# EXTENSION COMMUNICATION IN DEVELOPMENT OF FRESHWATER FISH CULTIVATION WITH BIOFLOCK SYSTEM THROUGH MONOHOME MSME LEARNING HOUSE IN SOUTH LAMPUNG REGENCY

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**Abstract.** *Biofloc system outreach activities are an effort to develop the potential of fisheries areas through Monohome MSME learning house training in Palas District. This research was carried out in Bandan Hurip Village, Palas District, South Lampung Regency. The location selection was carried out purposively with the consideration that the Bandan Hurip Village area is a center for fisheries cultivation and a pilot place for tilapia cultivation using the Bioflok system in the Palas sub-district. The research was carried out in December 2023. The research analysis was descriptive using the focus group discussion method. Respondents were members of the Monohome MSME group as well as 30 fisheries business actors and the sampling technique was quota sampling technique. This research uses primary data and secondary data. The research results showed that at the fisheries sector level, indicators of potential and profits from the fishery cultivation business were the priority. The extension and development program for local fish cultivation using biofloc technology through the UMKM Monohome learning house in Palas District seeks to increase the income of business actors through outreach communication which will later become a provision of knowledge in the future and increase insight for business actors in achieving effective tilapia cultivation by adopting the biofloc system.*

**Keywords**: *Communication, Extension, Biofloc*

## 1. INTRODUCTION

The marine and fisheries program that has been implemented to date has succeeded in changing the face of the Indonesian maritime and fisheries sector. Apart from changes in physical infrastructure, technology and fisheries productivity, Indonesian fisheries business actors have also changed more significantly. Leilani et al. (2020), stated that at a macro level, the farmer population has become smaller in percentage but higher in terms of quality, which is indicated by better levels of education, more familiarity with the modern era, increasing needs and expectations, and knowledge and skills. his business is also much better. This statement can be interpreted to mean that the role of fisheries extension is very important.

This is closely related to the definition of extension itself, which is a process of changing behavior consisting of knowledge, attitudes and skills among the community, be it fishermen, fish cultivators, fish processors or salt farmers so that they know, want and are able to carry out various changes. in the fishing business. The aim of changing this behavior is to achieve increased production and income which will have an impact on profits and improve the welfare of the community, especially families, through fisheries development (Leilani et al., 2020).

At one time, PT Dipasena Citra Darmadja and PT Wachyuni Mandiri were the supporters of fisheries on a global scale and had shocked the world. This is because for the first time Lampung, especially Indonesia, has succeeded in exporting fishery products to the global market. The company has opened up many work opportunities

in the shrimp farming sector. There are several people from communities in the southern Lampung area who work at PT Dipasena and PT Wijaya. They have expertise in the fields of ponds, ponds and matters related to fisheries and the abilities they have cannot even be equaled by other people's expertise. However, as time went on, the business experienced setbacks and ended in bankruptcy. The workers were laid off again and sent back to their respective areas.

The return of these workers again contributed to the unemployment rate in the world of workers. They are trying to recover from the downturn they are experiencing, one of them is Mrs. Junaningsih (former employee of PT Wachyuni Mandiri) and Mr. Sohibun (former employee of PT Dipasena Citra Darmadja). Based on the expertise they already have, they are trying to create a business field in the fisheries sector using the Biofloc system. Even though the business has only been established for 2 years, it has become a big example for the community in cultivating fisheries using the Biofloc system.

This is what Monohome UMKM then looked at as a model for its members and several business actors in the fisheries sector to jointly learn about cultivating the Biofloc system. Monohome MSMEs are MSMEs that are actively involved in the fisheries sector. The MSME is led by sister Lili Salita and collaborates with Palas District Fisheries Extension. They tried to carry out an outreach activity as a learning space with Mrs. Junaningsih and Mr. Sohibun. The idea that was initiated saw the potential that exists in this region, making this a great opportunity because the success rate of tilapia cultivation in the Bioflok system can be said to be successful. This extension is seen as an effort to develop the potential of the region in Palas District and an effort to empower the Palas community.

Taking into account the current state and changes in marine and fisheries development as well as the existing challenges, it is necessary to prepare an effective development communication strategy to support marine and fisheries development programs. According Leilani et al. (2020), that strategy is essentially planning and management to achieve certain goals. Communication strategies are generally formulated by paying attention to three things, namely the target audience (receiver), the message to be conveyed, and the channels used to achieve these goals. Strategy is a total of conditional decisions about actions to be implemented to achieve a goal. Formulating a communication strategy means planning the conditions and situations that may be faced in the future in order to achieve effectiveness.

Based on the background above, the aim of this research is the communication strategy used in the development of local fish cultivation with a biofloc system through Monohome UMKM learning house training in Palas District, South Lampung Regency.

## 2. LITERATURE REVIEW

### *2.1 Communication*

The word communication or communication in English comes from the Latin communis which means "same", communico, communication, or communicare which means "to make the same" (to make common). The first term (communis) is the term most often used as the origin of the word communication, which is the root of other similar Latin words. Communication suggests that a thought, a meaning, or a message is shared equally (Mulyana, 2005). The definition of communication according to Berelson and Starainer quoted by Fisher in his book Communication Theories is the delivery of information, ideas, emotions, skills, and so on through the use of symbols, words, numbers, graphics and so on (Fisher, 1990).

According to Harold Laswell in Deddy Mulyana's book Science of Communication An Introduction, the best way to describe communication is to answer the question "who says what in which channel to whom with what effect."

1. Source

Another name for a source is sender, communicator, speaker, encoder, or originator. Is the party who takes the initiative or has a need to communicate. Sources can be individuals, groups, corporate organizations and even countries.

2. Message

It is a set of verbal or non-verbal symbols that represent feelings, values, ideas or intentions from the source.

3. Channel

Channel is a tool or vehicle used by a source to convey its message to the recipient. Channel also refers to the form of the message from the way the message is presented.

4. Receiver

Other names for the recipient are destination, communicant, decoder, audience, listener, and interpreter where the recipient is the person who receives the message from the source.

5. Effect

Effect is what happens to the recipient after he receives the message (Mulyana, 2007).

*2.2 Extension*

According to Hawkins & Ban (1999), extension is someone's involvement in communicating information consciously with the aim of helping others, providing opinions so they can make the right decisions. Extension is an activity to educate individuals or groups, providing knowledge, information and various abilities in order to form proper attitudes and behavior in life. In essence, extension is a non-formal activity in order to change society towards a better condition as desired (Notoatmodjo, 2012). The fisheries extension activities carried out so far are expected to support the government's objectives, namely:

1. Increase food production
2. Stimulate economic growth
3. Improve the welfare of farming families and village people
4. Develop sustainable agriculture.

Fisheries extension is a learning process for key actors and business actors so that they are willing and able to help and organize themselves in accessing market information, technology, capital and other natural resources as an effort to increase productivity, business efficiency, income and welfare, as well as increase awareness. in preserving environmental functions. In its implementation, various policies are pursued, one of which is through the revitalization of fisheries extension by organizing the staff of fisheries instructors (Permen KP RI, 2014).

The main actors in extension activities are communities in and around forest areas, farmers, planters, breeders, fishermen, fish cultivators, fish processors and their immediate families, while business actors are corporate individuals formed according to Indonesian law which manage agricultural, fisheries and forestry (UU SP3K, 2006).

*2.3 Freshwater Fish Cultivation*

According to Yani (2007), cultivation is a planned activity of maintaining biological resources carried out on an area of land to obtain benefits/harvest results. Aquaculture is the business of maintaining and breeding fish or other aerial organisms. Freshwater aquaculture is fisheries found in rice fields, rivers, lakes, ponds and swamps. The success of freshwater fish cultivation is largely determined by the environment, namely land and water. The type of soil determines the success of freshwater cultivation. The type of soil that is good for freshwater cultivation is clay or loam. This type of soil is very good for building a pond. Air is a medium for fish life,

so as a medium for existence, air is absolutely necessary. The quantity and quality of water must always be a concern so that freshwater fish cultivation can be optimal.

*2.4 Biofloc*

Biofloc has good capabilities in controlling ammonia concentrations in aquaculture systems (Ekasari, 2009). Several studies show that biofloc application plays a role in improving water quality and increasing productivity. The application of heterotrophic bacteria in the biofloc system has a better ability to break down the ammonia and nitrite content in the media. Heterotrophic bacteria have a much higher cell production efficiency than nitrifying bacteria. Biofloc growth in aquaculture systems is influenced by several water qualities. The application of biofloc in fish farming activities for several commodities has often been carried out at varying densities.

According to Mcintosh (2000) and Supono (2014), the basic principle of biofloc is to convert organic and inorganic compounds containing carbon (C), hydrogen (H), oxygen (O), nitrogen (N) and a small amount of phosphorus (P). Thats into sludge mass in the form of biofloc by utilizing floc-forming bacteria that synthesize biopolymers as biofloc. Biofloc technology in aquaculture uses inorganic nitrogen in cultivation ponds to become organic nitrogen which is not toxic. The biofloc system in aquaculture emphasizes the growth of bacteria in ponds to replace the autotrophic community which is dominated by phytoplankton. Biofloc contains bacterial protein and polyhydroxybutyrate which can increase fish growth. In general, bacteria are less than 5 microns in size. The very small size of these bacteria cannot be utilized by fish. However, bacteria in the form of biofloc can be used by fish as feed because their size can reach 0.5 mm to 2 mm ((Manser, 2006); (Avnimelech, 2006)).

## 3. RESEARCH METHODS

This research was carried out in Bandan Hurip Village, Palas District, South Lampung Regency. The location selection was carried out purposively with the consideration that the Bandan Hurip Village area, Palas District, is the center for fisheries cultivation in Palas District and this location is a pilot place for Tilapia cultivation using the Biofloc system. The research was carried out in December 2023. The method used in this research was descriptive. Respondents are members of the Monohome MSME group and fisheries business actors. Participants in this counseling are limited to 30 respondents. Therefore, the sampling technique is quota sampling technique.

This research uses primary data and secondary data. The primary data collection method was carried out using focus group discussions. The characteristics of the implementation of FGD activities are carried out objectively and externally. FGDs require trained and reliable facilitators/moderators to facilitate discussions so that the interactions that occur among participants are focused on problem solving (Afiyanti, 2022). The focus group was all participants with 2 resource persons and accompanied by the chairman of the Monohome UMKM and the Palas District fisheries instructor. The discussion discusses specific matters, is structured, has a time frame and procedures. Questions focus on relevant topics, eliminating irrelevant issues and selecting appropriate terms and language. The use of this FGD is intended to obtain freedom of opinion and direct input from instructors and heads of MSMEs regarding fisheries cultivation using the biofloc system. Secondary data is used to support and support the research process in actual facts and is obtained from books, journals, articles and all documents relating to Extension Communication in the Development of Local Fish Cultivation with the Biofloc System through the UMKM Monohome Learning House Extension.

## 4. RESULTS AND DISCUSSION

The respondents of this research are members of Monohome MSMEs and

fisheries business actors in Palas District, South Lampung Regency. The distribution of respondent characteristics can be seen in Table 1.

Table 1. Distribution of respondent characteristics

| Variables | Interval | Respondent (person) | Percentage (%) |
|---|---|---|---|
| Age (year) | <16 | 0 | 0 |
| | 16-64 | 18 | 100,00 |
| | >64 | 0 | 0 |
| | Total | 18 | 100,00 |
| | Average = 42,61 years (Productive) | | |
| Address | Bumi Daya | 7 | 38.88 |
| | Palas Pasemah | 3 | 16,66 |
| | Rejo Mulyo | 1 | 5,56 |
| | Kalirejo | 3 | 16,66 |
| | Mekar Mulya | 1 | 5,56 |
| | Kalianda | 1 | 5,56 |
| | Tanjung Jaya | 1 | 5,56 |
| | Bangunan | 1 | 5,56 |
| | Total | 18 | 100,00 |
| | Average = Bumi Daya | | |
| Origin Agency | MSME's member | 8 | 44,44 |
| | Cultivation actors | 10 | 55,55 |
| | Total | 18 | 100,00 |
| | Average = cultivation actors | | |

(Source: Processed Primary Data, 2023.)

*Age*

Age is a period of time that shows the existence of a living creature or object. Another definition states that age is an individual's age calculated from birth until the research is carried out. Age is a personal factor that is related to a person's level of productivity (Gultom et al., 2023). On the another paper, age affects the capacity of a person (Aghis et al., 2020). Based on Table 1, it is known that the distribution of characteristics based on age of all respondents is in the productive group (100 percent). Productive age is the age range that can work well and maximize the potential of respondents, so that in productive age a person can have good abilities and behavior in managing a business.

*Address*

The respondent's address shows the distance the respondent traveled following the counseling. It is known that one third of respondents (38.88 percent) came from Bumi Daya Village with a travel distance of 12 KM/hour (30 minutes from the counseling location). This is because Bumi Daya Village is one of the villages used by UMKM Monohome as a place to process fish raw materials that utilize fish farming products. The results of this study are the same as those of (Saleh et al., 2023), who stated that travel distance has a positive relationship with the level of success in implementing the main tasks of extension. This means that a person's high interest in participating in extension activities will not be hindered by the distance traveled, but will focus on the extension activities that will be carried out.

*Origin of Institution*

Respondents in this research came from 2 groups, including members of the Monohome MSMEs and fisheries business actors. Based on the distribution of respondents' characteristics, it is known that the majority of respondents (55.55

percent) came from fisheries actors. This is because the outreach flyers were distributed to the general public via the MSME Monohome social media. The fisheries actors were then interested and registered via the contacts provided on the flyer. The Monohome UMKM members who attended were representatives from the sub-divisions of cultivation, processing and marketing of Monohome UMKM fishery products. Holle (2023), explains that in efforts to maximize people's interest in agriculture as farmers, institutional encouragement is needed in the form of the availability of assistant staff. In this research, it is explained that the agency is UMKM Monohome with accompanying staff who are fisheries instructors.

Many experts consider that communication is a very fundamental need for a person in life in society. The term communication stems from the Latin word communis, which means to create togetherness or build togetherness between two or more people. Communication also comes from the root word in Latin Communico which means to divide (Ranum, 2018). Communication science is a systematic effort to clearly formulate principles and based on these principles, information is conveyed and opinions and attitudes are formed. What this means is that the subject of communication studies is not only the delivery of information, but also the formation of public opinion and public attitudes which in social and political life play an important role.

Most people think that communicating is something that is easy to do, considering that since childhood we have been used to doing it. But in certain contexts, especially if the communication we want to do aims to get the effect of communicating, then we will think twice to say that communicating is easy (Nurhadi & Kurniawan, 2017). Communication in counseling in particular needs special attention. Participants from the new counseling will understand and change their behavior if an effective communication process has been obtained.

Harold Lasswell's paradigm shows that communication includes five elements as answers to the questions asked, namely: 1). Communicator, 2). Message, 3). Media, 4). Communicant, and 5). Effect (Ranum, 2018).

*Communicator*

A communicator is a person who conveys a message so that it can be understood and accepted by the audience (Prawira & Maulida, 2020). This research consisted of 4 communicators, including Mrs. Junaningsih (former employee of PT Wachyuni Mandiri), Mr. Sohibun (former employee of PT Dipasena Citra Darmadja), Lili Salita (chairman of Monohome MSMEs, and Mr. Sutisna, S.PKP. (fisheries extension officer of Palas District). To be an effective communicator, it is reasonable if the communicator has a knowledge base. Knowledge is divided into content knowledge. This knowledge can be obtained from books, lecturers and other experiences. Then, very useful procedural knowledge determines how to become an effective communicator (Hasmawati, 2020). In this study, 2 communicators gained a knowledge base based on experience while working in the company and the other 2 communicators gained knowledge based on previous education.

Figure 1. Material delivery session
(Source: Primary data, 2023.)

*Message*

Nurrohim & Anatan (2009) stated that the main requirements for effective communication are the character and integrity of the person who conveys the message. An important factor in communication is not just what someone writes or says, but rather on the character of a person and how a person can convey a message to the recipient of the message. The message conveyed by the communicator must be able to attract the attention of the communicator. Before conveying the communication message, the communicator should identify the needs that the audience wants (Nurhadi & Kurniawan, 2017). The message in this study is in the form of procedures for aquaculture through the biofloc method. The message aims to provide insight to the participants about a series of activities that need to be carried out in the cultivation.

*Media*

Media in communication is an intermediary in conveying information from the communicator to the communicant with the aim of being efficient in disseminating information or messages. The media in this research is mass media equipped with a set of learning tools (in the form of pens, pencils, books and markers) to make it easier for participants to note down important things during the counseling. There is a poster created to provide information about counseling that participants can follow.

Other media used in this research are social media. This media was intensified by the organizers to attract the sympathy of participants. Some of the social media used by the organizers include WhatsApp, Instagram and Facebook. Mansyur (2016), explains that in Indonesia social media is the most popular medium used by all levels of society to communicate. After the counseling was carried out, the communication continued. Participants, organizers and resource persons joined a WhatsApp group to exchange information, documentation and become a forum for networking relationships.


Figure 2. Training pamphlet
(Source: Primary data, 2023. )

*Communicants*

Communicants are usually referred to as recipients, targets, readers, listeners, viewers, audiences, decorators, or audiences (Wahyono & Aditia, 2022). The communicants in this research were biofloc training participants consisting of members of Monohome MSMEs and freshwater fish farmers in Palas District. Asriadi (2024), states that a message does not have any meaning if the people involved in the communication (communication participants) do not give the same meaning to the message. In other words, the meaning of a message does not lie in the message itself, but in the person who receives and conveys the message (words don't mean, but people mean). Therefore, the organizers as communicators in this research

facilitated participants to feel open and comfortable expressing themselves.

During the activity, researchers observed that the participants actively responded to questions and conversations regarding the biofloc topic they were studying. There were several participants who looked good at cultivating freshwater fish using the biofloc method. However, the participants respected each other and did not put each other down. Other participants paid close attention and provided responses after the moderator gave directions for the question and answer session. Participants also actively observed the condition of the pond environment using the biofloc method and did not hesitate or be embarrassed to ask the sources about anything they did not know. This continues until the training is finished and each participant can continue asking questions or providing information about the fisheries sector in the WA group.

Figure 3. survey the condition of the cultivation pond
(Source: Primary data, 2023.)

*Effect*

The effect or feedback that occurs in communication is the ultimate key to the success of effective communication. The effect on communication that takes place during training can be seen from the responses given by participants (communicators) to resource persons (communicants). The feedback obtained can then be assessed by increasing participants' understanding of freshwater fish cultivation using the biofloc method. Participants began to ask about the initial stages in starting a fishery business to post-harvest procedures using the biofloc method. This shows that the insights gained by the participants have attracted participants' interest in cultivating freshwater fish using biofloc.

Biofloc is a new technology for fish cultivation. Biofloc or activated sludge technology is the adoption of activated sludge wastewater biological treatment technology by using microbial activity to increase carbon and nitrogen (Faridah et al., 2019). The difference between the biofloc system and other fish ponds in general is the difference in oxygen content and also the addition of microbes. The microbes introduced into the pond will reduce the fish waste into intake (food). This can save fish feeding. Ammonia is processed into food by bacteria with the help of molasses and probiotics. In the biofloc system, oxygen is an important key in cultivation, because the stronger the oxygen application, the faster the fish's ammonia (dung) will break down into food. Every pond with a biofloc system must have a blower to balance the oxygen.

When cultivating tilapia or other fish using a biofloc system, you can prepare land in the form of narrow land or large land. This biofloc system cannot be done on the ground, it still has to be tarpaulin or cast or cement. The biofloc system can use houses for fish such as glass to expose them to sunlight. The water source for Biofloc can be drilled well water, but it can also be from rivers, but it must be filtered first and left for better water.

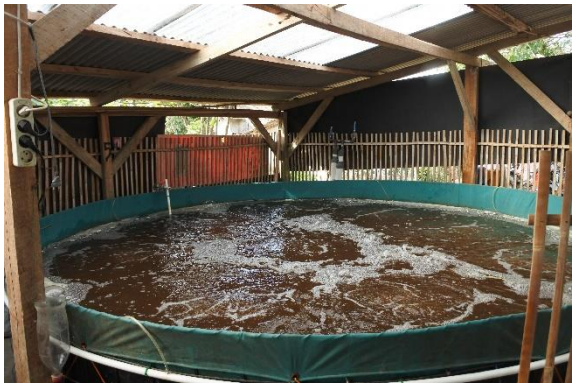

Figure 4. Form a cultivation pond using a biofloc system
(Source: Primary data, 2023.)

The biofloc system, apart from saving on feeding, can also save water. Only change the water a few times and add small amounts. The water must be measured first until the pH of the water shows normal or according to regulations such as pH 6.7-7. The most important thing in cultivating fish is that the water must be good, stable and clean. If this biofloc system uses a tarpaulin pond, the tarpaulin must be cleaned first to avoid various other ingredients that can interfere with fish growth. Currently, many ponds are idle where the pond is not used productively.

Biofloc can be formed if there are 4 components, namely a carbon source, organic material from food waste and fish waste, decomposing bacteria and oxygen availability. The formation of biofloc occurs through stirring organic material by aeration so that it dissolves in the water column to stimulate the development of aerobic heterotrophic bacteria (in conditions of sufficient oxygen) attaching to organic particles, decomposing organic material (taking C-organic), then absorbing minerals such as ammonia, phosphate and other nutrients. in water. So that beneficial bacteria will reproduce well. These bacteria will form a consortium and floc formation occurs. The result is that water quality improves and organic material is recycled into floc that can be eaten by fish. Round tarpaulin ponds are more practical and easier to apply compared to wall ponds, and seed stocking densities are higher. The drying and cleaning process is easier and faster compared to ground pools.

The steps that must be prepared for cultivating tilapia using a biofloc system are as follows:

1. The round central drain pool with a diameter of 2 and a depth of 2 m is cleaned by brushing it until it is clean and filling it with water.
2. Aeration installations were installed in 2 round pools with 9 aeration stones for each pool. The position of the aeration stone is adjusted so that oxygen can be evenly distributed throughout the pool water column. The oxygen flow was set at a speed of 10 l/min.
3. Ingredients for making biofloc media are 1kg/m3 krosok salt, 50gram/m3 dolomite lime, 100 ml/m3 molasses, probiotics with the bacterial composition Baccilus sp. 10 ml/m3 (using a combination of multi cells and bioflocculant). Each of these ingredients is sequentially dissolved in water and put into the pool.
4. Leave the pool for 7-10 days or until the pool walls feel slippery when touched.
5. Water quality is measured and maintained at a minimum dissolved oxygen content of 3 mg/L and pH 6-8 and water color is observed.
6. Tilapia fish seeds were put into the pond in the afternoon with a planned density of 120 fish/m3, but due to limited seeds, a density of 90 fish/m3 was tried.
7. Fish are fed after 2x24 hours at a dose of 3% of the fish's body weight.

To treat water during maintenance is as follows:

1. Add molasses and probiotics if the oxygen level approaches 3 mg/l.

2. Dolomite is added if there is a change in the pH of the water to tend to be acidic (pH 5).
3. The biofloc media water should be brownish in color.
4. The flock volume is maintained at 50 ml per liter and if the flock is too densely fed, feeding is stopped.
5. Water is added if evaporation occurs.

In making biofloc, not only square-shaped ponds can be made into biofloc systems, but all forms of ponds can be converted into biofloc, because biofloc is a cultivation system that uses bacteria (bacillus), and these bacteria themselves can be reproduced themselves or the public can also buy them. .

In the biofloc system itself, the fish population is measured not by the area of the pond but based on the cubic water in the pond and the standard water height in the biofloc system is 80cm with a standard population of 100 fish/3 water. If the population is to exceed 100 fish/3 water then aeration must be added because if there is not enough aeration in the pond then various kinds of problems will arise in the water and electricity costs will increase.

In the biofloc system there are 2 types of application, namely before stocking and after stocking, but it is recommended that this biofloc system be carried out after stocking, namely when the pond has been filled with water for 7 days, then the fish seeds can be put into the pond. This is useful so that the fish remain healthy, then in the application using the biofloc system.

The minimum size when stocking fish seeds in the bifloc system itself is C100 or 100 fish/kg. Because the biofloc system uses a bacterial system that is very different from conventional ponds in general. In the biofloc system, it is recommended to carry out rearing/nursing first so that the fish remain healthy until harvesting.

At the fisheries sector level, indicators of the potential and profits from aquaculture business are the priority. This means that the potential of each fisheries management area, especially the fisheries management area of Palas sub-district, South Lampung district, is an indicator of sector performance in the fisheries sector.

In Law Number 16 of 2006, it is stated that "Fisheries Extension is a learning process for the main players and fisheries business actors so that they are willing and able to help and organize themselves in accessing market information, technology, capital and other resources as an effort to increase productivity and efficiency. business, income and welfare as well as increasing awareness in preserving environmental functions." The process of learning together in counseling is actually not only defined as an incidental learning activity to solve the problem being faced, but what is more important than that is the growth and development of a spirit of lifelong learning (long life learning) independently and sustainably.

Figure 5. Documentation of training
(Source: Primary data, 2023.)

It is hoped that extension workers and extension activities can play an important

role in generating this understanding. The involvement of stakeholders is very necessary to maintain sustainability in natural resource management. Apart from that, participation from stakeholders can be a strength for the community in managing fisheries resources using a biofloc system which can be implemented through regional autonomy-based fisheries management policies that provide space for customary law to manage fisheries resources traditionally. Apart from that, attention to property rights in the fisheries management system in public waters and the study of interaction patterns between stakeholders in the area, as well as the impact on fishing household communities need to be paid attention to. Then the traditional social institutional order that lives in the fisheries community can be developed and its existence recognized in the legal system and rules of the public water area management system (Suhana, 2020).

earch, how to test hypotheses, or explain the relevance of theory to the research problems. Therefore, this section is the most dominant part or the longer page. It is recommended that the sections of this chapter are separated into several sub-chapters, each of which has different problems. The main goal is that readers easily understand it. Likewise, the explanation of each material or object is done using paragraphs. In addition, if necessary, images, schemes or matrices may be included as supporting research explanations.

Address the research questions and objectives, explain whether/ how the results of the analysis answer the problem statement. Discuss the relationship of the results of the analysis with previous studies or/and the relationship between the results of the analysis with the theories used in the study. Present arguments that you can convey based on the results of the analysis/ findings and discussion. Explain the implications of the results of the analysis/ findings on existing theory and/ or practice. Explain the importance of the results of the analysis/research findings, how the results of the analysis/ findings contribute to the relevant research area.

## CONCLUSION

The outreach program and development of local fish cultivation with biofloc technology through the UMKM Monohome learning house in Palas District, South Lampung aims to increase the income of business actors through outreach communication which will later become a provision of knowledge in the future and increase interest and insight for business actors in achieving effective cultivation tilapia fish by adopting the biofloc system. It is hoped that the presence of the biofloc system fish cultivation learning house will provide motivation and business enthusiasm for local fish cultivation business actors in the Palas sub-district and it is hoped that through this outreach, local fish cultivation business actors implementing the biofloc system can increase significantly.

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