Guidance on ESG Metrics by Industry Group
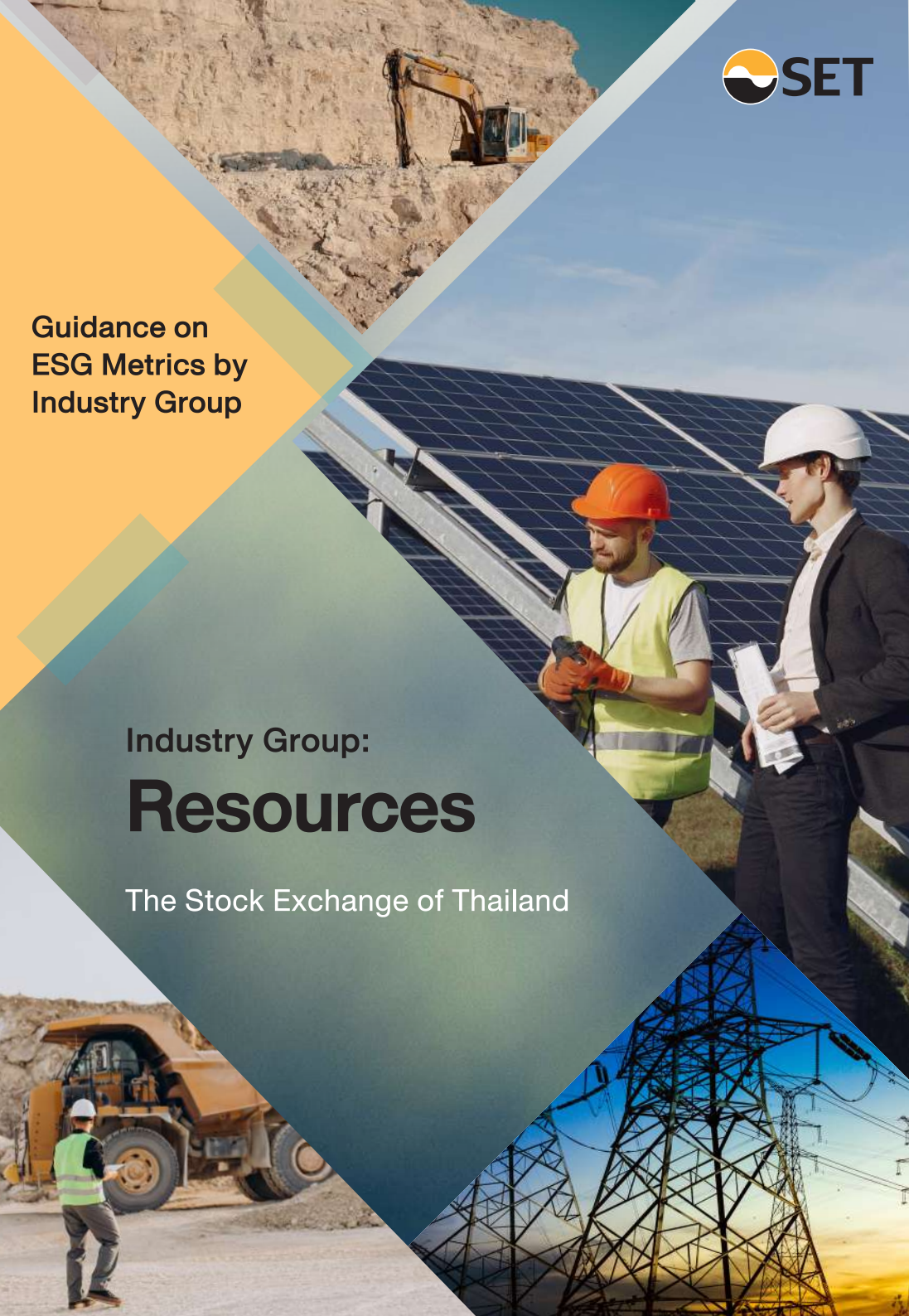
Industry Group:

Resources

The Stock Exchange of Thailand

SET

Disclaimer

Contents

Introduction

The reporting of information is an important process that enhances an organization's transparency and credibility with investors. Information regarding Environmental, Social, and Governance (ESG) performance has garnered significant interest, in addition to purely financial information. ESG-related information is considered vital as it has an increasing effect on investors' decisions. This is due to the growing intensity and complexity of environmental and social issues, which lead to risks in current business operations. Various industries face unique challenges due to the differing nature of their business operations. Therefore, the disclosure of business information needs to encompass details concerning risks and operational efficiencies that address the ESG issues specific to each industry group.

The Stock Exchange of Thailand (SET) prepared this Guidance on ESG Metrics for the Resources group to be used in conjunction with the Sustainability Reporting Guide for Listed Companies. This guidance describes the sustainability indicators of the Resources group, consisting of 2 parts as follows:

Part 1 describes the details of the indicators for the Resources group. This includes explaining the significance of the indicators, providing guidelines for reporting based on these indicators, and illustrating their connection with an international sustainability reporting framework—the GRI Standards and the Sustainable Development Goals (SDGs).

Part 2 presents summary tables that illustrate examples of performance based on annual indicators. These tables provide information that can be compared on a yearly basis and demonstrate the continuity of operations over time.

Listed companies should use this guidance in conjunction with the Sustainability Reporting Guide for Listed Companies to prepare sustainability reports categorized by industry group and business sector. This guidance can serve as both a tool and a checklist for monitoring performance within an organization and facilitating its continuous improvement. This approach will enrich the quality of sustainability information disclosure and reporting, aligning them with the current interests and needs of stakeholders.

Business Sector:

Energy & Utilities

Environmental Dimension   **E**

Code	ESG Indicators	GRI Standards	SDGs
EUT-E1	**Reporting on the Analysis of Social and Environmental Impacts (SIA/EIA)**		
EUT-E1.1	Disclosure of social and environmental impact assessment (SIA/EIA)	Disclosure 413-1	Goal 12: Responsible Consumption and Production
EUT-E1.2	Disclosure of the monitoring process of social and environmental impact assessment (SIA/EIA)	Disclosure 413-2	Goal 12: Responsible Consumption and Production

Rationale
- Reporting on the analysis of social and environmental impacts (Social Impact Assessment: SIA/Environmental Impact Assessment: EIA) demonstrates compliance with laws and the establishment of prevention measures to minimize the impact on communities and the environment resulting from the business's project operations. Additionally, reports on social and environmental impact analyses serve as decision-making guidelines for project developers to efficiently execute related activities and build long-term confidence in customers.

Reporting Approach
A company should report the following information:
- Summary of the impact assessment, monitoring process, and measures to reduce social and environmental impacts of the company, covering four aspects, including:
  1. Impact on human quality of life, including air and noise pollution, and changes in soil and water resources.
  2. Impact on living organisms in natural ecosystems, such as forest and marine resources, etc.
  3. Impact from land use and community benefit activities.
  4. Impact on community lifestyles, economic systems, culture, beliefs, aesthetics, and surrounding landscapes.

Code	ESG Indicators	GRI Standards	SDGs
EUT-E2	**Biodiversity and Cessation of Deforestation**		
EUT-E2.1	Policy and guidelines regarding the conservation of biodiversity and cessation of deforestation, encompassing the company's business operations and supply chain	Disclosure 304-1	Goal 15: Life on Land

Code	ESG Indicators	GRI Standards	SDGs
EUT–E2.2	Assessment of the risks and impacts on biodiversity resulting from business operations	Disclosure 304–2	Goal 15: Life on Land
EUT–E2.3	Number of the company's business areas with biodiversity conservation efforts	Disclosure 304–1	Goal 15: Life on Land
EUT–E2.4	Number of forest areas conserved under the company's care	Disclosure 304–1	Goal 15: Life on Land
EUT–E2.5	Diversity conservation plans or projects in business operations	Disclosure 304–3	Goal 15: Life on Land
EUT–E2.6	Forest conservation plans or projects in business operations	Disclosure 304–3	Goal 15: Life on Land

Rationale

- Information on the company's efforts to conserve biodiversity and cease deforestation reflects its commitment to achieving a balance, abundance, and environmental impact reduction from its business operations. The integrity of the ecosystem and forest areas is a crucial mechanism for absorbing carbon dioxide and mitigating the effects of climate change.

Reporting Approach

A company should report the following information:

- Key summary of policy and guidelines regarding biodiversity conservation and deforestation cessation, encompassing the company's business processes and supply chain. These policy and guidelines should align with laws, regulations, and directives enforced by regulatory agencies, as well as conform to standards related to biodiversity conservation, such as IRIS metrics (biodiversity assessment) by the Global Impact for Investing Network (GIIN), etc.
- Summary of the assessment of risks and impacts on biodiversity, such as natural characteristics, plant species, wildlife species, water source quality, and natural water catchment areas, etc.
- Total business areas of the company that is actively monitored for biodiversity conservation, measured in square meters.
- Forest areas that the company manages and continuously monitors for conservation, measured in square meters.
- Summary of biodiversity and forest areas conservation plans or projects in the company's business operations, along with explanations of outcomes and achievements through project implementation, such as the percentage increase in green areas or the rate of greenhouse gas absorption, etc.
- Additional reference:
  - IRIS metrics (O15929) refer to the standards for biodiversity impact assessment by the Global Impact for Investing Network (GIIN).

Code	ESG Indicators	GRI Standards	SDGs
EUT–E3 **Air Pollution**			
EUT–E3.1	Volume of air pollution from business operations, such as: – Nitrogen Oxide (NO_x) – Sulfur Dioxide (SO_x) – Persistent Organic Pollutants (POP) – Volatile Organic Compounds (VOC) – Hazardous Air Pollutants (HAP) – Particulate Matter (PM)	Disclosure 305–7	Goal 12: Responsible Consumption and Production

Rationale

- Reporting air pollution data reflects the company's efforts to control and reduce air pollution from its business operations, which could impact the health of the surrounding communities. Therefore, if the company has effective management, the risks that leads to environmental law violations, and disputes with communities will be reduced.

Reporting Approach

A company should report the following information:

- Sources of air pollution emissions from business operations, along with summary of prevention measures and the air quality monitoring process conducted at least once a year.
- Results of air quality measurements compared to standard values, with units in milligrams per cubic meter (mg/m³) or parts per million (ppm). For example:

Pollution	Standard Value (mg/m³ or ppm)	Measured Value (mg/m³ or ppm)
Nitrogen Oxide (NO_x)		
Sulfur Dioxide (SO_x)		
Persistent Organic Pollutants (POP)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants (HAP)		
Particulate Matter (PM)		
Others		

- Air quality information that indicates the air pollution situation that may affect the health of the community in each area around the business facilities, based on the Air Quality Index (AQI).
- Additional references:
  - Handbook for Air Pollution Monitoring from Emissions, Volume 1 by Pollution Control Department
  - Document for Pollutant Emissions Calculation from Measurement Data by Pollution Control Department

Code	ESG Indicators	GRI Standards	SDGs
EUT–E4	**Hydrocarbon Leakage**		
EUT–E4.1	Number of incidents or cases of hydrocarbon leakage	Disclosure 306–3 (2016)	Goal 12: Responsible Consumption and Production
EUT–E4.2	Hydrocarbon leak management plan, including incident locations, types of chemicals involved, leak quantities, and containment and recovery measures	Disclosure 306–3 (2016)	Goal 12: Responsible Consumption and Production
EUT–E4.3	Assessment of severity and impacts resulting from hydrocarbon leakage incidents	Disclosure 306–3 (2016)	Goal 12: Responsible Consumption and Production

Rationale

- Information about hydrocarbon leakage reflects the management and prevention measures for hydrocarbon leaks, which have severe impacts on natural ecosystems and the health of living organisms in both the short and long term. It also results in economic damage to businesses and communities. If the company has continuous prevention and monitoring measures in place, it can reduce the risk and mitigate the severity of hydrocarbon leakage incidents.

Reporting Approach

A company should report the following information:

- Number of incidents or cases of hydrocarbon leakage resulting from business operations, from production to chemical transportation processes throughout the supply chain, including:

Leakage Incidents	No. of Cases (Cases)	Volume (Cubic Meter)
Leakage from the production process		
Leakage from land transport		
Leakage from water transportation		

Remark: Hydrocarbons refer to organic compounds primarily composed of hydrogen and carbon elements, such as oil, natural gas, including raw materials and petroleum products, etc., which are essential components of the petrochemical business.

- Summary of the management plan and various measures regarding the hydrocarbon leakage incidents, including incident locations, types of chemicals involved, leakage quantities, and containment and recovery measures.
- Assessment of the severity and impacts of hydrocarbon leakage incidents in terms of economics, environment, and health, as well as probabilities of legal actions or disputes with communities.

Code	ESG Indicators	GRI Standards	SDGs
EUT–E5	**Climate Change Risks**		
EUT–E5.1	Climate change risk assessment with explanation of potential impacts on business operations	Disclosure 201–2	Goal 13: Climate Action
EUT–E5.2	Goals, plans, and measures to mitigate climate change risks	Disclosure 201–2	Goal 13: Climate Action

Rationale

- Information on risks and adaptation measures in response to climate change reflects the company's efforts to mitigate impacts of these risks and enhance business opportunities arising from such risks. Furthermore, it showcases the management's preparedness and adaptability of the business during emergency situations caused by natural disasters, which can significantly affect business operations. Examples are droughts, floods, sea level changes, and extreme weather conditions. These events impact production factors, land allocation, transportation, etc.

Reporting Approach

A company should report the following information:

- Risk factors arising from climate change and significantly impacting business operations, such as:
  - Examples of physical risks, such as impacts on businesses from changes in sea levels, atmospheric temperatures, natural freshwater sources, storm occurrences, forest fires, and impact on employee health due to increased exposure to high temperatures and heat radiation, etc.
  - Examples of regulatory risks include international laws and agreements that require businesses to be accountable for greenhouse gas emissions through taxation mechanisms, which consequently lead to significantly higher production costs, etc.
  - Other examples of risks, such as changes in the energy industry, the increasing demand for environmentally friendly technologies, products, and services, which leads to continuous environmental trends, etc.
- Quantitative and qualitative targets to prepare the business for climate change.
- Plans and measures to mitigate risks from climate change. Examples are as follows:
  - Utilizing clean energy or renewable energy sources that do not emit greenhouse gases.
  - Increasing energy efficiency by using less resources.
  - Carbon offsetting.

Social Dimension

S

Code	ESG Indicators	GRI Standards	SDGs
EUT–S1 Local Employment			
EUT–S1.1	Policy and guidelines about local employment	Disclosure 202–2	Goal 8: Decent Work and Economic Growth
EUT–S1.2	Percentage of employees from local communities	Disclosure 202–2	Goal 8: Decent Work and Economic Growth

Rationale

- Reporting on local employment data reflects the role of businesses in strengthening the grassroots economy and the well-being of local communities. Higher local employment rates lead to increased income and consumption, enhancing the quality of life within the community. It fosters collaboration between businesses and communities while reducing the risk of labor shortages in the supply chain.

Reporting Approach

A company should report the following information:

- Information on policy and guidelines showing the importance of local employment and guidelines for recruitment of local workers.
- Percentage of employees from local communities.

$$\text{Percentage of employees from local communities} = \frac{\text{Total number of employees from local communities}}{\text{Total number of employees}} \times 100$$

Remark: Employees from local communities mean employees who were born or domiciled in the same area that the business operates. This is determined based on the business's location in comparison to the employee's citizenship registration documents, such as household registration, birth certificate, national identification card, and change of address notification, etc.

Code	ESG Indicators	GRI Standards	SDGs
EUT–S2	**Respecting Diversity and Equality**		
EUT-S2.1	Policy and guidelines regarding respecting diversity and equality within the organization and the supply chain, without discrimination based on gender, age, nationality, disability, religion, or other factors	Disclosure 405–1	Goal 8: Decent Work and Economic Growth
EUT-S2.2	Employee information categorized by gender and nationality	Disclosure 405–1	Goal 8: Decent Work and Economic Growth
EUT-S2.3	Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures	Disclosure 406–1	Goal 8: Decent Work and Economic Growth

Rationale

- Information on the respect of diversity and equality reflects the diversity of employees within the organization and the efforts to protect the rights and equality of employees, without discrimination.

Reporting Approach

A company should report the following information:

- Summary of policy and guidelines regarding the respect for diversity and equality within the organization and the supply chain without discrimination based on gender, age, nationality, disability, religion, etc. Additionally, the company should demonstrate that it has monitoring mechanisms in place to ensure continuous adherence to this policy.
- Employee statistics categorized by gender and nationality.

Nationality	Total Number of Employees (People)		Number of Disabled Employees (People)	
	Female	Male	Female	Male
Thai				
Burmese				
Cambodian				
Laotian				
Others				

- Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures.

Code	ESG Indicators	GRI Standards	SDGs

EUT-S3   Promotion of Female Workforce

Code	ESG Indicators	GRI Standards	SDGs
EUT-S3.1	Policy and guidelines related to promoting gender equality in the workplace	Disclosure 405-1	Goal 5: Gender Equality Goal 8: Decent Work and Economic Growth
EUT-S3.2	Number of female employees categorized by employment level: – Senior management level – Management level – Staff level	Disclosure 405-1	Goal 5: Gender Equality Goal 8: Decent Work and Economic Growth

Rationale
- Information on promoting the female workforce within the workplace reflects the creation of equal opportunities for professional growth among personnel in the company, without gender-based discrimination.

Reporting Approach
A company should report the following information:
- Summary of policy and guidelines related to promoting the female workforce within the workplace.
- Female-to-male employee ratio.
- Number of female employees categorized by employment level.

Employment Level	Total Number of Employees (People)	
	Female	**Male**
Senior management level		
Management level		
Staff level		

Code	ESG Indicators	GRI Standards	SDGs

EUT-S4   Monitoring and Assessing Impacts on Communities

Code	ESG Indicators	GRI Standards	SDGs
EUT-S4.1	Monitoring and assessing impacts on communities from the company's business operations	Disclosure 413-1	Goal 12: Responsible Consumption and Production
EUT-S4.2	Number of disputes or complaints regarding community rights violations, along with remediation and mitigation measures	Disclosure 413-2	Goal 12: Responsible Consumption and Production

Rationale
- Information on monitoring and assessing impacts on communities highlights the risks associated with conducting business that could affect the quality of life for communities in terms of economics, society, and environment, both directly and indirectly. Once the company is aware of these issues, it has crucial information to establish prevention measures to mitigate the risks that could lead to human rights violations and disputes with communities, and potentially cause business interruption.

Reporting Approach

A company should report the following information:
- Summary of the results of monitoring and assessing impacts on communities from the company's business operations, highlighting risk factors and prevention measures.
- Summary of the outcomes of risk prevention measures or impacts that may have occurred to the communities in the past year.
- Number of disputes or complaints related to community rights violations, along with remediation and mitigation measures.

Code	ESG Indicators	GRI Standards	SDGs
EUT–S5	**Access to Utility Services**		
EUT–S5.1	Policy and guidelines to promote access to utility services	G4–DMA Access*	Goal 7: Affordable and Clean Energy Goal 11: Sustainable Cities and Communities
EUT–S5.2	Project to promote access to utility services	G4–DMA Access*	Goal 7: Affordable and Clean Energy Goal 11: Sustainable Cities and Communities

Rationale
- Information about access to utility services reflect the company's commitment to doing business while simultaneously elevating the quality of life through utility products and services that meet the current needs of communities and society.

* Indicators according to GRI G4 Sector Disclosures

Governance and Economic Dimension

G

Code	ESG Indicators	GRI Standards	SDGs
EUT–G1	**Cybersecurity and Personal Data Protection**		
EUT–G1.1	Policy and guidelines on cybersecurity and personal data protection	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure
EUT–G1.2	Percentage of technology infrastructures that have been certified with cybersecurity standards, such as ISO 27001 or other relevant standards	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure
EUT–G1.3	Measures and guidelines related to personal data usage	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure
EUT–G1.4	Percentage of employees who have been trained in cybersecurity and personal data usage	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure
EUT–G1.5	Number of incidents or cases of cyberattacks against the company, along with mitigation measures	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure
EUT–G1.6	Number of incidents or cases of personal data breaches, along with mitigation measures	Disclosure 418–1	Goal 9: Industry, Innovation and Infrastructure

Rationale

- Information related to cybersecurity management and personal data protection reflects the organization's capabilities and effectiveness in managing information technology and security systems. It encompasses the organization's data storage capabilities, leading to confidence in conducting business.

Reporting Approach

A company should report the following information:

- Summary of policy and guidelines that demonstrate the company's management of technology security, information technology, and personal data in accordance with legal regulations and international standards.
- Percentage of technology infrastructures that have been certified with cybersecurity standards, such as ISO 27001 or other standards, calculated as follows:

$$\text{Percentage of technology infrastructures certified with cybersecurity standards} = \frac{\text{Total number of technology infrastructures certified with cybersecurity standards}}{\text{Total number of technology infrastructures}} \times 100$$

- Percentage of employees who have been trained in cybersecurity and personal data usage.

$$\text{Percentage of employees trained in cybersecurity and personal data usage} = \frac{\text{Total employees trained in cybersecurity and personal data usage}}{\text{Total number of employees}} \times 100$$

- Number of incidents or cases of cyberattacks against the company, along with mitigation measures.
- Number of incidents or cases of personal data breaches, along with mitigation measures.
- Additional reference:
  - ISO 27001 is an internationally recognized standard for information security management systems.

Code	ESG Indicators	GRI Standards	SDGs
EUT-G2	**Stability of Utility Systems**		
EUT-G2.1	Policy and guidelines for stability management of utility systems	G4-DMA Availability and Reliability*	Goal 7: Affordable and Clean Energy
EUT-G2.2	Guidelines for sourcing alternative resources in case of emergencies	G4-DMA Availability and Reliability*	Goal 7: Affordable and Clean Energy
EUT-G2.3	Number of readiness tests of utility systems	Disclosure 403-7	Goal 7: Affordable and Clean Energy
EUT-G2.4	Number of incidents or cases of utility system failures and their impact on businesses, along with remediation measures	Disclosure 403-7	Goal 7: Affordable and Clean Energy

* Indicators according to GRI G4 Sector Disclosures

Rationale
- Information on stability management of utility systems reflects the readiness to deal with events that affect the reliability of the company's utility systems, affecting production and services throughout the supply chain. Furthermore, it assures stakeholders that in case of emergency situations, the company has adequate management measures and sufficient reserve resources to maintain continuous services.

Reporting Approach
A company should report the following information:
- Summary of policy and guidelines for stability management of utility systems, from risk identification to impact reduction measures, emergency preparedness planning, system readiness testing, and continuous work performance recording. This ensures confidence that the company can provide continuous utility services.
- Summary of guidelines for sourcing alternative resources in case of emergencies, ensuring that the company has sufficient management measures and reserve resources to maintain continuous services.
- Number of times that utility systems readiness testing was conducted in response to emergency events in the past year.
- Number of incidents or cases of utility system failures and their impact on business, along with remediation measures.

Code	ESG Indicators	GRI Standards	SDGs
EUT-G3	**The Ratio of Energy Use for Electricity Generation**		
EUT-G3.1	Guidelines for determining the ratio of energy use for electricity generation	G4-EU2*	Goal 7: Affordable and Clean Energy
EUT-G3.2	The ratio of renewable energy use for electricity generation, such as solar energy, hydropower, wind energy, etc.	G4-EU2*	Goal 7: Affordable and Clean Energy
EUT-G3.3	The ratio of non-renewable energy use for electricity generation, such as natural gas, coal, oil, etc.	G4-EU2*	Goal 7: Affordable and Clean Energy

Rationale
- Information regarding the ratio of energy use for electricity generation reflects the consumption of each type of energy used in generating electricity. This demonstrates the company's effort in incorporating alternative energy sources as a key aspect of the company's production and development of utilities, with the goal of decreasing energy and fossil fuel consumption, a major contributor to greenhouse gas emissions in the industry. Furthermore, it highlights the company's efficiency in managing energy and resources, which are crucial production factors for the company.

* Indicators according to GRI G4 Sector Disclosures

Reporting Approach

A company should report the following information:

- Key summary of guidelines for determining the ratio of energy use for electricity generation, which includes renewable energy, fossil fuels and other energy sources, such as natural gas, coal, and oil, etc. Additionally, it should outline guidelines for increasing the ratio of renewable energy use in production (if applicable).
- Volume of renewable energy use for electricity generation, such as solar energy, hydropower, wind energy, etc., measured in kilowatt-hours (kWh), along with the percentage breakdown of energy use for each type of renewable energy source.
- Volume of non-renewable energy use for electricity generation, such as natural gas, coal, oil, etc., measured in megawatt-hours (MWh), along with the percentage breakdown of energy use for each type of non-renewable energy source.

Code	ESG Indicators	GRI Standards	SDGs
EUT–G4	**Oil and Natural Gas Management**		
EUT–G4.1	Short-term and long-term oil and natural gas management plan	G4–EU10*	Goal 12: Responsible Consumption and Production
EUT–G4.2	Volume of oil and/or natural gas production	G4–EU10*	Goal 12: Responsible Consumption and Production
EUT–G4.3	Volume of oil and/or natural gas reserves	G4–EU10*	Goal 12: Responsible Consumption and Production

Rationale

- Information on oil and natural gas management reflects the company's short-term and long-term oil and natural gas management plan. It also shows the production volume and reserves of oil and/or natural gas to ensure that the company has sufficient production factors to meet future oil and/or natural gas consumption needs.

Reporting Approach

A company should report the following information:

- Summary of short-term and long-term oil and/or natural gas management plan, including risk assessment, oil and/or natural gas consumption requirements, and energy crisis response measures or plans, to ensure stakeholders' confidence in the company's ability to operate continuously and with reasonable costs.
- Production volume of oil (unit: liters or barrels) and/or natural gas (unit: kilograms).
- Reserve volume of oil (unit: liters or barrels) and/or natural gas (unit: kilograms) to ensure that the company has an adequate supply of fuel for production needs.

* Indicators according to GRI G4 Sector Disclosures

Performance Summary:
ESG Metrics – Energy & Utilities Sector

Environmental Dimension E

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–E1		**Reporting on the Analysis of Social and Environmental Impacts (SIA/EIA)**					
EUT–E1.1	Disclosure 413–1	Disclosure of social and environmental impact assessment (SIA/EIA)	Yes/No				
EUT–E1.2	Disclosure 413–2	Disclosure of the monitoring process of social and environmental impact assessment (SIA/EIA)	Yes/No				
EUT–E2		**Biodiversity and Cessation of Deforestation**					
EUT–E2.1	Disclosure 304–1	Policy and guidelines regarding the conservation of biodiversity and cessation of deforestation, encompassing the company's business operations and supply chain	Yes/No				
EUT–E2.2	Disclosure 304–2	Assessment of the risks and impacts on biodiversity resulting from business operations	Yes/No				
EUT–E2.3	Disclosure 304–1	Number of the company's business areas with biodiversity conservation efforts	Square meter				
EUT–E2.4	Disclosure 304–1	Number of forest areas conserved under the company's care	Square meter				
EUT–E2.5	Disclosure 304–3	Diversity conservation plans or projects in business operations	Yes/No				
EUT–E2.6	Disclosure 304–3	Forest conservation plans or projects in business operations	Yes/No				

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–E3	**Air Pollution**						
EUT–E3.1	Disclosure 305–7	Volume of air pollution from business operations					
		– Nitrogen Oxide (NO_x)	mg/m^3				
		– Sulfur Dioxide (SO_x)	mg/m^3				
		– Persistent Organic Pollutants (POP)	mg/m^3				
		– Volatile Organic Compounds (VOC)	mg/m^3				
		– Hazardous Air Pollutants (HAP)	mg/m^3				
		– Particulate Matter (PM)	mg/m^3				
		– Others	mg/m^3				
EUT–E4	**Hydrocarbon Leakage**						
EUT–E4.1	Disclosure 306–3 (2016)	Number of incidents or cases of hydrocarbon leakage					
		– Leakage from the production process	No. of cases				
		– Leakage from land transport	No. of cases				
		– Leakage from water transportation	No. of cases				
		Volume of hydrocarbon leakage					
		– Leakage from the production process	m^3				
		– Leakage from land transport	m^3				
		– Leakage from water transportation	m^3				
EUT–E4.2	Disclosure 306–3 (2016)	Hydrocarbon leak management plan	Yes/No				
EUT–E4.3	Disclosure 306–3 (2016)	Assessment of severity and impacts resulting from hydrocarbon leakage incidents	Yes/No				
EUT–E5	**Climate Change Risks**						
EUT–E5.1	Disclosure 201–2	Climate change risk assessment with explanation of potential impacts on business operations	Yes/No				
EUT–E5.2	Disclosure 201–2	Goals, plans, and measures to mitigate climate change risks	Yes/No				

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Social Dimension **(S)**

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–S1 Local Employment							
EUT–S1.1	Disclosure 202–2	Policy and guidelines about local employment	Yes/No				
EUT–S1.2	Disclosure 202–2	Percentage of employees from local communities	%				
EUT–S2 Respecting Diversity and Equality							
EUT–S2.1	Disclosure 405–1	Policy and guidelines regarding respecting diversity and equality within the organization and the supply chain, without discrimination based on gender, age, nationality, disability, religion, or other factors	Yes/No				

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)		Previous 2 years (e.g., 2019)		Previous years (e.g., 2020)		Reporting year (e.g., 2021)	
EUT–S2.2	Disclosure 405–1	Employee statistics categorized by gender and nationality		Female	Male	Female	Male	Female	Male	Female	Male
		Total employees in the company	People								
		– Thai	People								
		– Burmese	People								
		– Cambodian	People								
		– Laotian	People								
		– Others	People								
EUT–S2.3	Disclosure 406–1	Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures	No. of cases								
EUT–S3 Promotion of Female Workforce											
EUT–S3.1	Disclosure 405–1	Policy and guidelines related to promoting gender equality in the workplace	Yes/No								
EUT–S3.2	Disclosure 405–1	Number of female employees categorized by employment level		Female	Male	Female	Male	Female	Male	Female	Male
		Total employees in the company	People								
		– Senior management level	People								
		– Management level	People								
		– Staff level	People								

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–S4		**Monitoring and Assessing Impacts on Communities**					
EUT–S4.1	Disclosure 413–1	Monitoring and assessing impacts on communities from the company's business operations	Yes/No				
EUT–S4.2	Disclosure 413–2	Number of disputes or complaints regarding community rights violations, along with remediation and mitigation measures	No. of cases				
EUT–S5		**Access to Utility Services**					
EUT–S5.1	G4–DMA Access	Policy and guidelines to promote access to utility services	Yes/No				
EUT–S5.2	G4–DMA Access	Project to promote access to utility services	Yes/No				

Governance and Economic Dimension   G

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–G1		**Cybersecurity and Personal Data Protection**					
EUT–G1.1	Disclosure 418–1	Policy and guidelines on cybersecurity and personal data protection	Yes/No				
EUT–G1.2	Disclosure 418–1	Percentage of technology infrastructures that have been certified with cybersecurity standards, such as ISO 27001 or other relevant standards	%				
EUT–G1.3	Disclosure 418–1	Measures and guidelines related to personal data usage	Yes/No				
EUT–G1.4	Disclosure 418–1	Percentage of employees who have been trained in cybersecurity and personal data usage	%				
EUT–G1.5	Disclosure 418–1	Number of incidents or cases of cyberattacks against the company, along with mitigation measures	No. of cases				
EUT–G1.6	Disclosure 418–1	Number of incidents or cases of personal data breaches, along with mitigation measures	No. of cases				

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–G2	**Stability of Utility Systems**						
EUT–G2.1	G4–DMA Availability and Reliability	Policy and guidelines for stability management of utility systems	Yes/No				
EUT–G2.2	G4–DMA Availability and Reliability	Guidelines for sourcing alternative resources in case of emergencies	Yes/No				
EUT–G2.3	Disclosure 403–7	Number of readiness tests of utility systems	No. of tests				
EUT–G2.4	Disclosure 403–7	Number of incidents or cases of utility system failures and their impact on businesses, along with remediation measures	No. of cases				
EUT–G3	**The Ratio of Energy Use for Electricity Generation**						
EUT–G3.1	G4–EU2	Guidelines for determining the ratio of energy use for electricity generation	Yes/No				

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)		Previous 2 years (e.g., 2019)		Previous years (e.g., 2020)		Reporting year (e.g., 2021)	
EUT–G3.2	G4–EU2	The ratio of renewable energy use for electricity generation, such as:		Unit	%	Unit	%	Unit	%	Unit	%
		– Solar energy	kWh								
		– Hydropower	kWh								
		– Wind energy	kWh								
		– Others	kWh								
EUT–G3.3	G4–EU2	The ratio of non-renewable energy use for electricity generation, such as:		Unit	%	Unit	%	Unit	%	Unit	%
		– Natural gas	MWh								
		– Coal	MWh								
		– Oil	MWh								
		– Others	MWh								

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
EUT–G4	**Oil and Natural Gas Management**						
EUT–G4.1	G4–EU10	Short–term and long–term oil and natural gas management plan	Yes/No				
EUT–G4.2	G4–EU10	Volume of production					
		– Oil	Liters or barrels				
		– Natural gas	Kilograms				
EUT–G4.3	G4–EU10	Volume of reserves					
		– Oil	Liters or barrels				
		– Natural gas	Kilograms				

Business Sector:

Mining

Environmental Dimension **E**

Code	ESG Indicators	GRI Standards	SDGs
MIN-E1	**Reporting on the Analysis of Social and Environmental Impacts (SIA/EIA)**		
MIN-E1.1	Disclosure of social and environmental impact assessment (SIA/EIA)	Disclosure 413-1	Goal 12: Responsible Consumption and Production
MIN-E1.2	Disclosure of the monitoring process of social and environmental impact assessment (SIA/EIA)	Disclosure 413-2	Goal 12: Responsible Consumption and Production

Rationale
- Reporting on the analysis of social and environmental impacts (Social Impact Assessment: SIA/Environmental Impact Assessment: EIA) demonstrates compliance with laws and the establishment of prevention measures to minimize the impact on communities and the environment resulting from the business's project operations. Additionally, reports on social and environmental impact analyses serve as decision-making guidelines for project developers to efficiently execute related activities and build long-term confidence in customers.

Reporting Approach
A company should report the following information:
- Summary of the impact assessment, monitoring process, and measures to reduce social and environmental impacts of the company, covering four aspects, including:
  1. Impact on human quality of life, including air and noise pollution, and changes in soil and water resources.
  2. Impact on living organisms in natural ecosystems, such as forest and marine resources, etc.
  3. Impact from land use and community benefit activities.
  4. Impact on community lifestyles, economic systems, culture, beliefs, aesthetics, and surrounding landscapes.

Code	ESG Indicators	GRI Standards	SDGs
MIN-E2	**Biodiversity and Cessation of Deforestation**		
MIN-E2.1	Policy and guidelines regarding the conservation of biodiversity and cessation of deforestation, encompassing the company's business operations and supply chain	Disclosure 304-1	Goal 15: Life on Land

Code	ESG Indicators	GRI Standards	SDGs
MIN-E2.2	Assessment of the risks and impacts on biodiversity resulting from business operations	Disclosure 304-2	Goal 15: Life on Land
MIN-E2.3	Number of the company's business areas with biodiversity conservation efforts	Disclosure 304-1	Goal 15: Life on Land
MIN-E2.4	Number of forest areas conserved under the company's care	Disclosure 304-1	Goal 15: Life on Land
MIN-E2.5	Diversity conservation plans or projects in business operations	Disclosure 304-3	Goal 15: Life on Land
MIN-E2.6	Forest conservation plans or projects in business operations	Disclosure 304-3	Goal 15: Life on Land

Rationale

- Information on the company's efforts to conserve biodiversity and cease deforestation reflects its commitment to achieving a balance, abundance, and environmental impact reduction from its business operations. The integrity of the ecosystem and forest areas is a crucial mechanism for absorbing carbon dioxide and mitigating the effects of climate change.

Reporting Approach

A company should report the following information:

- Key summary of policy and guidelines regarding biodiversity conservation and deforestation cessation, encompassing the company's business processes and supply chain. These policy and guidelines should align with laws, regulations, and directives enforced by regulatory agencies, as well as conform to standards related to biodiversity conservation, such as IRIS metrics (biodiversity assessment) by the Global Impact for Investing Network (GIIN), etc.
- Summary of the assessment of risks and impacts on biodiversity, such as natural characteristics, plant species, wildlife species, water source quality, and natural water catchment areas, etc.
- Total business areas of the company that is actively monitored for biodiversity conservation, measured in square meters.
- Forest areas that the company manages and continuously monitors for conservation, measured in square meters.
- Summary of biodiversity and forest areas conservation plans or projects in the company's business operations, along with explanations of outcomes and achievements through project implementation, such as the percentage increase in green areas or the rate of greenhouse gas absorption, etc.
- Additional reference:
  - IRIS metrics (O15929) refer to the standards for biodiversity impact assessment by the Global Impact for Investing Network (GIIN).

Code	ESG Indicators	GRI Standards	SDGs
MIN–E3 **Air Pollution**			
MIN–E3.1	Volume of air pollution from business operations, such as: – Nitrogen Oxide (NO_x) – Sulfur Dioxide (SO_x) – Persistent Organic Pollutants (POP) – Volatile Organic Compounds (VOC) – Hazardous Air Pollutants (HAP) – Particulate Matter (PM)	Disclosure 305–7	Goal 12: Responsible Consumption and Production

Rationale
- Reporting air pollution data reflects the company's efforts to control and reduce air pollution from its business operations, which could impact the health of the surrounding communities. Therefore, if the company has effective management, the risks that leads to environmental law violations, and disputes with communities will be reduced.

Reporting Approach
A company should report the following information:
- Sources of air pollution emissions from business operations, along with summary of prevention measures and the air quality monitoring process conducted at least once a year.
- Results of air quality measurements compared to standard values, with units in milligrams per cubic meter (mg/m³) or parts per million (ppm). For example:

Pollution	Standard Value (mg/m³ or ppm)	Measured Value (mg/m³ or ppm)
Nitrogen Oxide (NO_x)		
Sulfur Dioxide (SO_x)		
Persistent Organic Pollutants (POP)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants (HAP)		
Particulate Matter (PM)		
Others		

- Air quality information that indicates the air pollution situation that may affect the health of the community in each area around the business facilities, based on the Air Quality Index (AQI).
- Additional references:
  - Handbook for Air Pollution Monitoring from Emissions, Volume 1 by Pollution Control Department
  - Document for Pollutant Emissions Calculation from Measurement Data by Pollution Control Department

Code	ESG Indicators	GRI Standards	SDGs
MIN-E4	**Management of Mine Waste**		
MIN-E4.1	Risk assessment and management guidelines for mine waste	G4-MM3*	Goal 12: Responsible Consumption and Production
MIN-E4.2	Volume of waste from mining operations classified by type, such as mining tailings, sediments, waste rocks, etc.	G4-MM3*	Goal 12: Responsible Consumption and Production

Rationale

- Information on mine waste management reflects efficiency of operations from the space analysis for production activities, starting with surveying geological conditions and studying ecosystem features. The objective is to assess risks that may affect the environment and issues that lead to disputes with regulatory agencies or the community.

Reporting Approach

A company should report the following information:

- Summary of risk assessment results and mine waste management measures, which demonstrates a standard for comprehensive mine waste management since the beginning stage until the end of mining.
- Volume of mine waste classified by types and methods of disposal, such as

Types of Wastes	Volume (Tons)	Disposal Methods
Mining tailings		
Sediments		
Waste rocks		
Others		

Remarks: There are 2 forms of disposal methods:

1) The disposal method by discarding is the management of waste without reusing it as the waste is at the end of the waste cycle, such as landfill, incineration, burning as fuel, etc.
2) The disposal method by non-discarding is the management of waste by reutilization, such as reusing or recycling, etc.

- Additional reference:
  - The European Union (EU) Waste Framework Directive

* Indicators according to GRI G4 Sector Disclosures

Code	ESG Indicators	GRI Standards	SDGs
MIN–E5	**Responsible Mineral Product Development**		
MIN–E5.1	Guidelines for communicating and providing information about mineral resource usage	Disclosure 416–1	Goal 12: Responsible Consumption and Production
MIN–E5.2	The life cycle impact assessment for mineral products	Disclosure 416–1	Goal 12: Responsible Consumption and Production
MIN–E5.3	Product development and mining that is environmentally friendly	Disclosure 416–1	Goal 12: Responsible Consumption and Production
MIN–E5.4	Traceability systems	Disclosure 416–1	Goal 12: Responsible Consumption and Production

Rationale

- Information regarding responsible mineral product development reflects the process of developing and producing minerals under measures for social and environmental impact prevention and reduction. It demonstrates the company's awareness of the environmental impact throughout the life cycle of the products, starting from the stage of mineral exploration, production, resource utilization, and efficient mine waste management. These operations help mitigate the harm caused by mining and make efficient use of mineral resources.

Reporting Approach

A company should report the following information:

- Key summary of guidelines for communicating and providing information about mineral resource usage and mining for the benefit of stakeholders and the local community, along with the continuously disclosing environmental information to the surrounding community.
- Summary of the life cycle impact assessment of mineral resources should encompass mineral exploration, production, resource utilization, and efficient waste management processes according to international standards.
- Summary of information about environmentally friendly product development and mining practices, including the following details:
  - Social and environmental responsibility throughout the mining process.
  - Risk assessment and prevention measures to reduce social and environmental impacts.
  - Ensuring the safety and health of mine workers and nearby communities.
  - Enhancing green spaces and improving the landscape.
  - Transparent and auditable mining operations.
  - Efficient utilization of mineral resources.

- Summary of the traceability process of mineral products and mining activities, demonstrating the company's readiness for inspection by regulatory agencies and related authorities at any time.
- Additional reference:
  – Green Mining criteria by the Department of Primary Industries and Mines.

Code	ESG Indicators	GRI Standards	SDGs
MIN-E6	**Climate Change Risks**		
MIN-E6.1	Climate change risk assessment with explanation of potential impacts on business operations	Disclosure 201-2	Goal 13: Climate Action
MIN-E6.2	Goals, plans, and measures to mitigate climate change risks	Disclosure 201-2	Goal 13: Climate Action

Rationale
- Information on risks and adaptation measures in response to climate change reflects the company's efforts to mitigate impacts of these risks and enhance business opportunities arising from such risks. Furthermore, it showcases the management's preparedness and adaptability of the business during emergency situations caused by natural disasters, which can significantly affect business operations. Examples are droughts, floods, sea level changes, and extreme weather conditions. These events impact production factors, land allocation, transportation, etc.

Reporting Approach
A company should report the following information:
- Risk factors arising from climate change and significantly impacting business operations, such as:
  – Examples of physical risks, such as impacts on businesses from changes in sea levels, atmospheric temperatures, natural freshwater sources, storm occurrences, forest fires, and impact on employee health due to increased exposure to high temperatures and heat radiation, etc.
  – Examples of regulatory risks include international laws and agreements that require businesses to be accountable for greenhouse gas emissions through taxation mechanisms, which consequently lead to significantly higher production costs, etc.
  – Other examples of risks, such as changes in the energy industry, the increasing demand for environmentally friendly technologies, products, and services, which leads to continuous environmental trends, etc.
- Quantitative and qualitative targets to prepare the business for climate change.
- Plans and measures to mitigate risks from climate change. Examples are as follows:
  – Utilizing clean energy or renewable energy sources that do not emit greenhouse gases.
  – Increasing energy efficiency by using less resources.
  – Carbon offsetting.

Social Dimension **S**

Code	ESG Indicators	GRI Standards	SDGs
MIN-S1	**Local Employment**		
MIN-S1.1	Policy and guidelines about local employment	Disclosure 202-2	Goal 8: Decent Work and Economic Growth
MIN-S1.2	Percentage of employees from local communities	Disclosure 202-2	Goal 8: Decent Work and Economic Growth

Rationale

- Reporting on local employment data reflects the role of businesses in strengthening the grassroots economy and the well-being of local communities. Higher local employment rates lead to increased income and consumption, enhancing the quality of life within the community. It fosters collaboration between businesses and communities while reducing the risk of labor shortages in the supply chain.

Reporting Approach

A company should report the following information:

- Information on policy and guidelines showing the importance of local employment and guidelines for recruitment of local workers.
- Percentage of employees from local communities.

$$\text{Percentage of employees from local communities} = \frac{\text{Total number of employees from local communities}}{\text{Total number of employees}} \times 100$$

Remark: Employees from local communities mean employees who were born or domiciled in the same area that the business operates. This is determined based on the business's location in comparison to the employee's citizenship registration documents, such as household registration, birth certificate, national identification card, and change of address notification, etc.

Code	ESG Indicators	GRI Standards	SDGs
MIN-S2	**Respecting Diversity and Equality**		
MIN-S2.1	Policy and guidelines regarding respecting diversity and equality within the organization and the supply chain, without discrimination based on gender, age, nationality, disability, religion, or other factors	Disclosure 405-1	Goal 8: Decent Work and Economic Growth
MIN-S2.2	Employee information categorized by gender and nationality	Disclosure 405-1	Goal 8: Decent Work and Economic Growth
MIN-S2.3	Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures	Disclosure 406-1	Goal 8: Decent Work and Economic Growth

Rationale
- Information on the respect of diversity and equality reflects the diversity of employees within the organization and the efforts to protect the rights and equality of employees, without discrimination.

Reporting Approach
A company should report the following information:
- Summary of policy and guidelines regarding the respect for diversity and equality within the organization and the supply chain without discrimination based on gender, age, nationality, disability, religion, etc. Additionally, the company should demonstrate that it has monitoring mechanisms in place to ensure continuous adherence to this policy.
- Employee statistics categorized by gender and nationality.

Nationality	Total Number of Employees (People)		Number of Disabled Employees (People)	
	Female	Male	Female	Male
Thai				
Burmese				
Cambodian				
Laotian				
Others				

- Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures.

Code	ESG Indicators	GRI Standards	SDGs
MIN-S3	**Combating Child Labor**		
MIN-S3.1	Policy and guidelines regarding combating child labor within the organization	Disclosure 408-1	Goal 8: Decent Work and Economic Growth
MIN-S3.2	Policy and guidelines regarding combating child labor within the supply chain	Disclosure 408-1	Goal 8: Decent Work and Economic Growth
MIN-S3.3	Number of incidents or complaints or cases of child labor detected within the organization and the supply chain, along with remediation and mitigation measures	Disclosure 408-1	Goal 8: Decent Work and Economic Growth

Rationale
- Information on combating child labor demonstrates the intention and efforts to prevent and safeguard against violations of human rights related to child labor, both within the organization and the supply chain. In the event of incidents or complaints related to the aforementioned issues, it may impact the organization's reputation and trade.

Reporting Approach

A company should report the following information:
- Summary of policy and guidelines that demonstrate the company's commitment to combat child labor or employ child workers, defined as individuals below the age of fifteen according to the definition by the International Labor Organization (ILO).
- Scope of policy or guidelines to combat child labor or employ child workers, covering business operations both within the organization and across the supply chain.
- Number of incidents or complaints or cases of child labor detected within the organization and the supply chain, along with remediation and mitigation measures.

Code	ESG Indicators	GRI Standards	SDGs
MIN–S4	**Monitoring and Assessing Impacts on Communities**		
MIN–S4.1	Monitoring and assessing impacts on communities from mining activities	Disclosure 413–1	Goal 12: Responsible Consumption and Production
MIN–S4.2	Number of disputes or complaints related to mining, along with remediation and mitigation measures	Disclosure 413–2	Goal 12: Responsible Consumption and Production
MIN–S4.3	Information about mines located in indigenous communities	G4–MM6*	Goal 12: Responsible Consumption and Production
MIN–S4.4	Measures related to the relocation and resettlement of communities affected by mining	G4–MM9*	Goal 12: Responsible Consumption and Production

Rationale
- Information about monitoring and assessing impacts on communities reflects the risks from mining activities that may affect the quality of life for communities in terms of economics, society, and environment, both directly and indirectly. Once the company is aware of these issues, it has crucial information to establish prevention measures to mitigate the risks that could lead to human rights violations and disputes with communities, and potentially cause business interruption.

Reporting Approach

A company should report the following information:
- Summary of the results of monitoring and assessing impacts on communities from mining activities, highlighting risk factors and prevention measures.
- Number of disputes or complaints related to mining activities, indicating that the company has a grievance handling system with personnel responsible for investigating and resolving issues, as well as conducting investigation and providing appropriately and fairly compensation for damages caused by mining activities.

* Indicators according to GRI G4 Sector Disclosures

- Summary of information about mines located in indigenous communities, consisting of groups of indigenous communities, number of households, cultural characteristics and community ways of life, including guidelines for protecting and preserving the community's benefits appropriately and fairly.
- Summary of measures regarding the relocation and resettlement of communities affected by mining to ensure that the communities will receive protection for their rights in economic, safety, and health, along with identifying guidelines for promoting employment opportunities within the communities to reduce labor migration issues.

Governance and Economic Dimension

G

Code	ESG Indicators	GRI Standards	SDGs
MIN–G1	**Emergency and Crisis Management**		
MIN–G1.1	Policy and guidelines regarding emergency and crisis management	Disclosure 403–7 G4–DMA Emergency Preparedness*	Goal 3: Good Health and Well-being
MIN–G1.2	Number of emergency and crisis drills	Disclosure 403–7 G4–DMA Emergency Preparedness*	Goal 3: Good Health and Well-being
MIN–G1.3	Number of cases or incidents that cause business interruption, along with mitigation measures	Disclosure 403–7 G4–DMA Emergency Preparedness*	Goal 3: Good Health and Well-being

Rationale
- Information on emergency and crisis management demonstrates preparedness measures to prevent and mitigate potential harm, loss, or damage that can affect lives, assets, reputation, and image of the organization due to various events. Additionally, it illustrates the organization's ability to recover and return to normal business operations as quickly as possible. This information instills confidence in stakeholders regarding the risk management system and continuous business operations.

Reporting Approach
A company should report the following information:
- Summary of policy and guidelines regarding emergency and crisis management of the company that demonstrate preparedness and response measures for various types of emergencies that have an impact on continuous business operations.
- Number of emergency and crisis drills categorized by events, such as fires, floods, earthquakes, or incidents of violence from protests, etc.
- Number of cases or incidents that cause business interruption, along with mitigation measures and guidelines for returning business to normal operations.

* Indicators according to GRI G4 Sector Disclosures

Performance Summary:
ESG Metrics – Mining Sector

Environmental Dimension **E**

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
MIN–E1		**Reporting on the Analysis of Social and Environmental Impacts (SIA/EIA)**					
MIN–E1.1	Disclosure 413–1	Disclosure of social and environmental impact assessment (SIA/EIA)	Yes/No				
MIN–E1.2	Disclosure 413–2	Disclosure of the monitoring process of social and environmental impact assessment (SIA/EIA)	Yes/No				
MIN–E2		**Biodiversity and Cessation of Deforestation**					
MIN–E2.1	Disclosure 304–1	Policy and guidelines regarding the conservation of biodiversity and cessation of deforestation, encompassing the company's business operations and supply chain	Yes/No				
MIN–E2.2	Disclosure 304–2	Assessment of the risks and impacts on biodiversity resulting from business operations	Yes/No				
MIN–E2.3	Disclosure 304–1	Number of the company's business areas with biodiversity conservation efforts	Square meter				
MIN–E2.4	Disclosure 304–1	Number of forest areas conserved under the company's care	Square meter				
MIN–E2.5	Disclosure 304–3	Diversity conservation plans or projects in business operations	Yes/No				
MIN–E2.6	Disclosure 304–3	Forest conservation plans or projects in business operations	Yes/No				

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Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
MIN-E3		**Air Pollution**					
MIN-E3.1	Disclosure 305-7	Volume of air pollution from business operations					
		– Nitrogen Oxide (NO$_x$)	mg/m^3				
		– Sulfur Dioxide (SO$_x$)	mg/m^3				
		– Persistent Organic Pollutants (POP)	mg/m^3				
		– Volatile Organic Compounds (VOC)	mg/m^3				
		– Hazardous Air Pollutants (HAP)	mg/m^3				
		– Particulate Matter (PM)	mg/m^3				
		– Others	mg/m^3				
MIN-E4		**Management of Mine Waste**					
MIN-E4.1	G4-MM3	Risk assessment and management guidelines for mine waste	Yes/No				
MIN-E4.2	G4-MM3	Volume of waste from mining operations classified by type, such as:					
		– Mining tailings	Tons				
		– Sediments	Tons				
		– Waste rocks	Tons				
		– Others	Tons				
		Total	Tons				
MIN-E5		**Responsible Mineral Product Development**					
MIN-E5.1	Disclosure 416-1	Guidelines for communicating and providing information about mineral resource usage	Yes/No				
MIN-E5.2	Disclosure 416-1	The life cycle impact assessment for mineral products	Yes/No				
MIN-E5.3	Disclosure 416-1	Product development and mining that is environmentally friendly	Yes/No				
MIN-E5.4	Disclosure 416-1	Traceability systems	Yes/No				
MIN-E6		**Climate Change Risks**					
MIN-E6.1	Disclosure 201-2	Climate change risk assessment with explanation of potential impacts on business operations	Yes/No				
MIN-E6.2	Disclosure 201-2	Goals, plans, and measures to mitigate climate change risks	Yes/No				

Social Dimension (S)

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)		Previous 2 years (e.g., 2019)		Previous years (e.g., 2020)		Reporting year (e.g., 2021)	

MIN-S1 Local Employment

Code	GRI Standards	ESG Indicators	Unit								
MIN-S1.1	Disclosure 202-2	Policy and guidelines about local employment	Yes/No								
MIN-S1.2	Disclosure 202-2	Percentage of employees from local communities	%								

MIN-S2 Respecting Diversity and Equality

Code	GRI Standards	ESG Indicators	Unit	Female	Male	Female	Male	Female	Male	Female	Male
MIN-S2.1	Disclosure 405-1	Policy and guidelines regarding respecting diversity and equality within the organization and the supply chain, without discrimination based on gender, age, nationality, disability, religion, or other factors	Yes/No								
MIN-S2.2	Disclosure 405-1	Employee statistics categorized by gender and nationality									
		Total employees in the company	People								
		– Thai	People								
		– Burmese	People								
		– Cambodian	People								
		– Laotian	People								
		– Others	People								
MIN-S2.3	Disclosure 406-1	Number of incidents or complaints related to violations of rights, equality, and unfair treatment of labor, along with remediation and mitigation measures	No. of cases								

MIN-S3 Combating Child Labor

Code	GRI Standards	ESG Indicators	Unit								
MIN-S3.1	Disclosure 408-1	Policy and guidelines regarding combating child labor within the organization	Yes/No								
MIN-S3.2	Disclosure 408-1	Policy and guidelines regarding combating child labor within the supply chain	Yes/No								
MIN-S3.3	Disclosure 408-1	Number of incidents or complaints or cases of child labor detected within the organization and the supply chain, along with remediation and mitigation measures	No. of cases								

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
MIN-S4		**Monitoring and Assessing Impacts on Communities**					
MIN-S4.1	Disclosure 413-1	Monitoring and assessing impacts on communities from mining activities	Yes/No				
MIN-S4.2	Disclosure 413-2	Number of disputes or complaints related to mining, along with remediation and mitigation measures	No. of cases				
MIN-S4.3	G4-MM6	Information about mines located in indigenous communities	Yes/No				
MIN-S4.4	G4-MM9	Measures related to the relocation and resettlement of communities affected by mining	Yes/No				

Governance and Economic Dimension ⓖ

Code	GRI Standards	ESG Indicators	Unit	Previous 3 years (e.g., 2018)	Previous 2 years (e.g., 2019)	Previous years (e.g., 2020)	Reporting year (e.g., 2021)
MIN-G1		**Emergency and Crisis Management**					
MIN-G1.1	Disclosure 403-7 G4-DMA Emergency Preparedness	Policy and guidelines regarding emergency and crisis management	Yes/No				
MIN-G1.2	Disclosure 403-7 G4-DMA Emergency Preparedness	Number of emergency and crisis drills	No. of drills				
MIN-G1.3	Disclosure 403-7 G4-DMA Emergency Preparedness	Number of cases or incidents that cause business interruption, along with mitigation measures	No. of cases				

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SET

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