



# Family Food Security Through Yard Land Utilization Training in Bambanglipuro, Yogyakarta

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**Abstract.** Food security is one of the determinants of the quality of life of human resources. Where indicators of food security are very vulnerable to poverty, malnutrition, security, and the national political situation. The assessment method used in analyzing the need for food security in Samen Hamlet uses SWOT & Knowles analysis to see the extent of the need for natural resources and planning steps in agricultural training activities. One of the efforts that can be done is to utilize the potential of land resources (yards) around the house through training on the Utilization of Yards for Family Food Security in Yogyakarta. The results of the training were attended by 25 participants from the Menur PKK group where the enthusiasm for the participation of PKK mothers was very large, and they hoped that similar activities could be carried out routinely both from students and local governments so that no more yards were not utilized and improved.

**Keywords:** food security · yard · training

## 1 Introduction

Food is the essential need that determines the quality of the nation's human resources (HR) and the socio-political stability of a country, in a country with a share. With a large population, there is always a potential problem of food shortages. The share of food expenditure is used as an indicator of food security. The larger the share of food expenditure means food security is also more vulnerable [1]. A food security vulnerability that occurs at the level of a region or household, or individual is caused by the unequal distribution of available natural resources [2]. Historical experience shows that resilience is closely related to social security, economic stability, political stability, and national security or resilience [3]. Furthermore, food security in terms of food affordability is also closely related to efforts to improve the quality of human resources. Without the support of sufficient and quality food availability, it is difficult to produce quality human resources. Therefore, a strong national food security system is an absolute requirement for successful development. As for the impact of food vulnerability due to the increasing population, but as the knowledge of community groups increases, they can find a solution to the constraints on the use of agricultural land [4].

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The current utilization of vacant land in Samen Hamlet, Sumbermulyo Village has not been maximized in terms of land use for agricultural activities, either for farming or meeting other basic needs, such as in the yards of people's homes, there are still many neglected vacant lands. Samen Hamlet is one of the hamlets located in Sumbermulyo Village, Bambanglipuro District. Samen Hamlet consists of 6 RTs, namely RT 01–03 in Samen Village and RT 04–06 in Dodotan Village. The population of Dusun Samen is approximately 900 people consisting of 340 families. Livelihoods of the people of Samen Most of them work as agricultural laborers (working on other people's fields), construction workers, and some have businesses (selling porridge, ready-to-eat food, are-are, producers of tempeh, fresh fish, and grocery stores), teachers, factory workers cigarettes, underwear factory workers, health workers, the TNI and the police, such as in Samen Hamlet, the village community empowerment process is quite good, judging from the programs that have been carried out so far in terms of savings and loans, savings and social gathering, of course, with the empowerment that has occurred in the samen hamlet. This really shows an effort to develop community independence and welfare by increasing knowledge, attitudes, skills, behavior, abilities, awareness, and utilizing resources through the establishment of policies, programs, activities, and assistance in accordance with the essence of the problem and priority needs of the village community.

Based on the identification findings above, it can be concluded that the activities that were hampered were due to the very impactful Covid-19 pandemic. Then, there are programs that have been running in collaboration with South Koreans but did not run because of the lack of further assistance and the unavailability of funding allocations due to the fact that the cooperation was not completed until the end of the MOU because at that time there was a conflict in Korea, so they had to return to their country.. There is still a lack of knowledge and skills of the local community, especially the group of PKK women in cultivating land and lemongrass plants. So that problems related to the use of yard land for food security need to be held training on farming that is able to add insight by planting effectively and efficiently and being able to take advantage of existing land yards.

With the various problems mentioned above, serious efforts are needed in anticipating food insecurity and achieving the ideal PPH. One of the efforts that can be taken is to utilize the potential of land resources (yards) around the house through training on Yard Land Utilization for Family Food Security. Based on the results of a study by the Agency for Agricultural Research and Development, as reported [5], it was stated that farmers' attention to the use of their home gardens is still limited. As a result, the development of various innovations related to yard land has not reached the expected target. At the same time, the use of yard land for medicinal plants, food crops, horticulture, livestock, fish, and others has the potential to meet family needs. In addition, the use of the yard also has the opportunity to increase household income if it is designed and planned properly.

## 2 Method

The application of the method used is the theory of Adult Education. To understand the concepts of theory and principles of adult education (andragogy) fundamentally, this section will describe in detail several definitions of andragogy from various experts:

According to the term, andragogy means the study of how parents learn [6]. This definition is in line with what is stated that andragogy can be interpreted as the science of how to guide adults in the learning process. Or often interpreted as the art and science of helping adults learn (the art and science of helping an adult learn) [7].

The procedures that need to be taken by educators as [8] are as follows:

1. They are creating a conducive atmosphere for learning through collaboration in planning learning programs. Before starting the training on farming, we have been able to analyze suitable learning places for collaboration, namely there are youth groups and PKK women. In terms of farming training, PKK mothers are carried out according to their needs, namely having an ideal garden area for utilizing farming. By having strengths, they are namely having strong social capital (social bonding, social bridging, social linking), having fertile land/agricultural land, having a creative community (high participation rate), having leaders who are able to embrace all circles of society supported by the location of the area. Which is strategic and close to tourist areas, has solid village apparatus, has a high enthusiasm for learning, has high curiosity.
2. Finding learning needs, needs that have been analyzed according to demand, the samen village residents, especially PKK women, support the holding of a training program on farming by providing existing seeds. Having existing land and then this program has been carried out but has not been maximized due to pandemic constraints, then this training is held.
3. Formulating suitable objectives and materials to meet learning needs, in formulating suitable objectives and materials to be applied, must be in accordance with existing needs. With the analysis that has been done, the training carried out is farming training with resource persons who are experts in their fields. In this training, the aim of this training is for the residents of Samen village, especially PKK women, to understand how to cultivate crops properly, with practice also being carried out after the presentation of the material is carried out.
4. Designing learning patterns in a number of learning experiences for students in the learning pattern that is carried out is a comfortable learning pattern, of course, not only material but also simulations applied by resource persons. The learning community is also involved in the discussion when the question and answer session is set.
5. Carry out learning activities using appropriate learning methods, techniques, and means in this farming training using lecture methods, question and answer, and field practice. According to opinion [9], the notion of the lecture method is a way of teaching by presenting information orally to students or students. This method can be said to be an economical and effective method in dealing with scarce literature or references. Next is the question and answer method; according to Drs. Roestiyah N.K, Question and answer method is a way of teaching in which teachers and students are active together, the teacher asks students to give answers, students express their opinions on new ideas, and with this the teacher aims, in this training the question and answer method has been applied. Some learning residents are very enthusiastic in asking questions because this method is the reciprocity between the presenters/resource persons and learning residents. The last is the field peak, where

the field practice is carried out from how to put soil and fertilizer into the plant polybag and then the treatment method explained by the resource person.

6. They were assessing learning activities and re-diagnosing learning needs for further learning activities. The core of andragogy theory is the technology of students' self-involvement (ego), meaning that the key to success in the learning process of students lies in their involvement in the learning process. Farming activities have been carried out well. From some opinions, the residents who learned about this training really enjoyed the process from the beginning to the end of the event; the learning residents were also very enthusiastic in their activities, exchanged ideas, and then directly asked the relevant resource persons.

### 3 Research Result

The training activity on the use of yard land for family food security in Dusun Samen, Kecamatan Bambanglipuro, Kabupaten Bantul began with survey activities using the SWOT analysis method to determine Needs Assessment (needs analysis) [10]. Based on the results of a survey conducted by the author, the following conclusions can be drawn (Table 1):

Based on the SWOT analysis above and the recommendations from the PKK Menur women's group, the activities needed are Women's Empowerment through Farming for PKK Women in Dusun Samen, Desa Sumbermulyo, Kecamatan Bambanglipuro, Kabupaten Bantul. The training activity was attended by 25 PKK Menur women consisting of administrators and members by implementing the Covid-19 health protocol. During the activity, the training participants were very enthusiastic about listening to the material presented by Mr. Sarjono as a resource person from the Bantul Agriculture Office, the TP HABUN Division, and accompanied by Mrs. Ratna, the Chair of the PKK Menur. The material presented during the training is presented in Table 2.

In the first material presented about yard land and its use, training participants for PKK Menur women were given understanding and information on how to cultivate a good yard so that the yard looks well organized and adds to the aesthetics of the beauty of the residence and what plants are suitable for planting in the yard. Where the use of information media in conveying the material is presented in the form of PowerPoint as a means of information media that can be easily understood. The presentation of the information presented is not only in the form of words but the creation of the display that is displayed.

Furthermore, the PKK Menur women, after presenting the material, the resource persons directed discussions with the training participants; this was done so that the resource persons knew how much interest and participation of the training participants were in participating in the activities. So that later the resource persons can be directed to convey the problems faced by PKK Menur women related to the training materials delivered.

After the discussion activities were carried out by the resource persons with the training participants of PKK Menur women, the next material was an introduction to the pattern of planting in the yard and the potential for the development of the yard, in this case, it was explained that the agricultural pattern is very important, namely not

**Table 1.** SWOT ANALYSIS OF WOMEN EMPOWERMENT OF PKK WOMEN IN SAMEN HAMLET, BAMBANGLIPURO VILLAGE

<i>Strengths</i>	<i>Weaknesses</i>
<ol style="list-style-type: none"> <li>1. Have strong social capital (social bonding, social bridging, social linking)</li> <li>2. Have fertile land/agricultural land</li> <li>3. Have a creative community (high participation rate)</li> <li>4. Having a leader who is able to embrace all circles of society</li> </ol>	<ol style="list-style-type: none"> <li>1. She is having leaders who are able to embrace all circles of society—the lack of innovation in developing PKK women in terms of farming.</li> <li>2. We have the limited initial capital to carry out farming activities.</li> <li>3. The lack of use of vacant land around the community.</li> </ol>
<i>Opportunities</i>	<i>Threats</i>
<ol style="list-style-type: none"> <li>1. The strategic location of the area and close to tourist areas.</li> <li>2. Solid community and village apparatus support.</li> <li>3. Have a high enthusiasm for learning</li> <li>4. Have a high curiosity</li> </ol>	<ol style="list-style-type: none"> <li>1. The fading of social capital if the community does not maintain it properly, such as providing understanding to their children.</li> <li>2. Agricultural land is sold and controlled by the private sector.</li> <li>3. The Covid-19 pandemic that hit prevented the meeting between PKK mothers. It is not known when the Covid-19 pandemic will end.</li> </ol>
<i>Strategy</i>	
<ol style="list-style-type: none"> <li>1. Hold a discussion on the importance of social capital in the community of PKK mothers.</li> <li>2. We are expanding the network in terms of the number of members of PKK women.</li> <li>3. I am holding farming activities with PKK women.</li> <li>4. Monitoring is carried out by the head of the hamlet on the sustainability of the community activities of PKK women.</li> <li>5. During regular meetings of PKK women, discussions related to work programs are carried out effectively and efficiently</li> </ol>	

disturbing the rays of the sun entering the house and considering safety and aesthetic aspects so that it does not interfere with daily activities. This can be seen as follows:

- Plants for the side of the house, preferably vegetables, medicines, and spices, by avoiding plants with tall trees, let alone large trees. Plants with large trees will have large roots so that they can damage the foundation of the house, in addition to the yard being very humid.

**Table 2.** TRAINING MATERIALS

No	Training materials
1	Introduction to yard land and yard use
2	Question and answer discussion related to the yard
3	An introduction to the pattern of planting in the yard and its potential yard development
4	Provide examples of plant commodities that are suitable to be developed in the yard
5	Field Practice

- Plants behind the house can be cultivated types of plants whose trees are rather tall but not so big, and choose those that can provide continuous results and can also be ornamental plants that have relatively high or expensive prices.
- Fence plants, intended as yard plants, should be used as live fences that grow fast, have many branches, are strong and dense, resistant to pruning, and have many benefits, for example, beluntas which can be used for medicine and vegetables, pouring plants, kedondong, star fruit, and others. Etc.

Activities by planting various types of vegetable crops will ensure the continuous availability of diverse foodstuffs in order to fulfill family nutrition. In addition to providing healthy nutrition for the family, a business in the yard, if managed intensively in accordance with the potential of the yard, can also contribute to income for the family. From the results of the study, in general, the yard of the house can contribute to family income between 7–45%, other benefits that can be obtained are a source of oxygen, a source of aesthetics (beauty), and a vehicle for activities for mothers/women. In addition, the potential in terms of plant development in the yard must look at several aspects, including the superior commodities of an area, the existence of market opportunities, and the use-value of the plants developed.

In the last material, related to field practice, all participants from the Menur PKK group were presented and accompanied by direct resource persons. In this field practice activity, the commodity crops developed are eggplant, chili, and tomato. PKK Menur women are very supportive of this activity if it is held on an ongoing basis both by students and local governments at the village and provincial levels in order to increase food security for low-income mothers or households.

## 4 Conclusion

From the PKM activities that have been carried out, namely training on the use of yard land for family food security in Samen Hamlet, Sumbermulyo Village, Bantul Regency, it can be concluded that in planning a training activity, a SWOT & Knowless analysis is needed to find out how big the need and planning steps are. In training activities required by the local community. This was marked by the increased participation of PKK Menur women in participating in both theoretical and practical training conducted by the resource persons.

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