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**SMALL SCALE GOLD MINING ACTIVITIES IN TEWANG PAJANGAN  
VILLAGE IN THE TERM OF TRIPLE BOTTOM LINE CONCEPT**

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**ABSTRACT**

*The aim of this research is to describe the activities in the Small Scale Gold Mining in Tewang Pajangan Village, Gunung Mas Regency, Central Kalimantan, in the perspective of the Triple Bottom Line concept. This research is qualitative descriptive with a phenomenological approach. Primary and secondary data were collected by interviews with informants from the government, private institutions, the elders and people in Tewang Pajangan. The findings show there are still small-scale gold mining activities which are not relevant to the Triple Bottom Line concept. Therefore, the research finding will be useful information/input for related parties such as government agencies, health centers, village officials and miners in Tewang Pajangan village.*

**Keywords:** Sustainability Accounting, Triple Bottom Line, Small Scale Gold Mining.

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**INTRODUCTION**

Indonesia constitutes a rich country with natural resources such as minerals (mining). These minerals include gold, silver, copper, oil, natural gas, coal and others. Management must be able to provide maximum prosperity and welfare for the people, which is stipulated in Article 33 Paragraph (3) of the 1945 Constitution of the Republic of Indonesia. Law Number 4 of 2009 concerning Mineral and Coal Mining requires the existence of district regional regulations/city as a further provision, as well as a condition and legal basis for the authority of the district/city government in managing people's mining (Wulandari 2021). At this present, there are many state

companies and private companies are involving in managing Indonesia's natural resources under well-established regulations to ensure that the profits and benefits from management can be felt by the people. However, there are still both individual or small groups run and do Indonesia's natural resource through using traditional or modern management.

The current problem is that there are still a lot of nature management being carried out by communities individually and in groups that do not have permits and are declared illegal, such as small-scale gold mining (ASGM). Several cases of illegal miners, such as Mount Botak, located on Buru Island, Maluku, are a gold mountain

area where many unlicensed mining activities operate (Lucyani 2009). Illegal mining carried out without permits has now become a serious issue for the society and the government. Illegal mining practices often carried out and widespread nowadays without going through eligible test, the analysis of environmental impacts or getting legal permission from the government.

This illegal gold mining certainly has a serious impact on the environment, social and economic turmoil in society. A lot of illegal mining activities are carried out on someone's land property which potentially rises conflicts, especially if it is government land or land protected by the State, which should not be disturbed or exploited. There will be conflicts of interest, competition for operational land and social impacts resulted from illegal mining. Illegal mining also causes environmental damages both in terms of exploitation and the use of toxic chemicals if the chemical are not professionally used and properly stored before or after use.

Improper exploration of natural resources (oil, gas and coal) has a negative impact on the environment (Darc, Manik, and Hum 2013). Various issues arise as a result of illegal mining activities as explained in several previous studies in Lombok Regency Central (Yusa and Rukmi 2017), in Merangin Regency (Emas et al. 2020) and Sijunjung Regency (Putra, Chan, and Dharma 2013).

As happening in other places, the similar case also occurred in small-scale gold miners in Gunung Mas Regency, Central Kalimantan. Concerning the environmental dimension of the Triple Bottom Line Concept, Small Scale Gold Mining (PESK)

activities which are now widely operating along river flows potentially causing environmental damage and pollution. Even though they have an impact on improving the standard of living and economy of communities around mining areas, the gold mining which uses Mercury potentially damage and pollute the environment around mines in the long term. Apart from environmental impacts, the use of mercury in gold mining will have an impact on public health.

## **REVIEW OF LITERATURE**

### **1. People (Society)**

Panning for gold for the people of Tewang Pajangan Village is a livelihood. Unfortunately, there is a lack of mining socialization provided by the local government or related parties which cause the use of mercury by the miners. The results of observations and interviews show that the community are concerned on their health, safety and the surrounding environment. The miners' activities are an effort to improve their and their families' standard of living although knowledge or human resources are less due to lack of socialization.

Interviews with several informants such as the Chair of the Central Kalimantan Community Miners Association (Aspera) saying that they had "carried out socilization and sharing events among the community miners through social media facilitated by donors. "The equipment construction project uses a new method in one location, but this only applies to types of community mining areas where the potential is hard (primary) rock. They usually tend to use more mercury compared to community mining areas where the potential is alluvial." (AS1, 2021b). The

community around the mining location revealed that there had never been any socialization in Tewang Pajangan Village from the government regarding the hazard of mercury. The socialization provided by the government was usually about burning land. There is a private institution that has come in, namely the Tambuhak Sinta Foundation, which carried out socialization regarding the hazards of mercury (PP01, 2021a).

Moreover, NGO Lentera Kartini adds that "By using mercury the gold catch is bigger, faster and at a lower cost. Initially miners did not know the dangers of mercury or were more precisely ignorant. Lentera Kartini NGO is actively conducting outreach and workshops with the Artisanal Gold Council (AGC) Canada, for example regarding the impact of mercury on health. Environmental impact, training on facilities for using gold processing equipment without mercury at the Pudu Jaya Lestari Mining group in Parenggean. PESK is a mining activity that has the potential to use a lot of mercury. Miners get mercury from suppliers. In Central Kalimantan it is easier to get mercury compared to cyanide or gelisin. (LK, 2021).

## **2. Planet (Environment)**

The results of observations, interviews and documentation from an environmental perspective show the impact of environmental damage from mining activities. If you are negligent, the environmental management will have serious impacts in the future. So it is necessary to pay attention to the impacts that are emerging at this time so that they can be overcome immediately, such as by periodically reviewing the health of the surrounding

community, providing medical assistance and collaborating with village health centers and creating a clean and sustainable environment.

The results of interviews with several informants regarding environmental damage stated that this mining caused damage to forests, land as well as fields. Some rubber plantations have been cut down to make way for suction sites. River water is also polluted and becomes murky, trees are cut down to make way for mining land. People are aware of this. But what else do you want to do because in Tewang Pajangan Village, almost all of our livelihoods are as miners/extractors and many people depend on this activity of searching for gold." (Masyrkt03, 2021) (Masyrkt05, 2021) (Masyrkt07, 2021b) (Masyrkt08, 2021b) (Masyrkt09, 2021b) (Masyrkt10, 2021)."

## **3. Profit (Profit)**

Observations, interviews and documentation show that the profit aspect of ASK Pendulang Pamuan Jaya continues to increase its production to achieve the goal of making a profit, and at a fairly efficient cost. Based on the results of the interview, it is stated that ASGM Pendulang Pamuan Jaya has been operating for quite a long time, 4 years running. The results of panning for gold are sold to Bali to increase the family's economy.

Village communities with different professions, namely teachers, housewives and miners, revealed that: "Almost 90% of the people of Tewang Pajangan Village, who started out as farmers, switched to mining/panning work, because they earned money faster. The standard of living has increased with this suction business. In the

past, simple houses in Tewang Pajangan were made of wood. Now the standard of living is increasing. This can be seen from the residents' houses which are well built and permanent. And there are some houses that have cars.

So to meet the need for vegetables, the people of Tewang Village rely on sellers from neighboring villages or Kuala Kurun who come every day to Tewang Pajangan Village. The land/rice fields have changed function from previously being used as a place for farming, now the area is opened and used for looking for gold. (Masyrkt11, 2021a)(Masyrkt07, 2021a)(PP01, 2021a)(Masyrkt06, 2021).”

### **Sustainability Accounting**

Sustainability or continuity, comes from the words 'sustain' which means 'continue' and 'ability' which means 'ability'; Sustainability is a principle of sustainability in sustaining life for all living things. Sustainability itself has three main pillars, namely, economy, society and environment. The ecological context of sustainability can be interpreted as a biological system that is still capable of supporting biodiversity and productivity without limits. This can be achieved if humans do not use and exploit natural resources excessively, causing ecological damage or disturbing the ecological balance (Life Without Waste, 2020)

The concept of sustainability accounting is interesting to discuss because currently entities are not only assessed based on financial performance or profit alone, but also on their performance in maintaining the entity's sustainability in the long term. Entities are required by stakeholders to pay

attention to the company's contribution to creating sustainability for nature and humanity.

Elkington in his book *Cannibals With Forks* says Sustainable business is the new managerial paradigm that Elkington presents for the next century. The concept is not new, but has mostly been limited to environmental sustainability. *Cannibals With Forks* sets out to enlarge the concept, thus presenting a broad picture of what a social responsibility agenda for business should entail. Sustainable business is a new managerial paradigm that Elkington lays out for the next century. This concept is not new but is largely limited to sustainable environments. *Cannibals With Forks*, expands this concept and presents a big picture of what constitutes a social responsibility agenda that is necessary for business sustainability.

Sustainability accounting focuses on disclosing non-financial information about an entity's performance to external stakeholders, such as capital holders, creditors and other authorities.

Sustainability accounting as a global issue in sustainability reporting is part of the challenge of institutionalizing an integrated reporting system (2020) as an idea initiated through the Global Reporting Initiative (Stubbs and Higgins 2012; GRI 2013). (Hifni, Sayudi, and Hayat 2019)

In developing sustainability, entities need to emphasize the elements of sustainability in implementing Triple Bottom Line practices (Smith, 2011), namely

1. Governance: The entity's commitment to the Triple Bottom Line and making it part of the entity's governance.

2. Leadership: Leaders who support the sustainability agenda must pay attention to how this concept is introduced in the organization
3. Business plan: The sustainable performance measurement framework will integrate economic, environmental and social performance indicators. Sustainability issues must be part of the business strategic plan.
4. Measurement and reporting (measure and report): Entities must measure and report activities related to sustainability in the triple bottom line concept.
5. Organizational learning: Learning needs to be continuous to be able to face sustainability and the triple bottom line in the future.
6. Culture: The entity's culture is very important for implementing sustainability and the Triple Bottom Line concept
7. Information systems: How information systems can support the development of organizational sustainability and can be used to achieve eco-efficiency, eco-equity and eco-effectiveness

### **Tripple Bottom Line Theory**

The term Triple Bottom Line was pioneered by Elkington in the book *Cannibals With Forks*. In his definition of the Triple Bottom Line, Elkington uses the terms profit, people and planet as three lines (Elkington, 1998). Triple Bottom Line Accounting emphasizes that company performance is not only measured by financial indicators, but also uses non-financial indicators. The Triple Bottom Line Accounting concept provides a framework for measuring business performance and

organizational success using three channels, namely economic, social and environmental (Goel, 2010). According to (Foran, Lenzen, Dey, & Bilek, 2005) the concept of triple bottom line accounting was widely developed as a way in which companies can realize broader social goals in addition to increasing shareholder value.

The Triple Bottom Line has become a major issue and is hotly discussed on various occasions and is realized in three pillars, namely people, profit and planet.

To maintain its survival, the entity must pay attention to the "3Ps". Profit, the company must also pay attention to and be involved in fulfilling the welfare of the community (people) and actively contribute to preserving the environment (planet) (Yusuf Wibisono, 2007).

#### **a. Profit (Profit)**

Profit is the main and most important goal in every business activity. It cannot be denied that the main focus of all activities within the company is to pursue profits and raise share prices as high as possible because this is the most essential form of economic responsibility towards shareholders. Activities that can be taken to increase profits include increasing productivity and carrying out cost efficiencies. Increased productivity can be obtained by improving work management starting from simplifying processes, reducing inefficient activities, saving money processing time and service. Meanwhile, cost efficiency can be achieved if the company uses materials as economically as possible and cuts costs as low as possible.

#### **b. People (Society)**

People or the community are very important stakeholders for the company, because community support is very necessary for the existence, survival and development of the company. Therefore, companies need to be committed to trying to provide the greatest benefit to society. It is also important to realize that company operations have the potential to impact society.

### **c. Planet (Environment)**

The planet or environment is a victim of human exploitation of nature. The environment is also something that is related to all areas of human life. Because all activities carried out by humans as living creatures are always related to the environment, for example the water they drink, the air they breathe and everything else. The equipment used all comes from the environment. The benefits received by humans are so great that they forget that the environment must be preserved again so that future generations can still enjoy the benefits of a clean environment. John Elkington (1997) the triple bottom line concept is an extension of the traditional accounting concept which only creates a single bottom line single, namely the financial results of the company's economic activities.

The triple bottom line has become a main issue and is discussed on various occasions and is realized in three pillars, namely profit, nature and people. The triple bottom line is not just about making a profit but also paying attention to humans and the nature around them. It also proves that legitimacy theory is based on a social contract that occurs between companies and the communities where the company

operates and uses economic resources (Ghozali and Chariri, 2007 in Nugroho and Purwanto, 2013). Organizational legitimacy can be seen as something that the community gives to the company and something that is desired or sought from the community. This is shown by the disclosure of the triple bottom line carried out by the company as a form of legitimacy towards the community. And it describes the impact of company organizations on the economy, social and environment. One of the initial models used by companies in preparing their sustainability reports was to adopt a concept called the triple bottom line (Nugroho and Purwanto, 2013).

## **RESEARCH METHOD**

The type of research used is descriptive qualitative research with a phenomena approach (Fadli 2021). The data analysis technique used in this research is descriptive qualitative analysis based on the selected phenomena, usually called cases, meaning actual things (real-life events), currently taking place, not something that has already passed (Fadli 2021). In order, Creswel (2008) has presented special stages of qualitative research including problem identification, literature review, determining research objectives, data collection, data analysis and finally reporting (Fadli 2021).

Primary data were collected through open and closed interviews with the list of informants below:

Informant's Code	The Informant	The Triple Bottom Line		
		People	Planet	Profit
Informant 1	Department of Energy and Mineral Resources	The permits from the related institutions	1. <u>Regulation</u> of environmental damages 2. Regulation on the impacts of water/min rivers/surrounding natural environment 3. Sanctions for violations	1. Data on mining companies and regional income 2. Tax
Informant 2	Central Kalimantan Province Environmental Service	1. Training education from related parties 2. Rewards/Punishment 3. Supervision	1. Gold separation from mercury 2. Waste disposal 3. Pollution of river water quality 4. Animal ecosystem in river	1. <u>Increasing</u> income of local communities
Informant 3	Kuala Kurun Environmental Service, Gunung Mas Regency	1. Government opinion 2. Socialization from the government 3. Socialization for miners	Sanctions if environmental damages occur	1. Contribution to the region/regional income 2. Public welfare
Informant 4	The Health and Environment District Office Kuala Kurun Gunung Mas	1. Monitoring from the Environmental Service 2. Socialization from related agencies	Reward & punishment	1. Benefits of infrastructure construction 2. To consume fish from rivers nearby
Informant 5	The village head of <u>Tewang Pajangan</u>	1. CSR concerns 2. Knowledge of the surrounding community 3. Human Resources (miners)	The impacts of <u>previous</u> use of mercury	1. Livelihoods of local communities 2. Improve the standard of living
Informant 6	Village Health Centre (Puskemas) of Tewang Pajangan	Society health		
Informant 7	The head of work team KKP of Pendulang Pamuan Jaya	Quality of human resources (miners)	Negative impacts of environment	1. Contribution 2. Job Vacancy 3. Short and long term of financing period 4. Sale
Informant 8	Workers and miners of Pendulang Pamuan Jaya	1. Gender Issue 2. Health Insurance 3. Government Socialization	<u>Previous Effect</u> of Mercury's use	Selling value of gold without mercury
Informant 9	The society around the mining location	The society's knowledge about mercury	1. Environmental impact 2. River water 3. Fish ecosystem in the rivers	1. To <u>improve</u> village community livelihoods 2. Improve the standard of living
Informant 10	The head of Mining Society Association (ASPERA)	Government's socialization concerning mercury	1. Effects of Mercury and the solution 2. The hazard of mercury to rivers	1. To increase living standard 2. Funding
Informant 11	The Foundation of Tamuhak Sinta	The knowledge of the hazard of mercury	The effect of mining activities	To assist family's income
Informant 12	Lentera Kartini as the Civil Development Organization	1. Miners' knowledge on the dangers of mercury 2. Local government 3. Mining Community Academics	Mining activities	-
Informant 13	Pure Earth Blacksmith Institute	1. Miners' knowledge of the dangers of mercury 2. Local government 3. Mining Community Academics		
Informant 14	The buyers	1. Impact on other miners who do not use mercury 2. Level of knowledge about the use of mercury		The reason to buy gold
Informant 15	The Elders		Places that are prohibited for mining area because the areas are sacred and holy	-
Informant 16	The group of gold miners	Is there any mining socialization from local government	Are mercury used?	Gold is gold in a day

Data for this research is divided into primary and secondary data sources. Primary data is a data source that provides direct data for researchers. Primary data sources were obtained through interviews at the research

location/place and direct observation in the field. Primary data consists of notes on the results of direct questions and answers and observations in the field. Secondary data sources are those that do not directly provide data to researchers as data collectors. For example, providing data through other people or documents. The use of secondary data is to support information obtained from primary data sources: library books, literature, examples of previous research, books, reports of activities held (Sugiyono, 2018).

## RESULTS AND DISCUSSION

In connection with the existence of the mining sector in Indonesia, many parties hope that entities in Indonesia, even in remote villages, must start developing sustainable and friendly environmental businesses, because if this is ignored, natural damage will become even worse.

Central Kalimantan, with its relatively large forest conditions and area, needs to balance economic development with environmental sustainability. The accounting sector also plays a role in environmental preservation efforts, namely through voluntary disclosure in financial reports regarding environmental costs. An accounting system related to environmental costs is called green accounting or environmental accounting.

This research is descriptive qualitative explaining the phenomena that occurs in Tewang Pajangan Village when small-scale mining activities are carried out without relating to People (Social), Planet (Environmental) and Profit (Economic) aspects, namely the concept of sustainable

business (Triple Bottom Line), People (Society).

## CONCLUSIONS AND SUGGESTIONS

The conclusions from this research are as follows: Triple bottom line emphasizes that an entity's performance is not only measured by financial indicators or the entity's profit generation but also uses non-financial indicators so that economic, social and environmental values are placed in a balanced focus. Looking at the existing situation in Tewang Pajangan Village where gold mining activities are rampant carried out by small scale gold miners, from the economic dimension it has a positive impact such as: creating employment opportunities for the community around the mining site, so that unemployment is reduced, improving the economy/level life of the population, especially around mining areas; even though it has unofficial/illegal connotations. If the unemployment rate is high it will certainly affect people's welfare.

From the social dimension, changes in people's mindsets are due to increasing living standards, thinking patterns have become more advanced with permanent houses, cars, and more and more village children are pursuing higher education.

The existence of Small-Scale Gold Miners can be seen from the environmental dimension, namely environmental damage due to activities carried out on land causing large holes from excavations that are left behind and environmental pollution, namely water, air and land due to the use of mercury.

The advice given is that the Triple Bottom Line concept should be of special concern to all industries, because if it is allowed to drag on, the impact will be

increasingly felt and will reach our children and grandchildren in the future, those of us who act or act indifferently and those who receive the impact. Apart from that, regional governments need to be proactive in seeking support for ASGM management in their regions

Regional governments should be firm in making ASGM activities legal activities. Regional governments should take a more communicative approach or outreach with miners regarding mercury and environmental damage.

The government can also ask for assistance from private institutions or NGOs to work together with the government to provide education/socialization to ASGM miners/scanners regarding the impact of ASGM in terms of economic, social and environmental aspects.

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