JPMI (Jurnal Pengabdian Masyarakat Inovatif)
Volume 2, No. 02, Dec 2024 Publication Date: 29/12/2024

DOIs: --:-- Research Paper / Article

Improving the Understanding of Fishing Communities in Cikiruhwetan Village-Pandeglang Regency Through Capture Fisheries Training Activities

[1]Yopi Novita*, [2]Sugeng Hari Wisudo, [3]Budhi Hascaryo Iskandar, [4]Wazir Mawardi, [5]Vita Rumanti Kurniawati, [6]Dwi Putra Yuwandana
[1,2,3,4,5,6]Departemen Pemanfaatan Sumberdaya Perikanan, IPB, Bogor, Indonesia
Email: yopi_novita@apps.ipb.ac.id

Abstract: The Ministry of Marine Affairs and Fisheries (KKP) has designated several fishing villages throughout Indonesia as kalaju villages, one of which is Cikiruhwetan Village, Pandeglang Regency, Banten Province. However, the development of kalaju village in Cikiruhwetan Village has not been optimized, so there is no visible difference between kalaju village and non-kalaju village. Therefore, in order to optimize the development of kalaju village, the village community needs to be equipped with various understandings that can improve their abilities, especially abilities in the field of capture fisheries. The improvement of understanding is carried out in the form of training or technical guidance involving the fishing community and agency employees and village officials. Changes or improvements in understanding were tested using written questions given at the beginning of the training (pre-test) and at the end of the training (post-test). Based on the evaluation results of the pre-test and post-test results, it can be seen that there is an increase in the understanding of the fishing community on the material provided. Although the increase in understanding has not been optimal, it can be done through regular training.

Keywords: Kalaju Village, Community Service, Community Training, Pandeglang

1. INTRODUCTION

The Ministry of Maritime Affairs and Fisheries of the Republic of Indonesia (KKP RI) in a report written on KKP WEB DJPT (2021), stated that the development of **Kampung Nelayan Maju** (Kalaju) continues to be encouraged by the Ministry of Maritime Affairs and Fisheries (KKP) as an effort to realize the blue economy. Kampung Nelayan Maju (Kalaju) is a synergy of various activities to realize an organized, advanced, clean, healthy and independent fishing village, which was initiated by KKP. The purpose of establishing Kalaju is to support national economic development in the marine and fisheries sector.

The Kalaju program is also expected to transform fishing villages from poor, shabby and dirty to more advanced and well-organized. A clean, healthy and comfortable village is expected to improve the quality of life and economy of coastal communities. In order for this goal to be realized, it is necessary to

make efforts to improve the ability of the community, especially the people in Kalaju. Through the Directorate General of Capture Fisheries (DJPT), KKP has and continues to develop the potential of kalaju as one of the driving forces of the coastal economy.

One of the kalaju villages is located in Cikiruhwetan Village, Pandeglang Regency, Banten Province. Based on the interview with the Marine and Fisheries Agency (DKP) of Pandeglang Regency, it is known that the development of kalaju in Cikiruhwetan Village is only limited to the preparation of the facilities. However, activities to support the development of kalaju village in Cikiruhwetan Village have not been optimized. The development of a village must be supported by the capacity of the community in it. According to Ife in Saugi and Sumarno (2015), there are 22 principles of community development, one of which is "*empowerment*". This principle means "helping" the community with its potential so that community members can determine their own future. To be able to "help" the community with its potential, the community service team of the Department of PSP FPIK IPB held community service activities in the form of Technical Guidance (Bimtek) or training.

There are 3 technical guidance materials provided, namely related to environmentally friendly fishing gear, business management and risk mitigation to support Occupational Safety and Health (WSH). Therefore, the objectives of this activity are to 1) increase the understanding of fishing communities about environmentally friendly fishing gear so that fishermen in Kalaju Village do not use prohibited fishing gear or fishing gear that has the potential to damage natural resources and the environment, 2) increase the understanding of fishing communities about business management, so that fishermen can independently manage their business effectively and efficiently, and 3) increase the understanding of fishing communities about potential risks that will result in work accidents and deterioration of health in the future.

2. METHOD

This community service activity was carried out for two days, namely August 6-7, 2024, located in Cikiruhwetan Village, Pandeglang Regency, Banten Province. The provision of material was carried out

in the form of material presentation, discussion, and video viewing. The materials provided consisted of: 1) Operation of environmentally sound fishing gear, 2) Fisheries business management, and 3) Risk mitigation efforts to support Works Safety and Health (WSH). The materials were given to 25 fishermen and 7 employees (Dinas Perikanan dan Kelautan Kabupaten Pandeglang, PPI Cikeusik and Cikiruhwetan Village officials). The location of the training was TPI Cikeusik located in Cikiruhwetan Village, Pandeglang Regency. The existence of TPI Cikeusik is presented in Figure 1.

Learning/training achievements were conducted by testing participants' knowledge in 2 (two) written tests, namely *pre-test* and *post-test*. From the results of the *pre-test* and *post-test*, it is expected to know the changes in the participants' understanding of the material provided, both based on personal assessment and from the *score of* the quiz results. Data processing was carried out using a graph consisting of a graph of the composition of the participants' educational background, a graph of changes in understanding based on the participants' own assessment and finally a graph of changes in understanding based on the *score of* the quiz results. Furthermore, data analysis was carried out descriptively.

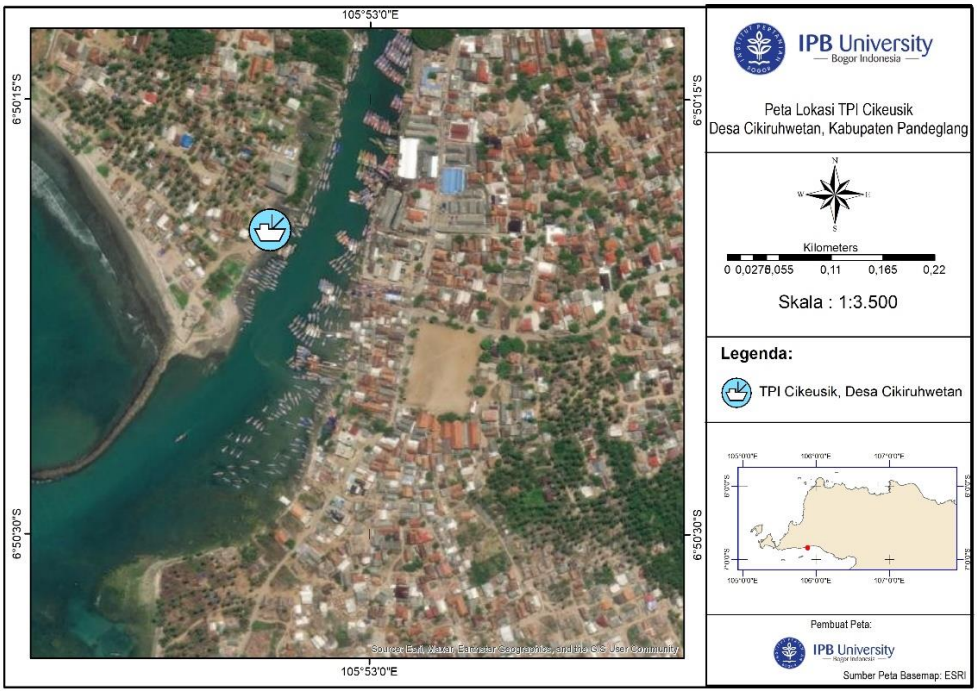

Figure 1. Position of TPI Cikeusik (), Cikiruhwetan Village-Pandeglang Regency, Banten Province

3. RESULTS AND DISCUSSION

The training participants were fishermen, village officials, DKP employees of Pandeglang Regency and PPI Cikeusik. The technical guidance materials provided consisted of: 1) Operation of environmentally friendly fishing gear, 2) Fisheries business management, and 3) Risk mitigation efforts to support Works Safety and Health(WSH). The training materials were provided to increase the knowledge or confirm the understanding of the trainees.

The material "Operation of environmentally sound fishing gear" was provided with the aim that fishermen operate fishing gear that does not damage the environment. As for the purpose of providing the material for agency employees or village officials, it is intended to be able to more accurately identify if there is an operation of fishing gear that is not environmentally sound. The term environmentally sound is synonymous with the term environmentally friendly. Environmentally friendly fishing gear must meet the criteria of environmentally friendly fishing gear as stipulated in the *Code of Conduct Responsibility Fisheries* (CCRF) established by the Food Agriculture Organization (FAO 1995).

FAO (1995) in Surbakti and Basri (2024) lists 9 criteria for fishing gear that includes environmentally friendly fishing gear, namely: 1) fishing gear does not catch more than one *species of* fish and has approximately the same size, 2) Does not damage the habitat, 3) Fishing gear and its use does not cause death/harm to fishermen, 4) Produces good quality fish or live fish, 5) Products are safe for consumption, 6)*By-catch* is less than three types and has a high market value, 7) Fishing gear and operations are safe for biodiversity, 8) Does not catch protected fish, and 9) Fishing gear meets at least 4 of the above criteria. The 9 criteria were also provided in the training materials.

Furthermore, the material "Capture Fisheries Business Management" was given with the aim of increasing the trainees' understanding of effective and efficient fisheries business management. For fishermen, this material is useful to increase awareness of fishermen so that they can conduct fishing businesses while still paying attention to economic benefits. As for agency employees and village officials, this material can be a provision when assisting fishermen.

The next material was "Risk mitigation efforts to support Works Safety and Health(K3)". This material was provided with the aim of increasing the awareness of fishermen, department employees and village officials on the importance of maintaining safety and health while working. This material also informs efforts that can be made to improve WSH. It is hoped that accidents while working, especially in the field of capture fisheries, can be prevented or the chance of occurrence and/or the impact of the incident can be minimized. Capacity building of fishermen in the form of training is expected to prevent or minimize the occurrence of accidents in fishing activities or at the port (Katiandagho *et al.*, 2023). In addition to training, it is necessary to ensure the completeness of safety equipment on each fishing vessel that will go to sea (Bulotio *et al*., 2023), and fishermen understand how to use it.

The training was attended by 25 fishermen and 7 employees. The employees are employees of Pandeglang Regency Marine and Fisheries Agency, PPI Cikeusik and Cikiruhwetan Village officials. Of the 32 trainees, the participants were dominated by elementary school graduates. About 11% of the total participants have an undergraduate educational background (S1). Participants with undergraduate background are employees of DKP Pandeglang Regency, PPI Cikeusik and Cikiruhwetan village officials (i.e. 4 people). Training participants who did not go to school also dominated in the 2nd place. The detailed composition of participants based on educational background is presented in Figure 2.

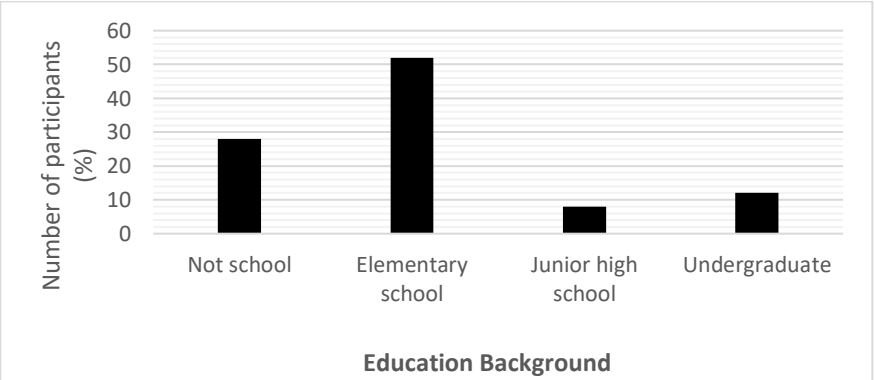

Figure 2. Composition of trainees at PPI Cikeusik by educational background

Furthermore, the success of the training was evaluated using *pre-test* and *post-test*. *The pre-test* and *post-test* were conducted by giving quiz questions in the form of *multiplechoice*. The quiz questions were given in writing, and the questions given in the *pre-test* and *post-test* were the same. The *pre-test* was

given before the material was delivered by the presenters, and the *post-test* was given after the presenters delivered the material. This was done in order to see changes in the trainees' understanding before and after receiving the training materials. Each material was tested with 5 questions, so there were a total of 15 questions.

Figure 3 presents the results of the assessment of changes in understanding of the trainees based on personal assessment. The questions asked consisted of: 1) do participants understand environmentally friendly fishing gear, 2) do participants understand effective and efficient management in fishing, and 3) do participants understand occupational safety and health? There were changes in the *pre-test* and *post-test* answers to these three questions.

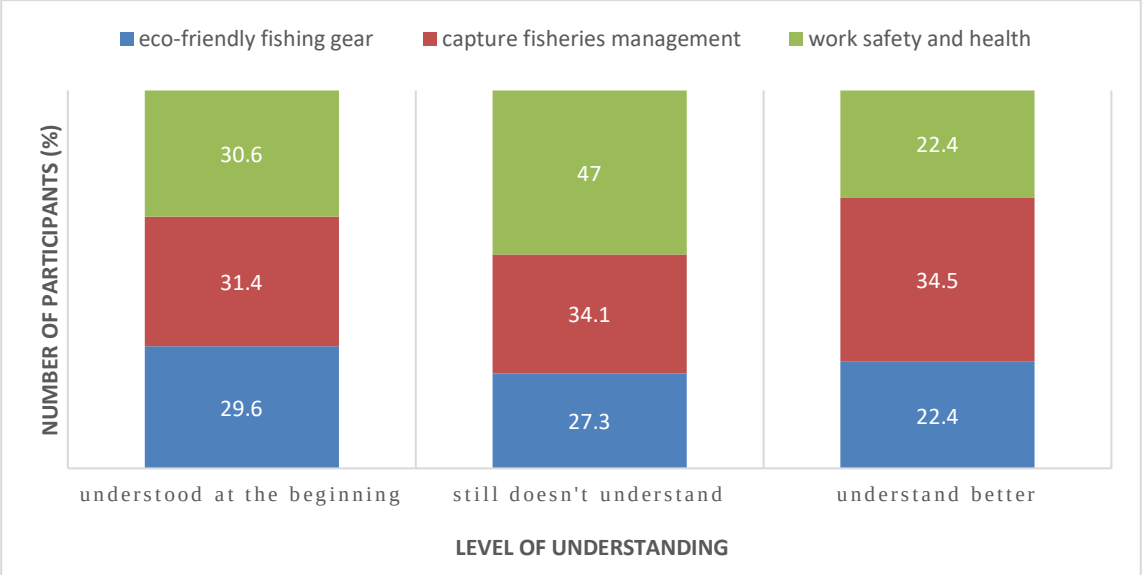

Figure 3. Percentage of participants who experienced a change in understanding based on personal assessment of the materials provided

In Figure 3, it can be seen that the trainees who already understood environmentally friendly fishing gear, business management and WSH before the training were 29.6%, 31.4% and 30.6%, respectively. Participants who admitted that they already understood the three materials before attending the training were generally employees and some fishermen. Upon further interview, some of the fishermen who had understood the training materials prior to the training were fishermen who had participated in training on similar topics several times.

Furthermore, based on personal assessment of the increase in understanding of the three materials, 43.1% of participants claimed to have a better understanding of environmentally friendly fishing gear, and 27.3% admitted that they still did not understand. As many as 34.5% of participants claimed to have a better understanding of business management, but 34.1% still did not understand. About 22.4% of participants claimed to have a better understanding of OSH, but 47% admitted that they still did not understand OSH. Generally, participants who stated that there was no change in their understanding of the training materials were those with "no school" and "elementary school" educational backgrounds. Education is one of the social aspects that is very important to support humans in developing their business, because to support a person's business to progress is influenced by the level of education and even provides a broad knowledge in developing every means available around the environment (Antarani *et al*., 2018).

Furthermore, the average *score of* the quiz results in each group of questions was analysed. Figure 4 shows the changes in quiz *scores* on the three training materials. There was a 219.0% increase in scores (from an average score of 2.1 to 6.7) on the environmentally friendly fishing gear test, 154% on the business management test (from an average score of 2.9 to 7.5), and 32.9% on the work safety and health (WSH) test (from an average score of 7.0 to 9.3). Although the increase in scores for the K3 test was not very large, some participants already had better scores at the beginning of the training.

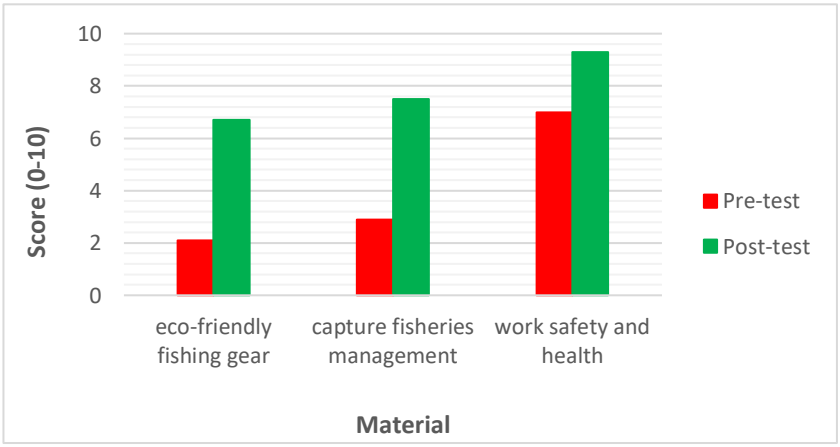

Figure 4. Changes in *pre-test* and *post-test scores*

Based on the participants' personal assessment as well as the results of the *pre-test* and *post-test*, there was not a significant change in the understanding of the training participants who work as fishermen. It is suspected that this is due to the diversity of the participants' backgrounds, while the materials and test questions are the same. It can be seen that a significant increase in *score* occurred in trainees with undergraduate and junior high school educational backgrounds or in participants with employee status, and not in other participants.

According to Notoatmodjo (2014), knowledge can be influenced by many factors, one of which is the level of education. The higher a person's level of education, the better their knowledge, and vice versa (Marjan, 2018). The relationship with the results of this training is that the higher a person's level of education, the easier the ability to absorb knowledge or information. This is evidenced by the results of Damayanti and Sofyan's (2021) study on the relationship between the level of education and the level of knowledge of the community in Sumberan Hamlet Sedayu Bantul about the prevention of Covid-19, where the higher the level of education, the higher the knowledge they have.

Furthermore, Suryadi *et al*. (2019) mentioned that the selection of learning models is strongly influenced by the nature of the material to be taught, the objectives to be achieved, and the level of ability of students. Based on the above statement, for training activities it is necessary to prepare materials with language that is easier to understand for training participants. Therefore, the diversity of training participants, especially their educational background, is not too high. This is also in line with Sudrajat's (2009) statement that the selection of learning methods must be adjusted to the learning conditions and learning outcomes to be achieved. Dalyono (2010) added that success in learning can be seen from various factors, including intelligence, talent, interest, motivation and mental health factors. Intelligence is the capacity or general ability of an individual consciously to adjust his mind to the situation he faces (Stern in Sobur 2003).

Providing material in a training does not stop until the training is over. In order for the fishing community's understanding of the training material to continue to stick and even increase, there needs to be activities that can stimulate the material in the future. Especially activities that can raise the awareness

of the fishing community on matters related to the material that has been given. So that in the end, the fishing community consciously has an interest in continuing to understand, apply and develop the understanding and abilities that have been received during the training. Barokatur in Saguni (2019) states that the learning process will run smoothly if accompanied by interest, because interest is something that can arouse a person's enthusiasm for learning.

The existence of training activities is expected to help fishing communities organize their income so that the economy can be sustainable. The application of WSH is mainly intended so that fishermen can take early preventive measures so that the impact of a dangerous event can be minimized. Given that generally fishing villages are located in areas quite far from health facilities and fire departments. The application of sustainable fisheries is intended to increase the level of awareness of fishermen not to use fishing gear that will threaten the sustainability of fish resources.

4. CONCLUSION

The provision of materials in the form of training or technical guidance to fishing communities, especially in Cikiruhwetan Village, Pandeglang Regency, Banten Province, was quite successful. However, the increase in understanding of the fishing community can be maximized if the presentation of the material is in accordance with the background of the training participants and limits the diversity of participants.

5. ACKNOWLEDGEMENT

Gratitude is expressed to the Directorate of Agro-maritime Community Development, IPB University, which has fully supported the activities of IPB 2024 Pulang Kampung Lecturers. In addition, thanks are also expressed to the Banten Province Marine and Fisheries Service which has become a partner in the activities of the IPB 2024 Pulang Kampung Lecturer.

6. CONFLICT OF INTERESTS

The authors declare that we have no conflict of interest with any party in any form.

REFERENCES

Antarani, D., Jusuf, N., Kotambunan, O.V. 2018. Manajemen Usaha Perikanan Tangkap Pancing Ulur di Desa Arakan Kecamatan Tatapaan Kabupaten Minahasa Selatan Provinsi Sulawesi Utara. *Akulturasi: Jurnal Ilmiah Agrobisnis Perikanan.* 6(11): 851-858.

Bulotio, N.F., Ihsan, M.N., Wahyudi, D.P., Fitriah, R., Jufri, A., Hidayat, E.A., dan Randhi, Z. 2023. *Manajemen Pelabuhan Perikanan*. Get Press Indonesia.

Damayanti, M., dan Sofyan, O. 2021. Hubungan Tingkat Pendidikan Terhadap Tingkat Pengetahuan Masyarakat di Dusun Sumberan Sedayu Bantul Tentang Pencegahan Covid-19 Bulan Januari 2021. *Majalah Farmaseutik,* 18(2): 220-226

Katiandagho, S., Mariah, Y., Nuradi, dan Kartini, E. 2023. Overview of Life Safety of Fishing Fishermen in Cilincing North Jakarta. *Jurnal Sains Teknologi Transportasi Maritim*. 5(2): 90-95.

KKP WEB DJPT. 2021. *Wujudkan Ekonomi Biru, KKP Dorong Pengembangan Kampung Nelayan Maju*. https://kkp.go.id/news/news-detail/wujudkan-ekonomi-biru-kkp-dorong-pengembangan-kampung-nelayan-maju65c2fd1fe957b.html

Marjan, L. 2018. Hubungan Tingkat Pendidikan Terhadap Tingkat Pengetahuan Orangtua Dalam Swamedikasi Demam Pada Anak Menggunakan Obat Parasetamol. *Skripsi*. Malang: Fakultas Kedokteran Dan Ilmu Kesehatan Universitas Islam Negeri Maulana Malik Ibrahim Malang.

Notoatmodjo, S. 2014. *Promosi Kesehatan dan Ilmu Perilaku Kesehatan*. Jakarta: Rineka Cipta.

Saguni, F. 2019. *Pengaruh Metode Pembelajaran Terhadap Hasil Pembelajaran*. Yogyakarta: Kanwa Publisher. viii + 118 hlm

Saugi, W., dan Sumarno, S. 2015. Pemberdayaan perempuan melalui pelatihan pengolahan bahan pangan lokal. *Jurnal Pendidikan dan Pemberdayaan Masyarakat*, 2(2): 226-238.

Sudrajat, A. 2009. *Pengertian Pendekatan, Strategi, Metode, Teknik dan Model Pembelajaran*. Bandung: Sinar Baru Algensindo.

Surbakti, J.A., dan Basri, M. 2024. Tingkat Ramah Lingkungan Alat Tangkap Ikan di Wilayah Perairan Kecamatan Kupang Barat. *Journal of Marine Research*. 13(1): 11-19. https://ejournal3.undip.ac.id/index.php/jmr/issue/view/1987