THE IMPACT OF CONVERTING THE FUNCTION OF AGRICULTURAL LAND INTO SETTLEMENTS ON FARMERS' INCOME IN GAMPONG PADANG, MANGGENG DISTRICT, SOUTHWEST ACEH DISTRICT

Baihaqi[1], Rusdi Faizin[2]
[1,2]Faculty of Agriculture, Universitas Teuku Umar
Correspondence E-mail: baihaqibaihaqi376@gmail.com

Abstract

This research was conducted to see how much impact the conversion of agricultural land into residential areas had on farmers' income in Gampong Padang, Manggeng District, Southwest Aceh Regency. The research was conducted in Padang Village, Manggeng District, Southwest Aceh Regency. This research was carried out in October-November 2022. In this research the type of data used is data (descriptive) while the data sources used are primary data sources and secondary data. The data analysis technique used is descriptive qualitative, namely the data obtained and collected is then studied and presented in tabular form. The results of the research show that the impact of agricultural land conversion in Padang village is negative, where farmers' income after land conversion decreases up to two times compared to before land conversion.

Keywords: ***Land Function Transfer, Settlement, Income***

1. INTRODUCTION

Land is a natural resource that plays a very important role in development. Almost all physical development sectors require land, such as agriculture, forestry, industrial housing, mining and transportation. Land that has high potential in the development sector is expected to have potential in various land use activities. Agricultural land always decreases every year, decreasing in terms of quality and quantity. Agricultural land is decreasing due to development, what was previously agricultural land has turned into residential, industrial and other areas. Currently, the agricultural sector still plays an important role in providing a high impact on economic growth. In order to avoid problems in land use, there must be regulations and spatial planning that will result in more optimal and efficient use and arrangement of space. Land conversion is a change in the function of part or all of a land area from its original function (as planned) to another function which has a negative impact (problem) on the environment and the potential of the land itself. Land conversion can also be interpreted as a change to another use caused by factors which broadly include the need to meet the needs of an increasing population and increasing demands for a better quality of life (Lestari, 2009:29).

Lestari (2009:34) believes that rice fields that have been converted to other uses in agriculture have very little chance of being converted back into rice fields. The substance of the problem of land conversion does not only lie in whether or not land can be converted but is more concerned with the socio-economic and environmental impacts and benefits in the long term and other alternatives that can be taken so that the benefits are greater than the impacts. The need for land for development is very strong, while the land area is not increasing or is limited. So far, agricultural land has a low land value compared to other land uses (non-agricultural), as a result agricultural land will continuously experience conversion to non-agricultural land. In fact, agricultural land (rice fields) apart from having economic value as a buffer for food needs, also has ecological functions such as regulating water management, absorbing carbon in the air and so on (Hariyanto, 2010:2).

2. IMPLEMENTATION METHOD

Time and Place of Research

The research was conducted in Padang Village, Manggeng District, Southwest Aceh Regency. This research was carried out in October-November 2022.

Population and Sample

Determining the sample in the research was the rice farming community in Padang Village who were affected by land conversion due to development. The population in this study was 37 people who were affected by land conversion in Padang Village, Manggeng District, Southwest Aceh Regency. According to (Sugiyono, 2017) a sample is taking research subjects using a portion of the existing population. The sampling technique in this research uses a saturated sampling method, namely a sampling technique that uses the entire population as a sample. The number of samples in this study was 37 people, of which the entire population was used as a sample.

Data types and sources

In this research, the type of data used is data (descriptive) while the data sources used are primary data sources and secondary data:

a. Primary data

Primary data is a source of research data obtained directly from the original source in the form of interviews, opinion polls from individuals or groups (people) or the results of observations of an object, event or test result.

b. Secondary data

Secondary data is a source of research data obtained through intermediary media or indirectly in the form of books, notes, existing evidence, or archives, both published and not generally published. In other words, researchers need to collect data by visiting libraries, study centers, archive centers or reading lots of books related to their research.

Data collection technique

The data collection techniques used in this research are:

a. Interview

Interviews are a data collection technique carried out face to face and direct question and answer between data collectors and researchers with sources. Interviews are a way of gathering information or data through verbal or oral interactions. (Soehartono 2008).

b. Observation

Observation is a data collection technique that not only measures respondents' attitudes (interviews and questionnaires) but can also be used to record various phenomena that occur (situations, conditions) in order to find out what the real situation is.

c. Documentation

Documentation is the activity of searching for data regarding things in the form of notes, transcripts, books, newspapers, magazines, and so on. This technique is used to obtain data regarding things needed in research. Documentation studies are a form of data collection that is not directly shown to research subjects. Documents used in research can be obtained from anywhere, not just from official documents. (Suhartono 2008).

Data analysis technique

The data analysis technique used is Qualitative Descriptive, namely data that is obtained and collected and then studied and presented in tabular form.

Research variable

The variables in this research include:

a. Respondent's Age, namely: The length of life that the respondent has lived since birth until the interview was conducted, which is measured in years.
b. Education: namely the formal education that the respondent has attended and is measured at elementary, middle school, high school and bachelor (S1) levels.
c. Number of family dependents: namely the number of people living together in one house and is measured in people.
d. Land Ownership Status: Owned, Rented, Profit Sharing, Type of agricultural land: paddy fields, and outside paddy fields
e. Land area that has been sold: namely the area of land used for development
f. Total Production: namely the amount of production before and after land conversion
g. Farmers' income before and after land conversion occurs (Rp).
h. Positive and negative impacts of land conversion.

3. RESULTS AND DISCUSSION

General Description of Research Locations

Manggeng District consists of 3 mukims, namely Ayah Gadeng, Blang Manggeng, and Sejahtera, as well as 18 definitive villages and 55 hamlets and occupies an area of around 2.17% (40.94 km2) of the total of Southwest Aceh Regency. Padang Village is included in the Ayah Gadeng Residential area, Manggeng District, Southwest Aceh Regency with an area of approximately 340 Ha. Administratively and geographically, Gampong Padang is bordered by: - To the west it is bordered by Gampong Paya - To the east it is bordered by Gampong Sungai Krueng Manggeng - To the north it is bordered by Gampong Keudee - To the south it is bordered by Gampong Teungah. It is divided into three hamlets, including Salak Hamlet, Jambu Hamlet, and Bate Intan Hamlet.

Based on data on the population of Padang Village, Manggeng District, Southwest Aceh Regency in 2022 who live in Padang Village, it can be seen in the following table:

Table 1. Number of residents and gender in Padang Village

No	Gender	Amount	Percentage (%)
1	Man	579	51.70
2	Woman	541	48.30
Amount		1120	100

Data source:Secondary data 2022

Population management and family development is a planned effort to direct population development and family development to realize a balanced population growth and develop the quality of the population in all dimensions of the population. Population development is a condition related to changes in population conditions that can influence and be influenced by the success of sustainable development. Population composition according to age in the demographic sense is the composition of the population according to certain age groups. Composition according to age can

be grouped into three, namely: 1). Not yet productive age (age group <14 years) 2). Productive age (age group between 15-64 years) 3. Unproductive age (age group > 64 years) (Gunawan 2019).

The total population of Padang village is 1,120, with 51.70% male or 579 and the remaining 541 or 48.30% female. Meanwhile, based on livelihoods, it can be seen in the following table:

Table 2. Number of residents based on livelihoods in Padang Village

No	Livelihood	Amount	No	Livelihood	Amount
1	ASN	54	7	IRT	51
2	TNI/POLRI	5	8	Laborer	1
3	Farmer	148	9	Welder	3
4	Self-employed	88	10	Carpenter	6
5	Trader	10	11	Tailor	2
6	Fisherman	1	12	Retired	11

Data source:Secondary data 2022

From table 2 it can be seen that the majority of Padang village residents earn their livelihood as 148 farmers, 88 as entrepreneurs, 51 as domestic workers and 54 as ASN, the remainder earn their livelihood as TNI/Polri 5, 10 as traders, 1 as fishermen, 1 as laborers. soul, welder 3 souls, carpenter 6 souls, tailor 2 souls, and retired 11 souls.

Respondent Characteristics

In this research, the respondents were 37 people who were rice farmers who worked on paddy fields in Padang village, where these respondents had felt the impact of the conversion of agricultural land to the rapid development of road and building infrastructure.

1. Age

Table 3. Age Distribution

No	Age	Amount	Percentage
1	25 - 35	5	13.5
2	36 - 45	14	37.8
3	46 - 55	7	18.9
4	56 - 65	7	18.9
5	> 65	4	10.8
Total		37	100

Data source:Primary data will be processed in 2022

Table 3 shows that the number of respondents with an age range of 36-45 years is greater with a percentage of 37.8%, respondents aged 46 - 55 years and 56 - 65 years have the same percentage, namely 18.9%, respondents aged 25 - 35 years old is 13.5% and farmers aged ≤ 65 years only have a percentage of 4%. The average age of farmers in Padang village is 36 - 65 years, which means they are of productive age for work.

2. Education

Table 4. Education Distribution

No	Education	Amount	percentage
1	elementary school	13	35.1
2	middle school-high school	17	45.9
4	>high school	7	18.9
Total		37	100

Data source:Primary data will be processed in 2022

Based on table 4, it can be seen that the education level of respondents is mostly farmers who were only able to complete school at the junior high school level, 45.9% or 17 people. Respondents with elementary school education were 35.1% or 13. Meanwhile, respondents who continued their education to tertiary institutions were 18.9% or 7 people.

3. Work

Table 5. Job Distribution

No	Work	Amount	Percentage
1	Employee	7	18.9
2	Farmer	14	37.8
3	Trader	7	18.9
4	Random	9	24.3
Total		37	100

Data source:Primary data will be processed in 2022

Based on table 5, it can be seen that the main occupation of most respondents is farmers, namely 14 people or 37.8%, 9 people or 24.3% casual workers and 7 people each or the equivalent of 18.9%. (Indah et., al 2018) stated that workers who work as farmers do not require farmers to be on their agricultural land every day. Farmers can take advantage of their free time by working in other sectors if they still want to increase their income.

4. The number of dependents

Table 6. Distribution of Dependents

No	The number of dependents	Amount	Percentage
1	<3	8	21.6
2	3 to 5	26	70.3
3	>5	3	8.1
Total		37	100

Data source:Primary data will be processed in 2022

Based on table 6, it can be seen that the highest number of dependents of respondents is 3-5 people or 70.3%. Meanwhile, there were 8 dependents <3 or 21.6%. And dependents >5 are 8.1% or the equivalent of 3 people. The large number of dependents will of course affect expenses. The

large number of respondents' dependents will result in farmers having to increase the amount of production to meet all household needs. In this way, the farmer's production can meet all his family's needs (Arlis 2016).

5. Land area

Table 7. Land Area Distribution

No	Land Area (m/sq)	Amount	Percentage
1	110 – 1500	24	64.9
2	1600 - 3000	6	16.2
3	>3000	7	18.9
Total		37	100

Data source:Primary data will be processed in 2022

Based on table 7, farmers' land area varies. Land area of 110 – 1500 m/sqm is 24 people or 64.9%, land area of 1600-3000 m/sqm is 6 people or 16.2%. And there are 7 farmers with land area >3000 m/sqm or the equivalent of 18.9%.

6. Land Ownership

Table 8. Distribution of Land Ownership

No	Land Ownership	Amount	Percentage
1	One's own	17	45.9
2	Profit sharing	8	21.6
3	Rent	12	32.4
Total		37	100

Data source:Primary data will be processed in 2022

Based on the ownership status of the land cultivated by farmers, almost 50% is owned by themselves, namely 17 people or the equivalent of 45.9%. The land status for profit sharing is 8 people or 21.6%, while the land being worked on with rental status is 12 people or 32.4%.

The Impact of Land Conversion Due to Development on Farmers' Income

As a result of the land conversion that occurred in Padang village which was experienced by 37 respondents, they were going to sell and had sold some of the agricultural land they were working on. Most of the land owners in this study are farmers, traders, casual workers and employees with land ownership status of own, lease and profit sharing. Most of the land that has been and will be converted is mostly for housing development which is sold in the form of plots. The value of selling land is also quite high, where the selling price per plot is IDR. 15,000,000 – Rp. 25,000,000 with an area of 4 x 20 m – 5 x 25 m so that many land owners are selling their rice fields for development. As the area of land cultivated by farmers decreases, production results and farmers' income decreases. For farmers with ownership status of their own land, this will be a very profitable investment where the selling price of land will increase every year. However, on the

other hand, farmers with rental land ownership status and profit sharing will certainly be a big problem from a social and economic perspective.

Land area and income before land conversion

Based on the results of observations and interviews that have been conducted, farmers who have transferred the function of their agricultural land are influenced by several supporting factors so that farmers who own land in Padang village and its surroundings include: (1) land values have soared (2) the rapid development of houses residents so that access to supporting facilities and infrastructure begins to be hampered, such as access to agricultural equipment being disrupted (3) land damage due to dumping of rubbish and household waste so that at certain times, such as the rainy season, rubbish will enter the rice fields. In rice fields before the rapid development, the land area was classified as large with an average of 3,415 m/sqm with an average income of Rp. 6,081,081 per planting season. For more details, we can see in table 7 where the farmer's income before converting agricultural land is:

Table 9. Farmers' income before conversion of agricultural land in Padang Village

No	Income Before Land Conversion (Rp)	Amount	Percentage
1	2,000,000 - 4,000,000	9	24.3
2	4,100,000 - 6,000,000	11	29.7
3	6,100,000 - 8,000,000	10	27.0
4	8,100,000 - 10,000,000	4	10.8
5	10,100,000 -12,000,000	2	5.4
6	12,100,000 -14,000,000	1	2.7
Total		37	100

Data source:Primary data will be processed in 2022

Table 9 shows that the farmer's income before land conversion occurred was Rp. 2,000,000 – Rp. 4,000,000 as many as 9 people, or 24.3%. Rp. 4,100,000 – Rp. 6,000,000 as many as 11 people with a percentage of 29.7%. Rp. 6,100,000 – Rp. 8,000,000 for 10 people or 27.0%. Rp. 8,100,000 – Rp. 10,000,000 for 4 people or 10.8%. Rp. 10,100,000 – Rp. 12,000,000 for 2 people or 5.4%, while farmers with an income of Rp. 12,100,000 – Rp. 14,000,000 for 1 person or 2.7%. If the average income received by rice farmers, which is generally a side job, is IDR. 6,324,324 per planting season, if there are two planting seasons per year then rice farmers get a profit of Rp. 12,648,648 per year if calculated per month, the income received is Rp. 1,054,054.

Income after land conversion

Farmers' income after changing land functions due to development of course the land area will continue to decrease, production will decrease and income will also decrease. For more details, we can look at the following table.

Table 10. Farmers' income before conversion of agricultural land in Padang Village

No	Income After Land Conversion (Rp)	Amount	Percentage
1	1,000,000 – 3,000,000	18	48.6
2	3,100,000 – 5,000,000	11	29.7
3	5,100,000 – 7,000,000	4	10.8
4	7,100,000 – 9,000,000	4	10.8
Total		37	100

Data source:Primary data will be processed in 2022

Table 10 shows that the income from the conversion of farmers' land after land conversion is Rp. 1,000,000 – Rp. 3,000,000 for 18 people with a percentage of 48.6%. Rp. 3,100,000 – Rp. 5,000,000 totaling 11 people or 29.7%. Rp. 5,100,000 – Rp. 7,000,000 totaling 4 people or 10.8%. Rp. 7,100,000 – Rp. 9,000,000 for four people or 10.8%.

The Impact of Agricultural Land Conversion on Farmers' Income

The impact of land conversion on development, especially residential areas, results in the land being cultivated by farmers decreasing. The average land area and farmers' income in each planting season is reduced to twice the level before the farmers sold their agricultural land from the results of observations and interviews conducted with respondents. or farmers almost all of their answers mentioned. They sell the land not just to get money to fulfill their lifestyle. However, they sold the land to replace it with new land which was much cheaper so that the money they got from selling the rice fields could be reinvested. The table below shows the average income of farmers after the area of land cultivated is reduced;

Table 11. Average farmer income before and after land conversion

Before Land Conversion		After Land Use Change	
Land Area (m/sq)	**Income (Rp)**	**Land Area (m/sq)**	**Income (Rp)**
3415	6,324,324	1763	3,659,459

Data source:Primary data will be processed in 2022

Based on table 11, it can be seen that the land area of farmers' income before land conversion was with an average area of 3415 m/sqm with the income earned each planting season being IDR. 6,324,324. Meanwhile, after the reduction in agricultural land, the average land area for each farmer was 1763 m/sqm with an average income of Rp. 3,659,459. The difference in income which has decreased by two-fold shows the impact of land conversion on farmers' income. For farmers with rental land ownership status and profit sharing, this is certainly a problem for them to make a living.

4. CONCLUSION

Conclusion

The impact of agricultural land conversion in Padang village is negative, where farmers' income after land conversion decreases by up to two times compared to before land conversion.

Suggestion

1. The government's role is very necessary to provide outreach to farmers about the importance of food security so as to raise awareness to maintain and preserve the agricultural land they own. Apart from that, there needs to be efforts from the government to improve the welfare of farmers by facilitating farmers' needs to support the sustainability of the agricultural sector.
2. Consistency in implementing land use policies must be carried out well by local governments, especially protection for agricultural land use. This is because the conversion of agricultural land is not only to meet the needs of local residents, but there is the role of housing developers (developers) who utilize strategic locations to build housing targeting people who are active in urban areas.

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