

MAMUT COPPER MINE: DEVELOPMENT AND SOCIAL IMPACT ON SABAH SOCIETY 1960-1990

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Abstract. This paper discuss the development and social impact of Mamut Copper Mine in Sabah. The early history establishment of Mamut Copper Mine (MCM) started on 1965. Mamut Copper Mine is the largest copper mine in Malaysia. The end of the Pacific War caused Japan to look for countries in Asia to become joint venture partners and raw material needs. The economic relations of Japan and Sabah depend on each other to meet their respective needs. The result of this trust and interdependence has created cooperation between this two countries. This copper mine has had a positive impact on the social community in Sabah, especially the locals. Therefore, this paper would like to see the impact of Mamut Copper Mine from the social point of view of the community, especially in the field of employment, technology transfer and welfare of the people of Sabah in particular. The scope of the year of discussion was limited from 1960s which is the initial stage of the discovery of mineral resources until the 1990s because those years were the last years of the Mamut mine producing copper products.

Keywords: *mamut copper mine, employment, technology transfer, welfare*

Introduction

Mamut Copper Mine was established at the end of 60 centuries. Mamut Copper Mine (MCM) one of the company in Malaysia that monopoly copper production activities since the first production in 1975. MCM is the first largest copper mine in Malaysia followed by the gold mine in Raub Pahang and MCM is the largest in Southeast Asia. The wealth of natural resources in Sabah is one of the big opportunities for Japan and encourages them to invest in the state of Sabah. This is proven when a consul from Japan, Mr. Yoshida stated that many investors from Japan began to venture into the field of mining and one of the sources of mining is the copper mine in Mamut which is expected to produce millions of ringgit. In Japan, mineral resources are an important source for the survival of the industrial sector, but these resources are limited and the risk of pollution problems will occur. Around the 1970s, Japanese companies moved their industrial plants to overseas, including to Sabah.

The involvement of Japanese investors in Mamut Copper Mining began after the Japanese Mitsubishi Metal Corporation (JMMC) established Overseas Mineral Resources Development Tokyo (OMRDT). OMRDT consists of seven Japanese copper companies, namely Nippon Mining Co. Ltd, Mitsui Mining and Smelting Co. Ltd, Mitsubishi Metal Mining Co. Ltd, Sumitomo Metal Mining Co. Ltd, Sowa Metal Mining Co. Ltd, Furukawa Mining Co. Ltd and Nittetsu Mining Co.Ltd. Meanwhile, Sabah has incorporated Mamut Copper Mining under the name Overseas Mineral Resources Development Sabah Berhad (OMRDSB).

Generally, Mamut copper mine is located in Ranau district which is 65 kilometres from the city of Kota Kinabalu Sabah. Initially, a study of geochemical anomalies was conducted and the results of the study have found potential mineral resources to be explored in the area on 1965 by a team of United Nations researchers who was conducting research in the Labuk River (Akiyama, 1984). The results of the survey

found that there is a high value of copper including other metals found underground. The results of a survey conducted by the State Geological Department have confirmed the existence of mineral resources that can be explored.

Success in proving the existence of mineral resources in Mamut that has potential to be explored has led to the relatively fierce competition from several companies in obtaining permits or licenses to explore Mamut mines. In 1967, a decision was issued by the State Government to select one of the four mining companies wishing to carry out mining activities. As a result, Overseas Mineral Resources Development Company (OMRD) which is a joint venture company between representatives from Malaysia and Japan has been shortlisted to receive a license or permission to explore the possible existence of copper resources in that area. After three years of mining work, the success of discovering the existence of copper resources has been confirmed and the resources can be exploited and exported. As a result of the findings, OMRD Sabah applied to the Sabah State Government for a mining license of 7270 acres for a period of 30 years on 26 June 1969. Mamut Copper Mines (MCM) is a company that monopolizes copper production activities in Malaysia since 1975. The development of MCM plays an important role that impact social aspects of Sabah society.

Literature review

Studies related to the development of copper mine in Sabah and its impact on social development from the perspective of social history are still lacking, especially related to copper mining in Sabah. There are several studies that are the main source of reference for researchers related to with this article of copper mining in Mamut like Md Saffie Abd Rahim and Thomas Mangalai. However, Md Saffie Abd Rahim only discuss a few topic on the social development aspect because the main focus of the research study was on the impact of economic development. In some of his writings, Md Saffie Abd Rahim also discusses the job opportunities offered to the people of Sabah and the training given to unskilled workers. However, the scope of his overall discussion only focused on Japan role and contribution in economic activities in Sabah. Besides that, his research entitled 100 years of Japan in economic development in Sabah (Rahim, 2019) which only focuses on Japanese capitalists in Sabah economic development. In this study, Md Saffie Abdul Rahim also discusses the Japanese migration to Sabah from 1880-1980, through the scope of the year of discussion he also covers the scope of the year this study was conducted. However, the focus of Md Saffie Abd Rahim wants to explore the impact of Japanese entry into Sabah in Sabah economic development. Although both of these writings discuss the Mamut copper mine in general which is more focused on economic and background aspects and does not specifically touch on the social development impact of the mining and the researcher writing is suitable as an additional reference for this study.

Thomas Mangalai is more focused on the development of the copper mine industry in Mamut (Mangalai, 1995). His writings include Mamut mining background, production and expenditure processes and administrative organizational structure. His writing is suitable as a reference to be included in the mining background although it does not comprehensively touch on the social aspects of society. While the side references used to see the existence of minerals other than copper in the state of Sabah can be seen in the book of Ken Goodlet who discusses a little about coal mining in Silimpon located in the interior of Tawau (Goodlet, 2010).

The development of the coal mining industry at Silimpoon which was discovered by E.A. Phillips in 1903. Similarly, a study by K.G Tregonning stated that coal mining was an important source to Sabah economy before the Second World War (Tregonning, 1965). Ross Ibbotson (Ibbotson, 2005) and Suhana binti Udin (Udin, 2014) also discuss mining activities in Silimpoon. It clearly shows that the state of Sabah is rich in mineral resources ranging from coal to copper which once had an impact on society in various social and economic aspects.

Materials and Methods

This study was conducted using a qualitative method that is library research. Through the method of research library focuses on the collection of resources categorized as primary sources and secondary sources. Sources of documents are obtained from the Sabah state archives of Sabah branches in addition to certain departments or agencies that have a collection of documents related to the theme of the study. In addition, primary resources are also obtained from the personal savings of former mine workers. Next, this study also refers to secondary sources in the form of books, articles, journals or articles in books, magazines and newspapers. This reference material is obtained from state, district and Universiti Malaysia Sabah libraries. Interview methods were also conducted on individuals who had been involved and worked in mining activities. In terms of source analysis methods, each discussion of source analysis is based on the background of the study. There are two methods used in research methods that are based on deduction and induction methods. Deduction means making inferences by thinking logically.

Deduction analysis is advanced in discussion when faced with illogical facts. To ensure logic, such facts need to be discussed from various angles. While the inductive method carries the meaning of getting a general law from a particular case or example. Inductive method analysis elaborates research questions in history based on chronology such as selection of questions, hypotheses or temporary theories, data collection, data interpretation and concluding conclusions. This allows the analysis to be done critically which then synthesizes (takes the content and combines it into a more comprehensive sentence) of the information. Thus, if there are research methods from other social science disciplines, the multi-dimensional approach in the analysis of the study is only to enrich the debate to solve various problems, comprehensive historical events. Data collection is done as primary data as primary reference and secondary data as additional reference.

Results and Discussion

Mamut Copper Mine

The establishment of OMRD Tokyo also aims to implement the Japanese Government's policy in helping to develop other country economies in terms of mineral production. After obtaining the right to mine, OMRD Tokyo has begun the development of minerals in Mamut which has led to the establishment of OMRD Sabah Berhad where OMRD Tokyo holds 51 percent of its shares and the rest is held by the Sabah Economic Development Corporation (SEDCO). SEDCO ventures into the mining industry through Mamut Copper Mining company which conducts copper ore mining in

Ranau. SEDCO is a company that focuses on the manufacturing industry based on raw materials and minerals for export and plays an important role in developing this industry as it can contribute to income to the state (Seng, 1990).

Mamut Copper Mine or known as Overseas Mineral Resources Development Sabah Berhad (OMRDSB) entered into a joint venture agreement with Overseas Mineral Resources Development Tokyo (OMRDT) on 19 February 1973 after the first exploration in August 1966 were successful. In the agreement, OMRDSB has the right to mine until 2003 on an area of 4,800 acres. OMRDSB was officially opened in 1975 (Rahim, 2016a). Mamut Mines Development (MMD) was established in 1969 by leading Japanese companies to assist the management of OMRD Sabah Berhad in terms of technical assistance, staff, loans, necessities and the sale of solid copper in developing Mamut mines. In addition, the Japanese Government provided loans to MMD through the Export and Import Bank of Japan and the International Cooperation Agency and 15 other commercial banks.

In terms of obtaining necessities and the sale of solid copper, Nissho Iwai which is a trading company has close relation with OMRD Sabah and MMD Tokyo. The company has been appointed as an agent to import essential materials from the other countries for OMRD Sabah Berhad and also as an agent of importing solid copper for MMD Tokyo. The Malaysian government has appointed Malaysian International Shipping Corporation Berhad (MISC) as the authorized shipping agency to ship solid copper from Usukan port to Japan and a total of 147 shipments were made during November 1975 until the end of November 1984 (Mamut News Bulletin, 1984).

Sabah has various types of minerals; the main sources of minerals in Sabah are copper, silica soil and non-iron mineral sources. The first production of copper began in 1975 with the opening of the Mamut mine. In addition, other sources of minerals and ores are extracted including iron ore, sulfur and a small amount of gold and silver. The State Government has an interest in the Mamut copper mining project. Copper mining has opened employment opportunities directly around 1200 people and indirectly to 2300 people in 1980. Most of the labor force consists of locals living near Ranau district, while high-ranking officials were brought in from Japan. In terms of processing copper products, the work carried out using ancient methods and copper processing work is very minimal.

Job opportunities

An efficient organization can attract interest and maintain the quality of work. Good quality in terms of employment refers to skills in a particular field of employment. A skilled worker can indirectly contribute to high productivity outcomes for company. In MCM organizations, they believe that skilled employees can contribute the development of the company. Because of that, MCM provides a productive work environment such as prioritizing employee safety, providing comfort workplace and providing training for unskilled workers. The mining sector is a large sector and needs a lot of workers to ensure the smooth running of the industry. The existence of copper mines in Mamut Ranau has opened up huge employment opportunities for all residents, especially those living near the mines and residents around Ranau district. At the beginning of the mining development, 94 percent were Sabahans and 67 percent were from Ranau district. The workers who work in the mines also consist of those of Kadazan descent.

The existence of mining activities in Mamut Ranau indirectly had a positive impact on the social aspects of the community. This is because, since the Mamut mine operated, communities have obtained employment opportunities in mining activities. The work of the surrounding community which was initially only focused on agricultural activities is undeniable because the area is an agricultural area carried out, but has increased to mining activities and gives them new knowledge in mining activities in the field. In addition, the salary or wages from their jobs can be spent to the surrounding community who do business by buying various daily necessities. In terms of workload, most workers who are not skilled in technology will be trained while in the job, the community is taught something new in operating machines or machinery to be used in producing copper.

Number of workers in the mining sector in Mamut are stated in the Sabah State Economic Planning Unit 1978 which is since the first production began in 1975 the number of workers was only under 1200 people and 700 people in 1990 (van der Ent and Edraki, 2016). The mine employs large-scale workers since the opening of the copper mine, 13.3 percent of the total population in Ranau district is directly involved in the mine. It is estimated that each person who earns a living wage at the mine is \$ 439 per person.

In the copper mining sector in Sabah in 1970, Mr Yoshida a Japanese consul, stated that as many as 100 Japanese workers would enter Sabah to work on oil rigs and that number would also increase once the Mamut copper mine was fully operational (Kinabalu Sabah Times, 1970). In 1980, there were 1,200 local workers (State of Sabah, 1981-1985) working at OMRDSB and the majority of them were blue collar workers. OMRDSB also intends to train as many local professional workers as possible as stipulated in the terms of the 1972 agreement that OMRDSB has agreed to offer employment opportunities to the people of Sabah either in company management or support labor. According to Mr Arthur Leo and Mr James, during the MCM operation their officers were Japanese. This is because Sabah is still not able to provide a skilled workforce related to mining. The same goes for the mine machinery repair workshops used and the mechanics are Japanese (Leo, 2019).

OMRDSB also has a special local labor recruitment plan to provide employment opportunities to the people of Sabah. OMRDSB has sent its laborers to undergo technical training such as management, administration and trade skills related to the Japanese mining industry in addition to training provided by technical experts within the company. Johnny Johnidu and Daus Tadong were laborers who had been sent to Japan to undergo an eight-week OMRDSB-sponsored course at Hosokura Mine and Omiya Central Research in 1974. The course was conducted to train ordinary laborers on mining work.

According to Md Saffie Abd Rahim (Rahim, 2016b) and the Kinabalu Sabah Times (Kinabalu Sabah Times, 1977). By the end of 1976, a total of 8 local workers had taken courses in Japan. Japan efforts to train these workers increased every year until the eleventh years of OMRDSB operations and targeted skilled workers people, clerks and supervisors 100 people, technical 85 people, and management and professionals 85 people. MCM Company also provides part-time job opportunities to school students who are waiting for the results of exams and priority given to the children of mine workers. The scope of their work is only concentrated in the Chrysanthemum flower farm or work related to greening programs (Copper 18, 1997).

In the Copper Development Agreement OMRD has stated that companies should hire a workforce consisting of Malaysians to meet the existing quota *Table 1* shows the number of workers generally involved in the mining industry from 1976 to 1994. People working in the Mamut copper mine consists of Malaysian laborers and non-Malaysians as shown in *Table 2*. In addition, each type of job available in the mine can also be divided according to race and type of job.

Table 1. Number of mining/mining industry employees.

Year	Total worker
1976	1,416
1977	1,850
1978	1,904
1979	1,878
1980	2,151
1981	1,515
1982	1,591
1983	1,683
1984	1,558
1985	1,460
1986	1,414
1987	1,391
1988	1,401
1989	1,339
1990	1,339
1991	1,339
1992	1,291
1993	1,304
1994	1,663
1995	1,669

Source: Department of Statistics Sabah (1984-1996).

Table 2. Number of employees by citizen.

Type of work	Race					Total
	Malaysian			Non-Malaysia		
	Native Sabah	Chinese	Indian	Other	Japanese	
Professional and management	1	2	-	-	7	10
Technical	5	2	1	5	16	29
Administration and supervising	72	41	-	5	35	153
Trained workers	496	45	3	11	5	559
Non-trained workers	432	7	-	-	-	439
Total	1006	97	4	21	62	1190

Source: Mamut Copper Mine (1978).

Training and skills

Technology transfer in the form of training and skills of Japanese investors are required to employ local workers to archive the goals of the New Economic Policy, but this cannot be fully implemented because of a lack of skilled labor among the local

citizens. This makes the opportunities for local workers to hold positions in the management and administration levels quite limited. Lack of skill that can result in more foreign officers in Sabah than locals workers. The impact of this lack of skills constraints has slowed down the process of transferring technology to Malaysia. In the 25 years that this copper mine has been operating, the company has trained thousands of technicians, engineers and various skills that until now they have been able to work abroad with the skills they learned in the past (Copper 21, 1998).

Lack of skills can be seen in the mining sector in Sabah on 1980 there were only about 1200 local workers working as blue collar workers. Blue collar workers refer to mine workers. However, OMRDSB is looking for solutions and has its own plans in the effort to develop human resources in the company. This is when OMRDSB wants to train as many local professional workers as possible in accordance with the 1972 agreement that OMRDSB should open employment opportunities for Sabahan people in the management of the company or as support labor throughout the company operates. OMRDSB has sent some of their workers to undergo technical training such as management, administration and trade skills related to mining activities to Japan (Rahim, 2019). In the following years, the number of workers given skills training in Japan increased. OMRDSB efforts in recruiting labor at the Mamut mine can be seen in Table 3.

Table 3. Total labour planning.

Types of worker	Year 6	Year 8	Year 11
Unskilled workers	100	100	100
Skilled workers	50	75	100
Clerks and supervisor	75	90	100
Technical	50	75	85
Managers and professional	50	75	85
Total	325	415	470

Source: Rahim (2019).

Workers welfare

The Mamut copper mine is one of the best examples of the mining industry as it provides health facilities to look after the welfare and social welfare of workers. This is when the company has built a clinic in the Mamut mine. The Mamut mine clinic was established in 1971 and provided basic medical facilities to workers during mine development. In 1971, since the clinic began to be developed several Japanese doctors who have served consisting by Dr Jimbo from 1971 to 1973, Dr Tozawa from 1973 to 1976 and Dr Kumaramochi from 1977 to 1979 before being replaced by a local doctor, Dr. Ooi Peng Hai who on duty until 1982. Ms. Y. Kitano was a nurse from Japan who served from 1971 until 1981 and was replaced by two local medical assistants trained in 1980 and 1981. Most of the workers at that time were Japanese. Subsequently, a clinic was established in Batu Dua which housed workers housing in 1975 with the aim of facilitating the families of mine workers. This clinic only treats minor injuries and common ailments such as fever. If severe cases occur, the clinic only provides initial treatment before being sent to Ranau district hospital for further treatment.

Both clinics located in mining site and Batu Dua that daily open. In addition, each clinic division is responsible for assisting the Company Safety Committee. Among the aspects of assistance provided such as how to prevent accidents, safety education,

provide injury statistics, confirmation for employee insurance claims and assist in conducting safety competitions. The Employee Safety Committee was established on 1 July 1983, consisting of representatives of management and unions. This committee is also tasked with formulating company safety laws and regulations (Mamut News Bulletin No. 9, 1986). The health and safety of workers in the Mamut mine is highly valued. For companies, although there are advanced technologies in mining, but the health and safety of workers is important in the effort to develop the mining industry. This shows that this mining company not only wants to profit in economic terms, but also the welfare of workers and their families is taken care of (Mamut News Bulletin No. 4, 1983). This proves how the largest mining company in Sabah provides various facilities in terms of health and safety to ensure its employees are always in a safe and healthy condition.

In addition to contributing to the welfare of Mamut mine workers, the MCM company has contributed to the welfare of the local community as well as the families of mine workers. This is when companies provide medical services, donate school necessities and provide infrastructure such as bridges and roads (Copper 21, 1998). By 1991, MCM for the first time provided a scholarship scheme to the locals. This scholarship scheme is run by Yayasan Sabah. The first group to receive this scholarship scheme consists of three students from Ranau. This group is called the first group and costs RM7000. Every four years the company will provide 12 scholarships. MCM company secretary, Mr. Moo Hean Chong said, the Mamut Copper mine scholarship scheme is one of the company contributions to improve the level of education in the state. In May 1991, Mamut Copper Mine donated a bus worth \$ 80,000 to SMK Mat Salleh Ranau. The contribution given can indirectly facilitate the school if there is a program that requires transportation and at the same time solve the problem, said Mr. Abdul Rahman Haji Halim, the principal of the school. The bus key handover ceremony was officiated by Mamut Executive Director Datuk Peter Yew. At the event, Datuk Yew said the efforts and contributions made by the company were part of Mamut policy to help improve the quality of life of the community, especially in Ranau as a copper mining center and economic development of Ranau and surrounding areas (Copper 2, 1991).

The development of copper mining activities in Sabah began in the first year of copper production exported on 15 November 1975 until the final years of its production in 1999 has had a positive impact from the social point of view of the Sabah community and mine workers. The results of the analysis from the point of view of social development in the state of Sabah can be seen how the wealth of natural resources available in the state has formed a factor of attraction with the influx of major investors from East Asia, namely Japan. The project to develop and operate the Mamut mine involves a joint venture with a local company, especially in Sabah with one of the Japanese companies, Overseas Mineral Resources Development Tokyo.

The development of the Mamut copper mine was like a gold mine for the local community at that time which at that time was only focused on agricultural activities because it had opened up huge employment opportunities for the people of Sabah, especially those living in Ranau district. This coincides with the agreement between the State Government and Japanese companies to hire local workers to work in the mines. The workers employed in the mine are of various races and religions and come from various districts in the state. The positive impact of Mamut copper mine development in social aspects can be seen in terms of job opportunities offered. At the beginning of the

mine operation, most of its workers were Japanese people who were imported to work due to lack of skilled manpower in mining and administrative work among the local community. OMRDSB has sent unskilled workers to be trained in Japan at the Hosokura Mine and Omiya Central Research Center to undergo courses qualifying them to hold positions in administration and other fields that require high technological skills such as the use of modern machines and machinery, brought in from foreign countries. All expenses are fully borne by OMRDSB.

From a social point of view such as employee welfare and safety, OMRDSB provides various basic facilities such as specialized clinics for mine workers and their families to seek health care. In terms of employee safety as well, OMRDSB will ensure that every employee attends courses and training in dealing with hazards in the workplace to prevent any untoward incidents that happen to mine workers. OMRDSB has also offered scholarships and school bus donations to Ranau residents. The development of Mamut copper mining has a positive impact on the community, especially in providing employment opportunities and training unskilled workers in the field of mining. In addition, the social welfare of workers and locals is also highly emphasized by this mining company. Clearly shows how the development of this mining activity has had a huge impact on the people of Sabah.

Conclusion

The development of copper mine in Mamut Ranau from the 1960s to the 1990s has had a positive impact on the social development of the community in Sabah in particular. Since the commencement of construction, various types of job opportunities have been offered at the Mamut mine start from exploration work, using of heavy machinery, ordinary labor to management and administration. At the same time, mining companies at that time were also implementing a transition policy of 98 percent of the workforce consisting of locals. In addition, training is also provided to less skilled workers. Positive situations like this have further boosted the social development of society. This article has given an understanding of Mamut mining development and social impact to the people of Sabah, especially in the mining sector.

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Conflict of interest

There is no conflict of interest with any parties involved in this study.

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