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Rice Farming Business Prospects of the M70D Variety in Praya Barat District, Lombok Central District

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ABSTRACT

This research is entitled "prospects of rice farming of the M70D variety in West Praya District, Central Lombok Regency". The objective of the research was to determine the production costs of the M70D rice farming business. To determine the income of rice farming varieties M70D. To find out the prospects for rice farming of the M70D variety. Methods This research was conducted using descriptive methods. Descriptive method is a method used to analyze problems that occur by collecting, analyzing, describing, drawing conclusions, and interpreting.The analysis used in the research includes income and feasibility analysis. The results of the analysis show that the average production cost is IDR 6,325,184 and the average income earned by farmers isRp. 5,314,816and the efficiency of rice farming of the M70D variety is 1.84. This means that rice farming is feasible to develop and it is assumed that every one rupiah spent by farmers will bring income of 0.84 rupiahs.

Keywords: M70D Variety Rice, Income, Prospects

INTRODUCTION

Indonesia is an agrarian country where most of the population lives from farming or farming, so that agriculture is a sector that plays an important role in the welfare of the Indonesian population.

Agricultural development in the regions is very important, in order to increase the income and standard of living of farmers, expand employment and business opportunities as well as fill and expand markets and domestic needs. Through advanced and efficient agriculture will be able to increase production.

The development of food crop agriculture continues to be improved to maintain food self-sufficiency, increase people's income, and improve nutrition through diversification of food and food ingredients (Philip, 2013).

Rice is one of Indonesia's food crop commodities as well as the world's staple food and plays an important role in the national economy. Commodity rice is also a staple food that contains nutrients and energy for the body, can also create jobs and increase farmers' income.

Central Lombok is a potential area for planting rice because it still has 52,412 hectares of paddy fields which are able to provide food for the people of Lombok and can become a center for planting rice, especially on the island of Lombok (Central Lombok District Agriculture Office, 2021).

West Praya is a sub-district in Central Lombok Regency, West Nusa Tenggara. In terms of land use, the sub-district where most of its area is located at an altitude of 100 meters above sea level, around 64 percent of its area is dry land, the rest is paddy fields (Statistics, 2021).

Based on data from the Agriculture Office of Lombok Tengan Regency, UPT HPT and KESWAN in West Praya District (2021) The area of rice fields in Praya Barat District is 5,860.72 Ha where Penujak Village has an area of 1,026.82 Ha, Setanggor Village 390.89 Ha and Kateng Village has an area of 1,026.82 Ha, Setanggor Village 390.89 Ha and Kateng Village 897.69 Ha. These three villages are the largest producers of rice production in West Praya Subdistrict, namely Penujak 6.1 tons, Setanggor 6.2 tons, Kateng 6 tons because it is supported by the existence of DAM and Dam buildings which can at least reduce the problem

of drought which is able to help farmers in the farming process which they seek as one of the main livelihoods of the people who live in the region.

Rice farming was carried out in West Praya District (Penujak, Kateng, and Setanggor Villages), using rice seeds of the M70D variety. M70D rice seed (Moeldoko 70 Day) is a superior rice seed variety, this is because M70D rice seed can be harvested within 70 days after planting. M70D rice seeds are very good for use in rainfed rice fields and have been proven to be able to provide optimal results with a yield of 8.8 tons per hectare, besides that M70D rice seeds can also be harvested up to four times a year.

METHODS

The research utilized a descriptive method, which involved collecting, analyzing, describing, drawing conclusions, and interpreting data to analyze the occurring issues (Sugiyono, 2015). Data collection was conducted through interviews, where the researcher obtained information through questions and answers with respondents, using a prepared list of questions or questionnaires (Soekartawi, 1995).

The study was carried out in three villages, namely Penujak, Kateng, and Setanggor, in the West Praya sub-district of Central Lombok Regency. The sampling method used was "purposive sampling," considering that these three villages used M70D rice seeds and had good accessibility, making them suitable samples for the study.

The data used in this research consists of two types: quantitative data and qualitative data. Quantitative data were collected using research instruments and were measurable and presented in numerical form. On the other hand, qualitative data could not be measured or expressed in numbers but were presented as sentences, narratives, descriptions, written or unwritten documents. The data collected from respondents were then processed and analyzed, and the results were presented in tables according to the researcher's needs.

Several aspects were analyzed in the study, including income, production value (gross income), total costs, and Revenue/Cost Ratio (RCR). Income from farming was analyzed using the formula: I = TR - TC, where I represents income, TR stands for total revenue, and TC represents total production costs. The production value (TR) was calculated using TR = Y x Py, where Y represents the production of M70D rice and Py indicates the price level. The total cost (TC) is obtained by adding fixed costs (Fc) and variable costs (Vc), TC = Fc + Vc.

Lastly, the Revenue/Cost Ratio (RCR) was assessed, which is the comparison between total revenue and total costs, calculated using the formula: RCR = TR / TC. Based on the criteria, if RCR > 1, the farming business has good prospects and is viable for development. On the other hand, if RCR ≤ 1, the farming business is not promising and not suitable for further development.

RESULT

1. Production cost

Average Production Costs Expended on Rice Farming of the M70D Variety in West Praya District 2022

No	Information	Amount (IDR)
1	Fixed cost	**477,711**
2	Variable Cost	**5,847,473**
	AMOUNT	**6,325,184**

Source: Primary Data Processed

Based on Table above, it can be seen that the total production cost incurred by rice farmers of the M70D variety in one planting season is Rp**6,325,184**consisting of the total fixed costs of Rp. 477,711 and variable costs of Rp. 5,847,473

Fixed costs include equipment depreciation, tax costs and land rental costs. The details of the costs are as follows:

1. Equipment Depreciation Cost

Table 2. Average Equipment Depreciation Cost of M70D Rice Farming in West Praya District 2022

No	Description	Amount	Depreciation Value (Rp)
1	Hoe	1	21,558
2	Sickle	2	8,290
3	Sprayer	1	124,342
	AMOUNT		95,750

Source: Primary Data Processed

From Table. 2 Farmers for rice farming of the M70D variety use an average of 1 hoe with a depreciation value of IDR 21,558. For scythes, an average of 2 are used with a depreciation value of Rp. 8,290, and for sprayers, 2 are used with a depreciation value of Rp. 124,342. So the total cost of depreciation of the equipment in the M70D variety rice farming is IDR 95,750

2. Taxes and Rent Fees

Table 3. Tax and Average Rent Costs of M70D Variety Rice Farming in West Praya District 2022

No	Description	Value (IDR)
1	Tax	31,961
2	Rent	350,000
	AMOUNT	381,961

Source: Primary Data Processed

From Table 3 the tax value for one planting season issued by farmers is Rp31,961while the value of land rent per planting season is IDR 350,000 so that the total cost of taxes and land rent per planting season is IDR**381,961**.

While the variable costs are production inputs and labor costs. Details of production costs are described as follows:

1. Saprodi costs

Table 4. Average Cost of Production Facilities for Rice Farming of the M70D Variety in West Praya District 2022

No	Description	Amount	Unit	Price (IDR)	Value (IDR)
1	Seed	11	kg	25,733	274,333
2	Urea Fertilizer	101	kg	3.133	311,833
3	NPK fertilizer	92	kg	3,100	281,833
4	Herbicide	2	Bottle	54,000	95,500
5	Insecticide	1	Bottle	35,733	59,333
6	Fungicide	1	Wrap	21,333	38,667
7	ZPT	1	Wrap	1,200	4,200
	AMOUNT				1,010,755

Source: Primary Data Processed

From Table 4 shows that the respondent farmers use an average of 11 kg of seeds with a total cost of IDR 274,333. Urea fertilizer used was 101 kg with an average cost of Rp. 311,833, 92 kg of NPK fertilizer, with an average cost of Rp. 281,833. The fertilization was carried out 2 times, namely at the age of the plant 10 days and the second fertilization at the age of the plant 25 days. In addition to fertilizers, pesticides were also used to control existing OPT attacks, namely 2 bottles of herbicides with an average cost of IDR 95,500, 1 bottle of insecticide with costs IDR 59,333, 1 pack of Fungicides with an average cost of IDR 38,667 and 1 pack of ZPT with an average cost of IDR 4,200. So that the average cost of production inputs spent on rice farming of the M70D variety in West Praya District is Rp.**1,010,755**.

2. Labor costs

Table 5. Average Labor Cost of M70D Rice Farming in West Praya District 2022

No	Description	Kindergarten number	Value (IDR)
1	Land Processing	1	829,400
2	nursery	2	61,833
3	Planting	12	706667
4	Stitching	1	17,500
5	Fertilization	5	223,333
6	Weeding	4	185,000
7	Spraying	2	78,333
8	Harvest	1	2,679,707
	AMOUNT		4,781,773

Source: Primary Data Processed

In cultivating the farmer's land using 1 HKO workforce in the form of a package of tillage machines or tractors at a cost incurred by the respondent farmers in the amount of Rp829,400. In the nursery the number of workers used is 2 HKO with a total cost of IDR 61,833. In the planting stage, farmers use 12 HKO at a cost of IDR 706,667. Labor obtained from outside the family in groups of 6-20 people depending on the area of land planted with wages paid on an individual or group basis. The average wage value per person is IDR 50,000.

In the embroidery stage using 1 HKO with a total cost of IDR 17,500, because at this stage the average farmer uses family labor where the labor cost in the family is not counted. The Farmers Fertilization Stage uses 5 HKO workers with a total cost of IDR 223,333. In the weeding stage, the workforce used is 4 HKO, with a cost of Rp. 185,000. The spraying phase of the workforce used was 2 HKO with a cost of IDR 78,333. Farmers do more spraying themselves seeing the condition of the plants being farmed. And at the harvest stage, the workforce used is a harvest team with a cost of Rp.2,679,707 In this harvesting stage using a profit sharing system from the rice harvest. Sharing the results of 1 planting team, if the results obtained are 100 kg, then the existing workforce will get 20 kg from the results. Then the calculation is the amount of rice yields obtained by these workers multiplied by the selling price of the rice obtained. So the total cost incurred by farmers in using labor is Rp**4,781,773**.

Reception

Table 6. Average Production, Price and Revenue of M70D Variety Rice Farming in West Praya District 2022

No	Description	Information	Mark
1	Production	kg	3,263
2	Price	Rp	3,577
3	Reception	Rp	11,640,000

Source: Primary Data Processed

Income of M70D Variety Rice Farming

Table 7. Average Income of M70D Rice Farming in West Praya District 2022

No	Description	Value (IDR)
1	Reception	11,640,000
2	Total cost	6,325,184
3	Income	5,314,816

Source: Primary Data Processed

Table 7. above shows that the average respondent's farmer income is Rp11,640,000. With a total cost of Rp6,325,184. And the average income of rice farming of the M70D variety in West Praya District is IDR 5,314,816.

RC Ratio analysis

The prospect of farming rice of the M70D variety can be seen from the large efficiency of the farming carried out. The efficiency of rice farming of the M70D variety is indicated by the magnitude of the R/C ratio, which is a measure of the ratio between income and total costs. If the calculation results are more than 1 then the business is profitable and can be continued. However, if the result is less than 1, then the business tends to be unprofitable and needs to be reviewed. The prospects for rice farming of the M70D variety can be seen in Table. 4.14 below

Table 8. Prospects of M70D Rice Farming in West Praya District 2022

Description	Value (IDR)	R/C Ratio
Reception	11,640,000	1.84
Total cost	6,325,184	
Income	5,314,816	

Source: Primary Data Processed

From Table 4.14. states that the efficiency of rice farming of the M70D variety is 1.84, this value indicates that this farming is feasible to develop. This value is assumed that every one rupiah spent by farmers will bring income of 0.84 rupiah.

CONCLUSION

Based on the research results, several key conclusions can be drawn regarding rice farming of the M70D variety in West Praya District, Central Lombok Regency:

Firstly, the average cost of production for rice farming in one growing season amounts to Rp. 6,325,184. This figure reflects the expenses incurred by farmers in the cultivation process. Secondly, the average income from rice farming of the M70D variety in West Praya District during one growing season is Rp. 5,314,816. Notably, there are two rice planting seasons in a year, which contributes to the overall income of the farmers. Thirdly, rice farming of the M70D variety in this region exhibits promising prospects due to its farming efficiency value of 1.84. Additionally, it has the potential to enhance the Rice Cultivation Index to IP 3, highlighting its positive impact on the agricultural sector. Lastly, despite the positive outlook, there are various obstacles faced by rice farmers in West Praya District. These challenges include difficulties in maintaining farming income, issues related to seed availability, and frequent bird pest attacks that adversely affect crop yields.

In summary, the research findings emphasize the significance of rice farming in West Praya District, Central Lombok Regency, while also shedding light on the obstacles that need to be addressed to ensure sustainable agricultural development in the area.

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