

Conference Paper

Social Capital and Household Vulnerability of Fishermen's Household in Lae-Lae Island, Makassar City

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ORCIDIdham Irwansyah Idrus: <https://orcid.org/0000-0002-7844-1522>**Abstract.**

The results of research conducted in 2022 in the Lae-Lae Island fishing community found that the forms of household livelihood vulnerability can be categorized into: pressure from external community factors that are long-term and broad-scale (trends), shocks that come in a short time that disrupt sources of livelihood, and disturbances or pressures that are seasonal. The study also found that small-scale fishing communities carry out three livelihood strategies namely: (1) double income pattern; (2) optimizing the role of the family; and (3) utilizing social networks. The factors of the existence of physical and financial capital as an essential element of resilience show that these two capitals still need to be improved in the community's possession. This research is a continuation of previous research, aiming to determine the strength of social capital possessed by fishing communities in dealing with household livelihood vulnerabilities on Lae-lae Island, Makassar City. This type of research is descriptive qualitative with informants and was carried out through purposive sampling. Researchers used observation data collection techniques, interviews, and documentation. The analysis technique used is qualitative data analysis and is descriptive. The study found that social norms in the fishing community on Lae-lae Island contributed to other elements of social capital. Social solid norms maintain the habit of mutual assistance, high trust among them, and cooperation built in a network of social and institutional relations, which is a condition rooted in the socio-cultural values of the fishing community of the Bugis-Makassar tribe.

Keywords: social capital, resilient, livelihood strategy

1. Introduction

Indonesia is an archipelagic country and the most significant maritime country in the world. There are as many as 17,504 islands (BPS, 2021) and a coastline of around 99,093 km [1]. Its position is between two oceans, namely the Pacific Ocean and the Indian Ocean, making the Indonesian territory rich in marine and fishery resources. Therefore, it is only natural that many Indonesian people who live in coastal areas and small islands in Indonesia have livelihoods as fishermen. For example, in 2019, according to data from the Central Bureau of Statistics in Indonesia, there were 1.83 million fishermen [2]. Based

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Published 3 January 2024

Publishing services provided by Knowledge E

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Selection and Peer-review under the responsibility of the ICHELSS Conference Committee.



on Kepmendagri No. 146.1-4717, in 2020, Indonesia has 74,961 villages. The Data Center for the People's Coalition for Fisheries Justice (KIARA) shows that in 2017 there were 12,827 coastal villages, and there were recorded 8,077,719 fishing households living and inhabiting coastal village areas and depending on fishing activities for their livelihood

In South Sulawesi, the number of people who depend on the fisheries and marine sectors in 2020 is 484,609 people or 5.3% of the total population, consisting of 276,530 cultivators (57.1%), fishermen (sea + public waters.) as many as 208,079 people (42.9%) [3]. There are three regions with a population working as sea fishers, namely Pangkajene and Islands Regencies with 32,770 people, Selayar Islands Regency with 23,750 people, and Makassar City with 23,308 people (<https://satudata-new.sulselprov.go.id/>) . It is interesting to look at these data, that Makassar City as a Metropolitan City with a population of 1,427,619 people in 2021 [4], in the midst of the hustle and bustle of city life, actually contributes to the number of residents who make a living as fishermen. The coastline of Makassar City is 52.8 km long, consisting of 36.1 km coastline and 16.7 km coastline of 12 islands [4]. These islands, namely Lae-lae Island with an area of 6.5 hectares (Ha) with a population of 1,876 people, Kayangan Island with an area of 1 Ha is uninhabited, Lae-lae Kecil Island with an area of 1 Ha is uninhabited, Langkai Island with an area of 26, 7 Ha inhabited by 430 people, Barang Lompo Island with an area of 18.23 Ha and inhabited by 3,563 people, Samalona Island with an area of 2.32 Ha inhabited by 82 people, Kodingareng Keke Island with an area of 0.5 Ha without residents, Barang Caddi Island with an area of 4 Ha inhabited by 1,532 people, Lanjukkang Island covering an area of 19.23 Ha and inhabited by 50 people, Lu'mu-lu'mu Island with an area of 3.7 Ha inhabited by 984 people, Bone Tambung Island with an area of 17.2 Ha and inhabited by 300 people inhabitants, and Kodingareng Lompo Island with an area of 14 Ha is inhabited by 4,170 people

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Research on the Vulnerability and Resilience of the Livelihoods of Fishermen's Households on Lae-lae Island, Makassar City, will be carried out in 2022. Lae-lae Island is the closest island to the coastal coastline of Makassar City, only approximately 1.5 km away and takes 5 minutes by boat engine. This is why many residents carry out activities in the city centre, such as shopping for their daily needs, going to school, and working. This condition became the primary consideration for researchers in determining Lae-lae Island as a research location. In addition, most of the population still depends on the maritime sector for a living, either working as fishermen, employees of fishing companies, fish traders, or ferry transportation services to and from Lae-lae Island or to other island.

TABLE 1: Sources of Vulnerability of the Fisherman Community in Lae-Lae Island.

Dimension/ Aspect	Source of Vulnerability	
	Short Term & Seasonal	Long Term & Broad
Nature	<i>Illegal fishing</i> Trash from CPI	Weather anomalie Rising sea levels Development of fishing technology Decreasing water quality due to household waste
Social	Fisherman conflicts, both between classes and within same classes	Status of land ownership/residence
Economic	The uncertainty fuel prices The unstable price of fishing catches	Expansion of international fishing companies Job opportunities in other sectors Consumptive lifestyle Economy Crisis
Political	Subsidy or assistance policies that are not well-targeted	Leadership crisis Development policies that are not oriented towards sustainability (CPI reclamation)

Source: primary data

The results of this study (Table 1) found that the vulnerability of fishing households on Lae-lae Island can be categorized into: pressure from external community factors that are long-term and broad-scale (trends); shocks that come in a short period that disrupt sources of livelihood (shock), and disturbances or pressures that are seasonal

(seasonality). The sources of vulnerability are the socio-cultural and ecological changes that they have experienced since settling on Lae-lae Island, especially since the Center Point of Indonesia reclamation activities began. The difference in government that gave birth to various policies, including developing a tourist area on Lae-lae Island, is also closely related to environmental change. Social, economic, cultural, ecological and political changes simultaneously become the context for the resilience of the livelihoods of small-scale fishing communities [5]. In addition, it was also found that the existence of physical capital and financial capital as an essential elements of resilience is still very limited in possession of fishing communities on Lae-lae Island. This article is the result of research that aims to analyze the strength of social capital owned by fishing communities in facing the vulnerability of household livelihoods on Lae-lae Island, Makassar City.

2. Method

This type of research is qualitative descriptive research with a case study approach. According to Creswell (2009), qualitative research is a method for exploring and understanding the meanings that several individuals or groups ascribe to social or humanitarian issues. Creswell also said that qualitative research methods are interpretive research in which researchers are involved in ongoing and continuous experiences with participants. This research is located on Lae-Lae Island, Ujungpandang District, Makassar City. The withdrawal of informants in the study was carried out through purposive sampling. Researchers used observation data collection techniques, interviews and documentation in this study. The analysis technique used is qualitative data analysis techniques and is descriptive (pre-analysis in the field and data analysis in the area)

The informants in this study are small-scale fishing households. These, namely fishermen, own vessels <10 GT as stipulated in Law Number 7 of 2016 concerning the Protection and Empowerment of Fishermen, Fish Farmers and Salt Farmers. Despite the fact on Lae-lae Island there are no fishermen who own fishing vessels >5 GT. The determination of informants was carried out purposively based on boat ownership, fishing gear, fishing methods, living on Lae-lae Island for more than 20 years, and having practised the fishing profession for >10 years. Then determined as many as 20 informants who were distributed from 3 RWs on Lae-lae Island

Each community group contains sources and potentials of social capital that its members can access and utilize. Sources of social capital include local values and wisdom that accommodate common interests, customs or traditions, educational institutions, religious teachings, and traditional institutions. In contrast, the potential for social capital

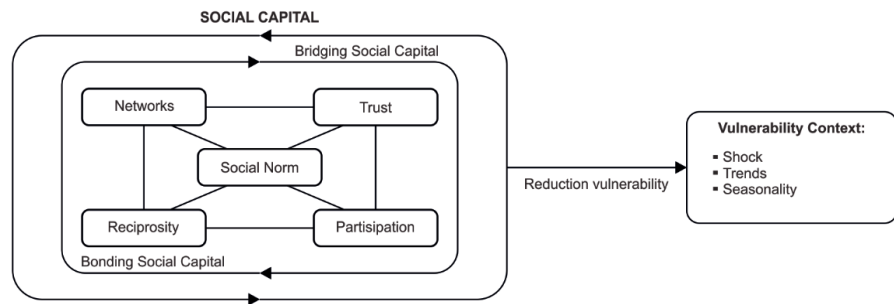


Figure 1: Conceptual Framework.

includes values and norms that can become a forum for organizing for the common good [6]. Fukuyama uses the concept of trust to measure the level of social capital. He argues that social capital will become stronger if, in a society, norms of mutual assistance and close cooperation apply through a network of institutional social relations [7]. Fukuyama also said that trust arises when people have good moral values to foster honest behaviour among citizens [8]. Fukuyama’s thinking is used as a basis that in fact, the strength of social capital lies in social norms that will determine the functioning of other elements of social capital and can ultimately reduce the vulnerability of fishing households.

3. Findings and Discussion

As previously stated, this study aimed to analyze the strength of social capital owned by fishing communities in facing the vulnerability of household livelihoods on Lae-lae Island, Makassar City. Studies on social capital that have been carried out by James Coleman, Robert Putnam, and Francis Fukuyama have become a starting point in developing various main elements of social capital, namely a network of relationships, social norms, trust and a willingness to reciprocate kindness (reciprocity). By William Neil Adger these elements are added by participation in the group. He argues that involvement in both formal and informal groups can serve as a valuable asset for the individual to the extent that it allows him to benefit from interactions with others through sharing information and increasing access to physical and financial capital [9]

The study results found that in the fishing community of Lae-lae Island social norms have a significant role on other elements of social capital. This is rooted in the background of the residents who generally come from the Bugis-Makassar tribe and are the third or fourth descendant of their great-grandfathers who moved to Lae-lae Island since

the beginning. Cross-marriage among residents also occurs to maintain the socialization process of Bugis-Makassar norms and values . This was stated by most of the informants, one of whom was Daeng Syamsuddin

I'm a Buginese tribe, sir, my grandmother is from Sinjai Regency, but she said that since she was little, she has moved here with her parents. My wife is also like that; only she is Makassarese because her grandparents are Takalar people. Yan also moved here in the 60s, he said. My wife and I still have a family relationship because my uncle married his mother's cousin. So you can say no one else. Most residents still have family ties." (Interview with Daeng Syamsuddin, 15 May 2022)

The interviews show that developing social relations indirectly creates social networks. According to [10], social networks can be formed because of the values and norms that are firmly held together, which then underlies the birth of cooperation. Networks are social capital that acts as a conduit for the flow of helpful information that facilitates the attainment of individual and group goals [11]. Cross-marriage among fellow citizens causes social relations to become more expansive, not only limited to pseudo-relationships but is maintained even to economic ties. The findings from the research showed that all informants were actively involved in socio-economic groups on Lae-late Island, namely Fishermen's Groups, PKK women's groups and other groups, such as artisan groups, PKH groups, and family planning cadres. Either active in all three groups, two out of three, or only involved in one socio-economic group. Social networks, as a means of achieving individual goals are also driven by actors' decisions to choose actions that will maximize benefits or the satisfaction of their needs and desires [12]. This is supported by Infoman Iwan's statement, who was initially involved in the fishermen's group because he received an invitation from other fishermen who had already joined, as he said:

"It's been a long time since I joined a fishing group; by chance, I was invited by a friend. He said that he could get help from the government. But apart from getting help, we also get a lot of knowledge; we can share stories and exchange experiences in catching fish with other fishermen. (Interview with Iwan, 7 September 2022)

According to the informant, his involvement in one of the fishermen's groups on Lae-lae Island was initially due to receiving invitations from other fishermen to gain access to assistance with fishing equipment from the government and gain knowledge and sharing experiences. Iwan further explained that since becoming a member of the fishermen's group, his group had received assistance three times through nets, GPS, and spindlers. Involvement in various social and economic groups also shows the high participation of fishing communities

The values and norms still firmly attached to the Bugis-Makassarese are *Siri' na Pacce*. This philosophy forms the basis of behaviour, both as individuals and as members of community groups. The word *siri'* in the Makassar language means shame or embarrassment, meaning *siri' lanri anggaukanna anu kodi*, meaning shame when one commits a disgraceful act [13]. *Pacce* in Makassar and *Pesse* in Bugis are a just and civilized sense of humanity, a spirit of self-sacrifice, hard work, and never giving up. Besides that, *pacce* or *pesse* is a heart-rending feeling, especially when fellow members of the community, family, or friends are struck by misfortune, which creates an urge towards solidarity in various forms towards those afflicted by misfortune [14].

In the fishing community of Lae-lae Island, the value of *siri' na pacce* plays a role in building mutual trust and the desire to help each other (reciprocity). This condition can be seen from the habit of helping each other among members of the fishing community on Lae-lae Island. Unstable income due to sources of livelihood highly dependent on natural conditions, as a source of vulnerability for household livelihoods, in addition to other sources, namely social, economic and political conditions, causing the fulfilment of daily needs to be sometimes insufficient.

"I've never borrowed money from a neighbour, sir. I borrow most kitchen needs from the shop, such as sugar, flour, oil. However, immediately paid when the husband had returned to the sea. Our neighbours and we are like that, sir, and so am I. If the neighbours need something and I have a ji, I'll give you a loan too." (Interview with Sukmawati, 20 June 2022)

According to the informant, so far, he has never borrowed money from a neighbour. Usually, if they need raw materials for their daily needs when they don't have money, the informant borrows from a shop near the house and is paid immediately when the husband returns from fishing. Further explanation of the informant, it is known that the reason for not borrowing money from neighbours is because they do not want to be burdened with interest on the debt. Although later, it was also known from another informant, namely Haji Yahya, that even if there were neighbours who needed money and wanted to borrow it, they would give it without interest. Here's his narrative:

"Alhamdulillah, Allah gives you a fortune. Wealth is only entrusted and other people's rights exist. Since childhood, I have also been taught to help one another, so if someone needs money, I immediately lend it. I usually paid in full or if instalments, I never give interest. Moreover, we are both in trouble here, so we have to help each other. It's also common when an event, such as a wedding, or a family member is sick or dies. We also lend boats to each other. (Interview with Haji Yahya, 16 June 2022)

The informants' explanations show that religious values are also a source of social norms apart from socio-cultural values. On that basis, helping one another is done without expecting anything in return or profit. Informants quickly provide loans if there are neighbours who need money without a time limit for repayment and without interest. Likewise, if neighbours or other fishermen need to borrow a boat for the benefit of a celebration or if they face a disaster. The trust that is based on the value of *pacce* in the fishermen of Lae-lae Island can also be seen in the form of mutual assistance in fishing gear.

"If a friend needs it, wants to borrow a net or a boat, of course, we will give it, sir, as long as I don't use a jig. If a boat is borrowed, it is usually refueled when it is returned. That's also if it's good if you catch the catch." (Jufri interview, 20 June 2022)

According to Jufri, borrowing and borrowing fishing gear is common among fishermen. If what is borrowed is a boat, then according to the informant, the borrower will refuel before it is returned, but there is no prior agreement or no coercion, depending on the catch obtained.

Social norms that are rooted in the values of the Bugis-Makassar tribe and are still firmly entrenched in the fishing communities of Lae-lae Island have proven to be the strength of social capital that underlies the functioning of other elements of social capital. The vulnerability of fishing household livelihoods can ultimately be reduced by the social capital they have.

4. Conclusion

Their substantial social capital can minimize the vulnerability of fishing households experienced by fishing communities on Lae-lae Island, Makassar City. Social capital which consists of at least five elements, namely social norms, trust, social networks, and participation in groups; in the fishing community of Lae-lae Island, social norms have a significant role in other elements of social capital. This is due to the socio-cultural values of the Bugis-Makassar tribe and religious values that can still be socialized from generation to generation.

Acknowledgements

The author expresses deepest gratitude to the Chancellor of University of Negeri Makassar, Dean of the Faculty of Social and Law Sciences University of Negeri Makassar, and Chair of the Institute for Research and Community Service University of Negeri

Makassar who have fully supported research activities up to the writing of this article. Awards were also conveyed to students of Sociology Study Program of the University of Negeri Makassar who were involved in research, from planning, collecting data, to writing reports

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