

## The Level of Welfare of the Family of Squid Fishermen Bubaa Village

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**Abstract :** *This study aims to determine the welfare level of squid fishermen in Bubaa Village, Paguyaman Pantai District, Boalemo Regency, Gorontalo Province. This research was conducted from April to June 2022 . The research method used in the form of interviews and direct observation. Determination of respondents using the census method. The data obtained were then analyzed descriptively and quantitatively based on household income analysis (TRPN) and household expenditure analysis (Ct) as well as indicators of prosperous families from the Central Statistics Agency (BPS). The results showed that the fishing community in Bubaa Village, Paguyaman Pantai District, Boalemo Regency, Gorontalo Province was included in the high welfare category with a score of 2.64.*

**Keywords:** *Fishermen, BPS, TRPN, Ct, Welfare.*

### INTRODUCTION

Fisheries is one of the fields that is expected to be able to support the improvement of the welfare of the Indonesian people. The fisheries sub-sector can play a role in the recovery and economic growth of the Indonesian nation in the arena of the potential for renewable resources (Yapanto., LM 2020).

Fishing communities are people who live in coastal areas who are active as fish catchers. Coastal areas have a very high diversity of natural resource potential, both biological natural resources and non-biological natural resources (Husna Yusranil, 2019). The success factor of fishermen in catching fish, including squid, can be seen in the number of fish or squid that have been caught by fishermen and it is impossible to predict the number of catches. Squid fishing operations are influenced by several factors, namely external and internal factors (Fachrussyah, et al. 2021). In some coastal areas that are relatively well developed, however, the problem of poverty is still one of the complaints of some residents of coastal communities,

Bubaa Village is one of the areas that includes skipjack and squid catchers in Paguyaman Pantai District. In addition, the people of Bubaa Village have difficulty finding more sophisticated fishing equipment, therefore fishermen are willing to buy fishing rods even at high prices. Although the price of fishing gear is quite expensive, fishermen still force themselves to buy. The capital and squid fishing gear make fishing communities which have implications for work ethic to become one of the main obstacles in improving fishermen's welfare. So that it has an impact on this mindset and laziness which also monopolizes fishermen, many other fields are affected by globalization,UEfforts to measure the level of welfare of fishermen so far still use indicators of changes in fishermen's income, where this indicator is still not accurate to describe the improvement of fishermen's welfare, because it has not been compared with fishermen's

expenditures for the consumption needs of their families.

## RESEARCH METHODS

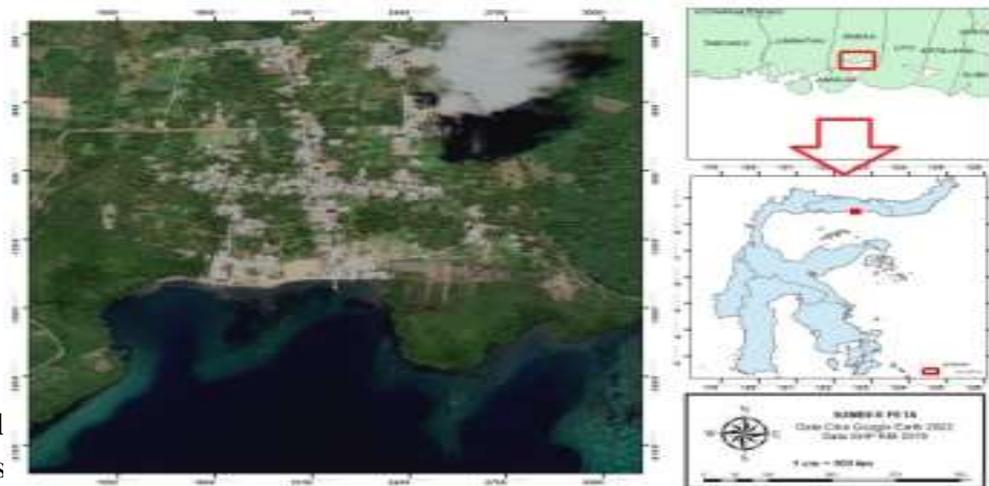


Figure 1  
This res

earch was carried out in Bubaa Village, Paguyaman Pantai Subdistrict, Bubaa Regency, with a research time of 3 (three) months. The determination of the location in the study was carried out using the consideration that the chosen location was one of the locations where most of their livelihoods were at sea (fishing). can be saved as efficiently as possible.

### Research tools and materials

Table. 1 The tools and materials used in this study can be seen in the table below

No	Tools and materials	Function
1	Fountain pen	Required to write interview results
2	Questionnaire	Media questions and interview notes
3	Camera	Used in the documentation process
4	Respondent	As a resource

### Determination of Respondents

Based on data from fishermen in Bubaa Village, Paguyaman Pantai Subdistrict, as many as 24 people who work as fishermen catching squid. If the population is less than 30 people, the determination of respondents is taken as a whole. So the number of samples taken from the research location is 24 people.

This study has a number of respondents not more than 100 people, due to the relatively small population, which is 24 people, the determination of respondents uses the saturated sampling method (census), namely by collecting data and information and observing all members of the specified population (Sugiono, 2017 ).

### Research procedure

#### Types and sources of data

The type of research carried out in this research is quantitative research, because the data collection techniques are obtained from questionnaires and interviews or primary data sources.

As for the data that used in this study are primary data and secondary data.

#### Primary data

Primary data is research data obtained directly from data sources collected specifically and

directly related to the results studied. The primary data used in this research is the result of filling out questionnaires by the respondents. This data is obtained from a predetermined sample. Primary data can be obtained from the results of interviews, direct observation, and questionnaires.

### **Secondary Data**

Data secondary, namely data obtained from related agencies covering various socio-economic data of the population, and data obtained from reference books and various articles.

### **Data collection**

Data collection techniques are very influential on research results, because the selection of the right data collection method will be able to obtain relevant, accurate and reliable data. Data collection methods used in this study are:

#### **Observation**

Observation as a data collection technique has specific characteristics when compared to other techniques, namely interviews and questionnaires. Data collection techniques with observation are used when this research is related to human behavior, work processes, natural phenomena. This method is widely used to observe the pattern of life and behavior of fishing communities directly.

#### **Interview**

One method of data collection is interview, which is to get information by asking the respondent directly. Interviews were conducted face-to-face and using a list of questions

#### **Questionnaire**

Questionnaire is a technique of collecting data by giving several questions to each respondent based on the data needed in the study.

### **Data analysis**

Knowing the level of welfare of the fishing community, there are 2 criteria that are commonly used to measure the level of welfare of fishermen, such as:

#### **Household Income Analysis**

According to Audina Rezki (2020) Household income is the sum of all the results obtained by family members in the form of money as a result of their work. Household income comes from three sources, namely husband, wife and other sources. Irawan (2014) in Rizal, et al (2018), states that household income can be calculated by:

$$\text{TRPN} = \text{PN} + \text{PAN} + \text{PIN}$$

Information :

TRPN = household income

PN = husband's income

PAN = Wife's income

PIN = Other source income

#### **Household Expenditure Analysis**

According to Audina Rezki (2020) Family expenses are costs incurred for the necessities of life within a period of one year. The measurement is carried out by calculating daily, weekly and monthly needs. According to Alfiyah (2000) in Rizal, et al (2018), the total household expenditure can be formulated as follows:

Information :

$$C_t = C_1 + C_2$$

Ct = Total household expenditure

C1 = Expenditure on food

C2 = Expenditure for non-food

### Prosperous family indicator

According to the Central Statistics Agency (2015), the indicators used to determine the level of welfare are using the prosperous family indicators which can be seen in the table. There are 8 items that are measured, namely income, expenses, living conditions, housing facilities, health of family members, ease of getting health services, ease of entering children into education levels, ease of obtaining transportation facilities. There are three criteria for welfare indicators according to BPS 2015 namely high, medium, and low. As for how to calculate the weights/scores obtained from the results of interviews with fishing communities, for example, if income is included in the high criteria, the score given is 3. Score 3 indicates the highest score, score 2 is medium criteria and score 1 is low criteria.

**Table 2.** Indicators of welfare level according to BPS (2015)

No	Welfare Indicator	Criteria	Score
1	Income	High (>Rp10,000,000)	3
		Medium (Rp 5,000,000 - Rp 10,000,000)	2
2	Expenditure	Low(<Rp500.000)	1
		High(>Rp500.000)	3
3	Condition of residence	Medium (Rp 1000.000-Rp 500.000)	2
		Low(<Rp1000.000)	1
4	Residential facilities	Permanent (11-15)	3
		Semi permanent (6-10)	1
5	Health of family members	Non permanent (1-5)	3
		Complete (34-44)	2
6	Ease of getting health services	Enough (23-33)	1
		Less (12-22)	3
7	Ease of entering your education level	Good (<25%)	2
		Enough (25%-50%)	1
8	Ease of getting transportation facilities	Less (>50%)	3
		Easy (16-20)	2
		Enough (11-15)	1
		Difficult (6-10)	3
		Easy (7-9)	2
		Enough (5-6)	1
		Difficult (3-4)	3
		Easy (7-9)	2
		Enough (5-6)	1
		Difficult (3-4)	3
			2
			1

Source: Prosperous family indicator based on the Central Bureau of Statistics, 2015

Based on the scoring results of the welfare indicators above, then tabulation is carried out to determine the number of scores obtained, then determine the level of welfare. The criteria for determining the level of welfare can be seen in Table 3.

Based on the results of the scoring of the indicators above, which consist of 8 items,

namely: income, expenses, living conditions, housing facilities, health of family members, ease of obtaining health services, ease of entering children into education levels, ease of obtaining transportation facilities, then tabulation is carried out. To find out the total score obtained, according to the Central Statistics Agency (2015), the criteria for each classification are as follows:

**Table 3.** Criteria for determining welfare according to BPS (2015)

No	Score	Description
1	Score between 2.61 - 3.4	High level of well-being
2	Score between 1.81 - 2.60	Medium level of well-being
3	Score between 1.0 - 1.80	Low welfare level

Furthermore, the score of each indicator is multiplied by the weight according to (table 4). The results of the multiplication of each indicator and the weights are added up and then the results are adjusted to (table 3), to determine the level of welfare. It is also necessary to know that the indicators of family welfare above are representative of several indicators that have been set by BPS.

## RESULTS AND DISCUSSION

### Squid Fisherman Income

The welfare of fishermen's families is directly affected by income. And the factor of the low income of fishermen includes economic and social factors. According to (Sujono in Ahmad, 2017) Social and economic factors greatly influence income which consists of the amount of costs incurred by the number of boats, number of workers, experience and distance traveled. According to Primiastanto (2013 ) family dependents and fishing experience greatly affect fishermen's income.

The income of fishermen in Bubaa Village is obtained from fishery and non-fishery businesses, which can be seen in table 4.

**Table 4.** Average income of fishermen in Bubaa Village

Source of income	(Rp)
Fishery Income	Rp3,183,333
Non Fishery Income	Rp1,562,500
Total Monthly Income	Rp4,504,167
Total Annual Income	Rp54,050,000
Total Income Per capita	Rp16,620,833

**Source.** Primary data 2022.

Seen from table 4, the average income of squid fishermen in Bubaa Village is IDR 54,050,000 per year while the income of fishermen per capita per year is IDR 16,620,833. The income of squid fishermen in Bubaa Village is obtained from fishery and non-fishery income. The fishery business is derived from the sale of catches and fishing. In addition, some people in Bubaa Village prefer to catch squid in areas outside Boalemo due to the need for a very increased standard of living, while the income of non-fishing fishermen is obtained from other jobs as farmers, laborers, artisans, and assisted by fishermen's wives besides they are busy taking care of the household, in between the time they work to supplement the family income.

Based on the results of table 5. The comparison of the income per capita per year of

fishermen can be seen that 8.33% of fishermen are included in the category of high welfare indicators which are adjusted to the BPS indicator criteria (2015) where the income per capita is more than 10,000,000 / year while 91 ,67% fall into the category of moderate income criteria with a per capita of Rp 5,000,000 – 10,000,000/year.

The wife's income can contribute to additional family income. The criteria for fishermen's per capita income can be seen in table 5.

**Table 5.**Criteria for income of fishermen per capita in Bubaa Village

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Tall	3	22	91.67
Currently	2	2	8.33
Low	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Source:primary data 2022.

### Squid Fisherman Expenses

Food expenditures in Bubaa Village are divided into two parts consisting of food and non-food expenditures. Food expenditures are part of the estimated expenditure used to meet food needs (basic staples for fishermen's families, while non-food expenditure is an estimate of expenditure used to meet food needs). (staple food) for fishermen's families, while non-food expenditure is an estimate

of expenditure used to meet needs and buy food The average per capita expenditure of fishermen in Bubaa Village per year can be seen in table 6.

**Table 6.** Average household expenditure of fishermen in Bubaa Desa Village

Output Type	Expenditure (Rp)
Food	Rp6,986,250
Non Food	Rp1,034,375
Total Monthly Expenditure	Rp7,503,438
Total Annual Expenditure	Rp90,041,250
Total Annual Per capita Expenditure	Rp27,862,167

Source:2019 primary data

Based on table 6, the food expenditure of fishermen in Bubaa Village is Rp. 6,986,250 while the expenditure for non-food is Rp. 1,034,375. The average monthly expenditure is Rp. 7,503,438. The total average expenditure per year is 90,042,250. If seen from table 6, expenditure for food needs is greater than the need for non-food expenditure. This is due to the higher prices of basic necessities and the fishermen respondents in Bubaa Village prioritize basic food needs compared to other needs. The level of household expenditure of fishermen in Bubaa Village can be measured using the BPS indicator criteria (2015), namely by looking at the level of food and non-food consumption per capita or included with the per capita expenditure of fishermen's families.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Tall	3	24	100

Currently	2		
Low	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Based on table 7, it can be seen that the fishing families of Bubaa Village are included in the high criteria in the expenditure category that have been adjusted to the prosperous family indicators based on BPS (2015) where the total per capita expenditure of all fishing families is more than Rp. > 5,000,000/year.

#### Residential Condition

The criteria for living conditions for fishermen in Bubaa Village can be seen in table 8.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Permanent	3	11	45.83
Semi Permanent	2	13	54.17
Non Permanent	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Table 8 shows that the living conditions of fishermen are assessed from the indicators of semi-permanent welfare as many as 13 people with a percentage value of 54.17% and 11 people including permanent ones with a percentage value of 45.83%. From the percentage value above, it shows that fishermen in Bubaa Village are mostly included in semi-permanent welfare indicators.

#### Residential Facilities

The criteria for living facilities in Bubaa Village can be seen in table 9.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Complete	3	-	-
Enough	2	-	-
Not enough	1	24	100.00
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Based on research obtained from interviews with the people of Bubaa Village, community housing facilities are incomplete because the community does not pay attention to the facilities of the house, there are still many community houses that do not have sophisticated facilities because the people in Bubaa Village still use natural methods and the facilities offered in the village. Bubaa village is relatively expensive so people tend to buy these facilities.

#### Family Member Health

The score obtained by the fishermen in Bubaa Village is assessed from the indicators of family health, which can be seen in table 10.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Good (<25%)	3	24	100.00

Enough(25%-50%)	2	-	-
Less (>50%)	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Healthfamily members of fishermen in Bubaa Village are included in the good criteria where all families who are sick in a month are less than 25% around 24 people with a percentage of 100% categorized as good. The dominant types of disease that often occur are headaches, colds, fever, and fatigue. The results of the calculation show that all fishing communities are in a position with a score of 3. This is adjusted to the criteria for welfare indicators according to BPS 2015.

#### **Ease of Getting Health Services**

Table 11 Criteria for the ease of obtaining health services in Bubaa Village

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Easy	3	10	41.67
Enough	2	14	58.33
Difficult	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Based on table 11, it can be seen that some respondents with a percentage of 41.67% said it was easy to get health services and the rest with a percentage of 58.33% said it was quite easy. The ease of obtaining health services is supported by the presence of the nearest health center that is easily accessible both in terms of distance and ease of treatment.

#### **Ease of Entering Children's Education Level**

The number of respondents regarding the ease of entering children into education levels is presented in table 12.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Easy	3	24	100.00
Enough	2	-	-
Difficult	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

Based on table 12, it can be seen that the development of fishermen's education is going relatively well in Bubaa Village. This is shown by the enthusiasm of the fishermen as many as 24 people with a 100% percentage in entering their children to a better education level, because most of their children are still sitting in elementary, junior high, and vocational / high school which allows school fees, school distance, and the admission procedure is still fairly easy, besides that there is

still support from the government by proposing free education to make it easier for fishermen to enter their children into education levels.

Welfare Indicator	Score	Fisherman	
		Fisherman (Person)	Percentage (%)
Easy	3	24	100.00
Enough	2	-	-
Difficult	1	-	-
<b>Amount</b>		<b>24</b>	<b>100 (%)</b>

### Ease of Getting Transportation Facilities

The criteria for the ease of obtaining transportation facilities can be seen in table 13.

Based on table 13, it can be seen that 24 fishermen with a percentage of 100% assessed from welfare indicators said it was easy to get transportation facilities. The indicators used for the ease of obtaining transportation facilities consist of 3 items, namely transportation costs or costs, vehicle facilities and vehicle ownership. Fisherman families who say it is easy to get transportation facilities are fishermen who have private vehicles such as motorbikes. The calculation results show the entire fishing community of Bubaa Village is in a position with a score of 3, this score is adjusted to the welfare indicators according to the 2015 BPS.

### Analysis of the Welfare Level of Squid Fishermen in Bubaa Village

According to Ulvia (2020) to measure the welfare level of fishing communities, indicators are needed that can provide a clear and precise picture. The indicators used can provide a clear picture of social and economic aspects, because welfare can be seen in both aspects.

Based on the results of the analysis of 8 welfare indicators, the welfare classification of all fishermen's family respondents can be seen in table 14.

indicator	Score	Weight	Total Score
Income	3	24%	0.72
Expenditure	2	18%	0.36
Condition of residence	2	9%	0.18
Residential facilities	1	9%	0.09
Health of family members	3	8%	0.24
Ease of getting health services	3	12%	0.36
Ease of entering you into education level	3	12%	0.36
Ease of getting transportation facilities	3	8%	0.24
<b>Amount</b>	<b>20</b>	<b>100%</b>	<b>2.64</b>

Based on table 14, the criteria for the level of welfare according to BPS (2015), the total score obtained is 2.64, so the squid fishermen in Bubaa Village are included in the moderate welfare criteria, the criteria are adjusted to the weight of the BPS welfare indicator (2015), namely the fishermen in Bubaa Village are in the score between 2.61-3.41 which is included in the category of high welfare level.

### CONCLUSION

Based on the results of the research, it can be concluded that the fishing community in Bubaa Village, Paguyaman Pantai District, Boalemo Regency is included in the high welfare category with a score of 2.64.

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