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THE URBAN FARMING DEVELOPMENT STRATEGY IN COMMUNITY SETTLEMENTS AS AN EFFORT REALIZE FOOD SECURITY

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ABSTRACT

The majority of home yards are still underutilized as agricultural land for various crops. In addition to meeting the family's own needs, it also has the potential to increase household income sources and meet animal feed needs if well designed and planned. Yards have long been known and have multiple functions, namely producing food as an additional source of income. The development of community activities that require land as a container is increasing rapidly in line with population growth and economic development. UNPAB team will conduct socialization and training provided to the community are able to enhance their understanding of breeding, hydroponic, aquaponic, vertical gardening, and wall gardening methods. Practice and demonstration of the making of liquid organic fertilizer, eco-enzymes, and botanical pesticides can be applied by the community and will be used in the plant cultivation process.

Keywords: agricutural land, vertical gardening, liquid organic fertilizer.

1. INTRODUCTION

The majority of home yards are still not utilized as agricultural land for various crops, especially vegetables. In addition to meeting the family's own needs, it also has the potential to increase household income sources if well designed and planned. Yards have long been known and have multiple functions, namely producing food as an additional source of income. The development of community activities that require land as a container is increasing rapidly in line with population growth and economic development. As a result, there is competition for land utilization, especially in developed areas where agricultural supplies are relatively limited (Suratiya, 2013). The advantage of yards is that they can sustainably provide daily family needs. This is in line with Arifin's et al. (2010) statement that plants and livestock in yards contribute to family income.

One innovation that can be developed for vegetable cultivation in home garden yards is the utilization of these areas for plant cultivation using hydroponics, aquaponics, and wall gardening. These home garden yards can grow various types of plants that can produce edible yields for human consumption. In addition to being used for greening, the primary function of these plants is to produce yields. Cultivated plants should have high economic value, be short-lived or annual crops.

The aim of this program is to develop urban farming strategies in community yards as an effort to achieve food security. Urban agriculture has developed as a response to many issues

related to urban life. This has encouraged people with abilities and knowledge in agriculture to take advantage of opportunities by maximizing the potential of local resources to cultivate plants on limited and abandoned land. Some examples of urban farming applications that can be implemented in community yards include hydroponics, aquaponics, vertical gardening, and wall gardening.

II. LITERATURE REVIEW

In Indonesia, there are not many government programs related to the utilization of backyard land, including research on backyard farming. Studies on backyard farming were conducted mostly in the 1970s and 1980s, resulting in about 51 publications on the topic in Indonesia. The scarcity of research on backyard farming is thought to be due to its complexity, making it challenging to carry out. Meanwhile, the lack of backyard utilization programs is due to the government's prioritization of rice and food crops, resulting in more attention and support for paddy fields and dry land farming.

Gardening in urban areas has a positive contribution to the food security of the community, especially during crises. Comprehensive and effective efforts are needed to recover from the economic downturn caused by economic crises. Empowering communities is a new paradigm in community development that involves direct community participation in development activities, including planning, implementation, and evaluation. Community empowerment should be viewed as an effort to accelerate and expand poverty reduction efforts.

The sustainable utilization of backyard land means that backyard farming should not be a one-time effort or solely reminded by the village government, but rather conducted continuously. According to Pangerang (2013), sustainable efforts will bring benefits and convenience to the family itself. This is because the use of backyard land can support lifelong daily needs, as humans need food throughout their lives. The role and utilization of backyard land vary from one region to another, depending on the level of needs, social and cultural factors, community education, as well as the physical and ecological factors of the local area. In Indonesia, the role of backyard land has not yet received full attention. However, according to Rahayu et al. (2005), if managed properly, backyard farming can potentially increase household income. Therefore, the role of backyard land can indirectly affect household economies.

III. METHODOLOGY.

The research methodology used in conducting community service in Sei Semayang Village is as follows: Socialization Extension Method where the socialization is carried out through direct approach to the community (persuasive approach) in the form of meetings, discussions, Q&A sessions, and providing guidance on the community service activities that will be carried out. Socialization is an effort to get closer to the community and create a conducive environment for sharing information and developing a sense of familiarity. Socialization is important to get to know the character of each individual without looking at the caste of each individual, and the Practical Demonstration Method.

IV. RESULTS

4.1.Application of the Hydroponic method in cultivating plants in the yard

The application of hydroponic method in cultivating vegetables in home gardens can contribute to food security. The community is provided with an understanding of planting using hydroponic methods that will ultimately help in providing hygienic, healthy, and nutritious food while also supporting the local economy.

Figure 1. Hydroponic Rack

4.2. Application of the aquaponics method in cultivating plants in the yard.

Application of the aquaponic method in cultivating plants capable of realizing food security. The community is given an understanding regarding planting with the aquaponic method which will later assist in providing hygienic, healthy and nutritionally valuable food, helping the community's economy thereby reducing family expenses.

Figure 2. Aquaponic Rack

4.3. Application of the Verticulture and Wall Gardening methods in cultivating plants in the yard of the house

Application of the Verticulture and Wall Gardening methods in cultivating plants capable of realizing food security. The community is given an understanding regarding planting using the Verticulture and Wall Gardening methods which will later assist in providing food that is hygienic, healthy and of nutritional value, helping the community's economy thereby reducing family expenses

Figure 3. Practice Demonstration

Figure 4. with the team and the community

V. CONCLUSION

Based on the activities that have been carried out, it can be concluded that:

1. The socialization and training provided to the community were able to improve their understanding of seedling, hydroponic, aquaponic, vertical gardening, and wall gardening methods.
2. The practice and demonstration of making liquid organic fertilizer, eco-enzyme, and natural pesticide were able to be applied by the community and will be used for the process of cultivating plants.

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