

A Study of The Perceptions of Trawl Fishermen Towards The Rules of The Trawl Ban on The North Coast of East Java

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ABSTRACT

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The issuance of the cantrang prohibition regulation, namely Permen Kp No. 2 of 2015, is based on the decline in Fish Resources (SDI) which threatens sustainability, so for the sake of sustainability it is necessary to impose a ban on the use of trawls and seine nets including cantrang. This study will analyze how the perception of the seine net fishing community towards the rules of the cantrang ban. This study used survey methods, questionnaires and interviews and was conducted at PPP Mayangan Probolinggo and PPP Bulu Tuban. The number of samples in this study were 20 respondents with purposive sampling. Data analysis using Likert scale, validity test and reliability test. The results showed that if the government emphasizes the rules of the cantrang ban, cantrang fishermen will really lose income, causing increased unemployment, especially for crew members. On the other hand, the Ministerial Regulation will have a positive impact for the future in the form of sustainability of marine fish resources.

INTRODUCTION

The issuance of the latest government regulation, namely the Minister of Maritime Affairs and Fisheries Regulation No. 2 of 2015, is based on the decline in fish resources (SDI) that threatens sustainability, so for the sake of sustainability it is necessary to impose a ban on the use of trawls and seine nets. The operation of trawl fishing gear is considered to be able to dredge the bottom of deep waters and coastal parts without any exceptions including coral reefs and is also considered to damage the spawning area of marine biota. So it can be emphasized that the core of the regulation is for the sustainability and progress of the fisheries sector and not merely in killing the main livelihood of fishermen (KKP, 2015).

In previous research, it has been revealed that the regulation banning trawling and trawling can result in several negative impacts, some of which are

increased unemployment, decreased welfare, and crime (Ermawati and Zuliyati (2015). The Minister's regulation certainly received many responses or protests from fishermen at PPP Mayangan, because the regulation has harmed all fishermen including trawl fishermen. Apart from the fishermen themselves, the Ombudsman of the Republic of Indonesia is also one of the parties who responded against the issuance of the Minister of Maritime Affairs and Fisheries Regulation and has provided a suggestion that this regulation be revoked. The Ombudsman of the Republic of Indonesia considers the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia Number 2/PERMEN-KP/2015 on the Prohibition of the Use of Trawls and Seine nets to be an administrative violation. The Ombudsman of the Republic of Indonesia has mentioned three points of mal-administration related to the issuance of the Permen-KP. The three points are, First, the issuance deviates or there is a discrepancy with the procedure for the formation of a legislative formation, namely Law Number 12 of 2011 concerning the formation of laws and regulations. Second, the issuance of this regulation exceeds the authority contained in the parent provision, namely Law Number 45 of 2009 concerning Fisheries. Third, this government regulation contains elements of bad acts because the process of its issuance did not go through a socialization process and sufficient transition time. As a result, this Permen-KP has caused an uproar among fishermen including cantrang fishermen and fishing boat owners which can then cause economic difficulties for fishermen (Supriadi, 2015).

The implementation of the trawl ban policy failed in terms of marketing policy. This failure can be seen from policy acceptance, policy adoption, and readiness strategies. Vertical conflict arises between fishermen and the government, when the fishing community does not implement and is not part of the activities of the policy, while the local government is still not sure to implement the policy (Febryano et.al 2021).

The majority of Brondong Lamongan trawl fishermen also reject the rules of the trawl ban, according to them this rule has an impact on vessels with trawl fishing gear that cannot operate, this causes unemployment for crew members. Every ship has crew members, if the government applies regulations prohibiting the use of cantrang then each ship does not need many crew members. The existence of a ban on fishing using cantrang nets causes the unemployment rate to increase, when someone does not work, it means that income for living sources begins to be hampered so that the welfare of fishermen will decrease (Suprapti et.al 2017) and (Al Hakim, 2018).

Based on research by Nababan et al (2018), Probolinggo City including the Mayangan PPP location and Tuban Regency including the Bulu PPP location are areas that are still active centers for the use of trawl fishing gear. Despite the issuance of the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia No. 2/Permen-KP/2015 regarding the prohibition of trawls

and seine nets, some fishermen in the north coast of East Java still use trawl fishing gear.

The Director of PSDKP KKP said that "We also remind the owners, so we are firm not only to the operators in the field, but also to the owners. In addition to the Criminal Code, parties who benefit from the use of prohibited fishing gear can be charged with the anti-money laundering law or TPPU" (Rahman, 2022). And it can be concluded that the sanctions given to fishermen who are desperate to still go to sea are very strict and there is no tolerance. Administrative sanctions and criminal sanctions are what will be very burdensome and detrimental to the economy of cantrang fishermen.

Some steps to minimize polemics and protect the environment include: (1) The government and fishermen sit together, determine environmentally friendly fishing gear on the one hand, but also have an impact on the welfare of trawl fishermen; (2) Cooperate with universities to be able to conduct a research and ecological study and the impact of trawl gear on ecological sustainability; (3) Build conflict management while trying to provide special protection for traditional fishermen (Viana et.al 2021).

The trawl fishing gear, which has been operating for years and has become a source of life for fishermen, cannot simply be abolished or banned by the government without involving the perceptions of trawl fishermen. The purpose of this study is to determine the comparison of the perceptions of trawl fishermen communities between PPP Mayangan Probolinggo and PPP Bulu Tuban related to the rules of the trawl ban on the existence of the trawl ban regulation.

METHOD

The data collection techniques in this study are using interview techniques, interviews, and questionnaires, while the parameters in this study include main parameters and supporting parameters. The research was conducted at the location of PPP Mayangan Probolinggo and PPP Bulu Tuban. The analysis unit used is the fishing community of cantrang fishing gear as respondents and has the status as a ship owner as an object in the study, this research uses the Survey method (Harlan, 2018) and purposive sampling, According to Arikunto (2017) if the subject population is more than 100 then 10-15% or 15-25% can be taken. The population of trawl vessels in both locations is 102 trawl vessels, so the number of samples taken is 20%, with a division of each location of 10 trawl vessel owners.

Measurement Scale

The questionnaire in this study used a Likert scale method and the type of questionnaire used a closed questionnaire type. According to Sugiyono (2018) the Likert scale is a scale used to measure the attitudes, opinions, and perceptions of a person or group of people about social phenomena.

The following is an explanation of the 5-point Likert scale (Sugiyono, 2018):

- Strongly Disagree (STS) with a value of 1
- Disagree (TS) with a value of 2
- Neutral (N) with a value of 3
- Agree (S) with a value of 4
- Strongly Agree (SS) with a value of 5

Validity and Reliability Test

Data has a very important position in a study. Because the data is a description of the variables studied and the data as a function of hypothesis proof tools. Valid or invalid data determines the quality or quality of the data. And this also depends on the instrument used, which fulfills the principles of validity and reliability. Instrument tests in research using validity tests and reliability tests (Riskawati, 2013):

Validity test

According to Sugiyono (2017) shows the degree of accuracy between the data that actually occurs on the object and the data collected by the researcher. In this validity test, the aim is to measure whether the data that has been obtained after research in the field has been declared valid or invalid, namely by using a questionnaire measuring instrument. This validity test is carried out to measure whether the data that has been obtained after the research is valid data or not, using the measuring instrument used (questionnaire). This validity test was carried out using the SPSS 25.0 for windows application.

$$r \text{ hitung} = \frac{n \sum XY - (\sum X \cdot \sum Y)}{\sqrt{\{n \sum X^2 - (\sum X)^2\} \{n \sum Y^2 - (\sum Y)^2\}}}$$

where (r count) is the correlation coefficient, the symbol (n) is the number of subjects studied, $\sum X$ is the number (X) of item scores, $\sum Y$ is the number (Y) of total scores. $\sum X^2$ is the number of squares (X, Y²), namely the number of squares of Y, $\sum XY$ is the number of squares between X. The correlation value obtained from the formula is then compared with the value in the correlation coefficient table r. The item is called valid if the correlation value is greater than the value in the table or (r count > r table) at the 5% significance level.

Reliability test

According to Sugiyono (2017) states that the reliability test is the extent to which the measurement results using the same object will produce the same data. In this study, to determine the reliability test, namely using the SPSS 25.0 for Windows application. The variable will be declared reliable if:

1. If r-alpha is positive and greater than r-table then the statement is declared reliable.

2. If r -alpha is negative and smaller than r -table then the statement is declared unreliable. If the Cronbach's Alpha value > 0.6 then it is reliable b. If the Cronbach's Alpha value < 0.6 then it is declared unreliable.

And the data can be said to be reliable if it has a Cronbach's Alpha value $>$ from 0.6 (Priyatno, 2013).

RESULT AND DISCUSSION

Tabel 1. Research Result of Perceptions

No	Question	PPP Mayangan Answers	PPP Bulu Answers
1.	Perceptions of Mayangan PPP and Bulu PPP seine net fishermen regarding the cantrang ban regulation.	70% Disagree	70% Strongly Disagree
2.	Perceptions of Mayangan PPP and Bulu PPP trawl fishermen regarding trawl can still be replaced by other fishing gear in providing financial benefits.	60% Disagree	60% Strongly Disagree
3.	Perception of trawl fishermen of PPP Mayangan and PPP Bulu that trawl gear is not selective and reduces fish resources.	70% Disagree	70% Strongly Disagree
4.	Perceptions of Mayangan PPP and Bulu PPP trawl fishermen related to that the rules of the trawl ban provide more fish opportunities.	80% Disagree	80% Strongly Disagree
5.	Perceptions of trawl fishermen of PPP Mayangan and PPP Bulu related to trawl are not environmentally friendly and threaten environmental sustainability.	70% Disagree	70% Strongly Disagree
6.	Perception of trawl fishermen PPP Mayangan and PPP Bulu related to sanctions given by the government is not burdensome.	50% Disagree	50% Strongly Disagree
7.	Perceptions of Mayangan PPP and Bulu PPP trawl fishermen regarding the rules of the trawl ban have led to conflicts between fishermen.	70% Disagree	70% Strongly Disagree
8.	The perception of trawl fishermen of PPP Mayangan and PPP Bulu related to the ban on trawl does not interfere with the activities of trawl fishermen.	90% Disagree	90% Strongly Disagree
9.	The perception of Mayangan PPP and Bulu PPP trawl fishermen regarding the rules of the trawl ban does not need to be reviewed by the government.	70% Disagree	70% Strongly Disagree

No	Question	PPP Mayangan Answers	PPP Bulu Answers
10.	Perceptions of trawl fishermen of PPP Mayangan and PPP Bulu related to trawl fishing gear being replaced with bagged drag net fishing gear.	60% Disagree	60% Strongly Disagree
11.	Perceptions of trawl fishermen of PPP Mayangan and PPP Bulu related to catches often get coral reefs.	70% Disagree	70% Strongly Disagree
12.	Perceptions of trawl fishermen of PPP Mayangan and PPP Bulu related to fishermen switching to other professions and not becoming fishermen.	80% Disagree	80% Strongly Disagree
13.	The perception of trawl fishermen of PPP Mayangan and PPP Bulu regarding the rules of the trawl ban does not cause significant losses.	70% Disagree	70% Strongly Disagree
14.	The perception of trawl fishermen of PPP Mayangan and PPP Bulu related to socialization and strict supervision by the government is effective in making fishermen leave trawl fishing gear.	50% Disagree	50% Strongly Disagree
15.	Perceptions of trawl fishermen PPP Mayangan and PPP Bulu related to the rules of the trawl ban caused losses and the government provided assistance as compensation.	70% Disagree	70% Strongly Disagree

Source: Primary Data, 2024 (Processed)

Based on the results of the validity test and reliability test using SPSS 25.0 software on the perceptions of UPT PPP Mayangan and Bulu trawl fishermen, all questions asked and answered show that they are valid and reliable because the value of $r_{count} > r_{table}$ $N = 10$ (0.632) at the 5% significance level and the Cronbach's Alpha value $>$ from 0.6.

Perception related to question 1 is that the rule makes the work of cantrang fishermen in both locations threatened and unsafe, they also said that they have been using this tool for more than 30 years and require considerable capital to buy this fishing gear. So when they learned of the cantrang ban, they agreed to reject it (Suprapti et al., 2017). According to them, what should be banned is the cantrang vessels with very large GT sizes, reaching 50 GT and above, which operate in the Natuna sea and also operate a lot in the waters of Juwono and Rembang, Central Java because their catches can be thousands of tons compared to cantrang vessels of 30 GT and below.

The perception related to question 2 is that trawl fishermen in both locations in Mayangan and Bulu will continue to use this tool, even though it is prohibited by

the government. This is because when fishermen catch fish using seine net, they always get fish even during the lean season even with small results. According to them, as long as they use cantrang and whenever they go to sea, they will definitely get fish catches. Respondents also explained that it is different with other fishing gear fishermen such as purse seine, if in terms of going to sea there are more holidays and if calculated within one month only going to sea for 15 days, therefore the catch is still below cantrang.

Perception related to question 3 is that trawl fishermen in both locations said in agreement that this fishing gear is a selective fishing gear because it aims to catch demersal fish or bottom waters. They also explained that small fish that enter the net make cantrang considered not selective but the fish cannot be large in size even though it has matured gonads. They also said that if there are fish other than the target caught that have high marketability, they will still sell them. If the fish is protected, they will release it again. This result shows the discrepancy between the government's statement by the KKP (ministry of marine fisheries) in 2015 and the reality on the ground (Hakim, 2018).

Perceptions related to the 4th question, namely cantrang fishermen believe that whether or not there is a cantrang ban, the name fish will always be there, it is impossible if every time they go to sea they will not get fish, they also consider that the way God's mathematical calculations and humans are very much different and cannot be compared, humans may say that now the amount of fish is getting harder and rarer to get, but in reality they claim to have never had difficulty in getting fish, so if humans say the cantrang ban will provide an opportunity for more fish according to them is a false statement.

Perceptions related to the 5th question are that they argue that cantrang is unlikely to threaten environmental sustainability because on the contrary cantrang fishermen are afraid that their cantrang nets will be damaged and torn, respondents also added that every time they go to sea their cantrang nets are always damaged because when they are pulled they are caught by shipwrecks, large rocks, corals. They also said that if you say it is destructive and threatening it can depend on each fisherman's knowledge if they are in search of fish approaching a new island it can be said to damage and even threaten the preservation of coral reefs but only a few fishermen of that type.

Perceptions related to the 6th question, namely cantrang fishermen argue that strict sanctions for violators, namely cantrang fishermen conveyed by the government through the PSDKP KKP, can be ensnared with the threat of criminal TPPU (Money Laundering Crime) to ABK to cantrang ship owners and also administrative fines with a large enough nominal that is still desperate to operate is enough to explain how burdensome sanctions are. This is reinforced by several respondents of boat owners in Mayangan who admitted that in several times at sea they were hit by raids by the KKP and sometimes received administrative fines

worth hundreds of millions so that some of these boat owners suffered losses by selling their property in the form of cars to cover their losses.

Perception related to the 7th question is that they in both locations are of the same opinion that before the existence of the regulation and after the regulation, the relationship between fishermen among trawl and other fishing gear such as purse seine did not experience any conflict, they claimed to stay together and get along together to make a living in the same place. They added that it is different if the rules of the cantrang fishing gear in its implementation are carried out strictly until the cantrang cannot go to sea at all, then it will make a big enough conflict as has happened in 2018.

Perceptions related to the 8th question are that they argue that after the cantrang ban, now the fishing license and so on for cantrang vessels are no longer issued and if they want to be issued, they must replace the fishing gear allowed by the government, namely the bagged drag net fishing gear so that when they go to sea they cannot carry any paper files and it creates a sense of discomfort and a thought that is wary if at any time there is a raid on their fishing papers they can be caught, this is certainly very disruptive to their work activities. Some cantrang fishermen stated that when the regulation was issued fishermen became anxious when going to sea because they had been labeled as illegal fishermen so it was very miserable for cantrang fishermen if they continued to go to sea for fear of being caught during an operation by Polairut (Hakim, 2018).

Perceptions related to question 9, namely cantrang fishermen in both locations agreed that the rule really needs to be reviewed, because the Mayangan Probolinggo cantrang boat owner admitted that the rule was very real disadvantage to them, because often several times received administrative sanctions worth up to hundreds of millions on the ships they owned even though the letters owned were complete. They also have input for the government in reviewing the regulation by changing it into a form of limiting the number of existing trawl vessels and operating trawl vessels, for example, each trawl vessel owner cannot own more than 2 vessels and regulating fishing days using an even odd system in the operation of the ship, so that in a day not all ships operate at sea so that the ecosystem and the availability of fish remain sustainable in the fishing season (Ermawati Dkk, 2015).

Perceptions related to question 10, namely cantrang fishermen agree that the replacement fishing gear is not suitable to replace the cantrang that has been used for years, the bagged drag net has been made and used by cantrang fishermen in Mayangan Probolinggo and also even documented how to operate and catch, but the results are far different from the catches they often get using cantrang fishing gear, finally they experience significant losses because the catch of the replacement fishing gear is not able to replace the cost per trip once at sea. Therefore, to overcome these losses, mayangan trawl fishermen continue to carry and use trawl gear when going to sea, besides that they also continue to carry replacement fishing

gear as a form of anticipation if there are patrol boats that want to raid their fishing gear. Although respondents of cantrang fishermen at PPP Bulu have not felt the replacement fishing gear but after knowing the conditions that occur to cantrang fishermen at PPP Mayangan they agree not to agree to use the replacement fishing gear. The transition to environmentally friendly fishing gear will be realized if the Government wants to replace fishing gear to environmentally friendly fishing gear with a note, the cost of making it cheaper and the fishing gear can produce the same amount of catch as fishing gear (Suprapti Dkk, 2017).

Perceptions related to question 11 are that they agree that if asked whether they often get coral reefs or not, they answer that it is almost very rare and only occasionally get coral reefs, even then the size is very small and once they get it, they immediately return it back into the sea, so if the government's consideration that their fishing gear damages the ecosystem is wrong and not true. This proves that the government's allegation through the CTF that trawl fishermen damage coral reefs is very inaccurate.

Perception related to question 12 is that they agree that they have been working as trawl fishermen for years and do not want to change to any profession other than their expertise can only be in the field of fishing and also because the income from fishing exceeds the work on the mainland. They feel very comfortable with their current fishing profession because they can support their families in peace. Fishermen also complained about the difficulty of finding replacement jobs, as well as the cantrang fishermen's helper workers who lost their jobs because the cantrang fishermen were no longer at sea.

Some cantrang fishermen expressed their opinion that if cantrang has been banned they want a feasibility test by the government and prove that the minimum yield of other fishing gear is comparable or more. Fishermen want the government to provide new jobs specifically for trawl fishermen. For those who have capital such as ship owners are willing to move to other jobs. If there are still crew members who are willing to go to sea with other fishing gear such as fishing rods, capital owners are willing to provide equipment and equipment. On the other hand, the crew members who do not have capital are willing to move as long as someone provides capital assistance, but the results obtained will affect whether or not the fishermen survive the use of fishing gear or other jobs (Hakim, 2018).

The perception related to question 13 is that they argue that on the contrary, the existence of a ban that has not been revoked until now has made Mayangan Probolinggo trawl fishermen in particular experience significant losses until many trawl boats are not operating or practically bankrupt. This also affects the captain or crew of the ship because they become unemployed and lose their jobs. The tight supervision at sea if there is a raid so they admit that they almost often get administrative sanctions worth almost hundreds of millions. This makes cantrang fishermen in Mayangan feel disadvantaged, besides that they also have a feeling of

waswas and not calm during fishing because they are overshadowed by this rule, even though Mr. President Jokowi has promised and allowed them to "miyang" or go to sea during a grand demonstration in Jakarta in 2018 but there is no guarantee of security for cantrang fishermen if they continue to go to sea with the cantrang fishing gear. This is in accordance with research by Nababan, et al (2018) conducted on the North Coast of Java Island which says that cantrang can return to operation until a resolution process is found. cantrang fishermen in PPP Bulu have not really felt a significant impact related to the cantrang ban but they have a high sense of empathy for the conditions experienced by Mayangan cantrang fishermen.

Perception related to question 14 is that they think that the socialization that has been done many times by the UPT will not change anything both in Mayangan PPP and Bulu PPP because they have been very comfortable for years using this tool because the results are very profitable when compared to other fishing gear. Related to the supervision that is quite firm by the government also does not make them switch to other fishing gear or move to non-fishing professions because this is the only expertise they are good at in making a living for the family so any risk they will take for the sake of their families.

Perceptions related to question 15 are that they argue that they do not want to be given any assistance by the government because they think it is useless if they are given assistance as compensation but their cantrang fishing gear is forced to stop operating, and even if they are given assistance they still refuse on the grounds that this form of assistance will not be able to replace the losses they have experienced so far. The crisis of trust in the Government towards the policies offered seems to be a boomerang for fishermen. This is also the case with the cantrang fishing gear. The question here is whether the government is ready to replace cantrang fishing gear to environmentally friendly fishing gear with the same amount of catch as cantrang (Suprpti et al, 2017).

CONCLUSION

The perceptions of the Mayangan and Bulu PPP trawl fishermen communities are both classified in the strongly disagree/disagree category and this shows that there has been a crisis of confidence in the policies implemented by the current government. If this ban remains in effect without any reorganization by the government, it will potentially cause losses such as loss of income and will cause unemployment in the crew.

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