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Utilization Pattern of Production Results of Sustainable Food Yard Program Activities (P2L) in Maintaining Household Food Security in KWT Pangansari



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Abstract

Community welfare is largely determined by household food security. Through the sustainable food yard (P2L) program, it is hoped that it can maintain household food security. The purpose of the study was to determine the pattern of utilization of the results of the P2L program. The location of the study was in the KWT Pangansari in Dusun Cengkilung, Penguyangan Village, North Denpasar District, Denpasar City. Respondents were determined by census as many as 25 people who were members of the KWT Pangansari. Data collection was carried out through structured, in-depth interviews and documentation. Data analysis was carried out descriptively, qualitatively, and quantitatively. The results of the study showed that the average age of respondents was 46.68 years, and the average education was 10.2 years, which was equivalent to high school. The pattern of utilization of the results of the P2L program production for consumption was 49.4%, commercialized 41% and socialized 9.6%. The development pattern of the P2L Program in maintaining the sustainability of the P2L Program is characterized by the characteristics of group members and the knowledge of KWT members, which is relatively high regarding the P2L program, and the pattern of utilization of production results, which is relatively balanced between utilization for consumption and commercial needs. It is concluded that the existence of the P2L program can maintain the food security of KWT Pangansari households and the community at the research location.

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1 Introduction

Food security is a condition where food is fulfilled for the country up to the individual, which is reflected in the availability of sufficient food, both in quantity and quality, safe, diverse, nutritious, evenly distributed and affordable, and does not conflict with religion, beliefs, and culture of the community to be able to live healthily, actively and productively in a sustainable manner (Dept. of Agriculture, 2011). Realizing food security can be done by every household, which is expected to be able to optimize the resources they have, including yards, in providing food for the family (Budiari, 2013). Therefore, the Ministry of Agriculture developed the Sustainable Food Home Area Program (KRPL). KRPL is an effort to empower households sustainably in one area with the aim of providing diverse, balanced, and safe family food through the use of innovative technology, including processing livestock waste (dung) for fertilizer, using household waste to become Local Microorganisms (MOL). In addition, KRPL also includes efforts to intensify the use of living fences, village roads, and other public facilities (schools, places of worship, and others), green open spaces, and develop the processing and marketing of products (Astiti & Parining, 2024).

The Food Security Agency (BKP) of the Ministry of Agriculture continues to develop the Sustainable Food Home Area (KRPL) throughout Indonesia. The program, which has been promoted since 2013, aims to meet the food needs of families. Until now, the role of KRPL has been to maintain household food security (Carletto et al., 2013). During the COVID-19 pandemic, the Bali provincial government has re-intensified the implementation of this program by changing its policy by changing the name of the program to the P2L. This program encourages all people, especially women or PKK women, to intensify the use of yard land to plant commodities that can be used to meet their daily consumption needs. The success of the P2L Program will later be able to maintain household food security. The success of this P2L program is very dependent on the behavior of the community towards this P2L Program, how the attention of the community is, how the community's attitude towards this P2L Program is, and also how the target community's knowledge of the program is about P2. In addition, it is very necessary to study how the actions of the target community of the program, in this case, what actions have been taken by the target community of the program to implement the P2L program. If the program is implemented according to its objectives of the program, household income will increase and will automatically be able to meet household food needs, especially in the current situation affected by the COVID-19 pandemic. The formulation of the problem in this study includes: What are the characteristics of the members of the Pangansari KWT who implement the P2L Program? (2). What is the pattern of utilization of the production results of the Pangansari KWT members from the P2L program, and (3) What is the pattern of P2L development in the Pangansari KWT to sustain the P2L Program? The purpose of this study is to determine the characteristics of the Pangansari KWT members, determine the pattern of utilization of the production results of the Pangansari KWT members, and create a pattern of P2L program development in the Pangansari KWT.

2 Materials and Methods

The research was conducted in Cengkilung Hamlet, Peguyangam Kangin Village, North Denpasar District, Denpasar City at KWT Pangansari. The research location was determined intentionally, considering that KWT Pangansari is a KWT that has advanced and even still survives in supporting the food needs of its family.

Respondents were determined by census, so that all populations were used as respondents, totaling 25 people. The population of this study was members of KWT Pangansari. Key Informants in this study were the Kelian Dusun Cengkilung and the Head of KWT. Data collection by interview, Observation, and c) Documentation, namely the method of collecting data by viewing or analyzing documents made by the object itself or by others about the object. While the Research Variables include; (1) The pattern of utilization of the results of the P2L Program, the indicators include the number of results that are commercialized, consumed in households and results donated or socialized to the surrounding community, (2) the characteristics of the members of the Pangansari KWT which include, age, education, type of work.

Data analysis for objectives one and two used qualitative and quantitative descriptive analysis methods by calculating the percentage of allocation for consumption, commercial, and socialization. And to create a Household Food Security Development Pattern through P2L using associative descriptive analysis. Associative analysis is carried out by looking at the associative relationship between variables that have a relationship according to their references.

3 Results and Discussions

3.1 Respondent Characteristics

The characteristics of respondents discussed in this study include age, education, and livelihood of the respondents. The detailed characteristics of the respondents are listed in Table 1.

Table 1
Distribution of respondents based on the Characteristics of KWT Pangansari Members

No.	Information	Number of Respondents	Person
1	Age Group (years)		
	0 - 14	0	0
	15 - 64	25	100
	> 64	0	0
2	Education Level		
	High School	14	56
	Junior High School	7	28
	Elementary School	4	16
3	Livelihood		
	Housewife (IRT)	10	40
	Farm Labourer	4	16
	Trader	9	36
	Civil Servant	2	8

Source: Processed from primary data

Table 1 shows that the characteristics of respondents related to age are classified as productive age (15-64) with an average age of 46.68 years. Productive age itself is the ideal age, where someone can work and can increase their work productivity, and has a great ability to absorb information and innovative technology. Age greatly influences human behavior towards a new program or innovation. Likewise, the age of KWT Pangansari members will greatly determine their behavior towards the P2L program. The dominant respondent's education (56%) is only up to high school level, while 44% are only educated at junior high and elementary school levels. So, it can be said that their level of education is still classified as moderate.

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Education plays a very important role in supporting the development of the P2L program. This level of education, equivalent to high school, is expected to be able to support the sustainability of the P2L program.

In Table 1, it appears that almost half (40%) of the respondents' livelihoods is as housewives. This proves that housewives who have free time are used to managing their yard and land by participating in the P2L program. P2L activities are community empowerment activities that are directed at cultivating vegetables through nursery facilities, developing, planting, and post-harvest handling.

The growth and development of the P2L program aims to develop nursery, planting, and handling businesses regarding harvest results, which ultimately improve community welfare. KWT members are well aware of the objectives of program development because KWT members have knowledge in the high category. Meanwhile, the level of attitude of KWT members towards the KWT Program is relatively high. This shows that KWT members can accept the existence of activities in the P2L program.

Furthermore, the skills of KWT members in developing the P2L program are still classified as moderate; this means that KWT members have not optimally implemented or implemented the contents of the P2L program. It can be seen in Table 3 that the level of skills and/or actions of KWT Pangansari members is classified as moderate with a score of 77.52. It is also shown that the majority (72%) of KWT members have moderate skills, while only 28% of members have high skills. This shows that KWT members have not been able to achieve their program goals to the maximum and have not been able to increase their income from the results of the program. This is because KWT members are not yet skilled in making quality seeds, so they have not been able to sell seeds optimally. In addition, the skills of KWT members in utilizing yard land have not been maximized, so the results obtained have not been maximized either. The production results in the form of vegetables obtained from the P2L program are mostly to meet consumption needs only (Astiti, 2023).

3.2 Utilization Pattern of Production Results of P2L Program Activities

The success of a program can be seen from the achievement of its objectives. Based on the behavioral analysis carried out, it turns out that after the program, there has been a behavior that is classified as high but not yet optimal in implementing P2L program activities. In addition, the success of the program can also be seen from the utilization of program results, which in this case is to see the production produced by KWT as the beneficiary of the program. In this study, the success of the P2L program will be seen from the pattern of utilization of production results, both production results from nurseries and vegetable production results that are cultivated in each KWT member's yard (Van den Bergh, 2008).

The results of the study showed that the utilization of program results was by the program objectives, although not optimally. The pattern of utilization of program results was already business-oriented because almost all of its production results had been commercialized for both seed production and vegetable crop results. This shows that there is a match between the program objectives, which are essentially to improve the welfare of group members. This also shows that women have been able to contribute to their family income. The results of the study showed that 49.4% of the production was consumed, 41% of the results were commercialized and the remaining 10% were socialized, meaning to *menyama beraya*, if there are neighbors who ask for it, it will be given or there are also some that are specifically given to other housewives who do not grow vegetables. This is common in rural areas that still have high kinship; if there are housewives who do not have vegetable plants, they will *ngidih*/ask their neighbors who have vegetable plants.

The production of the P2L Program activities includes vegetable production and seed production. Seed production is almost 85% commercialized, only 15% is planted in the yard, and the results are sold directly to the market or stalls. Observing the pattern of utilization of production results that are already business-oriented, this shows that the program has been successful because KWT members directly get additional income for their households. Therefore, the development of the P2L program in the future must receive more attention so that the community will be more independent and able to produce quality seeds, so that they can meet consumer demand.

In the last two years, since the COVID-19 pandemic, there have been increasing orders for vegetable seeds from related agencies and also from environmental groups. The first order from the agency reached 10 thousand polybags, the second order was 8 thousand polybags, and the average monthly seed sales reached 500 polybags. According to the head of KWT Pangansari, if there is a sudden order and a shortage of seeds, KWT Pangansari will look for them in Sawan Kintamani Village. The seeds are taken in Sawan Kintamani

Village and then will be polybagged at KWT Pangansari. Vegetable seed production is carried out together in groups. First, the group will make a seedbed, which is carried out at the village food office (KBD). After the seedbed grows, the seeds will be sown by KWT members. All members will get a share of maintaining the seeds in the same amount, then the vegetable seeds that are ready to plant will be marketed to the group at a selling price set by KWT. KWT will market the seeds, and then KWT members must deposit 10% of the proceeds from their sales to KWT for KWT KAS.

3.3. P2L Program Development Pattern in Maintaining the Sustainability of the P2L Program

Based on the results of the research conducted, it is known that the level of behavior of KWT members is classified as high, which is supported by knowledge classified as high, attitudes classified as good, and skills classified as moderate. When associated with the characteristics of KWT members, it turns out that all members are classified as productive age, with education classified as moderate and the dominance of their work as housewives, with a pattern of utilization of their production results already heading towards commercialization, especially for seed businesses, almost 85% of the seeds produced are commercialized or sold through KWT at prices set by KWT. Based on the results of these observations, it is deemed necessary to develop several things related to skills that have not been in accordance with expectations. In this case, the skills of KWT members in implementing the P2L Program are still classified as moderate. Therefore, the development pattern for the sustainability of the P2L program in the future requires a pattern of strengthening adoption both technically and efforts to strengthen community insight in participating in household food security strengthening activities sustainably (Spiertz, 2012). Therefore, it is very important to form a P2L Program Development Pattern that is able to maintain household food security. Furthermore, a P2L program development pattern can be created to maintain the resilience of households in the target community of the program, as illustrated in Diagram 1 and Diagram 2.

In Diagram 1, it is very important to strengthen the adoption of the program for the P2L program development pattern to achieve household food security. Strengthening the adoption of the program is done through technical convenience and the benefits of program results, so that the knowledge, attitudes, and skills of the community increase towards the P2L program. The next action requires good planning, implementation of appropriate program activities, in addition to the evaluation or checking, and then taking action called Plan Do Check Action (PDCA) through a program initiation. Thus, household food security can be achieved by increasing and strengthening community adoption of the P2L program. Some of the ways needed to increase adoption include; local food culture, training, mentoring, and comparative studies at more advanced KWT. Thus, the behavior of KWT will increase, and the program will be adopted well (Diagram 2).

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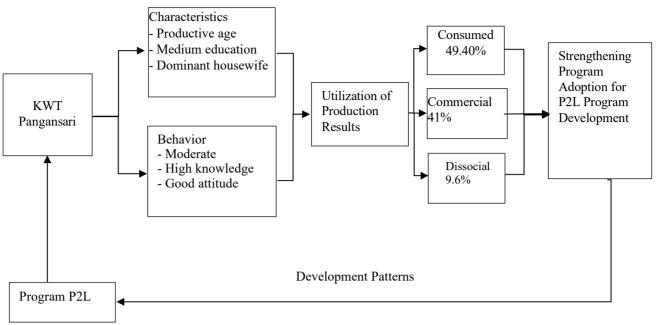
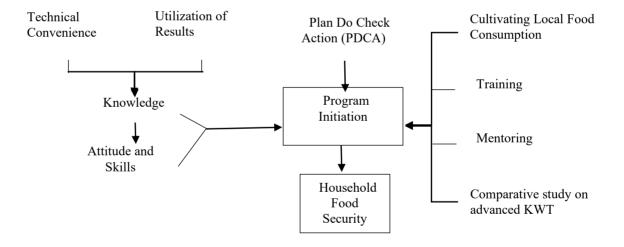


Diagram 1. P2L Program Development Activity Pattern in KWT Pangansari



4 Conclusion

Through the results of the previous discussion, several conclusions can be drawn as follows.

- 1) Characteristics of KWT members; education is classified as moderate, equivalent to high school, age is classified as productive at 15 to 64 years, and their livelihood is predominantly as a housewife
- 2) The pattern of utilization of overall production results includes; consumed 49.40%, commercialized 41%, socialized 9.60%.
- 3) Development pattern of P2L Program to maintain family food security by strengthening adoption of the P2L program through KWT member behavior with Plan Do Check Action (PDCA).

Suggestions

To strengthen adoption of P2L Program and improve KWT member behavior, it is necessary to do it through mentoring, training, cultivating local food consumption, socialization, and comparative studies in more advanced groups.

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References

Astiti, N. W. S., & Parining, N. (2023). Penerimaan program pekarangan pangan lestari (p2l) dengan metode technology acceptance model (tam) dalam menjaga ketahanan pangan rumahtangga di desa rendang kecamatan, rendang kabupaten Karangasem. *Journal Agribisnis dan Agrowisata Universitas Udayana*, 12(2).

Astiti, N. W. S., & Parining, N. (2024). Behavior of KWT Jaya Kerti Lestari Members Towards Sustainable Food Garden Program in Maintaining Household Food. *International journal of life sciences*, 8(1), 1-12.

Badan Ketahanan Pangan, Kementrian Pertanian. (2021). Petunjuk Teknis Bantuan Pemerintah Kegiatan Pekarangan Pangan Lestari (P2L).

BPS Provinsi Bali. (2015). Keadaan Ketenagaan Kerjan Provinsi Bali Tahun 2014. Berita Resmi Statistik Provinsi Bali.

Carletto, C., Zezza, A., & Banerjee, R. (2013). Towards better measurement of household food security: Harmonizing indicators and the role of household surveys. *Global food security*, *2*(1), 30-40. https://doi.org/10.1016/j.gfs.2012.11.006

Hasil Survei Angkatan Kerja Nasional (SAKERNAS) tahun 2010.

Mantra, I. B., & Sukawati, S. (1993). Bali: masalah sosial budaya dan modernisasi. (No Title).

Putra, I. (2003). Wanita Bali tempo doeloe: perspektif masa kini.

Sedana, G. (2013). Modal sosial dalam pengembangan agribisnis petani pada sistem subak di Bali. *Disertasi. Dipublikasikan, Fakultas Pertanian Universitas Udayana*.

Soekartawi. (1993). Resiko Dan Ketidakpastian Dalam Agribisni: Teori Dan Aplikasi. Cetakan Pertama Jakarta Grafindo

Soekartawi. (1995). Analisis Usahatani. Jakarta UI-Press.

Spiertz, H. (2012). Avenues to meet food security. The role of agronomy on solving complexity in food production and resource use. *European Journal of Agronomy*, 43, 1-8. https://doi.org/10.1016/j.eja.2012.04.004

Sunasri, I. G. A. (2004). Konflik Peran Perempuan Bali Di Desa Pemecutan Kaja, Kecamatan Denpasar Barat, Kota Denpasar (Tesis). *Denpasar: Program Magister Kajian Budaya, Pascasarjana, Universitas Udayana*.

Van den Bergh, J. C. (2008). Environmental regulation of households: An empirical review of economic and psychological factors. *Ecological economics*, 66(4), 559-574. https://doi.org/10.1016/j.ecolecon.2008.04.007

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