

The Role of Sustainability Development Goals: Evidence in Mining Industry

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Abstract. Sustainability Development Goals (SDGs) is a policy on information related to environmental, economic, and social information of the communities as well as how companies run their activities and productivities without breaking any applicable ethics. This research used the legitimacy and stakeholder theories to explain the relationship and roles of sustainability development goals in mining companies. It is expected that the companies' vital roles can provide externalities for communities. The research subjects were mining companies. The research results showed that the companies had disclosed their economic activities from domestic purchases to local and national suppliers. In terms of social information, such as human resources, manpower, community development programs, only some companies allocated their social cost reaching \$ US 59.5 million for communities. Meanwhile, the environment had the most activity programs, the resulted products greatly impacted the companies' environmental, social, and economic. The operating eight companies under study greatly impacted the environment.

Keywords: Sustainable Development Goals, Social, Economy, Environment, Triple Bottom Line.

1 Introduction

Sustainable Development Goals (SDGs) is a world's agenda that aims for mutual development until 2030 and also an international agenda that later will become the continuity of the development goals until it reaches Environmental Sustainability and Governance [1]. SDGs is formed and organized by the United Nations (UN) which involved many countries and world economists. There are many definitions and comprehensions related to SDGs, which are related to the continuity of various aspects; such as financial, environmental, and social aspects. The main goal of SDGs is to answer the world's demand to overcome poverty. There

are gaps in the main goals of this sustainability, one of them is that SDGs is just a status quo and there are many poverty and environmental damage [1].

However, with the development of the theory and the report of the company in which the company is required to report not only financial information but also non-financial information that are within the company [2] (Albertina et,al 2022). Having a new paradigm shift sourced from Corporate Social Responsibility heading towards Sustainable Development Go (SDGs) causes the company to be more focused and more sensitive toward reporting so that the image and the business strategy could be more optimized [3]. Not only does reporting become the main goal but the measurement and the impact of such policy must also be considered [4]. Then, there are Ethical Lapses where there is an action of cooperating with the policy which has been made [5].

The regulation in the form of standards that have been formulated is an instrument and a system that is used to support the implementation of Sustainable Development Goals (SDGs). Currently, the government is capable of establishing public policy based on standards to ease comparability and collecting initiatives and participation which support SDGs to complement each other and to get results from the commitment to achieve SDGs that aim to continuity every company. While SDGs reporting is associated with action, initiatives, and principles [6]. However, there is a study that criticizes the public policy components regarding the SDGs standards and the supporting indicators [4] and that there is no evidence that an organization fragmented after adopting the SDGs policies and indicators [5].

Sustainable Development Goals (SDGs) is a global action plan that has been approved by world leaders, including Indonesia, to end poverty, reduce the life gap and protect the environment. SDGs contains 17 objectives and 169 targets which are expected to be achieved in 2030, these include: ending poverty anywhere and in any form, ensuring the mobilization of significant resources from various sources, including through extended cooperate development, providing equipment that could easily be predicted by developing countries, especially to the less developing countries, implementing programs and policies that could end poverty in all its dimensions [1].

According to the research gap, it could be; concluded that every company must realize that the product produced must be balanced with the effect of the products that have been produced [1], stated that, accountants and other stakeholders within the company are one of the causes of global warming and other current disasters. Accountants and other managements only think about profitability and other potentials of the company without thinking about the environmental and social aspects [7], though there are several reporting and disclosures that are dominant to social aspects rather than the environmental aspects [6].

This research is important to investigate how far the companies do their reporting, these companies refer to those who are registered as members of the Indonesia Global Compact Network (IGCN), an association formed to accelerate and fulfill the 17 aspects included in the IGCN which consists of information fulfillment indicators on the environment, economics, social and human rights, and the most important is on how the company performs their activities and productivities ethically so that the companies do not perform any negative external deviations, furthermore creating negative impacts to the community.

2 Methods

This research is descriptive qualitative research. The steps done to complete this research consist of; data condensation, data display, and data verification. The data were collected

through documentation and literature review. In the documentation, the data were collected by noting down data related to the research [7]. In the literature review, the data were collected by reviewing and analyzing various literature such as; books, journals, and other sources related to research. The type of data used in this research is secondary data, which was collected from the reports related to sustainability reporting from samples that met the criteria.

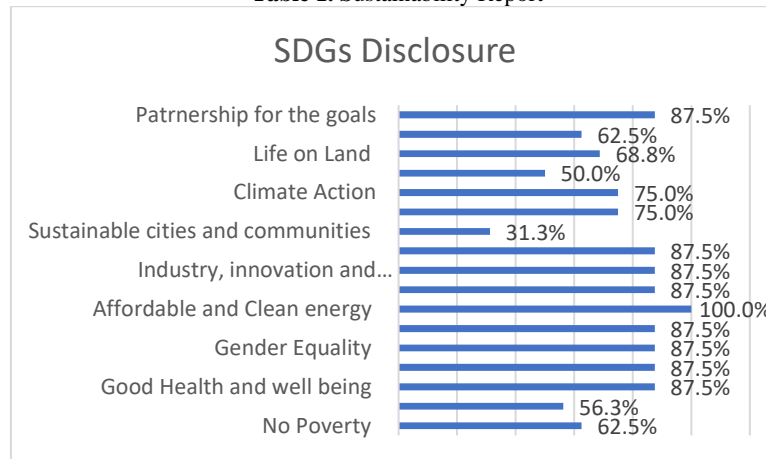
The data used in this research are all companies that are registered in Indonesia Global Compact Network (IGCN). The reason why these companies were chosen is that the companies which are members of IGCN support the SDGs program which is expected to become the benchmark for reporting and for SDGs report presentation in the future. The 76 companies of IGCN are divided into three business sectors, they are; corporate companies, business on education companies, and companies on Non-Governmental Organizations (NGO) or commonly known as *lembaga swadaya masyarakat*.

3 Results and Discussion

3.1 Research Findings

Sustainability Reporting is a nonfinancial report in which every company should present the report. Presentation indicators consist of environmental aspects, social aspects, and economical value which then the company's governance should also be presented. In this research, there are 76 companies registered to IGCN association but only 8 companies presented the sustainability report in detail, this means only 10,5% of the members of IGCN presented the sustainability report.

Table 1. Sustainability Report



Source: SDGs Data Processing

Even though there are many companies in Indonesia that support sustainability action and are registered in the association supporting the presence of sustainability reporting, those companies did not report and present such reporting, based on the research findings investigating 8 companies. According to the table above, it can be concluded that there is 62,5% out of 8 companies carried out the program without poverty, this means there are

62,5% of companies presented and reported actions and activities that supported the welfare of the surrounding community with the aim to decrease poverty. There is 56,3% that presented the program without starvation, from these findings it can be concluded that many companies are still focusing on the efficiency impact on the environment and on the production of the company's operational activities, but the social impact, however, social aspects were still not optimally distributed.

The next indicator of SDGs is healthcare and employee welfare; good quality education, gender equality, clean water and sanitation, economic growth, industry, and innovation. In decreasing life gap, there is 87,5% of 8 companies that did the project only Company 1 (C1) did not present information related to healthcare and welfare, though in 2019-2020 is the effect of Covid 19 pandemic. Meanwhile, for clean energy presentation, carbon emission and greenhouse, 100% of the investigated companies disclosed the information, Company 2 (C2) Tbk. even mentioned and presented its environmental cost, which is \$USD 64.6 million for environmental management and monitoring cost.

The sustainability for cities, communities, and programs on underwater life is the SDGs indicator with the smallest percentages of 31,3% and 50%. Company 6 (C6) and Company 1 (C1) presented the information on the sustainability for cities and communities, and for the programs on underwater life Company, 1 (C1) and Company 2 (C2) presented the reporting. Through the findings, it can be concluded that out of the 17 SDGs indicators applied, Company 2 (C2) is the company that presented SDGs information in detail, in which this company successively obtained gold proper category, CSR Award Platinum, even though during the time coal selling price decreased and petroleum cost increased.

3.2 Discussion

SDGs is a report that included a triple bottom line component [9], in which social, environmental, and economical aspects become the most important things and then elaborated into 17 indicators that can be applied in a company. Below is a brief explanation of the 17 indicators.

No poverty indicator, is an indicator that has a sustainability benchmark from a company. The findings displayed that C1 created many inclusive business partnership programs with the aim to improve community welfare. Whereas Kaltim Prima created programs for retirement preparation, minimum wage, programs on community development, and segading resettlement. This means having no poverty indicators, every company that carries out company activities must be responsible for the welfare of the community around the company.

According to SDGs, within the hunger indicator, there is a prevalence program on insufficient food levels, population prevalence with a moderate or severe level of food insecurity, proportion of the population with calorie intake below 1400 kcal, and the percentage of infant food level. C1 carries out many nutritional quality programs in every product the company produced.

With the government program in 2020, significantly expanding globally, the number of scholarships in developing countries, specifically in countries less developing, developing countries of the small island, African countries, to apply for higher education, including vocational training, information and communication technology, technical program, engineering and scientific program, in the developed countries and other developing countries, with this, companies in Indonesia have an important role in implementing the programs which have been designed by the government. Similar to how C8 in which the vision is to create

cultural innovation that is beneficial for the community for a better life, while C2 spent \$US 91.585.961 on education costs for various programs to escalate the education quality.

The government program on handling clean water is to increase the water quality by reducing pollution, removing waste, minimizing the release of dangerous materials and chemical substances, reducing half of the proportion of raw wastewater, and significantly increasing recycling also reusing recyclable things which are safe globally. As well as protecting and restoring ecosystems related to water sources, including mountains, forests, wetlands, rivers, groundwater, and lakes.

Table 2. Recapitulation of Water Usage Program

| C1 | C2 | C3 | C4 | C5 |
|---|---------------------------------|---------------------|------------------------------------|--|
| Arranging water recycling | Settling pond planning strategy | Managing mine water | Managing water generator | Reducing water intensity |
| Maintaining Water installation | Managing Wastewater | Managing wastewater | Phosphate | The process of managing, saving, and reusing or recycling for better quality according to Kinerja Kiderco, Petrosea, Tripatra dan MUTU |
| Improving Wastewater processing installation (IPAL) | Monitoring Wastewater quality | | Water use efficiency totals 33,59% | Water use efficiency 33,53% |

Source: Processed Data of Sustainability Report

Information on energy used by the 8 companies has been presented in the sustainability report in 2020, C3 management implemented efficiency-based management that affected the company's general operation. Implementing such policy, C3 succeeded in reducing energy used up to 21% or equal to 5.973 in 2020 compared to the usage in 2019. The conclusion above is obtained from the recapitulation of the usage of two main energy sources, they are Biodiesel 20% (B20) in 2019 and Biodiesel (b30) in 2020 for the company's operational activities in the mining and logistics sector, also the usage of coal as a power plant that mostly used for lightning and also for moving various utilities to support mining activities.

In 2020, C4 actualized saving energy efficiency up to 12,57%, this proved that having policies on energy savings such as; having regular maintenance and reliability, and applying the latest power plant technology. On the other hand, C5 save energy up to 0,43% in 2019 and 0,42% in 2020, using the strategy of reducing operational energy intensity. By having programs done by the companies, it could be concluded that overmuch energy causes a long-term impact on the environment; global warming and air pollution that happens nowadays are caused by the massive usage of vehicles, machines, and electricity.

3.3 The Analysis of Reporting Implementation of Triple Bottom Line Aspects

The concept of the triple bottom line is a part of sustainability reporting where profit is the orientation a company must pursue to achieve economical profit for the company to keep operating and developing [1]. The people are defined by the company who must have concern for the welfare of the community around the company. Various ways have been done by the company in distributing CSR funds, such as by giving scholarships to students around the company, establishing educational and health facilities, strengthening the local economic capacity, and other ways. Whereas the planet, is intended as a form of concern from the company for the environment.

From table 3 it can be seen from the profit, eight companies have presented information on the company profit, even though Kaltim reported that the price of coal has decreased and increased of fuel costs during the Covid-19 pandemic [12]. C2 also reported that the company's economic activity which received from domestic purchases to local and national suppliers. Social aspects of all the eight companies that have been investigated presented social information that started from human resources, labor, and community development program. Only C5 allocates its \$US 59,5 million for social aspects costs to the community [13]. Environment aspects might be the aspects that involve many activity programs, this is because the products produced have a direct impact on the environment that strongly influenced the environment, society and economy of the company [14], the eight companies investigated are companies whose its operational activities have impact to the environment. There are two companies that reported information on environment costs, they are C2 and C8.

Table 3. Relation Triple Bottom line to the SDGs Application in Mining Industry [9]

| Entity | Profit | People | Planet |
|--------|---------------------------|-------------------------------------|--|
| C1 | Profit IDR. 7,4 billion | 57.105 hours of employee's training | Energy 32% |
| | | | Greenhouse gases 60% |
| | | | Waste decreased 2.824 Ton |
| | | | Owned 3.859 waste bank |
| | | | Proper Gold, Baznas award |
| C2 | Profit USD.158,5 millions | ISO 45001 | Energy 43,4% |
| | | | Zero Accident |
| | | | Water recycled 68% |
| | | | Community Development |
| C3 | Profit USD 274,4 | Social and human rights | High Conservation Value |
| | | | Proper Gold |
| | | | Forest conservation |
| | | | Fire fighting |
| C4 | Profit IDR.295,83 | 4,35% total customers increased | 386 villages in the prosperous village program |
| | | | 31.418 heads of family received DMPA benefits |
| | | | Green Booster |
| | | | |

| | | | |
|-----------|---------------------------|---|--|
| | | Implementing customer satisfaction survey | Energy 23% |
| | | | CDM (Clean Dev Mech) |
| | | | Proper |
| C5 | Profit USD 253,9 millions | Social costs \$ 59,5 million | Identify water risks |
| C6 | Profit USD 3.541 million | Retirement preparation program | proper gold |
| | | Minimum wages | Environmental costs \$US 64,6 million |
| | | Employee's training | Consists of management costs and |
| | | | Energy conservation reached to 93,94% |
| C8 | Profit IDR.2,733 billion | 33% of female employees | 77 Ton carbon emission |
| | | 67% of male employees | 34 Plasma location |
| | | 351.055 training hours | Environmental management costs IDR.9,3 billion |
| | | 4,59 % satisfactory survey | Bauran energy 0,24% |
| | | E-health service | |

Source: Processed Data of Sustainability Report

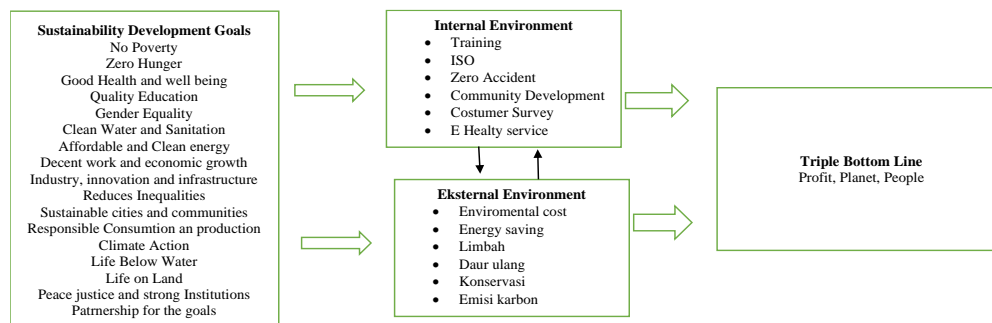


Figure 1. SDGs Model in Mining Industry

4 Conclusions and Recommendations

Based on the research findings and discussions above, it could be concluded that out of 17 SDGs indicators applied, only C2 who in detail presented the SDGs reporting, in which the company has rewarded with Proper Gold, CSR Award Platinum even though at the time the price of coal decreased and the price of fuel increased.

Based on the profit, eight companies have presented their profit reporting even though Kaltim reported that there is a decrease in coal price and an increase in fuel prices during the Covid-19 pandemic. Kaltim also reported the economic activities obtained from domestic purchases for the local and national suppliers. All eight companies reported the social aspects information which included; human resources, labor, and community development programs but only Indika reported the budget for the social costs of \$US 59,5 million for the community. Environmental aspects might be the one aspect with various programs, this is

because the products produced have a direct impact on the environment, and society and economy in the company, the eight companies investigated are companies whose operational activities have impacts on the community.

Based on the conclusion of the research above, there are several recommendations for this research; (1) it would be better if the period of observation would be extended so that the sustainability reporting of the period before the pandemic could be acknowledged, and (2) it would be better if the reason why the company did not report the indicators and did not present the reporting could be investigated because such company is registered in companies association that supports sustainability reporting.

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