

Analysis of Rice Farmers Earnings in District Labuhan Batu

Ade Firmansyah Tanjung¹, Iskandarini²; Dan Satia Negara Lubis²

¹ Alumnus Magister Agribisnis Faculty of Agriculture University of North Sumatera, Medan

² Lecturer of Master Program of Agribusiness Faculty of Agriculture University of North Sumatera, Medan



Abstract - Farmers have not been able to reach a value corresponding revenue minimum wage standards. The purpose of this study was to calculate the amount of income rice farmer in the research area. Based on the results and discussion of the study, the magnitude of total production costs for Rp.5.135.584/growing season, average receipts amounted Rp.11.743.596/growing season, with the selling price Rp.4.000/kg and the average amount of the total income of each farmer of rice in the location of research is the average Rp.6.607.911/growing season with a production of 2,936kg. Farmers' income value is calculated from the results of the location study enrollment and the cost of production in one growing season. When the farmer's net income amounted to only Rp.6.607.911/growing season, how to meet the needs of family life, even to achieve prosperity for the farmers themselves would be very difficult to achieve. Total income of farmers depends on the price of grain and the amount of their agricultural production. If the cost of production. Higher than production output is generated, it will cause a loss in income of the farmers themselves.

Keywords - Rice Farmers; Farmers Revenue Analysis; Revenue and Cost Production.

I. INTRODUCTION

Agriculture plays an important role of the overall national economy. This can be demonstrated by the large number of residents or working from the agricultural sector. Thus agricultural development is improved continuously (Mubyarto, 1984).

From the data of BPS in Batulurah regency, there is an increase of production of food commodity which is rice production with the number of 117,992 tons in 2012, then increased in 2016 amounted to 169,654 tons. In terms of productivity also increased in 2012 amounted to 4.8 tons / Ha to 5.3 ton / Ha in 2016. With the increase of production, it should be followed also by the increase of income and welfare of farmers themselves, then the improvement on the problems that come from outside (external) and from within (intern) farmers themselves. .

Farmers as the smallest agribusiness unit have not been able to achieve a rational revenue increase in accordance with the farming scale with the pattern of one season planting in a year and the income earned has not been able to exceed the minimum wage earning of LabuhanBatu

Regency. For example, farmers manage rice paddy commodities with one hectare of land with two planting seasons a year producing a total production of 12 tons of dried seed, with a grain price of Rp.4000 / kg, then farmers will get a net income once planting season is Rp.24 Million or Rp. 2 million per month. If the farmer lives five in the family, then say the average per person will get a share of Rp.400.000 / bulan, around Rp 13,000 / day.

With the calculation of these simple problems farmers are still below the poor line, of course, farmers have to farm two hectares or two planting seasons in a year or more utilize the condition of productive land to other fields of farming. If the income condition is 1 hectare / planting season is still relatively low, how is the farmer's income condition with the ownership of the land area less than 1 hectare and only one planting season in a year, how the farmer will support the needs of his family.

Based on the results of survey data problems conducted by researchers in the field, by looking from the point of view of the problems on farming patterns faced by farmers today, so that farmers are difficult to increase income and

welfare of his family. So the researchers increasingly pay more serious attention to analyze what is the average condition of farmers' earnings in the research location.

II. LITERATURE REVIEW

A. Theoretical basis

In the farming income there are two elements used are the elements of income and expenditure from the farm. Revenue is the result of multiplication of total product amount with unit of sale price, while expense or expense as value of use of means of selling price, while expense or expense as value of use of production means and others issued in the production process. The net income of farmers is obtained by the following formula:

$$\pi = TR - TC$$

Information :

π = Revenue / Income (Rp / plant season).

TR = Total Acceptance (Rp / muxim planting).

TC = Total Cost (Rp / planting season) (Suratiah, 2015).

According to Daniel (2002), states that production costs are as compensation received by owners of factors of production, or costs incurred by farmers in the production process, whether cash or non-cash. Fixed costs are a small amount of cost not dependent on the size of production, such as rent in the form of money, while the variable cost is a small cost associated with the size of production, such as seeds, fertilizers, and so forth.

Costs are from the sum of fixed costs and fixed costs used together in the production process can be systematically formulated:

$$TC = FC + VC$$

Information :

TC = Total Cost (Rp).

FC = Fixwd Cost (Rp).

Receipts are obtained from the multiplication of the production amount with the selling price generated. Systematically can be formulated:

$$TR = Y \cdot Py$$

TR = Total Receipts (Rp).

Y=Production obtained (Kg).

Py =Price Y (Rp), (Soekartawi, 2002).

B. Previous Research Study

The research of Sri Novi Yanti (2014) entitled the strategy of increasing the income of organic rice farmer in Lubuk Bayas Village Perbaungan Subdistrict of Serdang Bedagai. From the result of this research, the strategy that can be applied to increase farmer's income is trun-around strategy (WO strategy) credits so that the farmers have the capital and do the expansion of organic rice area.

Research Siti Komariah (2013) entitled the income of rice farmers of organic and Inorganic fertilizers in Ogan District. From result of research indicate that contribution of fertilizer cost to semi-organic fertilizer user is bigger than farmer of organic fertilizer and inorganic fertilizer. Based on the result of t-test, it can be concluded that there is no real difference between the average income of organic fertilizer farmers and the farmers of the fertilizer users and the users of inorganic fertilizer. This has not provided a high incentive for farmers to shift from producing non-organic rice to organic rice.

Research Wheny MentariIga Harwati (2014) entitled factors that influence the income of corn farmers in the Village Sidodadi Patean District Kendal District. From the results of research the average profit rate of corn farmers amounted to Rp.6.911.185,00 / harvest season. R / C analysis on corn farming is feasible to be sought because it is bigger than 1 that is with value 2,38. Value of square in this research is 0,831, mean as much as 83,1% of variation or change of up and down income of corn farmer explained by factor of variation of age factor, education, length of farming, land area and amount of fertilizer. The remaining 16.9% is influenced by other factors not included in the research variables.

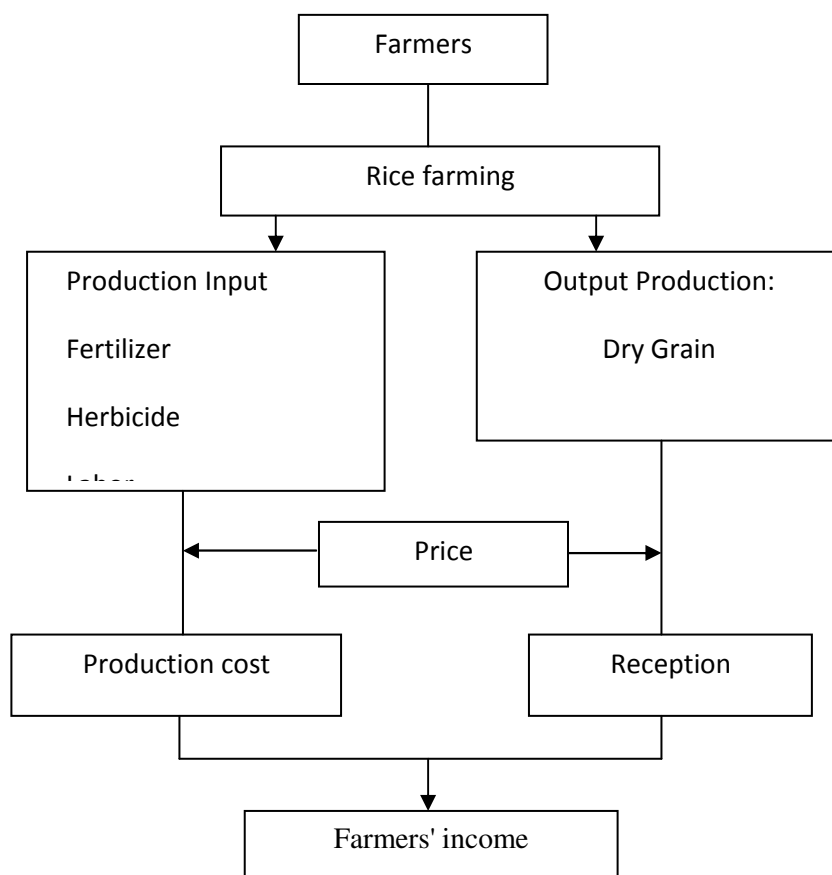
Junaidi Research (2013) entitled analysis of production, distribution of farmer income and Impact of Land Optimization Program on Wetland Rice Production in Muaro Jambi Regency. From the results of the study showed that over all test (F test), showed that the variables of land, fertilizers, seeds, labor, capital, farming experience and education level significantly. With land optimization there is an increase of farmer's income compared to before optimization and give positive impact.

Research Sularno (2012) entitled business opportunity through agribusiness mina padi to increase farmer's income in Soropadan Village Pringsurat Temanggung District From study result: 1) development strategy of agribusiness opportunity of rice mina: a) increase production and quality according to market demand, b) institutional cultivation and

handling of production, d) Control of pest as early as possible within the economic threshold, e) Development of HR skills. 2) Opportunities in rice farming Net profit of Rp.7.165.250. 3) Value of agribusiness yield of rice mina R / C ratio of 2.97 and B / C ratio of 1.97. That means this agribusiness is feasible to be developed.

C. Framework

Based on the problems and concepts concerning the theoretical framework of the problem approach used in this study, it can be formulated framework as follows:



Picture 1. Rice Farmers Income Analysis.

III. METHODS RESEARCH

A. Method of Determination of Research Location

The location of the research is purposive, ie the determination of the research location that is purposely chosen based on the specific purpose. because Labuhan Batu regency is one of the areas where the majority of people's livelihood is agricultural sector. The researcher needs to explain that the research is only in three (3) districts in Labuhan Batu Regency.

Based on data source from observation of field interview to research area, BPP Office, Dinas Pangan that the picture of demography area for paddy farming area is mostly located in coastal and rural areas located in three sub-districts namely kecamatanpanaihulu, kecamatanpanaihilir , middle pane, and merupakan consideration also for researchers for the efficiency of time and cost of the research, therefore the researcher focuses this research only on three districts.

B. Sample Determination Method

The sampling method is the process of selecting a number of individuals (samples for a study, so that the individuals are representative of larger groups (Population). The sample is determined by the Solving formula (Riduwan, 2005).

$$n = \frac{N}{1 + ne^2}$$

Where :

N = Population Size.

n = Sample Size.

e = Percent leeway of accuracy due to the exhaustion of sampling

still tolerable / standard error (10%).

In this study the researchers used a tolerable error limit of 10%. The reason researchers use the solving formula is because in this study the sample taken by researchers is less than 1000 people.

The Solving Formula :

$$n = \frac{N}{1 + ne^2} = \frac{9224}{1 + 9224 (10\%)^2} = 99 \text{ Person}$$

The required respondents amounted to 99 people drawn from the entire population of rice farmers in three (3) study sites.

Primary data were obtained directly from the farmers by making a list of questionnaires and conducting direct interviews with farmers, while secondary data were obtained from the agriculture department, the food department and the local government statistical center and data from the local kecamatan associated with this research.

C. Data analysis method

Then after that do income analysis of farmers based on the results of observations and interviews in the area of research with the following formula:

Revenue Analysis, to solve the problem about the large amount of rice farmer income is used with the following formula:

$$\pi = TR - TC$$

Information :

π = Revenue / Income (Rp / plant season).

TR = Total Receipts (Rp / planting season).

TC = Total Cost (Rp / planting season) (Suratiah, 2015).

Analysis of Production Costs, Costs are from the sum of fixed and variable costs which are used together in the production process systematically can be formulated below:

$$TC = FC + VC$$

Information :

TC = Total Cost (Rp).

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Analysis of Receipts, Receipts obtained from the multiplication of the amount of production with the selling price generated. Systematically can be formulated:

$$TR = Y \cdot Py$$

TR = Total Acceptance (Rp).

Y = Production obtained (Kg).

Py = Price Y (Rp), (Soekartawi, 2002).

IV. RESULTS AND DISCUSSION

General description of sample farmers also includes farmer age, farmer education level, length of paddy farming and number of family members described below:

A. Farmer's Age

Age of farmers is very closely related to the ability of farmers, The older the age of farmers the tendency of work ability decreased, then this will have an impact on production and income obtained, because the work as a farmer is much rely on the physical. Can be seen in Table 1. below:

Table 1. Distribution of Farmer Age Group Samples

No	Age	amount (person)	Percentage (%)
1.	30-35	21	21
2.	36-40	23	23
3.	41-45	36	36
4.	≥ 46	24	25
Total		99	100

Source: Primary Data, Processed, 2017

From the description of Table 1.that the largest percentage of research sites are in the range of 41-45 years with a percentage of 36%. This means that the sample farmers in the study area are at a productive age that still has the potential to optimize rice cultivation.

Table 2. Distribution of Education Levels of Sample Farmers

No	Education	Amount (org)	Percentage(%)
1.	Primary school	43	43
2.	Junior high school	35	35
3.	High School	19	19
4.	Bachelor	3	3
Total		99	100

Source: Primary Data, Processed, 2017

From the explanation of Table 2, the largest percentage of research sites are at the primary education level with a percentage of 43%. This means that the sample farmers in the research area are at a low level of education.

B. Farmer Education

The highest level of education of sample farmers is SD (43%), followed by junior high school (35%), high school (19%), while the smallest is 3 (3%). Explanation can be seen in Table 2. below:

C. The number of dependents

The largest number of sample farming families is 4-6 totaling 55 people (56%) while 1-3 people are 44 people (44%). The distribution of the number of family members of sample farmers can be seen in Table 3. below:

Table 3. Distribution of Number of Farmers of Sample

No	Dependence	Amount (Org)	Percentage (%)
1.	1-3	44	44
2.	4-6	55	56
Total		99	100

Source: Primary Data, Processed, 2017

From the explanation Table 3.that the largest percentage of the research location, for the number of dependents in the range of 4-6 with a percentage of 55%. This means that sample farmers have a big responsibility to meet the needs of their families.

Experience

The largest sample farming experience is the year ≥ 15 (76%), while the smallest is 1-14 years (23%). For more details can be seen in Table 4. below:

Table 4. Distribution of Farmer Farmers Experience

No	Experience	Amount (Org)	Percentage(%)
1.	1-14	23	23
2.	≥ 15	76	77
Total		99	100

Source: Primary Data, Processed, 2017

From the explanation Table 4.that the largest percentage of the study sites, which has experience in the range of ≥ 15 years, with a percentage of 77%. This means that the sample farmers have long experience to carry out the farming work well.

D. Rice Farmers Income Analysis in Labuhan Batu District

Based on the situation in the study area obtained the average income of farmers from the results of simple analysis through observation and interviews conducted directly to the respondents of rice farmers, how much the average for the management of input costs and production output can be seen in Table 5. below:

Table 5. Average Farmer Management and Income Costs

No	Job description	Amount
1.	Production (Kg)	2.936
2.	Selling Price of Paddy	4.000
3.	Reception	11.743.596
4.	Production cost	-
	a.IR Seeds	670.354
	b.Fertilizer	-
	NPK	196.848
	UREA	160.606
	KCL	167.018
	c.Herbicides	-
	Gramoxone	223.889
	Round UP	154.141
	d. Labor	-
	Soil Processing	423.485
	Cultivation of Rice	1.051.515
	Harvest	2.083.081
5.	Farmers' income	6.607.911

Source: Data is processed from the analysis of primary data in 2017

E. Farmers' Reception

To calculate the acceptance of farmers can be done by multiplication between the rice yield obtained with the sale price, so that acceptance is determined by the large amount of rice production and the selling price applicable at that time the research location. Thus, the acceptance of wetland paddy farmers varies depending on the size of the paddy production at harvest is also determined area of paddy fields owned by farmers. From it can be explained that the average revenue per farmer from the total number of respondents is Rp.11.743.596 / MT per farmer, with selling price Rp.4.000 / kg.

F. Production cost

For the cost of paddy production is calculated from all costs incurred during the farming farm in one season planting. These costs include variable costs and fixed costs. Variable cost is the cost that the amount always change along with the development of the business is the procurement of seeds, fertilizers, drugs / herbicides, and labor. While the fixed cost is an unchanged cost that is the cost of maintenance, land rent, equipment costs and other costs - others.

The results of field observations and interviews for the problem of equipment costs and land rent do not significantly affect the cost of spending, the reason farmers no longer need to buy new equipment again, because the old equipment can still be used, then the ownership status of the

farmer is his own and not the lease of land on others, this makes farmers more cost efficient for farming. Therefore, in the research that can be calculated is the overall variable cost during the work. Based on the results of the research location for the average production cost per farmer from the total number of respondents is Rp.5.135.584 / MT per farmer.

G. Rice Farmers Income

The amount of income received by farmers is the result of the amount of rice production during the harvest season multiplied by the selling price during the harvest season with the unit price of Rp.4.000 / kg reduced by the total production cost consisting of fixed costs and variable costs. The amount of income of rice field farmer respondents is calculated by using the following formula:

$$P = TR - TC$$

Based on the results of income analysis of paddy farmers in the study area showed that the average amount of net income per farmer is Rp.6.607.911 / MT, which is the result of reduction of total receipts with production costs. From the survey results in the study area there is only one planting season in one year, the results of direct interviews with farmers, that the average farmers expect the source of irrigation is rain-fed, this is the reason farmers cannot carry out two planting seasons in a year.

V. CONCLUSIONS AND SUGGESTION

A. Conclusion

Based on the results and discussion of the research, the amount of rice farmer income in the research area is the average is Rp.6.607.911 / Season with a production of 2936 kg. The small amount of income received by farmers in the research location is influenced by the acceptance and production costs. If the average net income of farmers is only Rp.6.607.911 / Season to meet the needs of life every month, very low when compared with minimum wage standards.

If the income received by farmers does not exceed the minimum wage standard of income per month, then the welfare of family life of farmers will not be achieved. Suggestions from researchers is the need to make improvements on the problem what the constraints for farmers in the field, either from the problem factor from within farmers and from outside the control of the farmers themselves. The role of government here is also very necessary, through active counseling to farmers, so that the existing problems in the field quickly resolved.

B. Suggestion

Based on the conclusion of the research it can be suggested as follows:

1. To the government advised to continue to provide assistance to farmers in the form of capital and service inputs such as aids subsidized production facilities, grant business capital, re-enforcing farmer groups.

2. To the farmers should be able to optimize the resources owned farmers eg land, labor, capital in order to avoid various threats on the farm.
3. To the next researcher is suggested to examine how to make the right strategy to increase farmer's income, by looking at the potential that exist in the location of research.

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