities located near to the Blue Nile were focusing on fishing job more than localities far away from Blue Nile, so that means, the people may have other jobs than fishing. at South Gezira locality 63% of fishermen are have university education level, so that means; they practice this job by scientific point of view, and they will succeed more than other fishermen who are not do this job according to their scientific point, because the highly educated people always have awareness more than low educated people. According to study we recommended that: Educational institution should be set up in fishing villages to improve their educational status.

Keywords: Fishing site, fishermen, blue Nile, socio-economic status.

Introduction

Sudan is rich in tremendous water resources because of its potential represented in the Nile River, which is one of the long rivers of the world with its blue and white branches and we find that they represent the internal sources of water, including channels, excavations, sewers and creeks (Morsi, 1987) [10]. The high nutritional value of fish comes as a result of containment Blind proteins that contain the blindness of all amino acids necessary for the human body. This is an addition Liquid and digestion and absorption of the human body as it contains the uncle of debt and various vitamins, and in terms of Mineral Elements Fish is the richest vertebrate of these elements. Phosphorus, calcium, and iodine (Mohsen, 1988) [9]. The role of control is weak in the application of regulations. The yield from fishing gives a relatively higher return during the summer season. This is due to the increasing amount of fishing, the non-participation of women in fishing and the average yield among fishermen in the state Zainab, 2009) [20]. High illiteracy rate in the fishermen community and high percentage of married people and low educational level (Shaima, 2009) [14].

Sudan is a country rich in water resources estimated at an area of about 1.8 million km 2, extending between lines 3-23 north and 9-22 east, allowing multiple ecological climatic characteristics. This diversity enriches the country with natural resources and multiple animal wealth estimated fisheries production capacity represented by inland and marine fisheries in the range of 110 thousand tons (currently 35 thousand tons while the South 75 thousand tons after the separation) (Ministry of Animal Resources,2016) [8]. Sudan has great sources of fishery resources represented in the Nile and its tributaries and lakes with a total length of 6400 km and an area of 2 million hectares representing reservoirs lakes on the Nile and a total area of about one million hectares. Exclusive economic 96100 km there are also non-Nile watercourses in the valleys and valleys with an estimated water of about 4.9 billion and resources are 8.2 billion cubic meters and groundwater estimated at about 2.8 billion cubic meters and groundwater estimated at 4.9 billion. The above-mentioned resources consist mainly of inland water from aquaculture, finfish and other aquatic organisms. Molluscs crustaceans, fisheries are characterized by the nature of livelihood with a margin for commercial activities, especially in the open and deep areas of marine water. Inland water area in Sudan (rivers, lakes, reservoirs) around 2 million hectares representing the Nile and its tributaries and associated lakes and reservoirs lakes total length of about 6400 km 4000 miles and dam areas stretch half the area (Ahmed, 2017) [1].

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Industrial fisheries are considered as highly productive worldwide, however Freire and Allut (2000) [6] stated that small-scale coastal fisheries are believed to be of much greater social significance than industrial fisheries (FAO, 1995). Despite this fact, small-scale fisheries have been systematically ignored and marginalized in both developing and developed countries (Berkes, 2003) [2]. Indeed, over the past several decades this type of fishery has received little more than scant attention by national and international development organizations (Panayotou, 1982) [11]. Quantitative information on small-scale fisheries receives scant coverage in the literature (Salas *et al*., 2007) [13]. In most societies, small-scale fishermen suffer the greatest deprivations as they have low social status and incomes, poor living conditions and little political influence (Pomeroy and Williams, 1994) [12]. Many of the worlds small-scale fisheries and fishermen are in a state of crisis, and neither decision-makers nor fisheries scientists give them sufficient attention. According to the FAO (2002) [5], 5.8 million small-scale fishermen earn less than US$ 1 day)1. Stobutzki *et al*. (2006) [16] stated that coastal fisheries resources are severely depleted, and that overfishing is ongoing throughout South and Southeast Asia, symptomatic of the lack of effective management of the fishing capacity in the region. Indeed, many coastal fisheries throughout the world are facing the dilemma of fisheries collapse, the search for income, and the difficulty in sustaining their fishing livelihoods (Salas *et al*., 2007) [13]. To safeguard the role of fisheries in coastal communities, up-to-date information is needed to monitor the effects of management measures, regulations and government policies in support of the economic and financial health of fisheries (Tietze *et al*., 2005) [17]. Sustainable fishing is directly related to proper resource management and viability of the fishing community, specifically to assure a positive economic performance for the entire fishing activity through appropriate regulatory measures and enforcement thereof. Modern fishery management must consider not only the biological parameters but also the cultural, environmental, political, and especially socio-economic dimensions of the fishery management. In this context, Whitmarsh *et al*. (2000) [19] expressed the necessity of considering both biological and economic information when evaluating the performances of fisheries and advising fishery management. In this respect, economic indicators may be considered as a useful additional tool to provide decision-makers with criteria for developing improved management strategies (Bonzon, 2000) [3].

The FAO has published several technical papers and guidelines on measuring the economic viability of marine capture fishery (Lery *et al*., 1999) [7]. These guidelines include indicators to determine the sustainable development of marine capture fisheries (FAO, 1999) [4], to assess the techno-economic performance of these fisheries (Tietze *et al*., 2001) [18], and to achieve a feasibility assessment by employing a database on socio-economic indicators for the Mediterranean fisheries as a case example. Following these guidelines can lead to information on the economic performance and fishing efficiency of marine capture fisheries (Tietze *et al*., 2005) [17]. Furthermore, each year the LEI-DLO, _Concerted Action: Promotion of Common Methods for Economic Assessment of European

Union Fisheries_ prepares annual reports on the economic performance of selected European fishing fleets in order to monitor their fishery activities. Similarly, the GFCM-SCESS (General Fisheries Commission of the Mediterranean-Subcommittee on Economic and Social Sciences) organizes workshops on the use of socio-economic indicators in the Mediterranean fisheries management.

Justification

The impact of social and economic characteristics on the fishermen community.

Objective

To study the education levels and age influences on socio-economic status of fishermen community at Gezira State, Sudan.

Methodology

Study Area: The study was conducted in fishing areas at Gezira State localities (South gezira, Alhashisa, Wad Medani, Alkamleen, Almnagil, Algurashi, East gezira, and Um elgura), Sudan.

Experimental Design: The study was conducted through visits and personal interviews of fishermen using specific designed questionnaire to study the education levels and age influences on socio-economic status of fishermen community at Gezira State, Sudan. The fishermen were asked specific questions through questionnaire. A total of 12 fishing sites were visited though the proposed investigation.

Sampling: A total of 144 fishing area were visited. 12 representative fishermen were randomly asked to fill-out the questionnaire in fishing sites in all localities of Gezira State.

Statistical Analysis: The statistical package for Social Science Computer Software (SPSS version 14.0) was used to analyze data. Frequency and basic descriptive statistics was calculated and Chi-Square test (χ^2) test of independency was performed for quetionaire′s analysis. A P-value of ≤ 0.05 was considered indicative of a statistically significant difference.

Results and Discussion

Table 1: Age influence on fishermen community at Gezira State, Sudan

		Age (year) %			Total
		Less than 30	30-50	Above 50	
Localities	South gezira	6	16	9	31
		30%	20%	20.5%	21.5%
	Alhashisa	4	14	4	22
		20%	17.5%	9.1%	15.5%
	Wad Medani	2	16	9	27
		10%	20%	20.5%	18.8%
	Alkamleen	4	11	6	21
		20%	13.8%	13.6%	13.6%
	Almnagil	0	11	7	18
		0%	13.8%	15.9%	12.5%
	Algurashi	0	5	5	10
		0%	6.3%	11.4%	6.9%
	East gezira	1	3	4	8
		5%	3.8%	9.1%	5.6%
	Um elgura	3	4	0	7
		15%	5%	0%	4.9%
	Total	20	80	44	144
		100%	100%	100%	100%
	S.L.	NS			

Pearson Chi-square ≡ 17.38

NS. ≡ No Significant Different (P > 0.05).

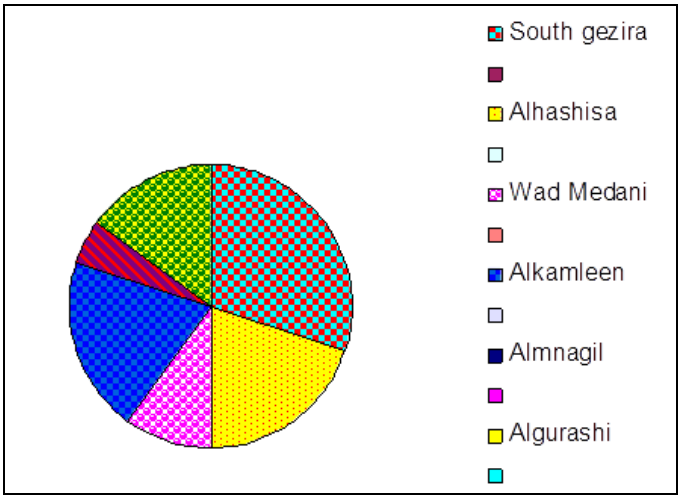

Fig 1: Age influence on fishermen community at Gezira state, Sudan

The study was conducted in fishing areas at Gezira State localities (South gezira, Alhashisa, Wad Medani, Alkamleen, Almnagil, Algurashi, East gezira, and Um elgura), Sudan. The study was conducted through visits and personal interviews of fishermen using specific designed questionnaire to study the education levels and age influences on fishermen community at Gezira State, Sudan. The fishermen were asked specific questions through questionnaire. A total of 12 fishing sites were visited though the proposed investigation.

The findings of the present study showed some fact on the manifesto of the education levels and age among Gezira State Localities.

Table (1), showed that, the Age level influence on fishermen community at Gezira State localities: South gezira; (less than 30 year, 30 t0 50 year, and above than 50 year) was (30%, 20%, and 20.5%, respectively. Alhashisa; (less than 30 year, 30 t0 50 year, and above than 50 year) was (20%, 17.5%, and 9.1%, respectively. Wad Medani; (less than 30 year, 30 t0 50 year, and above than 50 year) was (10%, 20%, and 20.5%, respectively. Alkamleen; (less than 30 year, 30 t0 50 year, and above than 50 year) was (20%, 13.8%, and 13.6%, respectively. Almnagil; (less than 30 year, 30 t0 50 year, and above than 50 year) was (0%, 13.8%, and 15.9%, respectively. East gezira; (less than 30 year, 30 t0 50 year, and above than 50 year) was (5%, 3.8%, and 9.1%, respectively. and Um elgura; was (less than 30 year, 30 t0 50 year, and above than 50 year) was (15%, 5%, and 0%, respectively. There was no significant differences (P>0.05) in age levels among fishermen on all localities. The study showed that the youngest age practicing fishing were at South Gezira, Alhasahisa and Alkamleen Localities. On the other hand, at Almanagil and Algurashi localities the young people (less than 30 year) were not liked fishing practice. On the contrary, at Um elgura locality, we found that, people aged above 50 year were not practicing fishing. In general, we noted that the localities near to the Blue Nile were focusing on fishing job more than localities far away from Blue Nile, so that means, the people may have other jobs than fishing. We found that, people living near to the blue Nile are depended on fishing more that people live far away from blue Nile.

Table 2: Education level influence on fishermen community at Gezira State, Sudan

		Education Level %				Total
		khalwa	Primary school	Secondary school	University	
Localities	South gezira	7	12	5	7	31
		21.4%	22.6%	10.4%	63.6%	21.5%
	Alhashisa	5	12	3	2	22
		15.6%	22.6%	6.3%	18.2%	15.3%
	Wad Medani	3	10	13	1	27
		9.4%	18.9%	27.1%	9.1%	18.8%
	Alkamleen	1	6	13	1	21
		3.1%	11.3%	27.1%	9.1%	14.6%
	Almnagil	11	6	1	0	18
		34.4%	11.3%	2.1%	0%	12.5%
	Algurashi	5	3	2	0	10
		15.6%	5.7%	4.2%	0%	6.9%
	East gezira	0	3	5	0	8
		0%	5.7%	10.4%	0%	5.6%
	Um elgura	0	1	6	0	7
		0%	1.9%	12.5%	0%	4.9%
	Total	32	53	48	11	144
	%	100%	100%	100%	100%	100%
	S.L.	**				

S.L. ≡ Significance Level.
Pearson Chi-square ≡ 64.80
*** ≡ Highly Significant Different (P ≤ 0.01)*

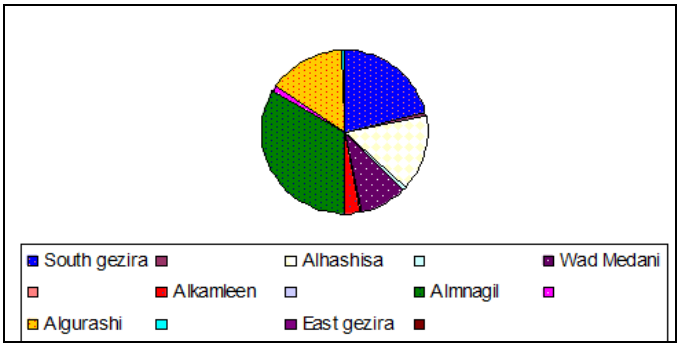

Fig 2: Education level influence on fishermen community at Gezira state, Sudan

Table (2), showed that, the Education level influence on fishermen community at Gezira State localities: South gezira; (Khalwa, primary school, secondary school, and university) was (21.4%, 22.6%, 10.4%, and 63.6%, respectively. Alhashisa; (Khalwa, primary school, secondary school, and university) was (15.6%, 22.6%, 6.3%, and 18.2%, respectively. Wad Medani; (Khalwa, primary school, secondary school, and university) was (9.4%, 18.9%, 27.1%, and 9.1%, respectively. Alkamleen; (Khalwa, primary school, secondary school, and university) was (34.4%, 11.3%, 21.1%, and 9.1%, respectively. Almnagil; (Khalwa, primary school, secondary school, and university) was (34.4%, 11.3%, 2.1%, and 0.0%, respectively. Algurashi; (Khalwa, primary school, secondary school, and university) was (15.6%, 5.7%, 4.2%, and 0.0%, respectively. East gezira; (Khalwa, primary school, secondary school, and university) was (0.0%, 5.7%, 10.4%, and 0.0%, respectively. and Um elgura; was (Khalwa, primary school, secondary school, and university) was (0.0%, 1.9%, 12.5%, and 0.0%, respectively. There were highly significant differences ($P \leq 0.01$) in education levels among all localities. These differences probably might be due to the differences in different attitudes of families on how their sons to be in the future, although the education is good in Gezira State, but some weakness were found in some villages. We found that, at South Gezira locality 63% of fishermen are have university education level, so that means; they practice this job by scientific view, and they will succeed more than other fishermen who are not do this job according to their scientific point, because the highly educated people always have awareness more than low educated people. We noted that, at some localities like East Gezira and Um elgura; the people are not love the fishing regardless their education level, so, this means that they have other job and they were not affected by fishing like other localities.

Conclusion

The study was conducted in fishing areas at Gezira State localities (South gezira, Alhashisa, Wad Medani, Alkamleen, Almnagil, Algurashi, East gezira, and Um elgura), Sudan. The study was conducted through visits and personal interviews of fishermen using specific designed questionnaire to study the education levels and age influences on fishermen community at Gezira State, Sudan. The fishermen were asked specific questions through questionnaire. A total of 12 fishing sites were visited though the proposed investigation. The findings of the study showed that, There was no significant differences ($P>0.05$) in age levels among fishermen on all localities. And there were highly significant differences ($P \leq 0.01$) in education levels among all localities. The localities located near to the Blue Nile were focusing on fishing job more than localities far away from Blue Nile, so that means, the people may have other jobs than fishing. We found that, people living near to the blue Nile are depended on fishing more that people live far away from blue Nile. at South Gezira locality 63% of fishermen are have university education level, so that means; they practice this job by scientific view, and they will succeed more than other fishermen who are not do this job according to their scientific point, because the highly educated people always have awareness more than low educated people.

Recommendation

According to the findings of the study, recommended that;

- More attention can be focused of fishermen community to improve the socio-economic condition of the fishermen and thereby improve their well fare.
- Educational institution should be set up in fishing villages to improve their educational status.
- Government should give loans for them at a low interest rate and create alternative job opportunity in off peak season.
- The fisheries management should play a vital role for improving and qualification of fishermen.
- The fishermen should be encouraged by giving them the fishing boats and nets so as to help them to increase their income.

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