COMPARISON OF TRADITIONAL OIL MINERS BOJONEGORO AND TRADITIONAL TIN MINERS OF BANGKA BELITUNG

Aprilia Natasya[1*], Donna Ardila Aprillia [2], Muhamad Maulana[3], Ruslan[4]

[1,2,3,4] University of Bangka Belitung, Indonesia

donnaardilaaprillia@gmail.com *

*) corresponding author

Keywords

Oil Mining, Wonocolo Village, Bangka Belitung

Abstract

This research relates to Natural Resources of oil and gas in Indonesia, which are important commodities in the Indonesian and regional economies, as well as the impact on oil producing areas, especially Wonocolo Village and Bangka Belitung. The aim of this research is to compare the portrait of traditional oil mining in Wonocolo Village and in Bangka Belitung from an economic, social, political and environmental perspective. The type of research method used is descriptive qualitative field research. The data collection technique was carried out through gradual interviews to find out and analyze the differences that exist in the two selected regions. From this research it was found that from an economic perspective, oil mining is an important sector in income and economic growth in the two regions, however the welfare of workers and communities around oil mining is still very unequal from the results obtained from oil mining. The Wonocolo Village community is fully given the authority to manage existing traditional oil mining, while traditional oil mining in Bangka Belitung is more controlled by foreign companies and the state so the political aspect is very strong.Meanwhile, from a social perspective, traditional oil mining has had a positive impact on the Human Development Index (HDI) in the two regions and has had a real impact with the growth of HDI, the economy and regional development continuing to develop every year. The existence of traditional oil mining has a real impact on damage to the surrounding environment, ranging from pollution to ecosystem damage. From the findings above, it can beconcluded that oil mining has many positive and negative impacts on economic, social, political and environmental aspects in local communities.

Keywords : Oil Mining, Wonocolo Village, Bangka Belitung

1. INTRODUCTION

Traditional mining carried out by the people of Wonocolo, Kedewan District, Bojonegoro Regency cannot be separated from the history of the Cepu Block mining since the Dutch era. The Dutch Colonial Government carried out traditional oil mining in Wonocolo using a lot of local people's work by utilizing local residents, for generations local residents carried out traditional oil mining businesses. After being abandoned by the Dutch

because they moved to Kawengan, the well in Wonocolo has been mined by residents until now. Petroleum and gas (Oil and gas) is a strategic natural resource that is still the main source of materials in vehicle fuel, from this oil and gas source is controlled by the state and as one of the important natural resource commodities in the Indonesian economy and regions where there are oil resources. The role of oil in the Indonesian economy is a very decisive factor, both as a source of state revenue, a source of foreign exchange reserves, tools, or a means of economic stability. The state of Indonesia has several petroleum mining areas that are managed using modern methods as well as traditional methods. In Indonesia, there are oil and gas mining areas that are managed in both modern and traditional ways. Wonocolo Village, Bojonegoro is an oil mining area whose management is carried out traditionally. Oil mining activities in the old well have been carried out by the Wonocolo community since 1942 and are their main source of livelihood. Almost all residents of Wonocolo Village depend on their livelihood as miners and are carried out from generation to generation. People who work as oil miners will inherit the wells they manage to their children. Concerns for miners when opening old wells that require considerable costs, very high risks in the petroleum business and the threat of production failure often haunt miners because no one can be sure that the old wells still contain crude oil or not. Initially, the people of Wonocolo village before there were mining activities, some of the people worked as farmers or farm laborers. But at the beginning it was found that the oil mine in the Wonocolo area resulted in the soil in Wonocolo village being infertile and barren.

Then after the Dutch left Indonesia and at the same time left the oil wells that they had dug. The community is faced with two choices, namely between continuing to farm with infertile soil conditions or continuing to mine oil. The people of Wonocolo Village finally chose to continue oil mining activities. The land, rice fields or fields they own are eventually planted with trees that can be cut down in the long term, but basically the Wonocolo people do not have many large plots of land in the village. The land they own is only a few meters, even some residents of Wonocolo village do not have land. Because of this factor, the people of Wonocolo Village finally decided to carry out mining activities carried out in groups with other residents.

The exploration stage is the most important effort in the search for petroleum, petroleum exploration is a high-risk business as well as petroleum, the natural gas potential owned by Indonesia is also quite promising. Oil and gas exploitation is all activities from start to finish in the effort to discover and add new oil and gas reserves. Exploitation is an integrated activity, including drilling activities, an oil and gas exploitation must be planned properly by paying attention to its profits and losses. Many of the old wells in Wonocolo Village have actually been drilled before 1970. Miners argue that the number of old wells in Wonocolo Village reaches hundreds but the old wells cannot be found in their entirety even though a search has been carried out, because steel pipe pipes as markers no longer exist, some others were found because there are special signs around the well, there are usually traces of cement castings, well cover casings there are also those that protrude on the ground surface. Although it was miserable for the Indonesian people, the Dutch colonizers were also good, because the oil wells that had been drilled were not directly permanent, but only closed with cast cement caps so that it could still be recognized that it was a well that had been drilled in the Dutch era.

Mining Tools, The traditional form of mining is very typical of sturdy wood or bamboo to turn a rope with a timba at the end. The tank pulled by the rope will pull the crude oil in the well. The pulling of the rope still uses human labor in groups. The mining process

from old wells is pumped using steel and iron called lead. The lead used is shaped like a bullet with a length of about three meters which is equipped with a valve when the lead is lifted to the ground level, the officer who works around the well then rolls the lead to drain the lead to drain the tank into the reservoir tank that is still mixed with water begins to separate between water and crude oil, the crude oil appears black by clumping and floating on the surface of the water. The lantung is then shoveled and accommodated in jerry cans which are then brought to the furnace by the workers, for the distillation process with a certain level of heat. After that, the crude oil will be taken to a cooking place or distillery to make it a half-cooked oil. The distillation is cooked using a stove with wood fuel such as boiling water. The distillation is carried out by cooking the lantung in a burning furnace for approximately 6 hours using wood branches in the teak forest around the mine.

The processed oil from the traditional oil miners from Wonocolo Village is heavy oil, which is of poor quality. The oil processed by Pertamina is still being processed again so that it becomes good quality oil. However, because Pertamina buys the half-cooked oil at a cheaper price for quality reasons, many of these miners also sell it illegally to outside buyers. The buyers came from Tuban, Lamongan, Rembang and its surroundings. They buy the half-cooked oil for the consumption of fishing boats, large trucks and agricultural machinery, although at the risk of damaging the engines. The crude oil is also illegally marketed to the Ngawi, Sragen and Bojonegoro areas, the majority of which are targeted by farmers who are used to fuel agricultural processing tools or machinery.

The Bangka Belitung Islands Province is known as an area rich in natural resources and also stores rich produce. The Bangka Belitung Islands are located near South Sumatra Province, known as the only tin producer in Indonesia. Even the name Bangka itself comes from wangka which means tin. Until now in Bangka Belitung province, in addition to agriculture, tin mining is also a primary sector in the economic structure of the community. Tin has been the main natural resource of the island of Bangka Belitung for a long time. The amount of tin ore content in this area is the largest of several other regions in Indonesia. Even in the world, tin production from Indonesia greatly affects the world market price. In the history of tin mining, there have been many very significant developments. The tin mining process is also increasingly effective and efficient thanks to advances in mining technology. Since ancient times, various tin mining techniques have been recorded in Bangka Belitung.

Offshore tin mining is carried out with traditional tools made by human labor with wood, plastic drums, and supporting tools so that they can float, then they are made on top of it to accommodate tin drilling tools on it so that they can float, then drilling is carried out in the deep sea using a machine called a robin machine using diesel fuel. And also a fleet of dredges from PT Timah for production operations in offshore areas. The dredge fleet has a bucket capacity ranging from 7 cuft to 24 cuft. The dredges can operate from depths of 15 meters to 50 meters below sea level and are capable of digging more than 3.5 million cubic meters of material each month. Each dredge is operated by employees totaling more than 100 employees whose working time is divided into 3 groups in 24 hours throughout the year.

Sea tin mining in Babylon using suction vessels or the results of unconventional mining environmental pollution is quite concerning. The number of unconventional suction dredges and floating mines continues to increase so that environmental pollution automatically also increases, without any effort to overcome the problem of damage to marine environmental reclamation. With floating IT it only takes tin content, regardless of

the environmental impact. The emergence of floating IT has been a long-standing problem in Babylon and until now there has been no way out. Although there are local government regulations not specific zones that can be brought by licensed mining miners, but there are still many floating IT deliberately mining in prohibited areas to get more profits. The destruction of coastal marine ecosystems automatically lowers and kills traditional fishermen's incomes. Fishermen in Babel are currently experiencing a decline in income and threaten to change their profession partly due to the impact of tin mining activities both on land and on the coast.

Land miners carried out by the community using simple tools that are assembled by themselves. The machine used to drill the contents of the soil so that it reaches the point of lead in it so that it can be lifted up and then placed on a wooden board called a sakan, then cleaned until there is lead in it. Onshore mining production located in the company's Mining Authority (KP) area is carried out by private contractors who are business partners under the control of the company. Almost 80% of the company's total production comes from onshore mining, ranging from Small-Scale Mines with a capacity of 20 m3/h to Large Mines with a capacity of 100 m3/hour. The alluvial tin mining process uses a spray pump (gravel pump). Each contractor or business partner carries out mining activities based on the planning provided by the company by providing reserve maps that have been drilled to find out the wealth of the reserves and directing them to be in accordance with the guidelines or procedures for environmental management and work safety in the field.

Tin miners are mining that has different backgrounds or characteristics of miners, where these differences can show or distinguish the results of the main income of tin mining, even though tin mining activities are carried out in groups. From an economic point of view, tin is a commodity that has a high selling value and promises to be a source of income. It is hoped that by increasing the rate of pay or increasing the rate of pay for those who work with expected long hours. That increasing the wage rate or increasing the wage level for those who work long hours. Factors that hinder people from doing their jobs. In this case, what hinders people from doing their work. The Bangka Belitung Islands are tin miners from a physical point of view. Reserve areas produce abundant tin and are still low in terms of the social education level of miners, so to do the work it is even more important to be patient and have a plan to provide for the families of the miners trying to work to improve the welfare of the family. Environmental damage does not only occur on land where the forest is destroyed, gaping dugout holes filled with water which are called kolong (small lakes) by local residents which become a breeding nest for malaria mosquitoes throughout the Bangka Belitung area. But also on the beach which causes damage to the beauty of the beach, which was originally clean white sand and clear water, becomes dirty and the seawater becomes cloudy by the content of mining waste mud that is carried by the river into the sea. Dead mangrove forests and coral reefs are destroyed by mud sediment from onshore tin mining waste that is carried into the sea or also waste from tin mining in the sea using dredges, suction boats and floating TI.

LITERATURE REVIEW

In his research on mining areas in West Java, (Zulkarnain, 2003) saw that in general, conflicts that develop in mining areas in Indonesia arise due to the distinctive nature of mining areas. Mining areas are usually located in relatively remote and underdeveloped areas, including the surrounding communities. Meanwhile, mining activities carried out require advanced technology with adequate facilities. As a result, the gap between mining companies and local communities is so wide and this

always gives birth to conflicts between companies and the surrounding community (Zulkarnain, 2003).

There has been a lot of research done on the economic activities of illegal mining. Some of them are research (Ansari, 2007) entitled "Illegal Gold Mining: Exploitation and Ecological Damage in Foreman, West Kalimantan". In the study, Ansari displayed the impact of mining activities on the environment and culture of the local community. Departing from the assumption that mining areas are frontiers, namely "empty and no-man's" areas that contain unlimited economic potential, Ansari finds that mining without permits has resulted in cultural and environmental damage (Ansari, 2007). Illegal mining continues to take place because in addition to being profitable, it is also due to the collaboration between miners and local communities who tend to be resistant to the state.

(Yudhanto, 2011) in a study in the Cepu Block entitled "Resistance Strategies of Traditional Mining Farmers in Maintaining Survival in the Midst of Low Rewards for Services", looked further. He found that there was an element of resistance in the ongoing conflict between miners and the state which was triggered by the low remuneration received by miners from the state. The resistance of local communities is more due to the need for survival. The resistance culminated in a boycott of oil deposits in 2006 to cooperatives formed by Pertamina. The action continued by building a local/illegal market network as a way to sell oil products. This is what Yudhanto sees as a strategy of resistance. However, the author sees that the resistance referred to by Yudhanto is still limited to "open actions" without looking deeper, such as, for example, how the boycott strategy works, whether the boycott is spontaneous or organized, if organized, who drives the boycott action to be able to form its own network and distribution chain? The discussion in this paper is intended to complement Yudhanto's study.

Another writing, from (Widodo, 2021) in a book entitled "Planting is Fighting!". In the article, he explained how the state policy that plans to open an iron sand mine in Kulon Progo in the name of development, in practice actually threatens the survival of the local community. As a witness as well as a perpetrator (farmer) in Kulon Progo, Yogyakarta, Widodo told the background of the resistance carried out by the farmers in Kulon Progo. On agricultural land that has long been a source of farmers' economy, iron sand mining will be built. Because their land was pressed by the development plan, there was rejection among farmers. The reaction of the resistance began from here, by forming a farmer's association, building solidarity and networks with activists, academics, and even as he mentioned, the solidarity network reached across countries, such as the Melbourne Anarchist Club from Australia and the Casual Anarchist Federation (CAF) based in the United Kingdom. This was done to increase the capacity of votes in rejecting the iron sand mine construction plan. In addition to building a network, resistance was also carried out symbolically by Widodo himself - through his writings that represent the emic point of view - by introducing the slogan "Planting is Fighting!" as the title of his book. Methodically, Widodo's writing is interesting because apart from being a writer, he is also a person who is directly involved in resistance actions. He has agricultural land that is threatened by the development agenda.

The above studies show the efforts made by the community to maintain threatened livelihoods, because the changed policy is considered to interfere with the production process (Sarmini, 2003), which ultimately corners the economic activities of the local community. However, the author has not found the attention of the writers on the stories from the miner's point of view in order to maintain his business. It is impossible for resistance as an attempt to defend oneself without a strategy to maintain its continuity. Attention (Zulkarnain, 2003), for example, stops at the mapping of the source of conflict and the construction of the identity of miners referred to as Unauthorized Mining (PETI) - which if placed in the Foucaultian discursive formation, it will be seen that the emergence of the term PETI by Zulkarnain et al. is nothing but a small example of how identity discourse is produced by institutions that have access to knowledge (and power) to create legality about management natural resources. The Bojonegoro region in Indonesia is known as one of the areas that has oil mining activities. Oil mining operations in Bojonegoro. involving oil companies that carry out exploration and exploitation activities of these natural resources. Some points that can be further explained regarding oil mining in Bojonegoro include:

- Mining Companies: Identify oil companies that are active in Bojonegoro, such as Pertamina or other private companies.
- Economic Impact: How oil mining activities have an impact on the local and national economy.
- Environmental Impact: Evaluate the environmental impact that may arise from mining activities, as well as the efforts taken to reduce those impacts.
- Local Community Involvement: How local communities are involved in or benefit from mining activities.
- Challenges and Sustainability: What challenges are faced in mining operations, as well as efforts to maintain the sustainability of natural resources.

2. RESEARCH METHOD

The method in this study is included in the type of qualitative descriptive field research. In this study, the presentation model is carried out by describing an object being studied with qualitative statements. The locations chosen as the research location are the locations affected by oil mining in Wonocolo, Bojonogoro and oil mining in Bangka Belitung. To obtain data, the researchers used data collection techniques through interviews.

3. RESULT AND DISCUSSION

This study aims to analyze the portrait of the difference between traditional oil mining in Wonocolo and traditional tin mining in Bangka Belitung from economic, social, political, and environmental aspects.

a. Economic Aspects

The state of the environment from year to year is increasingly concerning. Environmental damage that has become a lot of public attention, especially in Bojonegoro Regency, is environmental damage caused by oil and gas industrialization mining activities. This traditional mining is located in Woncolo District, Bojonegoro Regency. There are impacts of industrialization in Wonocolo Bojonegoro, namely:

- Pollution Oil and gas mining waste produces waste that can pollute or damage the environment.
- Weather Changes With this mining, a lot of trees are cut down because they will use the land for mining purposes. So that there is less vegetation there which results in more heat in the area.
- Loss of Agricultural Land The remaining land is currently also used for mining purposes. So, local residents do not lose their land. gradually to find out and explore the analysis of the difference between traditional oil mining in Wonocolo and traditional tin mining in Bangka Belitung.

Saat ini banyak sekali tambang-tambang yang sudah tidak berfungsi namun dibiarkan begitu saja, Peranan minyak bagi perekonomian Indonesia merupakan faktor yang sangat menentukan, baik sebagai sumber penerimaan negara, sumber cadangan devisa, alat, atau sarana stabilisasi ekonomi. Negara Indonesia memiliki beberapa wilayah penambangan minyak bumi yang dikelola menggunakan cara modern maupun cara tradisional. Desa Wonocolo, Kecamatan Kedewan, Kabupaten Bojonegoro merupakan salah satu wilayah penambangan minyak bumi dengan cara tradisional dan dihasilkan dari sumur tua peninggalan Belanda yang dibor sebelum tahun 1970.

Community economic empowerment is not enough only by increasing productivity, providing equal business opportunities, and only providing capital injections as a stimulant, but also must ensure close cooperation and cooperation between those who have developed and those who are

still weak and undeveloped. Empowerment emphasizes the imposition of skills, knowledge and power that can affect one's own life and that of others (Parson). Thus, economic empowerment is an effort to make the economy strong, large, modern, and highly competitive in the correct market mechanism, because the obstacles to community economic development are obstacles in terms of structural, so economic empowerment must be carried out through structural changes.

Oil mining from several old wells in Wonocolo Village is owned by capital owners who come from outside the area so that the local residents only work as miners who earn small wages. Mining results in the form of crude oil from old wells in the area are handed over to reservoirs managed by the local community. The shelter (collection station) is managed in the form of KUD named Bogo Sasono. The existence of KUD Bogo Sasono contributes to the mining workers. Besides being a crude oil reservoir, KUD Bogosasono can also facilitate access to marketing. This is because miners are not allowed to process crude oil so that the crude oil that has been collected at KUD Bogo Sasono is sold to PT. Pertamina to be further processed by meeting quality standards and being marketed. The purchase price of crude oil is the result of an agreement between PT. Pertamina, KUD Bogo Sasono, and well owners.

Wonocolo Village as one of the petroleum-rich areas should have a more prosperous community because its economy is supported by petroleum processing products. However, Wonocolo Village as one of the community areas cannot enjoy good natural wealth. Where hereditary societies work as miners with minimal wages from capital, they cannot advance their careers as landowners, they cannot advance their careers as landowners earned while working and are not enough to improve their professional standing.

Petroleum mining in Wonocolo can have a positive impact on the local economy through increased regional income and employment. However, the negative impacts involve environmental risks, including potential ecosystem damage and pollution. A balance is needed to ensure that economic benefits do not harm the environment and society. The development of the petroleum industry in Wonocolo can also improve regional infrastructure, such as roads and other public facilities. However, there is a risk of fluctuations in world oil prices that can affect regional income. Therefore, economic diversification and sustainable resource management are important to reduce dependence on the petroleum sector.

In addition, petroleum mining can trigger social conflicts related to land rights and the distribution of economic benefits. It is important to involve local communities in decision-making and ensure corporate social responsibility to support sustainable development and well-being of local communities. The implementation of environmentally friendly practices and regulatory enforcement need to be prioritized to mitigate negative impacts on the environment.

It is necessary to emphasize the importance of proper allocation of funds for social and educational development in the region. This can help create long-term sustainability by improving the quality of life of local communities and reducing economic inequality. Continuous monitoring of environmental impacts and social welfare is also needed to ensure the sustainability of mining operations. It is important to create a strong regulatory framework to oversee mining activities and implement strict sanctions against violations. This aims to maintain a balance between economic interests and environmental protection and community rights.

b. Political Aspects

The community's independent oil management in Wonocolo strengthened after 1930. It can be known that there is involvement with the Dutch East Indies oil industry, the Wonocolo people have been able to accumulate petroleum knowledge by combining local knowledge with modern knowledge introduced by the Dutch Colonial Government. Based on these considerations, the Regent who was in power at that time gave permission to the people of Wonocolo to be able to optimize the oil potential in the area by managing oil independently.

In addition, the government also provides independent oil management by the community by considering the local social system in the village centered on the individual village head to be able to regulate and manage oil around his area. With various political and regulatory changes, the

practice of independent oil management continues to this day. The Bojonegoro Regency government also prohibits the involvement of foreigners who want to invest in traditional oil wells. This is because the management of traditional oil wells that have existed since the Dutch era should only be done specifically for Indonesian citizens.

In contrast to Bangka Belitung tin mining, the presence of tin in Bangka Belitung has a political dimension as a form of state control over natural resources. According to (Erman, 2007), the political type of control of Bangka Belitung tin from the VOC, British, Dutch, Old Order to New Order era is a monopoly. Even in the New Order era, the monopoly politics of the tin business was accompanied by strong state control (through the military) over the people of Bangka Belitung.

Changes in the control system over tin resources occurred after the presence of the British government in Bangka. The first change was marked through control over the political system. In this case, the British severed Bangka's political affiliation with the Sultanate of Palembang. Bangka became an autonomous region and was no longer under the Sultanate of Palembang. Where Bangka is ruled by the British Resident who plays a role in controlling tin resources and taking care of the government. The control by the British Resident over the Bangka political system is also considered to have had the effect of lowering the status of Bangka leaders and even eliminating their autonomy in the tin business. The implication of British control was the marginal beginning of the local population's position from the advantages of their previous economic access and political power.

Seeing this, the state through its political power selfishly exploits tin and ignores the interests of the local population and the area where tin is mined. Where the profits from the sale of tin are taken over by the state and distributed disproportionately to tin-producing regions. Rather, the tin-producing areas in Bangka Belitung are experiencing real environmental degradation and other local problems.

The high dependence of the community on tin makes tin a political commodity. Where for political candidates who fight in the Regional Elections or as legislative candidates, they always carry the jargon of the people's mines to reap the votes of the people. The politics of tin control from monopoly to free market has also opened a big gap against the rampant illegal tin mining which is considered to be damaging to the environment and potential state losses. Then, political competition between regional elites that require political capital as well as economic capital inevitably implements a politics of neglect.

c. Social Aspects

The Human Development Index (HDI) explains how residents can access development results in obtaining income, health, education, and others (Central Statistics Agency, 2023). Based on data from BPS Bojonegoro, the HDI of Bojonegoro Regency was at 69.04 in 2020. The HDI figure of Bojonegoro Regency in 2021 increased by 0.55 from 2020 to 69.59 (Bojonegoro, 2023). And in 2022, based on data in the Bojonegoro Regent Accountability Report (LPKJ), the HDI of Bojonegoro Regency increased by 0.77 to 70.12 (Newsroom, 2023). In the last 3 years, the growth of HDI in Bojonegoro Regency has continued to increase and has succeeded in upgrading from medium to high HDI. The increase in the HDI rate of Bojonegoro Regency continues to increase every year also followed by a decrease in the poverty rate in the district.

In 2020, the percentage of the poor population reached 12.87% with a total of 161.10 thousand poor people. The poverty rate then increased in 2021 with the percentage of the poor population increasing to 13.27% with the number of poor people around 166.52 thousand people (Bojonegoro, 2023). And in 2022 the poverty rate in Bojonegoro Regency decreased by 1.06% or to 12.21%. Where there is a decrease in the number of poor people by 13,120 thousand people, so that the number of poor people in 2022. to 153.40 thousand people (Newsroom, 2023). The decrease in the poverty rate in Bojonegoro Regency shows that the policies implemented by the district government are effective. This is in line with what was explained by the Regent of Bojonegoro in his LPKJ, where there are 17 priority programs that are implemented that have a positive impact on 3 aspects, namely the aspect of reducing the burden of expenditure, increasing income, and reducing regional disparities (Newsroom, 2023). And data as of March 2023, the poverty rate in Bojonegoro

Regency has decreased to 12.18% or as many as 153.25 thousand people. This figure only decreased by 0.03% from the previous year or only decreased by 150 people (Nugroho, 2023).

Meanwhile, the Open Unemployment Rate (TPT) of Bojonegoro Regency in 2020 was at 4.92% and in 2021 it decreased to 4.82% (Bojonegoro, 2023). The TPT figure of Bojonegoro Regency in 2020 was influenced by the COVID-19 pandemic, where in 2019 the TPT figure of Bojonegoro Regency was at 3.56% (Bojonegoro Regency Government, 2022). Where in 2019 there were 26,071 people who were unemployed and then increased in 2020 due to the COVID-19 pandemic to reach 41,225 people looking for work. And in 2021, the number of unemployed was 35,057 people while in 2022 there were 34,414 people who were unemployed or this figure only decreased by 643 people from the previous year (Nugroho, 2023).

The problem of poverty and unemployment is still the main problem in Bojonegoro Regency in addition to the development of the oil and gas sector in the district. Where the reduction in the poverty rate over the past few years has been claimed by the Bojonegoro Government due to the contribution from the oil and gas sector, both directly and indirectly. The contribution of the oil and gas sector is shown by the distribution of the Revenue Sharing Fund (DBH) received by the district government. So that these funds are used to alleviate poverty that occurs and one of the efforts is through an educational program in the form of providing scholarships to Bojonegoro students (Cahyono, 2023).

So it can be concluded that poverty and unemployment in Bojonegoro Regency are still homework for the district government to deal with it. On the other hand, developments in the oil and gas sector also have a positive impact on government revenue and can absorb labor so that the poverty rate can decrease. In addition, the performance or strategy of the local government is one of the factors in the success of reducing the poverty and unemployment rate in Bojonegoro Regency. Compared to Bojonegoro, the HDI figure of Bangka Belitung has reached 72.24 or higher than Bojonegoro. Tin mining in Bangka Belitung has a huge impact on the government and the people of Bangka Belitung. Where the mining sector is one of the largest contributors to the region with a percentage of 8.60% to the GDP of Bangka Belitung. Meanwhile, the poverty rate in Bangka Belitung itself in 2022 will reach 4.61% or with a poor population of around 69.69 thousand people. As for the unemployed, there are around 36.63 thousand people or around 4.77% (Belitung, 2023). When viewed from a social perspective, the mining sector in Bangka Belitung has a large and real impact on the surrounding community with the large number of local workers, a good level of education with scholarships from mining companies, increased community income, and community empowerment development that continues to be carried out to improve the quality of the surrounding community.

The unemployment and poverty rates in Bangka Belitung are relatively low nationally, where Bangka Belitung ranks the fourth lowest. There will be a decrease of around 1,000 poor people in 2023 or to 68.69 thousand people compared to 2022 (Dewi, 2023). Meanwhile, the open unemployment rate in Bangka Belitung also decreased by 0.21 percentage points compared to 2022 or to 4.56% (Hasanah, 2023). From the decrease in poverty and unemployment, the mining sector contributes by absorbing local labor and increasing people's income. So that the tin mining sector in Bangka Belitung has great potential for improving the quality of life of the surrounding community. This can be seen from the increase in HDI in Bangka Belitung from year to year and the level of education which also continues to increase through the contribution of the tin mining sector (Ranto, 2023).

For both Bojonegoro and Bangka Belitung, they still rely on the oil and gas and mining sectors for regional revenue. The oil and gas and tin mining sectors in each region make a real contribution to improving the quality of the community and the income of the surrounding community. Where the income from the sector is used by the local government to improve the quality of education, community welfare, and other supporting sectors. Therefore, tin and oil and gas mining in Bangka Belitung and Bojonegoro greatly contributes to economic growth, community, and regional development.

d. Environmental Aspects

Oil mining activities are activities that have positive and negative impacts. The positive impact can be seen with the existence of new jobs for the people of Wonocolo village, and with mining activities the attitude of mutual cooperation between miners is getting higher, but in addition to the positive impact there is also a negative impact. The negative impact is that mining activities are activities related to gas and metal processing.

The environmental impact of oil mining activities in Wonocolo, such as in oil drilling sites in general, can include a number of environmental issues that need to be considered. Some common impacts that can arise include:

1. Air Pollution

   The process of drilling and extracting oil can produce emissions of gases and particles that can pollute the air. This pollution can have a devastating impact on human health and the surrounding environment.
2. Water Pollution Oil

   Mining activities can cause water pollution through oil spills, industrial waste, or chemicals used in the extraction process. Water pollution can be detrimental to aquatic ecosystems and aquatic life.
3. Ecosystem Damage

   Land erosion and drilling infrastructure construction can cause damage to natural ecosystems. Deforestation, habitat loss, and changing river flow patterns are examples of impacts that may arise.
4. Soil Contamination

   Oil spills or waste from drilling activities can contaminate the soil and result in a decrease in soil quality. This can be detrimental to agriculture and crops around the mining site.
5. Impact on Biodiversity

   Reduction of natural habitats and environmental changes can lead to biodiversity loss. Species that live around mining areas can be endangered or even extinct.
6. Waste Management

   Improper waste management can be a serious problem. Waste from mining activities, both solid and liquid, requires safe handling and disposal to prevent pollution.

Meanwhile, in Bangka Belitung, unconventional tin mining activities on Bangka Island in the past year have become increasingly concerning. Along with that, the construction of smelters (tin processing plants into tin blocks) has also increased very sharply. The collapse of the smelter is a big threat to environmental pollution. This is because the new smelters do not consider the environmental side. Damage caused by illegal mining activities is easily found, namely:

1. Mine Pit

   After operating, the company left giant holes in its former mining area. The holes have the potential to have long-term environmental impacts, especially with regard to water quality and quantity. Mine pit water contains a variety of heavy metals that can seep into the groundwater system and can contaminate the surrounding groundwater. Potential hazards due to seepage into groundwater are often not monitored due to the weak monitoring systems of these mining companies. On the islands of Bangka and Belitung, there are many former holes excavated from tin mines (kolong) that contain acidic and very dangerous water.

2. Mine Acid Water
   Mine acid water contains heavy metals that have the potential to cause environmental impacts in the long term. When the acid water of the mine has been formed, it will be very difficult to stop it due to the natural nature of the reaction that occurs in the rock. For example, lead mining in the Roman Empire era still produced mine acid water 2000 years later. Mine acid water was only formed many years later, so mining companies that do not conduct long-term monitoring can mistakenly assume that their waste rock does not produce mine acid water. Mine acid water has the potential to contaminate surface water and groundwater. Once contaminated with water, it will be difficult to carry out handling actions.
3. Tailing
   Resulting from mining operations in very large quantities. About 97 percent of the ore processed by ore processing plants will end up as tailings. Tailings contain heavy metals in alarming amounts, such as copper, lead or lead, mercury, zinc, and arsenic. When entering the body of living things, these heavy metals will accumulate in body tissues and can cause effects that endanger health.

As a result of these illegal activities, many forestry and agriculture programs are not running, because of the unclear allocation or determination of IT areas. IT activities also result in pollution of surface water and public waters. The land becomes barren, the underbelly (ex-mining pit) is not maintained, there are no reclamation/rehabilitation efforts on the ex-mining land, there is coastal abrasion and damage to the nature reserve, which takes at least 150 years to recover in natural succession.

This situation is the impact of a prolonged economic crisis that results in a social crisis. In addition, the implementation of regional autonomy that is not ready results in unsustainable resource exploitation. In the end, this activity that cannot be separated from the affairs of the natural ecosystem also has an impact in the form of environmental damage to the ecological order of Bangka island. especially areas that have experienced degradation in the quality and quantity of land that has covered several aspects of the Bangka ecosystem in general, namely especially the forest area in Bumi Serumpun Sebalai. It is undeniable that IT activities on Bangka Island have spurred rapid economic growth. However, it is not only economic growth that IT produces. Mining activities carried out sporadically and in bulk also resulted in catastrophic environmental damage. Most miners use large equipment so that it easily tears the ground surface. The residual soil discharge from IT causes siltation of the river.

On the surface of the ground they dug was a miserable sight. Unconventional tin mining in Belinyu District is still ongoing, including in protected forest areas. One of them is in the protected forest area of Mount Pelawan. Miners secretly continue to mine tin in the prohibited area. IT also damages watersheds, coastal border areas, protected forests, and production forests. The former mining holes are barren because they are not reclaimed.

4. CONCLUSION

Petroleum and gas (Oil and gas) is a strategic natural resource that is still the main source of materials in vehicle fuel, from this oil and gas source is controlled by the state and as one of the important natural resource commodities in the Indonesian economy and regions where there are oil resources. The journal discusses the differences between traditional oil mining in Wonocolo and traditional Tin Mining in Bangka Belitung from economic, social, political, and environmental aspects.

Traditional mining carried out by the people of Wonocolo, Kedewan District, Bojonegoro Regency cannot be separated from the history of the Cepu Block mining since the Dutch era. The Dutch Colonial Government carried out traditional oil mining in Wonocolo using a lot of local people's work by utilizing local residents, for generations local residents carried out traditional oil mining businesses.

The Bangka Belitung Islands Province is known as an area rich in natural resources and also stores rich produce. The Bangka Belitung Islands are located near South Sumatra Province, known as the only tin producer in Indonesia. Even the name Bangka itself comes from wangka which means tin. Until now in Bangka Belitung province, in addition to agriculture, tin mining is also a primary sector in the economic structure of the community. Tin has been the main natural resource of the island of Bangka Belitung for a long time.

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