

The Role of Fishermen's Wives in Enhancing Household Income in Central Tapanuli Regency, North Sumatra

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Published on
Volume 9, 2nd
edition,
November
2025

Submisi :
26 Aug 2025
Revisi :
22 Sept 2025
Publikasi :
04 Nov 2025

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Fakultas Ilmu
Sosial dan Ilmu
Politik 2025

Abstract

Central Tapanuli has great potential for capture fisheries and is a major source of livelihood for coastal communities. However, low incomes, unfair marketing, and environmental factors make traditional fishermen vulnerable, so the role of fishermen's wives is important in supporting the family economy. This study aims to identify the activities of fishermen's wives to supplement their income, assess their contribution to family income, and analyze its relationship with household welfare. In collecting data, this study used a survey method involving 36 fishermen's wives. The study shows that the activities carried out by fishermen's wives include selling fish door-to-door, opening food stalls, raising goats, and being housewives. The contribution of fisherwomen to total household income is 37.30%, with an average monthly income of IDR. 808.333, which is considered insufficient to meet household needs. The results of a simple correlation analysis show that there is a moderate relationship between the income of fisherwomen and family welfare.

Keywords: Family welfare, fishermen's wives, family income, traditional fishermen



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INTRODUCTION

Central Tapanuli is a regency with abundant fishery resources. In 2021, the regency's fishery production increased by 55% compared to 2020, from 41,436 tons to 64,428 tons (Central Statistics Agency, 2023). One of the areas with such fisheries potential is Lubuk Tukko Village. The proximity of this area to fisheries resources means that most of its people work as fishermen. Coastal communities on the west coast of North Sumatra are highly dependent on capture fisheries resources as their main livelihood (Anugerah et al., 2023). The existence of fishery potential in the western coastal region of Sumatra contributes significantly to the economy of fishing households (Siburian et al., 2024; Harahap et al., 2025).

Fishing households tend to have more children than non-fishing households (Sunny & Deb, 2021). Low income and large number of dependents further exacerbate the living conditions of fishermen. Fishing communities are traditional fishing groups with very poor socioeconomic conditions (Ekadinawati & Rejeginingsih, 2014; Anugerah et al., 2016; Putri et al., 2025). Compared to communities in other sectors, they are truly the poorest (Béné, 2009). Therefore, it is important to make efforts to increase the income and quality of life of traditional fishermen, given their poor socioeconomic conditions.

The causes of poverty among traditional fishermen include internal and external factors. Internal factors include the low quality of human resources among fishermen, limited business capital, and the use of irrelevant fishing technology. In addition, external factors causing poverty among fishermen are a marketing system for fishery products that is more profitable for collectors, damage to coastal and marine ecosystems due to mining, destruction of coral reefs, use of fishing gear that is not environmentally friendly, and the impact of climate variability (Putri & Susilowati, 2016; Anugerah et al., 2021; Anugerah & Adiprayoga, 2023).

The problems faced by fishermen will have an impact on their children's education. Therefore, the role of wives is very important in managing finances to meet household needs (Ferdhi, 2016). In addition, previous studies have shown that fishermen's wives not only play a role in managing household finances, but also contribute directly to increasing family income through activities such as selling fish, opening stalls, or working in the informal sector (Firdaus & Rahadian, 2015; Putri & Eriyanti, 2019). In fact, in some cases, the wife's income becomes the main source of support when the husband's catch decreases due to seasonal factors or extreme weather (Gustika et al., 2023). Therefore, it is important to encourage the strengthening of coastal women's capacity to increase the income and quality of life of traditional fishing households, given their poor socioeconomic conditions.

Based on this research background, the research questions are as follows: 1) What activities do fishermen's wives engage in to increase household income?; 2) How significant is the contribution of fishermen's wives in increasing household income?; 3) Is there a relationship between the income of fishermen's wives and household welfare?

RESEARCH METHOD

This study was conducted from May 25 to June 25, 2024, in Lubuk Tukko Baru Village, Pandan District, Central Tapanuli Regency. The method used was a survey method using questionnaires. The population in this study were fishermen's wives who used the Marine and Fisheries Business Card, totaling 58 people. The method used in determining the sample was Simple Random Sampling, where members had an equal chance of being selected, regardless of specific characteristics (Sumargo, 2020). The sample in this study consisted of 36 fishermen's wives. This technique was chosen because the population was relatively small and homogeneous, so simple random sampling was considered the most objective, reducing the potential for selection bias and easy to apply.

The data analysis used is quantitative descriptive. To determine the activities carried out by fishermen's wives in increasing household income, quantitative descriptive analysis is used. To determine the extent of the contribution of fishermen's wives in increasing household income, the following formula is used (Handayani & Artini, 2009):

$$P = \frac{Y_i}{Y_T} \times 100\%$$

Description:

P = Contribution (%)

Y_i = Wife income (IDR/month)

Y_T = Household income (IDR/month)

Next, to determine whether there is a relationship between the income of fishermen's wives and household welfare, a Pearson Correlation statistical analysis and test was conducted.

RESULTS AND DISCUSSION

General Conditions of the Research Location

Lubuk Tukko Baru Village has an area of approximately 2.6 km². Geographically, this village is bordered by Pandan Wangi Village to the south, the Indian Ocean to the west, Bubusan Namira Village to the north, and Pondok Batu Village to the east. The population of this subdistrict is 2,988 people (Statistics Indonesia, 2023). The main occupation of the people in Lubuk Subdistrict is fishing, which is the main source of income to meet the economic needs of their families.

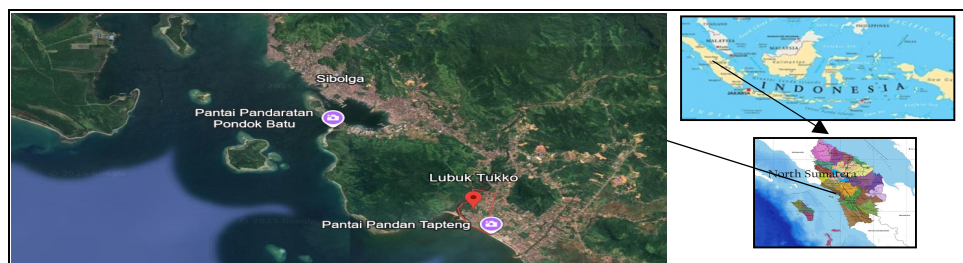


Figure 1. Lubuk Tukko Baru Village

Respondent Characteristics

In this study, 36 fishermen's wives were surveyed. The fishermen in this village are small-scale or traditional fishermen who use gill nets to catch fish. The characteristics of the fishermen's wives surveyed were based on age, education level, and number of children (dependents).

Table 1. Age of Respondents

No	Age Range (year)	Amount (person)	Percentage (%)
1.	21-30	3	8,3
2.	31-40	4	11,1
3.	41-50	12	33,3
4	51-65	17	47,2
Total		36	100

Based on the results presented in Table 1, it can be concluded that the oldest fisherwomen are in the 51-65 age range, with a total of 17 people or 47.2%. Meanwhile, the youngest fisherwomen, aged 21-30, number 3 people or 8.3%.

Education is an activity that develops a person's abilities, attitudes, and character for the future, whether they join an organization or not (Baharudin, 2014). Education is also guidance that adults must have because it is important for developing children's knowledge in reaching maturity in carrying out their life tasks so that they do not need to rely on the help of others.

Table 2. Educational Level of Fishermen's Wives

No	Education	Amount (person)	Percentage (%)
1.	Elementary School	21	58,3
2.	Junior High School	9	25
3.	Senior High School	5	13,9
4.	College	1	2,8
Total		36	100

Based on the results presented in Table 2 above, it can be seen that the majority of fishermen's wives have an elementary school education, with 21 people or 58.3%. Meanwhile, the lowest level of education among fishermen's wives is college, which consists of only 1 person or 2.8%.

In a household, both husbands and wives have dependents or children in the family. The more children they have, the more household expenses they have to meet, which can affect their household welfare. The number of children that fishermen's wives have can be seen in Table 3:

Table 3. Number of Dependent Children

No	Number of Dependents	Amount (person)	Percentage (%)
1.	1-3	18	50
2.	4-7	14	38,9
3.	8-10	4	11,1

No	Number of Dependents	Amount (person)	Percentage (%)
	Total	36	100

Based on Table 3 above, it can be seen that the highest number of dependents is 1-3 children with 18 respondents (50%), while 4-7 children are in second place with 14 respondents (38.9%), and the lowest number of dependents is 8-10 children with 4 respondents (11.1%). These data show that the average number of dependent children in fishing families is relatively high. The number of dependents in a family has a positive effect on the consumption of fishing households; an increase in family members results in increased household consumption and, consequently, greater expenditure (Hanum, 2018).

Types of Activities for Fishermen's Wives

From the results of research conducted on 36 fisherman's wives, several types of activities carried out by fisherman's wives can be seen in Table 4:

Table 4. Activities of Fishermen's Wives

No	Types of Activities	Amount (person)	Percentage (%)
1	Selling Fish	6	16,6
2	Grocery Shop Business	5	13,8
3	Goat Farming	1	2,7
4	Housewife	24	66,9
	Total	36	100

Selling Fish

The results of the survey show that fishing wives who work as fish sellers are one of the most common occupations among fishing wives, specifically those who live on the coast, in order to help their husbands meet their household needs. As can be seen in the table above, there are 6 (16.6%) fishing wives who sell fish out of a total of 36 respondents. This is usually done by fishermen's wives while waiting for their husbands to return home to sell their catch by going door-to-door to residents' homes in the neighborhood. Their income from door-to-door sales is around IDR. 50,000-200,000 per day, depending on the number of buyers. This finding is in line with the research by Maradou et al. (2017), which states that the activity of fishermen's wives in selling fish is an adaptive measure by fishing households to maintain their economic resilience. In addition, the contribution of fishermen's wives in the informal sector, especially in the fish trade, greatly supports household income, even though the income is often uncertain (Ikhwanul, 2014).

Grocery Shop Business

A grocery store is a small-scale business that sells basic necessities such as sugar, rice, soap, children's snacks, salt, and many other basic necessities. The table above shows that 5 (13.8%) fishermen's wives operate a grocery store. In Lubuk Tukko Baru, the majority of the population works as fishermen. Due to the uncertain weather

conditions, fishermen's wives have taken the initiative to open a grocery store to supplement their family's income. The income from this grocery store is sufficient to meet their needs, rather than simply not working or staying at home while waiting for their husbands to return from the sea. The findings of this study are consistent with research by Anugerah et al. (2024), which explains that non-fishing businesses such as grocery stores are mostly run by fishermen's wives and contribute significantly to increasing family income.

Goat Farming

Fishermen's wives in the village also work as goat breeders behind their homes. Fishermen's wives feed the goats in the morning and evening. During the day, fishermen's wives prepare food for their husbands and care for the children. The low level of education of fishermen's wives leads to poverty. Based on the results of the table above, in this study, only one fisherman's wife (2.7%) works as a goat breeder because many fishermen's wives simply wait for their husbands' catches to arrive to sell to middlemen/collectors. Therefore, fishermen's wives started goat farming businesses to supplement their family income.

Housewife

The role of fishermen's wives in the household is an activity that helps build the family's long-term economic resilience (Wulandari et al., 2022). A housewife's role includes managing family members, such as cooking, washing dishes, hanging out laundry, and educating children. The table above shows that 24, or 66.9% of fishermen's wives, are solely housewives and do not work. A housewife's role includes managing family members, such as cooking, washing dishes, hanging out laundry, and educating children.

The Amount of Wife's Contribution to Total Household Income

The contribution of fishermen's wives is the role or participation of wives in contributing to their household income which can be used to find out how much involvement the fishermen's wives' livelihoods have in the family economy. There are 12 respondents or fishermen's wives who work, which can be seen in Table 5 below:

Tabel 5. Contribution of Wives in Family Financial Planning

No	Wife Income	Husband Income	Total Income	Wife Occupation
1	800.000	1.400.000	2.200.000	Grocery Shop Business
2	500.000	1.900.000	2.400.000	Selling Fish
3	500.000	1.000.000	1.500.000	Selling Fish
4	600.000	1.600.000	2.200.000	Selling Fish
5	500.000	1.500.000	2.000.000	Goat Farming
6	1.000.000	1.500.000	2.500.000	Selling Fish

No	Wife Income	Husband Income	Total Income	Wife Occupation
7	1.000.000	1.500.000	2.500.000	Grocery Shop Business
8	800.000	1.200.000	2.000.000	Grocery Shop Business
9	1.200.000	1.200.000	2.400.000	Grocery Shop Business
10	1.200.000	1.100.000	2.300.000	Selling Fish
11	600.000	900.000	1.500.000	Selling Fish
12	1.000.000	1.500.000	2.500.000	Grocery Shop Business
Average	808.333	1.345.455	2.166.667	

Table 5 shows that the highest income for a fisherman's wife is IDR 1,200,000 from running a food stall, while the lowest income for a fisherman's wife is IDR 500,000 from raising goats. Therefore, the average total income for a fisherman's wife is IDR 808,333, compared to the husband's income of approximately IDR 1,345,455, and the total family income of IDR 2,166,667.

The research results indicate that the wife's contribution to the total family income is 37.30%. This explains that the wife's income is insufficient to cover the family's economic needs, as the husband's income is relatively large and dependent on the weather when he is at sea. However, the fisherman's wife still contributes additional income to their family's needs. Although coastal women's income is often lower than their husbands', their contribution is crucial to meeting basic family needs, particularly education and daily consumption (Listiyandara et al., 2016).

Analysis of the Relationship between Wife's Income and Family Welfare

To test the data analysis of the relationship between wife's income and family welfare, a simple correlation analysis technique (Pearson correlation) is required in Lubuk Tukko Baru Village.

Normality Test (Classical Assumption Test)

The classical assumption test is performed to determine the normality of the statement. The Kolmogorov-Smirnov test is used, where the normality test with a sig. (2-tailed) value > 0.05 indicates that the residual value is normally distributed. If the sig. (2-tailed) value < 0.05 indicates that the residual value is not normally distributed. This can be seen in the table below:

Table 6. Kolmogorov Smirnov Test		
One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		36
Normal	Mean	0E-7

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
Parameters ^{a,b}	Std. Deviation	2,81242420
Most Extreme Differences	Absolute	,163
	Positive	,098
	Negative	-,163
Kolmogorov-Smirnov Z		,978
Asymp. Sig. (2-tailed)		,294
a. Test distribution is Normal.		
b. Calculated from data.		

The results of Table 6 above can be explained that the significant value obtained is 0.294 so it can be said to be normally distributed because the value of sig. (2-tailed) > 0.05, so a simple correlation test can be carried out.

Simple Correlation Test (Pearson Correlation)

The results of the simple correlation test can be seen in the table below:

Table 7. Simple Correlation Test Results

		Income	Welfare
Income	Pearson Correlation	1	,433**
	Sig. (2-tailed)		,008
	N	36	36
Welfare	Pearson Correlation	,433**	1
	Sig. (2-tailed)	,008	
	N	36	36

** . Correlation is significant at the 0.01 level (2-tailed).

Based on the results of Table 7 above, the Pearson correlation value is 0.433 with a significance value of 0.008. Then H_a is accepted or H_0 is rejected because the significance value (0.008) < 0.05, meaning that there is a relationship between wife's income and family welfare in the moderate category. Based on the results of the simple correlation calculation (Pearson correlation) calculated using the SPSS 2020 application, there is a relationship between wife's income (X) and family welfare (Y) where the calculated r value (0.433) > from r table (0.329) with a significance value of 0.008 < 0.005 so it can be concluded that there is a relationship between wife's income (X) and family welfare (Y) which can be categorized as moderate.

CONCLUSION

This study shows that the role of fishermen's wives in Lubuk Tukko Baru Village significantly contributes to household economic sustainability, even though their income

is still limited and does not always meet family needs. These findings emphasize the importance of empowering coastal women as a strategy to strengthen the economic resilience of traditional fishing families, especially when husbands' incomes are uncertain due to external factors such as bad weather. In the coastal socio-economic context, support for small businesses and entrepreneurship training for fishermen's wives is essential to increase their income, reduce family economic vulnerability, and promote sustainable development in coastal areas.

BIBLIOGRAPHY

- Anugerah, T., Amrifo, V., & Hendrik, H. (2016). Strategi Rumah Tangga Nelayan dalam Mengatasi Kemiskinan (Studi di Kepenghuluan Panipahan Darat Kecamatan Pasir Limau Kapas Kabupaten Rokan Hilir Provinsi Riau). *Berkala Perikanan Terubuk*, 44(1), 104-119.
- Anugerah, T., Dharmawan, A. H., & Agusta, I. (2021). Dampak Penambangan Timah Laut terhadap Sumber Penghidupan Rumah Tangga Nelayan di Kabupaten Meranti. *BHUMI: Jurnal Agraria dan Pertanahan*, 7(1), 112-125. 10.31292/bhumi.v7i1.480.
- Anugerah, T., & Adiprayoga, S. N. (2023). Analysis on The Livelihood Vulnerability of Lift Net Fisher Households, Tapanuli Tengah, Sumatera Utara. *International Journal of Marine Engineering Innovation and Research*, 8(4). <http://dx.doi.org/10.12962%2Fj25481479.v8i4.18870>.
- Anugerah, T., Adiprayoga, S. N., & Karsih, O. R. (2024). Analisis Struktur Pendapatan dan Struktur Pengeluaran Rumah Tangga Nelayan Bagan Tancap di Kabupaten Tapanuli Tengah. *ALBACORE Jurnal Penelitian Perikanan Laut*, 8(1), 081-088. <https://doi.org/10.29244/core.8.1.081-088>.
- Anugerah, T., Siburian, J. P., Nisari, T., Harahap, H. Y., & Adiprayoga, S. N. (2024). A Study on the Livelihood Sources and Welfare Levels of Small-Scale Fishing Households in Tapanuli Tengah Regency, Sumatera Utara. *International Journal of Marine Engineering Innovation and Research*, 9(4). <http://dx.doi.org/10.12962%2Fj25481479.v9i4.21787>.
- Baharudin, B. (2014). Pendidikan dan Pengentasan Kemiskinan Masyarakat Nelayan Pesisir. *Society*, 5(1), 57-67.
- Béné, C. (2009). Are fishers poor or vulnerable? Assessing Economic Vulnerability in Small-Scale Fishing Communities. *The Journal of Development Studies*, 45(6), 911-933. <https://doi.org/10.1080/00220380902807395>.
- Ekadianti, M., & Rejekiingsih, T. W. (2014). Analisis Pendapatan Istri Nelayan dalam Upaya Meningkatkan Pendapatan Keluarga di Desa Tasikagung, Kecamatan Rembang, Kabupaten Rembang (Doctoral dissertation, UNDIP: Fakultas Ekonomika dan Bisnis).
- Ferdhi, H. (2016). Kontribusi Istri Nelayan terhadap Pendapatan Keluarga di Desa Langgapulu Kecamatan Kolono Timur Kabupaten Konawe Selatan. Fakultas Pertanian. Universitas Halu Oleo Kendari.
- Firdaus, M., & Rahadian, R. (2015). Peran Istri Nelayan dalam Meningkatkan Pendapatan Rumah Tangga (Studi kasus di Desa Penjajab, Kecamatan

- Pemangkat, Kabupaten Sambas). *Jurnal Sosial Ekonomi Kelautan dan Perikanan*, 10(2), 241-249. <http://dx.doi.org/10.15578/jsekp.v10i2.1263>.
- Gustika, W., Dharmawan, A. H., & Sunito, M. A. (2023). Kerentan Nafkah Rumah tangga Nelayan Dalam Tekanan Variabilitas Iklim: Studi Kasus Desa Dendun, Kabupaten Bintan, Kepulauan Riau. *Jurnal Ilmu Lingkungan*, 21(1), 43-56. <https://doi.org/10.14710/jil.21.1.43-56>.
- Handayani, M. T., & Artini, N. W. P. (2009). Kontribusi Pendapatan Ibu Rumah Tangga Pembuat Makanan Olahan terhadap Pendapatan Keluarga. *Piramida Jurnal Kependudukan dan Pengembangan Sumber Daya Manusia*, 5(1), 1-9.
- Hanum, N. (2018). Pengaruh Pendapatan, Jumlah Tanggungan Keluarga dan Pendidikan Terhadap Pola Konsumsi Rumah Tangga Nelayan di Desa Seuneubok Rambong Aceh Timur. *Jurnal Samudra Ekonomika*, 2(1), 75-84. <https://doi.org/10.1234/jse.v2i1.779>.
- Harahap, H. Y., Tambunan, F. R., Anugerah, T., & Harahap, M. A. (2025). Kondisi Sosial Ekonomi Nelayan Bagan Tancap di Kelurahan Hajoran Indah Kecamatan Pandan Kabupaten Tapanuli Tengah Provinsi Sumatera Utara. *Tapian Nauli: Jurnal Penelitian Terapan Perikanan dan Kelautan*, 7(1), 73-79.
- Ikhwanul, P. R. (2014). Peran Ibu Rumah Tangga Nelayan dalam Upaya Meningkatkan Perekonomian Keluarga di Kelurahan Bitung Karang Ria Kecamatan Tuminting Kota Manado. *Acta Diurna Komunikasi*, 3(4).
- Listiyandra, K., Anna, Z., & Dhahiyat, Y. (2016). Kontribusi Wanita Nelayan Dalam Upaya Pemenuhan Kebutuhan Ekonomi Keluarga Nelayan Di Muara Angke Kecamatan Penjaringan Jakarta Utara. *Jurnal Perikanan Kelautan*, 7(2).
- Maradou, P., Aling, D. R., & Longdong, F. V. (2017). Peran Perempuan Penjual Ikan Keliling dalam Meningkatkan Pendapatan Keluarga di Kelurahan Tumumpa Dua Kecamatan Tuminting Kota Manado. *Akulturas*, 5(10). <https://doi.org/10.35800/akulturas.5.10.2017.18828>.
- Putri, A. I., & Susilowati, I. (2016). Peran dan Strategi Istri Nelayan dalam Membangun Ekonomi Keluarga dan Komunitasnya (Studi Empiris di TPI Asemdayong dan Tanjungsari, Kabupaten Pemalang, Indonesia) (Doctoral dissertation, Fakultas Ekonomika dan Bisnis).
- Putri, D. Y., & Eriyanti, F. (2019). Peran Istri Nelayan Tradisional dalam Meningkatkan Pendapatan Keluarga Melalui Kewirausahaan di Kecamatan Koto Tengah Kota Padang. *Ranah Research: Journal of Multidisciplinary Research and Development*, 1(3), 473-482.
- Putri, R. T., Ismail, I., Mulyadi, F., Purnama, S. M., Anandya, A., & Wardani, M. P. (2025). A Systematic Review on Economic Vulnerability and Sustainability of Small-Scale Fisheries in Madura. *Egyptian Journal of Aquatic Biology & Fisheries*, 29(4). <https://doi.org/10.21608/ejabf.2025.437797>
- Siburian, J. P., Harahap, H. Y., Anugerah, T., & Nisari, T. (2024). Kajian Sosial Ekonomi Usaha Perikanan Bagan Tancap di Kelurahan Muara Nibung Kabupaten Tapanuli Tengah. *EKOMA: Jurnal Ekonomi, Manajemen, Akuntansi*, 3(5), 208-213. <https://doi.org/10.56799/ekoma.v3i5.4026>.
- Sumargo, B. (2020). Teknik Sampling. Jakarta: UNJ press.

- Sunny, A. M., & Deb, S. (2021). Status of the Children of Fishing Community of Southern India: An Empirical Study. *International Journal on Child Maltreatment: Research, Policy and Practice*, 4(4), 555-569. <https://doi.org/10.1007/s42448-021-00099-1>.
- Statistics Indonesia. (2023). North Sumatra Province in Figures 2023. North Sumatra: CV. Ekarya.
- Wulandari, N., Indrianti, D. T., & Hilmi, M. I. (2022). Analisis Gender Peran Perempuan Pesisir pada Ketahanan Keluarga di Desa Puger Kulon Kabupaten Jember. *Jendela Pls*, 7(1), 52-60. <https://doi.org/10.37058/jpls.v7i1.4758>.