

Original Research Article

The Social Mapping of Fisherman Communities in Cangkol Village, Cirebon, Indonesia

ABSTRACT

The social mapping is intended to map social characteristics, as well as to analyze the driving and inhibiting factors of the fishing community in Cangkol Village, using a survey method with a questionnaire and analyzed descriptively. The research was conducted in April–June 2023. The fishing community of Kampung Cangkol is a community with the majority of middle-aged individuals graduating from elementary school, Muslim, with Cirebonese ethnicity who still preserve local traditions and wisdom. Fishermen's wives have a double role as being in charge of domestic affairs and helping fishermen earn a living. There is a patron-client relationship between fishermen and middlemen as the main access to capital in the fishing business. The upper layer in the fishing community of Cangkol Village is community leaders, the middle layer is skipper fishermen, and the lower layer is the Ship's Crew (ABK). The fishing community in Cangkol Village are fishermen with a traditional fishing unit. The driving factors in the fishing effort of the Cangkol Village fishing community are the preservation of cultural manifestations in the community, the fishermen's wives' dual roles, kinship, and social organizations. The inhibiting factors in the fishing business are weather, age structure, level of education, the existence of middlemen, and the use of technology that is still traditional.

Keywords: Social mapping, fishing communities, Cangkol Village

1. INTRODUCTION

Social mapping is carried out in order to understand the social conditions of local communities [1]. Social mapping is important to do because people in each region have different characteristics so the conditions, needs, and problems they face vary [1]. In addition to knowledge about the basic needs of local communities, potential resources, and community social capital, social and economic mapping functions to identify stakeholders and their interrelationships in the existence and functionality of a program, so that the roots of problems that exist in a community can be identified [1].

The city of Cirebon is part of the West Java province which connects the DKI Jakarta area with the Central Java region. Location Cirebon City is in the coastal area with a beach length of ± 7 Km [2]. This is a distinct advantage associated with the abundance of marine products obtained [3]. Compared to coastal areas in other areas, the coastal areas in Cirebon City tend to be narrower because they are only found in two sub-districts, namely Kejaksan and Lemahwungkuk Districts with a total area of 8.56 km². According to the Cirebon City Agriculture and Fisheries Food Security Service (DKP3), the amount of capture fisheries production in Cirebon City will reach 7,160.67 tons in 2021, with 6,590.15 tons acquired from Lemahwungkuk District in 2021.

Four points of fishing villages are scattered in Cirebon City namely Samadikun Village, Coastal Village, Cangkol Village, and Kejawanan Village [3]. Cangkol Village is part of a fishing village located in Lemahwungkuk Village, Lemahwungkuk District. Fishermen in Cangkol Village are more advanced than fishermen in other villages because they are more productive and good in terms of their management [3]. Indicators of fishermen's progress are seen from fishermen's ability to make FADs, and marine tourism has been opened for tourists who come. The Red Snapper and Jenaha Joint Business Groups (KUB) in Cangkol Village are running actively so that the existing fishermen's associations are developing [3].

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The description of the facts above should come to the conclusion that with the existing potential, the people living in the surrounding area can live in prosperity [2]. This has yet to be proven in real terms, in line with the emergence of statements that fishing communities tend to have a low level of welfare. Quoting from the results of an interview with the Chairman of the Leadership Council of the Indonesian Fishermen Association (DPCHNSI) Cirebon City, Kasrudin said that fishing communities are still living in a state of concern because the income from fishing is not comparable to expenses for fuel, food, and other logistics [3]. Some points in the Cirebon coastal area are even in a state of decline with the characteristics of a slum and not prosperous area [2].

The low welfare of fishing communities shows that the development has not been optimal. Community development cannot be carried out optimally if there is no understanding of the characteristics of the community in a region [4]. Without existing understanding, it will be difficult for related parties to maintain stability or make the desired changes [4]. Conducting social mapping provides a specific understanding and description of the social and economic conditions of the fishing community in Cangkol Village.

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2. METHODOLOGY

The research was carried out in Cangkol Village, Lemahwungkuk Village, Lemahwungkuk District, Cirebon City, West Java. Data collection, processing, and analysis were carried out in April–June 2023. The method used in this research is a survey method. Survey research is conducted by asking several respondents about beliefs, opinions, characteristics, and behaviors that have occurred or are currently occurring [5]. The data used in this research are primary and secondary data. The main data in the form of primary data was obtained through interviews with respondents using a questionnaire tool regarding the social characteristics of the fishing community in KampungCangkol. Secondary data includes data on the general condition of the Cangkol Village fishery area and sector. These data were obtained from the Cirebon City Food Security, Agriculture and Fisheries Service (DKP 3), and the Lemahwungkuk Village Office.

The target respondents in this research were fishing communities in the Cangkol Fisherman Village. Respondents were taken using the purposive sampling method. In order to support research objectives, then Respondents were taken based on the following criteria:

- a. Respondents work as full-time fishermen or main part-time fishermen;
- b. Respondents are members of fishermen groups;
- c. Respondents are residents of Cangkol Village;
- d. Respondents are willing to be interviewed.

Stakeholders-related parties, namely officials from the Cirebon City Food Security, Agriculture and Fisheries Service (DKP3), and community leaders in Cangkol Village act as triangulators for the data collected.

In carrying out the research, the data collected is qualitative data covering the characteristics of fishing communities, descriptions of fishing activities, gender roles, kinship, and social organization, and the driving and inhibiting factors in Cangkol Village fishermen's fishing efforts. The non-numeric nature of data makes data unable to be processed in the form of numbers, and can only be observed and recorded, resulting in various information [6]. The information collected will be processed in the form of tables or graphs, to then be interpreted in the form of explanatory sentences.

3. RESULTS AND DISCUSSION

3.1 Social Conditions of the Fisherman Community of Cangkol Village

3.1.1 Age structure

The life cycle hypothesis theory by classifying the age structure into four important phases in the adult human life cycle, namely young adults (15–29 years), prime working age (30–49 years), middle age (50–64 years), and old age (≥ 65 years) [7]. The age structure of the fishing community in Cangkol Village is shown in Table 1.

Table 1. The age structure of the fishing community in Cangkol Village

Age Group (Year)	Amount (Person)	Percentage (%)
15–29	2	7,7
30–49	11	42,3
50–64	13	50
	26	100

Table 1 shows that fishermen in Cangkol Village are dominated by fishermen aged 50–64 years, or are in the middle age group, namely 13 people. The dominance of the next age group is occupied by fishermen aged 30–49 years, or the main working age group, namely 11 people. At least there are fishermen aged 15–29 years or young adults, namely 2 people, and there are no active fishermen who are included in the old age group.

The age range of fishermen in Cangkol Village is 28–63 years or belongs to individuals of productive age, namely 15–64 years [7]. The population in the productive age group is identical to individuals of working age, meaning that these individuals are actively working to meet their needs and their dependents [8]. Research on the relationship between work motivation and fishermen's behavior suggests that fishermen at productive ages tend to have good physical conditions so that they are able to develop themselves and work optimally with the aim of making their families prosperous [9]. Productive age is considered a prime age for hand-line fishermen because hand-line fishermen constantly need physical strength to run their businesses[10].

The fishing community of Cangkol village is dominated by individuals aged 50–64 years, in which there are residents aged > 60 years and over or ages with the possibility of potential and non-potential old age [7]. This affects the work productivity of fishermen because based on the results of field observations and interviews with respondents that the frequency of going to sea for fishermen in their late 50s tends to decrease due to old age so fishermen's physical condition is no longer prime.

3.1.2 Level of Education

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Table 2 shows the education level of fishermen in Cangkol Village ranging from not having finished elementary school to high school. If the results are sorted, then the majority, or 55.7% of the fishermen in Cangkol Village graduated from Elementary School (SD), namely 15 people. Five people or 19.2% of the total fishermen did not finish elementary school. Four people or 15.4% of fishermen graduated from junior high school (SMP), and two people, or 7.7% of fishermen graduated from high school (SMA).

Table 2. The level of education of the fishing community in Cangkol Village

Level of education	Amount (Person)	Percentage (%)
Not completed in elementary school	5	19,2
Elementary school (SD)	15	57,7
Junior High School (SMP)	4	15,4
Senior High School (SMA)	2	7,7
	26	100

Fishermen in Cangkol Village are dominated by elementary school graduates, which means that the education level of fishermen in Cangkol Village is still relatively low [11]. The results of interviews and observations concluded that there were several factors causing the low level of education of fishermen in Cangkol Village, namely:

- a. Economic factors, where families formerly fishermen have a low economic level, are inversely proportional to the costs incurred for schooling. Quoting from an interview with one of the respondents, Mr. S related to the low level of education of fishermen:
 "Schools in the old days were expensive, there was no free assistance like now, now my children are good, I went to high school, even if you want more, you're welcome."
 The low economic level of the family forces former fishermen to use child labor to help make ends meet so that fishermen's children drop out of school and choose to work;
- b. Fishing effort is carried out in a subsystem which is a domino effect of the low economic level of fishermen, meaning that the priority of former fishermen when working was to fulfill their basic needs, namely clothing, food, and shelter. Children's formal education needs are not a priority
- c. The assumption is that fishermen's work is the work of muscles and nature. This makes participation in fishing activities more important than participation in formal education. The frequency of fishermen's participation in fishing activities will train fishermen's motor skills and adaptation to existing natural signs.

3.1.3 Religion

The religion adhered to by each individual will influence the nature, attitude, and way of life of a person in their environment [12]. The fishing community in Cangkol Village is classified as religiously homogeneous, meaning that only one religion is followed, namely Islam. Religious homogeneity in the fishing community of Cangkol Village is possibly caused by the location of Cangkol Village which is part of Cirebon City, which is the center of the spread of Islam in West Java. Cirebon Islamic historiography briefly explains the history of the spread of Islam in the city of Cirebon [13]. It states that Cirebon was originally a kingdom called the Cirebon Sultanate. The Cirebon Sultanate was founded by SyarifHidayatullah, who was a propagator of Islamic teachings in the Cirebon area at his time. Therefore, many Islamic teachings were abandoned after the leadership of SyarifHidayatullah.

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Referring to the results of the interviews that have been conducted, some of the Islamic teachings that have become a habit of the fishing community in Cangkol Village are:

- a. Prayer is a form of worship performed by fishing communities as adherents of Islam. Fishermen tend to perform the obligatory prayers at their homes, and occasionally go to the mosque to perform Friday prayers;
- b. Prayer before going to sea, by the captain and crew. A joint prayer is made to ask for smoothness, safety, and good results when the arrest activity is carried out;
- c. Joint recitation by all fishermen from Cangkol Village which is held at least once a year. Large recitations are usually held at the end of the year, as a form of gratitude to Allah SWT for the blessings, abundance of fortune, and smooth sailing during the past year;
- d. Tahlilan, which is done when someone dies. The tahlilan is carried out by gathering at the funeral home to pray for the deceased together. People who come usually give alms in the form of small favors such as money or treats, and the families left behind usually give alms in the form of small treats as a symbol of appreciation for guests who come.

The mosque is a facility and infrastructure for Islamic religious activities available in Cangkol Village. The mosque as a religious facility and infrastructure for the fishing community of Cangkol Village is shown in Figure 1. There are eight prayer rooms and two mosques in Cangkol Village. Of all existing religious infrastructure, 26 respondents tend to concentrate on religious activities such as congregational prayers and Friday prayers at the Jami' ArisMunandar Mosque, because the Jami' BahrulFalaah Mosque is not functioning and is currently under repair. The eight existing prayer rooms are not very active as congregational places of worship. The fishing community of Cangkol Village is a follower of NahdlatulUlama Islam, as seen from the traditions that are still being carried out such as tahlilan and joint recitation [14].

3.1.4 Ethnicity

All fisherman respondents in Cangkol Village are residents of the Cirebonese ethnic group, or commonly called Wong Cerbon. Wong Cerbon is a term for residents who were born and raised in Cirebon culture. The Cirebonese are the result of cultural hybridity between the Sundanese culture, which in this context is the location of Cirebon which belongs to the West Java region, with "marginal culture" attached to the Javanese Koek, JawaReang, or Wong JawaCarbonan cultural entities [15].

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- a. The fishing community in Cangkol Village is classified as an old fishing community, where those who occupy the settlement are native Cangkol residents who have had a livelihood as fishermen since ancient times;
- b. Immigrants tend to come and settle in the Kejawanan area. The opportunity for migrants to leave and enter is greater through the Kejawanan PPN as a center for trade, industry, and tourists to Cirebon [3].

3.1.5 Language

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The communication of the fishing community in Cangkol Village is carried out using the Cirebonese language. Cirebonese language is still very strongly used in the daily life of fishermen, both among fishermen and with fishermen's family members. Communication in this context is not only verbal communication but includes communication made by fishermen via WhatsApp and short messages.

Language is one of the main differentiators of a cultural area. Language as the verbal identity of a community is self-image and is an affirmation of self-existence, and is a link for the social system within it [15]. This also applies to the people of Cirebon which are the result of hybridity between the cultures of West Java and Central Java. The regional language used by the people of Cirebon is called the Cirebonese Javanese, or the Cirebonese Javanese dialect, or the Javanese Sundanese dialect. As time went on, the lexical differences between Cirebon Javanese and Risk Javanese became wider and more striking, until finally, the Cirebonese language was de jure designated as an independent language in West Java Provincial Regulation Number 5 of 2003 [16]. Based on the data obtained, the fishing community in Cangkol Village are local residents so there is no influence or contact with other regional languages.

3.1.6 Art

Art is a form of culture as a form of expression of the beauty of the human soul. Art is a determinant of norms that must be derived so as to form a separate system in the life of a community group [17]. These arts are still sustainable and are exhibited at least once a year when a big event takes place. Fishermen will discuss the type of art that will be performed as a series of year-end big celebrations, and all performers are royal people or local residents of Cangkol Village. The exhibition of these arts is a form of preservation of culture that has existed and has been introduced from generation to generation:

- a. Wayangkulit is a traditional performing art of the Javanese palace culture [18]. The stories told during the wayangkulit show are usually folklore from Cirebon;
- b. Drama, is an art form in the form of acting where a group of people will play a role on the stage. Just like in wayanggolek, the storyline in acting is Cirebon folklore;
- c. Dances, especially mask dances, and sintren. Mask dance and sintren are dance arts originating from Cirebon. Mask dance is a symbol of the spread of Islam in Cirebon by SunanKalijaga and SunanGunungjati, while Sintren is an art that is closely related to fishing communities. It is said that sintren is a sacred game played by fishermen's wives and children while waiting for the return of their husbands and fathers who go to sea[19].

3.1.7 Local Wisdom

Social problems that arise in the lives of fishing communities are addressed and unconsciously form a separate adaptation strategy in the form of local wisdom [20]. The forms of local wisdom in the fishing community of Cangkol Village are shown in Figure 1. The forms of local wisdom formed within the fishing community in Cangkol Village include the use of environmentally friendly fishing gear, the prohibition of catching fish >1 ounce in size, and Nadran.

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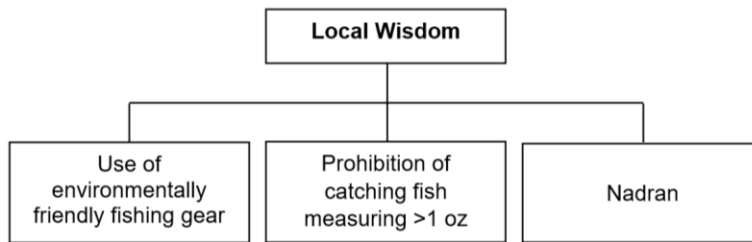


Fig. 1. The local wisdom of the fishing community in Cangkol Village

This local wisdom was formed as an adaptation strategy for social problems in the fishing community of Cangkol Village. Furthermore, an explanation regarding the formation of local wisdom in Cangkol Village is as follows:

- a. Use of environmentally friendly fishing gear. All fishermen in Cangkol Village use hand-line fishing gear. Hand line fishing gear is used by traditional fishermen to catch fish in the sea and is an active and environmentally friendly fishing gear [21]. Based on the results of interviews with fishermen, fishermen choose to maintain handlines because handlines are fishing gear that is easy to operate, inexpensive to maintain, does not damage the environment, and fishermen can select catches directly when fishing is carried out.
- b. Prohibition of catching fish <1 oz. This prohibition arose as a result of the fishing efforts of Cangkol Village as an effort to maintain existing fishery resources. Fish < 1 ounce should not be caught to maintain fish stocks in the ocean. Fish is an exhausted resource, so it must be managed wisely [22]. Fishermen who violate this rule will be fined. Fines will be collected and used for common interests such as making FADs if a fisherman member dies, and other common needs;
- c. Nadran, is a designation for sea alms parties for fishing communities in almost all areas of Java, including Cirebon [23]. Nadran is done once a year at the end of the year. Nadran is a symbol of the gratitude of fishermen from KampungCangkol to Allah SWT for the good fortune he has bestowed in the past year. The Nadran tradition takes place in a lively manner with the full participation of all fishing communities in Cangkol Village.

3.1. 8 Livelihoods

The livelihood system is one of the seven universal elements in the culture that coexists with systems of religion, language, art, science, technology, and social organization. The livelihood system is an important element in culture because it involves the way humans meet their needs, as well as being the basis of the individual's livelihood [24]. The fishing communities in the Cangkol Village area have their main livelihood as fishermen and fishermen's crew members to fulfill their daily needs. The only side job that is another source of income is to open a fishing tour guide business. The livelihood scheme for fishermen in KampungCangkol is shown in Figure 2.

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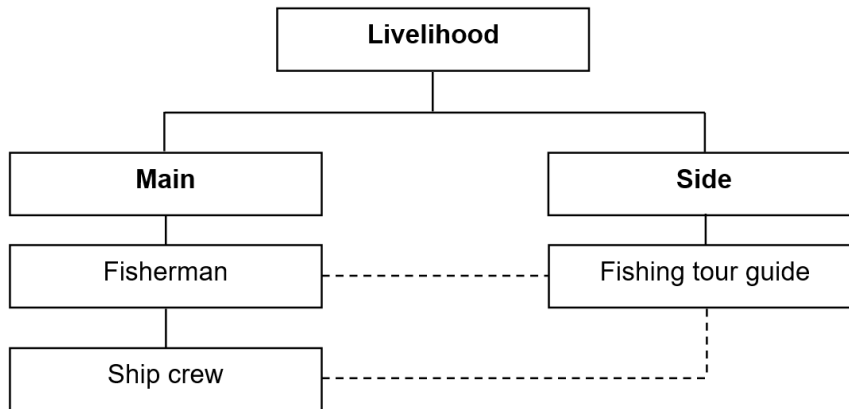


Fig. 2. Scheme of the livelihoods of the fishing community in Cangkol Village

Livelihoods as fishermen have been carried out since ancient times by the community in Cangkol Village, while fishermen crew members are fishermen who do not own boats but help out when fishing activities at sea. The causative factor is that the closest source of livelihood in the area is the sea so the surrounding community automatically utilizes existing resources. Quoting the results of interviews with respondent 12, Mr S:

"I've been at sea for more than 50 years, from earlier times I couldn't go home if there was no wind, I haven't risked the engine, I want to go home without a GPS. Previously, there were the most fishermen here, now there are only a few. Many have moved to Risk, to Banten, everywhere"

The fishing community of Cangkol Village will take advantage of the transitional and western seasons to repair the boat if there are holes or other damage, paint the boat, repair fishing gear, and repair the boat's motor if there is damage. Fulfillment of fishermen's needs during the west famine season depends on saving or borrowing from one another.

3.1.9 Gender Roles

In contrast to sex which is biologically static, gender is fluid following the social system in society. The definition of gender leads to cultural construction regarding gender differences regulated by society. [25]. The criteria for the gender role of the fishing community in Cangkol Village are shown in Table 3.

Table 3. Criteria for the gender role of the fishing community in Cangkol Village

Activity	F*	M**	F/M**
Cook	100%		
Parenting	100%		
Child education	12%	8%	80%
Family health facility			100%
Save			100%

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Activity	F*	M**	F/M**
Household needs	100%		
House chores	100%		
Provider of fishing venture capital		100%	
Arrest attempt			100%
Attend hajat			100%

* Female
**Male
***Female/male, together

Table 3 shows gender roles in various aspects of fishermen's lives. Within the household, the woman is responsible for cooking, caring for children, taking care of children's school needs, taking care of family health, taking care of the availability of household equipment, and doing household chores. The man is responsible for the capital of the fishing effort and when the arrest takes place. The men and women are jointly responsible for saving money, attending hajat/social activities, preparing needs at the time of arrest, and the post-arrest process.

The fisherman woman/wife plays a dominant role in the domestic affairs of the household, while the man/husband is the main breadwinner in the family. The fishing community of KampungCangkol still adheres to the system that women are responsible for taking care of household needs and men go to sea to work. They believe that women will find it difficult and pity if they have to go to sea. In the fishing effort, the husband is fully responsible for every stage while the wife helps in the preparation and post-arrest stages. The roles are as follows:

- In the preparatory stage, the wife is responsible for providing provisions for the husband to take to the sea. The provisions provided consist of rice and side dishes, light snacks, coffee, drinking water, and cigarettes;
- In the post-capture stage, the wife will help sell fish that do not pass the collectors' selection, namely fish measuring 1–3 ounces. In addition to these reasons, this is also an effort to increase fishermen's income because fish is sold to collectors at a lower price, while fish sold alone will be sold at a higher price. The difference between the price of fish sold to collectors and those sold alone can reach IDR 10,000 per kg or more. Fishermen's wives sell fish by traveling around Cangkol Village.

Fishermen's wives in Cangkol Village play a dual role in their household life because they play a dominant role in domestic affairs, and still have to help their husbands work to supplement their income in an effort to meet their daily needs. In addition to selling fish caught by their husbands, two people or 8% of all respondents' wives work by opening stalls. Two other people or 8% of all respondents' wives sell cooked or cooked dishes.

3.1.10 Kinship

The kinship pattern in the fishing community in Cangkol Village is shown in Figure 3. The kinship system in the fishing community in Cangkol Village adheres to a patrilineal system, in which the lineage in the family is drawn from the male side [7]. The inheritance pattern of the fishing business in Cangkol Village follows the kinship system, that is, it is handed over to the fishermen's sons. The kinship system of the fishing community in KampungCangkol influences the management of fishery resources as a source of livelihood for fishermen.

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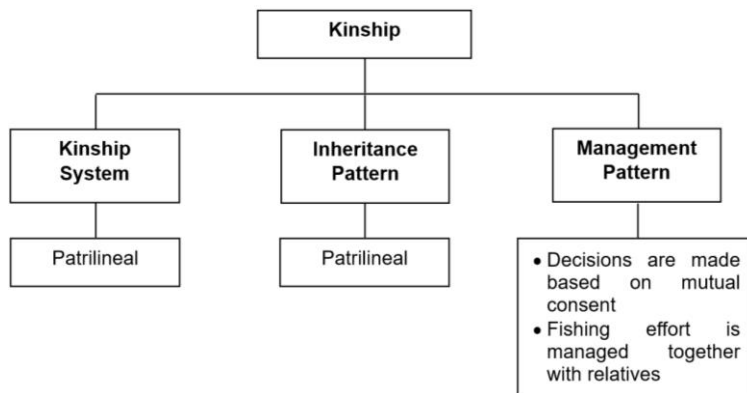


Fig. 3. Schematic of the fishing community partnership system in Cangkol Village

The kinship system of the fishermen of KampungCangkol is not only formed in residents who have blood relations with one another but there is a kinship system that is formed due to the need for one another [26]. Based on the results of interviews with skippers, several sideline fishermen usually offer services to become crew members when they want to go to sea. The bosses usually say yes because this can ease fishing operations and sideline fishermen are still close neighbors so they are considered like relatives. The kinship system in Cangkol Village has a positive influence on the management of marine resources in the Cangkol Village area, namely:

- a. A strong sense of kinship and mutual help can be felt and seen in the way fishermen interact with each other. The fishermen in Cangkol Village are very friendly and open to anyone who comes. Other fishermen will not hesitate to join in the conversation and join in the conversation when they see several people gathered. Fishermen help each other if one of them is going to sea but there are no crew members available, fishermen who don't go to sea will immediately go to sea;
- b. Transparency, chairman of the Nelayan Association Mr. Suparman said that the fishing community in Cangkol Village tended to be outspoken in reminding one another when there were deviant things being done, such as violating the rules or doing things that were not in accordance with the agreements and provisions.

Negative influences are also present in addition to the positive influence of the extent of kinship in the fishing community in Cangkol Village. Based on the results of interviews with the heads of fishermen's associations, sometimes the title of a brother makes some people a little indifferent to the warnings given. An example is the existence of piles of garbage along the route to the fishing boat base. The fishing community of Cangkol Village has repeatedly held voluntary work to get rid of the existing piles of garbage, but not long after that the piles of garbage will appear again even though warnings not to litter in the area have been carried out very often.

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3.1.11 Social Organization

Figure 4 shows that there are two social organizations formed in fishing community groups in Cangkol Village, namely the Jenaha Joint Business Group (KUB) and the Red Snapper Joint Business Group (KUB). The two joint business groups were inaugurated simultaneously by the Head of the Cirebon City Food Security, Agriculture, and Fisheries Office in 2014. Initially, the fishermen community would only establish one joint business group with the

provision that there were at least 10 fishermen members in it, but the enthusiasm of the fishing community caused quite a lot of fishermen who wish to join the fishermen group, namely as many as 40 people. Therefore it was decided to establish two joint business groups with 20 members each.

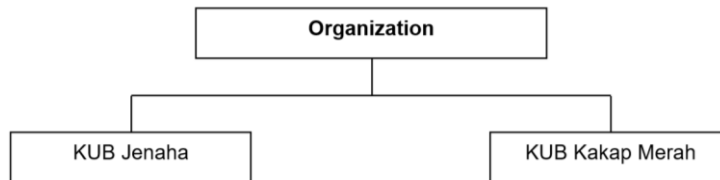


Fig. 4. The social organization of fishermen in Cangkol Village

3.1.12 Social Stratification

Shown in Figure 5 is an illustration of the social stratification of the fishing community in KampungCakol. The stratification is based on the results of interviews with 26 fisherman respondents and three fishery extension officers in Cangkol Village, so the characteristics of fishermen in Cangkol Village are as follows:

- a. Fishermen are of productive age, aged 28–63 years;
- b. Education levels tend to be low with the majority of elementary school graduates;
- c. 24 fishermen have their own boats and fishing gear in the form of hand lines;
- d. Two people work as Ship's Crew (ABK);
- e. All fishermen have decent houses, which are tiled and bricked;
- f. Fishermen's children endeavored to go to school at least up to high school;
- g. The wife helps the economy by selling the rest of the catch, or opening a basic food stall or food stall;
- h. All fishermen have side businesses as sea tour guides;
- i. All fishermen are members of a joint business group;
- j. Leadership is centered on three people who are considered pioneers.

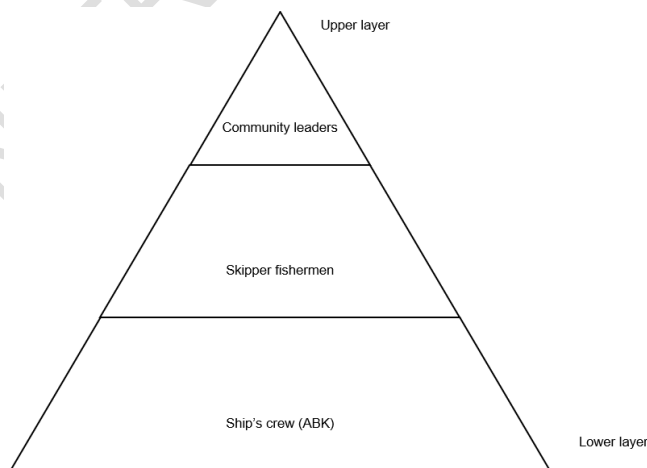


Fig. 5. Social stratification pyramid of Cangkol Village's fishing community

The layer of social stratification is formed from aspects of prestige and ownership of fishing units. The top layer of community leaders. Community leaders are an important aspect of the fishing community in Cangkol Village because these figures are regulators of almost all aspects related to the sustainability of the fishing business in Cangkol Village. Community leaders are at the highest strata in the social structure of traditional communities because they are the most respected people [27]. Reluctance from the community arises due to respect for these figures. Three community leaders in the population of the fishing community in Cangkol Village are the chairman, secretary, and treasurer of the fishermen association. One of the contributions made includes the business of capital and assistance for the sustainability of fishing businesses, such as:

- a. Business capital is given by the treasurer of the fishermen's association, which is the only middleman in Cangkol Village. This has led to the practice of *ijon*, where the middleman will provide fishing capital to fishermen so that the catch must be sold back to the middleman. This system led to the formation of a patron-client pattern, with middlemen as patrons and fishermen as clients. Every two or three days a car from Risk will transport the catch that has been collected by the middlemen;
- b. Exploitation of assistance to the government, because fishing communities will report their needs or complaints to these figures which will later be communicated to extension workers;
- c. The final decision on everything that needs to be mutually agreed upon is in the hands of the three community leaders.

The middle layer in the social stratification of the fishing community in Cangkol Village is skipper fishermen as coolies. All boat owners in Cangkol Village are basically masters and captains. The captain is in charge of leading fishing activities as well as being responsible for the safety and wages of the crew. There is no division or special expertise possessed by the crew. The captain and his men tend to work together when arrests take place. The skipper fishermen in Cangkol Village do not have permanent crew members, so if there are no crew members, fellow skippers will help each other. In other words, anyone who doesn't go to sea when other fishermen go to sea will immediately help.

The bottom layer in the social stratification of the fishing community in Cangkol Village is the Ship's Crew (ABK). ABK are fishermen who do not have a fishing unit or capital, so ABK will go to sea with the skipper. The number of crew members who are really active in helping with fishing activities is two people. Other crew members tend to seek work on land as their main job or become seasonal fishermen. This is what causes the skipper in Cangkol Village to not have permanent crew members. ABK gets $\frac{1}{4}$ share of fishermen's income in each fishing activity.

Comment [L25]: Kindly write down these statements brief and clearly

3.2 Factors Affecting Cangkol Village Fishermen's Catching Business

3.2.1 Driving Factors

Of the various aspects identified in the research, the social aspects that are driving factors for fishing efforts and the development of the fishing community in Cangkol Village are:

- a. Preservation of cultural manifestations in the fishing community of KampungCangkol
Cultural manifestations present in the life of the fishing community in KampungCangkol are preserved in various forms, namely religious values in daily life, preservation of the Cirebonese language, preservation of traditional arts, and preservation of local wisdom. The cultural background is basically determined by the cultural typology of farming and fishing, agrarian and maritime, coastal, and inland communities. The demands of

globalization must be balanced with the inheritance of local culture so that the cultural identity of a nation is not erased. Ideally, this should be used as an opportunity for the revitalization of local culture and as soft diplomacy culture to other countries [28];

b. The dual role of the fisherman's wife

The results of the interviews conducted illustrate that the fishermen's wives have multiple roles in their household because apart from being a dominant role in domestic affairs, the wives also help their husbands in the fishing business. The wives prepare supplies for going to sea and sell the rest of the catch. The dual role of fishermen's wives is a driving factor for the development of fishing communities because apart from ensuring that household needs are met, the wives also try to increase household income.

c. Kinship

The kinship system gave rise to a pattern of patron-client relations between skipper fishermen and crew members [26]. This happened in the fishing community of KampungCangkol. The skipper fishermen are basically tasked with preparing all the needs of going to sea, while the crew members provide services to help skipper fishermen and are paid by skipper fishermen with a profit-sharing system. The patron-client relationship between skipper fishermen and crew members forms a symbiosis of mutualism for both parties because skipper fishermen get assistance while crew members need skipper fishermen as owners of capital to earn income [26].

d. Social organization

Fishermen's social organization is a driving factor for the development of fishing communities. Fishermen in Cangkol Village are active members of the joint venture group. For the fishermen of KampungCangkol, the joint business group is a forum and opportunity for the arrival of assistance related to the needs of fishermen's fishing operations. Community groups in the form of joint business groups are a symbiosis of mutualism formed between fishing communities and stakeholders and are expected to be one of the opportunities and answers to the problems and challenges faced by fishermen[29].

Comment [L26]: Kindly write down these statements briefly.

3.2.2 Inhibiting Factors

The social factors that become obstacles to fishing efforts and the development of the fishing community in KampungCangkol are:

a. Weather

Based on the results of interviews with fishermen, the weather is one of the inhibiting factors for fishing operations which is almost always the first to be mentioned. The fishing profession is a profession that depends on weather conditions. Rising water temperatures cause damage to coral reefs so that the quantity of fish decreases, while increasing temperatures cause rapid and unpredictable weather changes, causing the risk of going out to sea to increase [30].

b. Age structure

The age range of fishermen in Cangkol Village is aged 28–63 which is the productive age range with >10 years of fishing experience. Nonetheless, the age structure of the fishing community in Cangkol Village raises concerns for fishermen and stakeholders because the majority or 50% of fishermen in Cangkol Village are residents aged 50–63 years or are in the middle age group. Another concern for fishermen related to the age structure is the lack of potential for regeneration of fishermen in Cangkol Village. The fishing profession in Cangkol Village is a hereditary profession, however, it is rare for the children of the current generation of fishermen to continue the fishing profession. Most of the fishermen's children in Cangkol Village are sent to school as high as possible because the fishermen hope that their children will get better jobs with stable

incomes. This has the potential to hamper the sustainability of the capture fisheries business which has been built long ago for generations;

c. Level of education

57.7% of the fishermen from Cangkol Village graduated from elementary school, which indicates the low level of education of the fishing community in Cangkol Village. The effect of the low level of fishermen's education is related to the absorption of information and mastery of the latest technology which can encourage fishermen's fishing efforts so that it has an impact on the limited use of existing resources [31].

Comment [L27]: Kindly write down these statements briefly.

4. CONCLUSION

Based on the mapping of fishing communities in Cangkol Village that has been done, it can be concluded that:

1. The fishing community of KampungCangkol is dominated by middle-aged people with low education and a homogeneous Muslim population, with Cirebonese ethnicity, who use the Cirebonese language in their daily lives. Various types of arts and local wisdom are still preserved in the environment. The profession of fishermen and crew members is the main livelihood, while a side livelihood is as a tour guide. Fishermen's wives have a dual role as housekeepers and breadwinners in their household life. The kinship system and inheritance patterns are patrilineal. Social organizations that participated in were KUB Red Snapper and Jenaha. The top layer in the stratification of the fishing community in KampungCangkol consists of community leaders, the middle layer consists of fishermen who own boats, and the lowest layer is the crew members.
2. Factors driving the fishing effort of KampungCangkol fishermen are the preservation of cultural manifestations in the community, the dual roles of fishermen's wives, kinship, and social organizations, and the role of the government. The inhibiting factors for fishing in Cangkol Village are the weather, age structure, and level of education.

CONSENT

As per international or university standards, the respondents' written consent has been collected and preserved by the author.

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