

Factor Analysis and Level of Effectiveness of Implementation of the Sustainable Food Garden Program (P2I) In Musi Banyuasin Regency

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Abstract: Nutritional adequacy also needs to be considered by both the community itself and the government in order to avoid stunting. Faced with unfavourable risks, the government has provided a solution in the form of a sustainable food garden program intended for women with middle to lower income. This study aims to determine the level of effectiveness of the programme implementation, the factors that influence the level of effectiveness of the programme, the level of welfare of the Women Farmers Group, and the average amount of reduction in household consumption costs per month. The research was conducted in Musi Banyuasin Regency using a questionnaire. The results showed: 1) the level of effectiveness of the sustainable food home area programme measured from four indicators, namely target accuracy, programme coverage, programme assistance, and achievement of programme objectives is very effective; 2) factors affecting the level of effectiveness are age, education, number of extension services attended, farming experience, number of family members, and land area, while employment status has no effect; 3) there are differences in welfare levels before and after receiving funding assistance for the implementation of the Sustainable Food Home Area programme; 4) the expenditure of farmer women groups after the sustainable food home area programme has decreased on average per member per month, including: KWT Mekar Bersemi 41.8%, KWT Chilli Merah 35.8%, and KWT Kencana Makmur 30.5%.

Keywords: Analysis; Effectiveness; Sustainable Food Garden Program.

Introduction

Indonesia is known as an agricultural country that is rich in the availability of various kinds of food and spices. This is due to the very favorable climatic conditions and geographical location (Statista, 2023). It's all in Indonesia, fertile land for agriculture and plantations. Generally, the contents of gardens in Indonesia are fruit plants, vegetable plants, ornamental plants, cooking spice plants, medicinal plants, spice-producing plants which are called horticultural plants which can be grown and cultivated in Indonesia (Samosir et al., 2017). Indonesia's natural conditions, which are blessed with fertile land, should be grateful for by maximizing its use. While other countries have difficulty with land for planting, the land available is abundant and fertile. There is actually quite a lot of land that can be used to increase the productivity of the agricultural sector (Nadzirah, 2020). However, quite a few have not been used optimally, seen from the large

number of empty lands that are not utilized (Prayitno, 2017).

Food is the most essential need that can determine the quality of human resources (so they can live a healthy, active and productive life), and determines the social, economic, political and security stability of a country. Food availability can be met primarily from domestic production, but if it is estimated that the need will not be met then it can be imported from abroad or outside the region and can also use existing food reserves (Njatrijani, 2021).

In the last 20 years the Indonesian economy experienced negative growth or contracted by (-2.07%). In September 2020, the poor population was also recorded to have increased by 1.14 million people. BPS also noted that around 7.82% of poor households were led by women as heads of household (Badan Pusat Statistik, 2020). The poverty rate in Musi Banyuasin Regency based on data from the Central Statistics Agency in 2021 is 15.84% higher than the average

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poverty rate in South Sumatra of 12.84%. This is one of the reasons the Musi Banyuasin Regency government is very serious about handling poverty by carrying out various community empowerment programs so that the existing poverty level can be reduced (BPS Indonesia, 2021).

Our household yard is a natural potential that we have and we should utilize it as optimally as possible, especially to meet the family's nutritional needs. Indonesia's yard area is around 10.3 million hectares. This figure is wider than our standard rice fields which are "only" 7.46 million hectares (Mulyati et al., 2019). One way to meet the family's insufficient food consumption can be done by utilizing the existing yard around the household by planting various vegetables and raising poultry. As a form of responsibility, the central government has created a program for the community with the Sustainable Food Garden (P2L) activity, which was previously known as the Sustainable Food Home Area (KRPL).

Sustainable Food Garden are one of the efforts to strengthen food security which includes three aspects, namely strengthening food availability, food accessibility and strengthening food utilization (Sukmawani et al., 2022). "So we encourage people to use yards as a source of diverse, nutritionally balanced and safe food (B2SA) so as to support efforts to reduce stunting rates, which really depend on strengthening food cultivation. The Sustainable Food Garden activity is an activity to empower community groups to cultivate various types of plants through seed gardens, demonstration plots, planting, and post-harvest and marketing activities. Sustainable Food Yard activities can be carried out on idle land and/or unproductive vacant land, and/or land around houses/residential buildings/public facilities, as well as other environments. Sustainable Food Yard activities in 2020 were carried out through the Growth Stage, Development Stage and Development Stage (Vebronia et al., 2022).

Apart from that, the Sustainable Food Yard activities are also provided to the beneficiaries of the Women Farmers Group (KWT) who are registered in SIMLUHTAN (Agricultural Extension Management Information System) for cultivating vegetable plants through nursery activities, demonstration plot development, planting and post-harvest handling. Apart from that, the aid funds are also used to raise free-range chickens which are kept by each member of the women's farming group as a source of animal protein (Negara et al., 2023).

The plants chosen to be planted in the yard are plants that contain lots of vitamins, protein and minerals, are short-lived, easy to grow and easy to maintain. For fruit, choose plants that produce quickly

and have the potential for high yields, so that there is enough to meet the family's consumption needs, sold to increase income. The physical characteristics of plants need to be paid attention to because some plants are tall and some are low, their roots also need to be paid attention to, this is useful for controlling sunlight, humidity and beauty (Amalia khusna, 2022).

Home gardens can contribute 7 to 45 percent of a farmer's income. Home gardens or the concept of farming in the yard has tremendous potential to be developed (Galhena et al., 2013). Farming in the yard is currently not only limited to a healthy modern lifestyle or environmental awareness (green living), but is also related to people's food security (Ningsih & Sustiyana, 2022).

The Regional Government of Musi Banyuasin Regency, as an extension of the central government, has also carried out its obligation to realize the availability, affordability and fulfillment of adequate, safe, high quality and nutritionally balanced food consumption at the household level by providing assistance to 133 groups of women farmers through the Food Yard activity. Lestari from 2019 until now uses Regency APBD funds. The implementation of the Sustainable Food Farm Program aims to increase the availability, accessibility and utilization of household food, increasing household income through market-oriented food provision.

The targets of assistance are people affected by stunting, poor people who use their household yards. The amount of assistance received by the women farmer group came from funds from the Regional Government of Musi Banyuasin Regency through the Food Security Service, namely the growth stage amounting to Rp. 48,750,000.00 development stage amounting to Rp. 15,000,000.00 and the coaching stage is IDR. 15,000,000,- which is given for 3 consecutive years, namely at the growth stage in 2022, development stage in 2023, and development stage in 2024, so that the total amount of funds given is IDR. 78,750,000.00. The implementation of the Sustainable Food Yard Program carried out by the Regional Government of Musi Banyuasin Regency aims to overcome the impact of the Covid 19 pandemic, reduce stunting and poverty rates, as well as National Economic Recovery (PEN). Efforts to achieve these activities are carried out through approaches to sustainable agricultural development, utilization of local resources (local wisdom), community empowerment (community engagement) and market orientation (go to market)

Formulation of the problem by identifying the problems of the sustainable food yard program above, it is necessary to analyze: 1) What is the level of effectiveness of the implementation of the Sustainable Food Yard program in Musi Banyuasin Regency? 2)

What factors influence the level of effectiveness of the Sustainable Food Garden program in Musi Banyuasin Regency?

Based on the problem formulation above, the objectives of this research are: 1) Analyze the level of effectiveness of implementing the Sustainable Food Yard program in Musi Banyuasin Regency; 2) Analyze the factors that influence the level of effectiveness of the Sustainable Food Garden Program in Musi Banyuasin Regency.

Method

The research methods used in this research are qualitative and quantitative methods. A qualitative approach is used because it is able to see phenomena more broadly and in depth according to what is happening and developing in the social situation being studied (Aspers & Corte, 2019). Qualitative research believes that truth is dynamic and can be discovered only through examining people through their interaction with their social situations. The researcher considers using a qualitative approach, because the researcher intends to research in depth, present data accurately and describe actual conditions clearly (Fadli, 2021).

Qualitative research methodology is a research procedure that produces data in the form of words, written or spoken from the people being observed. Quantitative methods are used to determine the level of effectiveness, factors that influence effectiveness, differences in levels of welfare and the average amount of reduction in expenditure costs (Sugiyono, 2018).

This research was conducted on the Women Farmers Group who have been beneficiaries of the 2022 growth phase of the Sustainable Food Yard Program in Musi Banyuasin Regency, consisting of several sub-districts, namely Sungai Lilin, Plakat Tinggi and Keluang. The location selection was carried out purposively in Musi Banyuasin Regency because the implementation of sustainable food yards was carried out using Regency APBD funds. The data taken is data before and after the activity program carried out in 2022, namely 2021 and 2023.

The types of data collected in this research are primary and secondary data. Primary data is obtained from a). direct observation of the Women Farmers Group Before and After the Sustainable Food Yard program, b). Obtained through distributing questionnaires directly to three members of a women's farmer group with a total of 68 members in Musi Banyuasin Regency. Secondary data was obtained from literature sourced from various journals and other sources. The research methods used in this research are

qualitative and quantitative methods. A qualitative approach is used because it is able to see phenomena more broadly and in depth according to what is happening and developing in the social situation being studied. Qualitative research believes that truth is dynamic and can be discovered only through examining people through their interaction with their social situations. The researcher considers using a qualitative approach, because the researcher intends to research in depth, present data accurately and describe actual conditions clearly.

Data collection was carried out by distributing questionnaires to respondents directly through three groups of women farmers in Musi Banyuasin Regency with a total of 68 members. The distribution was given to women farming groups from three sub-districts, namely the Mekar Bersemi farming women's group, Mekar Jaya Village, Keluang District, the Kencana Makmur farming women's group, Bumi Kencana Village, Sungai Lilin District, and the Red Chili farming women's group, Bukit Indah Village, Plakat Tinggi District. Answers or responses from respondents will result in a conclusion regarding the level of effectiveness, factors that influence the level of effectiveness of the sustainable food yard program in Musi Banyuasin Regency, the level of welfare of women farming groups before and after the sustainable food yard program, and the average expenditure of women's groups farming per member per month.

Data obtained from respondents' answers will be tabulated to identify an answer or response, to make it easier for researchers to carry out statistical tests. Data that has been converted into tabulation will be tested statistically such as multiple linear regression tests, hypothesis tests, difference tests, and GSR. Testing was carried out with two applications, namely SPSS version 25 and Microsoft Excel. The next stage is descriptive data analysis, making it easier to draw conclusions.

Result and Discussion

Based on the results of distributing questionnaires conducted by researchers to 68 members of women's farmer groups from 3 groups of women's farmers to answer problem formulation number 1, while to answer problem formulation number 2 the researcher used all data from members of the women's farmer group, totaling 68 members. The results of distributing the questionnaire obtained are as follows:

Level of effectiveness in implementing the Sustainable Food Yard program

The level of effectiveness in this research aims to determine how effective the sustainable food yard program is in Musi Banyuasin Regency as measured by

4 indicators, namely accuracy of program targets, program outreach, program assistance and achievement of program objectives. The explanation of these indicators is as follows:

a. Accuracy of program targets

The aspect of program target accuracy is used to assess the effectiveness of the program from the aspect of target accuracy in accordance with the technical instructions for implementing the sustainable food yard program. The targets of the sustainable food yard program are: a). The sustainable food yard program is implemented to meet the availability, accessibility and utilization of food for households; b). Sustainable food yard program to increase household economic income through market-oriented food provision; and c). The sustainable food yard program is provided to low-income housewives. The results of the assessment of the effectiveness of the sustainable food yard program from the aspect of program target accuracy are shown in Table 1.

Table 1. Effectiveness of the P2L Program from the Aspect of Target Accuracy

Questions	Accuracy Program (%)		Information
	Yes	No	
The P2L program is implemented to meet food availability at the household level	100	0	Very Effective
The P2L program aims to improve family nutrition	100	0	Very Effective
P2L program to improve the family economy	98.5	1.5	Very Effective
The P2L program is given to low-income housewives	100	0	Very Effective

Table 1 shows that the effectiveness of the sustainable food yard program in women farming groups in Musi Banyuasin Regency is very effective when viewed from the aspect of the accuracy of the program targets. Target groups are groups that have been registered and recognized by the government so that they can be empowered in a sustainable manner.

b. Program socialization

The program socialization aspect is used to measure the ability to organize program socialization so that information on program implementation can be conveyed to targets. The socialization material is in the form of the decision of the head of the Ministry of Agriculture's food security agency number: 83/KPTS/RC.110/J/10/2020 concerning Technical

Instructions for Sustainable Food Yards for 2021 (Kastanja, Patty and Dilago, 2019).

Table 2. Effectiveness of the P2L Program from the Program Socialization Aspect

Questions	Program Accuracy (%)		Information
	Yes	No	
The socialization was carried out to increase public knowledge about the P2L program in providing access to and consumption of quality food	100	0	Very Effective
Increasing KWT so that it has added value and is industrially competitive	100	0	Very Effective
Provide management support to KWT	100	0	Very Effective

Socialization has been carried out by the Food Security Agency as Chair of the Technical Team for Musi Banyuasin Regency sustainable food yards prior to program implementation in March 2021. The socialization is related to determining the Criteria for Prospective Recipients and Candidate Locations, activity components, and the preparation of Activity Plans and Budget Requirements (RKKA).

From Table 2, the effectiveness of the program's socialization aspect reached 100% accuracy or was very effective. This effectiveness illustrates that members of the Women Farmers' Group in Musi Banyuasin Regency have a good understanding of the sustainable food yard program. This can be seen from the activity components consisting of nursery facilities, demonstration plots, planting and post-harvest handling in accordance with technical instructions which are in accordance with field implementation, as presented in Table 2. According to (Andi Haris, 2014), well-implemented socialization of government programs will increase understanding of the program so that the program can be implemented in accordance with provisions.

c. Program assistance

Assistance with the sustainable food yard program is very much needed so that program implementation can run well. The effectiveness of assistance with the sustainable food yard program in the Women Farmers group is presented in Table 3. Table 3 shows that program, technical, administrative assistance, preparation of reports and monitoring and evaluation of activities is very effective. The program's technical assistance takes the form of assistance to groups of women farmers in cultivating plants, post-harvest care.

Assistance activities for sustainable food yards are carried out by the Musi Banyuasin Regency technical team in 3 aspects, namely technical assistance, administrative assistance, and assistance in preparing reports. Administrative assistance in the form of assistance from the beginning of making proposals, preparing Activity Plans and Budget Requirements, Work Agreement Letters, Land loan and borrowing letters to administration of disbursement of funds,

preparation of reports in the form of monthly reports and the end of activities

d. Achievement of program objectives

The aim of the sustainable food yard program is so that people can increase the use of the yard to save on food costs in the form of vegetables while also increasing household income. The effectiveness of the sustainable food yard program objectives is shown in Table 3.

Table 3. Effectiveness of the Sustainable Food Yard Program from the Aspect of Program Objectives

Questions	Program Accuracy (%)		Information
	Yes	No	
	P2L activities are carried out in order to support government programs for handling priority areas that are vulnerable to food insecurity or strengthening food secure areas	100	
Increasing accessibility and utilization of food for households in accordance with the need for diverse, nutritious, balanced and safe food	98.5	1.5	Very Effective
Increasing household income through market-oriented food provision	98.5	1.5	Very Effective

Table 3 shows that the sustainable food yard program in women farming groups in Musi Banyuasin Regency is very effective in supporting government programs for handling priority areas that are vulnerable to food insecurity or strengthening food secure areas.

Increased accessibility and utilization of food for households according to needs. food that is diverse, nutritious, balanced and safe, as well as increasing household income through market-oriented food provision also appears to be very effective, so it can be concluded that the objectives of the sustainable food

yard program have been achieved in accordance with the program provisions.

2. Factors that influence the level of effectiveness of the Sustainable Food Yard program

Researchers in answering problem formulation number 2 used the t test. The t test is used in research to determine the effect of independent variables one by one on the dependent variable. The statistical test results of the t test are as follows:

Table 4. T Test Results (Test One by One)

Research Variabel	T test	Sig.t test	ttabel	Sig.ttabel	Information
Age	14.38	.000	1.66	0.10	Influence
Education	-40.44	.000	1.66	0.10	Influence
Job	1.23	.220	1.66	0.10	No
Number of Counseling Attended	-21.85	.000	1.66	0.10	Influence
Farming Experience	-3.34	.001	1.66	0.10	Influence
Number of Family Member	-2.90	.005	1.66	0.10	Influence
Land Area	-6.94	.000	1.66	0.10	Influence

Based on Table 4, it is known that the factors that influence the level of effectiveness are age, education, number of extension services attended, farming experience, number of family members and land area, while employment status has no effect on the level of effectiveness of the sustainable food yard program. The age factor shows that with a productive age, the results achieved will be maximum, because they are still able to work hard in managing a sustainable food yard program to preserve the home yard environment. Regarding the education factor, the more educated the members of the farmer group, the better their mindset will be, so that the presentation given by the Field Agricultural Extension

Officer to the women farmer group about the P2L program will be understood well.

The number of extension sessions, the more frequently members of the women farming group participate in the extension provided by field agricultural instructors, the better their understanding of people's programs and managing their home gardens. Farming experience, the more experience the women farmer group members have in farming, the better they will be at managing the land and the quicker they will understand what the field agricultural instructors are saying about seeding, care, harvesting and other processes that are conveyed as provisions for the women farmer group members in the field increasing the

sustainable food yard program. The number of family members, the more members who work together, the better they will be at completing a job. Land area, with a large area of land will enable members of the Women Farming Group to increase their production result.

Conclusion

Based on the results of the research and discussion obtained, the researchers reached several conclusions as follows: (1). The level of effectiveness of the P2L program is measured by four indicators, namely accuracy of program targets, program socialization, program assistance, and achievement of program objectives, all in the very effective category with an effectiveness value of > 80%; (2). Factors that influence the level of effectiveness include age, education, number of extension services attended, farming experience, number of family members, and land area, while the employment status factor does not influence the level of effectiveness.

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Author Contributions

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Conflicts of Interest

The authors declare no conflict of interest.

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