



Journal of Social and Political Sciences

Taufik, Yani, and Basiru, Rosmawati. (2019), Shifting Livelihood From Agriculture to Mining: Is it the Right Decision? In: *Journal of Social and Political Sciences*, Vol.2, No.2, 375-383.

ISSN 2615-3718

DOI: 10.31014/aior.1991.02.02.78

The online version of this article can be found at:
<https://www.asianinstituteofresearch.org/>

Published by:
The Asian Institute of Research

The *Journal of Social and Political Sciences* is an Open Access publication. It may be read, copied, and distributed free of charge according to the conditions of the Creative Commons Attribution 4.0 International license.

The Asian Institute of Research *Social and Political Sciences* is a peer-reviewed International Journal. The journal covers scholarly articles in the fields of Social and Political Sciences, which includes, but not limited to, Anthropology, Government Studies, Political Sciences, Sociology, International Relations, Public Administration, History, Philosophy, Arts, Education, Linguistics, and Cultural Studies. As the journal is Open Access, it ensures high visibility and the increase of citations for all research articles published. The *Journal of Social and Political Sciences* aims to facilitate scholarly work on recent theoretical and practical aspects of Social and Political Sciences.



ASIAN INSTITUTE OF RESEARCH
Connecting Scholars Worldwide



Shifting Livelihood From Agriculture to Mining: Is it the Right Decision?

Yani Taufik¹, Rosmawati Basiru²

¹Lecturer of Agricultural Faculty in Agricultural Extension Department, Haluoleo University

²Lecturer of Agricultural Faculty in Agricultural Extension Department, Haluoleo University

Abstract

This study aims to study a number of factors that influence the process of labor moving from the agricultural sector to the mining sector due to the rampant development of the mining industry carried out by multi-national companies in Morowali District, Central Sulawesi Province. This research is descriptive, and data was collected through in-depth interviews with key informants and other respondents. The results of the study indicate that the factors of education, skills, and work experience have no effect on the process of hiring workers in mining companies. This is due to mining companies prioritizing local workers to avoid competition from outside workers. The company requires simply that the young people have finished high school or above. The mechanism of higher monthly wages, as well as the health insurance offered by mining companies compared to the uncertain revenue obtained from agricultural activities, are the main causes of young farmers leaving the agricultural sector, although most of them are placed in very low positions. The lack of government attention to increasing agricultural production has caused agriculture only to be an option for workers who are already unproductive or cannot pass education in senior high school. This condition causes most people to be very dependent on the activities of mining companies which can stop at any time and threaten the sustainability of livelihoods and income of the community. Were the company and the government to provide capacity building programs, future prospects may well be improved. To maintain the existence of the agricultural sector and maintain income inequality, it is necessary for the government and mining companies to establish agricultural mechanization programs in order to overcome the scarcity of labour. In order for the mining company to have a loyal and progressive workforce, inhouse education programs could be offered to the local employees who show promise and drive.

Keywords: Shifting, Livelihood, Mining, Workforce, Agriculture

I. Introduction

Indonesia is a fortune country because it has a wealth of natural resources is quite large. Since the decentralization was implemented by the Indonesian government in the last decade, the provincial and district government have more powerful authority to use and manage on their own region. They believe that the use of natural resources is blessed by the God, and it can be used for community welfare. As in various regions in Indonesia, at least the last decade, the eastern region of Indonesia has experienced an explosion of mining permits, especially for nickel. The provincial government of Central Sulawesi was recorded to have issued 534 exploration permits in 2014. Morowali regency issued 264 mining licenses; it is the district with the largest number of mining permits in Central Sulawesi

Province (antaranews.com, 2014). The proliferation of mining business licenses has had an impact on the recruitment of workers in Morowali regency. This study discusses several factors that have driven the shift in livelihoods, especially with the youth of the village from the agricultural to the mining sector.

This research took place in Morowali District, Central Sulawesi Province, in Geresu Village, where almost all the young farmers moved to work from the agricultural sector to become employees of mining companies. However, it seems that the welfare of farmers does not increase significantly. Research carried out in Liberia, Ghana, Sierra Leone, The Democratic Republic of Congo and Malawi which looking at the linkages between subsistence farming and artisanal mining revealed that the development of mining has failed to become an effective solution to the region's mounting rural poverty problem (Hilson, 2011; Okoh and Hilson, 2011). On the other hand, Maconachie (2011), based on his research in Sierra Leone, suggests that high current income obtained from mining should be used to uplift farming livelihood.

Morowali Regency has great economic potential in the mining sector. This situation has caused many residents, especially in Geresu Village, to seek new livelihood opportunities from the mining sector and leave the agricultural sector. This is especially so for residents who are young and have a high school education (required by mining companies). This situation is supported by several factors, including a lack of mastery of market information and agricultural science and technology, low added value of agricultural products, and the waiting period required for agricultural products. Finance is one of the most powerful constraints faced by rural households in accessing the livelihood options in general (Tripathy, 2009). Moreover, Cartie and Burge (2011) from their research in Sierra Leone argued that small-scale agriculture and artisanal gold mining are not livelihood alternative but are instead livelihood complement.

Since 2006 the Morowali Regency government has authorized PT Bintang Delapan Mineral (PT BDM) to explore natural resources in the Sub-district of Bahodopi. The power of attorney was accompanied by the issuance of the Decree of the Regent Number 540/0297 / DISTAMBEN / 2007. Furthermore, PT. BDM then collaborated with investors from China and established PT. IMIP (Indonesia Morowali Industrial Park). They then under the banner of PT. IMIP was established by four nickel processing plants under the auspices of PT. SMI (Sulawesi Mining Investment), PT. GCNS (Indonesian Guang Ching Nickel and Stainless Steel Industry), PT. ITSS (Indonesia Tsingsang Stainless Steel), PT. IRNC (Indonesia Ruipu Nickel and Chrome Alloy).

With the presence of the investment of the multi-national companies, the biggest challenge for the Indonesian government, both central and regional, is how to prove that the natural resource wealth possessed is truly a blessing for people's welfare and not a curse. It is widely believed that mining will provide a necessary road to poverty alleviation, but this is not so. According to research conducted by Sudarlan et al. (2015) about the impact of mining sector to poverty and income inequality in 30 provinces of Indonesia found that the mining sector has no effect on poverty alleviation in Indonesia. The operation of the mining industry in Indonesia is still far from the expectation of sustainable. To be considered as sustainable, a mining community needs to adhere to the principles of ecological sustainability, economic vitality, and social equity. These principles apply over a long time span, covering both the life of the mine and post-mining closure. The legacy left by a mine to the community after its closure is emerging as a significant aspect of its planning. Progress towards sustainability is made when the value is added to a community with respect to these principles by the mining operation during its life cycle. Sustainability does not require that nature be left untouched. It does require, however, that each generation recognise its obligation for stewardship of natural resources and ecosystem on behalf of the future generation. The transformed society must use natural resources in ways that will assure sustainable benefits for future generations.

We first provide a brief description of the methodology we used in gathering data, follow with discussion of the recruitment of local people to work in mining companies, particularly young people from Geresu village on which the paper is based, and then elaborate factors that make massive shifting of people's livelihood from farms to mining sector. In the final section, we draw some conclusions about livelihood movement.

II. Methodology

This research is descriptive research; data is collected through in-depth interviews with key informants such as parents who have lived the longest, some former village heads and youth leaders, who are considered to have mastered information about the process of moving workers from the agricultural sector to the mining industry sector in the village of Geresia (snowball sampling). Determination of respondents was then carried out by considering the direct and indirect relationships in a social relations network within the Geresia Village community and outside Geresia Village. Other data was collected from various sources, both government and private institutions related to mining activities in Morowali District.

III. Labour Recruitment

In carrying out recruitment, the PT. IMIP sets five priorities, which are characterized by concentric rings. Ring 1 is the closest area of the company's operations center, namely workers from Bahodopi Subdistrict, ring 2 laborers from Morowali Regency, ring 3 Central Sulawesi, ring 4 Sulawesi island and ring 5 are workers from various provinces in Indonesia. Geresia Village is one of the villages in Bungku Timur District, Morowali Regency, within \pm 34 km from PT IMIP. Thus Geresia Village is included in the ring 2 region prioritizing recruitment of workers. For most of the people in Geresia village and generally in Morowali district, there is a perception that being employed by the mining industry is a lifetime opportunity to prosper and to be prestige. Employment in the mining industry has raised such high expectations amongst local people, resulting in neglect of the more sustainable sources of living, such as agriculture, smallscale plantations, and industry. Many households try to go beyond mere consumption and livelihood by responding to new opportunities. Lag of adequate on-farm opportunity, inadequate farm output, land constraints, risk of farming, and lack of marketing linkages for agricultural products are important factors, which partly drive poor households to seek non-farm employment. In most developing countries, the drawback in the operation of the dual sector approach is reflected in the adverse terms of trade, and realizing the problem of unemployment and livelihood in rural areas (Tripathy, 2009).

To give a positive impression and satisfy local residents, the mining companies located in Morowali Regency, recruit low-qualified local employees. A person who graduated from high school can apply for work, no skills and experience are needed. According to the results of interviews with informants, who stated that:

"... The average level of education of youth in this village is high school and to work in a mining companies only need at least high school education. This low educational requirement is the background for young people to tend to work in factories. "

The same thing was expressed by other informants that

"... The level of education of youth from year to year is quite good, not only completing high school education but there are those who graduate to tertiary level, but to work in the mining companies level of education required is only high school."

"... To work in a factory is not seen from the skills possessed because what is needed is only the willingness to work."

The same thing was also expressed by other informants that

"... No skills are needed, because most young people who work in this factory do not have skills related to mining, most of them can immediately apply for jobs after graduating from high school."

As a result, 48 (57%) out of 84 village youth who graduated from high school in Geresia village during the study have worked in the mines (but in the lower positions such as security or cleaners), while the rest were waiting for a recruitment schedule from the company. The development of industrialization that has reached the village today is a factor that encourages young farmers to change their livelihood orientation from the agricultural sector to the industrial sector (Tarigan 2004; Amelia 2005; Herlina, 2002).

Wiriosudarmo (2001) stated that some mining companies practice a discriminative approach, which gives local people priority to fill vacancies. This strategy is used because if they carried out a competitive process, it would create disappointment among the local people, who are mostly underqualified. There is a general perception that cultural value can be traded for financial compensation. This perception has been created for practical purposes and used as a method of ad hoc problem resolution. Using this approach for structural problem resolution may lead to a great potential conflict in the future.

Armed with low education combined with minimal skills and experience, most of the local workforce in Morowali, particularly from Geresu village, are placed in a lowly position such as cleaner, security or in similar level of work. At first, there is an apparent increase in people's income due to working for the mining company. The presence of mining activity is usually followed by the increasing price of goods, so the increasing cost of living as well as living standards will also increase. In the event that the people are employed in a very low position with little prospect of advancement, it will hamper their effort to gain and sustain prosperity. The increased income will only happen temporary and will more-than-likely become a dream as the cost of living rises. Today, many young people who work in mining have bought motorbikes on instalment to be able to arrive at the office on time. Many housewives have started to consider to buy a washing machine, refrigerator and buying other luxury goods. These concerns also generally relate to people who are not employed in the mining industry, and particularly to those who are unemployed and on fixed-income government benefits (Hunter et al., 2015).

Changes or transformations take place not only intentional factors, but also because of factors beyond deliberation. Social transformation can occur intentionally and indeed desired by the community (Kuntowijoyo, 2013). Moreover, the transformation that occurs in the village is a city-village process, namely a change in the structure of an agrarian area towards a non-agrarian structure. The process of transforming the region is certainly not only physical but also socio-economic and cultural changes in the rural population which include the structure of production, livelihoods, customs, and lifestyle (Puji Hardati, 2011).

It should be acknowledged that the workforce numbers in Morowali cannot meet the amount and qualifications of workers which the companies need to run their business, so workforce recruitment from outside Morowali is also taking place. However, when hundreds of foreign workers from China arrived, locals have raised complaints regarding wages and positions. Many people consider that they are able to do work done by foreign workers, and demand equal pay with foreign workers. Protests began to emerge from covert to open conflicts between companies and local communities. This hot issue has even been used by contestants in the presidential election which will be held in April 2019.

Specific pre-employment training is a practical option to raise the level of capability of a local workforce to compete with the incoming workforce. Good collaboration between companies and local government has the potential to increase the capability of the local workforce, both through regular training and upgrading education. Programmes designed to increase skill and knowledge of the local workforce need to be designed carefully to create labour that suits the needs of the companies. Local workforce with good capability will provide opportunities for locals to be able to occupy a range of well-paid positions which provides the employees with an incentive structure.

Late commencement of community relationship in the production stage is one of the sources of dissatisfaction amongst members of the local community. Adverse impacts of exploration activity, especially impacts on socio-cultural life, are rarely addressed. There two common reasons for not addressing socio-cultural impacts during exploration. The first reason is the absence of a formal procedure for addressing environmental impacts during exploration since formal environmental impact assessment is conducted prior to the construction stage. Secondly, most mining companies tend to be reluctant to become involved in community affairs before the production stage. Ignorance of the importance of community relationship in the earlier stages of mining activity is evidenced by the physical infrastructure and facilities built during the construction stage. Road, tailing pipelines, water channels,

airstrips, and even fences are constructed in such a manner that those facilities completely close off any possible access to and from the surrounding community. This kind of isolation would make communication with the local community impossible. Members of the local community in the rural areas in Indonesia mostly live under structural hardship and scarcity. They need certainty and security more than abundance in life. Any opportunity is expected to give security and certainty of life. When the first team of geologists steps in their area to establish exploration camp, the people have already thought of having an opportunity to improve their lives. Whenever exploration fails to fulfil the living expectations of the community, the fundamentals of a good relationship in the future are difficult if not possible to establish.

IV. Land Resource

Effective control over productive resources, especially land, by the rural poor is crucial to their capacity to construct a rural livelihood and overcome poverty. This is because in many agrarian settings, a significant portion of the income of the rural poor still comes from farming, despite far-reaching livelihood diversification processes that occurred in different places over time. Hence, lack of access to land is strongly related to poverty and inequality (Lodhy et al., 2006).

Geresa Village has an area of about 1,700 ha with different types of land; the location of government / public facilities covers an area of 2.5 ha, settlement of 20 hectares, community plantations 180 hectares and still sleeping area of 35 Ha, other use areas 1,463.5 hectares. Based on these data, it can be seen that Geresa village has extensive land resources, but an extensive area has not been utilized optimally, because there is yet area which has not idle land that has not been utilized by the community. This also fits with one informant's statement that:

"... The agricultural land in this village is still vast and quite fertile, but they assume that working in the factory is a monthly salary, whereas if it works in the agricultural sector, the results are unknown and also seasonal."

Statements regarding land resources are more clearly shared by several other informants *"... agricultural land in the village is very adequate because there are still many sleeping fields that have not been managed due to the weak government control over increasing the human resources of farmers which impacts on the ignorance of agricultural production so that young people prefer to work in companies."*

"... Agricultural land is quite adequate, but because government programs are considered lacking in the agricultural sector, the guarantee of welfare is lacking, and young people prefer to work in factories. "

There are very few cases of land grabbing in Morowali Regency; it has happened but not by mining companies, but contractors working in mining companies. This happens because the location of the company's activities is within the forest area. However, in the long run, the waste from mining processing activities still has the potential to threaten the environment around the mine through water and air pollution. This continues to be a discussion between the government, mining companies, and environmental activists.

From the village data and based on the informant's narrative, it shows that the condition of the land in Geresa Village is still very adequate and still extensive. In addition, there are lands which were initially cultivated by the community but are currently not actively producing. This suggests that the aspirations of farm youth are being transformed not by the limitation of arable land but by their own dreams of prosperity, fuelled by the myth of mining. Support for increasing agricultural production is very low, for example in terms of the supply of seeds, processing technology, fertilization to post-harvest handling and marketing. Because these are deficiencies product of farmers is low, and the prices received by farmers also cannot support daily life compared to the income of someone who works for the mining company.

Another obstacle that is difficulty in developing the agricultural sector in Morowali Regency, especially in Geresa village is the lack of labor. If you take a case in this village, currently there are only old people who are not productive, women and those who have not passed senior high school levels who work in the agricultural sector. It seems that the introduction of the use of agricultural mechanization is urgently needed to substitute labor scarcity

increasingly. This is in line with Cartier and Burge (2011) who stated that young people are willing to embark in agricultural activities, if it ensures that sustainable income and working conditions are improved through 'modernization and mechanisation.

V. Income

Wages are rewards received by workers given by companies stated in money based on work agreements. Working in a company has a clear income, where the wages are divided into two, namely direct wages and indirect wages. Direct wages, namely wages regularly received by workers or employees who are routinely received every month in the form of basic salary and allowances where the amount of basic salary and benefits provided by the company can be seen in Table 1 below.

Table 1. Types and Amounts of Wages in Mine Employees

No.	Wage Types	Amount (Rp)	Remarks
1.	Basic Salary	2.224.000	Accepted equally for all workers from Geresu who work in the PT IMIP industrial area
2.	Fixed allowance		Accepted equally for all workers who work in industrial estates
	a. Housing	200.000	
	b. Family	10.000 (no children); 150.000 (one children); 200.000 (two children) and 300.000 (three children)	For those who are married and the age limit for children given benefits is a maximum of 18 years.
3.	Non-permanent allowance		Given based on attendance. if lost, permits outside the rules will be deducted. 1-2 absentee days will be deducted 100,000 per day, 3 days to above are not given attendance incentives. The level is defined as the length of work.
	a. Attendance incentive	260.000 (level 1-4), 390.000 (level 5), 960.000 (level 6), 1.430.000 (level 7-9)	
	b. Night incentive	500.000 (12 jam), 200.000 (8 jam)	12 hours for those who work only 2 shifts and 8 hours for those who work 3 shifts.
4.	Other income		
	a. Production incentive	300.000	Only employees who work in the production department.
	b. Bonus	200.000	Given every month if you have never made a mistake while working.
	c. Overtime	15.000 per hour	

Source: Primary data processed

In addition, the company is also providing insurance for all their labour, which cover health and accident. In terms of providing health and accident insurance for farmers, there are currently many insurance companies in Indonesia, both privately and government-run, even some international insurance companies such as prudential life and AIA have opened branches to the provincial capitals and districts. The government or mining company only needs to be the guarantor for the provision of insurance. For rural communities like in Geresu, insurance is still a luxury and has not been their priority, but that does not mean they do not want to participate, some insurance benefits have been understood by most people.

Table 1 above explains the list of salaries received by workers or employees until the end of 2017. In 2018 there was a salary increase that even more affected the aspirational of youth to move out of agriculture and become company employees. The types of wages that increase are base salaries from 2,224,000 to 2,403,000, housing allowances from 200,000 to 400,000 and family allowances (K / 0 to K / 3) each increase by 50,000. By contrast,

indirect wages are those that are not received regularly every month, are received or given/utilized when things happen that are urgent such as health and workplace accidents. Indirect wages can take in the form of employment insurance and health insurance. All types and forms of wages attract young people in Geresia Village to work in the company. This accords with interviews with informants who stated that:

"... Yes, because high wages work in factories while the results of working as farmers are very lacking." The same thing was also conveyed by other informants that:

"... Yes, the work income in the factory is more than the income in the agricultural sector."

Basically, the youth in Geresia Village prefer certainty income. This is on the hand of agriculture has unclear results; on the other hand, an uncertain market. Take, for example, the production of copra. Because, young people who farm in the village of Geresia generally help parents process copra, with a period of three months with fluctuating market prices, in 2017 copra prices was Rp. 7000 per kg. On average, the coconut plantation reaches 2 hectares, and if it is processed into copra, the results can reach 800 kg of copra. So in one harvest (usually every three to four months), the proceeds of copra production can be as high as Rp. 5,600,000. The results are then shared with the owner of the garden. So, every month, people can only receive more or less Rp. 1.000.000 from the processing of coconut to become copra.

The presence of nickel processing companies in Bahodopi Subdistrict provides a special attraction for young farmers when compared to working to help family's copra processing with a small wage, compared to working in the company the total salary earned per month can reach Rp. 4,500,000. This indicates that youth in Geresia Village prefer job security and income. Based on the wage level obtained, so that makes the community, especially young people, to make a transformation to meet their needs and improve their standard of living.

This accords with the statement from an informant that:

"... Because the condition of the people at this time has not been able to fully rely on life to agricultural products and only wages in factories that are considered capable of meeting the needs of a decent life".

Utomo (2014) argues that, income is the biggest factor in the discharge of labour from the agricultural sector, because the agricultural sector cannot guarantee the certainty of wages to the workforce. Economic motivation is the dominant factor in the release of labor from the agricultural sector towards the non-agricultural sector.

Geresia farming is dominated by small scale farmers or traditional farmers – corn, casava, coconut and cocoa and lastly some farmers try to cultivate pepper and patchauli. However, the lack of government makes most farmers face difficulty to increase productivity or try a new commodities which they regard have high economic value such as pepper and patchauli. Colman and Young (1989) argued that the decision of whether or not to adopt a new technology will depend on its technical attributes and economic potential, the characteristics of the farmer (in terms of age, education, and experience) and whether there are constraints on purchasing power, access to credit and information or poor communication links with product and inputs markets. Furthermore, they asserted that farmers make their production decisions with imperfect knowledge of the outcome of these decisions. Specifically, they operate under uncertainty regarding yields and prices. The analysis of markets with risk and uncertainty calls for more complex models, and these may yield very different results.

As land is still available in Geresia and Morowali in general, it is important to establish either an programme in small scale farm business or a coherent plan for land use into the future. Such a plan would have to include extensive community consultation *or* a coherent plan for land use into the future. Such a plan would have to include extensive community consultation.

This may prevent mining companies from being forced to accept local workforce who do not have enough skill and knowledge to work in a mining company.

Taufik (2015) in his research in Routa, a place close to Morowali where a big multi-national mining company operated nickel mining found, it must be acknowledged that in the beginning most of the people wanted to work in a mining company, it was based on the decline in the yield of cocoa which had become the main crop of the community affected by disease. Nevertheless, with the assistance and attention of the mining company which involved local university staff, local non-governmental organization, and local government, the community slowly working on new crops, most notably pepper. The success of pepper production has made most local people in Routa reluctant to work in the mine. They have demonstrated that what they obtained from planting pepper is far greater than the results they can get from mining.

VI. Conclusion

The perception that cultural value can be traded for financial compensation used as a method of *ad hoc* problem resolution should be followed with more permanent approach which provide opportunities to local workforce to be able to occupy better positions in the mining industry, so local people can enjoy the changing of lifestyle as the impact of the presence of the mining industry.

In order to anticipate income inequality between those who work in mining and those who do not, and taking account of as well as the post-mining era, it is necessary to establish programmes to increase productivity and income for those who work outside mining, particularly in the agricultural sector through mechanisation or strengthen the small-scale agricultural industry.

Communications between the mining company and the community must be transparent and effective; citizens should be encouraged to share in decisions that directly affect their futures; this will help mining companies avoid risks to the sustainability of both their own operations and the community; mine development must be perceived to bring a net benefit to the community (it is no longer enough to simply mitigate impacts). To achieve this, community diversification must be part of mine planning, development, operation, and post-closure.

References

- Antara Sulteng. 2014. 315 IUP di Sulteng belum penuhi Syarat. Antaranews.com. <https://sulteng.antaranews.com/berita/15936/315-iup-di-sulteng-belum-penuhi-syarat>
- Cartier, Laurent E., and Burge, Michael. 2011. Agriculture and Artisanal Gold Mining in Sierra Leone: Alternatives or Complement?. *Journal of International Development*. Vol. 23(8). Pp. 1080-1099. <https://doi.org/10.1002/jid.1833>.
- Hardati, Puji. 2011. Transformasi Wilayah Peri-Urban Kasus Di kabupaten Semarang. *Jurnal FIS* Vol. 8 No. 2
- Hendri. M dan Ekawati Sri Wahyuni. 2013. Persepsi Pemuda Pencari Kerja Terhadap Pekerjaan Sektor Pertanian dan Pilihan Pekerjaan di Desa Cihideung Udik Kecamatan Ciampea, Kabupaten Bogor. *Jurnal Penyuluhan*. Vol. 9 No. 1
- Hilson, Gavin and Potter, Clive. 2005. Structural Adjustment and Subsistence Industry: Artisanal Gold Mining in Ghana. *Development and Change*. Vol 36 (1). Pp. 103-131. International Institute of Social Studi, The Hague. <https://doi.org/10.1111/j.0012-155x.2005.00404.x>.
- Hilson, Gavin. 2011. Artisanal Mining, Smallholder Farming and Livelihood Diversification in Rural Sub-Saharan Africa: an Introduction. *Journal of International Development*. Vol. 23(8). PP 1031-1150. <https://doi.org/10.1002/jid.1829>.
- Hunter Boyd, Howlett Monica and Gray Matthew. 2015. The Economic Impact of the Mining Boom on Indigenous and Non-Indigenous Australians. *Asia & the Pacific Policy Studies*, vol. 2, no. 3, pp. 517–530. doi: 10.1002/app5.99.
- Kamus Besar Bahasa Indonesia (KBBI). 2005. Balai Pustaka. Jakarta
- Kuntowijoyo. 2006. *Budaya dan Masyarakat*. Yogyakarta. Tiara Wacana
- Lodhy, A.Haroon Akram; M.Borras Jr, Saturnino and Kay, Cristóbal. 2007. *Land, Poverty and Livelihoods in an Era of Globalization Perspective from developing and transition countries*. Routledge ISS Studies in Rural Livelihoods. London and New York.

- Maconachie, Roy. 2011. Re-Agrarianising Livelihoods in Post-Conflict Sierra Leone? Mineral Wealth and Rural Change in Artisanal and Small-Scale Mining Communities. *Journal of International Development*. <https://doi.org/10.1002/jid.1831>.
- Okoh, Godfried and Hilson, Gavin. 2011. Poverty and Livelihood Diversification: Exploring the Linkages Between Smallholder Farming and Artisanal Mining in Rural Ghana. <https://doi.org/10.1002/jid.1834>.
- Sudarlan, Indiatuti Rina and Yusuf Ariel A., 2015. Impact of Mining sector to Poverty and Income Inequality in Indonesia: A Panel Data Analysis. *International Journal of Scientific & Technology Research*. Vol 4 (06), June 2015 www.ijstr.org.
- Taufik, Yani. 2015. *Change and Continuity on the Margins: Livelihood Transformation in Rounta Southeast Sulawesi, Indonesia*. PhD Thesis unpublished. The Australian National University. Canberra.
- Tripathy, Trilochan. 2009. Chaging Pattern of Rural Livelihood Opportunities and Constrains: A Case of Orissa, India. *IUP Journal of Applied Economics*. Vol 8(3/4) pp. 116-139. <https://search.proquest.com/openview/73f52b63db3d960cef03f054a343a17b/1?pq-origsite=gscholar&cbl=54441>.
- Utomo, S.J. 2014. Transformasi Tenaga Kerja Wanita Dari Sektor Pertanian Ke Sektor Industri Di Kabupaten Mojokerto. *Media trend*. Vol. 9, No. 2. Hal. 126-135.
- Wiriosudarmo, Rachman. 2001. *Baseline Study and Gap Analysis on Mining in Indonesia*. World Business Council for Sustainable Development. Jakarta