Social Wellbeing of the Fishing Community in Coastal Areas

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This study aims to reveal the working relationship between local and migrant fishermen. This study was conducted in the fishing community of Lere Village of Palu City, Indonesia. The informants of this study were ten people including local fishermen and migrant fishermen. The data was collected using questionnaires, interviews, observation and literature review. Then, the data obtained was analysed using three-flow techniques, namely categorisation, reduction and conclusion. The results showed that the local fishermen were generally from the Kaili ethnic group, while the migrant fishermen were from various ethnic groups, namely Bugis, Makassar, Mandar and Gorontalo. Before there was cooperation between fishers, local fishermen were generally at a lower level of welfare than migrant fishers. This is seen economically in housing quality, vehicle ownership, family education levels and socio-religious status. After the cooperation, the welfare level of local fishermen began to improve. The cooperation concerns migrant fishermen involving local fishermen residents in fishery sharing. This study concludes that an increase in the standard of living of fishing communities can occur if the rules for sharing take place and are voluntarily accepted by all parties concerned.

**Keywords:** Social Welfare, Local Fishers, Migrant Fishers, Kaili Ethnic, Bugis Ethnic.

**Introduction**

Indonesia has a reasonably wide sea area with abundant potential resources. The potential has been exploited by residents both on a large scale and small scale. Historically the activities of the population utilising the potential of the sea have long been cultivated as the main livelihood of some people who inhabit the coastal areas.
Most people who work to exploit the potential of the sea carry out activities to capture various types of marine life. These members of the community are classified as fishermen. A fishing business owned by fishermen in its development uses equipment catching tools from simple to modern technology.

The equipment used can be one indicator in categorising the status of the fishermen. The categorisation consists of local fishermen and modern fishermen. Local fishermen are also known as owner fishermen, labour fishermen and tenant fishermen, and the fishermen are still classified as fishermen because their main livelihood is fishing. Fishermen are often classified as part of the poor community and are poorer than farmers or artisans (Mubyarto, Soetrisno, & Dove, 1984). Other classifications include income, health, illiteracy, gender, security, power, and so on (Jentoft, Onyango, & Islam, 2010).

The poverty of fishermen is more influenced by structures that are formed permanently (Suyanto, 1995) where they cannot compete in the control and utilisation of marine resources (Febrianto, 2004). The helplessness of poor fishermen is a reflection of the social, economic and political conditions of the country (Kinseng, 1997). The poverty of fishermen is more caused by inequality in the ownership of productive capital and lack of economic resources (production capital) owned by fishermen (Hidayati & Sholichah, 2011; Peny, 1981). As a result, there is an uneven distribution of control over assets or means of fishing. It can be argued that only a small portion of fishermen have modern fishing tools, while most fishermen own the traditional equipment. It is concluded that the factors that influence fishermen's poverty consist of structural and cultural elements (Wahyudi, Isa, Muzni, & Irfan, 2007).

In Palu City, residents whose livelihood is fishing are found in settlements located along the Palu Bay area, which is an administrative area of Palu City. It is estimated that 20% of the population get their livelihoods from fishing, and the results of a preliminary study show that there are 138 resident families who work as fishermen.

In terms of poverty living standards, before the 1990s, the life of fishermen in Lere Village, which is generally of Kaili ethnicity, was categorised as weak. This was indicated by their unliveable settlements, lack of clothing, nonstandard housing, lack of food and nutrition, low education of children, relying on knowledge based on heredity. Although the family, especially female workers, was involved in business activities, such as in marketing the fishing results, the results obtained were not increasing relatively (data collected from the results of the initial study of researchers).

With the influx of migrant fishers from various regions, especially those of Bugis ethnicity, Mandar ethnicity, Makassar ethnicity and Gorontalo ethnicity, the socio-economic dynamics
of local fishers began to develop. These migrant fishermen are known to be very creative in their innovation with fishing equipment ownership, fishing strategies and marketing strategies. Therefore, they are more often classified as modern fishermen. However, many of these modern-day fishermen were not directly involved in catching fish. Generally, they are capital owners and supervisors, while those who are more involved in actual fishing are local fishermen.

In the context of social relations, the reality of the interaction of migrant fishermen with local fishermen has created a form of social cohesion or harmony among them. The situation then developed in other aspects of their socio-cultural life. In addition to socio-economic relations, it has also entered the family area. Some of these local fishermen are considered close relatives by migrant fishermen.

Based on the descriptions above, this paper aims to reveal the forms of social welfare of local fishermen as a consequence of the relationship between local ethnic groups and migrants ethnic groups.

This reality is important to know because in many studies of the working relationships between local and migrant fishermen, there is conflict between them. Conflicts that occur are always in the form of fighting over fishing locations and causes violence among them. They attack each other and burn and sink each other's boats.

Based on the descriptions above, this paper aims to reveal the forms of local and migrant fishermen cooperation that result in social welfare for local fishermen in Kelurahan Lere. This social situation is interesting to analyse in the midst of the Palu City community which in the last few years has experienced many ethnic conflicts.

**Materials and Methods**

This research is a qualitative descriptive that reveals the process of social harmonisation in the fishing communities in the coastal city of Palu. The twelve informants were local and immigrant fishermen who were selected purposively. Data was collected through interviews, observation and literature study. Data was analysed using a three-way analysis, namely categorisation, reduction, and interpretation (Huberman & Miles, 2002).

**Results and Discussion**

*Mobilisation of Labour*

The deployment of the workforce of existing fishing groups has members consisting of relatives. There are also fishing work groups whose members include friends or villagers.
The two patterns of cooperation and the mobilisation of such workers were found in the local fishermen working group in Lere Village, Palu. The second pattern of mobilisation of labour is based on the type of fishing tools used. For example, fishers who use panambe have 12 members, most of them are relatives. The 12 members of the working group consist of one Balengga (the local name for the leadership of fishermen or Juragan), 2-3 young Balengga, and eight other crew members.

Jala Rompo fishers, whose members consist of 3 people, are relatives. The owner's fisherman acted as the head (balengga), assisted by a younger brother or brother-in-law, and a child who is just learning as a fisherman. The fishermen who own and use Pukat (gill nets) are individual workers at sea, but after returning to the beach, they immediately get help from relatives. The purpose of employing such workers is because the fishing equipment they used was cumbersome and complicated (Lampe, 1989).

In the working group of the local fishermen studied, it is not clear if there is a careful selection of crew members based on physical and gender conditions. However, they can mobilise labour (men, women, and children). Among them, some women act as Balengga (head). Although the number of women who are members of boat crews is relatively small, the reality is found in the field. This finding is different from what is stated by (Lampe, 1989) that, in general, the mobilisation of members of fishers' cooperation is performed selectively and sharply based on physical condition and sex. Moreover, it is found that women are indeed involved in service but not directly in fishing (Anriani, Halim, Zainuddin, Wekke, & Abdullah, 2018).

The division of labour within the local fishermen's working group does not appear to have a clear dividing line. Each boat crew member has the right to do all activities in the fishing sequence. For example, driving and rowing the boat, throwing and catching nets, together with cleaning nets and preserving fish. Based on the description of the mobilisation of labour and the nature of cooperation of local fishing groups in the study location, it can be concluded that the life of the agreement and the quality of primordialism for local fishers are still secure.

### Revenue Sharing Rules

The application of profit-sharing rules in the working group of fishermen to help migrants as supervisors is essential because it is an incentive for every group member to be more active in fishing at sea. The definition of profit-sharing here is referring to social norms that stipulate that each crew member is entitled to get one share of income from the total revenue in the form of fish sales within a day, a week, or a month. It was found that the profit-sharing rules
applied were: one for Balengga, one for boats, one for fishing and one for each crew member. The division of income is performed every day, sometimes also every week or every month.

Based on such profit-sharing rules, it means that the owner of the tool, or Balengga, gets three parts of the total income. Meanwhile, each crew member only gets one part. However, according to them, the distribution of such income is still considered fair because, in addition to the head that has the capital, he also bears all costs of repairing fishing equipment, boats and small food/drinks.

The concepts used in profit sharing, such as for Balengga, the boat owner, the fishing gears, and the crew member, show that the terms indicate the functional meaning contained therein. Profit-sharing rules with such useful implications also suggest that each crew member receives income under their respective work values.

**Fish Marketing Patterns**

Several factors influence the smooth marketing of fish in certain areas. First, there is a market where fish are sold. Second, there is the availability of marketing transportation infrastructure and facilities. Third, there are fish traders who actively distribute fish caught by local fishermen.

Regarding the market where fish are sold, in Palu, three markets are located relatively close, namely between 1-2 km from Kelurahan Lere. The highway that connects Lere with the three markets is quite good, so that they can be reached by motorised vehicles in about 10 minutes, or for vehicles without machines, such as pedicabs, in about 25 minutes. Therefore, fish brokers can market the fish as soon as possible in the current conditions.

In Lere, the majority of mothers work as traders, which they call intermediaries. These middlemen collect the catch and distribute them to markets, in this way the marketing of fish caught by local fishermen can run smoothly. It is necessary to put forward the pattern of relationships between intermediaries and fishermen, or between mediators and intermediaries, to find out the design of fish marketing in the area.

**The Relationship between Intermediaries and Fishermen**

Among local anglers, there are two patterns of relationships between intermediaries and fishers, namely familial and similar relationships between local people. The first pattern is the relationship between intermediaries and fishers, who still have kinship relations such as husband and wife, parent-child, siblings and others. The second pattern is the relationship
between intermediaries and fishers based on villagers, that both are local people who live in the same village and have known each other for a long time.

The first pattern of trade relations was in the form of subscriptions, namely intermediaries, who regularly came to fetch and market fish from their regular fishermen. The price of wholesale fish is determined by the fishermen (owner) based on the market price. Thus, in a fish trading transaction, there is no bargaining. It is because there is already an agreement on profits from the sale. If it turns out that the middleman can sell the fish over the set wholesale price, then the excess amount becomes a profit for the middleman.

The second pattern of trade relations is not in the form of a subscription but is a form of a non-permanent trade relationship. For instance, every intermediary is free to look for fishermen with whom to conduct fish trading transactions. Therefore, every morning the middlemen sit on the beach waiting for the fishermen to land their catch and offer the fish to the fishermen. If it turns out that a price agreement is not reached, then the middleman looks for other fishermen to make an offer.

In the sale and purchase of fish transactions between intermediaries and fishers (both the first and second patterns), there is no exchange between fish and money. However, there is only an oral consensus about the price of fish and intermediaries' promise to pay after returning from the market. A fish middleman said that he did not have money capital in the fish trade, but only had a wealth of confidence so that the fishermen were willing to give up their fish without having to pay cash.

The price of wholesale fish is determined by the fishermen who are calculate per unit of bucket or basket. For example, tembang fish costs are between IDR30,000 and IDR 35,000 per bucket. Coolies are between IDR 32,000 and IDR 36,000 per basket. High and low prices of wholesale fish are influenced by the condition of the price of fish in the market according to information that is always obtained by fishermen through their partners.

**The Relationship between Intermediaries and Intermediaries**

In addition to the middleman's relationship with the fishermen that affects fish marketing, also the relationship between the middlemen determines whether or not the fish distribution is smooth. In the relationship between intermediaries to get fish from fishermen, the competitive nature of the competition does not appear. They understand each other, especially in terms of the bargaining system for fish. For example, a middleman is bidding on a fisherman's fish price, and another middleman does not make a higher offer if the first bidder is still in that place. Their relationship helps each other. For example, a middleman who succeeds in reaching an agreement on the price of fish to a fisherman who has several
baskets of fish, then the fish are distributed to other middlemen, one person for one basket. According to them, an average intermediary can only sell one basket of fish in one day. Therefore, if he caught a lot of fish, it will be given to more than one intermediary.

Based on the description above, it can be concluded that the pattern of fish marketing on the coast of Lere village is characterised by various traditional relationships between fish traders and fishermen. When there is a transaction of buying and selling fish, there is no direct exchange between goods (fish) with money, but only an exchange between products with a price consensus. It can be created because between them they still have familial relationships that are based on the nature of mutual trust between each other. It is also in line with the description of (Satria, 2001), that many small fishermen use labour from their own families.

**Welfare Level of Local Fishermen before Working With Migrant Fishermen**

**Ownership of Production Equipment**

Production equipment for fishing activities, both for local and migrant fishermen, consists of a sizeable motorised boat, motorboat (katinting) nets, trawl, posuyu, fishing rods, nets and tamblers. These have long been used and are the main production tools for the fishermen.

There are two patterns of ownership of fishing equipment; namely, the design consists of rowing, fishing and trawling, and the model consists of rowing boats, fishing nets, fishing rods and trawlers. Similarly, fishermen who use technology have two designs. The first pattern is the boat, fishing line, fishing net, trawl and panambe. The second pattern is the boat, fishing line, trawl and panambe.

The distribution of ownership of the types of fishing equipment shows that between local fishermen in the traditional category and in the group of fishermen who use technology is relatively the same. The pattern of the property of types of fishing equipment by local fishing households as described above is based on the cultural knowledge of the fishermen, especially regarding the effectiveness of the fishing equipment according to the pattern of behaviour and types of fish, water conditions and other ecosystem elements.

**Informants' Income**

The amount of income earned by local fishermen when conducting fishing activities is very dependent on the rules for income sharing in the working group of fishermen who have been passed down for generations.
The high and low income of each crew member depends on three main factors. The first is whether or not certain fishing groups use productive fishing gear. The second is the rise and fall of fish prices in the market. The third is factors related to ecosystem elements such as climate, season, population and species of fish, and the condition of the waters where they fishing.

The average daily income of each fisher surveyed is as follows: local fishermen between IDR12,500 and up to IDR25,000, while the daily income of modern technology fishermenis from IDR 17,000 up to IDR 35,000. However, due to the limited sea reach, the fish production was also relatively small, coupled with the relatively low price of fish at that time, the results obtained by the fishermen was relatively small.

**Condition of the Informant's Housing**

Based on observations of informant’s house, it can be explained that both informants of local fishermen and informants use modern technology have semi-permanent house. There are only a few fishermen have permanent houses.

Permanent house use materials from cement or tiles for floors, concrete for walls and zinc roofing. Semi-permanent housing uses cement floor with the lower wall. The top of the wall uses board or plywood and the roof being made from zinc or nipah leaves. The type of emergency building or hut uses cement, boards, wallboards, and plywood with the roof being thatched or made of nipa leaves.

In general, the informants' dwelling is divided into 3 parts, namely: (1) the front room that functions as a place to receive guests, (2) the living room that functions as a bedroom, (3) the backroom that functions as a kitchen and at the same time holds a piece of fishing equipment. Regarding the area of the informant's residential building, both traditional fishermen and fishermen who use technology, on average, have relatively small houses, ranging from 20 - 30m.

**Ownership of Household Appliances**

In this research, these types of goods are assumed to have the same value. Informants were asked about 12 types of items. The more types of household goods owned, the more a person is considered to have a higher social level among the community, which reflects the quality of his standard of living.
The types of items include television, radio tape recorder, wall clock, sewing machine, stove, refrigerator, sideboard, corner chair, ordinary chair, wardrobe, tableware and other cooking utensils.

The ownership of entertainment equipment in the form of radio and television owned by households was higher in the fishermen category using technology compared with traditional fishermen. It seems that electronic goods are essential items among the fishermen, in addition to other household items, which are symbols of social status among the fishermen in Lere Village, such as sewing machines, wall clocks, refrigerators and other household items. The fundamental difference between local fishermen and fishermen using modern technology in owning household appliances is luxury furniture.

Ownership of Transportation Equipment

Details of the types of transportation used by local fishing households in Lere village include bicycles, motorbikes and public cars. Considering these types of vehicles have economic value, the more types of vehicles owned by a local fisherman, the more it is considered to be increasingly improving the quality of life.

Welfare Level of Local Fishermen before Working With Migrant Fishermen

Ownership of Production Equipment

Production equipment used for fishing activities, both in the category of local fishers and those in the group using technology, and side businesses is in the form of large-sized motorboats, large motorboats (katinting), trawlers, fishing rods, nets and panambe.

The amount of ownership of production equipment that supports the life of local fishers is 764 units. The number of rowing boats or canoes is 243 units, small motorboats or katinting is 42 units, fishing rods is 140 units, panambe is 29 units, pukat is 52 units, rompo nets 60 units, and sodo-sodo (posuyu) 198 units.

Local fishermen use a simple rowing boat equipped with fishing equipment to catch fish in addition to other fishing equipment (panambe, trawl and fishing net). Incoming fishermen using modern technology use large motorboats or katinting, which are equipped with fishing equipment such as fishing rods, fishing nets, panambe, sodo-sodo and trawls (in large capacities).

The description shows that there is an increase in ownership of the means of fishery production compared to before in which the means of production was relatively small for the categories of local fishermen and fishermen using modern technology in the Lere village.
Fisherman Income

Along with an increase in ownership of production equipment and efforts to catch benur and nener seeds, various initiatives have been carried out by fishermen to improve their standard of living. These various efforts have multiple implications on the lives of fishing communities, which always demand perseverance, efficiency and sacrifice. In this study, the income and responses of informants in relation to the level of income they obtained on an effort to catch benur and nener seedlings along the coast of Lere Village, Palu City were revealed. The level of household income per day for local fishermen ranges from IDR 25,000 to IDR 45,000, while fishermen using modern technology earn around IDR 75,000 and up to more than IDR 85,000.

A very high income of fishermen is a natural thing to be obtained, because in addition to catching fish at night, during the day they can find benur and nener seedlings by using sodo-sodo (posuyu) attached to the body of a motorboat (katinting) or using human thrust. However, the high and low indicators proposed in this study only apply to the fishing communities studied. The size of the upper and lower levels of income varies in every area of fishermen community. Therefore, the meaning of "Wealthness" of local fishing communities in Lere Village is different from the other fishing communities.

Based on the observations of researchers supported by the data revealed above, the income of the community has dramatically increased after the use of technology and working with migrant fishers. Even though they work for modern fishermen, their family business still uses traditional methods. For example, each fishing household is still a family production business, from preparation to going out to the sea to selling the products. There is an impression that fishermen are satisfied with the current situation, and there is no visible cash income invested in improving the business.

Housing Conditions

The housing conditions of fishermen, both for local fishermen and for those using modern technology, is almost the same as those before using new technology. However, there is an increase in income for both of them. It is because of the increasing amount of ownership of production equipment, the use of technology and the business of catching seedlings. Besides, there are efforts to renovate and to increase the area of their house. This is also to improve the quality of the residential house.
Ownership of Household Appliances

In this section, the researcher asked the informants about the ownership of household appliances, which are categorised as entertainment equipment such as radio and television. From the data collected, it appears that the property of household appliances specifically for entertainment facilities (radio, tape, video, TV) is owned by both local fishermen and fishermen who use modern technology. From this point of view, the level of welfare of the fishermen physically increases.

Ownership of Transportation Equipment

The ownership of transportation equipment can also be used as an indicator of the level of community welfare. Details of the types of transportation used by local communities in the Lere village before working with migrant fishers include carts, bicycles, motorbikes and public passenger cars.

The fact above shows that the ownership levels of various types of transportation are increasing. Based on the description above, it can be stated that the level of ownership of multiple types of vehicles for local people is quite adequate compared to before. It can support the creation of proper welfare, which further reflects their standard of living.

Indicators of poverty amongst fishermen in Lere Village, such as education, income, furniture ownership and housing conditions, almost occur in all traditional fishing communities in other parts of the world, for example, the Philippines (Ardales & David, 1985). They often even lack food (Rahman, Abka, Rahman, & Sarma, 2013). The form of cooperation offered by migrant fishermen to local fishermen has an impact on improving their standard of living. It is influenced by (1) internal factors, and (2) external factors. Internally, fishermen make various types of efforts called diversification (Wekke & Cahaya, 2015). It is later reinforced by the findings that the welfare of fishermen increased because they could coordinate and cooperate (Kusnadi, 2009). It is called a dual-income strategy (Widodo, 2011). The existence of migrant fishermen who work together with local fishermen that has an impact on improving their welfare is different from the findings of (Sudarso, 2006), who regard migrant fishers as an inhibiting factor in promoting the well-being of local fishers.

The social reality of local fishers in the city of Palu shows that cooperation between fishermen, especially the provision of capital from wealthy migrant fishermen to local fishermen, accompanied by equitable profit sharing, can be beneficial for both in improving household economic aspects.
Conclusion

Increasing the welfare of local fishermen as a result of collaboration with migrant fishermen shows the reality that the relationship between minority groups and the majority have experienced strengthening. This situation can be realised because the conducive socio-economic life of their collaborative activities (helping in economic growth and society) is generally successful. Empirically, there are role groups in society, which are socially dominant (non-dominant fishermen) and non-dominant (local fishermen), or can be identified by placing the community structure in the upper and lower structure. However, theoretically, this reality shows more the functioning of social systems and structures that look after each other, not in the context of social structure competition. The findings of this study position a different social reality and it is desirable that the majority and minority groups can create social cohesion or shared social harmony. Local fishermen of the Kaili ethnic group and migrant fishermen of Bugis, Gorontalo, Mandar, Makassar, and others can work together with anyone for mutual interests and prosperity.

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