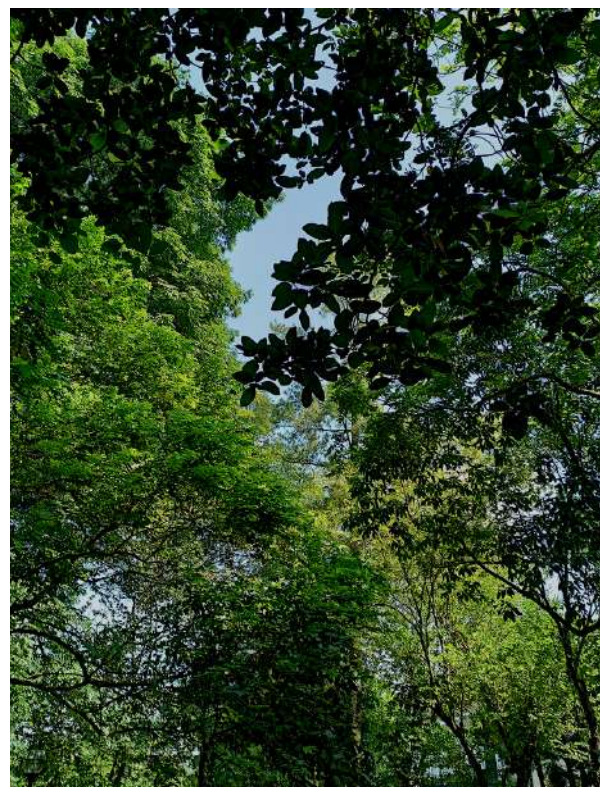




**GREENWISE**  
CONSULTING



# NET ZERO TREND

## Look Ahead to 2030

BY GREENWISE CONSULTING

2022



# FOREWORD

## Words from Our Partner

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Near the end of 2022, the President of Indonesia, Joko Widodo stated that Indonesia is ready to lead the fight of climate change. This commitment is shown in the latest Coordinating Ministry Declaration to increase Nationally Determined Contribution (NDC) to 31,89% with own resources and 43,20% with international support in 2030.

Net Zero refers to a state in which the greenhouse gases going into the atmosphere are balanced by removal from the atmosphere. Implementing Net Zero in action required a well-aligned public-private partnership to mainstream Environment Social Governance (ESG) to targeted sectors.

While the public play an important role to build a supportive policy environment to enable carbon offset in the voluntary market, private companies and enterprises play a key role in balancing the carbon footprint in the supply chain and managing climate and environmental risk.

Net zero requires more action, more involvement, and a more circular economy to achieve the overall vision. Edukarir Indonesia is committed to assisting the Government of Indonesia to form a public-private partnership and implementing actions to achieve this noble goal.

**Lenny Hidayat**

Partner

Greenwise Consulting



An aerial photograph of a park. In the center is a large green lawn. To the left is a colorful playground with slides and climbing equipment. To the right is a picnic area with many wooden picnic tables. A paved path winds through the park. In the top right corner, there is a parking lot with several cars. The number '2' is visible in the top right corner of the image.

# EXECUTIVE SUMMARY

## About this Paper

Issues at the top of the ESG agenda, reflecting both the existential threat of global temperature rise and the race against time to rein it in. What will 2023 and the next decade bring? In recent years, climate change has surpassed corporate governance as the most pressing ESG issue forcing investors' attention. ESG investing has profoundly gone mainstream (and is attracting regulatory attention to prove it). Yet new risks are emerging for companies, investors, and the planet in the coming decade that will test how well we have learned the past lessons.

Edukarir Strategic Advisory (EDSA) assists the private, public, and non-profit sectors to upscale the business or organization operation to be more responsive in facing climate change impact. Our mission is to bring more impact and sustainability to the business and society through mainstreaming ESG as part of the risk management and investment potential. We also show potential for future possibilities for organizations to work with EDSA to make greater and greener businesses. This paper shows the prediction of upcoming events through the lens of ESG to assess risk management toward business activity and its contribution to environmental matters.





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<b>CONSEQUENCE OF NOT FACTORING ESG TO BUSINESS (SOCIAL)</b>	↗
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<b>CONSEQUENCE OF NOT FACTORING ESG TO BUSINESS (GOVERNANCE)</b>	↗
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# GOALS & ACTIONS

Environmental Social Governance (ESG) issues have been profound in the business context during these past years and would become a relevant metric to be reported in the World Economic Forum (WEF). Thus, the WEF advises organizations to consider the following UN SDGs: responsible resource consumption and production, creating peace, justice, strong institutions, and partnerships for the goals. These align with the United Nations Sustainable Development Goals (SDGs) which are a universal call to protect the planet, end poverty, and ensure peace and prosperity by 2030.





# MAIN ENVIRONMENTAL SECTORS

- **Water**
- **Air pollution**
- **Waste management**
- **Climate change**
- **Forestry**
- **Biodiversity**



# HOW CAN COMPANIES TAKE PART?



## **SOCIAL**

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- Labor standards across supply chains that guarantee fair wages and human rights protection;
- Good relations with local communities which will give social license for companies to operate, as well as diversity and inclusion policies to ensure equity in the workplace.



## **ENVIRONMENTAL**

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- Use non-toxic or less toxic substances;
- Reduce waste and use of paper, and install automatic light shut-off in the office.



## **GOVERNANCE**

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- Whistle-blower schemes;
- Stockholders' ability to vote on important issues, and
- Regulatory compliance





Millions of people depend heavily on Indonesia's rich natural resources for food, shelter, water, energy, and jobs. However, climate change is endangering Indonesia's sustainable development by increasing the frequency and severity of hazards, including cyclones, floods, landslides, droughts, and earthquakes, which continue to undermine the country's progress. There are issues associated with humans activities such as forest degradation (unregulated cutting, fires, smoke and haze, and erosion); water pollution from industrial wastes and sewage; air pollution from motor vehicles and industry in urban areas, and generally from smoke and haze caused by forest fires; and threats to biodiversity and rare plant and animal species. The above-mentioned issues caused by humans account for 80 percent of Indonesia's carbon dioxide emissions—making Indonesia the world's third-largest greenhouse gas emitter in some years, behind China and the United States, and ahead of India and industrial countries like Japan and Germany.

The rapid loss of Indonesia's biologically wealthy rainforests is driving in-numerable species to the edge of survival. In one example case, The Komodo dragon species is already included in the endangered category on the IUCN red list. A study in 2020 showed that in a scenario with aspects of climate change, there is a possibility that the Komodo dragon population will decline in 2050. Habitat loss and ongoing land conversion could worsen estimates of population reduction.

Patterns of resource exploitation in Indonesia began to change rapidly in the late twentieth and early twenty-first centuries. The rice-growing peasantry is shrinking as a result of mechanization, fertilizer use, and the intensification of agriculture. Besides that, the coastal commercial sector has been transformed by overfishing and new technology for inter island commerce. In addition to that, traditional swidden farming communities of the upland forest have been forced to crowd out by industrial logging.

# CONSEQUENCE for Environmental Issues

In preventing environmental issues from getting fataler, The United States Agency for International Development (USAID) partners with the Indonesian Government to strengthen the resilience of populations, their communities and economies, and the ecosystems that support people's livelihoods. USAID works closely with the Government of Indonesia (GOI) and other key partners on shared environmental priorities which are:

1. Improving natural resources management
2. Accelerating Indonesia's energy transition towards a clean future through reliable and sustainable energy
3. Increasing access to safe drinking water, sanitation, and hygiene (WASH) for the urban poo
4. Countering wildlife trafficking and illegal, unreported, and unregulated fishing
5. Conserving terrestrial and marine biodiversity
6. Reducing urban air pollution.

USAID also enhances Indonesia's ability to prepare for, respond to, and recover from disasters and humanitarian crises.

**Reference:**

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Facts and Detail. (n.d.). Environmental issues in Indonesia. Retrieved from [https://factsanddetails.com/indonesia/Nature\\_Science\\_Animals/sub6\\_8c/entry-4090.html](https://factsanddetails.com/indonesia/Nature_Science_Animals/sub6_8c/entry-4090.html)  
Ran. (n.d.). Indonesia's rainforests: Biodiversity and endangered species. Retrieved from [https://www.ran.org/indonesia\\_s\\_rainforests\\_biodiversity\\_and\\_endangered\\_species/](https://www.ran.org/indonesia_s_rainforests_biodiversity_and_endangered_species/)  
Usaid. (n.d.). Environment. Retrieved from <https://www.usaid.gov/indonesia/environment>





# CONSEQUENCE for Social Issues

Child labor is one of the social problems that has not been completely tackled until now. Indonesia's slump in a prolonged economic crisis that has spawned a wave of layoffs, inflation, and the process of population impoverishment has not only caused the number of child laborers to increase but has exacerbated the dilemma situation that children must face. As of 2021, Badan Pusat Statistik (BPS) recorded around 2.3 million child workers in Indonesia. Southeast Sulawesi is the highest percentage of child laborers province, followed by West Sulawesi and Papua. One of the cases of child labor is from the palm oil industry in Palembang. The distant location of the plantation from the city results in low supervision and law enforcement. Although most people think that children are only helping their families on weekends or after school, human rights groups, the United Nations, and the United States government identify this as a problem.

Child laborers come into contact with prohibited fertilizers and some pesticides. As they grow older, they push carts filled with fruit weighing three times their own weight, some cut down trees barefoot, and teenage boys harvest palm bunches that are big enough to destroy.

Aside from child labor, the palm oil industry is still widely criticized because it is considered as not contributing enough to improving the welfare of the parties involved in it, especially plantation workers who are mostly women. The Minister of Women's Empowerment and Child Protection, Bintang Puspayoga, said that most of the female oil palm workers were casual daily laborers, which resulted in differences in the rights obtained between male and female workers, even though the workload was the same.

Reference:  
 Hariadi, S. (2000). Pekerja anak masalah, kebijakan dan upaya penanganannya. Surabaya: Lutfansah Mediatama  
 Isabela, M. A. C. (2017). Kasus-kasus pekerjaan anak di Indonesia. Retrieved from <https://nasional.kompas.com/read/2022/03/20/03000011/kasus-kasus-pekerja-anak-di-indonesia?page=all>  
 Karunia, A. M. (2022). Industri kelapa sawit kerap pekerjaan anak bawah umur, Menaker akui sulit mengawasinya. Retrieved from <https://money.kompas.com/read/2022/03/28/220500026/industri-kelapa-sawit-kerap-pekerja-anak-bawah-umur-menaker-akui-sulit>  
 Sofia, H. (2019). Strategi menghapus pekerja anak di Indonesia. Retrieved from <https://mantaranews.com/herita/2236714/strategi-menghapus-pekerja-anak-di-indonesia--text-Pekerja%20anak%20kemudian%20diketahui%20lebih%20anak%20dan%20anak%20putus%20sekolah>





# CONSEQUENCE for Governmental Issues

With the unprecedented rapid development of digitalization, threats to digital cybersecurity also become more evident. A survey by Indonesia's National Cyber and Crypto Agency (BSSN) stated that mobile ransomware, crypto-mining, and mobile banking trojans are the three most commonly detected threats in Indonesia in 2019. To combat the threats and increase customer trust, companies must take action to have good governance as the core of their operation. Moreover, good governance does not only preach about public trust but also talk more about attracting potential investors.

**Reference:**

Appleton, J. (2021). ESG. Retrieved from <https://hub.beesmartcity/en/esg/governance-in-esg>  
ESG The Report. (n.d.). Governance issues. Retrieved from <https://www.esgthereport.com/what-is-esg/the-g-in-esg/what-is-corporate-governance/governance-issues/>  
Levine, S. R. (2018). The danger of not embracing ESG. Retrieved from <https://www.forbes.com/sites/forbesinsights/2018/01/05/the-danger-of-not-embracing-esg/?sh=45fccb2a7585>  
Lodh, A. (2020). ESG and the cost of capital. Retrieved from <https://www.msci.com/www/blog-posts/esg-and-the-cost-of-capital/01726513589>



# What Elements Institute Investors' Decision-Making Process?

**01**  
**Company  
Performance**

**02**  
**Market  
Correlation**

**03**  
**Risk  
Management**

**04**  
**Governance**



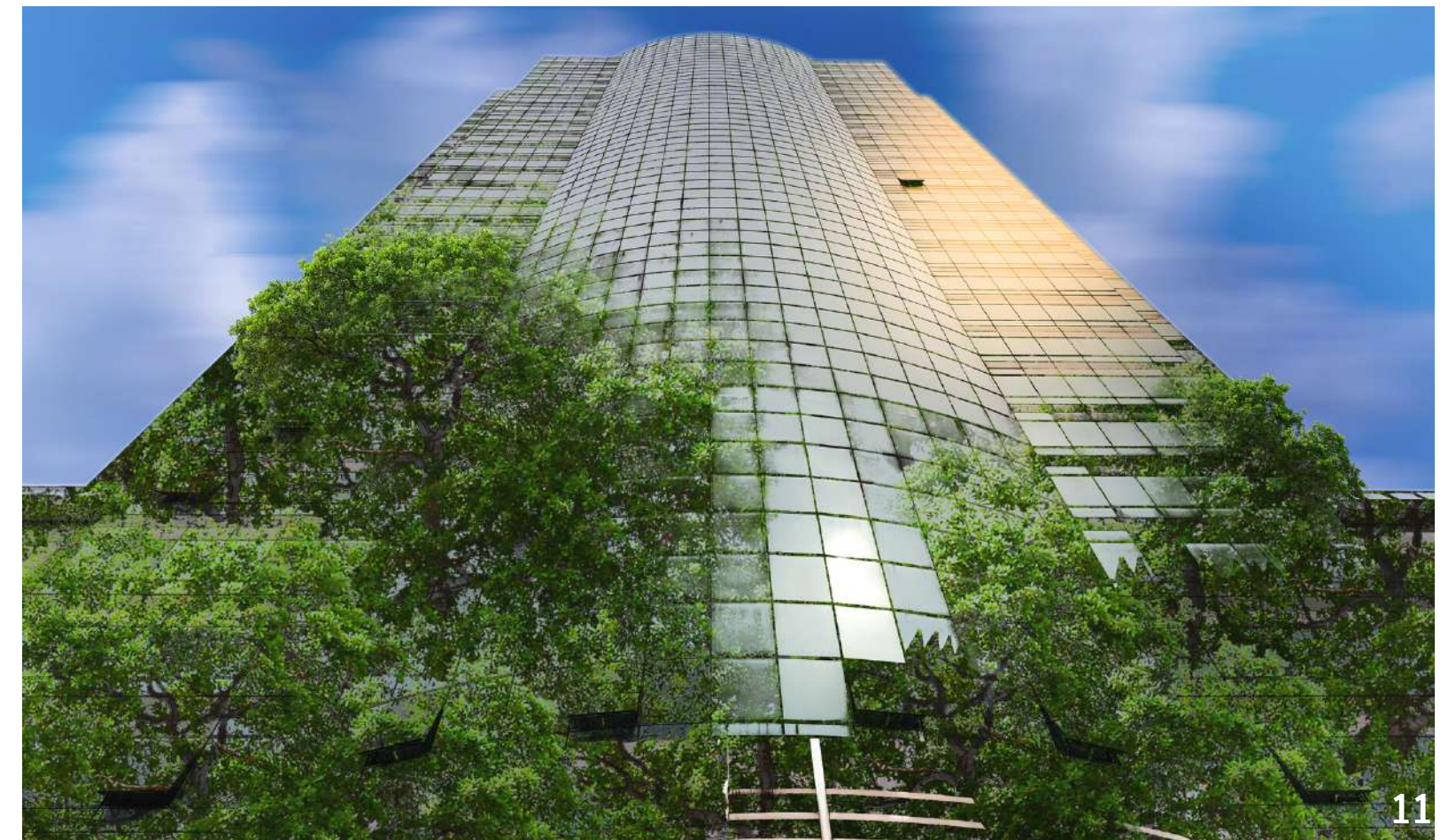
Governance is a prime predictor of success across any industry that concerns wider topics that spill over into environmental and social principles. From the environmental angle, governance concerns the company's attitude toward climate change and the management's steps to address the problems.

From the social perspective, governance might focus on diversity, inclusivity, equity in the workplace, shareholder rights protection, and the fair system of benefit sharing. Investors place investments based on data, and a company with a poor track record obviously will not be an attractive investment prospect. Thus, building positive morals and ethics policies can add to significant long-term financing. Transparency in governance also helps mitigate risks since it improves the company's brand values.

Not factoring in governance might result in scandals that can destroy a company's reputation that has taken years even generations to build. Low scorers on governance factors often fall victim to mismanagement which prevents them from cashing in on profitable long-term business opportunities and top-line growth. The MSCI World Index showed that high-ESG-rated companies have been less exposed to systematic risks which implies a lower cost of equity than low-ESG-rated companies. Better implementation of corporate governance was also found to contribute to lower average costs of debt, which is plausible because good governance reduces a firm's default risk that directly impacts its cost of debt.

**Reference:**  
PWC. (2021). Indonesia's sustainable transformation. Retrieved from <https://www.pwc.com/id/en/publications/esg/indonesia-sustainable-transformation.pdf>  
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Sidley. (2020). The link between ESG and business continuity-what boards need to know. Retrieved from <https://insights.sidley.com/leaders/esg-business-continuity>  
Stick, I. (2021). ESG factors: What are they & why they matter. Retrieved from <https://www.ecoport.com/blog/esg-factors>

# CONSEQUENCE for Governmental Issues





# ESG IN BUSINESS

## Proposed Action:

The benefits when ESG applies to your business are improved company reputation as it indicates you have a transparent plan that focuses on helping the environment, supporting diversity and equal opportunities, and ensuring ethical business decisions. ESG investing also saves more costs that can come from the initiatives to reduce waste and the number of materials used in the manufacturing process which results in cost reduction. Reducing energy costs, such as switching to LED lighting, may also lower overheads through smaller energy bills.

Applying the ESG framework may attract employees and more customers in the business field. Some employees are looking to work in more eco-conscious companies committed to implementing favorable ESG policies. Employees may want to associate themselves with companies that foster a diverse and inclusive workplace, with employee support programs for mental well-being and improved work/life balance. Some customers may be also more willing to buy a similar product from a more ethical brand than another business – even if it costs more. Last, some investors are looking to increase their ESG investments within the next three years, so applying ESG in business is a smart way to increase your potential business opportunities.





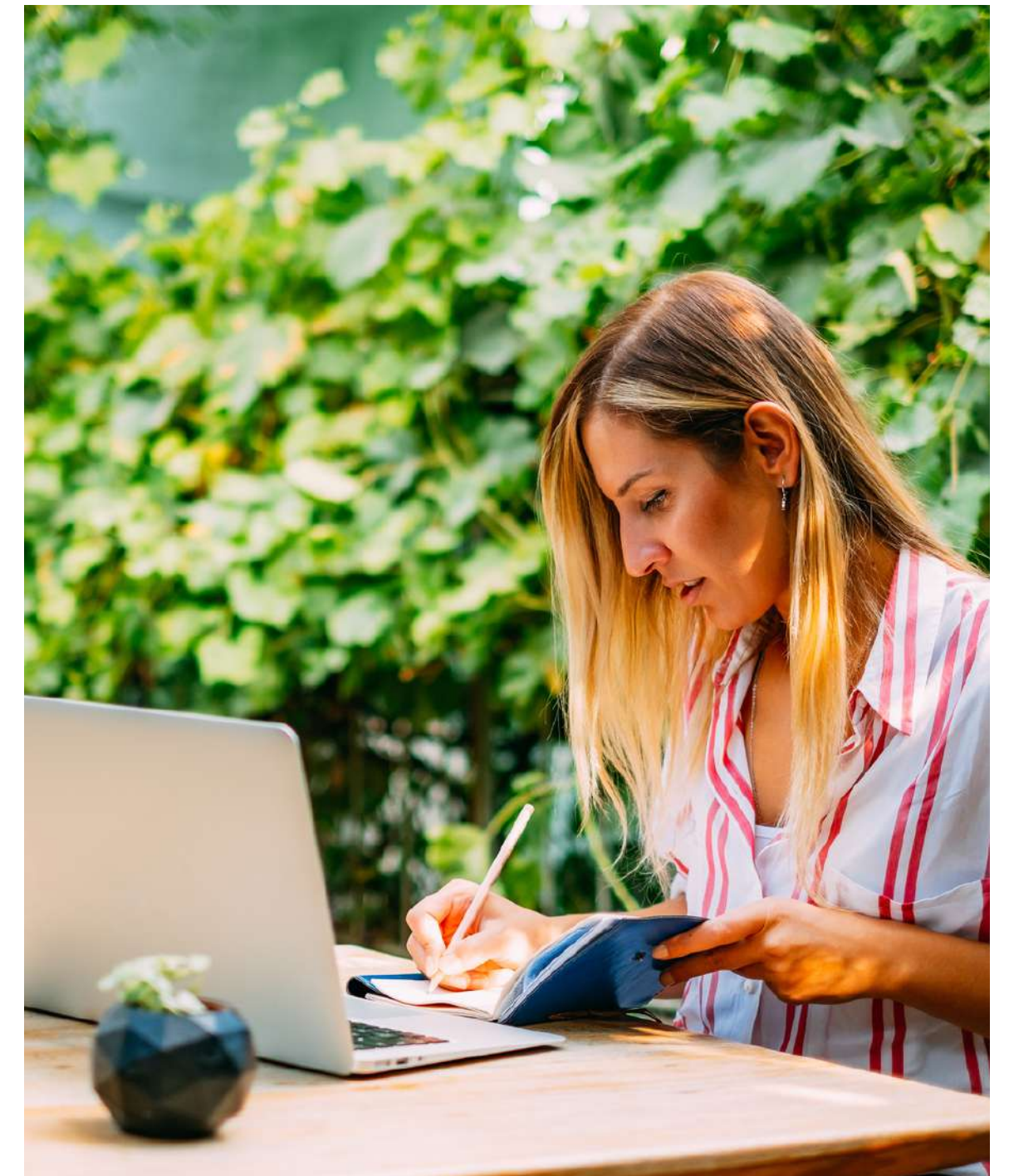
# MAINSTREAMING ESG to HR Context



ESG becoming a key topic of consideration for businesses. Nowadays, investors, customers, and job applicants are more interested than ever in a business's commitment to the environment, its people, and the running of its business ethically and sustainably. There are several areas that HR professionals can focus on to assist their business by mainstreaming ESG:

- Recruitment
- Policy
- Employee mental health

**Reference:**  
Nina, J. (2022, February 07). What does ESG mean for HR and recruitment. Retrieved from <https://www.armstrongcraven.com/resource-hub/what-does-esg-mean-for-hr-and-recruitment-2275/>  
Rachel, C. & Lloyd, D. (2021, December 06). What is ESG and why is it important for HR professionals. Retrieved from <https://www.stevens-bolton.com/site/insights/articles/what-is-esg-and-why-is-it-important-for-hr-professionals>





## RECRUITMENT

The emergence of an organization with strong corporate governance at the board level is facilitating the integration of environmental, social, and governance factors into the recruitment process. To attract “millennials candidate” who will make up to 75% of the workforce in 2025, organizations should contribute to environmental and social concerns. They will be more loyal to an organization that helps them to contribute to something that they believe or is in line with their values.

Remuneration is another prominent factor in attracting job candidates. Not only ensuring that the National Minimum Wage is paid but also ensuring that businesses are committed to paying a living wage for their workforce. To ensure the long-term success and sustainability of their business, organizations must guarantee that they have a sufficient number of workers who can support day-to-day operations.

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# MAINSTREAMING ESG to HR Context

## POLICY

The social dimension of ESG focuses on people. The metrics reflect outcomes that matter for people by measuring diversity, equity, and inclusion in the workplace. Enactment of ethical policies can help businesses effectively deal with emerging issues regarding discrimination, harassment, intimidation, and exploitation. Gender & race equality policies create a diverse workplace that allows organizations to have multiple perspectives and brings a broad mix of skills and experience that might not be achieved any other way.

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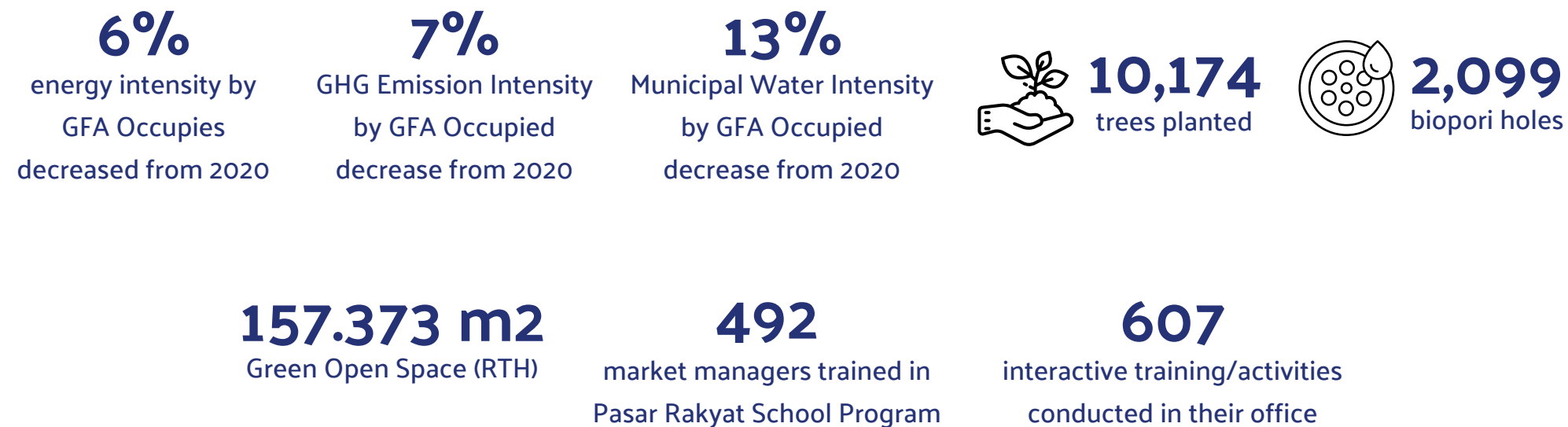
## EMPLOYEE MENTAL HEALTH

A workplace has to be inclusive to foster open communication about mental health among employees. Employees are motivated through positive reinforcement and are much more willing to help enhance their well-being and that of the company if the atmosphere is welcoming, open, and engaging. The mainstreaming of a business’s operations to include employee mental health and work-life balance is an emerging trend in corporate sustainability.



# CORPORATE FUN FACTS

One of the renowned companies in Indonesia that engaged in the real estate industry discloses that they derive most of their revenues from owning 10,000 hectares with urban development projects, residential, commercial, industrial estates, and related services. Their latest sustainability report shows improvement in standards and alignment with international and national guidelines. The company also received a "Low Risk" (16.7) ESG risk rating from sustainalytics.







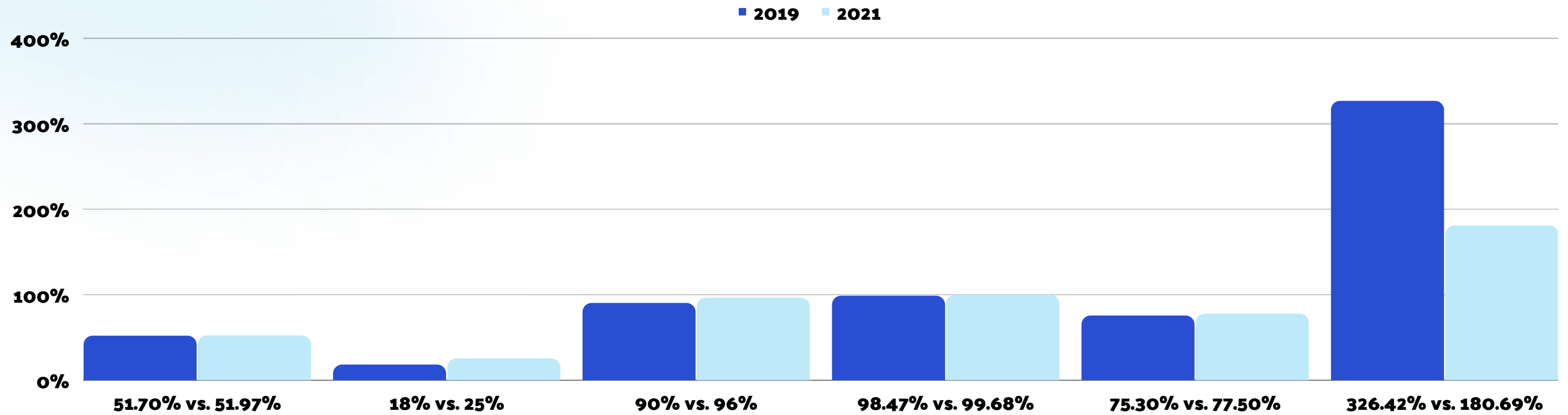
One of the top banks in Indonesia, engaged in the financial sector and becoming one of the main drivers of green financing received recognition for its sustainability efforts from MSCI Indonesia. They received a "Leader" rating in the ESG Index while being the Top Three in Indonesia. The bank is also still the holder of an A Rating from MSCI, the best rating in the industry today.

**Reference:**  
BNI. (2021). Laporan keberlanjutan: Merajut impian untuk Indonesia. Retrieved from <https://www.bni.co.id/Portals/1/BNI/Perusahaan/HubunganInvestor/Docs/SR-BNI-2021-ID.pdf>  
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# SOCIAL

## Internal Performance



**1** Female employee vs. total employees ratio.

**2** Females occupying director positions.

**3** Employee engagement level.

**4** Customer complaint resolution rate.

**5** Average training hours.

**6** Employee education & training cost.



# SOCIAL

## Social Responsibility Activities



**IDR 143 billion** per 2019  
**IDR 93 billion** per 2021

Total financing for social  
responsibility activities



**2244 SMEs** per 2019  
**1368 SMEs** per 2021

CSR program beneficiaries



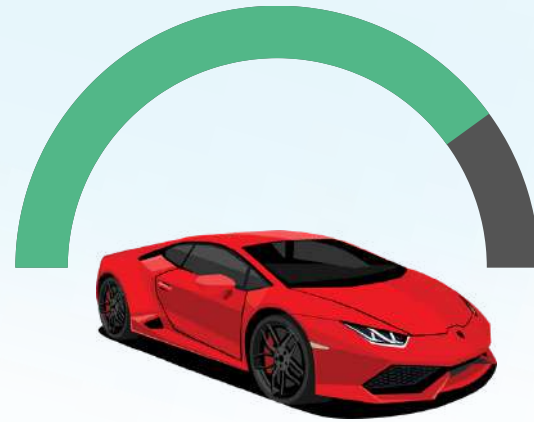
**1619 partners** per 2019  
**2042 partners** per 2021

Fostered partners



# ENVIRONMENTAL

## Internal Performance



**222.858 liters** per 2019  
**97.526 liters** per 2021  
 Fuel consumption of operational vehicles at the Head Office



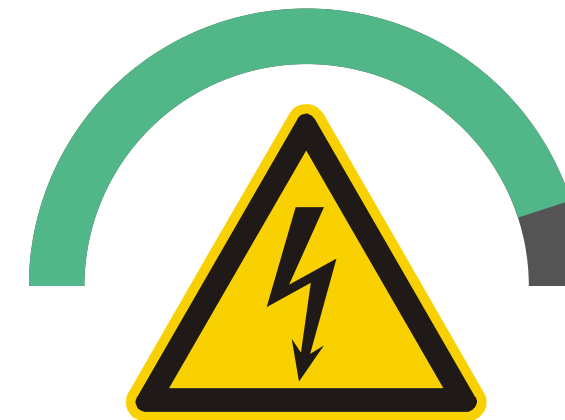
**0,08 ton CO<sub>2</sub> eq/M<sup>2</sup>** per 2019  
**0,12 ton CO<sub>2</sub> eq/M<sup>2</sup>** per 2021  
 Intensity of building emissions (yearly average)



**163.14 tons** per 2019  
**38.53 tons** per 2021  
 Paper usage



**180,047m<sup>2</sup>** per 2019  
**185.115m<sup>2</sup>** per 2021  
 Water usage



**37.674.580 kwh** per 2019  
**38.243.699 kwh** per 2021  
 Power consumption in the company's buildings at the Head Office



# ENVIRONMENTAL

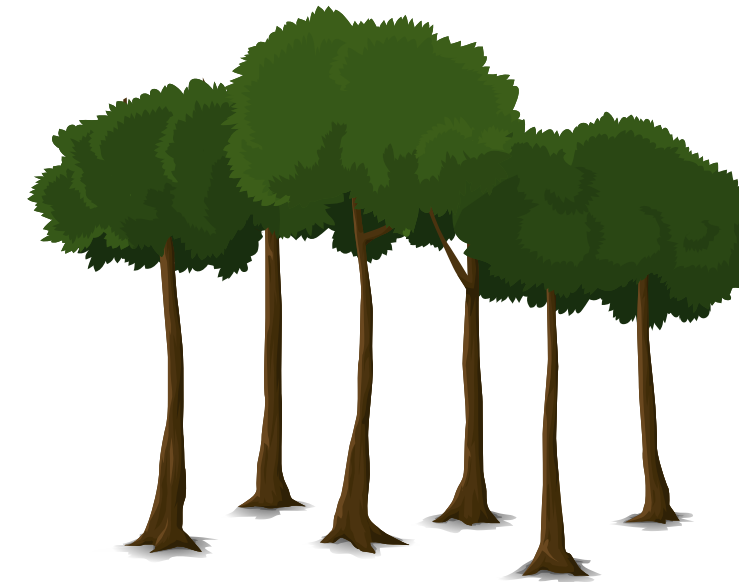
## Environmental Responsibilities Activities



Realized environmental costs:  
**IDR 28 billion**



Rhino conservation program:  
**72 animals** per 2019  
**75 animals** per 2021



**10,000 trees**  
planted in 2021



“Ayo Menabung dengan Sampah” program  
**116.328 accounts** per 2019  
**288.756 accounts** per 2021





One of the multinational companies in the consumer goods sector strives to provide positive values and benefits for all of its stakeholders, helping people through its presence in society and through products that have become part of daily life. The company received an AA (Leader) rating from MSCI Indonesia and was rated "low risk" (17.6) by Sustainalytics.



# ENVIRONMENTAL ASPECT



**3,800**  
tons of plastic content  
reduction in the product  
packaging in 2021



**24,500+**  
post-consumption plastic waste  
gathered through Waste Banks in 45  
cities/districts and 11 provinces in  
Indonesia throughout 2021



**100%**  
use of recycled plastic for the  
product bottles



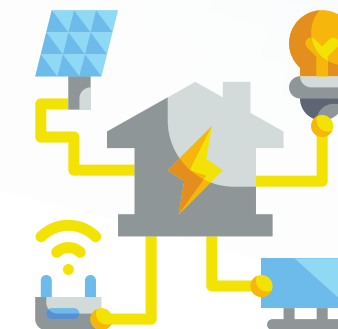
**0%**  
volume of waste  
disposed of in landfill



**29%**  
CO2 emission reduction  
for scope 1 & 2



Energy intensity of  
**0,83** GJ/tons



**27.969,72**  
GJ energy reduction



# SOCIAL ASPECT



of the packaged ice cream products contain less than 22 grams of total sugar, and 96% of the packaged ice



of the product portfolio from the Foods & Refreshment division complies with WHO nutritional standards



of the food product portfolio is in accordance with the WHO recommendation to consume less than 5 grams of salt



Total employee training:  
**26.698,97 hours**

**3 million** 

impacted communities through programs focusing on health, nutrition, sanitation, and women empowerment throughout 2021



# COVID-19 PREVENTION HANDLING



**>375.000**

product assistance consisted of personal care, hygiene, foods, and refreshment with a total value of IDR 4.6 billion



**1,300**

vaccines for scavengers



**1,423**

vaccination refrigerators with a total value of IDR 19.7 billion



# ESG AWARD COMPARATION

Sustainability Reporting is an overview of a company's economic, environmental, and social impacts, caused by its everyday activities. This reporting—presenting the company's commitment to a sustainable global economy – can help organizations measure, understand, and communicate their economic and ESG performance, set goals, and manage change more effectively. The benefits of sustainability reporting include better risk management, cost, and savings optimization, decision-making facilitation, and improved corporate confidence and reputation—toward customers as investors. In Indonesia, investors will only invest in companies that have made sustainability reports. The following are some points of analysis from the sustainability results report from industries that have carried out the ESG practices.

## Company 1 - Automotive Sector

One of the multinational companies in Indonesia engaged in the automotive sector has been doing sustainability business since 2019. The sustainability framework owned by this company is the Astra Triple-P Strategy (Portfolio, People, Public Contribution). This company's mitigation program focuses on reducing GHG emissions, saving energy, and reducing operational costs. Unfortunately, the company has not predicted how the climate effect will change business and risk management.

## Company 2 - Power Generation Sector

One of the companies in Indonesia that are engaged in the power generation sector reported its sustainability business in 2021. Areas for sustainable development consist of operations and governance, human resources, health and security, environment and climate change, and community development. The company's mitigation program focuses on energy management, waste management, water conservation, and reforestation. Despite being relatively new in reporting on the sustainability business, this company has considered how climate effects affect business, risk management, and future targets (reducing emissions and GHGs, increasing renewable energy sources, and carbon neutrality).



# LOOKING AHEAD

## NET ZERO TREND

To mitigate climate change, the government published an updated NDC for 2030, stating that Indonesia's commitment to reduce GHG emissions is 29% independent and 41% with additional contributions from the international community. The Indonesian government is committed to strengthening climate resilience by improving economic, social, and livelihood, as well as ecosystem and landscape resilience. To reach the 2030 NDC target alone, the country would need at least IDR 4.52 quadrillion (\$310 billion).

The Ministry of Finance, Sri Mulyani, has stated the urgency for the whole business ecosystem, including corporations, to commit to a green/net zero project ecosystem, hence providing the opportunity to obtain government support and funding.

This implies that mainstreaming ESG in business and projects in the future is predicted to reduce external, PR, and financial risks. Pressure for net zero begins to emerge from the market. A literature review from the Edukarir team shows that overseas customers have started requesting companies to produce environmentally friendly products. Aside from the importance of stating the percentage of energy use comes from renewable energy, there is also increasing pressure to achieve net zero.

To help achieve the business aim of making a profit while maintaining sustainability in the long term, a thorough analysis of business models, markets, and stakeholders in the application of ESG needs to be done. Meticulous ESG planning and implementation are now considered a way of de-risking--even upscaling the business.



# IT IS TIME TO GO GREEN. SWITCH TO GREEN BUSINESS WITH EDSA.



GET IN TOUCH WITH



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**EDUKARIR INDONESIA**

Menara Cakrawala

MH Thamrin Kav. 9 12th Floor Unit 05A



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