
**THE INFLUENCE OF COMMUNITY SOCIAL CAPITAL ON POVERTY IN THE
NORTHERN COASTAL AREA OF NGENEMPLAKREJO SUBDISTRICT,
PASURUAN CITY**



Teguh Adhipati¹
Institut Teknologi Nasional, Malang, Indonesia
teguhadhipati12@gmail.com

Agustina Nurul Hidayati²
Institut Teknologi Nasional, Malang, Indonesia
agustina.nurul.h@lecturer.itn.ac.id

Ardiyanto Maksimilianus Gai³
Institut Teknologi Nasional, Malang, Indonesia
ardiyanto_maksimiliamus@lecturer.itn.ac.id

Abstract

In general, social capital is characterised by the existence of social relationships, trust and social networks in the community. This is a very important thing in the progress of material benefits and welfare. Social capital is seen as a value of mutual trust, between community members and their leaders involving social networks of social norms, and social trust that encourages social collaboration for a common interest. Where social capital is believed to be able to overcome poverty. Ngenemplakrejo Village is one of the villages in Pasuruan City that has a poor population, namely there are 1,000 residents, even almost half of the number of poor people are working as fishermen. Therefore, the purpose of this study is to see the influence between community social capital on poverty in the North Coastal Region of Pasuruan City, namely in Ngenemplakrejo Village. The research method in this study is to use quantitative methods. Where in this study will explain the effect of social capital on poverty in Ngenemplakrejo Village using the Chi-Square test effect analysis, in the SPSS version 2.6 application. The results showed that social capital in the cooperation variable has an influence on poverty parameters, namely fishermen's education with a significance value of 0.018; then the fishermen's economy with a significance of 0.000 and fishermen's living standards with a significance of 0.011. In addition, social network has an influence on poverty parameters, namely fishermen's education with a significance value of 0.004 and fishermen's economy with a significance value of 0.000.

Keywords: Influence, Social Capital, Poverty

INTRODUCTION

Indonesia is an archipelagic country where three-quarters of its total area consists of maritime territories. Given this geographical condition, natural resources (NR) from the sea represent an abundant potential that can significantly contribute to the welfare of coastal communities. However, in reality, poverty remains prevalent among fishermen (Arifianto & Udi, 2013). In Indonesia, the number of impoverished fishermen is considerably high, reaching approximately 7.87 million individuals or 25.14% of the total national poverty rate (Retnowati, 2011).

Zakariya and Wahyuni (2019) state in their research that less than 14.58 million people—or around 90% of the 16.2 million fishermen in Indonesia—are still economically and politically underprivileged, living below the poverty line. Fishermen are considered a marginalized social group that has been economically, socially, and politically disadvantaged. Consequently, fishermen communities remain identified as impoverished and among those with the lowest income levels. Therefore, coastal communities are often labeled as the poorest of the poor.

The poverty affecting fishermen is attributed to three primary factors. The first factor is the technological limitations, which serve as the initial trigger of poverty. The fishing technology used, such as the types of fishing gear and boats, remains inadequate. The second factor is the burden of debt, which is common among coastal communities due to the lack of financial capital and limited economic capacity. Many fishermen work as laborers with restricted opportunities to increase their catch. The third factor is market access limitations, as fishermen often lack proper channels to market their products effectively. One potential solution is the establishment of Fish Auction Centers (TPI), which could help fishermen increase the price of fish through an auction system (Masyhuri Imron, 2003).

According to Naping (2013), fishermen possess social and cultural resources as potential assets, including a knowledge system, value system, belief system, and mutual trust work ethic. These aspects are understood as local institutions and social capital, which enable members of society to collectively fulfill certain needs through collective action, helping them avoid critical livelihood threats. The development of social capital fosters self-reliance and becomes a key driver in alleviating poverty among fishing communities.

Putnam (1995) further asserts that social capital constitutes a system of mutual trust between community members and between the community and its leaders. Social capital encompasses social networks, social norms, and trust, which facilitate social collaboration for collective interests. Thus, strengthening social capital within fishing communities can serve as a strategic approach to overcoming poverty and enhancing their economic sustainability.

Pasuruan City is one of the cities in East Java Province that continues to face persistent poverty issues. According to data from the Central Bureau of Statistics (BPS) of Pasuruan City regarding the city's poverty profile, the number of impoverished residents in Pasuruan City has reached 13.56 thousand people. This figure represents an increase of 0.54 thousand people compared to the previous year (2022). Consequently, the poverty rate in Pasuruan City rose from 6.60% in 2022 to 6.37% in 2023, indicating a worsening poverty condition.

Pasuruan City includes a coastal area located in the northern region, specifically in Panggungrejo District, which comprises three subdistricts: Ngemplakrejo, Panggungrejo,

and Tabaan. The majority of the population in these coastal areas are engaged in capture fishing and aquaculture as their primary livelihoods. However, various socio-economic challenges persist in these communities. A significant issue in these coastal settlements is the high poverty rate among fishermen, which is prevalent across the city, particularly in Ngeemplakrejo Subdistrict, located in the northern coastal region of Pasuruan City.

The prevalence of low-income fishermen further exacerbates economic and social struggles within the community. Many fishermen in Ngeemplakrejo lack financial capital, which limits their ability to sustain their livelihoods. This is evident from the fact that most fishermen do not own their fishing boats and instead depend on wealthier boat owners to engage in fishing activities.

This situation indicates the existence of a poverty line that significantly impacts the quality of life, income levels, and social well-being of fishermen. According to the 2023 monographic data of Ngeemplakrejo Subdistrict, there are 1,000 impoverished residents, nearly half of whom (418 individuals) work as fishermen. Given this context, examining the influence of social capital on poverty reduction among fishermen is crucial for identifying strategies to improve their socio-economic welfare in the northern coastal area of Pasuruan City, particularly in Ngeemplakrejo Subdistrict.

LITERATURE REVIEW

Social Capital and Its Role in Economic Development

According to Irvani (2010), social capital refers to the relationships formed among community members, which generate economic effects such as productivity costs, innovation, and transaction efficiency. These relationships contribute to economic development by fostering collaboration and resource-sharing within society. Cvetanović et al. (2015) describe social capital as a fundamental value that serves as the foundation for economic development. The structures within social capital—such as communities, organizations, associations, and social networks—help establish trust, which is essential for collective action in managing regional economies. These structures support various economic initiatives, including markets, alliances, cooperatives, and local business networks, thereby enhancing economic stability and sustainability.

Similarly, Casieri et al. (2010) emphasize that social capital plays a crucial role in fostering regional development. It not only contributes to economic growth but also facilitates economic movement at the local level, particularly in rural areas, where collective efforts are vital for development. According to Putnam (1993), social capital consists of social values embedded within society that are inseparable from social life. These values include norms, cooperation networks, and mutual trust, all of which encourage collective action. Social capital enables individuals to work together more effectively to achieve shared goals, ultimately fostering economic and social progress.

Hasibuan (2003) highlights the role of human resources (HR) as an integral part of social capital. Human resources encompass the intellectual and physical abilities of individuals, which are shaped by heritage, environment, and personal motivation. Work performance, in this regard, is driven by the desire to fulfill individual and collective aspirations, making human capital a key factor in the development and sustainability of social capital within communities.

Based on the study by Rudianto et al. (2019), social capital comprises seven key elements that play a crucial role in fostering social cohesion and economic development within communities:

1. **Social Participation**, Social participation refers to the involvement of community members in social activities. In traditional societies, this is often reflected in collective celebrations such as birth ceremonies, where community participation fosters a shared sense of value and common objectives.
2. **Reciprocity**, Reciprocity involves mutual assistance, where individuals balance personal and communal interests. This aspect of social capital encompasses responsibilities, rights, and obligations, ensuring that cooperation benefits all parties. A reciprocal relationship enhances social cohesion and promotes sustainable collaboration within the community.
3. **Trust**, Trust represents the foundation of social capital, ensuring mutual confidence among community members. Without trust, program sustainability and reciprocal relationships cannot function effectively, ultimately hindering social and economic development.
4. **Adaptation and Diversity**, Adaptation and diversity refer to tolerance and inclusivity within a community. This involves recognizing and respecting different behaviors, attitudes, and customs while fostering mutual appreciation and understanding. A high level of tolerance contributes to harmony and social comfort, enabling peaceful coexistence in diverse communities.
5. **Norms and Values**, Social norms and values constitute a value system that evolves into a shared cultural foundation. These norms emerge from community behavior and are reinforced through social rules and customary practices, ensuring social order and compliance within a specific region.
6. **Sense of Efficacy**, A sense of efficacy reflects an individual's desire to feel valued and recognized within society. This fosters self-confidence, enabling individuals to contribute actively to community development and enhancing their sense of social belonging.
7. **Cooperation and Proactivity**, Cooperation and proactivity involve collaborative engagement among community members. This aspect nurtures a spirit of togetherness, encouraging collective efforts to address communal challenges and achieve shared goals.

These elements of social capital collectively enhance social cohesion, economic empowerment, and community resilience, making them essential for poverty alleviation and sustainable development, particularly in coastal and marginalized communities.

Poverty Among Fishermen

One of the most pressing challenges faced by coastal communities is the economic instability of fishermen due to unpredictable climate change. Fluctuating weather conditions directly affect fishermen's ability to go to sea, resulting in unstable and often minimal income levels. This vulnerability forces fishermen to adapt to harsh environmental conditions while struggling to sustain their livelihoods. Additionally, many fishermen lack personal fishing boats and equipment, making them reliant on wealthier vessel owners who possess the necessary capital and tools. Consequently, those without fishing equipment are often forced

to share their catch with the boat owners, reducing their earnings and further entrenching their economic hardship.

According to Erman Syarif (2022), poverty among fishermen can be analyzed based on several characteristics, including age distribution, educational level, average income, skill proficiency, financial capital, boat ownership, work experience, and the use of fishing technology. Syarif's study revealed that coastal fishermen generally have low education levels, limited financial capital, and inadequate economic resources, making it difficult for them to escape the poverty cycle. Their low financial capacity prevents investment in better fishing equipment, further restricting their ability to increase productivity and income.

Widjajanti (2014) examined fishermen's poverty from the perspective of settlement infrastructure, considering aspects such as housing materials, access to clean water, waste management, sanitation, and road conditions in fishing communities. Her findings indicate that most fishermen's housing structures are non-permanent and predominantly made of wood, reflecting poor living conditions. The availability of clean water sources remains a critical concern, as many fishing settlements struggle to meet basic water needs. Moreover, inadequate waste disposal, drainage systems, and road conditions further deteriorate their living environments.

Ali (2020) highlights that most coastal fishermen belong to the category of traditional fishermen, as they continue to rely on rudimentary fishing tools and outdated technology. This technological limitation leads to low fish yields, directly impacting their economic stability. As a result, poverty persists among fishermen, exacerbating the poor living conditions in their settlements, which in turn prevents further improvements in their socio-economic and environmental well-being. These findings suggest that addressing fishermen's poverty requires comprehensive interventions, including technological advancements, financial capital support, improved education, and better living conditions, to create a more sustainable and resilient coastal economy.

2.4 Social Capital and Its Impact on Poverty

Every society possesses social capital, though its extent and composition vary across different communities. The differences in social capital are reflected in the degree of development and utilization within each social structure. In some communities, social capital has been well-identified and extensively leveraged in various forms, such as collective action (cooperation) to improve the quality of life, social networking, and conflict mitigation. Additionally, social capital manifests in mutual trust and reciprocal norms, which encourage collective action in diverse social and economic endeavors.

Social capital is distinct from other forms of capital in that it is inherently productive. It emerges from interpersonal relationships, fostering networks, norms, and trust that enhance societal productivity. According to Putnam (1993), social capital differs from financial capital in that it is self-reinforcing—it accumulates and strengthens with use rather than depleting. In contrast, the erosion of social capital often occurs not from overuse, but from neglect or disuse.

Similarly, Fukuyama (2002) emphasizes that social capital is built upon norms and shared values, where human associations foster trust that ultimately generates significant economic and structural benefits. He identifies three key parameters of social capital: trust, norms, and networks. When applying social capital to poverty reduction efforts, it is essential to address the limited network capacity of impoverished communities. The networks

available to poor communities differ significantly from those of wealthier groups, and marginalized individuals often face barriers to accessing elite networks, further exacerbating economic disparity.

RESEARCH METHOD

This study employs a quantitative descriptive research approach. According to Sugiyono (2006), quantitative research involves the collection and analysis of numerical data to generate objective findings. Descriptive research, on the other hand, focuses on examining the status of human groups, conditions, objects, thoughts, or events occurring in real-time. The quantitative descriptive method in this study aims to provide a systematic, accurate, and factual depiction of the research phenomenon, supported by statistical data obtained from actual field conditions.

Data Collection Methods

This study utilizes both primary and secondary data collection methods. Primary data is gathered through questionnaires and field documentation, serving as evidence of survey distribution and on-site observations. The questionnaire uses a Likert scale (1-5) to assess respondents' opinions, attitudes, and perceptions regarding social phenomena. As per Sugiyono (2004), the Likert scale is a valuable tool for measuring social attitudes and perspectives. In this study, the questionnaire is administered offline to target respondents—impoverished fishermen in Ngemplakrejo Subdistrict. Secondary data is obtained from relevant government agencies, institutions, and local authorities, serving as supporting documentation for this research. These secondary sources provide a broader contextual understanding of poverty and social capital in the study area.

Data Analysis Method

The data analysis in this study employs Chi-square tests and descriptive analysis. The descriptive analysis summarizes the primary survey data collected through questionnaires. To assess the impact of social capital on poverty, a Chi-square statistical test is conducted using SPSS software (version 2.6).

RESULTS AND DISCUSSION

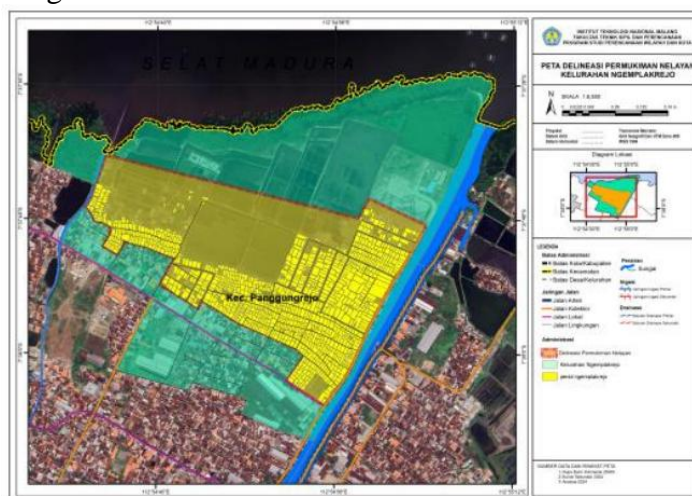
Regional Conditions and Public Perceptions in Ngemplakrejo Subdistrict

This section presents an in-depth overview of the geographical, socio-economic, and environmental conditions in Ngemplakrejo Subdistrict, the study location. The following analysis outlines the regional characteristics and community perspectives, providing a comprehensive background for understanding the relationship between social capital and poverty among coastal fishermen. Ngemplakrejo Subdistrict is one of the administrative areas within Panggungrejo District, Pasuruan City. Situated in the northern region of Pasuruan City, Ngemplakrejo is classified as a coastal subdistrict due to its proximity to the Madura Strait. The subdistrict covers a total area of 51.965 hectares and features a diverse land-use typology, including mangrove forests, livestock farming, fishing activities, handicraft industries, small-to-large-scale industries, and trade and service sectors.

The geographical boundaries of Ngemplakrejo Subdistrict are as follows:

- North: Madura Strait
- South: Trajeng Subdistrict and Mayangan Subdistrict
- West: Tamba'an Subdistrict

- East: Gembong River



**Figure 1. Research Location Map
 (Source: Satellite Imagery 2024)**

This subdistrict is home to a significant fishing community, with many residents relying on capture fishing and aquaculture as their primary sources of income. However, despite its economic potential, poverty remains a major issue among fishermen in Ngeemplakrejo. Limited access to capital, technology, and stable income sources exacerbates the economic struggles of local fishing households. This section provides a spatial analysis of the study area, further detailing the socioeconomic challenges and environmental conditions affecting the livelihoods of coastal communities in Ngeemplakrejo. Poverty Conditions in Ngeemplakrejo Subdistrict

Table 1. Number of Impoverished Residents in Ngeemplakrejo Subdistrict

No	Occupation	Number of People (Individuals)
1	Farm Laborer	3
2	Industrial Worker	60
3	Trader	272
4	Transport Worker	71
5	Hairdresser	2
6	Tailor	4
7	Driver	4
8	Fisherman	418

Source: Monographic Data of Ngeemplakrejo Subdistrict, 2023

Poverty Conditions in Ngeemplakrejo Subdistrict

Table 2. Number of Impoverished Residents in Ngeemplakrejo Subdistrict

No	Occupation	Number of People (Individuals)
1	Farm Laborer	3
2	Industrial Worker	60
3	Trader	272
4	Transport Worker	71
5	Hairdresser	2

No	Occupation	Number of People (Individuals)
6	Tailor	4
7	Driver	4
8	Fisherman	418
9	Daily Wage Worker	43
10	Carpenter	21
11	Entrepreneur	102
	Total Impoverished Population	1000

Source: Monographic Data of Ngemplakrejo Subdistrict, 2023

Based on the table above, it is evident that the fishing profession has the highest number of impoverished individuals, totaling 418 people. Meanwhile, the occupations with the lowest number of impoverished individuals include hairdressers (2 people), farm laborers (3 people), tailors (4 people), and drivers (4 people).

Table 3. Percentage of Impoverished Fishermen in Ngemplakrejo Subdistrict

No	Total Number of Fishermen in Ngemplakrejo	Number of Impoverished Fishermen	Percentage
1	488	418	85%

Source: Analysis, 2024

The table above illustrates the percentage of impoverished fishermen in Ngemplakrejo Subdistrict. The data shows that fishermen dominate the poverty rate, with 85% of the total fishermen population categorized as impoverished.

Respondent Selection

The respondents for this study are impoverished residents, specifically those working as fishermen. Therefore, the research focuses on fishermen classified as impoverished individuals. Based on secondary data, the number of impoverished individuals in the fishing profession will serve as the primary respondent pool for the study.

Respondent Selection Process

The respondents for this study are impoverished residents of Ngemplakrejo Subdistrict, specifically those who work as fishermen. To determine the number of respondents, the Slovin formula was used, as follows:

$$n = \frac{N}{1 + N(e^2)}$$

Where:

- n = Sample size
- N = Total population
- e = Margin of error

Based on the calculation, the sample size for this study is 80 individuals. Accordingly, 80 questionnaires were distributed to selected respondents in the study area.

1. Analysis of the Influence of Social Capital on Poverty in Ngemplakrejo Subdistrict

This section presents the analysis results regarding the influence of social capital on poverty in Ngemplakrejo Subdistrict. The analysis aims to examine the extent to which social capital contributes to poverty alleviation among the coastal fishing communities.

Characteristics of Fishermen's Poverty in Ngemplakrejo Subdistrict

Based on the identification of poverty characteristics, it can be concluded that most fishermen in Ngemplakrejo remain classified as traditional fishermen, using basic fishing

equipment such as nets. Their reliance on low-tech methods limits their fishing capacity and contributes to economic vulnerability.



Figure 1. Fishermen in Ngemplakrejo Subdistrict

Source: Primary Survey, 2024

The figure above documents the fishermen in Ngemplakrejo Subdistrict. The educational level of fishermen in this area remains relatively low, with most having completed only elementary school (SD) or junior high school (SMP). Limited education affects their ability to access better economic opportunities and adopt more advanced fishing techniques. From an economic perspective, fishermen in Ngemplakrejo earn relatively low incomes, ranging between IDR 500,000 – IDR 1,000,000 per month. This low income contributes to economic instability and financial hardship, making it difficult for fishermen to invest in better fishing equipment or improve their living conditions.



Figure 2. Fishermen's Housing Conditions in Ngemplakrejo Subdistrict

Source: Primary Survey, 2024

The housing conditions of fishermen in Ngemplakrejo Subdistrict remain substandard, reflecting their economic struggles. A significant number of fishermen still rely on well water as their primary water source, while only a small portion has access to municipal water services (PDAM). Regarding flooring materials, many fishermen's homes have floors made of cement or even bare soil, indicating a low standard of living. In terms of wall construction, most houses are built using brick, while some still rely on wooden materials, which are more susceptible to deterioration. These poor housing conditions highlight the urgent need for infrastructure improvements to enhance the quality of life for the fishing community in Ngemplakrejo.



Figure 3. Housing Conditions of Fishermen in Ngemplakrejo Subdistrict

Source: Primary Survey, 2024

Social Capital Conditions in Ngemplakrejo Subdistrict

Based on the research findings, the social capital in Ngemplakrejo Subdistrict consists of three primary components: cooperation, social networks, and norms/regulations among fishermen. These elements significantly contribute to the collective livelihood of the fishing community. Fishermen in Ngemplakrejo actively collaborate in their work, both during fishing activities and post-harvest processes. They engage in mutual assistance and communal labor (gotong royong), particularly when unloading fish from the boats.



Figure 4. Social Capital Among Fishermen in Ngemplakrejo Subdistrict

Source: Primary Survey, 2024

The image above illustrates the cooperative nature of fishermen in Ngemplakrejo, where they help one another in the fishing process.



Figure 5. Social Capital Among Fishermen in Ngeemplakrejo Subdistrict

Source: Primary Survey, 2024

The image above documents fishermen assisting each other in drying fish. As depicted, fishermen exchange information regarding their work, ensuring that they can sustain their livelihoods. This social capital has a positive impact on both the social and economic well-being of fishermen in Ngeemplakrejo Subdistrict. The spirit of cooperation among fishermen creates employment opportunities and allows them to sustain their livelihoods. Additionally, social networks within the community enable fishermen to access information regarding job opportunities, further supporting their economic stability. As a result, the social capital in Ngeemplakrejo remains in good condition, as it fosters strong cooperation and mutual support among fishermen, contributing to their economic resilience and social cohesion.

The Impact of Social Capital on Poverty in Ngeemplakrejo Subdistrict

Based on the research findings, the cooperation variable significantly influences various aspects of poverty in Ngeemplakrejo Subdistrict. Specifically, cooperation has a significant impact on education (p-value = 0.018), economy (p-value = 0.000), and living standards (p-value = 0.011). However, cooperation does not significantly affect fishing equipment or technology use (p-value = 0.704). These results indicate that fishermen who engage in cooperative practices experience better education, economic stability, and improved living standards.

Furthermore, the social network variable also has a significant impact on education (p-value = 0.004) and economy (p-value = 0.000). However, it does not significantly influence fishing equipment/technology (p-value = 0.273) or living standards (p-value = 0.083). This suggests that stronger social networks help fishermen access better educational and economic opportunities but do not directly impact technological advancements or living conditions.

On the other hand, the norms variable does not have a significant influence on any of the measured aspects. The statistical values for each parameter were as follows:

- Education: 0.519 (> 0.05), indicating no significant effect.
- Economy: 0.233 (> 0.05), indicating no significant effect.
- Fishing Equipment/Technology: 0.216 (> 0.05), indicating no significant effect.
- Living Standards: 0.151 (> 0.05), indicating no significant effect.

These findings suggest that while cooperation and social networks play essential roles in reducing poverty, norms and traditional regulations among fishermen do not significantly contribute to improvements in education, economy, or overall well-being. Strengthening cooperative efforts and enhancing social networks may be key strategies for poverty alleviation among fishermen in Ngemplakrejo.

Discussion

The findings of this study highlight the significant role of social capital in influencing poverty among fishermen in Ngemplakrejo Subdistrict. The research identifies cooperation and social networks as crucial factors that positively impact fishermen's education, economic stability, and overall well-being. The cooperative nature of fishermen—which includes mutual assistance in fishing activities, post-harvest processing, and sharing economic opportunities—contributes significantly to their ability to sustain livelihoods despite economic hardships. The presence of strong social networks also allows fishermen to exchange information, access employment opportunities, and secure financial resources, which further supports their economic resilience (Twumasi et al., 2021; Susilo et al., 2021). However, while cooperation and social networks are found to be beneficial, traditional norms and local regulations do not appear to have a substantial influence on poverty alleviation. This suggests that social capital, while essential, must be complemented with other structural interventions such as education, financial support, and technology access to effectively improve fishermen's livelihoods (Susilo et al., 2021; Obie, 2024).

The results also indicate that fishermen in Ngemplakrejo remain dependent on traditional fishing methods and low-income activities, which contributes to their persistent economic struggles. The reliance on manual fishing tools such as nets and small boats, combined with fluctuating weather conditions, limits their ability to increase productivity. Moreover, low education levels among fishermen hinder their access to alternative employment opportunities or more advanced fishing techniques that could enhance income generation (Nismawati et al., 2022; Cahaya, 2022; Sugi, 2023). Most fishermen in Ngemplakrejo have only completed primary or junior high school, restricting their ability to engage in modern economic activities beyond fishing. This educational disadvantage, combined with the absence of significant governmental or institutional support, keeps fishermen trapped in a cycle of poverty (Kahar & Broto, 2023; Istikomah, 2023). The findings suggest that improving fishermen's education, particularly in areas such as financial literacy, business skills, and sustainable fishing practices, could enhance their ability to break free from economic vulnerability (Badi'ah, 2023; Fahrudin et al., 2021).

Although social capital remains strong in Ngemplakrejo, its impact on technological advancement within the fishing community is minimal. The study finds that cooperation and social networks do not significantly influence fishermen's access to improved fishing technology. This indicates that while fishermen help one another in daily activities, they lack sufficient access to financial and technological resources that could modernize their industry (Liu et al., 2019; Cahyagi & Gurning, 2018). The limited use of innovative fishing gear, processing equipment, and market expansion strategies prevents fishermen from increasing their earnings. This gap suggests the need for external interventions, such as governmental programs, NGO support, or microfinance initiatives, to provide fishermen with access to better fishing tools, training, and capital investments.

Without such improvements, the fishing community may continue to struggle with low productivity, declining fish stocks, and unstable income (Utete et al., 2022; Ridwan, 2024).

The findings of this research emphasize that while social capital is a vital component in maintaining economic and social stability among fishermen, it is insufficient as a standalone poverty reduction strategy. Although fishermen demonstrate strong cooperation and networking, these social elements must be supplemented with tangible economic opportunities, skill development, and infrastructure improvements. Local governments and policymakers should capitalize on the existing social capital by designing community-based economic programs that encourage cooperative fishing enterprises, access to financial aid, and enhanced market integration. Additionally, introducing alternative livelihood programs, such as small-scale aquaculture or tourism-related fishing activities, could provide fishermen with diversified sources of income. By integrating social capital with structural improvements, the long-term economic sustainability of the fishing community in Ngeemplakrejo could be significantly strengthened (Koomson et al., 2022; Rakuasa, 2023).

CONCLUSION

Based on the research findings, the following conclusions have been drawn:

1. Cooperation has a significant impact on poverty parameters in this study. Specifically, it significantly affects education (p-value = 0.018), economy (p-value = 0.000), and living standards (p-value = 0.011). However, cooperation does not have a significant influence on fishing equipment/technology (p-value = 0.704). These findings suggest that collaborative efforts among fishermen help improve their education, economic stability, and quality of life but do not directly contribute to technological advancements in fishing practices.
2. Social networks significantly affect education (p-value = 0.004) and economy (p-value = 0.000). However, they do not significantly influence fishing equipment/technology (p-value = 0.273) or living standards (p-value = 0.083). This indicates that strong social connections allow fishermen to access better education and economic opportunities but do not directly contribute to improvements in fishing technology or overall living conditions.
3. Norms do not significantly impact any of the measured poverty parameters. The statistical results indicate no significant influence on education (p-value = 0.519), economy (p-value = 0.233), fishing equipment/technology (p-value = 0.216), or living standards (p-value = 0.151). This suggests that norms and regulations within the fishermen's community do not directly contribute to poverty reduction.
4. The overall condition of social capital in Ngeemplakrejo Subdistrict is relatively strong. The research findings indicate that fishermen exhibit high levels of trust and mutual concern, fostering a supportive community environment. This implies that the fishing community in Ngeemplakrejo actively applies social capital principles in their daily lives, engaging in mutual aid and cooperation to sustain their livelihoods.
5. The fishermen in Ngeemplakrejo remain classified as traditional fishermen. The study found that most fishermen have low education levels (elementary and junior high school graduates), low income levels (ranging from IDR 600,000 to IDR 1,000,000 per month), and rely on traditional fishing tools such as nets. Additionally, many

fishermen's homes are still constructed using non-permanent materials, reflecting poor living conditions and economic struggles.

Overall, these findings highlight the crucial role of cooperation and social networks in reducing poverty among fishermen in Ngemplakrejo, while norms appear to have a limited influence on economic and social well-being. Strengthening cooperative efforts and expanding social networks may serve as effective strategies for improving the livelihoods of fishermen in coastal communities.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed:

- 1. Expanding Social Capital Variables for Future Research**
This study confirms that social capital significantly influences poverty reduction, specifically in four measured parameters. The current research focused on cooperation, social networks, and norms/regulations as social capital components. Future research is recommended to explore additional social capital variables, such as sense of efficacy (self-worth), reciprocity (mutual exchange), trust, and adaptation & diversity. Investigating these elements may provide a more comprehensive understanding of how social capital contributes to poverty alleviation and economic resilience among fishermen.
- 2. Developing Poverty Alleviation Strategies Based on Social Capital**
Given that cooperation and social networks significantly impact poverty levels, further research should focus on developing structured poverty alleviation strategies based on social capital. Future studies can examine how social capital-based interventions could be utilized to reduce rising poverty rates in Pasuruan City and other similar coastal areas. These findings could be used as a model for community-driven poverty reduction programs, ensuring that the positive aspects of social capital in Ngemplakrejo continue to be maintained and strengthened.
- 3. Strengthening Government Support for Fishermen's Social Cooperation**
Since cooperation and social networks play the most significant role in influencing economic conditions, government agencies must actively promote collaborative initiatives among fishermen. The local government should enhance cooperation through poverty reduction programs that include training, financial assistance, and community-based economic projects. Additionally, the government should establish fishermen support groups or cooperatives, providing sustainable solutions to economic challenges. These cooperatives could function as resource-sharing hubs, financial support networks, and platforms for capacity building, ultimately improving income levels and living conditions for fishermen.
- 4. Empowering Fishermen Through Education, Skills Development, and Economic Interventions**
The study findings indicate that low education and skill levels hinder fishermen from improving their economic situation. Therefore, local governments should prioritize education and vocational training programs for the fishing community. Programs aimed at enhancing financial literacy, modern fishing techniques, and alternative income sources could empower fishermen to increase their productivity and financial

independence. Additionally, economic interventions such as microfinance opportunities and small-scale business support programs should be provided to help fishermen transition from traditional practices to more sustainable and profitable economic activities.

REFERENCES

- Achmad Djunaedi, M. N. (2002). Perencanaan pengembangan kawasan pesisir. *Jurnal Teknologi Lingkungan*, 3(3), 225-231.
- Adinda, F. (2015). Tahu Serasi dalam perspektif modal sosial (Studi sosiologis peran modal sosial pada usaha Tahu Serasi di Bandungan, Kabupaten Semarang). 2019-238.
- Ali, A. A. (2020). Identifikasi dan pemberdayaan masyarakat miskin nelayan tradisional. *Pondasi*, 25, 37-49.
- Anwar, Z. (2019). Miskin di laut yang kaya: Nelayan Indonesia dan kemiskinan. *Sosioreligius*, 4, 53-59.
- Azis, F. (2022). Modal sosial masyarakat pesisir (Studi kesejahteraan sosial petani rumput laut di Kabupaten Jeneponto). *Jurnal Pendidikan dan Ilmu Sosial*, 24, 24-36.
- Badi'ah, S. (2023). Work ethos and economic welfare of the fisherman community of way tataan sub-district teluk betung timur. *Kne Social Sciences*. <https://doi.org/10.18502/kss.v8i16.14039>
- Cahaya, A. (2022). Revitalization of fisherman and rural economy for acceleration of poverty reduction in the digital era: roots of problems and solutions. *Jurnal Ad Ministrare*, 9(2), 343. <https://doi.org/10.26858/ja.v9i2.36989>
- Cahyagi, D. and Gurning, R. (2018). A review on indonesian fishermen prosperity in the coastal area. *Applied Mechanics and Materials*, 874, 3-9. <https://doi.org/10.4028/www.scientific.net/amm.874.3>
- Dwi Putri Heritasari, R. P. (2016). Penentuan variabel berpengaruh dalam pengembangan kawasan strategis ekonomi pesisir utara pada bidang perikanan di Kota Pasuruan. *Jurnal Teknik ITS*, 5(1), C1-C5.
- Ekosafitri, K. H. (2017). Pengembangan wilayah pesisir Pantai Utara Jawa Tengah berdasarkan infrastruktur daerah: Studi kasus Kabupaten Jepara. *Journal of Regional and Rural Development Planning*, 1, 145-157.
- Esti Mega Nur Anggraeni, S. S. (2022). Modal sosial komunitas wilayah pesisir dalam mengelola mangrove di Kabupaten Jember. *Suluh Pembangunan: Journal of Extension and Development*, 4(2), 69-83.
- Fadil, F. (2013). Partisipasi masyarakat dalam musyawarah perencanaan pembangunan di Kelurahan Kotabaru Tengah. *Jurnal Ilmu Politik dan Pemerintahan Lokal*, 251-262.
- Fahrur, M., Dirwan, D., & Rajindra, R. (2021). Study on the poverty of traditional fishermen in lombonga village, balaesang district, donggala regency. *International Journal of Health Economics and Social Sciences (Ijhess)*, 3(3), 156-164. <https://doi.org/10.56338/ijhess.v3i3.1577>
- Fithri, C. A. (2013). Kajian pertumbuhan permukiman nelayan Desa Blang Geulumpang Kabupaten Aceh Timur (Studi kasus: Dusun Pantai Desa Blang Geulumpang). *Jurnal Arsitekno*, 2, 9-24.
- Fukuyama. (2002). Social capital and development: The coming agenda. *SAIS Review*, 22.

- Goso, S. (2017). Kemiskinan nelayan tradisional serta dampaknya terhadap perkembangan kumuh. *Jurnal Manajemen*, 3, 1-13.
- Hariyanto, S. (2014). Analisis pemberdayaan masyarakat nelayan di Pantai Prigi Kecamatan Watulimo Kabupaten Trenggalek. *Jurnal Universitas Tulungagung BONOROWO*, 2, 1-16.
- Hasubulah. (2006). *Social capital (Menuju keunggulan budaya manusia Indonesia)*. Jakarta: MR-United Press.
- Imron, M. (2003). Kemiskinan dalam masyarakat nelayan. *Jurnal Masyarakat dan Budaya*, 5, 63-82.
- Istikomah, E. (2023). Internalization of economic education through family financial management of fishermen of prigi beach watulimo trenggalek east java. *Journal of Educational Analytics*, 2(4), 439-452. <https://doi.org/10.55927/jeda.v2i4.6894>
- Jocom. (2015). Keterkaitan antara modal sosial dan kemiskinan menurut tahapan perkembangan desa di Provinsi Gorontalo.
- Kahar, M. and Broto, M. (2023). Management for alleviating poverty among fishermen through empowering female fishermen in north kalimantan. *Kne Social Sciences*. <https://doi.org/10.18502/kss.v8i5.12999>
- Koomson, D., Davies-Vollum, K., & Raha, D. (2022). Climatic hazards: high importance but low severity to coastal rural fishing communities. *Earth Science Systems and Society*, 2. <https://doi.org/10.3389/esss.2022.10052>
- Laura, N. (2018). Peran modal sosial masyarakat dalam pengelolaan potensi alam sebagai strategi bertahan hidup di Dusun Limang, Kecamatan Kelapa, Kabupaten Bangka Barat. *Society*, 74-82.
- Liu, M., Lin, M., Turvey, S., & Li, S. (2019). Fishers' experiences and perceptions of marine mammals in the south china sea: insights for improving community-based conservation. *Aquatic Conservation Marine and Freshwater Ecosystems*, 29(5), 809-819. <https://doi.org/10.1002/aqc.3073>
- M. Husni Tamrin, D. M. (2022). Modal sosial dalam tata kelola wisata pesisir: Studi di Pantai Delegan Kabupaten Gresik pasca pandemi. *Jurnal Politik, Keamanan dan Hubungan Internasional*, 169-174.
- Mardiati, V. (2022). Kehidupan masyarakat nelayan pesisir utara Pasuruan tahun 1900-1940. *Avatara*, 12(1), 1-13.
- Munandar, M. A. (2010). Peran modal sosial dalam penanggulangan kemiskinan masyarakat miskin perkotaan pada pedagang sektor informal di Kota Semarang. *Forum Ilmu Sosial*, 107-117.
- Naping, H. (2013). Modal sosial sebagai strategi pengentasan kemiskinan secara mandiri pada desa nelayan di Sulawesi Selatan dan Sulawesi Barat. *Socius*.
- Natalia, M. (2014). Kajian kemiskinan pesisir di Kota Semarang (Studi kasus: Kampung Nelayan Tambak Lorok). *Jurnal Teknik PWK*, 50-59.
- Nismawati, N., Oruh, S., Kamaruddin, S., Agustang, A., & Wirda, M. (2022). Awareness of the importance of children's education in the small island fisherman community (case study of liukang loe island). *Jurnal Geografi*, 15(1), 12-25. <https://doi.org/10.24114/jg.v15i1.34027>

- Obie, M. (2024). Understanding poverty among fishing communities in indonesia: a critical review. *Asian Journal of Education and Social Studies*, 50(8), 649-654. <https://doi.org/10.9734/ajess/2024/v50i81563>
- Pinem, E. Y. (2019). Kemiskinan struktural komunitas nelayan di Kelurahan Sumber Jaya, Kecamatan Kampung Melayu, Kota Bengkulu. *Jurnal Sosiologi Nusantara*, 5, 91-112.
- Pragoyo, M. (2022). Faktor penyebab kemiskinan pada nelayan pesisir pantai: Kajian psikologi linguistik. *Translation and Linguistics (Transling)*, 75-78.
- Prof. Dr. Alfitri, M. (2022). *Pengukuran modal sosial*. Palembang: IDEA Press Yogyakarta.
- Prof. Dr. Thomas Santoso, M. (2020). *Memahami modal sosial*. Surabaya: CV Saga Jawadwipa.
- Rakuasa, H. (2023). Socio-economic conditions of the fishing community in nuwewang village, letti district, maluku barat daya regency. *Economics*, 1(2), 76-85. <https://doi.org/10.61194/economics.v1i2.63>
- Retnowati, E. (2011). Nelayan Indonesia dalam pusaran kemiskinan struktural (perspektif sosial, ekonomi dan hukum). *Perspektif*, 149-159.
- Ridwan, M. (2024). Innovation in fiberglass ship assembly: social-economic and entrepreneurship study of coastal communities. *Jurnal Agrisep Kajian Masalah Sosial Ekonomi Pertanian Dan Agribisnis*, 129-144. <https://doi.org/10.31186/jagrisep.23.01.129-144>
- Rudianto. (2019). Modal sosial dalam komunitas pedagang sayuran di Desa Balunujuk Kecamatan Merawang Kabupaten Bangka. *Jurnal Ekonomi Pertanian dan Agribisnis (JEPA)*, 60-68.
- Sayuti. (2016). Modal sosial dalam organisasi. *Jurnal Transformasi Pemerintahan*, 111-118.
- Sugi, L. (2023). Poverty in golden fishing: a regulatory impact assessment of fishermen poverty in indonesia. *Policy & Governance Review*, 7(1), 54. <https://doi.org/10.30589/pgr.v7i1.623>
- Sugiyanto. (2018). Inovasi model pengembangan kawasan pesisir berbasis modal sosial di Kabupaten Tangerang. *Paradigma: Jurnal Ilmu Administrasi*, 111-142.
- Sugiyono. (2018). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Bandung: ALFABETA, CV.
- Susilo, E., Purwanti, P., Fattah, M., Qurrata, V., & Narmaditya, B. (2021). Adaptive coping strategies towards seasonal change impacts: indonesian small-scale fisherman household. *Heliyon*, 7(4), e06919. <https://doi.org/10.1016/j.heliyon.2021.e06919>
- Syakra, R. (2003). Modal sosial: Konsep dan aplikasi. *Jurnal Masyarakat dan Budaya*, 1-22.
- Syarif, E. (2022). Pemetaan karakteristik dan determinan kemiskinan komunitas nelayan Patorani di Desa Pa'lalakang Kecamatan Galesong Kabupaten Takalar. *Jurnal Environmental Science*, 182-193.
- Tain, A. (2011). Penyebab kemiskinan rumah tangga nelayan di wilayah tangkap lebih Jawa Timur. *Humanity*, 1-10.
- Titioaka, B. M. (2023). Modal sosial dalam manajemen BUMDes: Konsep, anteseden, dan konsekuensi. *Public Policy*, 331-344.
- Twumasi, M., Jiang, Y., Addai, B., Ding, Z., Chandio, A., Fosu, P., ... & Agbenyo, W. (2021). The impact of cooperative membership on fish farm households' income: the case of ghana. *Sustainability*, 13(3), 1059. <https://doi.org/10.3390/su13031059>

- Utete, B., Kupika, O., Mahlatini, P., & Nyachowe, T. (2022). How local communities access, utilise and evaluate inland fisheries, and their influence on fishery conservation status in northern zimbabwe. *Water Sa*, 48(3 July). <https://doi.org/10.17159/wsa/2022.v48.i3.3885>
- Widjajanti, W. W. (2014). Studi karakteristik permukiman nelayan di kawasan Pantai Selatan Malang. *Jurnal IPTEK, Media Komunikasi Teknologi*, 1-9.
- Wulandari, K. (2013). Faktor penyebab kemiskinan nelayan tradisional. *The Factor of Poverty Causes Traditional Fisherman*, 1-8.
- Zakaria. (2019). Miskin di laut yang kaya: Nelayan Indonesia dan kemiskinan. *Sosio-religius*, 53-60.