# The Impact of The Nickel Industry On The Socio-Economic Conditions of Farmers In Tondowatu Village, Morosi Sub-District, Konawe District, Sulawesi Tenggara

Iskandar Zainuddin Rela<sup>1</sup>, Salahuddin<sup>2</sup>, Dian Agustina<sup>3</sup>, Irfan Fauzan Mannan<sup>4\*</sup> {iskandar\_faperta@uho.ac.id<sup>2</sup>, salahuddin\_faperta@uho.ac.id<sup>3</sup>, <u>dianfapetunhalu@yahoo.co.id<sup>4</sup></u>, irfan26062001@gmail.com<sup>4</sup>}

Faculty of Agriculture, Halu Oleo University, Kendari, 93231 Indonesia<sup>1,2,4</sup> Faculty of Animal Science, Halu Oleo University, Kendari, 93231 Indonesia<sup>3</sup>

**Abstract.** The nickel industry in Morosi District, Konawe Regency, has become the main sector in the economy but impacts the area of agricultural land in Tondowatu Village, where most of the population depends on the farm sector. The effect of the nickel industry affects the socio-economic conditions of farmers directly or indirectly. This study aims to determine the impact of the nickel industry on the socio-economic conditions of farmers in Tondowatu Village, Morosi District, Konawe Regency. This research was conducted in Tondowatu Village, Morosi Subdistrict, Konawe Regency, in June 2023 with 15 informants. Data analysis in the study used qualitative methods. The results show that the negative impact of the nickel industry is more dominant, including the closure of irrigation channels, which causes frequent interactions between farmers and the industry. The industry's involvement in helping this problem occurred after the protests. Differences in perceptions between local communities and migrants also emerged while livelihood changes happened in the children of farmers who turned into industrial workers. Farmers' incomes also changed; some increased, and some decreased due to agricultural land disturbance caused by the nickel industry.

Keywords: Impact, Nickel Industry, Socio-Economy

# 1 Introduction

The nickel industry in Morosi Subdistrict, Konawe Regency, is a major sector in the community's economy. However, its impact is felt on the area of agricultural land, especially in Tondowatu Village, where the majority of the population relies on agriculture. The nickel industry resulted in a reduction in agricultural land, reduced agricultural productivity, and had a negative impact on the socio-economic conditions of farmers.

Before the presence of the nickel industry, the Tondowatu Village area manifested the potential of 80 hectares of agricultural land, which has now decreased to 60 hectares due to the transformation of land functions. The company has played a role in closing irrigation canals, impeding water flow and causing damage to the rainfed rice farming system. Despite a series of consultation efforts, the company has shown a slow response to these issues, with significant impacts on the losses experienced by farmers. This situation prompted some of the farmers to

change professions. This change in livelihood is also due to the fact that the previous job is no longer promising, due to the reduction of agricultural land and irregular income (Siska, 2013).[1]

The nickel industry, on the one hand, has a positive impact, namely the creation of new jobs, reducing unemployment in Tondowatu Village, and increasing community income. The nickel industry also increases the population, including labor migration from outside. However, this has led to jealousy and intense competition for jobs. Local people find it difficult to compete with outsiders who have better skills, potentially creating conflict. With the Urgency of the Study: how the impact of the nickel industry on the socio-economic conditions of farmers, then based on this the researcher will identify "The Impact of the Nickel Industry on the Socio-Economic Conditions of Farmers in Tondowatu Village, Morosi District, Konawe Regency.

# 2 Literature Review

## 2.1 Industry Theory

Rakhmawati and Boedirochminarni (2018)[2] stated that the industry is one of the drivers in creating new job opportunities. This indicates that the more industries or businesses there are, the more job options and opportunities will be available, ultimately leading to the creation of new employment opportunities.

Law of the Republic of Indonesia Number 3 of 2014[3] concerning Industry Industry Article 1 states that industry is all forms of economic activities that process raw materials and / or utilize industrial resources so as to produce goods that have added value or resources so as to produce goods that have added value or higher benefits, including industrial services. higher benefits, including industrial services.

## 2.2 The Social Impact of Industry

The presence of industry within a community will undoubtedly have an impact and bring about shifts in society. As stated by Hatu (2011),[4] these social and cultural shifts mainly affect rural communities. The changes in the community's way of life are largely attributed to the development of knowledge and technology, advancements in communication, and the community's desire and ability to think forward.

In Government Decree No. 14 of the Minister of Environment of 1994,[5] concerning "Determination of Important Impacts" on social aspects, namely (1) social institutions/institutions that grow among the community, prevailing customs and habits; (2) social processes (cooperation, accommodation conflicts among the community); (3) acculturation, assimilation and integrity of various community groups; (4) social groups and organizations; (5) social layers among the community; (6) ongoing social changes among the community; (7) attitudes and perceptions of the community towards business and work plans. Meanwhile, the impacts on economic aspects are: (1) employment and business opportunities; (2) patterns of change and control of land and natural resources; (3) income levels; (4) infrastructure facilities and infrastructure; (5) patterns of natural resource utilization.

#### 2.3 Economic Impact of Industry

Industrial development has positive and negative impacts, according to Banowati Eva (2018),[6] the positive impacts of industrial development are (1) Opening up jobs, (2) Meeting

various community needs, (3) Increasing community income and welfare, (4) Saving foreign exchange, (5) Encouraging forward thinking for the community, (6) Opening up other businesses outside the industrial sector, (7) Delaying the age of marriage. The negative impacts of industrial development are (1) Environmental pollution, (2) Consumerism, (3) Loss of community personality, (4) Change of livelihood, (5) Urbanization in cities. Based on previous opinions related to the economic impact of industry, in this study the economic impact will be reviewed through employment opportunities, livelihood changes and income.

#### 3 Method

This research was conducted in June 2023 in Tondowatu Village, Morosi District, Konawe Regency. The selection of the research location was purposive due to several factors, including that Tondowatu Village was originally an agrarian village where the majority of the population depended on the agricultural sector as the main livelihood. However, in the last eight years, the village has experienced rapid development in the industrial sector as a result of the development of the nickel industry that spread to several areas in Morosi Sub-district, Kabupaten Konawe. This development brings significant changes in the social and economic life of the community and farmers. Fifteen participants became informants in this study. The sampling approach according to Hendarsono in Suyanto (2005),[7] involves three different categories of informants: key informants, main informants, and additional informants. Purposive sampling, which involves selecting data sources by considering certain factors, was used to identify informants in this study (Sugiyono, 2017).[8] Data analysis in this study is qualitative, and the main focus is on how the nickel industry has affected farmers' socioeconomic conditions.

# 4 Findings and Discussion

# 4.1 The Impact of the Nickel Industry on Farmers' Social Conditions

The nickel industry is a sector of the economy that involves the mining, processing, and production of nickel. Nickel is a metal used in various industries such as the manufacture of stainless steel, batteries, and electronic equipment. The nickel industry process includes the mining of nickel ore, the processing of the ore into usable nickel, and the production of end products. However, the nickel industry often causes serious environmental impacts, including water and air pollution and habitat destruction. In addition, social issues such as conflicts over land rights and the welfare of local communities may also arise. It is important to manage the nickel industry responsibly, reduce its negative impacts and promote sustainable development.

The nickel industry in Tondowatu Village has complex social impacts on local farmers. Conflicts often occur between farming communities and nickel companies due to environmental impacts that are not considered by the company, causing rice fields to become unproductive. In this research, the social impacts that want to be studied are: interactions between farmers and the nickel industry, community perceptions of the large number of residents or workers who come from outside the area and the cooperative relationship between farmers and nickel industry companies.

#### Interaction

Social interaction is the main condition for social activities to occur. Social interaction is a dynamic social relationship concerning relationships between individuals, between groups and human groups, or between individuals and human groups (Soekanto and Sulistyowati, 2014).[9]

Interaction in the context of the nickel industry involves relationships between local communities, companies and migrants. This includes dialogue, negotiation and collaboration on issues such as land, compensation and the environment. These interactions allow communities to voice their interests, build trust with companies and facilitate cultural exchange. Positive interactions strengthen social integration, while less controlled ones can trigger conflict. It is important to encourage respectful interactions and promote understanding between groups to achieve social harmony in the nickel industry.

#### Communication

Communication between farmers and nickel companies is critical to managing the social and environmental impacts of the industry. Farmers, as landowners around the company, need to actively communicate with the company to minimize conflicts and promote environmentally friendly practices. Effective communication allows companies to understand farmers' concerns and find solutions together. With open dialog, a harmonious relationship is expected to be established that benefits both parties and the environment.

Communication between farmers in Tondowatu Village and the nickel industry company is frequent, especially regarding the repair of irrigation channels. Farmers consider the main problem they face is the increasing number of irrigation channels that are closed, so they hope that the company will pay more attention to farmers so that there are no differences in understanding. In line with the opinion of Muhith & Siyoto, (2018),[10] the effective communication process means a process where communicators and communicants exchange information, ideas, beliefs, feelings and attitudes between two people or groups whose results are in line with expectations. Effective communication is a communication process where the communicant understands what has been conveyed and does what the communicator wants through the message.

Farmers expect irrigation channels to remain efficient to ensure agricultural sustainability. Despite frequent consultations, requests for channel repair or opening have never been responded to properly by the company. Farmers feel the company lacks concern for irrigation channel issues that could result in damage to rice crops and potential crop failure if not addressed.

Irrigation channels are the main focus of interactions between farmers in Tondowatu Village and the nickel industry company. Farmers have repeatedly requested that irrigation channels be maintained and not closed in order for their farms to run well. Some farmers felt that the company was less responsive to their requests, while others hoped that the company would pay more attention to this issue to achieve the desired outcome for both parties. Simahate (2013),[11] asserts that communication behavior is basically motivated and expected to achieve something.

#### Exchange

The exchange between farmers and the nickel industry company is a dynamic process involving communication, knowledge and experience between both parties. In this exchange, farmers provide agricultural land and natural resources adjacent to the nickel company's operational area. In return, the company provides employment opportunities. In addition, the exchange also includes discussions on the environmental and social impacts of nickel industry activities and efforts to find joint solutions to achieve sustainable practices. Through this process, it is hoped that a win-win relationship is created, where the company obtains the resources it needs to operate in a socially and environmentally responsible manner, while

farmers gain economic benefits and the opportunity to strengthen the sustainability of their farms.

The presence of the nickel industry presents a major challenge for farmers in Tondowatu Village. The significant demand for land for industrial development has forced some landowners to sell their agricultural land at low prices because of the promise of economic prosperity by the company. In line with the opinion of (Zakaria and Rahman, 2013),[12] the allocation of land use between economic sectors, especially in areas with high intensity of economic activity, is often based on economic value considerations. Furthermore, it is said that the lack of support for economic incentives for farmers is one of the triggers for land conversion to other uses. However, in reality, these positive impacts are not visible to the community or farmers in Tondowatu Village.

Land acquisition for the development of the nickel industry caused irrigation channels to be closed, resulting in water flow barriers during the rainy season. This impact causes damage to rice plants and even crop failure. Tondowatu village, which is a rain-fed rice field, is increasingly waterlogged due to the many irrigation channels closed by the company. Nickel industry companies should pay attention to their impact on the agricultural sector, especially rice fields, and take steps to maintain a balance between industrial development and agricultural sustainability in Tondowatu Village.

# Perception

Perception is an experience of objects, events or relationships obtained by inferring information and interpreting roles. Each person has different experiences, so his perception also varies towards the stimulus he receives, even with the same object (Jalaludin Rakhmat, 2013).[13] The presence of the nickel industry in Morosi Sub-district makes many residents from outside the area who come to meet economic needs and become workers in the nickel industry, this makes social jealousy arise among the local population. This development is often related to the employment opportunities and economic growth presented by the nickel industry. Social jealousy can arise due to the perception that migrants have greater access to local jobs and resources, which can affect the social dynamics and relationships between locals and migrants.

# Cultural Background

Cultural background plays an important role in shaping the worldview, behavior and mindset of a people group, as well as passing on knowledge and traditions from generation to generation. Through cultural background, people identify themselves within the context of a particular group or community, and this also affects the way they interact with the world around them.

The presence of the nickel industry invites many migrants to meet economic needs, of course the residents who are present have different cultural backgrounds, but this does not make the atmosphere around the nickel industry a difference due to cultural differences in this area. This shows that the community is able to adapt well and appreciate the diversity of cultures that exist. Culture can be defined as all symbols, meanings, images, rule structures, habits, values, information processing and the transfer of convention patterns of thought, word and deed/action shared among members of a social system and social groups in a society (Liliweri, 2001).[14]

In this case, the nickel industry has been a factor influencing encounters and interactions between different cultural backgrounds, yet harmonious and respectful relationships are maintained. However, the conflicts that occurred were more related to issues of social jealousy that arose because important positions within the company were more often filled by migrants

from outside rather than locals. This led to tensions and protests from the local community, who demanded equality and fair treatment in employment opportunities.

Absorption of stimuli or objects from outside the individual

Absorption of external stimuli or objects is a psychological process in which individuals actively collect, process, and integrate information from their environment. Jalaluddin Rakhmat (2008),[15] defines that perception is the experience of objects, events, or relationships obtained by inferring information and interpreting messages.

The perception of the community in Tondowatu Village towards people from outside the area who come to work in the nickel industry company tends to vary. They may welcome migrants with the expectation of a positive influence on the local economy. However, there are also negative perceptions of migrants, especially if migrants dominate important positions within the company, while natives feel marginalized or lack opportunities. These perceptions can stem from social jealousy, concerns about competition for jobs, and uncertainty about the social impacts of the nickel industry. In line with the opinion of Sarlito Wirawan (1982),[16] it is suggested that perception is the ability to differentiate, categorize, and focus all objects called observations. People in Tondowatu Village expect that the placement of workers in the nickel industry should be fair. Many indigenous people find it difficult to get the opportunity to work in the company, while the number of workers from outside the area is increasing. Policies that ensure equal employment opportunities for locals and migrants are needed to prevent social conflicts that may arise.

# Cooperation

Cooperation is collaboration between individuals or groups in achieving a common goal. In the context of the nickel industry, cooperation can occur between nickel companies, governments and local communities. This cooperation is important in creating a sustainable environment and supporting economic development and community welfare.

Nickel companies can collaborate with the government and local communities in various aspects, such as environmental management, local economic empowerment and the provision of social benefits for surrounding communities. Through this cooperation, companies can accommodate the interests and aspirations of local communities, and ensure responsible operational sustainability.

Governments also have an important role in facilitating cooperation between nickel companies and local communities. They can provide clear regulations, support open dialogue between relevant parties, and ensure compliance with social and environmental standards. Strong and coordinated cooperation between companies, governments and local communities can create mutually beneficial synergies for all parties involved and promote sustainable development in the nickel industry.

# Active Engagement

Active engagement refers to a person's level of active participation and contribution in various aspects of life, such as work, family, community or social environment. When a person is actively engaged, they are not just a spectator, but an active participant in the process, contributing with their ideas, skills and time. Active engagement involves listening intently, proactively interacting with others, and taking the initiative to seek solutions and opportunities for improvement. It encourages personal development, increases ownership of outcomes and decisions, and strengthens relationships with those around them. Active engagement can also

have an overall positive impact on a group or community, as it strengthens synergy, creativity and the ability to achieve common goals.

Active engagement in the context of cooperation between farmers and the nickel industry plays a crucial role in achieving balance and mutual benefits. When farmers are actively involved, they have the opportunity to communicate their needs, aspirations and concerns to the nickel industry. In turn, the nickel industry can collaborate with farmers in finding solutions that respect local values and traditions, and minimize negative impacts on the environment and farmers' livelihoods.

The active involvement of nickel industry companies in helping farmers address the problem of closed irrigation channels occurred after a community demonstration. It was only during the demonstration that the company was willing to provide assistance by bringing in excavators to help clean and drain the closed channels around the community's rice fields that were flooded for 2 months in 2022. This shows that the company's active involvement did not happen proactively or voluntarily, but rather in response to pressure and demands from the community in the form of demonstrations. Although the assistance was eventually provided, it is necessary to question the sustainability and involvement of the company in helping farmers and communities in a more structured and sustainable manner without prior demands or demonstrations.

#### Collaboration

Collaboration is the process of cooperation between two or more individuals, groups, or organizations working together to achieve a common goal. In collaboration, parties share their ideas, resources, skills and knowledge to overcome challenges or create better solutions than could be achieved individually. Collaboration builds synergy and strengthens each party's strengths, and creates an inclusive and supportive environment. In addition, collaboration can also overcome differences and conflicts, and help reach consensus and compromises that benefit all parties involved. Collaboration is key in addressing complex and global issues, as well as driving innovation, growth and positive change in many areas of life.

Cooperation between farmers and the company has not been working well. From the interviews, there are indications that effective cooperation between farmers and the nickel industry is limited or non-existent. Conflicts between farmers and nickel companies are frequent, signaling unresolved tensions and differences of interest. The community feels that the industry only moves or provides assistance after being confronted with demonstrations or protests from the community. This suggests disharmony and mistrust between farmers and the nickel industry, and the need to increase dialogue, transparency and social responsibility on the part of the industry in order to create a sustainable and mutually beneficial cooperation for both parties and to empower the community. In addition to empowering the community from the company's side, CSR is also beneficial for the company's operations to run smoothly without interruption. If the relationship between the company and the community is not good, it can interfere with the sustainability of the company. Budiman et al (2008),[17] defines CSR or corporate social responsibility as a company's commitment to build a better quality of life together with related parties, especially the surrounding community and the social environment in which the company is located, which is carried out integrated with its business activities in a sustainable manner.

#### 4.2 The Impact of the Nickel Industry on Farmers' Economic Conditions

The economic impact of the nickel industry on farmers in Tondowatu village can be complex and contradictory. On the one hand, the nickel industry may provide employment

opportunities for some farmers, either directly or indirectly, through employment in the industrial sector or related sectors. This may increase the income and standard of living for some farmers. However, on the other hand, the nickel industry may result in serious problems for farmers, such as land grabbing leading to the loss of their farmland. Nickel processing can also cause environmental damage, including air, water and soil pollution, which threatens the sustainability of local agriculture. It is therefore important for the government and relevant parties to take a comprehensive look at the impacts of the nickel industry and involve the active participation of farmers to find sustainable solutions that can protect their livelihoods and reduce the negative impacts on local agriculture and the environment.

## **Employment Opportunities**

Employment opportunities refer to the availability of jobs or opportunities for individuals or groups to earn a livelihood or income. Employment opportunities can relate to various sectors of the economy and include various types of work, ranging from formal employment in the industrial, service, or agricultural sectors, to informal employment or entrepreneurial opportunities. Employment opportunities are the number of people who can be accommodated to work in a company or an agency. These employment opportunities will accommodate all available labor if the available jobs are sufficient or balanced with the number of available workers (Tulus T.H Tambunan, 2001).[18]

The presence of the nickel industry in Tondowatu Village has a complex impact on local farmers' employment opportunities. On the one hand, the industry can provide new job opportunities for villagers, including farmers, through various roles such as factory operations, logistics and administration. Given the employment opportunities in the nickel industry, some farmers choose to switch to such jobs to earn higher incomes. However, the impact may be different for other farmers who do not have skills or knowledge relevant to the nickel industry, who could face difficulties in finding employment in the sector.

# Obtaining Employment

Obtaining a job is an important endeavor in achieving financial stability and building a career. The process of finding a job involves various steps, including putting together an attractive resume, filling out job applications and attending interviews. In addition, networking and taking up internships or additional training opportunities can increase the chances of success in finding a job. During this process, it is important to highlight skills, experience and achievements relevant to the position being applied for, as well as demonstrate commitment and dedication in facing the challenges of the job.

The presence of the nickel industry in Morosi Sub-district has a positive effect on productive farmers in Tondowatu Village, as obtaining employment in the nickel industry sector can be an alternative option to overcome economic challenges and expand income opportunities. The transition from the agricultural sector to the nickel industry requires skills and self-adjustment. Some farmers can combine their agricultural knowledge with additional training to support technical roles in the nickel industry, such as in environmental maintenance or work safety. Meanwhile, there are also opportunities for farmers to work in support sectors, such as transportation or processing, which are important parts of the nickel industry supply chain.

Opportunities to work in the nickel industry initially looked good. The initial recruitment process was conducted by the Tondowatu village government, prioritizing people who were in good physical condition. However, over time, the company took over the recruitment process and there were complaints that recruitment was not transparent and may have involved bribery. The community feels that the recruitment system through the company tends to benefit certain

parties and ignore the local population, so they hope that the recruitment process can be returned to the village government to make it fairer, in line with the opinion of Rivai (2004),[19] stating that recruitment is essentially the process of determining and attracting applicants who are able to work in a company. Recruitment can also be said to be the process of obtaining a number of qualified human resources (employees) to occupy a position or job in a company/organization.

This shows that access to employment opportunities in the nickel industry is increasingly difficult for local communities, and changes in the recruitment process have increased the barriers for them to get a job in the industry. This has led to the phenomenon of some communities taking pieces of iron from the company to sell in order to fulfill their daily needs. This suggests that the difficulty of finding work has created economic pressure for some communities, resulting in them resorting to unlawful acts to find alternative income. Unemployment has an impact on the decline in per capita income of the population, so that in the long run the purchasing power of the community decreases, which in turn affects national production (Perdana, 2008).[20] Yustika (2007),[21] also argues that unemployment is a chronic problem in the economy that almost always accompanies economic development. Referring to the above facts, the government should immediately take appropriate steps and plans to overcome the problem of unemployment and limited employment opportunities.

# Participating in the Labor Market

Participating in the labor market is a process by which individuals actively search for, apply for, and attempt to secure jobs that match their qualifications, skills, and interests. This process involves compiling a resume that highlights experience and education, confidently attending job interviews, and developing an extensive professional network.

Actively participating in the labor market requires dedication, perseverance and the ability to deal with the challenges of finding and keeping a job. However, with the right effort, patience and positive spirit, this process can open up opportunities for a fulfilling and thriving career in a field of interest and desire.

The community's desire to work in the nickel industry is very high, especially among teenagers who have just graduated from high school. People in Tondowatu Village have a high level of enthusiasm to apply to become workers in the industry. However, there are challenges in achieving this, as it is difficult to qualify for employment in nickel industry companies. There is a sense of frustration that some of the village's children have good achievements, but the expected employment opportunities do not always materialize. One of the problems highlighted was that the application deadline was too short, making it difficult for people to prepare files and apply for jobs. As stated by Sitanggang and Nachrowi (2004),[22] a large population and labor force are potential human resources that can be relied upon, including in the industrial sector. This means that the greater the number of people looking for work. To achieve a balanced situation, they should all be accommodated in a job that is suitable and in accordance with their desires and skills.

# Livelihood Change

Livelihood change is the process by which individuals or groups shift or change the type of work or economic activity they do for a living. This change occurs when a person decides to move from one sector of work to another, or it may also be due to external factors such as economic, technological, or social changes that affect employment opportunities and market demands.

The presence of the nickel industry in Tondowatu Village has led to livelihood changes for the local population, especially for farmers who are still productive. The nickel industry can offer new employment opportunities. Some farmers choose to switch to work in the nickel industry to earn a higher income or because their farmland is taken for industrial development. While this change can provide new opportunities, it can also pose challenges for farmers who may not have skills or training relevant to the nickel industry. These changes in livelihoods can also affect the pattern of life of local communities and trigger social and economic changes in Tondowatu Village as a whole.

# **Industry Development**

Industrial development is a dynamic process involving the advancement and growth of economic sectors related to the production and manufacture of goods or services. This development is driven by technological innovation, increased production efficiency, and evolving market needs. Industrial development covers various sectors, such as the manufacturing industry, information technology, renewable energy, health, and transportation. Industrial development has a significant impact on a country's economy, creating jobs, increasing income, and driving overall economic growth. However, industrial development also needs to be balanced with environmental sustainability, protection of workers' rights, and equality for all levels of society. By managing industrial development wisely and sustainably, we can harness its potential and benefits while facing the challenges that may arise in order to achieve progress and shared prosperity.

The development of the nickel industry sector in Morosi Sub-district has made some farmers in Tondowatu Village experience changes in livelihoods, from farmers to workers in the nickel industry. Changes in the livelihoods of farmers in Tondowatu Village are only a small proportion, especially those who are still of productive age, especially farmers' children, who experience changes in livelihoods to become industrial workers. The reason they switch professions is to increase income and look for new opportunities. As according to (Siska, 2013),[23] this change in livelihood is also due to the fact that the previous job is no longer promising, due to the reduction of agricultural land and irregular income.

Farmers who are over 40 years old tend to continue their activities as farmers and not many have switched to industrial jobs. Older farmers find it difficult to enter work in industrial companies because their age does not meet the requirements. Although there is a desire to work in industry, the majority of farmers prefer to continue farming because it is their hobby and they do not want to be managed or supervised by others and some of them may not have the opportunity to work in industry due to age requirements or other considerations. The presence of industry in an area will certainly bring changes and influence on the livelihoods of local communities. Sari et al. (2013),[24] who said that the presence of mining companies can affect people's livelihoods, from farmers to laborers in the company, resulting in a change of profession and a lot of agricultural land that has changed its function to become a mining area. This profession change is also carried out because the income obtained from the industry is more profitable, the money earned is relatively more, so that people's needs are fulfilled compared to farming.

#### Revenue

Revenue is income derived from the normal activities of an entity's normal activities and refers to different terms such as sales, service income, interest, dividends and royalties" (Martani et al, 2015).[25] Income is an important component of personal and business finance, affecting the ability to meet needs, pay bills, invest and achieve financial goals.

The presence of the nickel industry in Tondowatu Village raises major concerns about its impact on the income of farmers and local communities. The nickel industry has the potential

to create new jobs for local residents, provide additional income through employment in the industrial sector, and contribute to regional economic growth. However, it is important to note that the presence of the nickel industry also has the potential to have negative impacts on farmers' incomes. The process of land expropriation for nickel industry projects may cause farmers to lose their agricultural land, disrupting their main livelihoods and potentially lowering incomes.

# Income Improvement

Economic improvement is an increase in the ability to increase income, which refers more to the changes felt by the people of Tondowatu Village from before and after the nickel industry. The majority of people are farmers with uncertain incomes and according to the community are not comparable to income after the nickel industry. Thus, one of the objectives of the community to switch professions is to increase income and there has been a change in the source and amount of income earned. In addition, for the community, the income obtained at this time has been able to fulfill their daily needs.

Since the presence of the nickel industry, the income of farmers in Tondowatu Village has changed. Sometimes income increases, but sometimes it also decreases. In addition to changes in economic and social aspects, the existence of the industry also has an impact on changes in environmental conditions, the impact caused by industrial development results in the emergence of environmental problems in the form of pollution. so that many rice fields are affected by the industry and result in drastically reduced crop yields. As a result, farmers' income also decreases due to reduced agricultural yields. One of the causes is that agricultural land is often waterlogged and flooded as a result of industrial activities. This flooding is a major problem that disrupts crop yields and causes crop failure, which has a negative impact on farmers' income in Tondowatu Village. Before the nickel industry was present, the income of farmers in Tondowatu Village was very high, in one hectare of land, they could get 40 million rupiah. However, since the nickel industry, farmers' income has decreased to only around 20 million rupiah per hectare. This shows that the presence of the nickel industry has had a negative impact on farmers' yields and income, so that they experience a decrease in income from the agricultural sector.

## 5 Conclusion and Recommendation

# 5.1 Conclusion

Based on the study results, it can be concluded that: (a) Interactions between farmers and nickel industry companies in Tondowatu Village are frequent, especially regarding the repair of irrigation channels and the issue of channel closure. Farmers expect the company to pay more attention to them in order to prevent conflicts, but the company's active involvement only occurred after community protests, (b) There are differences in perceptions between local communities and migrants regarding the nickel industry. Although some migrants make positive economic contributions, this difference can lead to social jealousy and feelings of marginalization among local communities. In addition, the presence of the nickel industry affects livelihood changes, with some farmers turning to work in the industry, while others continue to farm as a hobby and lifestyle. Farmers' incomes have also changed, both increasing and decreasing due to the impact of the nickel industry.

## 5.2 Recommendation

The nickel industry operating in this region has the potential to have significant impacts, both positive and negative, on the social and economic lives of farmers who are highly dependent on natural resources and the surrounding environment. The researcher tries to provide concrete suggestions that can help reduce the potential negative impacts and increase the positive contribution of the nickel industry to the Tondowatu Village community. The suggestions given by researchers in this study include: (1) The company should increase its concern for farmers' requests in Tondowatu Village regarding the repair of irrigation channels. Better communication between companies and farmers can help overcome irrigation problems, increase crop yields, and overall support the increase in farmers' income, (2) Nickel industry companies need to prioritize the acceptance of local people from around the industrial area in the recruitment of workers. This will help reduce the potential for social conflict and social jealousy due to the placement of workers from outside the region in strategic positions.

# References

- [1] Siska. 2013. The Impact of the Coal Industry on the Socio-Economic Community around Jembayan Village, Loa Kulu District, Kutai Kartanegara Regency. eJournal of State Administration. 1. (2), pp. 473-493.
- [2] Rakhmawati, A., & Boedirochminarni, A. (2018). Analysis of the Level of Industrial Sector Labor Absorption in Gresik Regency. Journal of Economics, 2(1), 74-82.
- [3] Law No. 3 Year 2014 on Industry.
- [4] Hatu, Rauf. 2011. Socio-cultural Changes in Rural Communities. Journal of Innovation. 8. (4), pp 1-11.
- [5] Government Decree No. 14 of the Minister of Environment Year 1994, concerning Determination of Important Impacts.
- [6] Banowati Eva. Geography of Indonesia. Yogyakarta: Ombak Publisher. 2018
- [7] Hendarsono, Suyanto. (2005). "Social Research Methods". Jakarta: Kencana
- [8] Sugiyono, D. R. (2017). Quantitative, Qualitative, and R&D Research Methods Bandung: Alfabeta
- [9] Budi Sulistyowati, Soerjono Soekanto, ed., Sociology An Introduction, PT.Rajagrafindo Persada, Jakarta, 2014, pp. 213.
- [10] Muhith, Abdul, & Siyoto, A. (2018). Application of Therapeutic Communication Nursing & Healtyi Yogyakarta: CV. Andi Offset
- [11] Simahate, Tessa. (2013). Application of Interpersonal Communication in Serving Library Users. Iqra Journal, vol. 07 no. 02, pp. 21.
- [12] Zakaria, A.K. and B. Rahman. 2013. Implementation of socialization of economic incentives in the implementation of sustainable food agricultural land protection program. Agroeconomic Research Forum 31(2):137-149.
- [13] Jalaludin, Rakhmat. (2013). Psychology of Communication. Bandung: PT. Remaja Rosda Karya

- [14] Alo Liliweri. (2001). Gatra gatra Communication between Cultures. Yogyakarta: Student Library
- [15] Jalaluddin Rakhmat, Psychology of Communication, (Bandung: PT Remaja Rosdakarya, 2008)
- [16] Sarlito Wirawan Sarwono, Introduction to Psychology, (Jakarta: Bulan Bintang, 1982), p. 44. 44.
- [17] Budimanta, et al. (2008). Corporate Social Responsibility alternatives for Indonesia's development. Second print. Jakarta: ICSD.
- [18] Tambunan, T.H., Tulus, Dr., 2001, Indonesian Economy, Theory and Empirical Findings, Jakarta: Ghalia Indonesia.
- [19] Rivai, Veithzal. 2004. Human Resource Management for Companies. Jakarta: Grafindo.
- [20] Perdana, Detha Surya. 2008. Analysis of the Effect of GDRP of Agriculture Sector, Industry Sector and Service Sector on Labor Absorption in East Java Province (Case Study 2002-2004). Thesis. Brawijaya University Malang.
- [21] Yustika, Ahmad Erani. 2007. The Indonesian Economy. Malang. BPFE UNIBRAW
- [22] Sitanggang, I. R. and Nachrowi, N. D. 2004. The Effect of Economic Structure on Sectoral Labor Absorption: A Demetric Model Analysis of 30 Provinces in 9 Sectors in Indonesia. Vol. V No. 01, 2004 July, pp. 103-133
- [23] Siska. 2013. The Impact of the Coal Industry on the Socio-Economic Community around Jembayan Village, Loa Kulu District, Kutai Kartanegara Regency. eJournal of State Administration. 1. (2), pp. 473-493.
- [24] Sari, M. A., Abbas, A., & Rahmad, D. (2013). From Farmers to Miners; Socioeconomic Changes in Jorong Koto Panjang, Nagari Limo Koto, Sijunjung Regency. Mamangan Social Science, 2(1), 15-21.
- [25] Dwi Martani (2015). Fundamentals of Financial Management. Jakarta: Salemba Empat.