Kumawula, Vol.6, No.3, Desember 2023, Hal 662 – 668
DOI: https://doi.org/10.24198/kumawula.v6i3.49619
ISSN 2620-844X (online)
ISSN 2809-8498 (cetak)
Tersedia *online* di http://jurnal.unpad.ac.id/kumawula/index

ENHANCE FOOD SECURITY SUPPORT AFTER COVID-19 RANCABUNGUR VILLAGE, BOGOR REGENCY

MENINGKATKAN DUKUNGAN KETAHANAN PANGAN PASCA COVID-19 DESA RANCABUNGUR KABUPATEN BOGOR

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ABSTRACT

The access of urban communities to fresh, healthy, and affordable food, especially amidst the COVID-19 pandemic, is difficult to fulfill. One of the efforts that can be undertaken to address this issue is by establishing urban farming. Urban farming not only fulfills the need for healthy, fresh, and inexpensive food but also has the potential to generate income for families (communities). Many urban residents still have not utilized their home gardens or communal areas by utilizing organic waste. Ambar Telaga Residence 1, Bogor Regency, West Java is one residential complex with the potential to use organic waste. The objective of this community service initiative is to establish urban farming (Community Garden) to support the food security of the community. The target audience (partners) for this community service activity are the residents of Perumahan Ambar Telaga Residence 1, Rw. 011, Rancabungur Village, Rancabungur District, Bogor Regency, West Java. This activity is implemented through the Participatory Rural Appraisal (PRA) approach. The activity is carried out in several stages, including problem identification and program determination, implementation, observation, and evaluation. The results of this activity discovered that 16 seeds were planted on the site, with varying effects. Seven seedlings are in good growing condition, six are developing leaves, and three are not.

Keywords *: COVID-19, Community Gardens, Food Security, Urban Farming*

ABSTRAK

Akses masyarakat kota terhadap pangan segar dan sehat serta mura, terutama ditengah pandemi COVID-19 sulit untuk dipenuhi. Salah satu upaya yang dapat dilakukan atas permasalahan tersebut adalah dengan mendirian urban farming (pertanian perkotaan). Tidak hanya terpenuhinya kebutuhan pangan yang sehat, segar, dan murah, urban farming juga berpotensi menghasilkan pendapatan keluarga (masyarakat). Masih banyak masyarakat perkotaan yang belum

RIWAYAT ARTIKEL
Diserahkan : 26/08/2023
Diterima : 26/09/2023
Dipublikasikan : 11/12/2023

memanfaatkan pekarangan rumah atau pekarangan komplek dimanfaatkan menggunakan sampah organik. Salah satu komplek perumahan yang memiliki potensi menggunakan sampah organik adalah di Perumahan Ambar Telaga Residence 1, Kabupaten Bogor, Jawa Barat. Kegiatan pengabdian masyarakat ini bertujuan untuk mendirikan *urban farming* (Kebun Warga) guna mendukung ketahanan pangan masyarakat. Khalayak sasaran (mitra) dalam kegiatan pengabdian ini warga Perumahan Ambar Telaga Residence 1, Rw. 011, Desa Rancabungur, Kecamatan Rancabungur, Kabupaten Bogor, Jawa Barat. Metode pelaksanaan kegiatan dilakukan dengan pendekatan PRA (*Model Participatory Rural Appraisal*). Pelaksanaan kegiatan dilakukan dengan beberapa tahapan, yaitu: identifikasi masalah dan penentuan program, pelaksanaan program, observasi dan evaluasi. Hasil dari kegiatan ini adalah terdapat 16 bibit yang disemai dalam lahan. Setelah dilakukan observasi selama satu bulan terdapat tujuh bibit dengan hasil perkembangan baik, enam bibit masih dalam masa pertumbuhan, tiga bibit yang gagal berkembang.

Kata Kunci : COVID-19, Kebun Warga, Ketahanan Pangan, Pertanian Perkotaan

INTRODUCTION

The COVID-19 pandemic has changed lifestyles and interactions in society, particularly in Indonesia. One of the changes observed is the increase in home gardening activities among urban communities. This shift is driven by having more time at home and a growing awareness of the importance of having a reliable source of healthy food to meet the family's needs during the pandemic. Many people have utilized their home gardens as a space for gardening, especially for cultivating vegetables (Solihin et al., 2018). Not only vegetables but also various types of fruits can be grown in home gardens (Nizar et al., 2017). Utilizing home gardens for growing plants has its advantages, such as land efficiency, easy maintenance, practicality, easy control, and healthier and fresher harvests (Diwanti, 2018).

Home gardening is not limited to individual efforts; it is also carried out collectively with other community members. Urban farming, as a form of city agriculture, has gained popularity among various urban communities. Apart from contributing to food security and healthy food production, group-based urban farming, according to (Solihin et al., 2018), creates beautiful landscapes, a comfortable atmosphere, reduces stress levels, provides additional food supplies to households, and imparts knowledge. Additionally, (Sihgiyanti, 2016) suggests that urban farming can reduce poverty and food dependency.

Despite the increasing trend of urban farming, there are still many urban residents who have not utilized their home gardens or communal areas for growing plants and instead, use them as places to dispose of organic waste. One residential complex with the potential for utilizing organic waste is Perumbahan Ambar Telaga Residence 1 in Bogor Regency, West Java. Utilizing these spaces not only ensures food availability and access to healthy food but also has the potential for profitability. As (Wiyanti, 2013) points out, urban farming can improve economic conditions and the welfare of families. Furthermore, urban farming is a government effort to strengthen the country's food security, enhance the economy of the society, improve urban ecology, and preserve Indonesian social and cultural values (Aini, 2022).

Several challenges faced by urban communities in implementing urban farming include irrigation during the dry season (Mindari, Wanti, Wurjani, 2020), the need for knowledge and skills (Aini, 2022), although these skills and knowledge can be acquired through self-learning. Additionally, the lack of or low motivation from local influencers can also hinder urban farming practices. To

motivate residents and realize urban farming in the Sawangan Residential Area, a community engagement project will be conducted.

Problem Identification and Formulation of Community Engagement Activity are as follows: open spaces in residential areas are not utilized for urban farming activities, low awareness among the community regarding utilizing the environment for gardening, and decreased family income due to the COVID-19 pandemic. Based on the problem identification and formulation, the objectives of this activity are as follows: utilize open spaces in residential areas for vegetable gardening (urban farming), increase community awareness in utilizing their home environment for growing vegetables, and support the family's economic well-being.

The benefits of this activity include helping the community utilize their home gardens or residential areas for vegetable gardening (urban farming), increasing family income, and making better use of vacant spaces. This activity is also beneficial for the local government as it encourages positive community engagement, creating a sense of peace and comfort in the environment. The success of this activity can serve as an inspiration for other communities to adopt urban farming practices. For academicians, this activity supports the implementation of one of the university's three main functions (Tri Dharma) and can serve as a reference for researchers and practitioners conducting similar research or community engagement activities.

METODOLOGY

Target Audience

The target audience (partners) for this community engagement activity is the residents of Ambar Telaga Residence RW 011 in Rancabungur Village, Rancabungur District, Bogor Regency, West Java as many as 30 people.

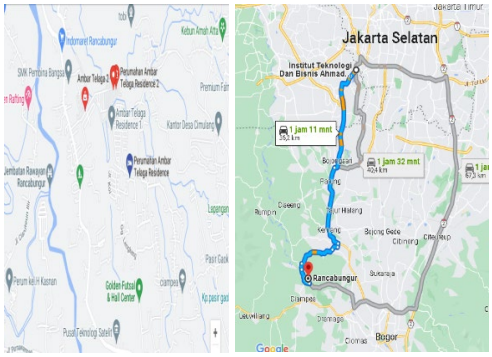

Figure 1. Activity Location Map

The activity is implemented using the Participatory Rural Appraisal (PRA) approach. The PRA approach emphasizes the joint formulation of results based on the needs for empowerment programs (Lestari & Sururi, 2017). This approach emphasizes community involvement in all stages of the activity, from planning to implementation and evaluation. In this approach, the target community has the ability to control and even modify the programs developed by the activity implementers. The selection of the approach is crucial for the success of the program (Nizar et al., 2017). The PRA model has proven to enhance the economic situation of female farmers, reduce crop losses, and create job opportunities (Ridwan et al., 2019).

The implementation of the activity consists of several stages:

a. Preparation: Problem Identification and Program Determination

The problems of the target audience (partners) are initially identified before determining the programs to be carried out. This is done through environmental observation and discussions and interviews (dialogs) with the local neighborhood (RT). During these discussions, the activities and issues faced by the partners during the COVID-19 pandemic are elaborated upon. After identification and observation, the program to be implemented is determined. The decision to establish a community garden is based on various issues and careful considerations, including environmental potential, the feasibility of a vegetable garden, and the needs of the partners. In addition, a calculation of the costs used to

carry out this activity is carried out. The costs incurred in this activity are Rp. 5.000.000.

b. Program Implementation

After determining the program to be implemented, the next step is to establish the Community Garden. This garden consists of vegetable and fruit plants owned by the local residents (partners) and utilizes the available space in the residential area. Apart from fulfilling the daily needs of the partners, the garden's produce is also developed to generate profits. The implementation of the program includes material and equipment preparation, land preparation, planting, plant maintenance, and harvesting.

c. Evaluation

The evaluation of the activity is conducted to determine its achievement and to determine the direction or treatment of the garden for the future. At this stage, all implementation issues are identified and evaluated through discussions. This activity aims to change the partners' paradigm regarding the utilization of residential land for vegetable and fruit gardens. It not only aims to create food security amidst the COVID-19 pandemic but also serves as a means for the partners to generate material profits, thereby increasing their economic sources through this activity. This activity is also relevant to the proposer's experience in utilizing home gardens for family gardening and is related to their expertise as a course instructor, specifically in the field of management.

RESULT AND DISCUSSION

Based on the PRA approach that has been carried out, the results are obtained in making urban farming with the following stages:

a. Land Preparation

Simple farming tools like a hoe and fork are used for land preparation to clear it from wild grass. The next step is to create raised beds, which facilitate the drainage of rainwater through drainage channels, enable better water absorption and irrigation, and make plant maintenance easier. The size of the raised beds is typically 80-100 cm wide with a height of around 20 cm and a distance of 30-40 cm between each bed, adjusted to the soil condition.

Figure 2. Land Preparation Activities

b. Preparation of Organic Fertilizer Materials

The next step after the raised beds are formed is to apply lime, which aims to balance the soil's pH in a simple and cost-effective manner. Organic fertilizer made from household waste is then applied along with rice husks and poultry waste on the land where several horticultural plants will be cultivated.

Figure 3. Preparation of Organic Fertilizer Material

c. Planting

The planting activities are carried out using techniques that are suitable for each type of plant. Dibbling technique is used for planting pumpkin seedlings and butterfly pea flowers. Rhizome planting is done for plants such as regular turmeric, white turmeric, turmeric wild

ginger, red ginger, elephant ginger, and curly ginger. Offshoot planting is used for plants such as aloe vera, pineapple, pandan, cat's whiskers, lemongrass, and chili. Stem cutting is applied for planting vetiver grass, moringa, bougainvillea, black pudding plant, yellow bamboo, and cassava. Direct sowing of seeds on the raised beds is done for red spinach, green spinach, celery, lettuce, mustard greens, Chinese cabbage, and papaya. Some plants that have already grown at the activity site, such as lemon, coconut, and mango, are maintained by weeding and applying organic fertilizer.

Figure 4. Flower Seeds

d. Plant Care

Fertilization is one of the most crucial cultivation processes for food crops. It is highly beneficial in providing nutrients for plant growth. Initial fertilization is given during land preparation, and subsequent applications are provided as the plants grow. Besides fertilization, daily plant care activities include watering, which is done in the morning and afternoon. Weeding or removing unwanted plants is also carried out in the plantation area to ensure that the nutrients and light requirements of the cultivated plants are not dominated by weeds.

Figure 5. Plant Watering

e. Harvesting

The harvesting is not done simultaneously; instead, it varies according to each type of plant. Leafy vegetables like spinach are harvested at approximately 30 days of age. Cassava leaves are the most frequently harvested, especially those grown as garden fences. Lemongrass, bougainvillea leaves, and pandan are various kitchen spice plants that can meet the needs of the residents in the surrounding area. Some plants have not been harvested yet, such as moringa, pineapples, various rhizome plants, medicinal plants, and fruit-bearing trees.

Figure 6. Yields

Based on the results of observations that have been made, the following are the yields and conditions of the seeds that have been sown:

1. Bayam hijau and bambu kuning are healthy and currently flowering, indicating that they are at an advanced stage of growth and ready for seed collection.
2. Kunyit putih and kunyit are in good condition, suggesting that they are growing well and thriving.
3. Jahe merah and jahe gajah are not in very good condition, implying that they may be facing some challenges or stress that hinder their growth and health.
4. Suji and puding hitam are in good condition, indicating that they are growing well and are healthy.
5. Serai is in good condition, suggesting that the lemongrass plants are thriving and doing well.

6. Tekokak is a single stem with a height of 30 cm, which indicates its early stage of growth.
7. Kencur is not in very good condition, suggesting that these aromatic ginger plants may be facing some issues affecting their health.
8. Belimbing sayur is a single stem with a height of 1 meter, indicating its mature stage of growth.
9. Bayam merah is healthy and flowering, ready for seed collection, similar to bayam hijau and bambu kuning.
10. Bambu Kuning is developing new leaves, indicating active growth.
11. Jahe emprit is not in very good condition, suggesting some challenges in its growth.
12. Pandan and daun mangkokan are in good condition, implying that they are thriving and healthy.
13. Lidah buaya is not in very good condition, indicating some issues affecting its growth and health.

Overall, the interpretation suggests that while some plants are thriving and ready for further development, others may be facing challenges that need to be addressed to ensure their optimal growth and health in the garden. Proper care and attention will be essential to maintain and improve the condition of all the plants in the garden.

CONCLUSION

Based on the results of land processing to support food security with the participation of 30 residents at a cost of Rp. 5000,000, it was found that 16 seeds were sown on the land with various results. 7 seedlings are in good growing condition, 6 seedlings are growing leaves, 3 seedlings are not in good condition. The challenge in this research is that the land used is not sufficient for all the seeds to be sown, so there are some seeds that do not grow because they are located close to other seeds. Suggestions for future research are to get support from the village scale to provide large enough land so that the growth process can run well. There needs to be awareness among residents in increasing food security by utilizing existing land to meet daily food needs.

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