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Analysis of the Contribution of Porang Farming Branch to Total Farming Income in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency

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Abstract---Porang plantation farming is a main commodity as one of the sources of regional income, as well as the prosperity of the community. The development of farming is essentially for rural-oriented economic development with the goal of increasing the income of the village community and for the ultimate goal of reducing the number of poor people in rural areas, as well as being able to open new jobs. The porang plant is developed in Tabanan Regency because the land and natural conditions are suitable for the needs of porang and have the potential to be large enough to be absorbed into the export market. This research was carried out in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency. Mundeh Village is one of the areas that develop the Porang commodity. The population in this study is all farmers who are members of the Porang Farmers Group "Maju Bersama" in Mundeh Kauh Village as many as 14 farmers, where the sample is determined by census, so that it is determined that the farmer sample is 14 farmers. The analysis used is quantitative, namely, looking for the porang farming income and its contribution to the total farming income.

Keywords---contribution, farming, income, porang.

Introduction

Background

Indonesia is an agrarian country where most of the population works in the agricultural sector. The role of the agricultural sector, which is the basic key to the continuity of sustainable economic development, is expected to be able to provide solutions to problems for the Indonesian nation. Agricultural development in Indonesia does not only focus on agriculture in the fields of plantations and food, but also ornamental plants that are classified as horticultural crops (Anton et al., 2016).

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Farmers' household income is also affected by the total expenditure of farming. Total expenditure can be determined by calculating food and non-food expenditure (Arida et al., 2015). To meet the economic needs of farmers, farmers cannot rely on income from farming alone, but also from activities outside of farming. Farming business activities have busy times and leisure time. The free time they have causes farmer households to devote

their time to work outside of farming to increase income. The increase in income is used to meet basic needs or household consumption such as food, clothing, board, education, and health. Farmers' household income is obtained from various sources of income owned by farmers. This is in accordance with Yusuf's (2018) statement that household income is income derived from farming (On Farm), non-farming (Off Farm), and from outside agricultural business (Non-farm).

Recently, the area where porang is planted in the Bali region has become more and more popular with farmers. Based on 2021 data, the planting area of porang plants in Bali has reached 974 hectares spread throughout Bali. Tabanan itself as a whole, the area of porang plants in Tabanan reaches 650 ha. Farmers in Tabanan develop porang plants with an intercropping planting pattern. Planting porang plants on the sidelines of coffee and chocolate plants. The cultivation of porang plants is increasingly being looked at by farmers in Tabanan Regency because, in addition to being easy to cultivate, the stable selling price, along with the export quota has not been fulfilled, is an attraction for farmers to develop it using unproductive land. The porang plant has been developed in Tabanan Regency since 2006, but it only squirmed in 2019. This is what causes the price of porang seeds at the local level to be expensive. The price of 150-200 types of frog seeds can reach 350,000/kg with a planting area of up to one acre (planting distance of 30-40 cm). Porang is generally ready to harvest after being raised for three years for the quality of the frog seeds. If planting seedlings starts from tubers weighing 1 kg, it takes one season or one to two years. In addition to seedlings, this planting age also depends on maintenance and fertilization. The porang plant is developed in Tabanan Regency because the land and natural conditions are suitable for the needs of porang and have the potential to be large enough to be absorbed into the export market. This research was carried out in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency. Mundeh Village is one of the areas that develops the Poang commodity, so it is interesting to research the contribution of porang farming branches to the total income of farming (Susrusa et al., 2025).

The urgency of this study is to analyze the income from porang farming and its percentage contribution to the total income of farming. The promised income from farming is certainly very profitable for farmers, but of course, as a new commodity, porang farmers face various risks in cultivating it, so it is necessary to research to answer as explained in the objectives of this research (Payraudeau & van der Werf, 2005).

Problem Formulation

Based on the above background, the research problem can be formulated as follows:

- 1) Analyzing the income of porang farming branches in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency
- 2) Analyzing the contribution of the porang farming branch income to the total income of farmers in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency

Research Objectives

Based on the formulation of the problem above, this study has the following objectives:

- 1) To find out the income of the porang farming branch in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency
- 2) To find out the contribution of the porang farming branch income to the total income of farmers in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency

Research Methods

Research Location and Time

The research was carried out in Mundeh Kauh Village, West Selemadeg District, Tabanan Regency. This research was carried out for 7 months, from March to October 2023.

Research Data

The research data can be described into three categories, among others: based on the type of data, data source, and data collection method described below.

Data Type

The types of data sought in this study are quantitative data and qualitative data. Quantitative data is data that is presented in the form of numbers. Quantitative data was obtained from the results of research measurements accompanied by certain numbers and units of measurement. In this study, the quantitative data used, namely pure quantitative data, include land area, farming income from agriculture and non-agriculture, as well as from outside agriculture, including the age of farmers. Qualitative data is a type of data that is not in the form of numbers but is a description or explanation that supports its nature. The qualitative data used in this study include an overview of farmer groups, as well as the identity of porang farmers.

Data Source

The data sources used in this study are primary and secondary data. Primary data is data obtained directly from the source through interview methods, such as from observations in the Porang Farmers Group "Maju Bersama", the results of filling out questionnaires, and in-depth interviews with the heads of farmer groups. Secondary data is data obtained indirectly from sources that are able to provide information related to the research, such as subak profiles and data from the Central Bureau of Statistics of Bali Province.

Data Collection Methods

The methods used in data collection in this study are as follows.

- 1) Observation Method
This method is carried out by conducting direct observations at the research site
- 2) Interview
The researcher asked pre-designed questions in a questionnaire. Interviews are a data collection method obtained by interviewing each respondent who has been determined to obtain the information needed in the research
- 3) Documentation Studies
The method used is to record all existing documents and literature for research needs

Population and Sample

The population in this study is all farmers who are members of the Porang "Maju Bersama" Farmers Group in Mundeh Kauh Village, as many as 30 farmers, where the sample is determined by census, so that the sample of farmers is determined to be 30.

Data Analysis Methods

According to Sugiyono (2013), data analysis is a process to compile and organize data obtained from observations, interviews, and questionnaires into information that can be understood by others. The data analysis process aims to answer the formulated problems in the research carried out.

Data analysis is grouping data based on variables and types of respondents, tabulating data based on variables and all respondents, presenting data for each variable being studied, performing calculations to answer the formulation of the problem, and performing calculations to test the hypothesis that has been proposed. The data analysis in this study will be detailed based on the research objectives. In more detail, the data analysis on each objective is described as follows:

- 1) Objective one analysis (analyzing the income of porang farming branches in the Porang Farmer Group "Maju Bersama". The analysis used to find out the porang farming branch can be analyzed quantitatively using the following formula:

$$I = TR - TC$$

Information:

I : Income (farming income)
TR : Total revenue
TC : Total cost

- 2) Objective analysis is two (looking at the contribution of the porang farming branch income to farming income). To find out the amount of porang income contribution, the formula is used:

$$\text{Contribution} = \frac{\text{Porang Farming Income}}{\text{Total Farm Income}} \times 100\%$$

Farming analysis is used to determine farming costs, farm revenues, and net income of farming. It is calculated with a format (income statement) to calculate the net income of porang farming (Kay, 1986, *in* Susrusa, 2023).

Table 1
Format Income Statement Usahatani

Cash Acceptance:		
Porang for sale	a ₁	
Non-Cash Acceptance:		
Porang used	a ₂	
Porang given to relatives	a ₃	
Government assistance programs	a ₄	
Total Revenue		A
Cash Fee:		
Variable Cash Fees		
Hire Out-of-family workforce	b ₁	
Purchase of different types of fertilizers	b ₂	
Purchase of different types of pesticides	b ₃	
Purchase of various grow regulators	b ₄	
Repair and maintenance	b ₅	
Total Variable Cash Costs		B
Fixed Cash Fees		
Land tax	c ₁	
Interest on short, medium and long term loans	c ₂	
Rainfall subak	c ₃	
Total Fixed Cash Costs		C
Non-cash variable costs		
Workforce in the family	d ₁	
Manure from your own farming	d ₂	
Seeds from own farming	d ₃	
Total Non-Cash Variable Costs		D
Depreciation Costs		E
Farming Net Income	F	(A-B-C-D-E)
Farmers' Income	G	F+D

Results and Discussion

Indonesia is a country that is carrying out development in all fields, including the agricultural sector is one of the sectors that is relied on to support the pace of national economic growth, because the agricultural sector has proven to be able to support the nation's economic recovery and is expected to be able to provide solutions to the problems of most of the Indonesian population. The main activities and sources of income for the community, especially people in rural areas, are still dependent on the agricultural sector. It can be interpreted that the lives of most households depend on this sector (Nurmanaf, 2003). One of the agricultural subsectors that has an important role is the agricultural subsector of food crops, because it is not only a source of staple food for more than 95% of the Indonesian population but also as a provider of employment and as a source of income for around 21 million agricultural households (Suwastika et al., 2007). Agriculture is a driving force for other sectors so that it can support the goals of agricultural development, farmers' living standards, expand employment, business opportunities in encouraging economic development, growth of rural economic dynamics which in turn will provide opportunities to prosper people's lives more, especially in rural areas (Rahardi, 2007).

Income is the difference between revenue and total costs incurred during one planting season. Income is an entry for the respondent farmers to meet the needs of their families. Farming income analysis serves to measure whether farming activities are profitable or not. Therefore, the measure used to determine the amount of income received by farmers is the difference between the revenue and the amount of costs incurred (Sundrum, 2001).

Generally, the more types of commodities that farmers cultivate, the greater the income that will be obtained. This is also inseparable from the type and area of land cultivated by farmers. The income obtained from these various types of farming is highly dependent on various factors, including the amount of production produced and the prices that apply at the farmer level. Contribution is a donation or, in the study, is intended as the amount of income contributed from porang rice farming to the total income of farming.

Farm	Farm	Farm
Own	Rent	
(ARE)	(ARE)	(RP/ARE) 1 YEAR
Broad	Broad	Value
0	37	81000
70	0	0
100	0	0
85	0	0
0	150	60000
0	75	33000
3530	422	234000
117,6666667	14,0666667	7800
375	150	81000
0	0	0

Tractor					
Unit	Year Buy	Age of Use		Price	Estimate Now
		Total	Remnant		
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
0	0	0	0	0	0
1	2015	7	0	7000000	9300000
0,034482759	69,48275862	0,24137931	0	2413793,103	3206896,552
1	2015	7	0	7000000	9300000
0	0	0	0	0	0

Sprayer					
Unit	Year Buy	Age of Use		Price	Estimate Now
		Total	Remnant		
1	2013	9	1	645000	920000
3	2016	6	1	725000	910000
3	2017	5	2	750000	900000
2	2017	5	2	750000	900000
3	2016	6	3	730000	920000
3	2014	8	2	650000	915000
64	60415	241	49	19645000	26251000
2,13333	2013,833333	8,033333333	1,633333333	654833,3333	905206,8966
5	2018	12	5	780000	930000
1	2010	4	1	550000	890000

Hoe					
Unit	Year Buy	Age of Use		Price	Estimate Now
		Total	Remnant		
2	2010	12	2	100000	230000
2	2011	11	2	110000	225000
3	2012	8	3	115000	220000
3	2015	7	3	150000	220000
3	2017	5	3	175000	210000
3	2018	4	3	150000	200000
79	60426	231	72	4360000	6360000
2,633333	2014,2	7,7	2,4	145333,33	212000
3	2018	12	3	185000	230000
2	2010	4	1	95000	200000

Constant					
Unit	Year Buy	Age of Use		Price	Estimate Now
		Total	Remnant		
2	2014	8	2	55000	100000
2	2015	7	2	70000	100000
3	2016	6	3	65000	100000
3	2017	5	3	70000	100000
4	2015	7	4	65000	100000
3	2010	12	3	50000	100000
89	60425	236	90	1845000	3025000
2,966667	2014,167	7,866667	3	61500	100833,3333
5	2017	12	5	70000	125000
1	2010	5	1	50000	100000

Dry Season								
No	Types of Commodity	Amount/TBM	Amount/TM	A Lot of Harvest/MK	Production per Harvest (Kg)	Gross Production	Price/Unit (Kg)	Income
	1	2	3	4	5	6=3x4x5	7	8
1	1	2500	2500	1	1000	2500000	4000	4000000
2	1	2000	2000	1	1200	2400000	4300	5160000
3	1	1000	1000	1	800	800000	4000	3200000
4	1	7500	2500	1	1000	2500000	4000	4000000
5	1	3000	3000	1	2000	6000000	4500	9000000
6	1	2000	2000	1	1300	2600000	4000	5200000
7	1	4000	3000	1	2000	6000000	4200	8400000
8	1	3500	3500	1	2200	7700000	4000	8800000
9	1	1000	1000	1	700	700000	4200	2940000
10	1	2000	2000	1	1000	2000000	4300	4300000
11	1	5000	3000	1	2000	6000000	4200	8400000
12	1	2500	2000	1	1000	2000000	4000	4000000
13	1	3000	2000	1	1000	2000000	4000	4000000
14	1	1500	1000	1	800	800000	4300	3440000
15	1	2000	2000	1	1000	2000000	4000	4000000
16	1	3000	2000	1	1000	2000000	4300	4300000
17	1	4000	1000	1	900	900000	4000	3600000
18	1	2000	2000	1	1000	2000000	4500	4500000
19	1	12000	2000	1	3000	6000000	4200	12600000
20	1	10000	3000	1	3000	9000000	4000	12000000
21	1	8000	1000	1	1000	1000000	4500	4500000
22	1	10000	2000	1	1000	2000000	4300	4300000
23	1	20000	5000	1	5000	25000000	5000	25000000
24	1	9000	2000	1	1000	2000000	4500	4500000
25	1	5000	2000	1	1000	2000000	4500	4500000
26	1	12000	3000	1	1500	4500000	4000	6000000
27	1	5000	2000	1	1000	2000000	4500	4500000
28	1	7000	1000	1	1000	1000000	4000	4000000
29	1	10000	1000	1	1000	1000000	4200	4200000
30	30		0	30	41900			179440000
X	1,00		0,00	1,00	1444.83			6121333,33
Max	1			1	5000			25000000
Min	1			1	700			2940000

The contribution of porang farming income in West Selemadeg is dominated by very large criteria with percentages of 81.51%, 89.37%, 98.66% and 100%. This is because farmers focus on porang farming only. Meanwhile, the contribution of small, medium and large farmers is a condition where farmers still have coconut commodities to support farmers' income other than porang.

Coconut								
No	Number of Trees	Harvest Frequency	Production of each Harvest	Gross Production	Price	Income	Fertilizers and Pesticides	Workforce
1	150	0	1500	0	2800	4200000	0	5
2	75	0	750	0	2500	1875000	0	2
3	300	0	3000	0	2500	7500000	0	4
4	150	0	1000	0	2800	2800000	0	4
5	200	0	1800	0	2500	4500000	0	5
6	50	0	250	0	2500	625000	0	3
7	100	0	500	0	2800	1400000	0	3
8	100	0	500	0	2500	1250000	0	5
9	150	0	1300	0	2600	3380000	0	4
10	200	0	1500	0	2800	4200000	0	3
11	100	0	500	0	2700	1350000	0	5
12	50	0	200	0	2500	500000	0	4
13	250	0	2000	0	2500	5000000	0	4
14	100	0	1000	0	2800	2800000	0	3
15	50	0	300	0	2600	780000	0	4
16	200	0	2000	0	2500	5000000	0	5
17	300	0	2500	0	2800	7000000	0	4
18	100	0	750	0	2500	1875000	0	3
19	100	0	500	0	2600	1300000	0	3
20	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0
Jml	2.725	0	21850	0	49800	57335000	0	73
X	90,83333	0	728,3333333	0	1660	1911166,667	0	2,43333333
Max	300	0	3000	0	2800	7500000	0	5

Conclusions and Suggestions

Conclusion

It can be concluded that the contribution of porang farming income in West Selemadeg is dominated by very large criteria with percentages of 81.51%, 89.37%, 98.66%, and 100%. This is because farmers focus on farming porang only. Meanwhile, the contribution of small, medium, and large farmers is a condition where farmers still have coconut commodities to support farmers' income, other than porang.

Suggestion

The local government needs to hold a socialization about porang farming. This is an effort to increase porang productivity so that it can increase porang farming income. In addition, the area of land for porang farming needs to be enlarged so that income and farmers' income contributions can be larger.

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