Journal of International Conference Proceedings (JICP) Vol.5 No.3, pp. 46-58, September, 2022
P-ISSN: 2622-0989/E-ISSN: 2621-993X
https://www.ejournal.aibpmjournals.com/index.php/JICP

Disclosures on Environmental Sustainability Issues based on Regulation and GRI

Alfonsa Roselina Purnomo[1], Arthik Davianti [2]
Universitas Kristen Satya Wacana[1,2]
Jl. Diponegoro 52 – 60, Salatiga, Jawa Tengah, 50711, Indonesia
Corresponding Email: arthik.davianti@uksw.edu
ORCID ID: 0000-0002-2296-3233

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE

Purnomo, A. R., & Davianti, A. (2022). CSR in the Covid-19 situation in Indonesia. *Journal of International Conference Proceedings*, *5*(3), 46-58.

DOI:
https://doi.org/10.32535/jicp.v5i3.1737

Received: 03 August 2022
Accepted: 26 August 2022
Published: 05 September 2022

ABSTRACT

Sustainability reports are a medium for companies to expose their seriousness in addressing environmental issues. Companies, especially those listed on the Indonesia Stock Exchange, are required by OJK through POJK 51 to present a sustainability report. This study analyzed energy sector companies listed on the Stock Exchange as a sample. As a result, there were nine companies included in the analysis. This study implemented content analysis. Eight main keywords will be used to analyze the sustainability report. The research compared the extent of the sustainability report under POJK 51 and the adequacy of its scope based on the GRI series 300. The data was limited to reports from 2020 since the implementation of POJK 51 was started effectively as of January 1, 2020. The results showed that all the analyzed companies had prepared the sustainability report, but the report's contents were not entirely followed POJK 51 and GRI series 300.

Keywords: Environmental Aspect, GRI Standards, POJK 51, Public Company, Sustainability Report

INTRODUCTION

Companies are further required to benefit the environment and the surrounding community in running a business. According to Freeman (1984), organizations must pay attention to the interests of various parties that can influence or be influenced by the achievement of organizational goals. The goals gave rise to the concept of Corporate Social Responsibility (CSR). John Elkington has a new managerial paradigm in the next century, i.e., the concept of sustainable business (Jeurissen, 2000). A business is said to be sustainable if it can fulfill three aspects of the triple bottom line, which are economic, environmental, and social. Elkington (1997) argues that accounting services, especially auditing, will be needed to report and benchmark the triple bottom line.

In reality, implementing social and environmental responsibilities has become an obligation for every company because several government regulations regulate it. For example, in Undang-Undang Nomor 40 Tahun 2007 Tentang Perseroan Terbatas (2007), it has been stated that companies in the form of Limited Liability Companies are required to make an annual report containing a report on the implementation of Social and Environmental Responsibility. The same is stated in the Peraturan Otoritas Jasa Keuangan Nomor 29/ POJK.04/ 2016 Tentang Laporan Tahunan Emiten Atau Perusahaan Publik (2016), that issuers and public companies are required to carry out social responsibility and report it in the annual report. Therefore, it indicates that Social Responsibility activities are no longer an option but an obligation that all companies, especially public companies, must carry out. Unfortunately, much environmental damage occurs due to companies' lack of responsibility in running their business. Such as the news about cases of environmental damage caused by mining companies in Pasuruan (Yohanes, 2020) and river water pollution due to industrial waste by Silaban (2020).

In contrast to government regulations that only require reporting on social responsibility without being accompanied by precise rules, the international organization Global Reporting Initiative publishes GRI Standards that all industries can use in preparing sustainability reports. GRI (2020) states that the GRI Standards have been adopted as a guide by more than 60% of large companies worldwide in preparing sustainability reports. Companies listed on the stock exchange in Indonesia use the GRI Standards as one of the guidelines in preparing sustainability reports. The results of a survey conducted by GLOBESCAN (2020) show that Indonesia has the highest level of sustainability report disclosure among 27 other countries. The results prove that the level of accountability and transparency of companies in Indonesia in responsibly carrying out business is getting higher.

More and more companies are publishing sustainability reports as the year progresses, but this is not accompanied by an increase in the quality of CSR disclosure (Anggraeni and Djakman, 2018). Although companies have used the GRI Standards in preparing their sustainability report, the information presented does not cover all of the GRI indicators. Wulolo and Rahmawati (2017) showed that the quality of disclosure of mining companies is still low, while Sari (2014) showed that the extent of disclosure of environmental performance indicators and the performance of the mining company community are still lacking. The results indicate that the increased quantity of disclosure is not in line with the increase in the disclosure content. This research was conducted because most of the research examining sustainability reports focused on quantitative studies, for example, research by Rahman, Rasid, and Basiruddin (2020), Galant and Cadez (2017), and Kusuma and Aryani (2020). There are few studies examining the quality of sustainability reports in Indonesian companies because the transparency of non-financial information in Indonesia is still low. Several studies with a qualitative approach have shown that the quality of the Sustainability Reports of companies in

Indonesia is still low. These results were obtained when the Indonesian Financial Services Authority (*Otoritas Jasa Keuangan*, OJK) made regulations through POJK 51, which contained the points of disclosure of the Sustainability Report. The points are not in line with the new institutional theory, which states that organizations should act under applicable norms and rules. Furthermore, Farhana and Adelina (2019) found that currently, investors are not only focused on short-term profits but also on long-term profits. One way is by looking at sustainability reports.

Undang-Undang Nomor 30 Tahun 2007 Tentang Energi (2007) has explained that energy companies are obliged to preserve the environment and care about the surrounding community. This study focuses on investigating disclosure patterns in the energy sector because the energy sector is a sector that is directly related to nature. The sector has severe environmental damage, such as land clearing for mining sites. The energy sector is also one of the most significant contributors to GHG emissions, contributing 36% of the world's GHG emissions (Kementerian PPN/ Bappenas, 2022). However, the energy sector is needed to produce all goods and services, so its role is vast and affects the economic growth of a country.

The problem in this study lies in government regulations regarding the presentation of social and environmental responsibility information and the existence of GRI Standards that companies can use in disclosing sustainability issues when not all oil and gas companies have prepared sustainability reports. NCSR (2020) stated that only 36 companies in Indonesia were participating in the Asia Sustainability Reporting Rating (ASRR) 2020. The statement indicates that not all companies are willing to compile a sustainability report, although most companies have disclosed their CSR activities in their annual report. Thus, the question in this research is how appropriate the disclosure of environmental aspects of energy sector companies in implementing government regulations and the extent to which the GRI Standards are applied, assuming this standard is used as the basis for the disclosure. This research is intended to obtain empirical evidence regarding the disclosure of environmental aspects by public companies, especially the oil and gas industry in Indonesia, how many companies have disclosed, how far the disclosure is based on GRI, and how it is following POJK. The further contribution of this research lies in the qualitative methodological approach with the use of content analysis that refers to a combination of standards and rules. Most of the previous research emphasizes comparing disclosures with GRI only.

LITERATURE REVIEW

New Institutional Theory

Institutions consist of regulatory, normative, and cultural-cognitive elements. Together with related activities and resources, these three elements can maintain stability and give meaning to social life. According to Scott (2008), the new institutional theory emphasizes how to use a new institutional approach in studying organizations. The new institutional theory focuses on how companies act and are influenced by the surrounding environment by rules, norms, and culture. Scott (2013) argues that there are three pillars in the new institutional perspective: regulatory, normative, and cultural-cognitive. The normative pillar focuses on rules that provide provisions or instructions, evaluate, and affirm obligations in social life. A violation of norms will cause shame or disgrace so that feelings of regret arise (Scott, 2013: 64). This can provide a solid impetus to comply with applicable norms. Thus, the new institutional theory emphasizes that organizations can act within limits, understand what actions are legal and illegal, and must comply with applicable norms. This theory underlies the argument that norms and regulations are the basis for an organization to determine the actions to be taken, including preparing sustainability reports.

Sustainability

Vos (2007) argues that sustainability has several main aspects: environmental, economic, social, intergenerational equality, and compliance with laws and regulations. There is no patent definition of sustainability because sustainability arises from the development of times. The more problems that arise, the more that needs to be considered. Vos concluded that sustainability is security, preserving the environment for the next generation's survival. Moore, Mascarenhas, Bain, and Straus (2017) also argue that sustainability is less consistent because there are many opinions and thoughts, and there are no clear standards, making it difficult to measure and implement sustainability practices. There are five main keys to sustainability: timing, delivery of sustainability, behavior change, evolution or adaptation, and sustainable benefits.

Glavič and Lukman (2007) analyzed various sustainability terms and then divided sustainability into a hierarchical arrangement with the political dimension as the central element because it is at the top of the pyramid hierarchy. Glavič uses 51 terms, and all of these terms will form a related system called a sustainable system, which consists of economic, ecological, and social. Marrewijk (2003) suggested three reasons companies adopt Corporate Sustainability practices: companies feel obliged to do so, are made to do so, and want to do it voluntarily.

Sustainability Report Disclosure

A Sustainability Report is a report published to the public containing the economic, financial, social, and environmental performance of a Financial Services Institution (*Lembaga Jasa Keuangan*, LJK), Issuer. Further, a Public Company runs a sustainable business (Peraturan Otoritas Jasa Keuangan Nomor 51/ POJK.03/ 2017 Tentang Penerapan Keuangan Berkelanjutan Bagi Lembaga Jasa Keuangan, Emiten, Dan Perusahaan Publik, 2017). According to GRI, sustainability reporting is an organization's public reporting on its economic, environmental, and social impacts and includes its positive or negative contribution to sustainable development goals. By disclosing a sustainability report, the company will get benefits in the form of improving sustainability performance, motivating and involving employees, building credibility as a committed and effective corporate citizen, and various other benefits. All companies can use the GRI standard universal sustainability reporting standard. This study takes the GRI Standard 300 series on Environmental Topics because the observed companies are mining companies related to nature. In their operational cycle, they first damage the environment and rehabilitate or repair it then. In general, preparing a sustainability report can demonstrate an organization's commitment to sustainable development and compare the organization's performance over time (NCSR, 2021).

RESEARCH METHOD

Data

This study uses secondary data obtained indirectly in the form of sustainability reports, both separate from the annual report and combined into one with the annual report, which was obtained through the company's official website and downloaded in PDF form. Data in the form of Government Regulations and GRI Standards series 300 are used as criteria to test the extent of disclosure of environmental aspects of sustainability reports. Environmental aspects that need to be disclosed according to the GRI Standard series 300 and POJK No. 51/ POJK.03/2017 are presented in Table 1 and Table 2.

Table 1. GRI Standard Series 300 Environmental Topics

GRI Topics
GRI 301: Material

GRI Topics
GRI 302: Energy
GRI 303: Water and Effluent
GRI 304: Biodiversity
GRI 305: Emission
GRI 306: Waste
GRI 307: Environmental Compliance
GRI 308: Supplier Environment

Source: GRI Standards Series 300 Environmental Topics (GRI, 2021)

Table 2. Sustainability Report according to POJK No. 51/POJK.03/2017

Criteria	**Disclosure**
Must be disclosed by all LJK, Public Companies, and Issuers	Environmental costs incurred
	Description of the use of environmentally friendly materials
	Description of energy use
Disclosed by LJK, Public Companies, and Issuers whose business processes are directly related to the Environment	Mandatory criteria and;
	Information on activities or operational areas that produce positive and negative impacts
	Biodiversity at least includes: a) the impact of the immediate operational area b) biodiversity conservation efforts carried out
	Emissions containing at least: a) the amount and intensity of emissions produced by type b) efforts and achievements of emission reductions carried out
	Waste and effluent containing at least: a) amount of waste and effluent produced by type b) waste and effluent management mechanisms c) spillage (if any)
	Number and material of environmental complaints received and resolved.

Source: Appendix II of Financial Services Authority Regulation Number 51/POJK.03/2017

Data collection

This study focuses on Energy Sector Companies listed on the Indonesia Stock Exchange (IDX). Determination of observational cases in Oil and Gas Industrial Companies and Oil, Gas, and Coal Supporting Industrial Companies listed on the IDX and issuing Sustainability Reports for the period ending 2020 (Kayo, 2021). Observed companies are presented in Table 3 below.

Table 3. Observed Companies

No	**Code**	**Company Name**	**Type of Industry**
1.	AKRA	AKR Corporindo Tbk.	Oil and Gas Industrial
2.	MEDC	Medco Energi Internasional Tbk.	Oil and Gas Industrial
3.	PGAS	Perusahaan Gas Negara Tbk.	Oil and Gas Industrial
4.	DEWA	Darma Henwa Tbk.	Oil, Gas, and Coal Supporting Industrial
5.	ELSA	Elnusa Tbk.	Oil, Gas, and Coal Supporting Industrial

No	Code	Company Name	Type of Industry
6.	MYOH	Samindo Resources Tbk.	Oil, Gas, and Coal Supporting Industrial
7.	PTRO	Petrosea Tbk.	Oil, Gas, and Coal Supporting Industrial
8.	TAMU	Pelayaran Tamarin Samudra Tbk.	Oil, Gas, and Coal Supporting Industrial
9.	WINS	Wintermar Offshore Marine Tbk.	Oil, Gas, and Coal Supporting Industrial

Source: BEI

Analysis Techniques

The data analysis technique used in this study is content analysis with a descriptive approach based on the provisions for disclosure of sustainability reports according to the Regulations and GRI Standards Series 300, with an adaptation of Eriyanto's approach (2011). This analysis is carried out by comparing the company's sustainability reports with GRI standards and Government Regulations. The analysis was carried out by comparing the similarity of the meaning of disclosure and disclosure sentences with keywords. The stages in the content analysis are the first compiling Coding Sheets based on the conceptualization process. Coding Sheets created using Microsoft Office Excel programs. Main keywords: Material; Energy; Emission; Water and Effluent; Waste; Biodiversity; Environmental Compliance; Operational Area. Next, the coding process is carried out by checking all the keywords contained in the coding sheet with the sustainability report made by the company, followed by grouping it into paragraph units that present the keywords. The coding process is also done by adding new keywords obtained in the data processing process. Then, the data resulting from the coding process will be inputted and analyzed by investigating the number of companies that have disclosed and the extent of the disclosures presented. This stage is followed by preparing an outline table of disclosure results in the nine companies. The outline of the disclosure results is presented in Table 4. Companies that disclose at least one keyword in a topic are given a check mark. They are not given a tick if they do not disclose any keywords in a topic. If most companies have sufficient disclosure on a topic, then the topic will be said to be entirely appropriate. However, if the average disclosure in a topic is insufficient, the topic will be concluded as insufficient (Table 5). Some examples of disclosures will be presented as part of the discussion verbatim.

RESULTS

The content analysis results of the 2020 sustainability report disclosures in nine companies show that all companies have disclosed their environmental aspects even though the disclosure varies. Companies are disclosing their sustainability that refers to the GRI Standard or POJK 51; some do not have a disclosure reference, such as the MYOH company. Companies that make sustainability reports based on the core GRI choices are TAMU, MEDC, AKRA, DEWA, ELSA, PTRO, and WINS, and PGAS companies which use comprehensive options. Meanwhile, only five companies that refer to the POJK include TAMU, AKRA, DEWA, ELSA, and WINS. Table 4 presents the disclosure of environmental aspects in the nine observed companies.

Table 4. Disclosure Results

No	Keywords	AKRA	MEDC	PGAS	DEWA	ELSA	MYOH	PTRO	TAMU	WINS
1	Material	✓		✓	✓	✓	✓	✓		✓
2	Energi	✓	✓	✓	✓	✓	✓	✓	✓	✓
3	Emission	✓	✓	✓	✓	✓	✓	✓	✓	✓
4	Water and Effluent	✓	✓	✓	✓	✓	✓	✓	✓	✓
5	Waste	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	Biodiversity		✓		✓	✓	✓	✓		✓
7	Environmental Compliance	✓	✓	✓	✓	✓			✓	✓

8	Supplier Environment	✓		✓	✓			✓		

Source: Data Processed

Overall, among all the observed companies that have disclosed environmental aspects, only DEWA is the company that discloses all topics in environmental aspects. On the other hand, the topics of energy, emissions, water and effluent, and waste have been disclosed by all companies with different areas of disclosure. Meanwhile, biodiversity and supplier environment were the topics that the nine companies least disclosed. Further discussion is presented in the section on the results of the following analysis.

Material

Material disclosures have been provided by most of the observed companies in this study. AKRA and PGAS are the companies that reveal the most about the topic of materials. At the same time, MEDC and TAMU are the companies that don't disclose anything about the topic of materials. This study divides the materials keywords into: the primary material, the use of paper, non-renewable materials, environmentally friendly materials, and the efficiency of materials used. There are two types of materials used by the company in this research, namely for operational needs such as fuel or chemicals and administrative needs such as paper. Efficiency in using materials was chosen as a keyword because many observed companies disclosed this topic, there were six companies. The topic of efficiency in the use of materials is a voluntary disclosure and was also the most widely disclosed sub-keyword in the material topic. A total of four out of six companies disclosed the efficiency of using paper, namely AKRA, DEWA, PTRO, and WINS companies.

Meanwhile, PGAS and ELSA reveal the efficiency of materials other than paper. At the same time, the material topic sub keywords that were least disclosed were the topic of environmentally friendly materials. Only the AKRA company discloses the use of environmentally friendly materials.

In addition to environmentally friendly materials, there are also keywords regarding non-environmentally friendly or non-renewable materials, AKRA and PGAS companies revealed related to this topic. Therefore, disclosures by AKRA, PGAS, DEWA, ELSA, and PTRO companies are sufficient under POJK and GRI. Meanwhile, WINS and MYOH are not following GRI and POJK because the two companies did not mention how much of the material was used.

Energy

In this study, the topic of energy is divided into several sub-keywords: energy consumption, energy intensity, and energy efficiency. The sub-keywords that were most frequently disclosed were energy consumption and energy efficiency. Disclosure of energy consumption by AKRA, MEDC, and TAMU companies is not as extensive as the other six companies. Nine companies have disclosed the energy efficiency sub keywords. Most companies have mentioned the efforts made in energy efficiency but have not mentioned the amount of energy that has been reduced, except for DEWA and WINS. Another sub-keyword that is part of the energy topic is energy intensity. Three companies disclose their energy intensity. AKRA, PGAS, and PTRO use different units of energy intensity. On the topic of energy consumption, the eight companies do not differentiate between energy consumption within and outside the organization. Therefore, it is not known how much consumption is in each category; only PGAS reports energy consumption outside the organization separately from within the organization, and the disclosure is appropriate. Therefore, it can be concluded that the disclosure of energy keywords by all companies is not entirely per POJK and GRI.

Emission

Emission is the third topic that must be disclosed according to POJK 51 and GRI series 300 because companies issue a lot of emissions in carrying out their operational processes. Disclosure sentences were analyzed using keywords: emissions generated, emission intensity, and emission reduction. The nine observed companies have disclosed their emissions, but not all companies have disclosed the intensity of emissions and their strategies to reduce emissions. DEWA, ELSA, MYOH, and WINS disclosures are not entirely under GRI or POJK. While TAMU and PTRO have disclosed the emissions generated, the disclosure by PTRO companies is more detailed. The disclosures of the other three companies, AKRA, MEDC, and PGAS, follow POJK and GRI.

The three observed companies in this study carried out the emission intensity disclosures, namely MEDC, PGAS, and WINS. Therefore, it can be concluded that the disclosure of emission intensity by the three companies is adequate. Furthermore, in the emission reduction sub-keyword, only ELSA and MYOH companies did not disclose this keyword. Information regarding emission reductions that must be disclosed should include the types of gas emissions that have been reduced and the total reductions. However, only one company observed in this study reported in full: WINS. Five other companies, AKRA, DEWA, MEDC, PTRO, and TAMU, revealed only their emission reduction strategies. PGAS is an outlier, which describes the results of reducing emissions but is not accompanied by strategies for reducing emissions. Therefore, the analysis results show that most observed companies have disclosed the topic of emissions.

Water and Effluent

POJK does not regulate water disclosure for the topic of water, so only GRI is used as a reference for analyzing disclosure. This study uses the keywords water use, efficiency, and water management. All observed companies have disclosed water consumption by including the amount of use, and some companies also include the source and location of the area that uses it. It shows that all companies have been open regarding their water consumption. However, the TAMU company does not show how much water is consumed. It only reveals where the origin of the water is used. Therefore, the disclosure of water consumption of all companies is appropriate, except for the TAMU company.

The following keyword is water use efficiency which was disclosed only by six observed companies because this keyword is part of voluntary disclosures. Some companies implement strategies to save water; others list the total water saved. Although this keyword is not found in POJK and GRI, many companies have disclosed this keyword. This study contains two types of water management: water treated for consumption and water treated before disposal. In addition to using water from third parties, several companies have also used their treated water, such as what AKRA, DEWA, and WINS did. Several other companies have treated water before it is discharged into water bodies, for example, PGAS, MEDC, and MYOH.

All observed companies have disclosed the water keyword, but there are still companies that do not disclose the sub keywords that must be disclosed. Overall, water disclosure is adequate, but because the amount of clean water is decreasing, the water efficiency keyword can be added to regulations such as POJK so that, if required, all companies can make various efforts to save water.

Waste

The topic of waste will be analyzed based on five sub keywords: generated waste, waste reduction, management, disposal, and waste spill. Nine observed companies have disclosed disclosure of the waste generated. Most companies mention the volume or amount of generated waste by type, but two companies that do not mention this are AKRA and TAMU. Disclosure of waste reduction is only disclosed by MEDC, PGAS, TAMU, and WINS. MEDC reports the amount of hazardous waste that has been reduced. PGAS seeks to reduce hazardous and toxic (*bahan berbahaya dan beracun*, B3) waste by switching to LED lights. TAMU revealed its strategy in reducing waste by reducing paper use, while WINS reduced the use of single-use plastics to reduce plastic waste in 2020.

In disposing or managing waste, most companies apply the same strategy: utilizing the services of a third party, recycling it if possible, or managing it before it is discharged into water bodies. Only the MEDC company did not mention how the waste was managed or disposed of. Disclosure by all companies is sufficient, but disclosures by ELSA and PGAS are more detailed because they mention the amount of waste disposed of or managed.

The waste spill keyword was only disclosed by AKRA, MEDC, and ELSA companies. In 2020, AKRA and ELSA companies did not experience any waste spills, while MEDC experienced 225 spills. However, MEDC has made efforts to reduce the number of waste spills, so the volume of waste spills in 2020 decreased compared to 2019. Waste has many sub-keywords, the most widely disclosed keywords being waste generated and waste management. Thus, the disclosure on the topic of waste is quite extensive.

Biodiversity

This study conducted an analysis using the sub keywords of negative operational impacts on biodiversity, risk control of negative operational impacts on biodiversity, areas that intersect with biodiversity, and restored areas. Many companies do not disclose their interactions with biodiversity around their operational areas. The negative operational impacts on biodiversity were expressed by four companies, namely WINS, MYOH, DEWA, and ELSA. The first three companies mentioned the impact of their operations on biodiversity. Still, ELSA only mentioned that the company had managed the environment to reduce the impact on the environment. However, disclosure of negative operational impacts on biodiversity has been presented.

The sub keyword of risk control for negative operational impacts on biodiversity is voluntary disclosure. Some companies take precautions to reduce the negative impact caused by operations on the environment. For example, DEWA rehabilitates the mine by revegetating mined areas. MYOH builds shelters to prevent the entry of toxic substances into the environment, while PTRO focuses on fuel consumption about reducing air emissions. Meanwhile, WINS implements various strategies, so that marine species are not disturbed by the presence of WINS. Areas of contact with biodiversity are disclosed by the companies ELSA, PTRO, and MEDC. Based on the disclosure sentences by the three companies, it can be concluded that the disclosures by ELSA are at least less extensive than PTRO and MEDC.

MEDC, DEWA, MYOH, and PTRO companies have disclosed the restoration area, which is adequate. The company's way of restoring the environment is the same: planting trees around the operational area. MEDC restores the environment not only by planting trees but also by breeding the Sundanese Pangolin (The IUCN Red List of Threatened Species, 2019). All companies have explained the impacts and efforts but have not clearly stated what species of flora or fauna are affected, except for MEDC companies.

The company should also assess what flora and fauna are potentially affected. So it can be concluded that the disclosure of biodiversity by most companies that disclose is still lacking.

Environmental Compliance
Disclosure of environmental compliance relates to how the company carries out its operational processes and its relation to compliance with rules and concern for the surrounding environment. Most companies have disclosed environmental compliance. Only PTRO and MYOH companies have not disclosed. The majority of companies stated that in 2020 there were no incidents of non-compliance with applicable rules, laws, or regulations related to the environment, so there were no sanctions or fines imposed. However, the TAMU company only stated that the company had complied with the applicable rules without mentioning whether or not there were incidents of non-compliance or the imposition of sanctions and fines, so TAMU did not fully adhere to the disclosure of the guide. Meanwhile, the disclosures of the other six companies on the topic of environmental compliance are adequate.

Supplier Environment
The supplier environment is the topic that the companies in this study least disclose; only four companies disclose it. Two companies, DEWA and AKRA, disclosed the negative impact of suppliers on the environment with the same disclosure sentence. Suppliers from both companies have complied with the rules by not hurting the surrounding environment. Evaluation and assessment of the supplier's environment are essential before entering into a contract with a supplier. Three companies revealed this topic: AKRA, PGAS, and PTRO.

Thus, the four companies have disclosed under GRI, but the disclosure by AKRA is broader. AKRA fulfills both disclosure keywords, while the others only meet one keyword. The other five companies did not disclose the topic of the supplier environment, even though GRI recommends companies to conduct a supplier environmental assessment before entering into a contract with a supplier to determine whether the supplier's activities have had a negative impact on the surrounding environment.

DISCUSSION

Table 5 summarizes all conclusions on each topic of disclosure, their compliance with POJK, and their extent based on GRI. The disclosures by all majority companies are still not in accordance with POJK 51 and GRI 300. TAMU is the company with the least disclosure because the disclosures are not detailed and do not explain compared to other companies. Among the eight keywords used, energy is the keyword with the most disclosures as almost all companies disclose the energy keyword and its sub-keywords. However, even though the disclosure of the energy keyword is the most, the disclosure area is still less than the waste keyword.

Table 5. Appropriateness and Area of Disclosure Results

No	Disclosure/Topic	POJK		GRI	
		Appropriate	Not Appropriate	Adequate	Not adequate
1.	Material		✓	✓	
2.	Energy		✓		✓
3.	Emission		✓		✓
4.	Water and Effluent	-	-	✓	
5.	Waste	✓		✓	
6.	Biodiversity		✓		✓
7.	Environmental Compliance	✓		✓	
8.	Supplier Environment	-	-		✓

Source: Processed data

This study's results align with research conducted by Wulolo and Rahmawati (2017), stating that the quality of CSR disclosure, especially environmental aspects in mining companies, is still low from the disclosure of topics in most companies. Similar to research by Anggraeni and Djakman (2018), most companies have used GRI as a reference but have not covered all indicators or GRI disclosure items, as well as companies that use POJK 51 as a reference. Research produced by Trianaputri and Djakman (2019) also shows that although Indonesia is in third place among ASEAN-5 countries, the quality of sustainability disclosure in Indonesia is still low. Since regulation is mandatory while the GRI Standards are not mandatory, many companies prefer the non-mandatory GRI Standards. According to the new institutional theory, norms and regulations should guide an organization in determining actions to be taken. However, in terms of preparing a sustainability report, this is not the case. Nevertheless, this is not a problem because the GRI Standards are complete compared to POJK 51. Therefore, using the standard is a shortcoming or limitation and becomes a criticism of the current regulation (POJK 51).

CONCLUSION

This study investigates the extent of disclosure of environmental aspects of energy sector companies based on GRI Standards and compliance with government regulations, thus focusing on the extent to which the GRI Standards series 300 and POJK 51 are applied in corporate sustainability reports. Not all companies are guided by POJK and/or GRI standards in preparing sustainability reports. The main points of corporate disclosure are also different. Then, not all companies that refer to GRI and POJK have disclosed what is required by POJK and GRI. It can be concluded that the company has not fully practiced the implementation of POJK 51 and the GRI Standards.

Companies that are still lacking in disclosing some aspects are expected to be able to disclose them in future sustainability reports by referring to POJK 51 and GRI. This research is expected to provide knowledge so that companies can be more serious in overcoming environmental problems. This research is also expected to be information for users of financial statements and potential investors regarding the environmental performance of the observed companies so that they can be considered for making investment decisions. For investors such as green investors, research results can provide a comprehensive description of the environmental aspects disclosed by the company.

Furthermore, this research can be used as a consideration and reference for the government or policymakers, especially the OJK, in revising or updating the law to clarify and reinforce the rules and the imposition of sanctions and then socialize the regulation. Therefore, it can be generally accepted. For academics, this research can be used as material for further research on the analysis of sustainability reports.

LIMITATION

The limitation of research in this study is that many companies still do not fully disclose environmental aspects due to the absence of regulations or regulations that are perceived as unclear. But, then, using the GRI Standards as the basis for disclosure in Indonesia is not mandatory. GRI states that companies may choose their own material topics. Accordingly, the company's focus is different. Future research may add observed companies from other sectors and analyze using other series of GRI Standards.

ACKNOWLEDGMENT
N/A

DECLARATION OF CONFLICTING INTERESTS
We declared no potential conflicts of interest concerning the study, authorship, and/or publication of this article.

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