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## Socio-Economic and Cultural Characteristics of Fishermen in Babakan village, Pangandaran District, Pangandaran Regency, West Java

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### Keywords

Culture, Characteristics, Economic, Fishermen, Social

### ABSTRACT

This research aims to determine the socio-economic and cultural relationship to the welfare of fishermen income in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. 2019. The method used in this research is descriptive method. The sampling technique uses accidental sampling method with a total of 50 respondents each. Data collection using observation techniques, structured interviews, and documentation techniques. The results showed that the influence of variable X to variable Y simultaneously was equal to 98.4% which showed the meaning that the variables age (X1), education (X2), health (X3), experience (X4), capacity of the ship (X5), kinship and kinship system (X6) and local belief (X7) have a simultaneous influence (together) of 98.4% dependent variable, namely fisherman income welfare (Y). While the remaining 1.6% is influenced by other factors that are ignored by the author. Can be known factors that significantly influence the welfare of fishermen's income are experience (X4) and vessel capacity (X5).

## INTRODUCTION

Fishermen are community groups whose livelihoods depend directly on sea products, either by carrying out direct capture. Geographically, fishing communities are communities that live, grow and develop in coastal areas, namely a transition zone between land and sea areas. In Indonesia, fishermen usually live in coastal or coastal areas. As a community living in coastal areas, fishing communities have their own social, economic and cultural characteristics that are different from those living in the mainland [1]. Coastal communities that are identical to fishermen are known as part of a marginalized community that continues to wrestle with various issues of life, both economic, social, and cultural. Various studies on the socio-economic life of fishermen and coastal communities show one conclusion that fishing communities are one group of people with poverty stereotypes [2]. This causes the weak ability of the community to develop the region and improve their social welfare [3].

Welfare is a social, material, and spiritual order of life and livelihood which includes a sense of safety, morality and inner peace that allows every citizen to make efforts to meet the physical, spiritual and social needs as well as possible for himself, the household and community [4]. The level of welfare is directly affected by income. The difference in income is influenced by socioeconomic consisting of: age, education, experience, health, ship size, income, production and others.

Cultural aspects also affect the economic life of fishing communities. The cultural aspects include 2 (two) systems: First, family and kinship systems. This is of course very much needed in the face of economic opposition to the fishing community. An example of a family and kinship system is the mutual cooperation system and help in the life of fishermen when fishing in the sea is also mutual cooperation and help in the community environment. Indirectly with the existence of mutual assistance and help to help affect the economic life of fishermen, such as in providing relief medical assistance provided by the owner's fishermen to the labor fishermen when sick. In addition, mutual assistance and help in the community in terms of death. Thus, the system of mutual assistance and help to help the fishing community affect its economic life. Second, the local belief system in the life of fishermen when fishing in the sea. Such as believing there are certain days that are sacred, namely the death of parents, Saturday legi and also at sea alms ceremony. With this belief, it affects the economic income of fishermen, because fishermen don't go fishing in the sea.

his condition is also experienced by coastal communities who live in the village of Babakan, Pangandaran District, Pangandaran Regency, West Java, the majority of whose inhabitants work as fishermen. Babakan is a village in Pangandaran sub-district, Ciamis, West Java, Indonesia. Babakan Is a village entrance to the City of Pangandaran where Babakan also like several other villages in Pangandaran, has a beach. The beaches in Babakan are the East Coast of Pangandaran and Bulaksetra Beach or by local residents better known as the CileutikBasisir where there is also the Cileutik estuary. At present, in the village of Babakan, precisely the Cileutik base has been built a dock which is planned to be used as a terminal of marine vehicle traffic (yachts or fishing boats). The residents of Babakan Village mostly work as fishermen. At present the village of Babakan is known as a fishing village in Pangandaran Regency. By looking at the dynamics that affect the income of fishermen and the considerable potential in the village of BabakanPangandaran, the income of captured fishermen in Pangandaran Regency, West Java is interesting to study.

## METHOD

The method used in this research is descriptive and verification methods with a quantitative approach. In this study the verification method used is multiple regression analysis used to determine the relationship of socio-economic and cultural characteristics to the welfare of fishermen income in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. By asking questions / interviews [5]. The types of data used are of two types namely qualitative data and quantitative data. In this analysis the income data analysis and multiple linear regression analysis are used.

## RESULTS AND DISCUSSION

### **Characteristics of Respondents Based on Social Life of Fishermen Communities in Babakan Village, Pangandaran District, Pangandaran Regency, West Java**

The social capability aspects of the fishing community in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. canbe seen by looking at age, level of public education, health, experience. Descriptive analysis of respondent data consists of several tables with the following data.

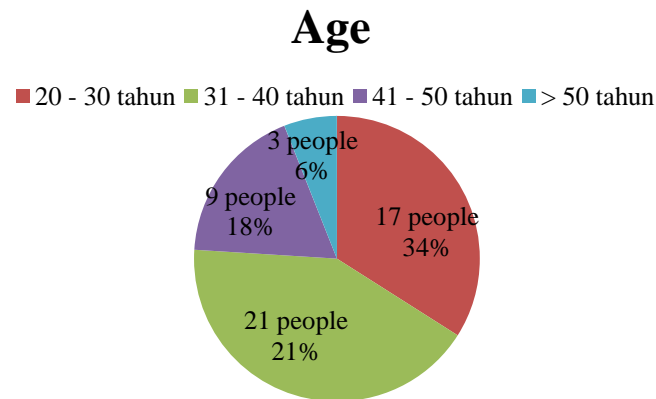


Figure 1. Frequency Distribution of Respondents by Age

Figure 1 shows the number of respondents by age in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. It is known that the majority of respondents are 21 people or 42.0% are respondents aged 31-40 years and the most few are respondents aged > 50 years which is as many as 3 people or 6.0%. The average age of fishermen in Babakan Village, Pangandaran District range from 31-40 years

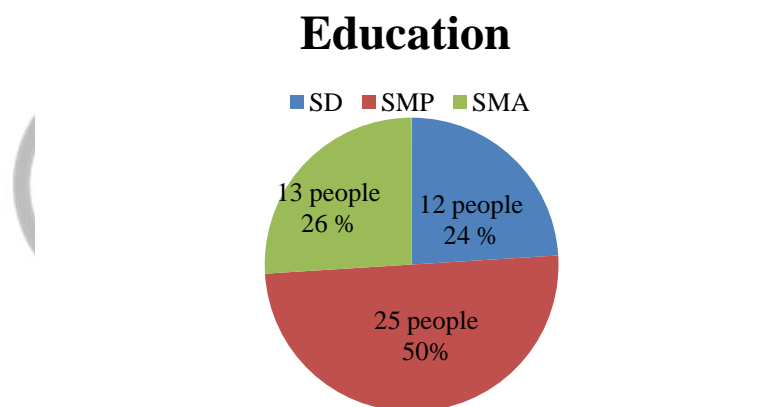


Figure 2. Frequency Distribution of Respondents by Education

Figure 2 shows the number of respondents based on education in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. It is known that the majority of respondents as many as 25 people or 50.0% are respondents who took the last education of junior high school and the least number of respondents who took the last education namely 12 people or 24.0%.

Table 1. Frequency distribution regarding health and fisherman health insurance in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

	Amount of n	Percentage
<b>Health</b>		
No	4	8,0
Yes	46	92,0
<b>Health Insurance</b>		
No	23	46,0
Yes	27	54,0
<b>Total</b>	<b>50</b>	<b>100,0</b>

Based on table 1 it is known that the majority of respondents as many as 46 people or 92.0% are fishermen with healthy conditions. Healthy is meant here that does not have a special chronic disease. And the rest are fishermen with unhealthy conditions as many as 4 people or 8.0%. This shows that most of the fishermen in Babakan Village, Pangandaran Subdistrict have good health. In addition, Table 1 also shows the number of respondents regarding health insurance owned by employees in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. From this table it can be seen that fishermen who have health insurance are 27 people or 54.0%. The majority of insurance owned by fishermen in Babakan Village is a government insurance program, BPJS (Health Social Insurance Agency).

Table 2. Frequency distribution of fishermen's experiences in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Variable	Average	Max	Min	SD
Experience	13,6 years	23 years	4 years	5,49

Based on table 2 shows the number of respondents based on the experience of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. It is known that the average respondent has 13.6 years of experience. Distribution of respondents with the greatest level of experience is 23 years. Whereas the smallest fishing experience level is above 4 years.

#### Characteristics of Respondents Based on the Economy of Fishermen Communities in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Table 3. Frequency distribution of fishing time, fishing trips per week and catches of fishermen based on fishing boat capacity in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Ship Capacity	Average Length of Fishing (hour)	Average Fisherman Trip	Average Results Catch
3 GT	9,5 hour/day	5 time	110,7 Kg
5 GT	5,3 hour/day	5 time	100,0 Kg
6 GT	11,1 hour/day	5,2 time	179,6 Kg
<b>Total(Average)</b>	<b>10,1 hour/day</b>	<b>5,3 time</b>	<b>144,5 Kg</b>

Based on table 3 it is known that the majority of respondents as many as 25 people or 50.0% are respondents who have a capacity of 6 GT vessels, averaging at sea for 11.1 hours / day, going on trips 5.2 times / week and getting catches of 179, 6 kg per trip and the least number of respondents is a 5 GT vessel capacity, averaging at sea for 5.3 hours / day, traveling 5 times / week and getting a catch of 100.0 kg per trip as much as 3 people or 6.0%. And it is known that the average fisherman in Babakan Village, Pangandaran District goes to sea for 10.1 hours / day, trips 5.3 times / week and gets a catch of 144.5 kg.

Table 4. Frequency distribution of costs incurred to go to sea per trip in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Ship Capacity	Amount of Fuel (Liter)	Total Cost for Fuel	Average Cigarette Fee	Average Consumption	Average Ice Cube Cost	Average Maintenance costs	Total Average Spending
3 GT	9,5 Liter	Rp. 65.864,-	Rp. 29.545,-	Rp. 40.909,-	Rp. 15.000,-	Rp. 14.090,-	Rp. 165.409,-
5 GT	10,0 Liter	Rp. 69.000,-	Rp. 20.000,-	Rp. 26.666,-	Rp. 10.000,-	Rp. 18.333,-	Rp. 144.000,-
6 GT	14,6 Liter	Rp. 100.740,-	Rp. 39.000,-	Rp. 57.200,-	Rp. 17.400,-	Rp. 24.080,-	Rp. 238.420,-
<b>Total (Rerata)</b>	<b>12,1 Liter</b>	<b>Rp. 83.490,-</b>	<b>Rp. 33.700,-</b>	<b>Rp. 48.200,-</b>	<b>Rp. 15.900,-</b>	<b>Rp. 19.340,-</b>	<b>Rp. 200.630,-</b>

Based on table 4 it is known that the average fisherman in Babakan Village, Pangandaran District uses diesel fuel at a price of Rp. 6,900 per liter, and spend as much as 12.1 liters at a time at sea, while the total expenditure is Rp. 181,290 per sea with details, namely for fuel, Rp. 83,490, -, for the cost of cigarettes of Rp. 33,700, -, for consumption of Rp. 48,200 and ice cubes Rp. 15,900 and maintenance costs of Rp. 19,340, - so that the total average expenditure for fishermen is IDR 200,630.

Table 5. Frequency distribution of assistance and forms of assistance from the government in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

	Amount of n	Presentage
<b>Forms of Government Assistance</b>		
Catching tool	27	54,0
Ship	23	46,0
<b>BantuanSubsidiBerjalanRutin</b>		
No	41	82,0
Yes	9	18,0
<b>Total</b>	<b>50</b>	<b>100,0</b>

Based on table 5, it is known that all 50 fishermen or 100.0% received assistance from the government. The majority of respondents were 27 people or 54.0% were respondents who received fishing gear assistance and the rest were respondents who received boat assistance as many as 23 people or 46.0%. This shows that all fishermen in Babakan Village, Pangandaran Subdistrict received assistance from the government in the form of fishing gear and boats. In addition, all fishermen as many as 41 people or 82.0% did not get routine assistance and the rest were respondents who received routine assistance as many as 9 people or 18.0%.

Table 6. Frequency distribution of other businesses owned by fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Fishermen Have Other Businesses	Amount of n	Presentage
No	25	50,0
Yes	25	50,0
<b>Total</b>	<b>50</b>	<b>100,0</b>

Table 6 shows the number of respondents regarding other businesses owned by fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. It is known that the majority of respondents as many as 25 people or 50.0% are fishermen who have other businesses besides fishing, other businesses owned by fishermen include construction workers, fish sellers, watersport rental, motorcycle taxi drivers, and rice stalls. Meanwhile the rest are fishermen who have no business other than fishing as many as 25 people or 50.0%, so the business as a fisherman is the main source of income for the family.

#### Characteristics of Respondents Based on Cultural Life of Fishermen Communities in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Table 7. Frequency distribution regarding the cultural life of fishing communities in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

	Amount of n	Presentage
<b>Mutual cooperation between fishermen</b>		
No	0	0,0
Yes	50	100,0
<b>Mutual Cooperation Form</b>		
Cleaning up	14	28,0
Sea party preparation	36	72,0
<b>Total n</b>	<b>50</b>	<b>100,0</b>

Based on table 7 it can be seen that the forms of mutual assistance activities in Babakan Village, Pangandaran District, Pangandaran Regency, West Java, are cleaning up the fishing port area and preparing to hold a sea party activity. It can be seen that as many as 14 respondents or 28% answered the existing forms of mutual assistance activities were cleaning and as many as 36 respondents answered the forms of mutual assistance activities, namely by conducting sea party preparation activities.

Table 8. Frequency distribution of the family and kinship system of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

	Amount of n	Presentage
<b>Kinship System</b>		
No Tightly	4	8,0
Tightly	46	92,0
<b>Frequency meet</b>		
Everyday	44	88,0
Not Everyday	6	12,0
<b>Total n</b>	<b>50</b>	<b>100,0</b>

It is known that the majority of respondents as many as 46 people or 92.0% are fishermen with kinship system. This shows that most of the fishermen in Babakan Village, Pangandaran Subdistrict have a good family and kinship system. Most of the fishermen as many as 44 people or 88.0% are fishermen with the frequency of meeting among other fishermen that is meeting every day, within a week with a form of meeting such as passing when going to sea and when going home. And the rest are fishermen with a frequency of not meeting every day, namely by meeting as many as 3 times a week totaling 6 people or 12.0%.

Table 9. Frequency distribution of local beliefs in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

	Amount of n	Presentage
<b>local culture</b>		
No	3	6,0
Yes	47	94,0
<b>Cultural customs</b>		
Jumatklawon	50	100,0
<b>Total n</b>	<b>50</b>	<b>100,0</b>

It is known that the majority of respondents as many as 47 people or 94.0% are fishermen who have high local trust and the rest are fishermen who have low local trust as many as 3 people or 6.0%. This shows that most of the fishermen in Babakan Village, Pangandaran District have high local trust.

#### Characteristics of Respondents Based on Fishermen's Income

Table 10. Frequency distribution of fishermen income in Babakan Village, Pangandaran District, Pangandaran Regency, West Java

Ship Capacity	Fisherman Income
3 GT	Rp. 628.227,-
5 GT	Rp.1.416.000,-
6 GT	Rp. 3.008.780,-
<b>Total (Average)</b>	<b>Rp. 1.865.770,-</b>

It is known that the majority of respondents as many as 25 people or 50.0% are respondents who have a 6 GT boat capacity and an average income of Rp. 3,008,780, - and the least are respondents who have a capacity of 5 GT vessels and an average income of Rp. 1,416,000, - as many as 3 people or 6.0%. And it is known that the average income of fishermen in Babakan Village, Pangandaran District is Rp. Rp. 1,865,770.

Table 11. Average Revenues Received by Fishermen

Information	Average Rupiah / trip
Total Revenue	Rp. 1.865.770,-
Total cost	Rp.200.630,-
<b>Total (Average)</b>	<b>Rp. 1.665.140,-</b>

Table 11 shows the average income of fins received by fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. It is known that the average income of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java is Rp. 1,865,770, - and the average cost incurred when going to sea by fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java is Rp.200,630, - so that it can be seen that the average income of fishermen in Babakan Village, Kecma-

tanPangandaran West Java Pangandaran Regency is Rp. 1,665,140 / trip.

### Equation of Multiple Linear Regression

Table 12. Coefficient of Multiple Linear Regression

Model	Coefficients <sup>a</sup>		Standardized Coefficients	t	Sig.
	Unstandardized Coefficients		Beta		
	B	Std. Error			
1 (Constant)	4.490	.105		42.825	.000
Age	.017	.063	.006	.274	.785
Education	.036	.069	.011	.521	.605
Health	-.035	.061	-.028	-.572	.570
Experience	.641	.060	.411	10.619	.000
Ship Capacity	1.456	.088	.626	16.516	.000
Kinship System	-.061	.038	-.049	-1.594	.118
Local Culture	.074	.056	.052	1.324	.193

a. Dependent Variable: Welfare of Fishermen's Income

$$y = 4,490 + 0,017 X1 + 0,036 X2 + 0,035 X3 + 0,641 X4 + 1,456 X5 + 0,061 X6 + 0,074 X7$$

### Determination Analysis

Model Summary <sup>b</sup>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.992 <sup>a</sup>	.984	.982	.04663

a. Predictors: (Constant), Local Culture, Education, Ship Capacity, Age, Kinship System, Experience, Health

b. Dependent Variable: Welfare of Fishermen's Income

KD values obtained at 98.4% which shows the meaning that the variables age (X1), education (X2), health (X3), experience (X4), ship capacity (X5), kinship and kinship system (X6) and local beliefs (X6) X7) has a simultaneous influence (together) of 98.4% dependent variable, namely the welfare of fishermen's income (Y). While the remaining 1.6% is influenced by other factors that are ignored by the author.

### Analysis of Results

#### a. Effect of Age on Fishermen's Welfare Income

Based on the results of the regression shows the welfare of fishermen income (Y) will increase by 0.017. Based on the results of the calculation of the beta x zero-order coefficient, it can be seen that the variable X1 (age) has an effect of 0.19% on the Y variable (welfare income). Age has no significant effect because it can be seen from the picture of the age frequency distribution of respondents in Babakan Village, Pangandaran District, Pangandaran Regency, West Java itself. Where there are more fishermen at the age of 31-40 years, that is 21 fishermen. Whereas at the age of > 50 years fewer than 3 fishermen. This research is in line with research conducted by Dwiandana (2013) and Urmila (2017) who also suggested that age variable had no effect on income [6].

#### b. The Effect of Education on Fishermen's Welfare Income

Based on the results of the regression shows the welfare of fishermen income (Y) will increase by 0.036. Based on the calculation of the beta x zero-order coefficient it can be seen that the variable X2 (education) has an effect of 0.24% on the Y variable (income welfare). The last education of fishermen does not have a significant effect because in general the community gets knowledge of going to sea only from hereditary knowledge from their parents who generally also work as capture fishermen. Not from formal education. This is consistent with research conducted by Heryansyah, et al (2013), stating that education variables do not have a significant effect on fishermen's income in East Aceh District, because this type of work does not require special expertise especially the fishing gear used is simple / uniform [7].

#### c. Health Influence Against Fishermen's Welfare

Based on the results of the regression shows the welfare of fishermen income (Y) will decrease by 0.035. Based on the calculation of the beta x zero-order coefficient it can be seen that the variable X3 (health) has an influence of -0.92%, on the variable Y (welfare income). The health of fishermen has no significant effect, this shows that there is still a lack of awareness of fishermen about the importance of health in their lives. If the fisherman is sick and cannot work, he will not get income.

d. Effect of Experience on Fisherman Income Welfare

Based on the results of the regression shows the welfare of fishermen income (Y) will increase by 0.641. Based on the calculation of the beta x zero-order coefficient it can be seen that the variable X4 (experience) has an influence of 38.41%, on the Y variable (welfare income). These results accept the hypothesis that the longer the work experience of a fisherman, the income level of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java will be higher. The results of this study are in line with research conducted by Marhaeni and Nugraha (2012), which states that work experience has a positive effect on income. In addition, the results of this study are also in line with research conducted by Dahan (2016), who said work experience simultaneously influences the income of fishermen [8]. The results of this study are also in line with research conducted by Sujarno (in Gosyen, 2015), with the title research on Factors Affecting Fishermen's Income in Langkat District, stating that experience has a significant effect on fishermen income [9].

e. Effect of Vessel Capacity on Fishermen's Welfare Income

Based on the results of the regression shows the welfare of fishermen income (Y) will increase by 1,456. Based on the calculation of the beta x zero-order coefficient it can be seen that the variable X4 (experience) has an influence of 60.56%, on the Y variable (welfare income). This shows that the variable loading capacity of the ship partially has a significant effect on the income variables of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. Based on the results of research that every large ship tends to have a large income. This is because the capacity of fish is also large.

f. Effect of Family and Kinship Systems on Fishermen's Welfare Income

Based on the regression results show that the family and kinship system variables have a negative and not significant effect on the income of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. Regression coefficient of 0.061 means that the closer the kinship and kinship system (X6), the welfare of fishermen's income (Y) will decrease by 0.061. Based on the calculation of the beta x zero-order coefficient, it can be seen that the variable X6 (kinship and kinship system) has an effect of -1.51%, on the variable Y (welfare income). This shows the negative influence on the income of fishermen. Kinship system can help economic activities that can ease the burden of life on a family that is on meeting daily needs. In addition, the fishing community in the village of Babakan where the community carried out mutual cooperation activities and become a habit.

g. Effect of Local Culture on Fishermen's Welfare Income

Based on the regression results show that the local trust variable has a positive but not significant effect on the income of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java. Regression coefficient of 0.074 means that the higher the level of local trust (X7), the welfare of fishermen's income (Y) will increase by 0.074. Based on the results of the calculation of the beta x zero-order coefficient, it can be seen that the variable X7 (local trust) has an effect of 1.45%, on the variable Y (welfare income). Ritual ceremonies such as Friday kliwon and sea parties are routine and important activities for the Babakan villagers because they affect the economic life as fishermen. The people in the village of Ba-bakan have a belief that by carrying out the sea alms ritual tradition and trusting the prohibition of going to sea on Friday Kliwon can affect income on work as fishermen.

## Conclusion

Based on the results of research and discussion on the relationship of socio-economic and cultural characteristics to the welfare of fishermen's income in Babakan Village, Pangandaran District, Pangandaran Regency, West Java, it can be seen that the majority of productive sponsents are aged 31-40 years. The education level of fishermen is generally low, namely junior high. Whereas in terms of health, it is known that the majority of respondents have a good level of health. The experience owned by fishermen in Babakan village is known that the average respondent has 13.6 years of experience. Based on the capacity of the ship, the average vessel used is the size of 6 GT. The kinship and kinship system in the village of Babakan among fellow fishermen has a good relationship in terms of helping each other fishermen, mutual cooperation, and preparation for a sea party. The local belief of fishermen in the village of BabakanPangandaran believes and practices the prohibition of going to sea when Friday Kliwon to respect the ancestors. When viewed from income, the average income earned by fishermen is below Rp. 1,665,140 per capita. Known factors that affect the welfare of fishermen's income in Babakan Village, Pangandaran District, Pangandaran Regency, West Java, are significantly experience (X4) and boat capacity (X5). While the factors that did not significantly influence the income of fishermen in Babakan Village, Pangandaran District, Pangandaran Regency, West Java were age (X1), Education (X2), health (X3), family and kinship systems (X6), and local beliefs. (X7).

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