INSTITUTION OF FISHERMAN'S JOINT BUSINESS GROUP IN THE BLUE SWIMMING CRAB FISHING EFFORTS IN KUALA TELADAS VILLAGE, TULANG BAWANG REGENCY

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ABSTRACT

The Fishermen's Joint Business Group is a local institution that plays a vital role in sustainable blue swimming crab fishing practices. This study aims to analyze the institution structure of the Joint Business Group in supporting sustainable blue swimming crab fishing efforts in Kuala Teladas Village, Tulang Bawang Regency. This research is a qualitative study whose data collection was carried out through in-depth interviews, participant observation, and documentation study. Data were analyzed to examine the institution and organization structure of the group. The study results show that the Joint Business Group is vital as a collective forum for fishermen to discuss, share information, and access crab resources. The group's simple organization structure with clear rights, obligations, and sanctions in the Articles of Association/Bylaws encourages active participation by members. The implementation of blue swimming crab management policies has brought positive changes to fishermen's behaviour, especially in the use of environmentally friendly fishing gear. However, significant challenges include economic pressures during the lean season, lack of alternative livelihoods, and weak supervision. Increasing the institution capacity of Joint Business Groups is carried out through collaboration between non-governmental organizations, fisheries extension, and the government. This is implemented through socialization, training, and mentoring in organization management, leadership, and business diversification. Grant assistance and alternative business training for fishermen have strengthened the economic position of fishermen. Increasing institution capacity through collaboration with various *stakeholders* is key to supporting the socio-economic sustainability of fishermen and sustainable blue swimming crab fishing efforts.

Keywords: *Institution, Blue Swimming Crab, Policy, Organization, Fishermen*

INTRODUCTION

Blue swimming crab fishing efforts cannot be separated from the characteristics of common-pool resources (CPRs) (Subianto *et al.*, 2016). CPRs are resources shared by a community or group. The term CPRs explains that resources have two main characteristics. First, they have a competitive nature (rivals) in their utilization, meaning that each person's consumption of a resource will reduce the ability of others to utilize the resource. Second, a cost must be incurred to limit access to resources for other parties to become beneficiaries (Ostrom *et al.*, 1999).

Competition in blue swimming crab fishing businesses needs to be regulated to ensure the sustainability of resources. Several government regulations on blue swimming crab management already exist. However, their implementation is less effective due to weak supervision, law enforcement, and public awareness (Abidin *et al.*, 2014). The role of local institutions and community participation are crucial in sustainable development (Febryano *et al.*, 2015). Ostrom (1990) emphasized the important relationship between institutions and sustainable development in managing natural resources. Strong local institutions can provide a clear framework, enforce existing rules, and encourage active participation from various parties to jointly maintain the sustainability of

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resources and their ecosystems. (Febryano *et al.*, 2014).

One of the local fishermen's institutions is the Joint Business Group (Kelompok Usaha Bersama/KUB). The KUB institution and organization have an important role because they are a collective forum for fishermen to discuss, learn, and work. Together, they conduct advocacy and share information between members and other stakeholders. In addition, KUB helps fishermen access resources, technology, and markets more effectively through a collaborative approach. Uphoff (1986) stated that KUB institutions not only regulate interactions between members but also play a role in creating norms and values that support working together to achieve common goals. Finally, KUB can increase awareness of fishermen in sustainable blue swimming crab fishing efforts and contribute to the welfare of fishermen. This study aimed to analyze KUB's institution support for sustainable blue swimming crab fishing efforts in Kuala Teladas Village, Tulang Bawang Regency.

RESEARCH METHODS

This research was conducted in May-September 2024 in Kuala Teladas Village, Tulang Bawang Regency (**Figure 1**). The research uses a qualitative approach. Data was collected through in-depth interviews, participant observation, and documentation studies. The informants for this study are presented in Table 1.

The collected data was analyzed to examine the institution and organization structure of the fishermen's KUB. Uphoff (1986) paid attention to the organization category, which takes the form of an institution or the opposite. An organization is defined as the structure of recognized and accepted roles. At the same time, an institution is a complex of norms and behaviours that persist over time by serving some socially valued purposes.

RESULTS AND DISCUSSION

The Description of Kuala Teladas Village

Kuala Teladas Village is located in Dente Teladas District, Tulang Bawang Regency, with an area of 32.61 km2 or 4.76% of the total area of Dente Teladas District (BPS Tulang Bawang Regency, 2023). The administrative boundaries are in the west; Way Dente Village, east; Mahabang Village and the Java Sea, south; Kekatung Village, and north; the Java Sea.

More than 50% of the population works as fishermen. The number of fishing vessels is 181 units, consisting of 177 motorboats measuring under 5 GT and four motorboats measuring 5-10 GT (Table 2). Most people live directly depending on marine products by fishing or processing (Iskandar, 2022). The environmental characteristics are at the estuary area of the Way Tulang Bawang River, with a population of 1,875 people in 2022 (BPS Tulang Bawang Regency, 2023).

The type of local motorboat used is a pompong boat made of wood. The construction of this boat is elongated with a narrow body/width. Generally, gill net fishermen operate only on one-day trips around Tulang Bawang waters. Crab trap fishermen, also known as andon fishermen, carry out fishing operations with a minimum operating distance of 7 miles and an operating duration of 5-8 days.

The dominant fish commodities include blue swimming crab, shrimp, anchovies and squid (Table 3). The blue swimming crab catch is very dependent on the fishing season. Based on the results of interviews with blue swimming crab collectors, it was reported that the peak season for catching blue swimming crabs (locally called baratan) is October–April/May. May–July is the transitional season (moderate), while August/September–October/November is the lean season (locally called timuran). The research results of Kusuma *et al.* (2024) stated that in Tulang Bawang waters, blue swimming crab catches were high in the west season (northwest monsoon), moderate in the transition season (pancaroba) and low in the east season (southeast monsoon).

The blue swimming crab contributes to the economic well-being of the Kuala Teladas Village community. At the fisherman level, the selling price ranges from IDR 60,000–IDR 100,000/kg, while the wages for blue swimming crab peelers range from IDR 15,000–IDR 20,000/kg. The selling price and wages are sufficient to meet the economic needs of the fishing community. The production value of blue swimming crab in Tulang Bawang Regency in 2022 was 2,747 tons, with a value of IDR 235,372,200,000 (BPS Tulang Bawang Regency, 2023). Many actors are directly involved in the crab fishery business, starting from catching, sorting, boiling, peeling, and trading activities (Suryawati *et al.*, 2023). The high economic value of crab and the demand for crab meat from the international market have caused the

Table 1. Number of research informants

No.	Informant	Number of informant (person)
1	Blue swimming crab fisherman	3
2	Chairman of the Joint Business Group (KUB)	2
3	Village head	1
4	Fisheries extension	1
5	Blue swimming crab supervisor/ Collector/Businessman	2
6	NGO Mitra Bentala	1
7	Fisheries Service of Tulang Bawang Regency	1
8	Marine and Fisheries Service of Lampung Province	1
9	Sustainable Blue Swimming Crab Fisheries Management Committee (KPPRB)	1

Table 2. Number of fishing gear based on fishing gear and boat engine

No	Fishing Gear	Machine Type	Number of motorboats (units)		
			<5 GT	5-10 GT	>10 GT
1	Gill Nets	Diesel	70	-	-
2	Crab Traps	Diesel	97	4	-
3	Stationary Lift Nets	Diesel	10	-	-
	Amount		177	4	

Figure 1. Research Location Map

price of crab to increase in the domestic and export markets. This encourages fishermen to overexploit them (Setiyowati & Sulistyawati, 2019).

Institution of Joint Fishermen Business Group

The fisherman institution in Kuala Teladas Village is in the form of KUB. In the Ministry of Marine Affairs and Fisheries decrease Number 14/MEN/2012, KUB is a non-legal entity business entity in the form of a group formed by fishermen based on the results of an agreement/deliberation of all members based on a shared desire to work together and be jointly accountable. The purpose of establishing KUB is to increase member income. The number of KUBs in Kuala

Teladas village is six, with members ranging from 10 to 15 people (Table 4).

KUB is formed based on similarities in the types of targets/commodities caught, namely blue swimming crab, and according to the kind of fishing gear used, namely gill nets or crab traps. Using gill nets and crab traps as the primary fishing gear is an adaptation process to environmentally friendly blue swimming crab fishing efforts. Subehi *et al.* (2017) state that gill nets and crab traps are selective and environmentally friendly fishing gear for catching blue swimming crab. The formation of KUB based on commodities and fishing gear reflects that the fishermen of Kuala Teladas Village are focused and directed in managing fishery resources. This is in line with the research of Rakhmanda *et al.* (2018) on the role of fishermen groups in Gunung Kidul, which states that the formation of fishermen groups based on similarities in commodities and fishing gear can increase operational efficiency and knowledge transfer between members.

Table 3. The Top commodities catch by fishermen in Kuala Teladas Village commodities caught by fishermen in Kuala Teladas Village

No	Commodity	Daily volume (kg)	Frequency	Distribution
1	Blue swimming crab	400	Seasonal	Direct
2	Shrimp	300	Seasonal	Direct
3	Anchovies	300	Seasonal	Direct
4	Squid	150	Seasonal	Direct
5	Pomfret	150	Seasonal	Direct
6	Simba	95	Seasonal	Direct
7	mackerel	80	Seasonal	Direct
8	Snapper	75	Seasonal	Direct
9	Grouper	64	Seasonal	Direct
10	Karau	45	Seasonal	Direct

Table 4. Name of KUB in Kuala Teladas Village

No	KUB Name	Year of Establishment	Chairman's Name	Number of Members (person)
1	Wala Buana	2020	Sultan	10
2	Sapa Jaya Kuala Teladas	2023	Baharudin	10
3	Wat Jolay	2017	Alfiansyah	12
4	Maju Jaya Bahari	2020	Andi Asnawi	12
5	Nelayan Maju Bersama	2020	Edi	15
6	Mitra Abadi	2018	Usup	10

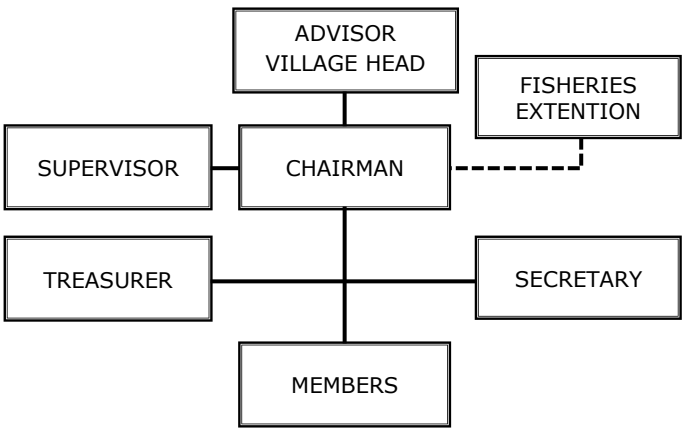

Figure 2. The organization structure of KUB in Kuala Teladas Village

Analysis of the Articles of Association (Anggaran Dasar/Anggaran Rumah Tangga, AD/ART), structure, and rules of the fishermen's KUB, which are applied, are in line with the local institution theory put forward by Uphoff (1986). This theory emphasizes the importance of organization structure and member participation in managing resources effectively. The blue swimming crab fishermen's KUB institution structure is still simple, consisting of a chairman, secretary, treasurer, supervisor, and group members (Figure 2).

The simple organization structure of KUB reflects the general characteristics of coastal community organizations. This structure has advantages in terms of flexibility, operational effectiveness, and ease of rapid decision-making related to blue swimming crab fishing activities. However, this structure has weaknesses when facing challenges such as :

1. *Innovation, business diversification, and implementation of complex regulations.*
2. *Dependence on group leaders and increasing the institution class of KUB.*
3. *Limitations in dealing with market fluctuations.*

Lawrence and Lorsch (1967) stated that the effectiveness of an organization structure depends on its suitability to the operational environment. Therefore, the Fishermen's Cooperative in Kuala Teladas Village must consider the gradual development of organization capacity while maintaining the flexibility that is the main strength of a simple organization structure.

The selection of KUB administrators, especially the chairman, is based on factors of authority and ability (capital) that they possess. For fishermen, authority is a person's ability to control and influence a social phenomenon so that they are respected and obeyed. Ability (capital) is the economic ability of a person who can provide capital and finances so that fishermen become dependent on him.

In KUB, Maju Jaya Bahari, the chairman, Mr. Andi Asnawi, has the authority and ability to influence the norms and rules of the KUB. The explanation from the informant revealed:

> "Mr. Andi, besides being the group leader, is also the mentor. He is known as an authoritative figure with experience in the blue swimming crab catching and marketing business. And with his support, we are now using a more environmentally friendly blue swimming crab catching tool, namely the crab traps."

Apart from being an organization, KUB is also an institution because it has rules. AD/ART KUB is a basic document that regulates the KUB organization's structure, objectives, and operational mechanisms. AD includes the vision, mission and goals, while ART contains the procedures for decision-making, rights and obligations and joint efforts of the group. Article 1 of the AD KUB explains that the purpose of establishing KUB is to improve the welfare of members through various efforts. The objectives to be achieved are to increase knowledge, increase income, build partnerships, and manage fisheries resources sustainably. This objective is in line with the statement of the informant as a fisheries extension:

> "Fishermen's KUB are generally formed to strengthen fishermen's bargaining position in facing business challenges, such as access to capital, access to marketing, and access to technology. By joining groups, fishermen can share knowledge, experiences and resources to increase their productivity and income ."

KUB membership is open to local fishermen with a local identification card number who are willing to participate in group activities. Members have the right to express opinions, elect administrators, and receive profits from group efforts. However, they also have an obligation to follow the rules and contribute to the development of the group.

Based on the ART, KUB financial management is carried out transparently, with funds sourced from member contributions and third parties. Group finances are used to improve knowledge, income, and resource management. All financial transactions are recorded and reported in writing at member meetings, ensuring accountability and transparency within the group. In its management, profits from the joint venture are distributed periodically, with a percentage determined based on the members' agreement. Profits are distributed to administrators, business managers, and permanent members and allocated for social contributions and fishermen's health insurance.

The Articles of Association of the Fishermen's Cooperative reflect a commitment to improving the welfare of members and sustainable management of fisheries resources. The relationship between sustainable natural resource management efforts and Uphoff's (1986) theory is very close. This theory provides a framework that supports active participation, effective

leadership, education, empowerment, and economic sustainability in natural resource management. It is implemented through the structure and objectives of the KUB fishermen in Kuala Teladas Village, which shows that a community-based approach to natural resource management can increase the effectiveness and sustainability of fishermen's fishing efforts.

All KUB members have rights, obligations, and sanctions that must be adhered to in order to maintain the sustainability of the organization. According to the ART KUB fishermen, members have the right to:

1. *Expressing opinions, suggestions or criticism either verbally or in writing;*
2. *Elected and elected as either a manager or administrator of the group business;*
3. *Receive business profits;*
4. *get health insurance and fishermen's insurance;*
5. *Administrators are entitled to receive more shares than regular permanent members.*

Members' rights to participate in decision-making are essential to creating a sense of belonging and responsibility to the group. It aligns with the principles of democracy in organizations that prioritize consensus, and each member has an equal say in determining the direction of group policy.

In addition to having rights, KUB members also have obligations, namely:

1. *Develop/advance group organizations and businesses;*
2. *Attending monthly meetings and other activities,*
3. *Paying mandatory dues or other contributions required by the organization and group business;*
4. *Follow and comply with the rules of the organization and group business and;*
5. *Keeping the good name of the group.*

The obligations of KUB members are fundamental to ensure the success and sustainability of the organization. These obligations include active participation in group activities, complying with established regulations, and maintaining and developing the organization. With this obligation, group members can contribute maximally to achieving common goals, such as increasing knowledge, income, and partnership networks.

Sanctions are given to KUB members if:

1. *If a KUB member commits a serious violation that could threaten/bring down/embarrass the KUB and the group's business, whether intentionally or unintentionally,*
2. *Not being active in group activities for several months in a row, never coordinating or clarifying with group administrators and members,*
3. *There is no good faith to maintain/develop/advance the organization and group's efforts.*

The sanctions imposed allow membership rights to be revoked and expelled from the KUB. However, a dispute, misunderstanding or difference of opinion in organizing and joint efforts must be resolved wisely through deliberation and consensus. This is in line with Ostrom's (1990), which states that clear and mutually agreed game rules, including sanctions for violators, are one of the principles of effective joint resource management.

With clear rights, obligations, and sanctions, it is hoped that KUB members will actively participate in organization tasks and joint group efforts. By complying with all the regulations agreed upon in the Articles of Association correctly and well, KUB members can jointly maintain, develop and strengthen the organization. It will help KUB achieve the common goals that have been set. Leilani & Restuwati (2016) stated that the clear rules in the fishermen's KUB are an important foundation for building active participation of members and will encourage the growth and sustainability of the group's business.

Implementation of Blue Swimming Crab Management Policy

Implementing blue swimming crab management policies in Indonesia has experienced significant developments in recent years. The government has issued various regulations to maintain the sustainability of blue swimming crab resources while protecting the interests of fishermen. Rules from the central and regional governments that affect KUB and fishermen are:

1. *Law No. 7 of 2016 concerning the Protection and Empowerment of Fishermen.*
2. *Regulation of Minister of Marine Affairs and Fisheries Number 71/PERMEN-KP/2016 concerning Fishing Lanes and Placement of Fishing Gear in the Fisheries Management Area of the Republic of Indonesia, which has been amended several times and most recently by Ministerial Regulation Number 36 of 2023 concerning Placement of Fishing Gear and*

Fishing Assistance in Measured Fishing Zones and Fisheries Management Areas of the Republic of Indonesia in Inland Waters.

3. *Regulation of Minister of Marine Affairs and Fisheries Number 1/PERMEN-KP/2015 concerning Lobster Catching (Panulirus) spp.), Crabs (Scylla spp.), and Blue Swimming Crabs (Portunus spp.)*
4. *Regulation of Minister of Marine Affairs and Fisheries Number 7 of 2024 concerning Management of Lobster (Panulirus spp.), Crab (Scylla spp.), and Blue Swimming Crab (Portunus spp.)*
5. *Regulation of Minister of Marine Affairs and Fisheries Number KEP.14/MEN/2012 concerning General Guidelines for Group Growth and Development.*
6. *Decree of Minister of Marine Affairs and Fisheries Number 83 of 2022 concerning the Blue Swimming Crab Fisheries Management Plan.*
7. *Regulation of The Province of Lampung Number 1 of 2018 concerning the Zoning Plan for Coastal Areas and Small Islands of Lampung Province*

Implementing this policy has brought significant changes to the norms and rules of the fishermen's group. The regulations that affect the blue swimming crab fishing effort are regarding the prohibition of catching blue swimming crabs in egg-laying condition, carapace width ≤ 10 (ten) cm, or weight ≤ 60 (sixty) grams. Blue swimming crab fishing must be carried out using passive and environmentally friendly fishing gear.

The process of fishermen's adaptation to the blue swimming crab management policy in Kuala Teladas Village is greatly influenced by the role of the KUB chairman. The KUB chairman acts as a bridge between the government and fishermen. So, the KUB chairman's understanding of the substance of the rules greatly determines the depth of knowledge of the policies that can be applied at the local level. The KUB chairman has leadership characteristics, such as being transparent, accountable, motivating, oriented towards member welfare, having social standing, being experienced, skilled, committed, and having resources in the group (Urrahma & Eriyanti, 2020).

According to the presentation from Mitra Bentala and Fisheries Extension Officers who assisted blue swimming crab fishermen in Kuala Teladas Village, since 2019, there has been a shift in fishing gear from trawl to crab traps and gill nets. This is an implementation of the Regulation of Minister of Marine Affairs and Fisheries Number 71/PERMEN-KP/2016 Article 8 paragraph 2 (e) that the fishing gear disrupts and damages the sustainability of fish resources. Initially, there was resistance from fishermen because the trawl was a fishing tool that they had used for a long time and had passed down from generation to generation. In addition, fishermen believe that the ban could decrease catches, which could reduce income.

However, many fishermen agree that this ban will help protect blue swimming crab resources in the future. They believe that trawl is a non-selective fishing gear. Trawl has small, diamond-shaped meshes that allow small blue swimming crabs and fish to be caught. Adhitama *et al.* (2017) stated that from an environmental perspective, trawl can disrupt the fish reproduction process and endanger the ecosystem.

Apart from being non-selective, operating trawl requires large fuel consumption, which results in high operational costs. Diesel fuel is a major cost component that fishermen must consider when operating fishing gear, as it will directly impact the profitability and sustainability of fishing operations. High fuel consumption in trawl makes this fishing gear inefficient. Informants revealed that:

> " After I left the trawl fishing gear and switched to the crab traps fishing gear, I felt that using the crab traps was more fuel efficient, and the blue swimming crab catch also had a higher price than the trawl because the crabs caught were intact and not damaged."

This statement is also reinforced by another informant, who has ten fishing motorboats of more than 5 GT sizes. In his statement, he said that:

> "Crab traps operation requires 100 liters of fuel that can be used for five days. When using trawl, it is only enough for one day. This difference is significant and can increase our income and welfare."

This statement aligns with research by Saputra *et al.* (2022) that fishermen can save fuel costs by using crab traps in the Karawang Waters area, increasing their net income. In this context, fuel savings contribute directly to improving the welfare of fishermen.

The commitment of the fishermen of Kuala Teladas Village to switch fishing gear has been carried out since 2019 after joining the Sustainable Fisheries Management Committee (Komite Pengelolaan Perikanan Rajungan Berkelanjutan/KPPRB). This committee comprises the Ministry of Marine

Affairs and Fisheries, local governments, fishermen representatives, blue swimming crab businesses, academics, and Non-Governmental Organizations (NGO).

In addition to regulations on fishing gear, there are also regulations on catching blue swimming crab, namely Ministerial Regulation of Marine Affairs and Fisheries Number 1/PERMEN-KP/2015, which has been continuously updated to the latest Ministerial Regulation of Marine Affairs and Fisheries Number 7 of 2024. The role of fisheries extension, NGO Mitra Bentala, and central and local governments are very important in providing socialization and understanding to fishermen about the substance of the Regulation. This Regulation has significantly influenced the norms and rules in KUB. This can be seen from the awareness of fishermen groups who actively implement the minimum size of blue swimming crabs and fishing periods following applicable regulations.

The Head KUB of the Maju Bersama Fishermen's revealed that:

> "NGO Mitra Bentala always reminds us to protect these blue swimming crab resources because they are not only for us but also for our children and grandchildren. He also encouraged us to form groups and provided an understanding of blue swimming crab management. Our KUB members, Alhamdulillah, have become aware of releasing small blue swimming crabs with a carapace width of less than 10 cm if they are caught using traps or gill nets."

Kusdiantoro *et al.* (2019) stated that government policies have encouraged fishermen to adopt more sustainable fishing practices and form community-based management groups.

The challenges of implementing blue swimming crab management policies in Kuala Teladas Village cannot be separated from various interrelated factors. One example is that fishermen still use trawl fishing gear to find fish bait for their blue swimming crab traps fishing gear. Often, the operational area of the trawl net overlaps with the gill net fishing gear and sometimes damages the gill net fishing gear. However, the problem of fishing gear conflict can be resolved through deliberation involving the supervisor, KUB chairman, and influential people in the environment.

Another factor and the main challenge in implementing the blue swimming crab management policy is the large number of fishermen who return to using prohibited fishing gear, especially during the lean season when the catch drops drastically. The confession of one informant who works as a fisherman:

> "Actually, the bag in the temporary storage place for blue swimming crabs is a bag modification from the trawl fishing tool. But in the lean season, we reuse it as a fishing tool to catch fish again."

Economic pressures encourage fishermen to take shortcuts by using environmentally unfriendly fishing gear because it is considered more effective in getting catches during the lean season. The lack of alternative livelihoods available to fishermen exacerbates these economic factors. In the lean season, when fish are hard to find, fishermen face difficulties in meeting their daily needs. The absence of other decent and adequate employment opportunities leaves them trapped in a dilemma between complying with regulatory policies and meeting their living needs.

On the other hand, weaknesses in supervision and law enforcement have exacerbated the situation. Inconsistent supervision and sanctions, often not strictly enforced, make fishermen feel there are no real consequences for violating the rules. The absence of strong authorities in the field allows these abusive practices to continue unhindered. Hardian *et al.* (2020), stated that increasing compliance of fishermen in the use of fishing gear can be achieved with the support of increased supervision, additional human resources and supervision budget, increased law enforcement, and the absence of discriminatory policies and law enforcement. The existence of socialization, coaching, and mentoring, as well as the increasing role of coordination forums for supervision and group institutions, also contribute to increasing compliance of fishermen.

Overall, the implementation of the blue swimming crab management policy has brought positive changes in the norms and rules of fishermen groups. However, ongoing efforts are still needed in socialization, education, and law enforcement to ensure the effectiveness of this policy in the long term. Collaboration between the government, fishermen, and other stakeholders will be the key to achieving sustainable blue swimming crab management in Indonesia.

Increasing KUB Capacity

Increasing the institution capacity of KUB Fishermen is a strategic effort to

strengthen the role and function of fishermen's organizations in supporting sustainable blue swimming crab fisheries management. Since 2019, the Mitra Bentala NGO has been empowering and improving coastal communities by developing and improving local fishermen's institutions. Empowerment includes several aspects, namely organization management, leadership, business planning, and effective decision-making. The assistance provided is socialization, training, advocacy, and direct assistance to KUB Nelayan.

In addition to training, in 2022, the Mitra Bentala NGO also provided a grant of IDR 15.000.000 million to KUB to be developed as capital for diversifying fishermen's businesses. Raflles from Mitra Bentala said:

> "The goal is to train these groups to have businesses other than blue swimming crab fishing. The majority of fishermen are capture fishers whose income depends on the catch. At least with the alternative business we support during the lean season, fishermen have a piggy bank. Well, this piggy bank is expected to be able to meet their needs month by month, such as necessities."

This is proven by the development of business capital at KUB Maju Jaya Bahari, which has now reached IDR 45.000.000 in the fishing equipment, facilities, and infrastructure sector. Valentina *et al.* (2020) stated that we are building a socio-economic safety net by providing business capital through grants and training for fishermen to develop alternative businesses. Hasani *et al.*, (2024) also stated that sustainable fishing requires a strategy based on strengthening opportunity and strength factors. The strategy is to diversify businesses to reduce dependence on capture fisheries.

Fisheries Extension and Fisheries Services of Tulang Bawang Regency also contributed significantly to improving the technical skills of KUB members. They held a series of outreach and training on selective blue swimming crab catching techniques and the use of environmentally friendly fishing gear. Every year, group class assessments are based on five assessment indicators: planning, organization skills, institution access, entrepreneurial skills, and independence. In 2024, KUB Maju Jaya Bahari will move from the Beginner to Intermediate groups. Research conducted by Triswiyana *et al.* (2022) states that increasing the class of the legality group of fishermen's institutions can positively impact banking access and government assistance to support the development of fishing businesses, which will impact increasing group productivity.

Increasing the institution capacity of KUB is very important in facing the economic, social, and ecological challenges fishing communities face. Strong institutions can be a fortress for fishermen in facing economic pressures, especially during times of famine or when there is a decline in catches. Strong institution capacity will enable KUB to run economic diversification programs to help fishermen survive difficult times. KUB Nelayan formulates important steps to strengthen fishermen's organizations, increase the active participation of members in decision-making, and support the sustainability of fisheries resources at the local level.

CONCLUSION

KUB institution plays an important role in sustainable blue swimming crab fishing efforts. KUB serves as a collective forum for fishermen to discuss and share information and assist them in accessing resources, technology, and markets more effectively. The rules of the game in the form of rights, obligations, and sanctions have been regulated in the KUB Articles of Association. Implementing blue swimming crab management policies has encouraged using environmentally friendly fishing gear, although it still faces challenges such as economic pressures and weak supervision. Increasing the capacity of KUB through collaboration with various parties through training and assistance has strengthened the economic position of fishermen. Therefore, efforts are needed to improve the institution capacity of KUB through collaboration with related stakeholders through socialization, training, and partnerships. It is helpful to support the socio-economic sustainability of fishermen in sustainable blue swimming crab fishing efforts.

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