Conflict Among Fishers: A Case Study of Conflict in Using Fishing Gears in Mukomuko Regency, Bengkulu Province - Indonesia

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Abstract. This research is obtained to analyze the causes of conflict, explore the involvement of relevant actors, and explore the forms of conflict in using the fishing gear in Mukomuko Regency. The data were collected by conducted in-depth interviewing of some key informants and observation the specific location. Some essential analysis tools using are stages of a conflict, conflict mapping, and conflict tree. This research found that the causes of conflict are seizure of fishing areas, struggle for shrimp resources triggered by its high prices, violations on 'Friday,' collisions of traditional fishing gear, and unsuitable fishing gears. The conflict involves crew members, ship owners, and community leaders. The physical conflict then involved local government officials, the Indonesian Navy, and the police. The conflicts included trawling, chasing and arresting fishers, crashing fishing nets, burning ships, reporting to the police, and confiscating fishing gear.

Keywords: social conflict, fishers, fishing gear, fishing area

1 Introduction

The sea is an open-access resource so that it becomes an area used together. Because of this nature, it can cause problems, namely the problem of the fishing area where the fishers operate. This problem may be triggered by the fishing gear regulated through the Minister of Maritime Affairs and Fisheries Regulation Number 2 of 2015 concerning the Prohibition of the Use of Trawls and Seine Nets. Fishing areas which are understood as local knowledge and violations of the use of fishing gear, are repeatedly the cause of the emergence of social conflicts among fishers.

Social conflicts in fishing communities have been revealed in various studies. For example, it reveals conflicts in the use of fishery resources due to the operation of modern fishing vessels in traditional fishing areas in Minahasa [1]. The conflict occurred between fishers in Riau due to the struggle for certain types of fish between longline fishermen, stone net fishers, and trawler fishers [2]. Furthermore, fishing conflicts triggered by mini trawlers were also found in

East Java waters [3]. In addition, the construction of a dock for a multinational mining company in Balikpapan has a negative effect on fishers due to damaged fishing grounds and loss of fishing gear [4]. This study also reveals that vertical social conflicts are based on the struggle for resources between multinational companies and fishers. Conflicts among fishers also occurred in Bengkulu [5]. The study found conflicts between traditional and modern fishers in Bengkulu City due to the operation of trawling boats, even though the government has prohibited them from entering traditional fishing areas.

The conflict of resources and fishing gear that occurred in Mukomuko Regency was based on using trawler fishing gear and entering the fishing area of other fishers [6]. In this study, the conflict between the fishers of Pantai Indah Mukomuko (PIM) and the fishermen of Pasar Bantal Village (DPB) lasted for a long time. The first time the conflict occurred was on September 27, 1999, when seven boats belonging to DPB fishers were burned because they were operating in the fishing area of PIM fishers. Then there was the conflict in 2004 where DPB fishers were fishing on Friday and were in the fishing area of PIM fishers. Friday is a forbidden time to go to sea according to the belief system of fishers on the coastal of Mukomuko Regency. On July 2, 2008, the dispute was repeated when PIM fishers saw many boats belonging to DPB fishers in their fishing area. The conflict culminated in the stabbing of one of the PIM fishermen by DPB fishers. Furthermore, the conflict on October 19, 2016, was caused by DPB fishermen crossing the boundaries of the fishing area by operating trawlers, causing damage to the PIM fishing nets installed in PIM waters [7].

The conflict takes place in an unequal structure of control over the means of production. PIM fishers operate simple fishing gear such as fishing rods and nets, and the distance is not too far by using an outboard motor. On the other hand, DPB fishers use the modern fishing gear. The modern fishing gear they use make fishing more effective and efficient—trawling-type fishing gear with a more extensive fleet and more extended range.

According to Fisher et al. [8], conflict is a relationship between two or more parties, both individuals and groups, with incompatible goals. According to him, conflict can take manifest conflict (open) or latent conflict. Latent conflict is the seed of conflict between individuals or groups of organizations but still below the surface. This latent conflict is difficult to detect because it is closed and inherent in society [9]. The condition of people in a state of latent conflict looks stable, and it could be because of social pressure that does not mean there is no conflict. On the other hand, it could be that a hidden conflict exploded and became a severe conflict.

Manifest or open conflict is a conflict that appears on the surface. According to Fisher et al. [8], the open conflict has real roots in the social structure of society. Open conflicts that appear in life, such as wars, riots, and violence. This type of conflict places the community in a dangerous conflict situation. Moreover, it is not only the root of the conflict that must be addressed but also the impact of the open conflict because manifest conflicts are seen in action.

The sociological perspective offers an approach that assumes that society is constantly changing [10, 11]. Conflict is one form of that change. Thus, instead of explaining the reductionist conflict solely because of production, social conflicts in fishing communities require a more processual explanation that includes the causes, processes, and parties involved.

According to Dahrendorf, conflict is an inherent trait in the social structure, called an imperatively coordinated association [12]. This concept describes a superordinate group that maintains its status and a subordinate group that expects changes in society. Each of these groups has different interests (two quasi-groups with opposite latent interests). Dahrendorf [13] proposed a conflict proposition as an authority relationship in which the superordinate group regulates particular subordinated behavior in the form of orders or prohibitions as the embodiment of expectations associated with specific social status.

Referring to Dahrendorf's conflict theory, the fishermen's conflict in Mukomuko Regency shows the DPB fishing community as the superordinate party while the PIM fishermen are the subordinate ones. An important indicator is a difference in the level of fishing technology they use. In the context of this unequal relationship, both parties maintain their interests in marine fishing operations to maintain their livelihoods. Furthermore, Kinseng [4] concludes from two types of fishers conflict, -internal and external conflict, that conflict among fishers is often an identical relationship with technological and process inequality that accompanies the destruction of natural resources and the destruction of fishermen's livelihood bases.

Specifically, this study applies the research findings of Kinseng [4], which explores internal social conflicts among fishers. According to him, internal conflict does not only occur because of differences in the use of fishing gear but there is a feeling of superiority and inferiority between the two fishing communities. Furthermore, this study aims to (a) explore the causes of conflict between fishers in Mukomuko Regency, (b) identify the actors involved in the conflicted relationship and (c) explore the forms of the conflict.

2 Research Method

This is research that applies qualitative methods in its implementation. This research location was determined purposively, namely in the fishing community of Pantai Indah Mukomuko (PIM) and Pasar Bantal Village (DPB), Mukomuko Regency. The PIM community is located in Koto Jaya Municipality, Mukomuko City District, while the DPB community is located in Pasar Bantal Village, Teramang Jaya District. In these two locations, there was a prolonged social conflict among fishers in a reasonably significant escalation. The trigger for the conflict is the use of fishing gear and the struggle for access to the fishing area.

The research relied on the use of primary data collected by conducting in-depth interviews with 11 key informants. These key informants were community leaders who understand the process of conflict, which is determined by the snowballing technique. They were neighborhood heads, informal leaders, beach handlers, tokes, and fishers leaders in the two locations. Additional secondary data was also collected from the Office of Marine Affairs and Fisheries of Mukomuko Regency. The entire series of data collection was carried out from December 28, 2018, to February 10, 2019.

The data revolves around the context and process of conflict between fishers. Specifically, the data collected included: history of conflict, causes of conflict, actors involved, forms of conflict, and their escalation. These data were analyzed qualitatively by relying on data reduction and data interpretation [14]. Finally, both analysis processes were carried out around

efforts to develop conflict stages, conflict trees, and mapping them [8]. With these techniques, three research objectives can be elaborated.

3 Result and Discussion

3.1 Dynamics of Conflict Causes for Fishers

The Cycle of Conflict. According to Fisher et al. [8], analysis of conflict stages describes the intensity of the conflict cycle every year, starting from pre-conflict, confrontation, crisis, and consequences to post-conflict conditions. This analysis is used to describe the dynamics of the conflict. Conflicts between PIM fishers and DPB fishers have been going on from 1999, 2004, 2008, and 2016 (see Figure 1). This prolonged conflict began when DPB fishers took shrimp in PIM waters. The fishing gear used by DPB fishermen is considered to be similar to trawling, so PIM fishers are worried that the marine resources in their fishing areas will be damaged. Therefore, DPB fishers use *cantrang* instead of trawling, even though the government prohibits this type of fishing gear. Physically *cantrang* is the same as trawling, and it is just that the way the trawling is operated using a machine while the *cantrang* is operated manually. *Cantrang* and trawling tools have different sizes, *cantrang* nets are smaller than trawling.

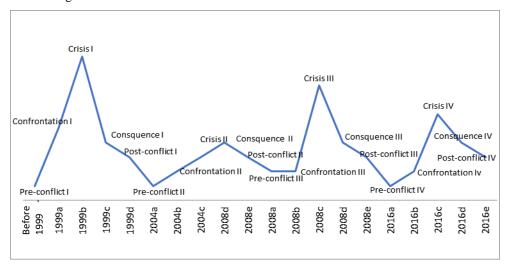


Fig. 1. Dynamics of Conflict between PIM Fishermen and DPB

The intensity and escalation of conflicts that occur fluctuate from time to time. The peaks of the conflict until it reached the crisis stage occurred in 1999, 2008, and 2016. Several facts found in the field reveal the occurrence of this conflict in the following phenomena.

If we pay closer attention, it turns out that conflicts occurred periodically in the middle to the end of the year. The conflict in 1999 occurred on September 27, 1999, and the 2008 conflict occurred on July 2, 2008, and the last conflict in 2016 was on October 19, 2016. This conflict occurred during the East monsoon, which is the wind that blows from April to October. The East monsoon is dry, so that Indonesia will experience a dry season. The positive impact of

the East monsoon on Indonesia is that it supports fishing activities. Good weather for fishers can launch fishing activities without obstacles so that during the East monsoon, most fishers will go to the sea to catch fish. The increased activity of fishers at sea increases the intensity of competition between PIM and DPB fishers in fighting for marine resources, especially shrimp, which were more commonly found in PIM waters during the conflict period.

In contrast to the West monsoon, which blows from October to April, The West monsoon contains a lot of water vapor so that parts of Indonesia experience the rainy season. This season, capture fisheries production declines due to high-risk fishing activities. In other words, fishers reduce the intensity of fishing. As a result, competition for resources is also not as high as in the dry season.

The struggle for marine resources, especially shrimp, was won by DPB fishers because an adequate fleet of ships supported them. Based on interviews and observations, it was found that DPB fishers use mini trawls to catch shrimp, in addition to *jokong* or outboard boats to catch fish. The ship used has a capacity of up to 5 GT. Meanwhile, PIM fishers do not use mini trawlers. They only use outboard boats to catch fish.

This was resulting income inequality among PIM and DPB fishers. DPB fishers catch products such as shrimp and fish using *cantrang*, because the tokes in DPB do the marketing of shrimp and fresh fish while PIM fishers do not catch shrimp, but only fish. PIM's fishing boat fleet is inadequate when it comes to catching shrimp. The high potential of shrimp in PIM is related to the type of soil in PIM waters, which differs from the soil in DPB waters. The soil type of PIM waters is muddy soil suitable as a habitat for various types of shrimp. According to Sembiring [15], the beach with many types of fish and shrimp is muddy.

Meanwhile, the waters of DPB have rocky shores. The type of shrimp in DPB still exists, namely a type of crayfish or lobster. This type of rocky water cannot use active gear because of its difficulty operating it and can even damage fishing gear.

The large number of shrimp potential in PIM does not encourage PIM fishers to use mini trawl to catch shrimp, not merely the inability to use the fishing gear. The tradition there has long prohibited fishers from using trawl fishing gear because it can lead to the extinction of the shrimp population. However, one of the informants emphasized that PIM fishers may use mini trawl as long as they are not operating in PIM waters.

The Causes of Conflict. Based on the analysis of the conflict tree, an explanation of the causes of the conflict was obtained (see Figure 2). First, the collision with the fishing gear of traditional PIM fishers by DPB fishers caused material losses and fisher's anger. Second, Friday's violation. Friday has been designated as a holiday for fishing based on the belief of the predominantly Moslem people. In the fishermen's view, Friday needs to be used for worship and gathering with family so that fishing activities have to be stopped. Therefore, Friday's fishing violation has caused a dispute because it has offended the traditions and beliefs of the people they have upheld.

Third, pragmatic steps through the collection of shrimp by DPB fishers. Zulukhu et al. [1] stated that different orientation views between fishers in resource utilization often trigger conflicts. Fishers who have a long-term orientation in utilizing resources in an environmentally friendly manner. Meanwhile, short-term-oriented fishers often do things that damage the sea resources. Fourth, DPB fishers take shrimp in the traditional fishing grounds

of PIM. PIM fishers think that DPB fishers have crossed the line. Disputes in fighting over resources and fishing areas cannot be avoided when some fishers violate the rules of fishing lanes.

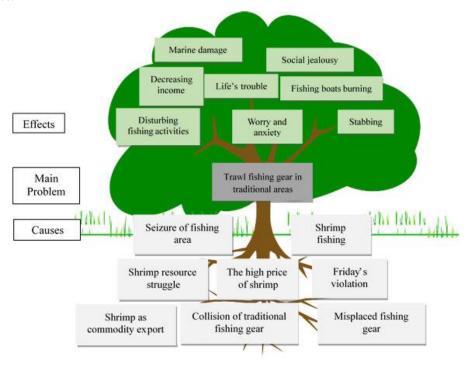


Fig. 2. Conflict Tree between PIM and DPB Fishers

Fifth, the struggle for shrimp resources. DPB fishers take shrimp because there are more shrimp species in the PIM area. Sixth, the high price of shrimp. Shrimp caught from the shrimp *kelong* is an export commodity with high demand and availability of supply chains. Rainaldi et al. [16] stated that DPB fishers have the main catch of shrimp, with six hauling times, namely four types of shrimp. The price of export commodity shrimp, if sold, can reach hundreds of thousands. Seventh, the significant role of the tokes. The tokes export shrimps commodity, and it has encouraged DPB fishers to expand their fishing operations, some of which have even been tied to a contract system with *tokes*. DPB fishers take shrimp to sell to the export market, and getting the shrimp catch is indeed a commodity that *tokes* hopes. Eighth, tools that are not suitable for the fishing area. The problem is that the *cantrang* fishing gear used by DPB fishermen operates up to the traditional areas of PIM fishers.

The main problem in this conflict is *cantrang* fishing gear which is categorized as trawl and operated in the traditional fishing area of PIM. These two things are at issue because they have a detrimental impact on PIM fishers. These impacts are decreasing income of PIM fishers, increasing living expenses, damage to marine ecosystems, social jealousy, burning of DPB fishing boats, stabbing of PIM fishers by DPB fishers, worry and anxiety, and disruption of PIM fisher's economic activities.

3.2 Actors Involved in Fisherman Conflict

This study found several parties involved in the conflict during 1999, 2004, 2008, and 2016. The actors related to the conflict were classified into the primary and directly involved parties and those not directly involved. The primary and directly involved actors are PIM and DPB fishers. The actors who are not directly involved are fishers leaders, community leaders and traditional leaders, *tokes* ('induk semang'), PIM fishing community, North Bengkulu Government¹, Indonesian Navy, Police officers, and the Office of Marine and Fisheries of Mukomuko Regency.

Each actor's roles in conflict dynamics are analyzed by compiling a conflict map of the actors involved during the conflict.

Mapping of actors involved in the 1999 conflict. The conflict in 1999 between PIM and DPB fishers was the most significant conflict of all conflicts because of using trawl (see Figure 3). This year's conflict resulted in the burning of seven DPB fishing boats. All DPB fishers involved at that time were detained by the PIM masses. Fishers and community leaders came to reconcile the masses. Community leaders, fishers leaders, traditional leaders, and DPB *tokes* then visited the detention location and participated in the peace session forum discussions. The peace meeting was finally reached with an agreement not to repeat the trawl and enter PIM waters. In addition, the North Bengkulu Regency Government promised to replace the boat that was burned by the masses.

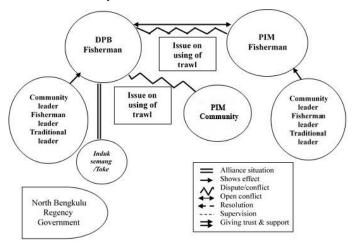


Fig. 3. Mapping of Conflict Fishers Actors of PIM and DPB in 1999

Mapping of actors involved in the 2004 conflict. The conflict in 2004 was called the Friday violation conflict. Friday for fishers in Mukomuko Regency is a fishing holiday. However, at that time, DPB fishers came to PIM waters to catch shrimp and fish. PIM fishers came and

¹ Prior to 2003, Mukomuko was a part of North Bengkulu Regency. Mukomuko Regency was formed on the basis of RI Law No. 3 of 2003, dated February 25, 2003. The establishment of Mukomuko as a separate region from North Bengkulu Regency was based on various strategic considerations that lead to regional development and optimization of regional development.

caught the fisherman and then brought them into community leaders and fisherman leaders. They have to be held accountable for their activity in the customary court. After the peace session, there was a discussion on the imposition of sanctions on the fishers of DPB (see Figure 4). The sanction was paying a fine of 10 sacks of cement given to PIM and DPB community.

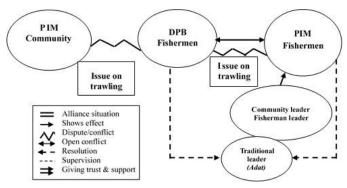


Fig. 4. Mapping of Conflict Fishers Actors of PIM and DPB in 2004

Mapping of actors involved in the 2008 conflict. This conflict started with PIM fishers stalked DPB fishers in waters suspected of being in the PIM area. PIM fishers suspected the activities of DPB fishers using *cantrang* and then emotionally reported the incident to the Navy Marines (The Indonesian Navy). The Indonesian Navy and fishers leaders then went to the scene and arrested him. On the way to PIM mainland, one of the captured DPB fishermen fought back and slashed the hand of one of the PIM fishers. Some fishers succeed in escaping by plunging into the sea. The fishers who were caught were then handed over to PIM community leaders for security reason. A fisher who succeeded in escaping was finally caught in the Air Punggur area. After the mediation, the arrested DPB fishers must carry out mandatory reporting to the police and the Indonesian Navy (see Figure 5).

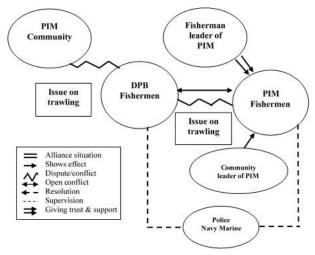


Fig. 5. Mapping of Conflict Fishermen Actors of PIM and DPB in 2008

Mapping of actors involved in the 2016 conflict. This year's conflict occurred because the net belonging to the traditional fishers of PIM was hit by a fishing boat from DPB. After reporting, the police and community leaders came to PIM. The fisher who carried out the collision was eventually arrested by the police and required to report. After the customary meeting, the perpetrators were subject to customary fines and replaced the fishing nets damaged due to being hit by a boat (see Figure 6).

This conflict prompted the Office of Marine and Fisheries Affairs of Mukomuko Regency to intervene by enforcing the rules. However, instead of enforcing the rules, mediation is prioritized with the agreement of both parties. As a result, the mediation process reached common ground with signing the official report containing the agreement on the boundaries of the fishing area for traditional fishers using machines under 5 GT for 1.5 miles. The mediation also reaffirmed the prohibition on the use of trawls and seine nets, where *cantrang* are classified as seine nets, as prohibited under the Regulation of the Minister of Maritime Affairs and Fisheries of the Republic of Indonesia No. 2/PERMEN-KP/2015.

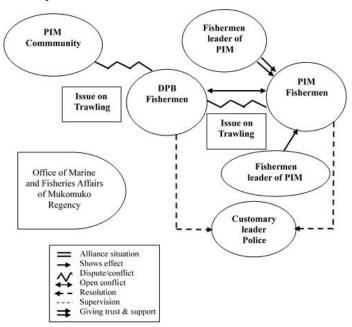


Fig. 6. Mapping of Conflict Fishers Actors of PIM and DPB in 2016

3.3 The Forms of Conflict among Fishermen

The discussion above shows that there are incompatible goals between the fishing communities of PIM and DPB. According to the framework of Fisher et al. [8], this broad definition includes forms of social relations that have their roots in the psychological elements and social structures in which these relationships occur. In other words, conflicts among fishers that occur can take the form of suspicion to open physical conflicts (Table 1).

The forms of conflict among fishers occur from mild forms of conflict to severe forms of conflict. The order of the mildest to the most is the spread of the issue of trawling fishing gear,

collision with fishing gear, Friday violations, chasing fishers, arresting fishers, reporting to the authorities, confiscation of fishing gear, and the most severe form of conflict burning that occurred in 1999.

The lightest conflict is the spread of the issue of trawling fishing gear used by DPB fishers. However, DPB fishers rejected the issue because they claimed not to use trawlers but to use *cantrang*. The issue of using trawling then encourages open conflict. Up to this point, the issue surrounding the use of the fishing gear is the fuel for a more significant conflict.

There was a fire on the fishing boat DPB in 1999, which was operating in PIM waters. Furthermore, a similar violation occurred in 2013, although an agreement was made on territorial boundaries and fishing gear approved by the Office of Marine and Fisheries Affairs of Mukomuko Regency. The incident of collision with fishing gear by DPB fishers in 2016, although there were no physical victims, the fights and losses for PIM traditional fishers were unavoidable.

Another open conflict that occurred was the pursuit and arrest of DPB fishermen. This conflict is a continuation of the suspicion and dislike that has led to physical violence. In 2008 the pursuit and arrest of DPB fishers who re-entered the fishing area of PIM fishers resulted in a stabbing. As a result, the perpetrators had to deal with the Navy and the Police. There is a conflict involving government officials, namely in the form of reporting to the police and leading to the confiscation of fishing gear and customary fines.

Table 1 Forms of Conflict Between PIM and DPB Fishers

Year	Conflict Forms	Effect of Conflict
1999	The issue on trawling	Making a letter of agreement between two
	The arrest of DPB fishers by PIM fishermen	parties, namely PIM fishers and DPB, and
	The burning of the boat belonging to the DPB	replacing ships by the North Bengkulu
	fishers by the fishers of PIM	Regency Government.
	Reporting with community leaders, traditional	
	leaders, and fishers from the two regions	
	Confiscation of burnt tools.	
2004	The issue on trawling	The payment of customary fines in PIM
	Friday's Violation	(10 sacks of cement) and payment of fines
	The arrest of DPB fishers by PIM fishers	in DPB.
2008	The issue on trawling	There was a slashing of the hand of one of
	The pursuit of DPB fishers by PIM fishers together	the PIM fishers by DPB fishers and
	with Indonesian Navy Marines	supervision from the police and Marines
	Reporting to the Navy Marines and the Police	for DPB fishers.
	Confiscation of fishing gear	
2016	The issue on trawling	Payment of customary fines to PIM fishers
	Collision of nets belonging to PIM fishers by DPB	and replacing fishing nets that were hit by
	fishermen	DPB fishing boats
	Violation of the traditional territory of PIM fishers	
	Reporting to the police	
	Confiscation of fishing gear	

Source: Data analysis (2019)

4 Conclusion

This study draws the following conclusions: (1) The causes of conflicts in 1999, 2004, 2008, and 2016 were the seizure of fishing grounds, shrimp extraction, the struggle for shrimp resources, the high price of shrimp, violations on Friday, shrimp as an export commodity for DPB *tokes*, collisions with traditional fishing gear and fishing gear catch that does not match the catch area. (2) The actors involved in this conflict consist of PIM fishers, DPB fishers, community leaders, fishers leaders, traditional/customary leaders, *tokes*, Regional Government, and the Navy Marines and the Police. (3) The forms of conflict that occurred among fishers ranged from light to heavy, namely the spread of issues of using trawlers, arresting fishers, violations on Friday, chasing fishers, crashing nets, burning boats, reporting to the Navy Marines and the Police, and confiscation of fishing gear.

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