



## Urban Farming Program For Women PKK Manang Village To Improve Family Food Security Value In The Era Of The Pandemi Transition Covid-19

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### Abstract

Food is indeed one of the mandatory things that must be fulfilled. However, the current condition of the population growth which continues to increase is not accompanied by an increase in agricultural land so that the available food stock may one day be insufficient. This makes a food problem which is closely related to food security. PKK mothers are people who think about food for their families so that they have a huge influence. The decline in the amount of land and reduced food stocks in the era of the Covid-19 pandemic because people flocked to buy large amounts of food stocks became a problem that was raised in this community service program. The aim of this program is to introduce urban farming methods that can be done in empty house areas to increase food access to increase the value of family food security. The method used in the community service program was the online extension method and then carried out the urban farming practice which was carried out by one of the PKK mothers in Manang Village. It is hoped that this example can become a role model for the people around him. The results of the community service program that have been carried out have improved the skills of PKK Manang Village women in cultivating plants in the area of their home yard that is still empty or not in use. The existence of planting crops that can be harvested can meet food needs so that from the dimension of accessibility to food security it can be fulfilled properly.

**Keywords:** Food, Urban Farming, Food Security

### I. Introduction

Urban development has resulted in the conversion of agricultural land to the non-agricultural sector. The existence of this has resulted in the agricultural sector under pressure and an impact on farmers who experience limitations in farming. Other things, such as the economy and the population, which gradually increases from year to year, is accompanied by an increase in demand for food needs. Therefore the city is required to be able to provide sufficient food for its residents. The problem of land or yards belonging to residents has not been utilized properly. Available land, both narrow and wide, should be used as a side effort / effort to boost the economic side of the community.

The current era of the Covid-19 pandemic has not ended so that all activities are limited and human activities are more often carried out at home. This has made all families flock

to buy large food stocks. With this, there is an increase in prices and scarcity of food. These problems will later have an impact on the value of food security at the household level.

One of the basic human needs is fulfilled from the food aspect. Food contains nutrients that are used to maintain survival<sup>1</sup>. Food also has a function as an effort to restore and repair damaged body tissue. The issue of food security is a basic problem and must be handled in a sustainable manner. The increase in population every year affects food security. This is also due to the food production capacity which is leveling off. This condition is due to intensive land use and has an impact on decreased land fertility. The urge to change the function of land to non-agricultural land is thought to have played a role in the food availability of the community<sup>2</sup>.

Food security is often associated with people who have sufficient food and in certain areas at least at the household level and are able to access sufficient food for all family members so that this can support healthy living and productive work<sup>3</sup>. Food security is built on the basis of human primary needs by providing benefits evenly based on independence and not contradicting itself, manifested in the provision of food availability that is safe, quality, nutritious and sufficient and affordable for people throughout Indonesia<sup>4</sup>. The problem of the undernourished community is the impact of unattainable household level food security. Factors that affect household food security include income level, education, production assets, number of family members and food prices<sup>5</sup>. Food security and availability are still important issues in Indonesia<sup>7</sup>.

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<sup>1</sup> W. A. Saputro, Fidayani, Y. 2020. "Faktor-Faktor Yang Mempengaruhi Ketahanan Pangan Rumah Tangga Petani Di Kabupaten Klaten," vol. 13, no. 2, pp. 115-123.

<sup>2</sup> Nurdiani, U., & Widjojoko, T. (2016). Faktor-Faktor Yang Mempengaruhi Kethanan Pangan Rumah Tangga Miskin di Wilayah Perkotaan Kabupaten Banyumas. *Agrin*, 20(2), 169-178.

<sup>3</sup> Kaplale, R. (2019). Aksesibilitas Pangan Rumah Tangga Di Desa Manuweri Kecamatan Babar Timur Kabupaten Maluku Barat Daya. *AGRILAN : Jurnal Agribisnis Kepulauan*. 7 (2). 197-209

<sup>4</sup> Husaini M. (2012). Karakteristik sosial ekonomi rumah tangga dan tingkat ketahanan pangan rumah tangga petani di Kabupaten Barito Kuala. *Agrides*. 4 (2).

<sup>5</sup> Sianipar J, Hartono S, Hutapea R. (2012) Analisis ketahanan pangan rumah tangga tani di Kabupaten Manokwari. *Sepa*. 2 (8) :51-182.

<sup>6</sup> Masrin, Paratmanitya, Y. Aprilia, V. (2014). Ketahanan Pangan Rumah Tangga Berhubungan Dengan Stunting Pada Anak Usia 6-23 Bulan. *Jurnal Gizi Dan Dietetik Indonesia*. 2 (3). 103-115.

<sup>7</sup> W. A. Saputro, Fidayani, Y. 2020. "Ketahanan Pangan Rumah Tangga Petani di Kabupaten Klaten," vol. 5, no. 2, pp. 87-93.

The women of the PKK in Manang Village are the right partners to give the importance of agriculture such as counseling and socialization regarding urban farming. PKK mothers who tend to be housewives can take advantage and optimize their time by cultivating the yard so that women manage household consumption more easily. The solution regarding the education model for the use of yards by means of urban farming is the right step both in terms of obtaining side income and ensuring family food security. According to his understanding, urban farming is an effort in the agricultural sector in urban areas by using empty land for agricultural cultivation, livestock and fisheries. Urban farming provides benefits such as providing food for urban residents and increasing family income in urban areas. The community service that is carried out aims to increase the knowledge, insight and skills of PKK mothers, especially in Manang Village so that they are able to plant or cultivate crops, especially food crops. This is to support household food security in facing the Covid-19 transition era where food shortages and unstable rising food prices often occur.

## II. Method

The method referred to in this community service program aims to address existing problems encountered in Manang Village, especially those experienced by PKK Manang Village women during the Covid-19 pandemic like this. The stages carried out in this community service start from the preparatory stage by coordinating the lecturers and coordinators of PKK in Manang Village. The coordination in question is the coordination when it is implemented and what system is appropriate when this community service program is carried out. The second stage was socialization to PKK women in Manang Village by compiling a community service planning and systematic by of course prioritizing the implemented health protocol. The third stage is providing urban farming training materials and knowledge of food security at the family level. The provision of material is done online so that it does not collect face-to-face. The purpose of this is to minimize the transmission of covid-19. PKK Manang Village mothers participate online from their homes and are assisted by children who are more knowledgeable about gadgets. The knowledge given is about how to grow plants that are easy, cheap and can be harvested quickly in unplanted areas of houses or areas of houses that are still empty. With this education, PKK Manang Village women will not have to worry about food

stocks because they can harvest from their home yard area. The existence of sufficient food accessibility will certainly bring a good level of food security at the family level. This counseling is delivered in the form of lectures and questions and answers to participants. The next stage is the implementation stage of the urban farming program. However, this training was only conducted in one of the PKK houses in Manang Village. The hope is that this one example can be used as a role model for other mothers who want to plant plants in their yards. The tools and materials needed in the urban farming program are seeds, polybags, planting media and water. The planting medium contains soil, manure and husk charcoal in a ratio of 1: 1: 1. The poly bag is filled 2/3 with the planting medium then the seeds are transferred to the poly bag then watering them. If you have polybags arranged in an empty part of the house, of course, with sufficient sunlight. The last stage is the monitoring and evaluation stage. This aims to ensure that ongoing community service programs can run continuously and do not stop there.

### III. Main Heading of the Analysis or Results

The growth in the number of people in urban areas is counted very fast and rapid so that this will have a special impact on the environment. This also triggers the conversion of more agricultural land which is used as residential land. The side effect of this is the degradation of environmental quality which is decreasing as well as an increase in the volume of waste and pollution. Urban farming is considered to be a solution in dealing with this so that the current economic crisis where the Covid-19 pandemic has caused several countries to experience economic recession which has an impact on other sectors such as limited food availability. People who have minimal income in urban areas will find it difficult to get through this so that urban farming is an alternative in dealing with this<sup>8</sup>. Urban farming basically not only addresses food problems but overcomes other things in an integrates manner by maximizing access, quantity and quality of food for city people who have low incomes<sup>9</sup>.

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<sup>8</sup> Fauzi, A.R., A.N. Ichniarsyah dan H. Agustin. 2016. Pertanian Perkotaan: Urgensi, Peranan, dan Praktik Terbaik. *Pertanian Perkotaan: Urgensi, Peranan, dan Praktik Terbaik Jurnal Agroteknologi*, 10 (1).

<sup>9</sup> Koscica, M. 2014. The Role of Urban Agriculture in Addressing Food Insecurity in Developing Cities. *Journal of International Affairs*. 67 (2), p 177-186.

In general, people only cultivate ornamental plants in their yards so that it only adds to the aesthetics<sup>10</sup>. But basically the urban farming program that will be given to this community service is to educate the women of PKK in Manang Village to try to practice growing food crop cultivation that is possible in their home yards or narrow land. Urban farming cultivation practice is a cultivation practice from the process, distribution to harvest<sup>11</sup>. Lots of cities have implemented this because of narrow urban land and high food needs and dense population<sup>12</sup>. It is also hoped that this can be implemented by PKK women in Manang Village, Grogol District, Sukoharjo Regency.

Yard land is a sleeping area that can be used for agricultural activities. The land can be managed intensively and even to add value to food security and family income of city residents. The existing yards in the city must be adapted to appropriate cultivation methods such as verticulture, which is a multi-level farming technique according to applications in urban housing areas which tend to be narrow. The vertical planting structure makes it easy to care for and maintain the plants in it. Urban farming is part of this which supports urban greening and overcomes the agricultural land crisis. Plants that can be cultivated using the urban farming method are food plants in the form of vegetables such as kale, caisim, chilies, eggplant, lettuce, spinach, mustard greens and many others.

National food security is a serious problem that must be resolved together. The community should not fully depend on this problem to the government but must be followed by the participation and active participation of the community starting from the smallest line of forming the community, namely the household / family. Significant strengthening of family resilience will be able to address food security in general. Empowerment of local food potential can be utilized from the availability of yards. The yard is not only for creating beauty and coolness, but more than that is for improving the

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<sup>10</sup> Wachdijono, Wahyuni, S. Trianingsih, U. 2019. Sosialisasi Urban Farming Melalui Budidaya Tanaman Sayuran Secara Vertikultur dan Hidroponik di Kelurahan Kalijaga, Kecamatan Harjamukti, Kota Cirebon. *Jurnal Qardhul Hasan; Media Pengabdian kepada Masyarakat*. 5 (2). 90-94.

<sup>11</sup> Bailkey, M., and Nasr, J. 2000. From Brownfields to Greenfields: Producing Food in North American Cities. *Community Food Security*. News Fall: America

<sup>12</sup> Aslichati, L. Silawati, T. Hartati, A. Priono, M. 2019. Pengembangan Urban Farming di RW 07 Bukit Indah Tangerang Selatan. *Prosiding Seminar Nasional Pengabdian Kepada Masyarakat Universitas Terbuka*. 245-250.

economy of each family. Urban farming can also be used as an alternative to strengthen access to household food in urban areas, thereby increasing the value of food security at the family level.

The solution to the conversion of agricultural land which tends to increase every year can be done with urban farming. That way the household will be helped and can facilitate family members who like planting. The steps taken to realize urban farming are actually a lot like the use of empty areas in the yard of the house. This community service program directed PKK DEsa Manang mothers to have skills in cultivating plants that are easy and useful for household food intake. Even more so in conditions of the Covid-19 pandemic like this, where there is a scarcity of foodstuffs because everyone buys excess food for food stocks in their homes. To make matters worse, this condition is also because many markets have closed due to local government policies to reduce the spread of covid-19. Based on this situation, PKK Manang Village women are required to be able to cultivate their own food plants at home without depending on the food stock available in the market. Of course, this begins with planting simple plants such as chilies, eggplant, and other plants that are easy to cultivate. This has been done by PKK Manang Village women who were given online extension material with google meets by a speaker from a lecturer at the University of Duta Bangsa Surakarta, Agribusiness study program, Faculty of Science and Technology.

Online media was used because it was not allowed to meet face to face, invite and gather people because the Covid-19 pandemic had not been resolved so the team decided to provide material online. The material shared is of course related to urban farming and its practical methods. The next step from urban farming is to implement a practice in one of the participants' houses. The house of one of the PKK mothers is used as a role model so that it is hoped that this good habit can pass on to the surrounding community. The selected plants are plants with easy and useful cultivation so that they are sufficient to access food and improve the value of the family's food security level. The hope is that when the household food supply can be fulfilled from the results of their own planting, it can be sold to increase household economic income.

Urban farming material also explains how plant cultivation is carried out by verticulture with farming techniques in narrow areas. The facilities used are very easy and can be maintained by users for a long time. The plants used are short-lived, annual

and have a high selling value<sup>13</sup>. This is of course without neglecting the supporting factors such as watering and fertilization so that when the plants are picked they stay fresh. Monitoring and evaluation are still carried out so that the service program provided can continue. If it is assumed that the average expenditure for buying in one family is around Rp. 100,000 to Rp. 200,000 each week. With the existence of urban farming, the crops can replace these expenses and it is possible that if the abundant crops can be sold to become additional family income. Therefore, the saved budget items can be used for other household needs that are more useful<sup>14</sup>. Under these conditions, the application of urban farming as a trigger for household scale vegetable cultivation, both vertically and horizontally, has in essence played a role in increasing the welfare of households. In addition, meeting food needs in terms of access will also increase the food security of farm households. This can also be seen from the energy intake consumed by PKK Manang Village women, which may be fulfilled from their own crops with the urban farming program.

#### IV. Conclusion

Community service programs are indeed important for community empowerment, especially for PKK women in Manang Village. This is important because of the increased knowledge and insight regarding urban farming and family food security. The existence of a community service program that has been carried out improves the skills of PKK Manang Village women in cultivating plants in the area of their home yard that is still empty or not in use. The existence of planting crops that can be harvested can meet food needs so that from the dimension of accessibility to food security it can be fulfilled properly. However, there is still a need for monitoring, evaluation and follow-up on community service programs.

#### V. Acknowledgments

The author would like to thank LPPM, Universitas Duta Bangsa Surakarta. This is because the LPPM UDB Surakarta has provided opportunities and grants for internal service funds and has given permission to the author to carry out the obligations of one

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<sup>13</sup> Ariati, Putu Eka Pasmidi. (2017). "Produksi Beberapa Tanaman Sayuran Dengan Sistem Vertikultur Di Lahan Pekarangan." *Agrimeta* 7 (19): 76–86.

<sup>14</sup> Gilarso, T. (2007). *Pengantar ilmu ekonomi mikro edisi revisi*: Kanisius. Yogyakarta.

of the Tri Dharma Perguruan Tinggi, namely community service. Thanks are also given to the women of the PKK in Manang Village who have been willing to give their time to participate in community service programs regarding urban farming and food security.

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