

The Change of Agrarian Structure in Mabapura Village, East Halmahera District

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Abstract

The conversion of agricultural land to the IUP area of PT Aneka Tambang has led to changes in the business activities of the community. Therefore, the urgency of this study is to analyze how the changes in the agrarian structure in Mabapura Village, Maba City District, East Halmahera Regency. Analysis of changes in agrarian structure was carried out in a qualitative descriptive manner. The results showed that the presence of the Nickel Mining Company resulted in changes in the agrarian structure from the aspect of land ownership, land tenure and land exploitation. The status of land ownership before the presence of the mining company was owned by the family, while after the presence was fragmented it became family and private property. The area of ownership before and after the presence of a nickel mining company is 3 hectares and 1.5 hectares, respectively. The land is mostly cultivated with plantation crops such as Coconut Nutmeg and cloves. In addition, horticultural crops and food crops are also cultivated in limited quantities. Family control is still strong over agrarian resources, especially land. Thus, family ownership is much higher, even reaching three times the area of private land. The area of this land is also vulnerable to reduction, considering that mining companies are still carrying out nickel mining activities continuously. This opens up opportunities for ownership transfer from farmers to companies.

Keywords

agrarian structure; convensiron
of agricultural; mining;
Mabapura



I. Introduction

Land use for agriculture is one of the land uses that has a low land rent value compared to use for the non-agricultural sector. This is one of the reasons for the conversion of agricultural land to other non-agricultural uses. As long as the land rent from the non-agricultural sector is greater than the agricultural sector, it will be difficult to stop land conversion, either individually or en masse by developers. Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The general phenomenon shows that most of the rural population live from the agricultural sector. Therefore, the structure of land tenure has a close relationship with the structure of household income and employment opportunities. It is often hypothesized that the distribution of land ownership is directly proportional to the distribution of income. Land is a very vital production factor in agriculture, so the share of yield for land is

directly proportional to its contribution to the formation of added value (such as land rent or profit sharing). then profits increase. Normatively, tenure arrangements are needed to prevent the occurrence of accumulative land tenure by a person or group of people. (Language, 2011).

This fact is also seen in some areas of North Maluku Province, especially in East Halmahera Regency. Since 1996 PT Aneka Tambang as one of the state-owned enterprises engaged in the mining sector has developed a nickel ore mining business with a Mining Business Permit (IUP) covering an area of 39,040 Ha which includes Gee Island, Pakal Island, Tanjung Buli, Sangaji Block in Kota Maba District (Dinas Maba). Environment and Waste in East Halmahera Regency, 2015). In addition to Nickel as raw material, PT Aneka Tambang also performs FerroNickel processing, namely processing iron ore with phytometallurgical technology. Utilization of natural resources is expected to increase employment and the growth of new economic centers, resulting in a multiplier-effect for the economy of the community and local government.

The area of the Mining Business Permit is 39,000 Ha, 2,594 Ha is an area used by the people of Maba City District in running their business, including food crop commodities (corn, sago, and tubers), horticulture (vegetables and fruits), and plantations (nutmeg, coconut and clove). In general, the distribution of the area of each village in the Kota Maba sub-district shows that 80 percent of the area or 31,232 ha is in the Mabapura Village area which consists of two hamlets, namely Dusun Soa Sangaji and Dusun Soa Laipoh. Meanwhile, the remaining 20 percent of the land is evenly distributed in Maba Sangaji Village, Soa Gimalaha Village, Tewil Village, and Wai Lukum Village (PT Aneka Tambang AMDAL IUP Document, 2016).

Livelihoods that initially only depended on agriculture that utilized forest land had to change to be able to continue to meet their household needs. A new livelihood strategy was implemented. There are several choices of livelihood strategies that can be used. Starting from changes in crop commodities planted to doing spatial engineering or better known as migration. Migration here is more directed at the strategy of leaving the village to find other jobs such as traders, housemaids, or migrant workers abroad. Agrarian livelihood patterns are not always understood from how agrarian resources are used directly, but the consequences of not access and indirect management can also be understood as agrarian livelihood patterns.

Mabapura Village, Kota Maba Subdistrict, East Halmahera Regency is one of the villages with a population dominance as farmers and fishermen, according to the location of the village on the coast (Maba City District in Figures 2019). The conversion of agricultural land into an IUP PT Aneka Tambang area has led to changes in the business activities of the community. On the other hand, according to the East Timor Social Welfare Service (2021), it turns out that there are 339 poor families in the Kota Maba sub-district, half of which (157 families) are donated by Mabapura Village (Soa Sangaji Hamlet 68 Families and Soa Laipoh Hamlet 89 Families). Therefore, the purpose of this study was to analyze changes in the agrarian structure in Mabapura Village, Maba City District, East Halmahera Regency.

II. Research Method

This research was conducted in Mabapura Village, Maba City District, East Halmahera Regency. Mabapura Village, Maba City District, East Halmahera Regency. This location determination was chosen purposively, with the consideration that Mabapura Village, Maba City District, East Halmahera Regency has an area of 80% of land which

has been converted into the IUP area of PT Aneka Tambang (Department of Environment and Waste, Haltim Regency, 2015).

Most of the people are active in the agricultural sector in general, including fisheries (Maba City District in Figures for 2019), namely Dusun Soa Sangaji 94 heads of families and Hamlet Soa Laipoh as many as 133 families with the status of farmers as well as fishermen. The number of samples was set at 60 farmers, considering the small population of farmers. To collect the required data, several data collection techniques were used, namely, questionnaires, observation methods, interview methods, and recording and documentation methods.

To analyze changes in agrarian structure in Mabapura Village, Maba City District, East Halmahera Regency, qualitative descriptive analysis was used, with explanations using tables, figures, and simple tabulation models to explain the situation and conditions of the research location. This descriptive description will be followed by excerpts from interviews from respondents (or samples) that strengthen the data collected.

III. Result and Discussion

3.1 Characteristics of Respondents

a. Age

Age is one of the important categories in the characteristics of a person, in the world of work, business and others. Age also affects a person's performance, the older the age we have, the work performance will decrease. Chaniago (2002) divides the age group into three groups, namely young age or unproductive age (0-14 years), adult age or productive age (15-64 years), and old or unproductive age, namely 65 years and over. Characteristics of respondents based on age can be seen in table 1.

Table 1. Characteristics of Respondents by Age

Category Age (Years)	Number of people)	(%)
15-64	54	90.0
65	6	10.0
Total	60	100.0

Source: Processed Research Results (2022)

In 2020, there were 2,427 residents of Mabapura village, with 1,204 male residents and 1,223 female residents. Mabapura Village has the largest population in the Maba City sub-district (BPS, 2020). From the research data, it is found that 83.3% of respondents fall into the category of young or unproductive age, and 16.7% of respondents fall into the category of old or unproductive age. to meet their household needs.

b. Level of education

The level of education is a very influential factor on the success of fishermen in managing their business because it greatly affects their mindset. In general, those with higher education will have a better way of thinking so that it allows them to act more rationally in managing their farming (Purnama, 2016).

Education in the research area ranges from Elementary Education (Elementary School) to Senior High School (SMP and SMA). The following is the data on the

characteristics of the respondents based on the level of education which will be explained in Table 2.

Table 2. Characteristics of Respondents Based on Education Level

Formal education	Number of people)	(%)
SD	24	40.0
JUNIOR HIGH SCHOOL	21	35.0
SENIOR HIGH SCHOOL	15	25.0
Total	60	100.0

Source: Processed Research Results (2022)

Based on the data above, the education level of the respondents is mostly at the elementary level (SD and SMP) which tend to lack good knowledge in choosing a profitable business to run and oriented to a larger business than secondary education (SLTA), but it is very unfortunate, they did not continue their education to the highest level due to unsupportive economic problems. This is because the respondent at the time of graduating from junior high school and continuing to high school or college must be in another nearby area such as in the cities of Ternate, Manado, and Ambon. Due to limited access and costs, respondents are more likely not to continue on to higher education.

c. Number of Household Members

The number of family members is also one of the factors that influence the economic conditions of a household because it is directly related to consumption in the household, both food and non-food consumption. BKKBN (1998), categorizes the number of family members into 3, namely, the number of small family members (≤ 4 people), medium (5-7 people) and the number of large family members (> 7 people). The following is the condition of the respondents based on the number of family members.

Table 3. Characteristics of Respondents Based on Number of Family Members

Number of Family Members (person)	Number of people)	(%)
4	42	70.0
5 – 7	14	23.3
7	4	6.7
Total	60	100.0

Source: Processed Research Results (2022)

Table 3 shows that most households have small family members. The number of family members who are classified as moderate can reduce the burden of dependents in the household. This means that household needs can still be addressed because they are considered not so big that children can continue their education to college after graduating from high school, then prepare to enter the world of work or choose to develop family farming with new innovations obtained during the education process.

The strong desire of parents for their children to continue their education to a higher level is supported by the increasing accessibility to Ternate and Manado as the closest

higher education locations. In addition, now there are private universities based in Jailolo and Tobelo, making it easier and less costly to study compared to Ternate or Manado.

d. Land area

Land area is an important factor that affects the size of the resulting production. If the land area is large enough, then the economic opportunity to increase production and income will be greater (Soekartawi, 2006). Hernanto (1996), divided the land area into 3 categories, namely narrow land area (<0.5 ha), medium land area (0.5-2.0 ha) and large land area (> 2.0 ha). Private land ownership after the existence of a mining company is clearly shown in Table 4.

Table 4. Characteristics of Respondents Based on Land Area

Land Area (ha)	Number of people)	(%)
Narrow (<0.5)	8	13.0
Medium (0.5-2)	49	82.0
Area (>2)	3	5.0
Total	60	100.0

Source: Processed Research Results (2022)

Table 4 describes the community land area in Mabapura Village is classified as medium (0.5 – 2 ha). This shows that the level of production is moderate so that the income obtained also has an effect. As is known, the greater the level of production, the greater the level of acceptance obtained.

One more important thing, that the open access to education causes many children after graduating from high school to leave Mabapura Village and continue their education to Ternate and Manado. Finally, the workforce in the family who can help with farming activities is reduced, and has an impact on the ability to work on a large area of land. Therefore, many then turn to labor or economic activities that do not require much labor, such as fishermen, artisans, and stone collectors.

e. Farmer Household Income

Revenue is the end of a sales process, after fishermen find fish from the sea, the catch will be sold and become household income. Generally, the sources of income found at the research sites come from three sources, namely On-Farm agricultural sources which are a livelihood strategy derived from agricultural products in a broad sense such as agriculture, plantations, forestry, animal husbandry, and fisheries. Off Farm is a livelihood strategy that comes from wages for agricultural and fishery workers, a profit sharing system (Harvest Share System). Meanwhile, Non-Farm is a livelihood strategy that comes from outside income from agricultural activities such as masons and stone crushers. The following is the number of respondents' acceptances as shown in Table 5.

Table 5. Characteristics of Respondents Based on Household Income Per Month

Household Income (Rp)	Number of people)	(%)
2,862,000	51	85.0
2,862,000	9	15.0
Total	60	100.0

Source: Processed Research Results (2022)

Table 5 illustrates that the income of the respondents is mostly less than Rp. 2,862,000 with a percentage of 86.7%. This shows that the household income obtained by the respondents has not been able to meet their household needs, because the income obtained is smaller than the 2022 UMR stipulation by the government, which is Rp. 2,862,000 (SK Governor of North Maluku Number 409/KPTS/MU/2021). This income shows that most of the respondents have low incomes. The average monthly household income is also Rp. 2,570,000, with an income range of IDR 1,800,000 – 3,600,000. If viewed per year, the average household income reaches Rp. 30,840,000 with a range of Rp. 21.600.000 – 43.200.000.

The amount of income earned by farmer households is dominated by income from agricultural businesses (commodity plantations and vegetables), then fisheries, artisans and stone-gathering businesses. Fisheries are mainly contributed by fishing fishermen who use fishing rods and fishing laborers who work for the Ngafi Fish Chart owners. The choice of fishing workers is mainly done during the fishing season, but agricultural activities are not abandoned because vegetable farming continues to provide regular income for households. In addition, services as a handyman also provide adequate income, and doing stone collection work is another option for households with free time. Lack of young workers due to the choice of continuing education outside Mabapura Village, participate in directing non-farm work activities that provide a certain amount of money (receipts) directly after the work is completed. This is in line with the research results of Sopamena, et al (2021) and Sopamena and Pattiselanno (2021) that, when facing pressure due to various problems ranging from climate change to the impact of the Covid-19 pandemic, farmers make various other businesses just to meet household needs. If there is an excess then it is prepared to meet the needs of school children. When facing pressure due to various problems ranging from climate change to the impact of the Covid-19 pandemic, farmers make various other businesses just to meet household needs. If there is an excess then it is prepared to meet the needs of school children. When facing pressure due to various problems ranging from climate change to the impact of the Covid-19 pandemic, farmers make various other businesses just to meet household needs. If there is an excess then it is prepared to meet the needs of school children.

3.2 Analysis of Changes in Agrarian Structure in Mabapura Village, Maba City District, East Halmahera Regency

a. Ownership of Land and Sea Territory

In general, changes in the agrarian structure before and after the existence of nickel mining companies are very diverse. Changes in aspects of land and sea areas can be seen in Table 6 below.

Table 6.Changes in Agrarian Structural Before and After the existence of Nickel Mining Companies Based on Ownership of Land and Sea

No	Identification	Before	After
1	Land ownership area	3 ha	1.5 Ha
2	Land ownership status	Family	Family and Personal
3	Location of land ownership	Near village	Farther from the Village
4	The power of land ownership rights	Strong	Less strong
5	Ownership of fishery production facilities	There isn't any	Boat without engine and fishing line

Table 6 shows a real change in the area of land ownership which is decreasing, with the location being farther from the village, ownership rights are getting weaker, and access to fishery production facilities is increasing. This fact is proven by the sale of land ownership to nickel mining companies, so that the area of land ownership is decreasing. However, ownership status has also changed with private ownership because family-owned land tends to be divided as inheritance, making it easier to sell to nickel mining companies.

It is this ease of selling, which causes the power of property rights to be weak. The community in general has become very dependent on the company, and is just waiting for the land to be purchased. Therefore, parents tend to distribute land inheritance to their children according to their respective ownership so that when selling to the company there are no problems. However, on the other hand, the money from the purchase is also used to buy fishery production facilities such as boats without engines and fishing rods. This means of production is used by farmers as an additional source of income. For farmers who do not sell their land, they do not have sufficient capital to buy fishery production facilities. Thus, they tend to work as fishing laborers in the Ngavi fish bagang business.

Land tenure in Mabapura Village for agricultural land is owned by farmers who dominate and earn more than the farmers. Agricultural land is the main capital for farmer households in carrying out farming activities. All households have arable land to work on, but with varying areas. Those who have narrow land can only increase the variety of sources of income by working as fishing laborers. The level of agricultural income referred to in this study is the total money received by sharecropper households who carry out their own farming business on arable land based on ownership status and the total money received by household members who work as farm laborers or fisherman workers by selling labor as laborers. daily, weekly, seasonal wages and group work on agricultural land.

The current position shows that the average family land area of each farming household is 1.5 hectares. Meanwhile, the average private land area of each household is 0.5 hectares. That is, in terms of control, family control is still strong over agrarian resources, especially land. Thus, family ownership is much higher, even reaching three times the area of privately owned land. The area of this land is also vulnerable to reduction, considering that mining companies are still carrying out nickel mining activities continuously. This opens up opportunities for ownership transfer from farmers to companies.

b. Capital Assets

Changes in aspects of capital assets tend to follow whether or not there is a sale of the land owned. Clearly, capital assets can be seen in Table 7.

Table 7.Changes in Agrarian Structural Before and After Nickel Mining Companies Based on Capital Asset Aspects

No	Identification	Before	After
1	Natural resources	Available	Reduce
2	Human Resources	Low and limited	Increasing and growing
3	Social, cultural and institutional	Goes well	Less walking
4	Technology and accessibility	Limited	Increased
5	Financial (economy)	Low	Increased

The table shows changes in capital assets showing that technological and accessibility aspects as well as public finances have increased. This was triggered by the construction of facilities and infrastructure by nickel mining companies to help smooth business activities. Referring to the developed strategy, farmers use more than one source of income as additional income. The impact is then seen in the socio-cultural activities of the community which have decreased, because each individual household will try to meet their needs. Efforts to fulfill needs are often time-consuming, so that time for collective activities such as socio-cultural activities is also reduced.

c. Livelihood Pattern

One aspect that indicates a change in the agrarian structure is the pattern of farmers' livelihoods. Farmers who rely heavily on agrarian resources, in this case land, direct the pattern of livelihood that will be carried out. Changes in livelihood patterns can be seen in Table 8.

Table 8. Changes in Agrarian Structure Before and After the Nickel Mining Company
Based on Aspects of Income Patterns

No	Identification	Before	After
1	On Farm		
	Food Commodities	A little	Increasing
	Horticulture	A little	Increasing
	Plantation	Lots	Reduce
	Fishery	There isn't any	Start there
2	Off Farm		
	Fisherman	A little	Increasing
	Farm workers	There is	There isn't any
3	Non-Farm		
	Collecting and breaking stones	A little	Increasing

Table 8 shows changes in livelihood patterns due to changes in land ownership. While there is still a large area of land planted with plantation commodities, there are farm laborers who also work in the plantation business, especially processing coconut into copra. After the land was sold to the company, the coconut processing business into copra was lost because the land had been used by a nickel mining company.

On the other hand, food and horticultural commodities have increased because they are a source of household food as well as a source of food for workers who work in nickel mining companies. This is also supported by the sale of land, thereby increasing the occurrence of land splitting through inheritance distribution, so that the land that previously belonged to many families which shifted into private ownership to facilitate sales to nickel mining companies.

Along with the decrease in land ownership and control, many farmers then increase their income by buying boats without engines and fishing equipment, so that their spare time is filled with additional activities as fishermen. Meanwhile, those who do not have the capital, then the only choice is to break and collect stones. The number of workers has also increased, which indicates that the ownership of land is decreasing and some are even no longer owning the land.

The income received by farming households varies. This is influenced by the area of arable land and land tenure status. All farming households do not require land rent, because they carry out farming on their own land. Even if using family land, it is possible if it has been agreed by all family members. So far, there has never been a problem related to the use of family land for farming. Usually, land owned by the family is planted with short-lived plants, so that if at any time it is needed for the benefit of the family, it does not take too long to be used.

The most obvious change in the agrarian structure is in the tenure of family-owned land. After the existence of a Nickel Mining Company, the land needed for the benefit of the Mining Company will be sold by the owner. Usually the ownership status is land owned by the family that has not been inherited. During the process of transferring ownership from the family to the Company, there has never been a problem. This means that the ownership that is used as the basis for land conversion is very clear. Data shows that the average household releases 2-5 ha of family-owned land to be used by nickel mining companies. The amount of distribution also varies from each family. There are households that earn Rp. 20 million, but there are also those who earn up to Rp. 600 million. It all depends on the area of land that is released,

The pattern of land tenure is also dominated by undivided Family Ownership. Family land can be used to plant various types of crops, especially those that provide direct income to households. Generally, the family land that is used is planted with vegetable commodities, so when you want to use it for other purposes you don't have to wait a long time. Meanwhile, plantation commodities are planted on privately owned land, or family land that has been divided as a form of inheritance rights. Ownership of family land after the existence of a nickel mining company includes 3 categories, namely narrow land area (< 0.5 ha), medium land area (0.5-2.0 ha) and large land area (> 2.0 ha) (Hernanto , 1996). The details are shown in Table 9.

Table 9 describes the area of land owned by the family in Mabapura Village is classified as medium (0.5 – 2 ha). This shows that there is potential land that can be utilized by family members who are already married to be planted with various potential commodities, both vegetables and plantations. Generally, this family-owned land is planted with vegetable commodities, which are quickly harvested and sold. This is to avoid land use for a long time so that it will be difficult when it will be used. Plantation commodities are planted if the family land has been divided into family members as inheritance rights. This land potential has the opportunity to increase household income, because it has the opportunity to increase production and increase the level of income obtained.

Table 9. Characteristics of Respondents Based on Family-owned Land Area

Land Area (ha)	Number of people)	(%)
Narrow (<0.5)	0	0.0
Medium (0.5-2)	44	73.3
Area (>2)	16	26.7
Total	60	100.0

Source: Processed Research Results (2022)

IV. Conclusion

After the existence of a Nickel Mining Company, the land needed for the benefit of the Mining Company will be sold by the owner. Usually, the status of ownership is land owned by the family that has not been inherited. During the process of transferring ownership from the family to the Company, there has never been a problem. This means that the ownership that is used as the basis for land conversion is very clear. Data shows that the average household releases 2-5 ha of family-owned land to be used by nickel mining companies. The amount of distribution also varies from each family. There are households that earn Rp. 20 million, but there are also those who earn up to Rp. 600 million. It all depends on the area of land that is released, as well as the number of family members who are entitled to the distribution.

Currently, the average family-owned land area of each farmer household is 1.5 hectares. Meanwhile, the average private land area of each household is 0.5 hectares. That is, in terms of control, family control is still strong over agrarian resources, especially land. Thus, family ownership is much higher, even reaching three times the area of privately owned land. The area of this land is also vulnerable to reduction, considering that mining companies are still carrying out nickel mining activities continuously. This opens up opportunities for ownership transfer from farmers to companies.

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