

FISH AND VEGETABLE CULTIVATION AT HOME: Alternative Fulfillment of Living Needs

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ABSTRAK

Kehidupan menuntut kemampuan bertahan hidup, salah satunya budidaya ikan dan sayuran. Mungkin bagi sebagian orang, hal ini dianggap tidak terlalu penting. Namun, hal kecil ini di dalam keadaan sulit seperti masa pandemi, dapat menjadi pilihan di dalam mempertahankan kelangsungan hidup. Dinamika kehidupan yang keras, menuntut setiap dari kita, dapat memaksimalkan potensi diri, tidak terkecuali budidaya ikan dan bercocok tanam. Kegiatan pengabdian ini dilakukan sebagai bentuk berbagi pengetahuan dan pelatihan kepada masyarakat, bahwa banyak hal-hal yang dapat dilakukan guna memenuhi kebutuhan ekonomi keluarga. Kegiatan ini diselenggarakan di Kecamatan Pamulang (Tangerang Selatan) selama tiga hari. Metode kegiatan dilaksanakan dengan cara diskusi dan praktek. Hal yang dapat dikemukakan dari hasil kegiatan pengabdian ini adalah, bahwa pelatihan budidaya ikan dan sayuran mendapatkan respons positif dari masyarakat. Terlebih di masa pandemi, peserta menyadari banyak waktu luang yang perlu diisi oleh kegiatan-kegiatan yang bermanfaat, maka adanya pelatihan ini membuka pengetahuan dan kesadaran masyarakat, bahwa budidaya ikan dan sayuran dapat dilakukan di rumah dan menjadi alternatif pemenuhan kebutuhan hidup.

Kata Kunci: Pelatihan, Budidaya, Ikan, Sayuran, Masyarakat

ABSTRACT

Life requires the ability to survive, one of which is the cultivation of fish and vegetables. Maybe for some people, this is considered not very important. However, this small thing in difficult circumstances such as a pandemic, can be an option in maintaining survival. The harsh dynamics of life, guide each of us, can maximize our potential, including fish farming and farming. This service activity is carried out as a form of knowledge sharing and training to the community, that there are many things that can be done to meet the economic needs of the family. This activity was held in Pamulang District (South Tangerang) for three days. The activity method is carried out by means of discussion and practice. What can be stated from the results of this service activity is that training in fish and vegetable cultivation has received a positive response from the community. Especially during the pandemic, participants realized that there was a lot of free time that needed to be filled with useful activities, so this training

opened public knowledge and awareness that fish and vegetable farming can be done at home and become an alternative to fulfill their daily needs.

Keywords: Training, Cultivation, Fish, Vegetables, Community

INTRODUCTION

Pandemic has not only resulted in an economic downturn, but has also made people more creative. The spirit to rise up produces a variety of creativity that has economic value. One of them is cultivating water spinach and catfish. and many of these cultivation efforts are successful with the proof that the results of cultivation grow big as well as with kale that thrives (Perwitasari & Amani, 2019). This cultivation effort is carried out not only by the general public but also by students as part of entrepreneurial activities. Cultivating catfish with kale in a bucket can be done by anyone. No need to need a large yard, but it can provide economic value. Budikdamper, this is one of the future food solutions that can be developed to meet the food needs of the community, especially the need for animal protein and vegetables. This solution is carried out considering the limited land for fish farming and the decreasing quality and quantity of water, especially in urban areas, so that budikdamper is an option that can be applied to address future food solutions (Saputri & Rachmawatie, 2020).

Cultivating fish in buckets with an aquaponic system has the opportunity to increase the need for animal protein and vegetables and make it easier for people to get fish and vegetables in their neighborhood. This method is best developed in orphanages and refugee camps due to disasters or urban areas where there is little living space. Besides being easy to do, budikdamper uses media that is small, portable, saves water and does not require electricity. The community has been familiar with many fruit plants in pots (Tabulampot) for the advancement of agriculture in urban areas and narrow dwellings. However, for aquaculture does not yet exist, it has even started to be applied by many people in other areas (Junaidi, 2020).

Community empowerment activities also require specific strategies so that these empowerment activities can achieve predetermined goals. This strategy includes approach, communication, mentoring and so on. A good approach is needed in conducting community empowerment. Every society certainly has different characteristics and needs. So that the approach used must also be in accordance with the Community (Bashori, 2019).

Social assistance is a strategy that will determine the success of community empowerment activities. Assistance can take the form of many things including facilitation, strengthening, protection and support (Fitriyah, 2020). Assistance to the community is something that must be done by facilitators in carrying out community service activities.

Community empowerment activities aim to make people more empowered and independent in improving the quality and welfare of their lives. In order for these goals to be achieved, empowerment activities must focus on the community itself. The empowerment agent must be able to analyze what the characteristics of the community are, both in terms of the environment and culture. Therefore, it is important for empowering agents to really understand the community and involve the community in every process of empowerment activities. Empowerment activities are given to the community, so that the community will do what they will do to improve their quality of life (Wachdijono, et, al., 2019).

The community must know how to properly build networks. The advancement of information technology becomes the capital in expanding the network. This should also be used by the community. The empowerment agent must be able to direct the community to be able to network. The network will be very useful for the community in sharing knowledge and experiences (Susi & Muryanto, 2020).

The term for individuals who are tasked with empowering the community such as lecturers, extension agents, assistants, or other forms. Essentially the same, namely as an empowerment agent. Efforts to empower the community are more difficult than providing social assistance. Community empowerment is the process of building people by increasing dignity and providing welfare for the community. Therefore, as an empowering agent, a lecturer needs to have competencies that can encourage the community to be willing and able to change in a better direction according to the potential and needs of the community. In conducting community empowerment activities, the competencies that must be possessed by lecturers such as competence to raise awareness, competence in mentoring, competence in seeking sponsorship, etc.

Cultivation

The definition of cultivation is a planned effort to maintain and develop plants and fisheries. Cultivation has the aim to remain sustainable and be able to obtain useful and

useful results to meet the needs of human life. Several types of biological resources that are often cultivated are plant products such as food crops, ornamental plants, various types of vegetables, chickens, cows, and fish. From this cultivation activity, it is hoped that it can produce products that can meet daily human needs and generate profits for cultivators (Hanifah & Ningsih, 2020).

Aquaculture coupled with hydroponic activities is the finding of the Lampung State Polytechnic Lecturer. Through this method you can realize two hobbies at once in one container, namely fish farming and farming, and is not constrained by narrow land. This method is claimed to be ideal to be applied in cities where the average land area is relatively minimal.

The materials needed for cultivation are 80 liter buckets, plastic cups, wire, charcoal, catfish seeds, and kale vegetables. The next stage, water is deposited in a bucket for one day. Then make a media for growing vegetables in the form of plastic cups (as pots) with a hole in the wire as a place to hang them over the mouth of the bucket (Nugraha, 2019). Furthermore, the charcoal is cleaned as a substitute for soil and put into a plastic pot. Finally, the kale plant is put in a pot. What must be considered when placing the pot must be partially submerged in water. The water bucket that has been deposited is put in catfish, tilapia, or catfish. In one bucket can be filled with about 40 7-9 catfish seeds.

Budikdamber activities are carried out for approximately 4 months. The result of this activity is harvesting catfish and kale vegetables. Catfish can be harvested from 1.5-2 months from the maintenance period. The catfish harvest was not carried out simultaneously for the entire bucket, because the size of the catfish was not uniform for maintenance during the two months. While harvesting kale is first carried out during the maintenance period for 2-3 weeks. The initial amount of kale harvesting is an average of 1 bunch per two buckets. The next harvest is about one to two weeks with the amount of harvest about more than the first harvest, which is one bunch of one bucket.

Alternative Fulfillment of Living Needs

The basis of this technique is the aquaponics system, which is planting plants and raising fish in one container. The nutrients that come from fish waste will be used by plants. Like a symbiotic mutualism, plants will function as vegetation filters that will

break down the toxic substances in fish excrement into substances that are not harmful to fish. Plants will also supply oxygen to the water used to raise fish (Alimuddin, 2019).

Vegetable cultivation aims to produce food by utilizing planted plant resources. Usually the production results from cultivating this vegetable plant will produce several types of plants that can be consumed. Some of them are spinach, kale, celery, cabbage, lettuce, and others (Khastini & Munandar, (2019). Aquaculture is an activity to maintain and breed certain types of fish to obtain more useful results. Usually there are two types of fish that are cultivated, namely ornamental fish and fish that are suitable for consumption, including catfish, tilapia, goldfish, tilapia, carp and others (Santoso & Karto, 2019).

This activity is expected to be a family economic empowerment which aims to foster and increase family interest, enthusiasm, skills and performance in the field of productive economic business. Through this effort, it is hoped that families who are still classified as pre-prosperous and prosperous for economic reasons will be able to do business in order to increase the economy and family income.

METHOD

Implementation of Community Service is a form of debriefing that uses the following methods: lectures, discussions, and questions and answers between the speakers and the participants. Participants in this training are people who live in the Pamulang sub-district (South Tangerang), consisting of several Neighborhood Associations totaling approximately 50 people.

The implementation of Budikdumber is carried out by providing knowledge on the importance of strengthening the family economy in the midst of the pandemic, by providing explanations of related material by competent sources. The delivery material is through the following stages:

1. Providing an explanation of the importance of family economic resilience.
2. Provide an explanation of the various ways that the community can get additional income in the midst of a worsening economic situation as a result of the pandemic
3. Providing training in catfish farming using bucket media, as well as planting kale on it

4. Providing capital for the first stage for participants in the form of buckets and catfish seeds and their feed
5. Provide assistance to the training participants who have received assistance by continuing to monitor the development of catfish cultivation in the kale beseeta buckets

DISCUSSION

Implementing Community Service for three consecutive days, in the form of providing training for people who live in Pamulang District, South Tangerang. The enthusiasm of the community to take part in the training as a form of lecturer dedication to the community around the campus has become a special spirit for the servants. This provision of budikdamber provides new opportunities for the community to be able to understand and make solutions and opportunities to meet their primary needs, namely food needs, as well as open opportunities for efforts to add to the economic value of the family if they are able to develop them later so that they can be sold to the market. The provision of skills in community service also provides new hope for local communities to increase their economic resilience. In other words, by holding community service through training in catfish cultivation and kale cultivation, it provides significant benefits for the people of Pamulang sub-district, South Tangerang.

The solution offered for the implementation of community service this time is a different solution from before. Maybe in the past, the government with various programs to help the middle to lower class society, one of which was through the distribution of the Micro, Small and Medium Unit program which provided products made by the community itself. The very rapid population development has resulted in more and more land requirements devoted to house construction, and this has resulted in the narrowing of vacant land. The dwindling vacant land encourages new thinking, driven by technology in managing the possibility of economic value activities. This is also due to the need for capital that the community cannot fully afford. Economic limitations and limited land owned are the reasons for the inability to provide capital, thus encouraging the use of this dukdamber cultivation.

CONCLUSION

This Community Service Activity provides a clear and clear picture that most of the community's economy has experienced a decline due to this pandemic. So that the community is greatly helped by the training on dukdamber, namely the cultivation of catfish in buckets which is very practical and economical but is expected to be able to provide benefits from its management. The community is also able to grow kale in the same container as catfish. In the future, the community can practice the knowledge and theory taught during the training.

REFERENCES

- Alimuddin, A. (2019). KKM PPM-PEMANFAATAN TEKNOLOGI AKUAPONIK BUDIDAYA TANAMAN SAYUR-SAYURAN DAN IKAN DI PONDOK PESANTREN RIYADHUSSALAM DESA KURUNGKAMBING KECAMATAN MANDALAWANGI KABUPATEN PANDEGLANG BANTEN. *Jurnal Baliresa: Jurnal Pengabdian pada Masyarakat*, 4(1).
- Bashori, H. (2019). Pemberdayaan Ibu-Ibu PKK Melalui Pelatihan Budikdamber Dengan Sistem Aquaponik di Desa Capang Purwodadi Pasuruan. *SOEROPATI*, 1(2), 179-188.
- Fitriyah, H. (2020). Pengukuran Panjang-Berat Ikan dan Sayuran pada Budikdamber (Budi Daya Ikan dalam Ember) Menggunakan Visi Komputer dan Regresi Linier. *Jurnal SISKOM-KB (Sistem Komputer dan Kecerdasan Buatan)*, 4(1), 8-14.
- Hanifah, E., & Ningsih, K. (2020, November). UPAYA PENINGKATAN EKONOMI MASYARAKAT DENGAN PENGGUNAAN BUDIKDAMBER (Budi Daya Ikan Dalam Ember) DI TENGAH PANDEMI COVID 19 DI DESA TEJA BARAT PAMEKASAN. In *Seminar Nasional Hasil Pengabdian Kepada Masyarakat* (Vol. 4, No. 1, pp. 65-71).
- Junaidi, M. (2020, November). PEMANFAATAN BUDIDAYA IKAN DALAM EMBER DENGAN SISTEM AQUAPONIK (BUDIKDAMBER) TERHADAP KETAHANAN PANGAN KELUARGA DI TENGAH PANDEMI COVID-19. In *Seminar Nasional Hasil Pengabdian Kepada Masyarakat* (Vol. 4, No. 1, pp. 89-94).
- Khastini, R. O., & Munandar, A. (2019). PELATIHAN TEKNOLOGI AKUAPONIK SEBAGAI SOLUSI PENDUKUNG KETAHANAN PANGAN DESA BABADSARI, KABUPATEN PANDEGLANG, BANTEN. *Jurnal Pengabdian Dinamika*, 6(1).
- Nugraha, A. W. (2019). Pemberdayaan Masyarakat Desa Sumberdadi dengan Pelatihan Hidroponik dan Pupuk Organik. *JPP IPTEK (Jurnal Pengabdian dan Penerapan IPTEK)*, 3(1), 25-32.

- Perwitasari, D. A., & Amani, T. (2019). Penerapan sistem akuaponik (budidaya ikan dalam ember) untuk pemenuhan gizi dalam mencegah stunting di Desa Gending Kabupaten Probolinggo. *Abdi Panca Marga*, 1(1), 20-24.
- Santoso, T. I., & Karto, K. (2019). Pendampingan Budidaya Sayuran Sistem Hidroponik pada Kawasan Rumah Pangan Lestari (KRPL) Pengurus Cabang Bhayangkari Indramayu. *Abdi Wiralodra: Jurnal Pengabdian Kepada Masyarakat*, 1(2), 147-161.
- Saputri, S. A. D., & Rachmawatie, D. (2020). Budidaya Ikan Dalam Ember: Strategi Keluarga Dalam Rangka Memperkuat Ketahanan Pangan Di Tengah Pandemi Covid-19. *Jurnal Ilmu Pertanian Tirtayasa*, 2(1).
- Susi, N., & Muryanto, M. (2020). Pemberdayaan Petani Sayur Melalui Integrasi Azolla-Ikan Dengan Budikdamber. *COMSEP: Jurnal Pengabdian Kepada Masyarakat*, 1(1), 53-58.
- Wachdijono, W., Wahyuni, S., & Trisnaningsih, U. (2019). Sosialisasi Urban Farming Melalui Budidaya Tanaman Sayuran Secara Vertikultur Dan Hidroponik Di Kelurahan Kalijaga, Kecamatan Harjamukti, Kota Cirebon. *Qardhul Hasan: Media Pengabdian Kepada Masyarakat*, 5(2), 90-94.