

# Overview of Fish Catchment Policy in Improving Eco-Friendly and Economy in Lamongan

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**Abstract.** This research aims to find out factors that may impede the implementation of the cantrang prohibition policy in Lamongan; the right policy model in maximizing the proper and proper use of cantrang in Lamongan. This research uses a qualitative approach. Data collection is conducted with observations, interviews and documentation. Data analysis techniques using Miles and Huberman qualitative analysis. Research result shows that the implementation of the cantrang prohibition policy has not gone well which the implementation of the policy is hindered by the attitude of the implementers who are still considering the socioeconomic impact of the fishing community.

**Keywords:** Policy Implementation, Cantrang

## Introduction

Indonesia is the world's largest island/marine nation with more than 17,508 islands with two-thirds of its territory being waterways and strategically located. Two-thirds of the country's area consists of oceans with the second-longest coastline in the world. Indonesia's vast coastline has a coastline of 81,290 km, about 75% of which is a 5.8 km waterway including Exclusive Economic Zone of Indonesia and is also the largest in the world with an island of approximately 17,000 islands with a land area of 1,922,570 km and a water area of 3,257,483 km. One of the districts that have waters in Indonesia is Lamongan Regency.

Lamongan Regency, East Java, has the potential to grow into a new maritime industrial area. Its position along the north coast (pantura) of Java with a beach length of 47 km and a depth of 12 meters is a natural advantage for this area. Seeing this potential, the Lamongan Regency Government in 2009 established a ± 450 ha Lamongan Industrial Area (KIM) covering four villages in Paciran Sub-District, namely Kemantren Village, Sidokelar Village, and Tlogosadang Village. The determination of the four villages as KIM is based on the survey results from the Ministry of Industry and Trade of East Java Province as well as the depth factor of the surrounding sea that allows for large-ship docking.

Cantrang is a type of fishing device that belongs to the seine net. This fishing device serves to capture demersal fish resources operated by looping in the water and then towed on board using human power or engine power. Cantrang is a rapidly growing fishing tool as a trawling replacement fishing technology, where trawls have been banned from operating in Indonesia since the publication of Presidential Decree No. 39 of 1980. This technology developed from the North Coast of east Java spread to the western regions, along with the use of winch axle axles for the withdrawal of ropes during hauling [1].

The high rate of exploitation of fish resources and exceeding their carrying capacity has a direct impact on the sustainability of resource availability, accelerating the process of damage to fish resources and declining long-term economic growth. Therefore, fisheries resources need to be managed sustainably concerning management rules that support the sustainability of resource availability. Disruption of the sustainability of resource availability usually occurs due to impaired regeneration capabilities caused by uncontrolled utilization

rates due to the use of unfriendly capture tools. The use of cantrang is considered to damage marine ecosystems, resulting in reduced waterbed productivity. However, the Minister of Marine Affairs and Fisheries provided several measures of handling for fishers affected by the prohibition of the use of cantrang fishing equipment. The handling is divided by the size of the fishing boat.

Therefore, in January 2015, the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Susi Pudjiastuti then issued Ministerial Regulation No. 2 of 2015 on the Prohibition of The Use of Trawler Fishing Equipment (Trawls) And Trawling (Seine nets) in the State Fisheries Management Area of the Republic of Indonesia. The application of Regulation of the Minister of Marine Affairs and Fisheries No. 2/PERMEN-KP/2015 on the Prohibition of The Use of Trawler Hela (trawls) and Trawler Tarik (seine nets) can be a preventive instrument for the harmony and sustainability of natural resources (fish). Nevertheless, the publication of Permen KP No.2 Year 2015 seems to be back to being barren in its implementation as was the case with Presidential Decree No.39 of 1980. Because in fact, there are so many findings using trawl nets and modifications in fishing practices in the territorial waters of the Republic of Indonesia. Until 2016, Permen KP No.2 year 2015 on Prohibition of The Use of Trawler Hela Fishing Equipment (trawls) and Trawling (Seine Nets) was refined into Candy KP No. 71 the year 2016 on Fishing Line and Placement of Fishing Tools in the Indonesian State Fisheries Management Area.

Based on the description of the empirical gap above shows that the implementation of policies in banning the use of some fishing equipment has a positive and negative impact that needs to be considered to be overcome negative impacts to have a more positive impact. Therefore, this research is increasingly important by aiming to know and evaluate: (1) implementation of the policy of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia No. 71/PERMEN-KP/2016 on Fishing Line and Placement of Fishing Equipment in the Indonesian State Fisheries Management Area; (2) factors that may impede the implementation of the cantrang prohibition policy in Lamongan; (3) the right policy model in maximizing the proper and proper use of cantrang in Lamongan.

### **Research methods**

The method used in this study is qualitative. Qualitative research in question is to understand the phenomenon of what research subjects experience holistically in a descriptive way in the form of words and language in a context, especially natural ones by utilizing various natural methods [2]. Furthermore, this study uses descriptive qualitative research that aims to gather detailed actual information describing existing symptoms, identifying problems or examining applicable conditions and practices. In descriptive methods are used to describe specific facts or fields systematically.

The types of data contained in this study are based on the source using primary data. The primary data in this study is observation, documentation and interview data. The observations used in this study are participatory observations that are observations where researchers engage with daily activities with objects observed or used as a source of research data [3]. At the same time, the interview method used by researchers in this study is a semi-structured interview. Interviews were obtained using interview instrument aids containing questions related to the implementation of George Edward III's policy consisting of (1) Communication; (2) Resources; (3) Disposition; (4) Organizational Structure.

## **Discussion**

### **Factors That May Hinder The Implementation of Cantrang Prohibition Policy in Lamongan Fisherman's Rejection**

The cantrang usage regulation stipulated in regulation 2 of 2015 and Also No. 71 of 2016. Still, the regulation raises the pros and cons between the Government and fishers, which also provoked a vehement rejection from fishers. The cantrang fishing community has strongly rejected the prohibition on the use of cantrang fishing equipment. The rejection of the fishing community created obstacles in the implementation of the policy of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia No. 71/PERMEN-KP/2016 on Fishing Lines and The Placement of Fishing Equipment in the Indonesian Fisheries Management Area.

### **Fisherman's Education and Expertise**

Based on the results of the analysis conducted through interviews can be explained that most anglers have a lower secondary education so that it makes the lack of knowledge of fishers related to the importance of marine ecosystems. In addition to low levels of education, fishers also lack expertise in operating other fishing equipment in addition to cantrang. The low levels of education can be an obstacle in the implementation of cantrang prohibition policy in Lamongan. This result is in line with the results of the study [4] shows that the implementation of the policy of banning the use of Trawler Hela (Trawl) has not gone well because fishers have not switched fishing tools and still operate. The Hela Trawler (Trawler Tarik Mini) and the dominant factors that cause fishers have not switched fishing tools are capital, income, ability (skills) and experience.

### **Environmental Awareness**

Subani in Sumardi et al., (2014) defining fishing tools is a tool used to make fishing and shrimp. Fishing equipment used to chase hordes of fish in the water, both in marine waters and in freshwater. An environmentally friendly fishing tool is a fishing tool that does not negatively impact the environment, which is the extent to which it does not damage the waterbed, the possibility of a loss of fishing equipment, and its contribution to pollution. Another factor is the impact on bio-diversity and target resources, namely the composition of catches, the number of catches and the capture of young fish (Arimoto et al., in [5]).

Cantrang is a net-shaped capture tool that when viewed from its shape resembles a paying capture tool, but the size in each section is smaller. When viewed from its main function and catch, the cantrang resembles a trawl, but the shape is simpler, and at the time of operation it is not towed by the ship and does not use a net opener. In general, cantrang is classified into danish seine or Snurrevard groups found in Europe and some in the United States.

Banning the use of cantrang fishing equipment because it can damage marine ecosystems. But on the other hand, anglers still have a low awareness in environmental preservation such as maintaining marine ecosystems, so this makes the reason for anglers to continue to use cantrang fishing tools in catching fish in the sea.

### **No Alternative Solution**

In banning the use of cantrang fishing equipment, the Government should provide an alternative solution to the use of other fishing tools that anglers can use to catch fish. However, the Government has not provided an alternative solution for anglers to keep looking for fish in the sea without the use of cantrang fishing equipment. The Government ignored the ombudsman's recommendations and was slow to come up with a solution that was also incompatible with the needs of the fishing community. On the other hand, the Government has also not attempted to find alternative fishing tools that remain effective and efficient and do not reduce the productivity of fishers. It is also one of the inhibitors of the implementation of the prohibition of the use of cantrang, which will be detrimental to anglers in the work of finding fish.

Artati (2018) found that the Government has issued various regulations banning the use of cantrang as a fishing tool because cantrang harms fish resource supply and damages the ecosystem. But the application of sanctions to small fishers is still applied step by step until fishers move to more environmentally friendly fishing equipment.

### **Socioeconomic Impact of Fishermen**

Based on the results of the interview shows that there are socioeconomic impacts that need to be considered as obstacles in the implementation of the policy of using cantrang capture tools. Banning the use of cantrang capture tools can have various social and economic impacts, both short-term and long-term impacts. Short-term impacts such as rising unemployment, decreased fishery production, decrease in regional incomes, bad loans, and declining employment. The administration of the prohibition of cantrang will affect the fate of the fishing community and the world of processing business in the field of fisheries. With the prohibition of fishers using cantrang fishing equipment, then the productivity of fishers or fishing fish will be reduced so that eventually it can have an impact on the economy of fishers that also decreases.

This finding is in line with the findings [7] which found that fishing business activities captured by fishermen after the issued regulation of the Minister of Marine Affairs and Fisheries No.2/PERMEN-KP/2015 on The Prohibition of The Use of Trawler Hela (trawls) and Trawling Tarik (seine nets) have an impact on large anglers as well as small fishermen in terms of juridical, economic and social. Likewise, Rawaeni (2017) which found that the inhibitory factor in law enforcement prohibition of the use of cantrang capture tools is economical and financial, as well as the procurement and replacement of new capture tools, requires little funding. Mantasia (2017) also found that the impact of hela trawler bans and pull trawlers on fishing communities using hela trawlers and pull trawlers is down to the economy of fishers, the number of unemployed in coastal areas, and some fishermen are moving to smaller fishing devices.

### **The Right Policy Model in The Proper Use of Cantrang in Lamongan**

Based on the results of the analysis, it can be explained that the right policy model in the proper use of cantrang in Lamongan is to change the prohibition of the use of cantrang into a setting for the use of cantrang. For cantrang to remain operational, there needs to be a clear and strict arrangement by the KKP representing the Government of Indonesia. These arrangements cover the procedures and technicalities of cantrang operations throughout Indonesia. The Government should be able to provide appropriate arrangements so that anglers can still use fishing equipment with cantrang but still pay attention to the health of

ecosystems in the sea. Besides, the Government also needs to facilitate training on the use of alternative fish fishing tools that are more environmentally friendly.

Therefore, there needs to be a new policy to address this with the real implementation of socialization of Socio-Cultural Based Regulations, which refers to the improvement of regulations that prioritize socialization based on social culture. In this case, the Government needs to do various socialization aimed at explaining to fishers the use of cantrang well and properly and also explaining the importance of maintaining the sustainability of marine ecosystems to stay healthy. Besides, the Government also needs to revise the regulations that were originally banned into regulations.

### Conclusions

The results of research on the Implementation of The Policy of the Minister of Marine Affairs and Fisheries of the Republic of Indonesia Number 71/PERMEN-KP/2016 on Fishing Line and Placement of Fishing Equipment in the Indonesian State Fisheries Management Area can be drawn several conclusions, among others:

- a. The implementation of the policy is quite good, but there are still some obstacles in banning the use of Cantrang in Lamongan. According to George Edward III's theory, communication shows that communication is always carried out by prioritizing coordination between parties. Related human resources look adequate consisting of various authorities. Related dispositions lead to commitments in carrying out policies. Thus the organizational structure shows that the implementation of the policy of banning the use of Cantrang in Lamongan has been implemented following the existing bureaucratic structure.
- b. There are several inhibitory factors such as the rejection of anglers, the lack of education and expertise of fishers, low awareness of environmental preservation, the absence of alternative solutions from the Government, and the onset of socioeconomic impacts of fishers.
- c. The model of organizing the use of Cantrang in Lamongan refers to the new policy with the form of good and correct cantrang usage arrangements through the real application of Socialization of Socio-Cultural Based Regulations.

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