

ASSESSMENT OF WOMEN'S ROLE IN FISHING ACTIVITY

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Abstract

This paper examines the specific roles of men and women at various phases of fishing activity. There were a total of 266 fisher respondents randomly selected from six identified fishing sites in Leyte, Philippines. Data were gathered through face-to-face interview using a pre-tested questionnaire. Both descriptive statistics and independent sample t-test were carried out to analyze the primary data gathered. Based on the findings, men primarily take part in decision makings pertaining to fishing activity such as fishing time, place, and quantity of fish catch to sell. They also are the in-charge in the preparation of the fishing paraphernalia and the ones who sell and bring the fish catch to their preferred marketing outlets. Meanwhile, women played vital roles in cooking the food for fishing activity and the ones who compute, record and keep the earnings from fishing activity.

Key words: fishing, fishers, gender roles

INTRODUCTION

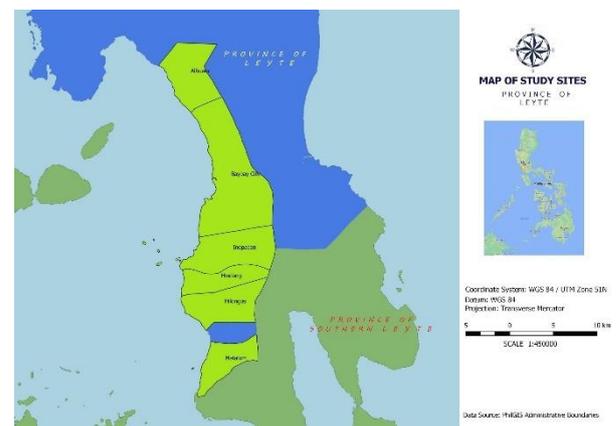
Fishing has been an important source of livelihood for Filipinos having fish as the country's second staple food next to rice. According to Philippine Statistics Authority [10], the fishing industry provided employment to around three percent of the country's labor force in 1998. There are about 36 million people who are employed directly through fishing [3] and as many as 200 million people derive direct and indirect income from fish [5].

Women make significant contributions to fisheries and agriculture and many studies have been done to detect the trends of working female labor in agriculture. The various challenges of women involved in fishing activities was explored [6]. The roles of women from the fishery sector of Pantar Island was examined [4]. The roles of women in fishing industry was also being studied [2]. Knowledge of gender roles is an important part of fisheries management, it allows interventions to be tailored to specific groups of fishers. This study documents the participation of women in fishing activity and understand the roles of both men and women from Leyte, Philippines at various phases of the fishing activity.

MATERIALS AND METHODS

Location of the study

The study took place in Leyte, Philippines Fisher respondents were randomly selected from the six (6) fishing sites in Leyte, namely Matalom, Hilongos, Hindang, Inopacan, Baybay and Albueria (Map 1).



Map 1. Study sites

Source: [9].

Data collection and sampling technique

The data were gathered through face-to-face interview using a pre-tested questionnaire. A survey was done from 266 fisher respondents taken randomly from selected fishing grounds in Leyte, Philippines. The responses were analysed using descriptive statistics such as means, standard deviation, variances,

minimum and maximum. Frequency counts and percentages were also computed in the assessment of gender roles in fishing activity. An independent sample t-test was conducted at a 5 percent level of significance to determine the statistical significance of mean differences between the male and female groups with regard to various fishing variables, including fishing days, fishing hours, travel time, fishing costs, and catch. Social Packages for Social Sciences or SPSS (v. 20) was used to facilitate the data analysis.

RESULTS AND DISCUSSIONS

Profile of the fisher respondents

Both male and female fisher respondents from selected fishing sites in Leyte, Philippines have an average of three (3) dependents. According to Table 1, female fishers have more years of formal education than males, on the average. Female fishers averagely reached 1st year high school with eight (8) years of formal education while male fishers completed Grade-6 level with seven years of schooling. A typical Filipino family has five (5) people [8], which is the mean household size of the fisher respondents in Leyte, Philippines.

Table 1. Profile of the fisher respondents

	Sex	Dependents	Education	Household size
Female	Mean	3	8	5
	Std. Dev	1.67	2.57	1.92
	Minimum	0	5	1
	Maximum	5	12	7
	Variance	2.78	6.61	3.69
Male	Mean	3	7	5
	Std. Dev	2.18	3.09	2.16
	Minimum	0	0	1
	Maximum	13	20	13
	Variance	4.75	9.57	4.67

Source: Author's calculation and analysis (2022).

Characteristics of the respondents' fishing activity

Fishing is the main source of income for the majority of the female fishers in Leyte, Philippines (88.9%), as well as for male fishers (94.2%) (Figure 1). The majority of females (77.8%) joined fishing organizations, compared to more than half (64.5%) of the males who did not. Membership to

organization is important among fishers because it enables them to participate in economic decision-making [12]. Moreover, in terms of boat ownership, majority of women fishers primarily owned the fishing boats they are using (66.7%). Only a small percentage of men used motorized boats (36.3%), compared to women (66.7%) who use non-powered boats. The usage of motorized boats is crucial for fishers due to the following benefits such as increased fishing trips, higher mean weight, and higher CPUE [7]. Furthermore, by using motorized boats, the average CPUE increased because fishers can access more fishing grounds that are relatively farther from nearshore fishing areas that are regularly accessed [13].

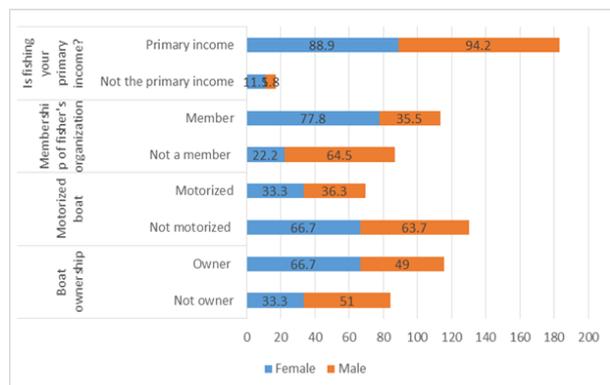


Fig. 1. Characteristics of fishing activity, by gender
 Source: Author's calculation and analysis (2022).

Male and female fishers dedicated six (6) days in a week for their fishing activity and both individuals spent roughly six (6) hours in a day fishing. Male fishers travelled farther (1.42 vs. 1.04 hours) than female fishers which suggests that, when other variables are held constant, males capture fish farther than females however no sufficient data to support this claim at 5% level of significance (Table 2).

Male fishers spent more money on their fishing activities than female fishers, at 283.28 PHP (5.03 USD) and 177.67 PHP (3.15 USD), respectively, however there is not enough data to support this claim. Lastly, men catch more fish than women, 2.88 kg compared to 2.31 kg, the mean difference is not statistically significant at 5% level.

Table 2. Descriptive analysis of fishing variables

Descriptive analysis indicators	Fishing days in a week	Fishing hours in a day	Travel time (hours)	Daily cost in fishing (PHP)	Catch (kg)
Female					
Mean	6	6.43	1.04	177.67	2.31
Std. Deviation	1.394	3.669	.724	218.668	1.108
Minimum	3	1	0	5	1
Maximum	7	13	2	704	4
Variance	1.944	13.461	.524	47,815.750	1.227
Male					
Mean	6	6.43	1.42	283.38	2.88
Std. Deviation	1.766	3.499	1.038	306.906	1.596
Minimum	1	1	0	5	0
Maximum	7	16	6	1,690	12
Variance	3.119	12.240	1.078	94,191.252	2.548

Source: Author's calculation and analysis (2022).

Note: 1 USD = 56.34 PHP (22 July2022).

Assessing the roles of men and women at various phases of fishing activity

Fishing activity requires various decision-makings, such as choosing a specific time of the day or specific days of the week when to catch fish. Based on the findings, almost every male fisher respondent claims to be involved in this matter (93.6 %). Meanwhile, there are necessary preparations needed before fishers go for fishing such as preparing their paraphernalia and cooking some food needed to bring to the fishing areas since it may took long hours before they get home. As seen in Table 4, mostly men prepares the fishing paraphernalia since they are the ones who usually go to the fishing area and they

are more knowledgeable on this matter, almost three-fourths of the overall (74%). Women are mainly responsible in cooking the food, which comprises 70% of the total fisher respondents since they considered household managers. Women are more knowledgeable about the needs of a household, whether it is food or daily necessities [1].

Males typically make the decisions on whether to keep their catch for household consumption or sell it (73%), as well as how many fish will be sold in the market (77.8%). Males are also the in charge of where to sell their catch (82%) and are also the ones who would transport it to their chosen markets (76%).

Table 3. Independent T-test results

	t	df	p-value	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Fishing days in a week	1.459	264	.179	.697 ^{ns}	.478	-.385	1.779
Fishing hours in a day	-.006	264	.995	-.007 ^{ns}	1.188	-2.347	2.332
Travel time (hours)	-1.100	264	.272	-.384 ^{ns}	.349	-1.072	.304
Daily cost in fishing (PHP)	-1.023	264	.307	-105.715 ^{ns}	103.299	-309.108	97.679
Catch (kg)	-1.057	264	.291	-.568 ^{ns}	.537	-1.625	.490

Source: Author's calculation and analysis (2022).

ns – Not significant

Keeping clear records of income and expenses brings peace of mind, helps monitor progress toward goals and saves time and money [11]. Fishing activity has corresponding costs that needs to be documented by fishers. Females

usually records their fishing expenses (63.9%) while a few were done by males (33.5%). After the fishers sell their catch to their preferred marketing outlets, females usually compute the income earned and evaluate

whether fishing activity is profitable or not (74.4%).

Table 4. Gender roles in decision-making and preparation

Fishing activity	Gender	Frequency	Percentage
Decides when to fish	Female	13	4.9
	Male	249	93.6
	Both	4	1.5
	Total	266	100
Prepares fishing paraphernalia	Female	57	21.4
	Male	197	74.1
	Both	12	4.5
	Total	266	100
Cooks food before fishing	Female	187	70.3
	Male	63	23.7
	Both	16	6
	Total	266	100

Source: Author's calculation and analysis.

As household managers, females keep the earnings of fishing activity (75.9%) since they are the ones who handle the budget and the in charge in purchasing the household needs (e.g. foods, clothing).

Table 5. Gender roles in recordkeeping and other related activities

Fishing activity	Gender	Frequency	Percentage
Who decides whether to sell your catch or not	Female	37	13.9
	Male	194	72.9
	Both	35	13.2
	Total	266	100
Who decides for the marketing outlet	Female	36	13.5
	Male	218	82
	Both	12	4.5
	Total	266	100
Who decides the quantity to be sold	Female	45	16.9
	Male	207	77.8
	Both	14	5.3
	Total	266	100
Who brings the fish catch to marketing outlet	Female	61	22.9
	Male	192	72.2
	Both	13	4.9
	Total	266	100

Source: Author's calculation and analysis (2022).

CONCLUSIONS

There has been no statistical significant differences on the means of male and female groups based on fishing days, fishing hours, travel time, daily cost in fishing, and catch. Fisher respondents were asked on both men and women's specific roles in their fishing activity. The basis for the analysis were on majority of their responses using frequency counts and percentages. Given the results, the

primary roles of men were on decision makings in terms of when to fish, whether to sell the fish catch or not, the place to market the fish, the kind, price, and quantity of fish catch to be sold. Other roles of men involved the preparation of the fishing paraphernalia, selling and bringing the catch to their preferred marketing outlets. Meanwhile, women play important roles in cooking food before fishing as well as keeping, computing and recording the earnings from the fishing activity. In general, women have less access to decision-making than males, yet they do participate in financial affairs.

REFERENCES

- [1]Arefin, N.S.K., 2022, Women as household managers are central to facing global food crisis. Universiti Putra Malaysia. https://upm.edu.my/article/women_as_household_managers_are_central_to_facing_global_food_crisis-67268, Accessed on July 27, 2022.
- [2]Aslin, H.J., Webb, T.,Fisher, M., 2000, Fishing for women: understanding women's roles in the fishing industry. Bureau of Rural Sciences, Canberra.
- [3]FAO, 2000, The State of World Fisheries and Aquaculture. FAO, Rome, Italy. 3p.
- [4]Fitriana, F., Stacey, N., 2012, The Role of Women in the Fishery Sector of Pantar Island, Indonesia. Gender in Aquaculture and Fisheries: Moving the Agenda Forward. Asian Fisheries Science Special Issue Vol.25S (2012):159-175.
- [5]Garcia, S., Newton, C., 1997, Current situation, trends and prospects in world capture fisheries. Global Trends in Fisheries Management. 4p.
- [6]Ikeogu, C. F., Ogbonnaya, H. F., Okpala-Ezennia, K. P., Obuakor, G. T., 2020, Global Journal of Fisheries Science Vol. 2(1), 8-13, <https://doi.org/10.31248/GJFS2019.014>
- [7]López-Angarita, J., Tilley, A., Díaz, J. M., Hawkins, J. P., Cagua, E. F., Roberts, C. M., 2018, Winners and losers in area-based management of a small-scale fishery in the Colombian Pacific. Frontiers in Marine Science. <https://doi.org/10.3389/fmars.2018.00023/full>
- [8]National Demographic and Health Survey, 2008, <https://dhsprogram.com/pubs/pdf/SR175/SR175.pdf>, Accessed on July 27, 2022.
- [9] PhilGIS Administrative Boundaries, <https://www.igismap.com/>, Accessed on Aug. 23, 2022.
- [10] Philippine Statistical Authority [PSA], 2016, The Philippine Marine Fishery Resources. <https://psa.gov.ph/content/fisheries-statistics-philippines>, Accessed on Dec.10, 2018.
- [11]Practical Business Skills. 2022. Retrieved Jul 27 2022 from <https://www.practicalbusinessskills.com/managing-a-business/record->

