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# THE CONTRIBUTION OF YARD UTILIZATION TO HOUSEHOLD FOOD REVENUE AND EXPENDITURE IN DEWANTARA SUBDISTRICT, ACEH UTARA

Kontribusi Pemanfaatan Pekarangan Terhadap Pendapatan dan Pengeluaran Pangan Rumah Tangga di Kecamatan Dewantara Kabupaten Aceh Utara

Martina<sup>[1]</sup>; Riyandhi Praza<sup>2</sup>; Zuriani<sup>3</sup>) <sup>1),2),3)</sup>Department of Agribusiness, Faculty of Agriculture, Malikussaleh University, Aceh, Indonesia E-mail: martina@unimal.ac.id

# ABSTRACT

The use of yard land is carried out to maximize the use of land as a medium for planting commodities that can be used to meet the food needs of the community in Dewantara Sub-Sub-District. Commodities that are cultivated in the yard are horticultural commodities in the form of vegetables, spices, fruits and ornamental plants. Through the use of the yard, households can increase their revenue and save on food expenditure. This study aims to analyze the contribution of yard use to household food revenue and expenditure in Dewantara Sub-Sub-District, Aceh Utara. The research sample was 60 families who used the yard with horticultural cultivation which was determined by simple random sampling. The types of data used are primary data and secondary data. Data were analyzed using quantitative descriptive analysis. The results showed that the use of yards with horticultural cultivation in Dewantara Sub-Sub-District contributed to an increase in household food revenue and expenditure. The average revenue earned by households through the use of yards is 50,045.35 IDR/month. The contribution to the increase in revenue is 1.1% and the contribution to food expenditure is 2.56%. The contribution given from the use of the yard is low, but the use of the yard is very meaningful in meeting household food needs. Households should use the yard optimally, be more innovative, and be carried out sustainably.

Keywords: contribution, yard, revenue, expenditure, food

#### ABSTRAK

Pemanfaatan lahan pekarangan dilakukan untuk memaksimalkan pemanfaatan lahan-lahan sebagai media untuk menanam komoditi yang dapat dimanfaatkan untuk pemenuhan kebutuhan pangan masyarakat di Kecamatan Dewantara. komoditi yang dibudidayakan dipekarangan adalah komoditi hortikultura berupa sayur-sayuran, bumbu dapur, buah-buahan dan tanaman hias. Melalui pemanfaatan pekarangan, rumah tangga dapat meningkatkan pendapatan dan menghemat pengeluaran pangan. Penelitian ini bertujuan untuk menganalisis kontribusi pemanfaatan pekarangan terhadap pendapatan dan pengeluaran pangan rumah tangga di Kecamatan Dewantara Kabupaten Aceh Utara. Sampel penelitian berjumlah 60 Kepala Keluarga yang memanfaatakan pekarangan dengan budidaya hortikultura yang ditentukan secara simple random sampling. Jenis data yang digunakan adalah data primer dan data sekunder. Data dianalisis menggunakan analisis deskriptif kuantitatif. Hasil penelitian menunjukkan bahwa pemanfaatan pekarangan dengan budidaya hortikultura di Kecamatan Dewantara memberikan kontribusi terhadap peningkatan pendapatan dan pengeluaran pangan rumah tangga. Pendapatan yang diperoleh rumah tangga melalui pemanfaatan pekarangan rata-rata sebesar Rp 50.045,35/bulan. Kontribusi terhadap peningkatan pendapatan adalah sebesar 1,1 % dan kontribusi terhadap pengeluaran pangan adalah sebesar 2,56 %. Kontribusi yang diberikan dari pemanfaatan pekarangan tergolong rendah, namun pemanfaatan pekarangan sangat berarti dalam pemenuhan kebutuhan pangan rumah tangga. Sebaiknya pemanfaatan pekarangan dapat dilakukan rumah tangga secara maksimal, lebih inovatif, dan dilakukan secara berkelanjutan.

#### Kata Kunci: kontribusi, pekarangan, pendapatan, pengeluaran, pangan

#### INTRODUCTION

Indonesia has a population that always increases every year, this increase is directly followed by an increase in the need for food. However, efforts to fulfill these foodstuffs are getting more and more obstacles, including the phenomenon of global climate change, a decrease in land area and productivity, as well as the increasing number of cases of pests and plant diseases causing a decrease in crop yields. Therefore, new strategies to increase food sufficiency, security and selfsufficiency need to be developed immediately (Djufry, 2012).

One of the new strategies in increasing food sufficiency, security, and selfsufficiency is the use of yards. Statistical data shows that the area of yard land in Indonesia reaches an area of 10.3 million hectares. If the function of the yard can be optimized, then it is expected that it will contribute significantly to the food sufficiency, security, and self-sufficiency of the community (Djufry, 2012)

Gardening according to (Kurniati et al., 2019) aims to obtain the maximum benefit through intensive management of the yard with a layout in accordance with the selection of commodities and the beauty of the environment. The commodities selected for each household are in accordance with the needs of the family, namely

considering the fulfillment of the family's food and nutritional needs, as well as the possibility of developing it on a regional-based commercial basis.

Yard land is an excellent agro-ecosystem and has no small potential in meeting the needs of the community or its owners, even if it is developed properly it will be of further benefit, such as economic revenue, welfare of the surrounding community, fulfillment of market needs and even national needs.

The role of the use of the yard varies in each area depending on the level of needs of the area, the socio-cultural conditions of the community, the level of education, as well as physical and ecological factors of the local area (Khomah & Fajarningsih, 2016). Utilization of yard land around the house can provide additional results in the form of food ingredients such as secondary crops, fruits, vegetables, flowers, spices, medicines, wood, craft materials, livestock, fish, compost and bee honey (Ashari et al., 2016). The use of yard land is not only done once but is carried out continuously. According to Pangerang (2013), a sustainable business will provide benefits and convenience for the family itself. This is because the business of using this yard is to support the necessities of life forever. In principle, humans as long as they are still alive need food/food and what they are trying to do to meet the needs of daily life.

The Agricultural Extension Center, Dewantara Sub-Sub-District, Aceh Utara, implements a program to use home yard land as an alternative to realize food self-sufficiency in the household. The important objectives to be achieved in the development of this yard land use program include: (1) improving family skills, (2) meeting the food and nutritional needs of families and communities in a sustainable manner, (3) developing productive economic activities for families, (4) creating an environment clean and healthy green independently.

The yard utilization program in Dewantara Sub-District has been implemented with the target of the program being 15 Gampong in Dewantara Sub-District, because the yard land has the potential to be used for horticultural crop cultivation in meeting the daily needs of the community, especially for the household itself. community empowerment program, especially housewives, which can help increase household revenue which is used to meet food and nonfood consumption.

The implementation of the yard utilization program in Dewantara Sub-District refers to the Regulation of the Minister of Agriculture Number: 15/Permentan/OT.140/2/1013 concerning the Program to Improve Desersification and Community Food Security, the Food Security Agency for Fiscal Year 2013 to be precise in Appendix I (one), namely the Guidelines for the Acceleration Movement Diversification of Food Consumption (P2KP). The yard utilization program in Dewantara Sub-District is carried out with the target of the program being 15 Gampong in Dewantara Sub-District, because the yard land has the potential to be used for horticultural plant cultivation in meeting the daily needs of the community, especially for the household itself, The use of yard land is carried out to maximize the use of land as a medium for planting commodities that can be used to meet the daily needs of the community. The area of the yard in Dewantara Sub-District is 1,050 hectares (BPP Dewantara, 2020) which is used by the community for cultivating horticultural commodities in the form of vegetables, kitchen spices, fruits and ornamental plants. These commodities, apart from being consumed, can also be sold to increase household revenue. The commodities planted are the interests of each household according to their wishes and abilities in farming.

Communities, especially households in Dewantara Sub-District, feel the benefits of the yard utilization program, because in every household the need for vegetables, fruit and spices can be overcome by horticultural cultivation in their yards. Households no longer need to spend money to buy vegetables, fruit or spices so that they can save household expenses. In addition, vegetables or fruit also have high sales prospects considering the dependence of the community on vegetables and fruits in every household. Considering the importance of the household's role in meeting food needs, increasing revenue, providing added value for the lives of household members in the Community.

#### **RESEARCH METHODS**

This research was conducted in September – October 2021 in Dewantara Sub-District, North Aceh Regency. The types of data in this study are primary data obtained through observation and interviews with respondents using an interview guide, and secondary data obtained from data from the Central Statistics Agency, books, and journals that support the research. The population in the study is all households that use their yards with horticultural cultivation to meet food needs in the Dewantara Sub-District, amounting to 585 people (BPP Dewantara, 2020). The sample in this study was taken as many as 60 families in accordance with Arikunto's opinion (2013), if the population is large or more than 100 people, 10-15% or 20-25% or more can be taken. The sampling method used simple random sampling technique, namely the technique of taking samples from members of the population that is carried out randomly without regard to the strata that exist in the population (Sugiono, 2017). To find out the contribution of revenue from the use of the yard to the total household revenue in Dewantara Sub-District, the formulaSuratiyah, (2015):

$$Contribution = \frac{PPK}{\sum PTK} \times 100\%$$

Where :PPK = Yard Revenue (IDR/month), PTK = Total Family Revenue (IDR/month)

Meanwhile, to find out the contribution of yard use to household food expenditure in Dewantara Sub-District, the following formula is used:

$$K = \frac{Pdi}{\sum Pp} \times 100\%$$

Where : K = Contribution of yard land use (%), Pdi = Revenue from Yard Land Utilization (IDR/month), pp = Total Household Food Expenditure (IDR/month)

# **RESULTS AND DISCUSSION**

### Contribution of Yard Utilization to Household Revenue

The household concept refers to the economic meaning of the family unit, such as how the family manages household economic activities, the division of labor and functions, then how much revenue is earned or consumed and the types of production and services produced. If the family gets bigger, it opens up opportunities for revenue earners to contribute to family revenue.

### Household Revenue Through Yard Land Utilization

Utilization of yard land is a positive activity for housewives such as cultivating environmentally friendly horticultural crops to meet the nutritional needs of their families. The revenue earned by housewives who use their yard with horticultural cultivation is a side revenue from their husband's main job. The results from the use of yard land are mostly used to meet household consumption needs, thereby reducing the burden of spending on daily vegetable consumption, but there are also housewives who consume part of their harvest and the rest are sold in the stalls closest to their homes. For housewives who sell the results of their cultivation in their garden,

Households in using their yards with horticultural cultivation get the lowest revenue of 25,167.00 IDR/month and the highest revenue of IDR. 119,942.00/month of production. The details can be seen in the following table:

No	Revenue interval / month (IDR)	Number (Soul)	Percentage (%)
1	< 50,000	37	61.70
2	50,000 – 69,999	9	15.00
3	70,000 – 89,999	6	10.00
4	90,000 - 199,999	8	13.30
	Amount	60	100.00

 Table 1.
 Distribution of Respondents' Revenue from Land Use in Pekaragan

Source: Primary Data (Processed), 2021

Based on table 1 above, it can be seen that as many as 37 respondents earn revenue from the use of the yard < 50,000 IDR/month. Research result(Amran et al., 2016)The highest KIDRL revenue was obtained by respondents in the city of

Pekanbaru, which was in the interval of 106,001 IDR – 152,000 IDR, which was obtained by 23 households. While researchAnisahaq et al. (2014), household revenue from the KIDRL program is 644,753 IDR/year or 53,729.42 IDR/month. The revenue from the use of the yard in Dewantara Sub-District is used by housewives to help the costs incurred in meeting food needs. In the revenue there is the term non-cash benefits.Non-cash benefits mean that the harvest from horticultural cultivation in the yard is not only in the form of money and if cashed it will be a nominal amount described above. The non-cash benefit is that the result of the use of larger yards is used by households for household daily consumption needs so that they can reduce spending. The crops cultivated in the yard in the form of vegetables, are no longer purchased by households because the harvest is consumed by households everyday for the next few days and expenses that should be used for shopping necessities can be saved for other puIDRoses such as children's school needs and other shopping. Based on the results of research conducted Patadungan (2019), households who use their yards for the KIDRL program can save expenses to meet their vegetable needs by 72.5% every month.

Another benefit of this program is that this program is not only to increase revenue or be commercial in nature but to fill positive activities by farming, creating new skills in farming for housewives and being able to beautify the home yard and fulfill family nutrition. The results of the research analysis show that the average revenue of each household is 50,045.35 IDR/month. The increase in household revenue in the use of yard land is not large so that changes or additions to farmers' household revenue are also not too large. The amount of revenue earned by housewives in utilizing the yard is influenced by the price of vegetables produced which have a low price in the market, such as the price of kale IDR. 1000/bunch, spinach 1000 IDR/bundle, red chili 35,000 IDR/kg, mustard greens 3,000 IDR/bundle, celery 3000 IDR/bunch, and tomato 7,000 IDR/kg, while the commodities of ginger, turmeric, lemongrass, and pandan leaves are only used in small quantities and are not sold. Each household in Dewantara Sub-District can only cultivate three types of vegetables. In addition, what causes the low revenue of yard land is that on average, farmers only have a small land area, which is an average of 43. 33  $m^2$  and land is not used optimally and housewives do not have good skills and experience in horticultural cultivation so that it affects the production of horticultural crops, besides that most of the respondents work as housewives and also work in other jobs such as brick craftsmen, trading, household assistants and others so that the use of the yard is not occupied intensively. In contrast to the research conducted by household assistants and others so that the use of the yard is not occupied intensively. In contrast to the research conducted by household assistants and others so that the use of the yard is not occupied intensively. In contrast to the research conducted by Budiati & Aji (2020), that the utilization of the yard has been optimized according to the needs of each household and the number of products sold, resulting in high revenue.

The results of the production of household yard utilization activities in Dewantara Sub-District have been able to save on food expenditure and increase family revenue an average of 50,045.35 IDR/month according to Yulida (2012), farming in the yard if managed intensively in accordance with the potential of the yard, it can help in meeting household consumption needs and also contribute to the family. Vegetables harvested from the household yards of Dewantara Sub-District are first used for household consumption. This is in accordance with the opinion Purwantini et al., (2016) which states that the average area of land is relatively narrow, and the types of commodities that can be cultivated are limited, then the production of yard products is still dominant for household consumption. Productive narrow land requires technological innovation that is able to utilize narrow land to be used as a household scale farming development. Research conducted Fajri, (2018) The area of the yard to implement the KIDRL program in Asahan Regency is also relatively narrow, between 25 m<sup>2</sup>-50m<sup>2</sup>.

The limited land area of the yard can be an inhibiting factor for housewives in utilizing the yard because all respondents use improvised planting media such as land and polybags without any other planting media that saves land use such as vertical gardens, and hydroponic cultivation so that land limitations can be overcome. Of course, this requires guidance from extension workers through outreach activities to improve the skills of housewives in utilizing their yards. Research conducted Kurniawan et al., (2018), explained that the implementation of the Sustainable Food House Area (KIDRL) program in Surakarta was also carried out on a limited area of land, but the female farmer groups were effective in utilizing narrow land by using other planting media such as vertical gardens, polybags, and even using plastic containers of used oil fry.

# Other Revenue

Other household revenue is revenue other than revenue from the use of the yard. The revenue is in the form of main revenue in meeting household needs which comes from the work of husbands, wives and there are several households who are assisted by their children to increase family revenue. The distribution of other revenue levels from households that use their yards in Dewantara Sub-District is as follows:

No	Average revenue/month interval	Number (Soul)	Percentage (%)
1	500,000- 1,499,999	0	0
2	1,500,000 - 2,499,999	3	5
3	2,500,000 - 3,499,000	12	20
4	>3,500,000)	45	75
	Amount	60	100

Table 2.	Other Revenu	e Distribution

Source: Primary Data (processed,), 2021

Based on table 2, it can be seen that the level of household revenue in Dewantara Sub-District apart from yard utilization activities varies between 1,500,000 IDR to 10,500,000 IDR/month. Of the 60 respondents, 75% of the households have an revenue of >3,500,000 IDR/month. The average revenue earned by households from other jobs is 4,445,833.33 IDR/month

Other revenue earned by households comes from work as farmers, farm laborers, employees of PT PIM, traders, Indonesian migrant workers in Malaysia, teachers, civil servants, workshops, drivers, household assistants, cake sellers, honorariums, kindergarten teachers, brick craftsmen, working in printing and others. Based on the results of the study, the total other revenue from households that use yards in Dewantara Sub-District is high, this revenue is higher than the Aceh Provincial Minimum Wage (UMP) which is 3,165,031 IDR,/month.

No	Revenue type	Average Amount (IDR/month)	Percentage (%)
1	Yard Land Use	50,045.35	1.1
2	Other Revenue	4,445,833.33	98.9
3	Total revenue	4,499,878,68	100.0

Table 3. Average Total Household Revenue

Source: Primary Data (processed,), 2021

Based on the table above, it can be seen that the contribution of yard use to household revenue is only 1.1%. And the contribution of other revenue is much larger at 98.9%. The contribution of yard utilization in the sub-Sub-District is very low so it can be said that the yard utilization program is less successful in providing additional household revenue. It's the same with the research done Amran et al., (2016)that the average contribution given by the KIDRL program to household revenue is 2% or 50,773 IDR per farmer. While the research conducted Akbar et al., (2018), the average contribution of KIDRL to household revenue is 3.03%. Not much different from the research conducted Oka, I., Darmawan, Dwi., Astiti, (2016), the average contribution of the KIDRL program to household revenue is 1.38%.

according to Patty, (2010), the contribution of farm revenue<25%, meaning that the farm revenue is categorized as very low.

# Household Food Expenditure in Dewantara Sub-District

Household expenditures are costs incurred for the consumption of all members (Fityanti & Radiah, 2020) Household food expenditure is revenue used by households to meet food needs. household food expenditures consist of expenditures incurred to buy rice, fish, meat, tofu, tempeh, vegetables, fruit, and various drinks. The total household food expenditure in Dewantara Sub-District is as follows:

No	Type of Food Expenditure	Average Expenditure	Percentage (%)
		(IDR/Month)	
1	Rice	283,000.00	14.48
2	Fish/meat	516666.67	26.45
3	Egg	41,458.33	2.12
4	Know	38,833.33	1.99
5	Tempe	51,916.67	2.66
6	Seasoning+Vegetable+fruit	455,166.67	23.3
7	Cooking oil	60,266.67	3.09
8	Water refill	66,500,00	3.40
9	Tea	8,933.33	0.46
10	Coffee	14,700,000	0.75
11	Milk	30,200.00	1.54
12	Sugar	46,100,00	2.36
13	Cigarette	171.450.00	8.78
14	Family Snacks	168,333.33	8.62
	Amount	1,953,524.00	100.00

Table 4.Household food expenditure per month

Source: Primary Data (processed), 2021

Based on the table above, it can be seen that the total household food expenditure that utilizes the yard in Dewantara Sub-District is relatively high, namely 1,953,524 IDR/month. The high food expenditure in Dewantara Sub-District is influenced by the level of revenue and the number of household members. The higher the revenue and the greater the number of household members, the food expenditure also increases (Martina et al., 2021). The average household revenue that utilizes the yard in Dewantara Sub-District is 4,499,878.68 IDR/month and the average number of household members is between 4-5 people.

#### **Contribution of Yard Utilization to Household Food Expenditure**

The yard has a number of roles in the socio-economic life of the farmer's household. according to Ashari et al., (2016), The yard is often called a living barn, a living shop or a living pharmacy. It is called a living barn because from time to time basic food needs such as corn, tubers and so on are available in the yard.

The use of yard land contributes to household food expenditure. The results of the use of the yard can be used by housewives to meet the consumption of vegetables that should be purchased, but with the production of vegetables in the yard, housewives no longer need to buy(Andrianyta, 2016). The results of the yard are not prioritized for sale but are prioritized for meeting the food and nutritional needs of the family. According to Alfiyanti et al., (2021), the selection of the type of commodity that is cultivated in the yard is carried out based on interests and needs. The contribution of the use of the yard has non-cash benefits, namely, making the yard look beautiful, comfortable, beautiful, as a place for social relations, making it green with useful plants, fulfilling household members' vegetable consumption, and increasing skills in cultivating agriculture (Faradina et al., 2018).

To find out the contribution of the use of yard land with horticultural cultivation in Dewantara Sub-District on household expenditures can be known through the following calculations:

$$K = \frac{Pdi}{\sum Pp} \times 100\%$$
$$K = \frac{50,045.35}{1,953,524} \times 100\%$$
$$K = 2.56\%$$

The results of the calculation show that the average contribution that has been contributed by households from the use of yards with horticultural cultivation to food expenditure is only 2.56%. Although the contribution is very small, the use of yard land is felt to play an important role in meeting daily food needs such as the need for vegetables. In addition, revenue from the use of yard land can also be used as an additional daily expenditure for households such as buying additional food to meet food consumption so as to reduce expenditure from the household's main revenue (Hanifah et al., 2014). Vegetable harvest which is a horticultural commodity that is cultivated by housewives in the yard is able to contribute to household spending savings. Research result Ratna & Gustiani (2016), the use of yard land through the MKIDRL program contributes to food expenditure by 10.1% per month with various types of plants, including ornamental plants, medicinal plants, and fruit plants. The same thing with households that use their yards in Dewantara Sub-District, there are various commodities from horticultural crops such as vegetables (spinach, kale, chilies, tomatoes, celery and mustard greens) and

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medicinal plants that can also be used as cooking spices including ginger, turmeric, lemongrass and pandan leaves.

# **Conclusion And Suggestion**

## Conclusion

The results of the analysis obtained that the average household revenue in Dewantara Sub-District was 4,499,878.68 IDR. The contribution of revenue from the use of the yard to the total household revenue is 50,045.35 IDR/month with a contribution to the increase in revenue of 1.1%. And the average household food expenditure using the yard in Dewantara Sub-District is 1,953,524 IDR/month, while the contribution of the use of the yard to household food expenditure is 2.56%.

### Suggestion

Suggestions that can be given by researchers are that each household member is expected to be involved in maintaining and maximizing the use of yard land so that the amount of vegetable commodity production can be increased. Although the land area owned by the household is limited and the contribution is low, it is hoped that the household will be able to utilize the yard with more innovative and sustainable cultivation techniques. It is hoped that support from the implementation of extension activities in disseminating and practicing garden cultivation innovations on narrow land in a sustainable manner is expected.

# Thank-you note

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