

THE EFFECTIVENESS OF COMMUNITIES IN PLANTING FOOD CROPS ON NARROW LAND IN THE CONTEXT OF FOOD SECURITY DURING THE PANDEMIC

Wirantos *, Rachmatullaily Tina kartika Rinda

Program Manajemen Fakultas Ekonomi dan Bisnis, Universitas Ibn Khaldun Bogor
Jl. Sholeh Iskandar, RT.01/RW.10, Kedungbadak, Kec. Tanah Sereal, Kota Bogor, Jawa Barat 16162,
Indonesia

Email: wiranto.2399@gmail.com

Abstract

The purpose of this study was to develop the effectiveness of community food crop cultivation on narrow land in the context of food security during the pandemic in Babakan Rawahaur Village to support residents' consumption and even become a source of community income. The method used is quantitative and the results of this study can be concluded that the main factor that supports the success of this activity is the response in the form of participation from the people of Kampung Babakan Rawahour Rt. 005/Rw. 005, join the Extension Team.

Keywords: Effectiveness, Management management, Pandemic

INTRODUCTION

The corona virus pandemic or can be known as covid-19 has occurred for months in Indonesia and even years. until now there have been many corona cases.the impact of this pandemic affects various aspects of people's lives, ranging from education, social and economic The covid 19 outbreak was first detected in the city of Wuhan, Hubei Province, China on December 1, 2019 and designated as a pandemic by WHO on March 11, 2020. causing a global socio-economy.

Every group of people feels this impact, especially the lower class of people who are in a small scope of the village. They must get around this incident by taking productive actions that can at least provide benefits for a small environment such as a family so that the impact of declining income can be substituted in other ways, In the end the village area tends to be simple by having a narrow land to support consumption or can even be another source of income such as managing plants that can be planted on narrow land or vacant land that can be taken The result is either in the form of personal consumption or economic profit. Organic vegetable planting by residents can ensure the quality of the vegetables consumed later.

Organic vegetables themselves are vegetables that are cultivated with techniques that rely on natural materials such as (manure), namely livestock manure that has been composted or has not been composted. So that it is influential as a source of plant nutrients that can improve the chemical, biological and physical properties of the soil. The goal of organic vegetables is to provide agricultural products that are safe for producers and consumers and do not damage the environment. The benefits of organic vegetables are then in terms of health and freshness, vegetables are much healthier and hygienic because the process occurs naturally without relying on chemicals. So that people can also consume organic vegetables.

The purpose of this study is to understand the effectiveness of the community in planting food crops on narrow land in the context of food security during the pandemic.

RESEARCH METHODS

The method I do is a way to obtain data which is a type of qualitative research method. According to Sugiyono (2006) the qualitative research method is a research method used to research on the condition of natural objects where the researcher is the key instrument. In this research, the method used is by means of interviews and questionnaires, the subject of this research is how the role of growing organic vegetables in the community of Babakan Rawahaur Village Rt 005 / Rw 005 in order to be an Effectiveness in planting good organic vegetables.

Time and Place of Implementation, This research was carried out in Babakan Rawahaur RT005/005 Village, Sentul Village, Babakan Madang District, Bogor Regency. On September 1, 2021 – September 30, 2021

RESEARCH RESULTS

According to Rahayu et al. (2005) in Yusuf (2019) yards in Indonesia have not received full attention. In fact, if managed properly, the yard can indirectly affect the household economy. Related to the Covid 19 pandemic, it is clear that yard management as a support for the needs of vegetables and kitchen spices for families is very helpful in reducing household expenses. The narrow yard land in the city is not an obstacle to a farming activity. There are many options for farming systems in urban agriculture (Urban Agriculture), namely by developing land-saving agricultural technology (Nitisapto, 2000 and Maharanto, 2005 in Yusuf, 2019). This means that in houses with narrow yards or even without yard land, as long as there is still sunlight and good air circulation, planting can still be done, for example by using pots, polybags, and various planting containers from used goods such as pralon and bottled drinking water. According to Harianto (2017), planting vegetables and kitchen spices in pots and polybags is actually just a transition from planting on land that is moved into containers in the form of pots or polybags. Containers arranged vertically can save space and also flush water, so that land use is efficient and the results obtained are maximized.

Harianto (2017) also divides urban planting systems into four types of planting techniques, ranging from simple ones to those that require rather complicated installations because they require hydraulic power to run the system, namely planting in polybags/pots, verticals, hydroponics, and aquaponics. The fourth comparison is listed in the table below

| | Polybags | Verticulture | Hydroponic | Aquaponics |
|-------------------------------------|--------------------------------------|-----------------------------------|------------------------------|--|
| Electricity | No need | No need | Necessary | Necessary |
| Installation Investment costs | Simple Cheap | Simple Cheap | Complicated Expensive | Complicated Expensive |
| Excess | Cheap cultivation and low cost | Cheap cultivation and low cost | High and clean production | Efficient (harvesting fish and vegetables at the same time) |

There are many advantages and functions obtained from the use of the yard. Land in the yard or yard of a house can function as a living barn, living pharmacy, living stall, living fence, and garden. According to Johani (2008), it is actually not too difficult to optimize every inch of yard land, because there are many types of plants that can be planted in the yard, just choose according to the needs, situation and conditions.

DISCUSSION

In the process of arranging a yard or yard, there are several things that must be considered. According to Brookes (1992) and Don, et al. (2000), several things need to be considered if you want your garden, yard or yard to be more beautiful, including recognizing plants, site location, climate, soil type, site condition and desired function, as well as several other considerations. Related to this, in the counseling on the arrangement of yards or yards on limited land in this urban area, examples are made in the form of simple designs and descriptions of implementation in the field.

Some of the steps that must be taken include:

1. Defining the purpose and purpose

Growing vegetables and kitchen spices as well as the main desired function. For this reason, determine the main goal, whether it is just for additional daily kitchen needs, to get vegetables and kitchen spices that are free of pesticides, to create a beautiful and comfortable atmosphere around the house, or just to channel hobbies and fill free time.

2. Define a theme

Usually the theme will follow the main objective. The theme is freely determined, for example the Family Medicine Garden (TOGA), Living Warung, Living Pharmacy, Aromatic Garden, and others. The purpose of determining the theme is to make the arrangement of the park more directed.

3. Make design considerations

Pay attention to the following things:

- a. The position of the land to be planted: - where is the location (next to the house, in front of the house, on the patio, or on the balcony on the second floor, in the hallway and so on)? - The position of the yard or yard relative to the direction of sunlight.
- b. Soil condition: - is the yard or yard directly above the ground or on the pavement (e.g. on the 2nd floor)? - If it is directly in the soil, what is the condition of the soil (loose and fertile, hard, clayey, sandy)? - If the garden is done on a pavement, determine the container (pot, polybag, other container, or planter box), and the choice of media.
- c. Local climate (e.g. day and night temperature, direction of sunlight, distribution of rainfall during the year, and others).
- d. Functions, for example, meeting the additional needs of daily kitchens, and others.
- e. Recognize the physical nature of the land, such as the size and shape of the land, the source of irrigation water and drainage, and later the overall appearance of the desired garden.

Create a simple design. For example, a design is made for a site located on the 2nd floor, with the condition that the floor is completely covered by pavement.

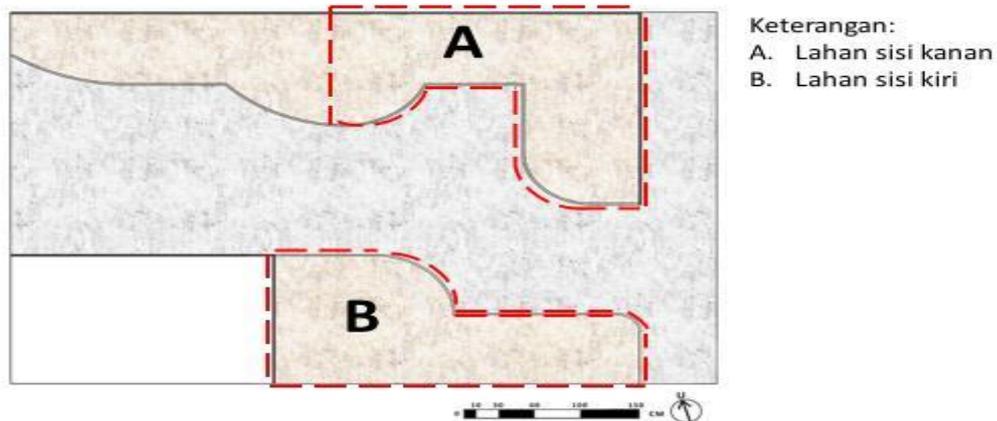


Figure 1. Pilot land plan

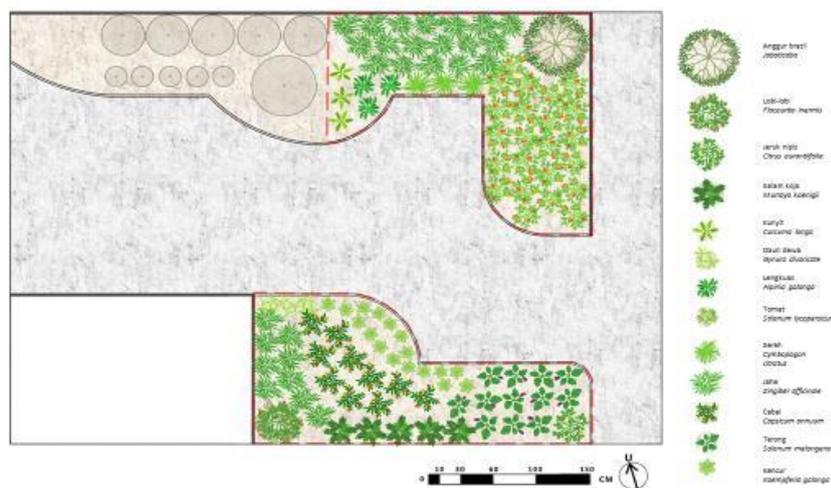


Figure 2. Simple design design

- f. Carrying out arrangements in the yard or yard on limited land, including the following works:
- 1) Cultivating the site, namely cleaning the predetermined site, making patterns on the land according to the design that has been made, filling the land with planting media so that it can be planted directly, or leaving the land to remain kosong so that it is easy to place and arrange pots or plant polybags.
 - 2) Preparing planting media and plants
 - 3) Starting work on the tread arrangement

Carrying out maintenance work includes morning and evening watering, fertilization according to plant needs, weeding, soil irrigation, and control of pests and plant diseases.



Picture. 3. Plant grouping

Some things that must be considered when doing the arrangement:

- 1) Large, tall and long-lived plants should be placed in the back.
- 2) Arrange plants in groups by type to facilitate the harvesting process.
- 3) Whenever possible, consider the color play of the plant, flowers, or fruits.
- 4) Short-lived plants should be placed in an easily accessible place.
- 5) Also consider the high speed of the plant. This means that when the plant grows larger, its figure covers the plant behind it.



Figure 4. Plant composition after styling

After the arrangement of the plants is completed, the next stage that cannot be ignored is the maintenance process. This maintenance is very important so that plants can grow and produce optimally. The simplest thing that must be done in the maintenance process is watering and fertilizing. If planting using soil media, watering must be done every day, it can be once or twice, depending on the daily temperature or plant needs. Meanwhile, fertilization must be carried out regularly, so that the plant's nutrient needs can be met. If planting uses a hydroponic or aquaponic system, then watering and fertilizing do not need to be done regularly, because the system used has been regulated so that plants get enough water and nutrients. Other maintenance activities are weeding and pruning which is intended to remove weeds and loosen the soil, then pest control and plant diseases so that plants are free from caterpillars and other pests and diseases that can reduce yield productivity. For fruit vegetable crops such as tomatoes, eggplants, and long beans,

it is usually necessary to do mulching. As for the cultivation of vegetables and kitchen spices, pruning is not required. The arrangement of yards or yards on limited land has several options for space-saving planting methods, for example by hydroponic planting or planting by vegetative arrangement. Skills are required to modify or compose planting containers, so that the use of space is really economical and efficient, as shown in the picture below.

a. Bercocok tanam secara Hidroponik



b. Bercocoktanam secara Vertikultur



Figure 5. Preparation of space-saving plants on limited land

As has also been done by Furoidah and Juhan (2018) in their PkM, it turns out that conducting skill training to provide basic skills in urban farming that can increase knowledge and skills that are very meaningful to arouse people's interest in planting on limited land, either by conventional means, namely planting plants in pots, polybags, or other containers filled with planting media (soil mixture, manure, and rice husks), as well as non-conventional methods that use planting media other than soil, so that they give the impression of being cleaner, relatively more economical to space needs, practical and efficient. The skills that have developed have made the community increasingly enjoy farming activities on limited land, and feel challenged to make new innovations that greatly help family resilience during the Covid 19 pandemic.

CONCLUSION

From the community service activities that have been completed, it can be concluded that:

- a. The main factor that supports the success of this activity is the response in the form of participation from the community of Babakan Rawahour Rt. 005/Rw. 005, joining the Extension Team through the "Zoom" application.
- b. Another supporting factor is the limited conditions during the Covid 19 pandemic, thus providing an opportunity for the Extension Team to offer a choice of activities that are beneficial to community members.
- c. The results of the assistance show the enthusiasm of residents in counseling activities, because they are in accordance with their needs.
- d. Explanations followed by visualization in the form of videos have a high level of effectiveness when compared only in the form of 2-dimensional images.

- e. It is necessary to carry out further counseling according to the interests of residents, namely planting vertically using used materials such as pralon, large bamboo, used bottles of bottled drinking water, and others.

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