

Implementation of Coastal Resource Management Based on Integrated Management to Enhance Fishermen's Welfare

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Abstract. Ensuring social justice for all Indonesian citizens is a fundamental principle of nation-building. Although only discussing the empowerment of coastal communities, Law Number 1 of 2014 concerning the Management of Coastal Areas and Small Islands also includes requirements for the empowerment of fishermen communities. The term "power" is the conceptual root of empowerment and power, meaning the central idea of empowerment is related to the idea of power. Authority is often seen as the ability to influence people to act according to our ways, regardless of their choices and needs. Many empowerment programs today claim to be bottom-up initiatives based on the needs and desires of the community, yet the community still does not feel that these initiatives are their own, and as a result, many empowerment programs end abruptly without community support, discussion, or further action from the government. Therefore, these initiatives end without bringing significant changes to the lives of fishermen. This research is part of a qualitative series of studies that sought to understand how fishing neighborhoods are empowered through the socialization and training of fishing gear. These socialization and training activities are necessary for fishermen, as not all of them are familiar with gillnet fishing gear. The changes and benefits include communities gaining knowledge about how to make gillnet fishing gear and also additional skills or abilities.

Keywords: Empowerment, Training, Socialization

1 Introduction

Indonesia, with 17,504 large and small islands, is the largest maritime and archipelagic country in the world. Its territorial waters cover 5.8 million square kilometers, approximately 63 percent or three-quarters of the total national territory. Indonesia has the second longest coastline in the world after Canada. Assuming 6.51 million tons per year, or 8.2% of the global marine fish production capacity, these waters, including the sea, have great potential for sustainable marine fish production. This figure illustrates Indonesia's potential wealth in the maritime and fisheries industries.

One of the most important components of the country responsible for maintaining smoothness and achieving national goals is the government. By the mandate of Pancasila and the 1945 Constitution of the Republic of Indonesia, the task and purpose of the Indonesian state are to protect all Indonesian people and their entire bloodline, promote the general welfare, improve the standard of living of all Indonesian people, and realize social justice for all.

Ensuring social justice for all Indonesian citizens is a fundamental principle of nation-building. Every Indonesian citizen has rights and obligations, to the best of their abilities, to participate in economic growth to improve welfare, especially in the fisheries and maritime industries. Maximizing the welfare of fishermen is the goal of fisheries and maritime development, as stated in the Pancasila mission and the 1945 Constitution of the Republic of Indonesia. Until now, fishermen have made significant contributions to marine development, fisheries, as well as rural and coastal economies.

Jepara Regency is one of the regencies located in the coastal region of Indonesia, specifically in the province of Central Java. From here, it can be understood that the majority of the population in Jepara Regency relies on fishing for their livelihoods, depending on the results of fisheries and maritime activities.

In the current era of regional autonomy, as mandated by the Republic of Indonesia Law Number 23 of 2014 concerning Regional Government, it states: "Based on their initiatives and the goals of the community within the framework of the regional government system, autonomous regions are legal entities with specific boundaries that have the authority to control and manage regional governance and community interests. Unitary State of the Republic of Indonesia." Based on their initiatives and the goals of the community within the framework of the regional government system, autonomous regions are legal entities with specific boundaries that have the authority to control and manage regional governance and community interests. Unitary State of the Republic of Indonesia.

The mandate of empowerment for fishing communities is also stated in Law Number 1 of 2014, which amends Law No. 27 of 2007 concerning the Management of Coastal Areas and Small Islands, although it only mentions the empowerment of coastal communities, generally, fishermen are part of coastal communities.[1] As article 63 states "The Government and regional governments are obliged to empower coastal communities to improve their welfare and the Government and regional governments are obliged to encourage coastal community business activities by increasing coastal community businesses through increasing capacity, providing access to technology and information, capital and infrastructure, market guarantees and other productive economic assets.[2]

Studies on fishing communities mostly focus on socio-economic aspects. The results of these studies indicate that fishing communities are one of the social groups in our society that are severely affected by poverty. Poverty is caused by complex and interconnected factors and is the main source that weakens the community's ability to develop the region and improve its social welfare. Therefore, poverty is one of the main issues in coastal area development.[3]

Fishermen are often confronted with issues of poverty, as well as limited infrastructure, facilities, access to funding, and financing. Consequently, the income level of fishermen directly impacts their families, who heavily rely on the results of fishing efforts and endeavors. Typically, the spouses and children of fishermen engage in simple/traditional processing of the catch or cultivation to add value, which is then marketed in traditional markets at relatively low prices to support their family's economy.

Difficulty in breaking free from the shackles of poverty arises as they are plagued by various limitations in terms of human resource quality, access, and mastery of technology, markets, and capital. Policies and the implementation of development programs for communities in coastal areas have so far been suboptimal in breaking the chain of poverty and improving their welfare.[4]

Fishermen utilize fish resources, which are crucial for fisheries management. Concerns about the availability of fuel, fish theft, overfishing, climate change, weather, and sea wave heights are just a few of the issues fishermen face. The difficulties faced by fishermen require

their protection and empowerment, as well as their families who handle processing and marketing.

Currently, the regulations governing the empowerment of fishermen in Jepara Regency are still inadequate in terms of regulating the protection and empowerment of fishermen. The Local Government only relies on national laws, namely Law Number 7 of 2016 concerning the Protection and Empowerment of Fishermen, Fish Cultivators, and Salt Farmers, and Government Regulation Number 50 of 2015 concerning the Empowerment of Small-Scale Fishermen and Small-Scale Fish Cultivator,[5] Therefore, the existing regulations provide insufficient legal certainty and justice for fishermen. For efforts in the Protection and Empowerment of Fishermen to achieve maximum results, more specific regulations are needed at the regional level in the form of legal products such as Regional Regulations or Regent Regulations and other regulations related to the Empowerment of Fishermen.

The term "power" is the conceptual root of empowerment and authority, meaning the central idea of empowerment is related to the idea of power. Power is often defined as our ability to influence people to act according to our ways, regardless of their preferences and needs. Many empowerment programs currently claim to be bottom-up initiatives based on the needs and desires of the community, yet the community still does not feel that these programs are their own. As a result, many empowerment programs end without attention or follow-up from the government, leading to these programs not having a significant impact or having negative impacts on the lives of fishing communities.[6]

The coastal areas of Jepara Regency are dominated by small-scale traditional fishermen, laborers, and boat owners. In addition, they have access to suitable fishing facilities and remote fishing locations. It has a direct impact on fishermen's income and has a big influence on catch results. However, some fishermen need to replace their equipment because their options are limited. Apart from that, there are still many fishing villages in Jepara Regency that live in poverty. One way to get around this is to implement an empowerment program designed to provide greater control to fishermen and increase the welfare and income of fishing communities.[7]

The Regional Government of Jepara Regency has endeavored to pay attention to and strive for the implementation of fishermen empowerment activities, but there are still fishermen who have difficulty improving their standard of living and remain below the poverty line. Based on observations and supported by various information, the role of the local government in empowering fishermen in Jepara Regency can be identified through various phenomena. This is a result of the local government's less-than-optimal efforts in empowering fishermen, including the lack of counseling, training, and mentoring. On the other hand, the local government lacks in facilitating fishermen in terms of fostering and finding suitable business partners for fishermen, as well as providing support for ease of access to information and technology, which is still difficult for fishermen to obtain. Additionally, the local government needs to provide institutional support for fishermen.

2 Method

This research falls into the category of field research, which is research conducted in real-life setting.[8] This research is intended to determine the empowerment of fishing communities through socialization and assistance with fishing gear training. This research is descriptive in nature, namely a method used in researching the status of a human group, a set of conditions,

an object, a system of thought, or a class of future events.[9] So, besides uncovering data, this research also observes cases that occur among the community as they are and provides analysis to obtain clarity on the issues faced.

The population in this study consists of 86 individuals, including 6 government officials, 11 fisheries department and BP personnel, and 69 fishermen. The determination of the sample size in this research refers to the purposive random sampling method, where the selection of samples is based on criteria established by the researcher.[10] From the use of the purposive random sampling method, a total of 6 respondents were obtained.

The data collection method employed in this research involves conducting in-depth interviews with the respondents. In this interview method, the researcher utilizes a structured interview technique where, before the interview, the researcher prepares the questions to be asked in advance.[10]

In this analysis, the author employs a qualitative method, which is described through words or sentences, and then separated according to theories to conclude. Meanwhile, the analytical technique used in this research is a comparative technique, which involves comparing theories with field realities.

3 Result and Discussion

3.1 Result

1. The Role of the Government in Empowering Fisher Communities

Empowering fishing communities along the coast of Jepara Regency involves empowerment efforts carried out by two parties: the first empowerment is conducted by the Village Government, and the second empowerment is carried out by the Department of Marine and Fisheries.

a. Local Village Government

We, from the village government, have an idea to encourage fishermen to become self-reliant and not just wait passively for financial assistance from the government. Our idea is to motivate fishermen that they have potential or abilities, they have experience, and they can certainly do it by preparing a proposal for funding assistance to the government. The funding mentioned in the proposal is not in the form of money but in the form of goods such as boats, nets, and others.[11]

The same sentiment is expressed by the fishermen, acknowledging that indeed, we were made aware by the village secretary to be self-reliant. The village secretary also mentioned that we have the ability and experience, which is why he, along with others from the village government, provided us with this awareness. We were all directed to prepare a proposal for funding assistance from the government.

Interestingly, the fishermen accepted this idea and became interested after we raised awareness, but they were unsure how to approach it. Therefore, in this regard, the village government advised the fishermen on how to prepare a funding proposal by instructing them to look for examples of previous funding

proposals, which they could then study and emulate. Additionally, to meet the requirement of cash submission to the government, the fishermen who have submitted or will submit proposals have formed groups. Why are they required to work in groups? Because of the large number of fishermen in Kuala Stabas, it is not feasible for each fisherman to receive funding from the government.

In line with the skills to manage the opportunities we have provided, we told them (the fishermen) what they will do and what they will create, we as the village government will assist in submitting these proposals to the relevant parties who will consider the funding proposals.[12] With such motivation, we, the village government, hope that the fishermen will be inspired and motivated to become self-reliant and more advanced.

b. Department of Marine and Fisheries

The stages carried out by the Department of Marine and Fisheries include:

1) Awareness Stage

Awareness is a process, method, or action to enlighten people. In this stage, we as the empowering party strive to create preconditions to facilitate an effective empowerment process.

In this stage, we aim to raise awareness among fishermen and instill a sense of concern so that they feel the need for self-improvement. Awareness will open up the desires and consciousness of the fishing community about their current situation, thus making them realize the need to improve conditions for a better future.

In this stage, the committee introduced the team of speakers to the fishing community. The first speaker was Mr. Salman, A.Pi as the speaker for group development training material, the second was Mr. Ir. Zalbadri the speaker for development policy material, and finally Mr. Sugiyanto, A.Md as the speaker for gill net gear material.

After the introduction during the training, the fishermen of Kuala Stabas Port were made aware that they would receive materials on the importance of empowerment conveyed by the Department of Marine and Fisheries of Jepara Coastal Regency. Mr. Salman stated, "Our way of raising awareness among fishermen is by encouraging them to progress and teaching them something new that is beneficial for them, namely participating in training for making environmentally friendly gillnet gear. Through this empowerment, individuals and communities can become more self-reliant, both in thinking and acting independently."

2) Capacity Stage

Human beings are enabled by this capability both in solo and group situations. By empowering, what we mean is giving fishermen the ability to acquire new and improved skills. Our lecture technique is applied in this training, where participants pay attention to the speaker's address. The training material is divided into three categories: group development, development policy, and the making of gill net gear. We divided sixty fishermen into three groups consisting of twenty people each for the first training session. Second, before the training commences, each group

receives provisions and equipment and gets ready. Third, the fishermen obediently follow the guidance provided by experts in making gill net gear.

The tools and materials to be used in this training have been provided by the BPPP Tegal team as the training team collaborating with the Department of Marine and Fisheries of the West Coastal Region. The main tools and materials used in this training are:

- 1) Mesh material as the main component,
- 2) Top and bottom ris ropes as completeness for the net body,
- 3) Floats made of plastic materials, and
- 4) Ballast as a support made of lead.

Gill net, often referred to as a "jaring insang" (gill net), is a type of fishing gear made of netting material that has a rectangular shape where the mesh size is uniform across the main body, with a significantly higher number of horizontal meshes compared to vertical ones.[13] It is equipped with floats at the top and weights at the bottom, allowing it to be deployed vertically in fishing areas due to the opposing forces. The types of gill nets based on their operation or positioning in the water are surface gill net, midwater gill net, and bottom gill net. The gill net used in this training is the type operated at the bottom of the water.

Training on environmentally friendly fishing gear (gill net) was conducted at the Fish Auction Place (TPI) located in the village of Demaan, Jepara, from May 9th to 13th, 2023. At exactly 10:00 AM, the training was officially opened by the Head of the Department of Marine and Fisheries of West Coastal Region, Mr. Syaifullah, S.Pi, accompanied by the head of the capture fisheries division, Mr. Radinal, S.Pi, the training coordinator, Mr. Kustanto, S.ST, as well as the training participants and other invitees. On that occasion, the Head of the Department of Marine and Fisheries of Jepara expressed gratitude to the Fisheries Education and Training Center (BPPP) for selecting Jepara Regency as the location for training on environmentally friendly fishing gear (Gill Net) in support of Marine and Fisheries Regulation No. 56/2014. The training took place at the Demaan Fish Auction Place and was attended by 60 participants. The provision of materials began with group development by Mr. Salman, A.Pi, followed by a presentation on the marine and capture fisheries development policy of West Coastal Region by Mr. Ir. Zalbadri, and then a session on gill net gear making delivered by Mr. Sugiyanto, A.Md (BPPP Instructor), with a 30% theory and 70% practical approach. The closing ceremony of the training was held on Friday, May 13th, 2016, where the symbolic closing was performed by the Head of the Department of Marine and Fisheries of Jepara, Mr. Syaifullah, S.Pi.

We support the policy of the Ministry of Marine Affairs and Fisheries (KKP) to replace trawls with environmentally friendly fishing gear. The government implements this policy primarily to encourage increased fish catches while also preserving the health of the marine environment. Our fish catch has decreased over the past two years. It may be due to our habit of using trawls for fishing. After the training we conducted at the Fish Auction Place (TPI), we found that transitioning from trawls to environmentally friendly fishing gear (API) will not only increase catches

and income but also preserve the marine ecosystem in this district, Jepara, and its surroundings.

Gillnet fishing gear is a new type that offers many advantages. Consequently, the results we obtain will be even better. Gillnets are environmentally friendly nets that are lightweight and do not absorb water, making them easy to pull, and the chances of fish escaping are very low compared to other fishing gear. We were taught to maintain a clean environment, both along the coastline and in the sea itself. The primary focus is on keeping the beach free of trash and providing a spawning ground for fish. As participants in gillnet fishing gear training, we were taught to manage the sea responsibly by using environmentally friendly fishing gear, one of which is the gillnet.

c) Empowerment Stage

In this stage, we provide support and encourage fishermen to act independently without guidance or teachings from us. After the training, we tell them to try to be self-reliant and make the nets themselves. We wait for their performance results, and we will also prepare funds in the form of materials for them. If they successfully make the nets perfectly, we as the Department of Marine and Fisheries (DKP) will give them the results of their work for their use. The support we provide certainly motivates them and encourages them to do what makes them more independent.

Indeed, we fishermen were encouraged by the Jepara District Department of Marine and Fisheries to make our nets without any assistance or guidance after the training. They prepare the funds, such as net equipment, floats, and others. It is also true that the nets they make will be handed over to them if the results are good.

3.2 Result

1. The Socio-Economic Reality of Coastal Communities in Jepara Regency

Jepara City is located on the northern coast of the eastern part of Central Java Province. Its location is very strategic, serving as a transportation hub from Jakarta to the eastern part of Central Java Province and Central Java Province through the main northern coastal route (Pantura). This highly strategic location is advantageous for Jepara City, especially in terms of transportation and communication. Geographically, Jepara City is positioned at 108°34'57" E longitude and 6°41'56" S latitude on the northern coast of the central part of Java Island, stretching about 8 kilometers from west to east, and about 11 kilometers from north to south.

Jepara City is situated in a coastal area, with a coastline length of approximately 7 kilometers. With the implementation of regional autonomy, the region has the authority to manage its marine territory up to 4 nautical miles, making Jepara City's marine waters cover an area of approximately 51.86 km² or 58.13% of the total land and sea area. The coastal area of Cirebon City is relatively narrow compared to other coastal areas in other regencies along the northern coast of Central Java. The coastal area in Jepara City is only found in 2 districts, namely Lemahwungkuk District and Kejaksan District. Thus, administratively, the coastal marine area of Jepara City consists of these 2 districts, with a total area of 8.56 square kilometres.

The coastline of Jepara City consists of muddy and sandy beaches. Tangkil Beach is characterized by muddy beaches, with some parts utilized as fishponds, while Jepara Beach is characterized by sandy beaches. On the other hand, Jepara City is strategically located as a trading center for rural agricultural products and the marketing of urban and regional goods. The availability of transportation with a high level of accessibility makes Jepara City one of the centers for the collection, distribution, and trade of goods, services, and people in the eastern part of Central Java Province.

The role of Jepara City is directed, among other things, to become a port city based on its historical and cultural background, population, potential, and growth rate. As a port city, Jepara City is expected to serve as a gateway for exports and imports, serving both urban and inland areas as well as the eastern and western parts of Central Java Province, ultimately exerting a broad influence on the economy of Jepara City and its surrounding areas. The ports owned and used by Jepara City for loading and unloading cargo consist of two environmental work areas: the Port Work Environment Area covering approximately 51 hectares, and the Port Interest Environmental Area covering approximately 25 hectares. The port basin area is approximately 8,410.91 hectares.

The water depth ranges from 5 meters to 30 meters, with the seabed consisting of mud and sand. The waters of North Jepara are protected by Cape Indramayu and have very gentle depths, with a muddy seabed and several river mouths, indicating potential for shrimp, shellfish, and several economically valuable demersal fish species.

Fishermen in Jepara City can be categorized based on fishing gear, socioeconomic status, and other factors. Other elements, such as socioeconomic conditions, business scale (large or small-scale fishermen), and technological capability (traditional or modern fishermen), can be explained by classification based on fishing gear. In the two coastal districts—Lemahwungkuk District with 2,694 poor families and Kejaksan District with 2,751 poor families—poverty is the primary issue that most impact the lives of fishermen communities. This is further evident from the composition of the workforce in the fishing industry. To seek employment as fishermen, there are 1,378 Fishing Household Units (RTP) with laborers; these individuals work for boat owners (captains), commonly referred to as Crew Members (ABK), and 1,396 RTP with non-fishermen workers; these individuals are fishermen communities who are not fishermen, such as fishermen pedicab drivers who transport fish from the Fish Auction Place (TPI) or fish transportation workers at the TPI who constitute the majority of the population. Although not all coastal communities in Jepara City earn a living as fishermen, their way of life is essentially the same as other coastal village communities with consistently low living standards. It is closely related to the characteristics and conditions of coastal communities in general. Coastal communities in Jepara City are heavily impacted by various activities conducted there, such as pond cultivation, fish management efforts, and fishing activities. Additionally, they depend on seasonal fluctuations, market conditions, and prices. It is a characteristic of coastal villages, making it unpredictable how the region will develop fishermen in the city of Jepara can be categorized based on fishing gear, socioeconomic status, and other factors. Other elements, such as socio-economic conditions, business scale (large or small-scale fishermen), and technological capabilities (traditional or modern

fishermen), can be explained by classification based on fishing gear. And in two coastal districts—Lemahwungkuk District with 2,694 poor families and Kejaksan District with 2,751 poor families—poverty is the main issue that most affects the lives of fishermen communities. It is further evident from the composition of the workforce in the fishing industry. To find work as fishermen, there are 1,378 fishing household workers; these people work for boat owners (skippers), commonly referred to as Crew Members (ABK), and 1,396 fishing household workers who are non-fishermen; these people are fishermen communities who are not fishermen themselves, such as fishermen pedicab drivers transporting fish from the Fish Auction Place (TPI) or fish transport workers at TPI which make up the majority of the population. Although not all coastal communities in the city of Jepara rely on fishing for a livelihood, their way of life is the same as other coastal village communities which still have a low standard of living. It is closely related to the characteristics and conditions of coastal communities in general. The coastal communities of Jepara are greatly affected by various activities conducted there, such as pond cultivation, fishery management efforts, and capture fisheries. In addition, they depend on seasonal fluctuations, market conditions, and prices. It is a characteristic of coastal villages, so it cannot be predicted how the area will develop economically. Their low income makes fishermen households prioritize safety over other considerations. As a result, fishing communities usually wait and see how new developments will affect their family's economy. It will always reduce the likelihood of business failure rather than seeking ways to maximize profits from failure. Because of their business, the financial stability of their families may be threatened. Due to their low income, fishermen's households may prioritize safety over other considerations. As a result, fishing communities typically wait and see how new developments will affect their family's economy. It will always reduce the likelihood of business failure rather than seeking ways to maximize profits from failures. Because of their businesses, the financial stability of their families may be threatened.

2. Empowerment Process of Fishermen Communities in Jepara Regency

The Demaan Village Government implements an awareness-raising action process to empower the fishermen community of Kuala Stabas. The village government's idea is to increase the awareness of the fishermen so that they can become self-reliant, and this self-reliance needs a push that can influence them even more profoundly. The Demaan Village Government itself carries out or communicates this action process by merely raising awareness, namely by informing and guiding the community who are unaware. The village government wants to assist in the following procedures after they have completed everything themselves. The procedure aligns with the concept of the following empowerment strategy:

- a) Awareness Stage. In this stage, the targeted empowerment recipients are given "enlightenment" in the form of awareness that they have the right to possess something. Programs that can be carried out in this stage include providing knowledge that is cognitive, belief-based, and healing in nature. The basic principle is to make the targets understand that they need to be empowered, and the empowerment process begins from within themselves. In this stage, the fishermen who are the subjects are made to understand that empowerment

comes from within themselves. Efforts are also made to ensure that these fishermen receive sufficient information. Through socialization (introduction), scientific awareness-raising processes occur with actual and accurate information. This process can be accelerated and rationalized in its results with the presence of assistance efforts from the government or other parties.

- b) Capacity Building Stage. This stage is also referred to as capacity building or empowerment. To be empowered, the relevant individual must first be capable. The capacity-building process consists of three types: human, organizational, and value system. The goal of this stage is to empower fishermen so that they have the skills to manage the opportunities provided. The stage is carried out by providing training, workshops, and similar activities aimed at enhancing the life skills of fishermen.
- c) Empowerment Stage. In this stage, fishermen are provided with training, power, authority, or opportunities tailored to their abilities through active and sustainable participation, pursued by gradually assigning larger roles according to their capacity and capability, accommodating their aspirations, and guiding them to self-evaluate their choices and implementation outcomes. The provision of training aligns with the quality of skills already possessed.

The second empowerment, conducted by the Department of Marine and Fisheries of Jepara Regency in collaboration with the Fisheries Education and Training Center (BPPP), is carried out by theory and existing data. Chapter III states that the Department of Marine and Fisheries carries out stages in a modern manner.

The action process of activities for empowering the capture fishing communities conducted by the Department of Marine and Fisheries of Jepara Regency in collaboration with the Fisheries Education and Training Center (BP) are as follows:

- a) Awareness Stage

This stage is executed to enhance human resources (HR), to produce individuals with progressive, contemporary, confident, and independent mindsets. To transform the fishing communities into developing communities, the Department of Marine and Fisheries of Pantai Barat invited fishermen to attend training on the construction of gill net fishing gear in 2016. It allows fishermen to gain innovations that can increase the productivity of their catches and ultimately improve their quality of life. This procedure is in line with the idea of empowerment strategy, namely the awareness stage, where the empowered targets receive "enlightenment" in the form of awareness of their ownership rights. Programs feasible to be conducted at this stage, for example, teach about the nature of beliefs, cognition, and healing. The basic idea is to convince the targets that they need empowerment and that the empowerment process begins with them. At this point, the targeted fishermen are persuaded to realize that their fate is determined by their actions. Furthermore, efforts are made to ensure that fishermen receive adequate information. Real and accurate information is obtained through socialization (introduction), which is a scientific awareness-raising process. With the assistance of the government or other parties, this process can be accelerated and its results can be accounted for.

- b) Capacity Building Stage

Currently, the Department of Marine and Fisheries is taking action to assist fishermen in developing their skills and realizing their potential. There are several ways to empower communities through training, one of which is by increasing fishermen's awareness of their involvement value. The fishing community of Demaan Village has realized the importance of participating in training programs and understands it. Fishermen who actively participate in the process of making gill nets are evidence that community participation has been effective. This procedure is in line with the concept of the empowerment approach, namely the capacity building stage, which is sometimes also referred to as enabling or capacity enhancement. The individuals concerned must first be capable of being empowered. Three processes constitute capacity building: value system, organization, and human. The goal of this phase is to equip fishermen with the knowledge and skills to seize existing opportunities. Currently, this is being implemented through training, workshops, and other similar initiatives aimed at enhancing fishermen's life skills.

c) Empowerment Stage

In this stage, empowerment needs to be carried out where the community's capabilities are seen independently from the training provided. Fishermen need to be empowered and released to be independent in what they have learned before. With the spirit given, individuals or groups will be able to do something new; this process is in line with the concept of empowerment strategy, namely the empowerment stage. In this stage, fishermen are provided with training, power, authority, or opportunities tailored to their abilities through active and sustainable participation, pursued by gradually assigning larger roles according to their capacity and capability, accommodating their aspirations, and guiding them to self-evaluate their choices and implementation outcomes. The provision of training aligns with the quality of skills already possessed.

4 Conclusion

In empowerment, the Demaan Village Government in Jepara Regency can be considered capable of responding to field conditions because what they have done has yielded very beneficial results. Since the awareness-raising efforts, fishermen have been able to create proposals, and they have also obtained results from what they have created, such as the disbursement of funds from the government in the form of equipment/items. However, on average, not everything matches the requests. For example, the requested quantity of items was 10 boats, but only half of them were disbursed. The Fisheries Education and Training Center in Tegal conducted training for fishermen related to the construction of gill net fishing gear. This socialization and training activity is essential for fishermen because not all of them are familiar with gill net fishing gear. The changes and benefits include the community gaining knowledge about how to make gill net fishing gear and also acquiring additional skills or expertise.

References

- [1] Central Government of Republic of Indonesia, *Law Number 1 of 2014 concerning Amendments to Law Number 27 of 2007 concerning Management of Coastal Areas and Small Islands*. Indonesia: LN.2014/No. 2, TLN No. 5490, LL SETNEG: 25 HLM, 2014.
- [2] E. Suharto, *Membangun Masyarakat Memberdayakan Rakyat*. Bandung: Refika Aditama, 2005.
- [3] Kusnadi, *Strategi Hidup Masyarakat Nelayan*. Yogyakarta: LKiS, 2007.
- [4] Kusnadi, *Keberdayaan Nelayan & Dinamika Ekonomi Pesisir*. Yogyakarta: Ar-Ruzz Media, 2017.
- [5] Central Government of Indonesia, *Government Regulation Number 50 of 2015 concerning Empowerment of Small Fishermen and Small Fish Cultivators*. Indonesia: LN. 2015 No. 166, TLN No. 5719, LL SETNEG : 19 HLM, 2015.
- [6] H. Hikmat, *Strategi Pemberdayaan Masyarakat*. Bandung: Humaniora Utama Press, 2001.
- [7] H. Sabarno, *Memandu Otonomi Daerah Menjaga Kesatuan Bangsa*. . Jakarta: Sinar Grafika, 2008.
- [8] K. Kartono, *Pengantar Metode Riset Sosial*. Bandung: Mandar Maju, 1996.
- [9] Moh. Nazir, *Metode Penelitian*. Bogor: Ghalia Indonesia, 2009.
- [10] M. Teguh, *Metode Penelitian Ekonomi: Teori dan Aplikasinya*. Jakarta: Raja Grafindo Persada, 2005.
- [11] N. J. Beaumont *et al.*, "Identification, definition and quantification of goods and services provided by marine biodiversity: Implications for the ecosystem approach," *Mar Pollut Bull*, vol. 54, no. 3, pp. 253–265, Mar. 2007, doi: 10.1016/j.marpolbul.2006.12.003.
- [12] L. Dharmawan and N. Anggraini, "THE ROLE OF SUB-DISTRICTS IN VILLAGE GOVERNANCE : THE STRENGTHENING VILLAGE GOVERNANCE FACILITATOR (P-PTPD) MODEL," Jakarta, 2022.
- [13] K. Yokota, Y. Fujimori, D. Shiode, and T. Tokai, "Effect of thin twine on gill net size-selectivity analyzed with the direct estimation method," *Fisheries Science*, vol. 67, no. 5, pp. 851–856, Oct. 2001, doi: 10.1046/j.1444-2906.2001.00332.x.