



Socio-Economic Impact Of Converting Agricultural Land To Nickel Mining Industrial Land In Labota Village, Bahodopi District, Morowali Regency

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Abstract

This study aims to determine 1) To determine the social impact of the conversion of agricultural land to nickel mining industry land in Labota Village, Bahodopi District, Morowali Regency, 2) To determine the economic impact of the conversion of agricultural land to nickel mining industry land in Labota Village, Bahodopi District, Morowali Regency. This study started from July to August 2024. The data in this study used secondary and primary data obtained through documentation methods, library studies and interviews, the study used quantitative and qualitative methods in solving problems. The results of the analysis show 1) the social impact of the conversion of agricultural land to nickel mining industry has caused major changes in the social structure of the Labota village community. 2) Economically, the conversion of agricultural land has a fairly positive impact on community income. The income change index value of 328.08% indicates that after the conversion of agricultural land to nickel mining industry land, the income of the Labota Village community has increased significantly. In detail, the community's income after the land conversion is more than three times (around 3.28 times) compared to their income before the change. Many people who previously relied on agriculture for their livelihoods have now shifted to mining and other sectors, such as trade and entrepreneurship, which have increased their incomes. However, this economic impact has also been accompanied by a reduction in agricultural land ownership. Many people have sold their land to mining companies, reducing the amount of productive land previously owned by farmers. This has the potential to reduce food security in villages and impact the sustainability of the agricultural sector.





Keywords: education, health, income, land area, living condition, livelihood.

INTRODUCTION

Indonesia, as a country that initially had the status of an agricultural nation, relies heavily on agricultural activities as a source of life and livelihood for its citizens, making Indonesia very sensitive to the existence of agricultural land (Sukirno, 2002). Furthermore, Indonesia's geographical location on the equator and its various types of forests, such as tropical rainforests, as well as its fertile soil, has led to the increasing use of agricultural land to meet daily living needs. Currently, we generally recognize two types of land in the agricultural sector. These agricultural lands are usually used by local communities for farming, which is their main source of income as farmers.

However, land use is beginning to undergo a shift in function along with population growth and development. This process can cause serious problems due to population growth, technological advances, and development dynamics. For farming communities, land plays a crucial role in their survival and serves as their primary source of capital. Land size significantly impacts the yield they can obtain. Land originally used for farming is gradually being converted into land with various other uses. This specific change, namely the conversion of agricultural land to non-agricultural uses, is known as land conversion.

Bahodopi District is one of the districts in Morowali Regency. Bahodopi District is also one of the districts experiencing conversion of agricultural land to non-agricultural uses (roads, housing, industry, and so on). Bahodopi District covers an area of approximately 1,119.90 km² or 111,990 ha, comprising 12 villages (BPS Morowali Regency, 2021).

Data from the Morowali Regency Agriculture Service (2019), as cited by the Morowali Regional Development Planning Agency (Bappeda), states that of the 3,000 ha of land converted since 2013, 54.6% was used for residential purposes and 34.4% for industrial purposes. This phenomenon occurred in one of Morowali Regency's sub-districts, Bahodopi. This sub-district consists of 12 villages, with an area of approximately 1,119.90 km² and a population of 7,634.

According to Kustiwan (1997), agricultural land conversion is influenced by external and internal factors. External factors include the dynamics of rural growth, both spatially, demographically, and economically, which drive land conversion. Meanwhile, internal factors relate to the socioeconomic conditions of farming communities, which influence their decisions to relinquish or change land use. Essentially, farming communities in Bahodopi District rely on the agricultural sector for their livelihoods. However, as economic needs



increase, many people are turning to the industrial sector in search of jobs that generate quicker and easier income. Their goal is to increase their income compared to when they were still farming.

The phenomenon of land conversion from agricultural to industrial mining by 22 families in Labota Village is crucial to analyze. Based on this, the author is interested in choosing the research title: "Socioeconomic Impacts of Agricultural Land Conversion to Industrial Nickel Mining Land in Bahodopi District, Morowali Regency."

METHOD

This research was conducted in Morowali Regency, specifically in Labota Village, Bahodopi District, Central Sulawesi Province. The research location was selected purposively, considering that this area is one of the areas impacted by mining companies. Labota Village was chosen due to its relevance and the presence of the mining industry, which converts agricultural land into nickel mining. This research was conducted from July to August 2024. The data in this study included primary and secondary data, and several data collection techniques were used, including documentation, interviews, and library research.

In this study, the variables studied are related to the socio-economic impacts of the conversion of agricultural land into nickel mining industrial land in Labota Village. Social variables include education, health and residential conditions, while economic variables include land area, livelihood and income.

The collected data will be analyzed using quantitative descriptive analysis. This research focuses on calculating the percentage of social and economic changes resulting from the conversion of agricultural land to the nickel mining industry.

1. Quantitative descriptive analysis

The collected data will be analyzed using the following steps:

- a. Percentage Calculation: Each data collected from respondents will be calculated in percentage form to describe the frequency of each category.

$$\text{percentage} = \left(\frac{\text{number of respondents in the category}}{\text{total respondents}} \right) \times 100\%$$

- b. Average Income Calculation

$$\text{average income (X)} = \left(\frac{\text{total amount of income}}{\text{number of respondents}} \right)$$

- c. Calculation of the Change Index: In this study, the change index is used to measure overall changes in income. The change index is calculated using the following formula:



$$\text{income change index} = \left(\frac{X \text{ after} - X \text{ before}}{X \text{ before}} \right) \times 100\%$$

- d. Before-After Comparative Analysis: A comparison of the social and economic conditions of the community before and after the land conversion was conducted using data from questionnaires and interviews. Tables containing this data will be analyzed to identify any significant shifts that have occurred.
 - e. Data Presentation in Tabular Form: The results of the data analysis will be presented in a percentage table comparing conditions before and after land conversion. This data presentation makes it easier to observe social and economic changes at the individual and village levels.
2. Qualitative analysis, including in-depth interviews and observations, was conducted to provide a qualitative perspective on the social and economic impacts of land conversion. The results of these interviews will be analyzed descriptively to enhance understanding of the quantitative data.

RESULTS AND DISCUSSION

The socio-economic phenomena that occurred before the conversion of agricultural land to industrial mining land in Labota Village reflect the community's high dependence on agricultural products as their primary source of income. Prior to the change, the community in Labota Village relied heavily on the agricultural sector, although the income obtained from agriculture was only sufficient to meet daily needs and was full of uncertainty due to natural factors such as weather. Dependence on unstable harvests, coupled with natural challenges and other social conditions, illustrates the difficult and uncertain living conditions for most of the community.

However, a major change occurred when the natural resources of Labota Village began to attract the attention of foreign investors. The abundance of natural resources, particularly mining potential, opened up new opportunities for industrial development in the village. This change marked a turning point that drastically altered the village's social and economic structure. Much of the agricultural land that had previously been a source of livelihood for the local community was now converted into industrial mining areas.

This phenomenon leads to the loss of agricultural land, which not only reduces food availability, but also affects the livelihoods of many farmers who depend on this sector.

Labota Village, which initially relied heavily on the agricultural sector, began to feel the impact of these major changes. The loss of agricultural land, on the one hand, led to reduced agricultural yields, and on the other, weakened social bonds as many farmers were forced to





shift to other occupations. Once independent farmers now had to seek livelihoods in other sectors, such as laboring in the mining industry, which was growing with investment in that sector. In addition to the shift in land use, Labota Village also experienced significant social and economic transformation. Economically, the community began to shift from agriculture to work in the mining industry and other non-agricultural sectors. This change impacted income patterns, with some individuals who previously relied on agriculture now earning income from the mining industry. While incomes have increased for some, the agricultural sector, once the backbone of village life, is now being marginalized.

On the social side, these economic changes also impacted education and public health patterns. People began to view education and health as essential for improving their quality of life. Some individuals even pursued higher education, while public health awareness increased. However, on the other hand, the negative impacts of mining, such as pollution and environmental damage, began to be felt by the community. Environmental diseases caused by mining activities became a new problem with the development of the industrial sector.

Overall, the conversion of agricultural land to industrial mining in Labota Village has had complex impacts. Socially, changes in the community's lifestyle are profound, not only in terms of livelihoods but also in education and health patterns. Economically, despite increased incomes for some, the negative impacts on the sustainability of the agricultural sector and the high dependence on the mining industry pose significant challenges. This shift demonstrates that villages that were once dependent on agriculture are now beginning to connect with larger industrial sectors, although many challenges remain to maintain the overall well-being of the community.

This phenomenon indicates a major change in the social order of the Labota Village community, which must be managed wisely so that the negative impacts can be minimized, while the economic and social benefits of the industrial sector can be felt fairly by all levels of society.

CONCLUSION

Based on the results of the discussion and analysis of data obtained from the research tables, it can be concluded that the conversion of agricultural land into nickel mining industrial land in Labota Village, Bahodopi District, Morowali Regency has a significant impact both in terms of social and economic aspects:

1. The social impact of the conversion of agricultural land to the nickel mining industry has caused changes in the social structure of the Labota Village community. Previously, the



majority of residents relied on agriculture as their primary livelihood. However, after the land conversion, most farmers shifted to mining laborers or worked in other sectors, such as trade and entrepreneurship. This led to a shift in livelihoods, with a direct impact on the community's lifestyle and social structure. One visible positive impact is an increase in education levels, with many individuals continuing their education to higher levels, as a means of adapting to industry needs. However, negative impacts have also emerged, such as an increased frequency of health problems in the community. This shift in lifestyle also affects the quality of public health, which has become a major concern following the land conversion.

2. Economically, agricultural land conversion has had a fairly positive impact on community income. The income change index value of 328.08% indicates that after the conversion, the land use change has increased significantly.
3. After converting agricultural land to nickel mining, the income of the Labota Village community experienced a significant increase. Specifically, community income after the land conversion more than tripled (approximately 3.28 times) compared to their income before the change. Many people who previously depended on agriculture for their livelihoods have now shifted to work in the mining sector and other sectors, such as trade and entrepreneurship, which has increased their income. However, this economic impact has also been accompanied by a reduction in agricultural land ownership. Many people have sold their land to mining companies, thereby reducing the productive land previously owned by farmers. This has the potential to reduce food security in the village and affect the sustainability of the agricultural sector.

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