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The Contribution of Farmer Women in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang

Azzahra Fima Auliya¹, Teguh Soedarto², Taufik Setyadi³

^{1,2,3} Agribusiness Study Program, Faculty of Agriculture, UPN "Veteran" Jawa Timur, Indonesia

ABSTRACT: Peasant women's resources are one of the great potentials in contributing labor to production activities. Farmer women play an important role in farming activities to increase rice production. In the process of rice farming, rice fields always involve women, therefore women are considered very important. Women are able to divide their time even behind their busy lives as housewives. The importance of this study is to analyze the contribution of peasant women to rice farming families, factors that influence the magnitude of these contributions and the level of welfare of rice farming families in Patapan Village. This research was conducted in Patapan Village, Torjun District, Sampang Regency. The respondents in this study were all peasant women who had families and owned their own cultivated rice fields and worked as farmers totaling 30 people. The first objective is analyzed using the scale of land tenure. The second objective was analyzed using multiple linear regression analysis. The third objective was analyzed using a household expenditure approach using the sajogyo criterion. The results showed that the income of rice farming women to family income of 41.71% means that the contribution of peasant women is dominant and quite significant. The second objective of the results of multiple linear regression analysis was obtained that partially the income of farm women (Y) influenced by variables X1, X2, X3, X4 and X5 had a real or significant influence on the income of women farmworkers (Y) by 78.4% and the remaining 21.6% was influenced by other variables that were not studied. The degree of welfare of the farmer's family is obtained from the calculation of per capita expenditure of 486.8 kg equivalent to rice / year, meaning that the farmer's household life is sufficient.

KEYWORDS: Family Income, Farmer Women, Rice Farm Households, Contribution, Multiple Linear Regression Analysis

I. INTRODUCTION

Natural resources contribute greatly to the development and welfare of society. Agriculture is a natural resource that has great potential in Indonesia as an agricultural country. The agricultural sector plays a very important role in the development of Indonesia's development as a source of life, food provider, and income for farming families. The existence of great potential in the agricultural sector does not cover the economic problems faced by rural communities where the majority make a living in farming. Various problems are experienced, including among women as housewives.

The contribution of women working in the agricultural sector is not something new in society. The origin of agriculture dates back to the history of the division of labor between men and women, where hunting and gathering forest products was a man's job while doing household chores and farming around the house was a woman's job. Because of the increasingly advanced society, agricultural business is settled and carried out by men and women. The basic needs of the community encourage the entry of women workers into the agricultural sector. Several things cause women to try to earn income, including, there is an independent willingness in the economic sector to try to finance their living needs and support their families and the wider employment opportunities that absorb female labor. Peasant women's resources are one of the great potential in contributing labor to production activities. Farmer women play an important role in farming activities to increaserice production (Rahmah & Wati, 2018)



Kabupaten Sampang

en in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang Table 1. Number of agricultural business households with the main source of income from the agricultural sector

No.	Kota / Kabupaten	Rice Farm Households
1.	Bangkalan	12.410
2.	Sampang	13.169
3.	Pamekasan	11.009
4.	Sumenep	8.312

Source: Badan Pusat Statistik Provinsi Jawa Timur

From the table above, it can be seen that Sampang Regency is the district with the largest number of agricultural business households with the main source of income from the rice commodity agricultural sector in Madura, with a total of 13,169 people. This is the reason for the author to conduct research on peasant women in Sampang Regency.

The National Labor Force Survey (Sakernas) conducted by BPS Sampang Regency 2021, it is known that there is a considerable difference between the number of unemployed and working women in Sampang Regency. The total population of unemployed women is 6,7004. Meanwhile, the number of working women amounted to 222,312 people. In the Torjun subdistrict, rice farmers mostly come from indigenous people in the area. Women farmers are also involved and play an important role in farming activities, not only male farmers. One of the villages in Torjun District that conducts rice farming activities is Patapan Village. In the process of rice farming, rice fields always involve women, therefore women are considered very important. For example in seeding, tillage, planting, irrigation, fertilizing, weed cleaning, harvesting, and post-harvest. Women are able to divide their time even behind their busy lives as housewives, women are also able to cultivate their rice fields. Therefore, it is necessary to research peasant women who work in rice field farming. The importance of this study is to analyze how much the contribution of peasant women's labor to farmer household income.

II. LITERATURE REVIEW

A. Farmer

According to Hadiutomo (2012), the definition of a farmer is a person who carries out activities in the agricultural sector, garden agriculture, fields, rice fields, fisheries, and others on land that is cultivated with the aim of economic benefits. Farmers can be distinguished based on the form of their activities, namely sharecroppers, tenant farmers, sharecroppers, pawn farmers, and farmers as agricultural laborers.

B. Peasant Women

According to Jane C. Ollenburger et al. Terj. Budi Sucahyono et al (1996), argue that peasant women are invisible farmers, yet their labor produces half of the world's food. Peasant women account for 25% of agricultural and family labor, and women in the agricultural sector can increase production in agricultural businesses to stabilize the family economy (Keluarga et al., 2017).

C. Contribution of Peasant Women

According to the Big Dictionary Indonesian in the Ministry of Education and Culture (2005), contribution comes from English, namely Contribute, contribution, which means participation, involvement, involvement, and donation. The contribution here means the participation made by women to uphold the economic life of the family, namely as farmers.

D. Farmer Family

According to Suparyanto (2014), a family is two or more individuals who join because of blood relations, marriage, and adoption in one household, who interact with each other in roles and create and maintain a culture. The family generally consists of a head of the family and several members. The head of the household is the person who is most responsible for the household, while family members or households are those who live under the same roof and are dependents of the head of the household concerned.

E. Farmer Family Income

Income according to Prayitno (2017), is the most important thing in family life to meet the needs of life. The income of the whole family determines the amount of family wealth. Family income will depend on the productive work of the head of the family. Income is the net income of all working households rupiah charged for one year. The level of income will affect the socio-economic condition of farmers. Higher incomes of farmers can meet all household needs. In addition, income level alsodetermines the social status of farmers in the community (Nurma, 2019).

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en in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang F. Welfare Level of Farmer Families

world is a condition where a person can meet basic needs, both food, clothing, shelter, clean drinking water, and opportunities to continue education and have an adequate job that can support the quality of life. Welfare is one aspect that is quiteimportant to maintain social and economic stability. Every individual needs prosperous conditions, both prosperous in material terms and non-material terms so that a harmonious atmosphere can be created in society (Suryaningsih, 2021).

G. The Relationship between Family Welfare and the Contribution of Peasant Women

According to research conducted by Bunsaman (2018) explained that women play an active role in improving family welfare because the income of the husband who incidentally is the head of the family is considered insufficient for daily needs. Women contribute to work to improve family welfare. Dewi (2015) concluded that women in households participate in working due to the increasing demands of economic needs and family living needs. Kusmayadi (2017) concluded, the greater the contribution of women who work to help their husbands, the more family welfare increases because the needs and demands in the family grow high.

H. The Great Relationship of Farmer Women's Contribution with Family Income

According to Ningtiyas (2015), it is stated that the contribution of working time affects high and low income. The higher the contribution of women's working time, the higher the amount of income. Women who make a living with additional farming have a large contribution to work, so the income is even greater. The greater the contribution of work, the longer the period used in farming, the more income. Conversely, the less time spent in farming, the less income. This statement is directly proportional to Ningtiyas' research (2015), that the higher the contribution of women's work, the higher the income will also increase. (Lubis et al., 2019).

I. Hipotesis

Based on the formulation of the problem and the framework described above, the researcher formulates the followinghypothesis: H1: The greater the contribution of peasant women, the higher the income in farmer households

H2: Factors such as age, working days, farming experience, land area, and education have a significant effect on the magnitude of the contribution of farm women

H3: The greater the contribution of peasant women, The higher the level of family welfare

III. RESEARCH METHODOLOGY

The research was conducted in Patapan Village, Torjun District, Sampang Regency. The respondents in this study were all farmer women who had their own families and owned their rice fields and worked as farmers in Patapan Village, Torjun District, Sampang Regency, totaling 30 respondents. Data analysis methods are as follows:

The first objective is to analyze the contribution of peasant women's income to rice farming families in Patapan Village based on the scale of land ownership. For this purpose, the analysis used is the analysis of revenue contribution. The contribution of peasant women's income to the income of farming families is analyzed by the formula:

$$\mathrm{Kp} = \frac{Px}{\mathrm{Py}} \times 100\%$$

IV. DESCRIPTION:

Kp : Contribution of farmer women's income (%)Px : Farmer's income (Rp/Month)

Py : Total family income (Rp/Month)

To determine the size of the contribution of peasant women to farmer household income, Fachrudin (2010) stated that the decision-making indicator of income contribution can be measured by:

- 1. K <35% This means that the contribution to family income is low
- 2. 35% < K < 70% This means that the contribution to family income is moderate
- 3. K >70% This means that the contribution to family income is high

The second objective is to analyze the factors that affect the contribution of peasant women's income to rice farming families in Patapan Village, Torjun District, Sampang Regency. For this purpose, the analysis used is multiple linear regression analysis. Multiple linear regression analysis is a regression model that involves more than one independent variable. Multiple Linear regression analysis is carried out to determine the direction and how much influence the independent variable has on the dependent variable (Ghozali, 2018). The equation of multiple linear regression, formula:

Y = a + b1X1 + b2X2 + b3X3 + b4X4 + b5X5 + e

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en in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang Where:

Y = Income of farm womenX1 = Land area (m2)

X2 = Last education (year) X3 = Farm experience (years)X4 = Age (years)

X5 = Working hours (days)a = Regression constant

b1b2b3b4b5 = Regression coefficiente = error

Knowing the influence of the independent variable on the dependent variable in research, a hypothesis test or statistical test is carried out which includes:

1. Test F

The F test aims to test the hypothesis of whether the independent variable (X) has a simultaneous effect on the dependent variable (Y).

If the probability (sig) > 0.05 = H1 rejected HO is accepted. If the probability (sig) $\leq 0.05 = H1$ accepted HO is rejected.

2. Test t

Uji t aims to determine whether the independent variable (X) has an individual effect on the dependent variable (Y). If the probability (sig) > 0.05 = HI rejected HO is accepted.

If the probability (sig) < 0.05 = H1 accepted HO is rejected.

3. Coefficient of determination (R2)

The coefficient of determination (R2) is carried out to calculate how much the independent variable explains the variation in the change of the dependent variable.

The third objective is to analyze the welfare level of rice farming families in Patapan Village, Torjun District, Sampang Regency. The formula used is to approach household expenditure using the criteria of Sajogyo (1997). This measurement is done by calculating daily, weekly, and monthly needs. Total household expenditure can be formulated as follows:

Ct = Ca + Cb + Cn

Remarks:

Ct = Total household expenditureCa = Expenditure on food

Cb = Expenditure on non-food

Cn = C1 + C2 + C3 + C4 + C5 + C6 + C7 ++ Cn

Where:

C1 = Expenditure on fuel

C2 = Expenditure on various goods/servicesC3 = Expenditure on education

C4 = Expenditure on health

C5 = Expenditure on electricity

C6 = Expenditure on home renovationC7 = Other expenses

V. RESULT AND DISCUSSION

A. Contribution of Farmer Women's Income to Families in Patapan Village, Torjun District, Sampang Regency

The income of respondents in Patapan Village, Torjun District, Sampang Regency varies, the income of farmer women respondents is calculated based on income, namely as farmers, traders, shop employees, factory workers, independent employees, and so on. The following is a table of the average total income of peasant women as working housewives and husbands' income in Patapan Village, Torjun District, Sampang Regency.

	Total	139.690.000	4.656.334	100 %	
	Income				
3	Other Family Members'	22.400.000	746.667	16,03%	
2	Husband's Income	59.000.000	1.966.667	42,23%	
1 Income of Peasant Women		58.290.000 1.943.000		41,71%	
		(Rp)	(Rp)		
No	Details	Total Income	Average Income	Percentage %	

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Table 2 shows the amount of contribution of farm women and farm family members to family income, judging from the average, it is known that husbands have the highest contribution of 42.23% with an average monthly nominal income of Rp1,966,667 and the lowest is the income of other family members which is 16.03% with an average monthly nominal income of Rp746,667. The contribution of peasant women to family income is 41.72% with a nominal value Average monthly income of Rp1,943,000. To find the size of the farmer's contributionto the total family income, it is measured by:

$$Kp = \frac{1.943.000}{4.658.000} \times 100\%$$

Kp = 41,71%

Based on the calculation above, it can be seen that the contribution of peasant women to family income in Patapan Village, Torjun District, Sampang Regency is 41.71% by the income contribution decision-making indicator according to Fachrudin (2010), meaning that the contribution of farmer women's income to the family is moderate.

However, when viewed based on the large percentage of income contribution of peasant women in Patapan Village, which is 41.71% with a large percentage of husband's income of 42.23%, the results of both show comparable percentages. The contribution of peasant women's income to families in Patapan Village is dominant and quite significant. Because if the family loses 41.71% of the contribution from the income of farm women, then the family's needs will not be fulfilled. The dual role of peasant women in Patapan Village, Torjun District, Sampang Regency, one of the motives for working is due to the necessity of fulfilling needs to improve the family economy. This happened because most of the low family economy required peasant women to work.

B. The Influence of Factors on the Contribution of Farmer Women's Income

The factors used in determining the income of rice farming women are land area, education level, length of farming experience, age and working days can have a positive influence if each of these factors supports each other. Based on the results of field research, it is known that these factors are variables in this study.

1. Multiple Linear Regression Analysis

This analysis was conducted to determine the influence of independent variables, namely land area (X1), an education level (X2), farming experience (X3), age (X4), and working days (X5) on the dependent variable, namely the opinion of rice farming women (Y). From the results of the data analysis that has been carried out, the results of the regression model are obtained as follows: Y = 1,155 + 0,211X1 + 5,255X2 + 1,043X3 + 3,3775X4 + 3,539X5 + e

- 1. The value of the cash is 1.155. This means that in the absence of independent variables X1, X2, X3, X4, and X5 the value of the variable Y is 1.155 units.
- 2. The value of the X1 variable coefficient of 0.211 means that every increase of 1 unit of variable X1, namely 1 m2 of land area, will have an impact on an increase of 0.211 units in variable Y, which is IDR 0.211 in the income of rice farming women.
- 3. The value of the X2 variable coefficient of 5.255 means that every increase of 1 unit of variable X2, namely 1 year of education, will have an impact on an increase of 5.255 units in variable Y, which is IDR 5,255 in the income of rice farming women.
- 4. The value of the X3 variable coefficient of 1.043 means that every increase of 1 unit of variable X3, namely 1 year of farming experience, will have an impact on an increase of 1.043 units in variable Y, which is IDR 1.043 in the income of rice farming women.
- 5. The value of the X4 variable coefficient of 3.3775 means that every increase in 1 unit of variable X4, namely 1 year of age, will have an impact on an increase of 3.3775 units in variable Y, which is IDR 3.3775 in the income of rice farm women.
- 6. The value of the X5 variable coefficient of 3.539 means that every increase of 1 unit of variable X5, namely 1 working day, will have an impact on an increase of 3.539 units in variable Y, which is IDR 3,539 in the income of ricefarming women.

2. Test F

A calculated F value of 17.391 is obtained with a probability or significance value of 0.000 < 0.05. This means that simultaneously the variables X1, X2, X3, X4, and X5 have a significant effect on the income of women rice farmers (Y). In addition, the value of f-calculate is also greater than the value of f-table (17.391 > 2.9603) so H0 is rejected and accepts H1, meaning that all variables freely affect the income of rice farming women or dependent variables simultaneously.

3. Test t

The t-test is a test used to partially see the effect of the independent variable (Y) on the dependent variable (X1, X2, X3, X4, and X5).

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en in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang Table 3. Test Parsial (Test T) Coefficients^a

Unstandardized			Standardized					Collinearity			
Coefficients			Coefficients			Correlations		Statistics			
							Zero-				
Model B Std.		Std. Error	Beta	t	Sig.	order	Partial	Part	Tolerance	VIF	
1	(Constant)	1.155	.589		1.962	.061					
	X1	.211	.099	.269	2.133	.043	.250	.399	.202	.566	1.765
	X2	5.255	.806	12.901	6.521	.000	.108	.800	.619	.423	4.296
	X3	1.043	.395	2.351	2.643	.014	.068	.475	.251	.511	1.812
	X4	3.377	.895	7.047	3.774	.001	040	.610	.358	.326	2.884
	X5	3.539	1.294	7.944	2.735	.012	070	.488	.260	.400	3.702

a. Dependent Variable: Y

Based on the table above, an explanation of the partial test results (t-test) is obtained as follows:

- 1. The Effect of Land Area (X1) on the Income of Women Rice Farmers From the results of the t-test test for the variable land area (X1), a t-count value of 2.133 > t-table 2.045 was obtained with a significance of (sig 0.043 < α 0.05). This means that partially variable X1 has a significant effect on variable Y.
- 2. The Effect of Last Education (X2) on the Income of Women Rice Farmers From the results of the t-test test for the last educational variable (X2), a t-count value of 6.521 > t-table 2.045 was obtained with a significance of (sig 0.000 < α 0.05). This means that partially variable X2 has a significant effect on variable Y. The Effect of Farming Experience (X3) on the Income of Women Rice Farmers From the results of the t-test test for the variable of farming experience (X3), a t-count value of 2.643 > t-table 2.045 was obtained with a significance of (sig 0.014 < α 0.05). This means that partially variable X3 has a significant effect on variable Y.</p>
- The Effect of Age (X4) on the Income of Women Rice Farmers
 From the results of the t-test test for the variable farming experience (X4), a t-count value of 3.774 > t-table 2.045 was obtained with a significance of (sig 0.001 < α 0.05). This means that partially variable X4 has a significant effect on variable Y.

4. The Effect of Working Days (X5) on the Income of Women Rice Farmers

From the results of the t-test test for the variable working day (X5), a t-count value of 2.735 > t-table 2.045 was obtained with a significance of (sig 0.012 < α 0.05). This means that partially variable X5 has a significant effect on variable Y

C. Welfare Level of Rice Farmer Households

Analysis of Household Welfare of Rice Farmers Based on Sajogyo Criteria

Household expenditure is differentiated from food and non-food expenditure. Respondents' expenses include; (1) food expenditure, consisting of: rice, oil, sugar, flour, fish, vegetables, and cigarettes and (2) non-food expenditure, consisting of: health, education, pocket money, electricity, waterfuel, and taxes.

The Allowance of income per year for expenditure shows that rice farming households tend to prioritize complete food needs as shown in the table.

Types of Expenses	Average Expenses (Rp)	Percentage of Expenses (%)		
Rice	3.705.000	28,78		
Oil	1.325.000	10,29		
Sugar	310.500	2,41		
Flour	36.000	0,28		
Vegetable	253.200	1,97		
Fish	2.770.000	21,52		
Cigarette	5.502.000	42,75		
Total expenses /year	12.870.433	100%		

Table 4. Average food expenditure of farmer households per year

Source: Data processed, 2023

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en in the Household Income of Rice Farmers in Desa Patapan Kecamatan Torjun Kabupaten Sampang Table 5. Average Non-Food Expenditure of Farmer Households Per Year

Types of Expenses	Average Expenses (Rp)	Percentage of Expenses (%)		
Health	0	0		
Education	0	0		
Allowance	4.310.000	76,74		
Electricity	688.467	12,26		
Water	0	0		
Fuel	414.000	7,37		
Тах	10.104	0,18		
Total pengeluaran/th	5.615.888	100%		

Source: Data processed, 2023

Mathematically the level of per capita expenditure per year on peasant households and the level of per capita expenditure per year equivalent to rice can be formulated:

= <u>Expenditure/Capita/Year (Rp)</u>

- Expenditure per capita/year (Rp)

= <u>Annual RT expenditure (Rp)</u>

Number of Family Dependents

- = <u>18.498.202</u>
- 4
- = Rp 4.624.550,5

Expenditure/capita/year rice equivalent (kg)

- Rice Price (Rp/Kg)
- = <u>4.624.550,5</u>
- 9.500

= 486,8 Kg

According to the classification of Sajogyo (1997), poor farmers are grouped into six categories of criteria:

1) Poorest:

If the expenditure per family member is 180 kg equivalent to rice / year

2) So poor:

If the expenditure per family member is 180 - 240 kg equivalent to rice / year

3) Poor:

If the expenditure per family member is 240 – 320 kg equivalent to rice / year

4) Almost Poor:

If the expenditure per family member is 320 - 480 kg equivalent to rice / year

5) Enough:

If the expenditure per family member is 480 - 960 kg equivalent to rice / year

6) Decent Living:

If the expenditure per family member is >980 kg equivalent to rice/year

Based on the calculation of per capita expenditure from 30 respondents of farming families is 486.8 kg equivalent to rice / year. So it can be concluded that rice farming families in Patapan Village, Torjun District, Sampang Regency in 2023 are on sufficient criteria as classified according to Sajogyo (1997). Farmer families that have sufficient criteria are identified as farmers who have a diversity of businesses in their households. Similarly, as a farmer who has a job outside the farm and optimizes rice production every planting season.

VI. CONCLUSIONS

Based on the results of the study, the following conclusions were obtained:

 Based on the results of the study, the contribution of rice farming women in Patapam Village, Torjun District, Sampang Regency to family income was 41.71%. Based on the large percentage of income contribution of farm women, it shows a percentage comparable to the percentage of husband's income of 42.23%, meaning that the contribution of farm women's income to the family in Patapan Village is dominant and quite significant.

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- 2. Based on the results of multiple linear regression analysis, it was found that partially the income of farm women (Y) was influenced by variables of land area (X1) and education level (X2), length of farming experience (X3), age (X4) and working days (X5), had a real or significant influence on the income of women farm workers (Y) by 78.4% and the remaining 21.6% was influenced by other variables that were not studied.
- 3. The degree of the welfare of rice farming families in Patapan Village, Torjun District, Sampang Regency with poverty criteria according to Sajogyo, obtained the results of the calculation of per capita expenditure of 486.8 kg equivalent to rice/year, meaning that it shows that the household life of rice farmers in Patapan Village is sufficient.

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