KT&G - Climate Change 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

KT&G is headquartered in South Korea and is growing as a global company beyond the domestic market with its business in tobacco, nutraceuticals, cosmetics, biopharmaceuticals, and real estate. KT&G is listed on the securities market of the Korea Stock Exchange, and its total sales were about KRW 5.85 trillion as of 2022. The breakdown of the sales share by business segment is as follows: 61.1% for tobacco, 23.7% for nutraceuticals, and 15.2% for the rest including cosmetics and real estate.

KT&G is striving to create social value and promote sustainability activities based on its corporate philosophy of 'Exemplary Company', 'Progressive Company', and 'Inclusive Company'. These values are the driving force behind our efforts to create social value as well as the basis for our various activities to strengthen sustainability. In this way, we contribute positively to society through various social initiatives and strive to fulfill our environmental responsibilities by developing eco-friendly products, saving resources, and efficiently managing energy use.

On the global front, KT&G has secured a strong foothold in over 120 countries, powered by high-quality products, robust distribution networks, and advanced marketing strategies. With manufacturing facilities strategically located in Russia, China, and Indonesia, we are well-positioned to cater to the increasing global demand.

Recognizing the implications of our diverse business operations on the environment, we proactively and strategically address issues related to climate change and greenhouse gas emissions. Our goal is to manage these factors responsibly and sustainably.

In an ever-changing market, we constantly evolve and innovate, striving for global excellence. This relentless pursuit of change and innovation, coupled with our commitment to sustainability and creating social value, augments our competitive edge and cements our status as a global market leader.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date
January 1 2022

End date
December 31 2022

Indicate if you are providing emissions data for past reporting years
No

Select the number of past reporting years you will be providing Scope 1 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 2 emissions data for
<Not Applicable>

Select the number of past reporting years you will be providing Scope 3 emissions data for
<Not Applicable>

C0.3

(C0.3) Select the countries/areas in which you operate.
Indonesia
Republic of Korea
Russian Federation
Turkey

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.
KRW

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-AC0.6/C-FB0.6/C-PF0.6

(C-AC0.6/C-FB0.6/C-PF0.6) Are emissions from agricultural/forestry, processing/manufacturing, distribution activities or emissions from the consumption of your products – whether in your direct operations or in other parts of your value chain – relevant to your current CDP climate change disclosure?

	Relevance
Agriculture/Forestry	Elsewhere in the value chain only [Agriculture/Forestry/processing/manufacturing/Distribution only]
Processing/Manufacturing	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Distribution	Both direct operations and elsewhere in the value chain [Processing/manufacturing/Distribution only]
Consumption	Yes [Consumption only]

C-AC0.6b/C-FB0.6b/C-PF0.6b

(C-AC0.6b/C-FB0.6b/C-PF0.6b) Why are emissions from agricultural/forestry activities undertaken on your own land not relevant to your current CDP climate change disclosure?

Row 1

Primary reason

Do not own/manage land

Please explain

While KT&G does not directly own any farms or farmland for tobacco cultivation, we maintain a close partnership with local farmers, buying all of the tobacco leaf produced in Korea annually for our production process. This approach positions the tobacco farmers and farms as vital links in our value chain.
To promote mutual growth and strengthen this partnership, KT&G executes various programs designed to bolster both the financial and social stability of these farmers, as well as their productivity. We believe that supporting our suppliers is a critical step towards sustainable success.
Furthermore, KT&G is a participant in the Sustainable Tobacco Program (STP). This involvement underscores our commitment to sourcing high-quality tobacco leaf from sustainable agriculture practices, aligning with our ethos of reliable and responsible sourcing.
In a concerted effort to tackle environmental impact, we also consider the cultivation and drying processes of the tobacco leaf in calculating our Scope 3 emissions. This level of environmental accounting reflects our deep-seated commitment to mitigating our impact and advancing towards a more sustainable future.

C-AC0.7/C-FB0.7/C-PF0.7

(C-AC0.7/C-FB0.7/C-PF0.7) Which agricultural commodity(ies) that your organization produces and/or sources are the most significant to your business by revenue? Select up to five.

Agricultural commodity

Tobacco

% of revenue dependent on this agricultural commodity

60-80%

Produced or sourced

Sourced

Please explain

In 2022, KT&G's revenue from tobacco, which includes cigarettes and heat-not-burn (HNB) business, accounted for 61.1%. For Korean tobacco leaf, KT&G purchases all domestic production, while overseas cigarette tobacco is purchased from countries such as the United States and Brazil.

Agricultural commodity

Timber

% of revenue dependent on this agricultural commodity

More than 80%

Produced or sourced

Sourced

Please explain

Due to the nature of KT&G's business, timber-based products such as paper are used for the main raw materials of tobacco products (e.g., filters, packaging materials, and tipping paper), and for packaging materials of nutraceuticals, pharmaceuticals and cosmetic products.

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	KR7033780008

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	KT&G firmly acknowledges the pivotal role that the formulation and implementation of ESG (Environmental, Social, and Governance) strategies play in the company's sustainable growth and value enhancement. This encompasses the critical concern of climate change. Therefore, since September 2020, we have been addressing ESG issues, including those related to climate change, at our full board meetings. To facilitate more thorough discussions, we formed an ESG committee within the board in February 2022. To solidify our commitment to adept ESG management, including climate change, an ESG Committee was instituted within our Board of Directors (BOD) in 2022. This new structure elucidates the board's roles and responsibilities in these areas and enables the development and execution of more sophisticated strategies. The ESG Committee includes one inside director and three outside directors, each with expertise and practical experience across various sectors, including ESG. This diverse assembly is designed to bolster the committee's expertise in the key areas of ESG, all while preserving the board's independence. The ESG Committee assumes the duty of scrutinizing overall corporate policies and strategic directions concerning ESG issues that were previously under the purview of the BOD. In 2022, the committee oversaw the progress of ESG management and future plans, and critically reviewed the "KT&G Report" - our disclosure document that transparently communicates ESG performance to stakeholders. Furthermore, in the first half of 2023, the committee assessed the outcomes of activities to enhance climate-related information disclosures, including the Task Force on Climate-related Financial Disclosures (TCFD) and climate change scenario analyses.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – some meetings	Reviewing and guiding annual budgets Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing and guiding scenario analysis Monitoring progress towards corporate targets Overseeing and guiding public policy engagement Overseeing value chain engagement Reviewing and guiding the risk management process	<Not Applicable>	Within KT&G, the Board of Directors (BOD) represents the highest authority for decision-making, deliberating, and ruling on significant management matters within the company. This includes reviewing and approving the company's overall annual budget, which encompasses ESG and climate change response activities. The BOD also evaluates the mid- to long-term strategy for responding to climate change, in alignment with the broader direction of ESG management. This includes approval and oversight of key tasks' execution and performance. In the year 2022, the BOD convened for a total of 12 meetings. To enhance the board's proficiency and operational efficiency, KT&G formed the "ESG Committee" in 2022. This committee undertakes reviews and deliberations on major ESG issues relating to climate change, and receives routine reports. These include the objectives and implementation of mid- to long-term ESG business plans and climate change response activities. The committee was also informed about the progress made towards meeting Science-Based Targets initiative (SBTi) emission reduction and ESG management goals, participation in international initiatives, and upcoming focal plans. Moreover, the BOD evaluated the climate change scenario analysis to understand transition risks and physical risks, their potential financial impacts, and prospective countermeasures, all the while overseeing the level of climate change disclosure enhancement. KT&G has an Audit Committee, comprised solely of outside directors, to monitor company-wide risk management. The operational regulations of KT&G's BOD and its Committees provide specifications for risk management roles, as well as their specific assignments to the board and each committee. Consequently, risks associated with climate change are reported to, and managed by, the "ESG Committee". In 2022, the audit group working under the Audit Committee scrutinized ESG risks, including those related to climate change, and reported its findings to the Audit Committee.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	In adherence to the director candidate deliberation criteria, KT&G conducts a comprehensive evaluation of each candidate's proficiency and independence. Throughout this process, we place significant emphasis on the alignment of the candidates' experience and expertise with our corporate strategies. An essential component of KT&G's mid- to long-term environmental strategy is the promotion of renewable energy for the purpose of reducing emissions. Consequently, a candidate's experiences and accomplishments in industries related to renewable energy can play a crucial role in assessing their suitability for the director position. During the director nomination procedure, our primary consideration is the candidates' experience and expertise that could offer specialized insights and perspectives on strategies to advance renewable energy as a response to climate change. This ensures that we are well equipped to make informed decisions in our efforts to mitigate climate change and further our commitment to sustainability.	<Not Applicable>	<Not Applicable>

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee
Chief Operating Officer (COO)

Climate-related responsibilities of this position
Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Providing climate-related employee incentives
Integrating climate-related issues into the strategy
Conducting climate-related scenario analysis
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities
<Not Applicable>

Reporting line
Operations - COO reporting line

Frequency of reporting to the board on climate-related issues via this reporting line
Quarterly

Please explain
KT&G's Senior Executive Vice Persident (COO/CFO) is responsible for the overall management of ESG issues, including climate change, while reviewing and managing major financial plans, investments, and budgets. In charge of responsibilities as COO and CFO simultaneously, she/he ensures that ESG issues and financial issues are handled in conjunction with each other. He directly supervises the "ESG Planning Team," which serves as the control tower for company-wide ESG management. The ESG Planning Team leads the integration and strategy implementation of KT&G's ESG issues, including climate-related issues, and establishes an company-wide ESG management system. The ESG Planning Team reports to the BOD and the ESG Committee under the BOD at least four times a year on major ESG management initiatives and plans, including climate change issue management and performance data. Through this process, KT&G ensures that the corporate business strategies and activities are continuously diagnosed and monitored, and financial and ESG strategies are closely aligned.
In this way, we ensure that the climate change risks and opportunities are fully assessed and managed and are properly integrated to our mid- to long-term business plans and budget reviews. In addition, climate-related issues are naturally reflected in our day-to-day business activities, playing an important role in setting business direction and goals, and in assessing and setting performance against ESG KPIs for key employees and the organization.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	KT&G operates a compensation policy that rewards key executives and employees based on their individual efforts and performance. The compensation is given in a way that individual performance is more actively reflected, rather than a one-size-fits-all approach. Our top executives' bonuses (short-term and long-term performance pay) are determined based on a comprehensive evaluation including advancement of ESG management and ESG implementation performance. This serves as a strong motivation for top executives to achieve our ESG goals. KT&G also operates a performance-linked equity compensation system for top executives, where a portion of the long-term performance pay is offered in shares, so that the value of the executive's compensation varies depending on the stock price at the time of compensation. This approach serves as an incentive for executives to implement management policies to enhance corporate value more actively.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive
Chief Executive Officer (CEO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Implementation of an emissions reduction initiative
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
KT&G considers both short-term and long-term performance when evaluating the CEO's management performance. We operate a sophisticated evaluation system that is divided into short-term management evaluation every year and long-term management evaluation every three years. The key performance indicators (KPIs) of the evaluation include quantitative indicators for financial performance and qualitative indicators such as strategy performance indicators directly or indirectly affecting financial performance and market performance indicators considering capital market response.
In specific, the ESG evaluation indicators include climate-related issues and evaluates the CEO's ESG performance and execution capabilities in terms of powerful global initiatives, systematic management of group-wide ESG strategies and promotion of strategic business communication contributing to sustainability. These indicators play a decisive role in determining the CEO's evaluation score, along with evaluation from major ESG rating agencies such as MSCI and CDP.
The CEO's performance is evaluated by the Evaluation Committee, a committee within the BOD, and the annual short-term incentive payment ranges from 0 to 280% of base salary, and the long-term incentive payment ranges from 0 to 600% depending on the management performance over a three-year period. This evaluation system ensures that executives are properly rewarded for their performance based on fairness and transparency.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
By incorporating progress on climate-related targets and achievements of emissions reduction initiatives such as the Science-Based Targets Initiative (SBTi) into the CEO's performance evaluation criteria, it clearly holds the CEO accountable for the climate-related impacts of the company. In this way, we can encourage and facilitate climate-related commitments and declarations into real actions, not just words. Furthermore, by including climate-related sustainability metrics in the evaluation criteria, clear and specific performance indicators can be set to serve as a baseline in terms of quantitatively measuring performance and setting detailed targets. This enables the CEO to better integrate climate-related issues into strategic decisions across the organization, which contributes to the long-term sustainability of the company with better climate and environmental performance.

Entitled to incentive
Chief Operating Officer (COO)

Type of incentive
Monetary reward

Incentive(s)
Bonus - % of salary

Performance indicator(s)
Progress towards a climate-related target
Achievement of a climate-related target
Implementation of an emissions reduction initiative
Reduction in absolute emissions
Energy efficiency improvement
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

Incentive plan(s) this incentive is linked to
Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)
For the remuneration of internal directors, we consider their ESG management performance and corporate value creation as important evaluation indicators. Their annual performance bonuses range from 0 to 165% of basic salary, and long-term performance bonuses range up to 300% of basic salary depending on the comprehensive long-term management evaluation every three years.
For evaluation of the COO's ESG management performance, KT&G has introduced metrics to evaluate advancement of company-wide ESG management level and continuous management activities, including climate change response. Also, assessment and management of climate change risks and opportunities are included as evaluation indicators which are linked to the company's performance on climate-related sustainability index. We also evaluate major environmental impact mitigation activities, such as GHGs reduction and energy consumption reduction, encouraging COO to actively pursue these activities.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan
Our incentive system holds the COO accountable for the attentive management and assessment of climate change-related risks and opportunities. This can play a pivotal role in aligning the company's strategic direction with sustainability in the face of climate change. In addition, incentives emphasize ESG performance as an important element of corporate value creation. As a result, KT&G creates social, environmental, and economic values which contribute to the long-term development of the organization and its sustainability to respond appropriately to climate change. In addition, these evaluation metrics can be aimed at improving ESG management performance, especially the level of company-wide management in response to climate change. In other words, the incentive system promotes major environmental impact mitigation activities such as GHG reduction and energy consumption reduction, and encourages the organization's energy system and emission reduction activities to be aligned with the climate transition plan.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?
Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	3	The medium- to long-term environmental management strategy includes a long-term vision to 2050. According to this, short-term is defined as 0-3 years.
Medium-term	3	5	In medium- to long-term environmental management strategy, medium-term goals and action plans have been set for 3-5 years.
Long-term	5	10	Long-term GHG reduction targets have been set for 2030, with an ultimate goal of carbon neutrality by 2050.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

KT&G has an important process in place to assess the substantial financial or strategic impact of key issues affecting stakeholders and the company. In this process, the company examines in detail the materiality of the impact of each issue and determines their prioritization.

The materiality assessment process considers three main factors: Business materiality, stakeholder materiality, and value chain impact.

Business materiality assesses how an issue affects the company's revenue, costs, reputation, and regulatory responses. For stakeholder materiality, we analyze how the company's key stakeholders - customers, investors, employees, suppliers, governments, and others - perceive and value the issue to understand stakeholder interest and importance. Finally, for value chain impact, we assess how each issue affects social, economic, and environmental performance in which parts of the business value chain.

Based on this materiality assessment, KT&G categorizes its climate change response activities as material issues, and assesses the possible impacts of climate change risks on its business in detail based on financial impact and likelihood. Although we do not set detailed figures as a criterion for determining the likelihood of impacts due to high uncertainty, we recognize the impacts of pre-identified material issues and respond to them as if they are bringing substantive impacts if they are self-evident or identified as requiring proactive responses.

In this way, the company can systematically categorize and identify risks and manage them appropriately. The assessment of ESG issues is reported to the ESG Committee within the BOD by the COO, and in accordance with the company-wide delegation guidelines and procurement regulations, major risks with potential financial impact of KRW 100 million or more are determined as having a substantive financial impact or strategic impact. This is equivalent to approximately 0.002% of the company's sales as of 2022. Through this systematic and detailed assessment and management, KT&G is continuously improving management efficiency and creating corporate value.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered
Direct operations
Upstream
Downstream

Risk management process
Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment
More than once a year

Time horizon(s) covered
Short-term
Medium-term
Long-term

Description of process
1. Enterprise Risk Management System
KT&G has established an enterprise risk management (ERM) system to identify potential risks in all areas of the business in advance, and to minimize their impact by establishing preventive measures and proactive responses. To this end, we operate the 'Risk Management Three-layer Defense Model' consisting of 'operational departments', 'field-specific dedicated departments for management', and 'independent audit departments' to realize more effective risk management.
Based on the existing risk management diagnosis conducted in 2021, we established the ERM Master Plan in 2022 and enacted the KT&G Management System (MS), our group-wide management principle, as an official company policy. By establishing a risk management system for new business and real estate investment, we laid the foundation for the establishment of ERM.
As the department in charge of risk management, the Business Management Office is continuously promoting the sophistication of group risk management by operating the controller system, the management diagnosis, and the reporting packages. We conduct regular assessments twice a year for financial and non-financial risks, and conduct irregular assessments and management when there is a change in the environmental condition or the likelihood of risk occurrence.
Dedicated organizations are set up for each type of risk, and climate change risk in particular is managed through the ESG Planning Team, which reports to the COO and ultimately to the ESG Committee in the BOD.

2. Controller System
The Business Management Office utilizes the Controller System to oversee group-wide risk management. This system enables us to objectively analyze and proactively respond to risk factors in each business division, domestic subsidiaries, and overseas corporations and branches. In order to establish and operate an effective enterprise-wide risk management system (ERM), controllers in each division are working to improve capabilities to analyze risks and opportunities, strengthen resilience, and advance the maturity of the management system. As the business scope in the group continues to expand, the scope of the controller system is also expanding and is planned to cover all divisions, including global, manufacturing, and R&D, by 2023.

3. Climate Change Risk Management Process
1) Identifying risks and opportunities: Potential climate change risks and opportunities are identified by assessing their materiality on a quantified scale based on their likelihood of occurrence and impact. This includes analyzing the likelihood under physical and transition climate scenarios, and assessing impacts in consideration of short-, medium-, and long-term time horizons, in line with TCFD recommendations.

2) Responding to risks: For example, in climate scenarios with high transition risks, the price of emission allowances in the cap-and-trade system is likely to increase, which will have a minimal impact in the short term, but will place a financial burden on companies in the medium to long term. To respond to this, the department in charge of emissions trading has established a plan for the introduction of an internal carbon pricing system and is operating the application plan accordingly.

3) Monitoring: We monitor effectiveness of risk response activities to further refine the response activities or create new responses as needed.

4) Updates and reporting: We update the watchlist and materiality assessment of climate change risks and opportunities by referring to climate change-related research data, climate/environment/energy-related policies, peer companies' response activities, and opinions from the related departments. These updates are reported to the ESG Committee to support risk management and decision-making effectively.

4. Climate Change Scenario Analysis Process
KT&G is striving to identify and manage the potential impacts of climate change on the company and its business operations. Climate change scenario analysis is conducted in a comprehensive way, involving identification and definition of climate change risks, assessment of their relevance, and selection of climate change scenarios. We further enhance the analysis by incorporating the opinions of external expert panels consisting of investment analysts, professors, and consultants, as well as implications derived from internal employee evaluations. Through this process, we measure the likelihood and impact of climate change risks under each scenario, identify major climate change risks and establish response strategies to mitigate their impacts and secure resilience. KT&G monitors key parameters such as the level of policy implementation, trends in GHG emissions, and carbon prices, and updates its climate change scenario analysis when significant changes or deviations occur in these indicators. As the physical risks are likely to be intensified due to high uncertainty regarding the global emissions reduction in 2022, we updated our climate change scenario analyses, including the 4.0℃ scenario for high physical risks.

1) Definition and identification of climate change risks: Defining climate change transition risks and physical risks, assessing climate change risk relevance and categorizing detailed risks

2) Selection of climate change scenarios: Setting change patterns and future conditions according to scenarios, and deriving forecasts of impacts according to parameters and assumptions

3) Risk assessment by scenario: Evaluating the potential impact of climate change risks by scenario, and calculating the risk level by assessing the likelihood and impact of each risk

4) Outcome of the analysis: Identifying major climate change risks based on the analysis, and deriving response strategies to mitigate the impact of major risks and secure resilience

5) Climate change-related monitoring & review on evaluation revision: Reviewing necessary revisions in scenario analyses based on climate change-related monitoring

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	KT&G is a subject entity under Emissions Trading Scheme in South Korea (K-ETS) and is required by the government to assess and report its emissions annually. Under this regulation, if we exceed our government-allocated allowances, we are required to meet them through internal reduction activities or purchase additional allowances. These activities may result in the increased cost of purchasing allowances or additional investments required for reduction activities, which could affect our financial condition. In addition, if we fail to meet the obligations, we may be subject to fines, which could have a material adverse impact on our corporate image and reputation. According to the scenario analysis, KT&G has identified the potential for carbon prices to spike under the climate scenarios bearing high transition risk, which could significantly increase operating costs if allowances need to be purchased additionally. Therefore, KT&G thoroughly manages its annual energy use and GHG emissions across the company, and strives to reduce emissions and mitigate the risk of rising carbon prices through mid- to long-term targets and investments.
Emerging regulation	Relevant, always included	The government of South Korea is setting forward-looking environmental policies at the national level based on the Long-term Low Greenhouse Gas Emission Development Strategies (LEDS), which aims to achieve carbon neutrality by 2050. This is an important milestone for KT&G as a major company, and further emphasizes the significance of its long-term, strategic carbon reduction efforts. These governmental policies, including the LEDS, provide practical requirements and standards for the purpose of reaching carbon neutrality at the national level, which implies introduction of ever more stringent environmental regulations for the company. In particular, the higher the transition risk in response to climate change, the more intense the regulations will be, and the faster the pace of change is expected to be. KT&G has a global supply chain through its worldwide activities. This involves international sourcing of raw materials, export of products, and various business activities, which raises the need to respond to climate change-related regulations in various countries. In this sense, it is crucial to understand and adapt to various regulatory frameworks and requirements in different countries which will have a significant impact on KT&G's business operations. The enactment of new environmental regulations may result in additional investment and operating costs for KT&G. This will include the introduction of new facilities to comply with regulations, the development and application of new technologies, and various activities to reduce emissions. However, these changes are not only a burden, but also an opportunity to strengthen our competitiveness through efficient energy management, sustainable sourcing of raw materials, and the development of eco-friendly products and services.
Technology	Relevant, always included	Technology sits at the intersection of climate change and corporate influence, and its impact is profound. In addition, the introduction of new technologies can bring significant impact in the event of high transition risks, while it can also be a driver to provide various opportunities. This is why it is important to clarify and understand the complex relationship between technology and business. Accurate analyses and decisions on technology investments can be critical to future competitiveness. For example, if we invest in outdated technologies due to an inappropriate technology analysis, we may miss out on the efficiencies and economic values that could have been offered by new technologies, which can undermine future competitiveness of the company. On the other hand, an appropriate analysis and selection of technologies will serve as an opportunity factor that helps to increase price competitiveness by bringing various benefits such as significant savings in energy costs and reduced manufacturing costs. In this context, KT&G carefully manages the risks associated with technology. This involves not only assessing the potential risks of introducing new technologies, but also analyzing the positive impact in terms of climate change responses and work efficiency. As a result, KT&G continues to invest in technologies that can improve energy efficiency or reduce the carbon impact of our products. In particular, recognizing the importance of technology investment, KT&G focuses on developing eco-friendly products and improving manufacturing processes. In doing so, we aim to operate a sustainable business, which is an important part of KT&G's climate change response strategies. These efforts support our goal of mitigating climate risks while actively capitalizing on new opportunities to address climate change.
Legal	Relevant, always included	Compliance with laws and legal frameworks is one of the most fundamental factors when it comes to corporate activities. It is integral to business, ensuring the company's quality and reliability. In compliance with the recommendation of the Task Force on Climate-related Financial Disclosures (TCFD), we focus on systematically identifying and managing climate change risks. In doing so, we have identified litigation risk as not being a high level risk factor, but we nevertheless recognize that any form of legal violation can carry a range of potential liabilities, from fines to operational restrictions. Accordingly, KT&G regularly reviews its compliance with laws and remains vigilant in ensuring that it meets legal requirements. In addition, KT&G is building a more rigorous environmental management system at the company-wide level. This goes beyond simply complying with the legal requirements of the countries where we operate, and focuses on setting and implementing higher standards of environmental protection. We continuously monitor the compliance of our operations with these strict environmental management systems and take timely improvement measures. Through these efforts, KT&G is fulfilling its corporate social responsibility, which is a key part of its sustainable business operations strategy. By setting and practicing high standards for legal compliance and environmental protection, we are steering our business in a more stable and sustainable direction.
Market	Relevant, always included	The impact of climate change on markets is diverse and deserves to be explored in depth. In particular, there are two main risks: physical risks and transition risks. For physical risks, the first notable change is the impact of climate change on tobacco leaf crops. As the climate changes, tobacco leaf production can become unstable, which leads to additional risks to raw material sourcing. As climate risk intensifies, fluctuations in yields increase the cost of procuring raw materials, which in turn increases the cost of producing tobacco products. Next, transition risks focus on changes in policy, legislation, and technology in an attempt to respond to climate-related risks. Strengthened regulations of land and forest use, or the stricter land use guidelines, could restrict availability of land for growing crops, resulting in increased competition for farmland. This affects the cost of producing raw materials for farmers, which can lead to reduced product margins or pressure to increase unit prices. In addition, changing consumer behavior patterns further complicate market risks. As consumer preference for low-carbon products increases, companies will be required to make changes in their product development and marketing strategies. While these changes can provide new opportunities, they also increase risks to existing product lines. As such, climate change affects our business environment in a variety of ways, and we need to systematically manage and respond to these risks. In this way, we can continue to enhance our corporate value in a changing market environment. This approach plays an important role in planning and executing our business strategy, taking into account the various factors related to climate change.
Reputation	Relevant, always included	KT&G recognizes the changing awareness and growing expectations of consumers and key stakeholders on climate change. They are increasingly interested in corporate environmental activities, especially low-carbon transition and environmental impact mitigation efforts, and the impact of these activities on corporate reputation are ever more increasing. To respond to these changes, KT&G is thoroughly assessing and managing climate-related reputational risks, considering them as a material factor that can affect the company's long-term performance. Our climate change scenario analyses show that the awareness and perspectives of various stakeholders, including customers, investors, NGOs, and our employees, are constantly changing, and highlight how inadequate responses to these changes can negatively impact a company's credibility and consumer preferences.Accordingly, KT&G publishes the KT&G Report (Sustainability Report) every year, and in the process, we listen to the opinions of various stakeholders and endeavor to reflect their interests and expectations. This allows us to increase transparency on our climate change-related activities, maintain healthy relationships with our stakeholders, and continue to enhance our positive reputation by strengthening our efforts to protect the environment.
Acute physical	Relevant, always included	Considering the severity of climate change under the International Panel on Climate Change (IPCC)'s Representative Concentration Pathways (RCPs), KT&G systematically assessed short-term physical risks under RCPs 2.6, 4.5, and 8.5 in accordance with the TCFD's recommendations. From the assessment, changes in climate phenomena and the resulting potential risks have been analyzed by each time horizon. Climate change-induced extreme natural disasters, such as typhoons and floods, can affect not only KT&G's production facilities and warehouses, but also its logistics network and major agricultural crops. Considering these potential risks, KT&G has established disaster recovery and emergency response plans for each of its business sites. These plans include a unique risk assessment system that identifies and evaluates potential risk factors at each site. To help us recover more quickly, we have created context-specific recovery manuals at all our sites. These manuals help us minimize damage to our operations, farms, and logistical networks by enabling us to timely respond to disasters. Finally, KT&G is providing financial support to major domestic tobacco leaf farmers to help them quickly recover from damage caused by natural disasters. In this way, we ensure the stable operation of the farmers and minimize the instability of raw materials supplies due to natural disasters.
Chronic physical	Relevant, always included	We have conducted a scenario analysis in accordance with the TCFD's recommendations and found out that chronic physical risks from climate change are a major factor that could have a significant impact on KT&G's entire supply chain and value chain. The chronic physical risks are manifested in phenomena such as changes in precipitation, temperature changes, and water scarcity, which could affect the cultivation of tobacco leaf gradually and decisively in a long term. KT&G utilized the World Resources Institute's (WRI) Water Risk Atlas to assess the physical risks of its domestic and international operations. From the assessment, operations in Indonesia and Turkey have been identified to face high water risks. Based on the assessment results, KT&G is taking steps to reduce water risks. This includes establishing and implementing efficient water use strategies, developing technologies for efficient water use in crops, and working with communities to improve water resource management. In this way, KT&G is preparing for the chronic physical risks of climate change and continuing its efforts to minimize their impact.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Risk 1

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
The carbon price system which has an impact on the company is Korea Emission Trading Scheme (K-ETS). K-ETS is an emission trading system in which the government allocates annual emission allowances to companies so that they are required to emit GHGs within the allocated limits, and any surplus or deficit of emissions can be traded through the carbon market. As of 2022, KT&G operates approximately 170 sites and 500 facilities that are subject to submitting emissions data under K-ETS regulations, and consequently, the process of data input, verification, and aggregation may require considerable time, posing a risk to the timeliness and accuracy in acquiring data for compliance with the regulations.
The risk assessment based on climate change scenario analysis revealed that the carbon pricing system poses the highest level of risk in the 1.5°C scenario (IEA NZE 2050) by 2030. However, in the long term, by 2050, it is observed that the risk level tends to decrease to some extent due to emission reductions. Additionally, among the 13 transition risks, carbon pricing-associated risks were found to be the most significant.
As of 2022, the market price of emission allowances in South Korea has shown a wide fluctuation, ranging from KRW 12,500 to a KRW 32,700 per ton. In addition, the total emission allowances are expected to be reduced according to the national carbon neutrality roadmap and policy framework, resulting in an increase in allowance price in the future, exacerbating potential financial risks. In particular, the IEA NZE 2050 Scenario, which assumes high transition risks, predicts a carbon price of USD 130 in 2030, which could further amplify the financial impact driven by carbon pricing.

Time horizon
Short-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
14985000000

Potential financial impact figure – maximum (currency)
20888000000

Explanation of financial impact figure
The price of emission allowances is highly volatile in Korea without a clear trend, leading to high uncertainty in price forecasts. We applied a climate scenario analysis model to conduct our own carbon price forecast based on the scale of the transition risk and estimated the potential financial impact based on the comparison with KT&G's emissions predicted based on the SBTi 1.5°C-aligned pathway.
As a result, it was analyzed that a financial impact ranging from KRW 14.9 billion to KRW 20.8 billion would occur in the third planning phase of the emission trading scheme (2022-2025).
1. Scenarios with high transition risk (2022-2025): 422,786 tCO2eq (Emissions based on SBTi 1.5°C-aligned pathway) * Carbon price forecast based on IEA NZE scenario = KRW 20.8 billion
2. Scenarios with low transition risk (2022-2025): 422,786 tCO2eq (Emissions based on SBTi 1.5°C-aligned pathway) * Carbon price forecast based on IEA STEPS scenario = KRW 14.9 billion

Cost of response to risk
9381000000

Description of response and explanation of cost calculation
Risk Management Directions:
KT&G is conducting investment activities for energy efficiency improvement and renewable energy promotion to reduce its GHG emissions and mitigate the potential cost of emission allowances. In 2022, KT&G has invested KRW 9.38 billion in installing rooftop solar power facilities and FEMS (Factory Energy Management System) to achieve emissions reduction, and the related investment expenses are as follows:

Investment in energy efficiency improvement: KRW 3,877,000,000
FEMS establishment : KRW 1,615,000,000
LED light installation: KRW 260,000,000
Rooftop solar power facilities: KRW 1,000,000,000
Water saving and other environment-related improvements: KRW 2,629,000,000

Comment

Identifier

Risk 2

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Market	Increased cost of raw materials

Primary potential financial impact
Increased direct costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Associated with changes in weather patterns and crop cultivation seasons, climate change can impact the production and cost of raw materials such as tobacco leaves. Moreover, intensified competition for high-quality tobacco leaf due to deteriorated quality of resources or decreased quantity of yields may lead to further cost increases. In the event of disruptions in raw materials supplies, along with these factors combined, production costs can be increased, negatively affecting KT&G's profitability and overall financial performance.
KT&G's risk assessment based on climate change scenario analysis has shown that the risk level of increasing raw material costs was identified to be highest in the 1.5°C scenario among the three scenarios considered, contrary to transition risks expected to be relatively mitigated in high-temperature scenarios.
Over the past ten years, KT&G's tobacco leaf purchases have amounted to approximately KRW 300 billion on average, which fluctuated in the range of 1% to 30%, with an average fluctuation of around 10%. Tobacco purchase costs require careful management as a significant financial indicator for KT&G, accounting for about 10% of its sales revenue.

Time horizon
Medium-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
15223000000

Potential financial impact figure – maximum (currency)
60894000000

Explanation of financial impact figure
Over the past 10 years, the average leaf tobacco purchase amount is approximately KRW 300 billion. Various climate change-induced factors could lead to changes in tobacco production and supply chain dynamics, and other miscellaneous factors could increase the unit price of tobacco leaf. These factors could impact the procurement process, leading to a potential overall cost increase. Considering the financial impact of fluctuations in tobacco leaf unit price, we set the range of potential financial impact on 10-year average tobacco leaf purchase costs at 5% to 20%. The potential financial impact is assessed based on the criteria as follows:

i) Potential financial impact figure – minimum
- 10-year average leaf tobacco purchase cost: KRW 30,447.4 million * 5% = KRW 15,223,000,000

ii) Potential financial impact figure – maximum
- 10-year average leaf tobacco purchase cost: KRW 30,447.4 million * 20% = KRW 60,894,000,000

Cost of response to risk
280000000

Description of response and explanation of cost calculation
Risk Management Directions:
- Sustainable Agriculture:
We collaborate closely with growers and suppliers to broaden the use of sustainable agricultural practices, such as soil conservation and water efficiency. By implementing these strategies for sustainable raw material sourcing, we aim to ensure a robust and stable supply chain.

Response Cost Calculation:
(1) KT&G bolsters the sustainability of farmers through various support activities targeting domestic leaf tobacco farmers. Notably, we provide assistance for the distribution of exhaust heat fuel reduction devices, enabling farmers to cut back on their fuel consumption. This approach not only helps reduce fuel costs but also contributes to lowering carbon emissions. The amount allocated to such farmer support activities is approximately KRW 100 million. Through these efforts, KT&G not only aids in securing the economic stability of farmers but also enhances environmental sustainability.

(2) Introduction and Operation of STP:
KT&G is a participant in the Sustainable Tobacco Programme (STP), a joint assessment platform devised by major global tobacco manufacturers. The STP aims to manage and fortify environmental and social impacts, facilitating the stable sourcing of high-quality leaf tobacco grown using sustainable agricultural practices. The annual cost of participating in the STP, which is treated as an administrative expense, is KRW 180 million.

Cost Calculation: (1) + (2) = KRW 280,000,000.

Comment

Identifier
Risk 3

Where in the value chain does the risk driver occur?
Direct operations

Risk type & Primary climate-related risk driver

Acute physical	Heavy precipitation (rain, hail, snow/ice)

Primary potential financial impact
Decreased revenues due to reduced production capacity

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
According to KT&G's climate change scenario analysis, heavy rainfalls and floods are identified as prominent physical risks based on several scenarios, including the 4.0°C scenario (RCP8.5). As physical climate change intensifies, with the influence of Korea's unique climate - a peninsular climate where maritime and continental climates meet -, torrential rainfalls are increasing especially in the summer season. This increases the risk of floods in South Korea, where KT&G's major operations are located.
These heavy rains can cause damage to business premises, production facilities, and transportation networks, which can disrupt production and logistics systems, significantly impacting the company's business continuity. Furthermore, severe flooding poses a direct threat to the safety of our employees and can damage crops and agricultural land for tobacco leaf farmers, negatively impacting the supply of raw materials.
KT&G's domestic production capacity is approximately 5.6 billion packs per year, and heavy rainfalls can lead to a decrease in its production capacity in case of damages to the operation of facilities.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
90972000000

Potential financial impact figure – maximum (currency)
454863000000

Explanation of financial impact figure
KT&G's domestic operations have the capacity to produce approximately 5.6 billion packs of cigarettes per year. We estimated the potential financial losses in case of facility damages and operation disruptions due to heavy rainfalls. The financial impact was calculated based on the expected loss in production outcome due to the operation disruptions.
Given the impact of production capacity and operating ratio on production outcome, the minimum facility damage rate was set at 30%. For damages exceeding the criteria, the number of days of downtime (minimum 3 days, maximum 15 days) is applied to estimate production loss.
Accordingly, if our major domestic operations suffer damage from heavy rainfalls, a potential financial impact ranging from KRW 90.9 billion to KRW 454.9 billion is expected to occur.

i) Minimum financial impact = Facility damage rate (30%) * Daily production capacity * Minimum number of days of downtime (3 days) * Consumer price of the tobacco product
ii) Maximum financial impact = Facility damage rate (30%) * Daily production capacity * Maximum number of days of downtime (15 days) * Consumer price of the tobacco product

Cost of response to risk
1158000000

Description of response and explanation of cost calculation
Description of Response
- Operating contingency plans and enhancing facility resilience
We invest in flood-prevention facilities to protect our production facilities in the event of heavy rain and flooding near the business sites. This may include facility investments such as introducing flood-proof designs, installing water-proof walls, and strengthening drainage systems. In addition, our contingency plans cover evacuation plans, alternative production plans, and emergency response training in the event of disasters, ensuring employee safety and business continuity in our operations.

Cost Calculation for Response
- Costs incurred in 2022 include investment expenses in enhancement of hazardous risk facilities and maintenance costs related to disaster management.

Comment

Identifier
Risk 4

Where in the value chain does the risk driver occur?
Upstream

Risk type & Primary climate-related risk driver

Chronic physical	Changing temperature (air, freshwater, marine water)

Primary potential financial impact

Increased indirect (operating) costs

Climate risk type mapped to traditional financial services industry risk classification
<Not Applicable>

Company-specific description
Temperature changes can have an impact on the growth of tobacco crops, the primary raw materials for KT&G. This could potentially lead to a decrease in harvest yields, requiring a shift in the suitable geographic locations for cultivation. Consequently, in the long term, the current supply chain system may face challenges in sourcing high-quality raw tobacco. In addition to its effects on agriculture, temperature changes can increase the energy consumption for heating and cooling in KT&G facilities, ultimately raising operational costs. Moreover, high temperatures can pose risks to the health and productivity of outdoor workers, leading to an overall decline in productivity. Furthermore, extreme weather events related to temperature changes, such as heatwaves, may also disrupt transportation and logistics.

Time horizon
Long-term

Likelihood
Likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
26590000000

Potential financial impact figure – maximum (currency)
132952000000

Explanation of financial impact figure
KT&G sources its raw material for cigarettes, leaf tobacco, from various countries including Brazil, India, Tanzania, and Malawi. Under a climate change scenario of a 4.0°C increase (RCP8.5 scenario), these countries are considered to be susceptible to the risk impacts of temperature change. Therefore, the long-term procurement costs of foreign leaf tobacco carry increased uncertainty due to these factors.

Over the past decade, taking into consideration a maximum price fluctuation of 10%, a 10% increase in the unit price of foreign leaf tobacco as of 2022 would result in an approximate 8% increase in the overall leaf tobacco procurement cost. Should the unit price surge by 50%, the total cost of leaf tobacco would escalate by around 40%.

i) Minimum financial impact = The additional cost of procuring leaf tobacco in the event of a 10% increase in the unit price of foreign leaf tobacco (based on 2022 purchase price).
ii) Maximum financial impact = The additional cost of procuring leaf tobacco in the event of a 50% increase in the unit price of foreign leaf tobacco (based on 2022 purchase price)

Cost of response to risk
71880000000

Description of response and explanation of cost calculation
Risk Management Direction
- Securing Domestic Leaf Tobacco for Raw Material Supply Stability
To manage the variability of foreign leaf tobacco prices and to secure a cost-effective procurement strategy, KT&G procures its entire volume of raw materials from domestic leaf tobacco. This approach greatly aids our cost management efforts and reduces our exposure to the volatile leaf tobacco market.

Calculation of response cost
(1) KT&G is fully committed to sourcing leaf tobacco from domestic farmers. This not only offers a more predictable cultivation environment for the farmers but also stabilizes the purchase prices and ensures a steady supply of raw materials. In 2022, our expenditure on domestic leaf tobacco reached approximately KRW 71.7 billion. This significant investment guarantees the stability of our raw material procurement and embodies our commitment to fostering a symbiotic relationship with domestic leaf tobacco farmers.

(2) Introduction and Operation of STP
KT&G participates in the Sustainable Tobacco Programme (STP), a joint assessment platform developed by leading global tobacco manufacturers to manage and mitigate environmental and social impacts. The STP helps us to consistently source high-quality leaf tobacco grown using sustainable agricultural practices. We allocate KRW 180 million annually to participate in the STP, which we account for as an administrative expense.

Cost calculation: (1)+(2) = 71,880,000,000

Comment

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?
Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier
Opp1

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Products and services

Primary climate-related opportunity driver
Shift in consumer preferences

Primary potential financial impact
Increased revenues resulting from increased demand for products and services

Company-specific description
The emergence of 'Greensumers,' consumers preferably opting for green products, indicates that environmental values of products and services are becoming increasingly crucial behind consumers' purchasing behaviors. As such, a number of companies are introducing eco-friendly elements throughout the value chain including production process and distribution, as well as developing green products.
In particular, consumers corresponding to the Millennials and Generation Z, which will become the main purchasing power in the future, tend to consider eco-friendly values more than previous generations. They prefer products from eco-friendly companies, products with eco-friendly packaging materials, and recyclable or biodegradable products.

(Company-specific description) KT&G has been actively undertaking initiatives to enhance the eco-friendliness of its products across the entire value chain, a strategy developed in response to evolving consumer needs. One such initiative involves operating a specialized organization dedicated to eco-friendly research within its R&D headquarters. Furthermore, KT&G recently set up the New Material Development Team, a unit that is under the direct supervision of the head of the General Division, to amplify efforts in research and business reviews of non-plastic, eco-friendly filters.
KT&G and Kolon Industries have jointly developed an eco-friendly material known as Lyocell fibre. Notably, this material exhibits superior biodegradability—it decomposes after disposal through a process that simply dissolves natural pulp extracted from trees, with no chemical modifications needed.
Looking forward, KT&G plans to research various materials that can lessen environmental impact, focusing on alternative, eco-friendly materials such as paper filters. In the mid to long-term, the company aims to expand its investments to develop eco-friendly technologies from a product life cycle perspective.
In alignment with these green initiatives, KT&G has established its own guidelines for green procurement. These guidelines, encompassing targets, scope, and procedures, are applied to the procurement of materials such as leaf tobacco for cigarette production and next-generation products. The priority is to purchase eco-friendly materials made from recyclable sources.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, an estimated range

Potential financial impact figure (currency)
<Not Applicable>

Potential financial impact figure – minimum (currency)
14848000000

Potential financial impact figure – maximum (currency)
68455000000

Explanation of financial impact figure
If KT&G succeeds in creating appealing products for consumers whose purchasing patterns are changing, this could become a differentiation factor compared to competing products in the market. However, it is challenging to clearly establish a correlation between various criteria for consumers to decide purchases and sales for major KT&G products. The financial impact was calculated by assuming sales impact of changes in consumer preferences in 2025 based on the 1.5°C and 2.0°C scenarios. The minimum financial impact was calculated based on the 2.0°C scenario, where transition of consumer awareness is relatively unlikely, and the maximum financial impact was calculated based on the 1.5°C scenario, where consumer awareness transition is more significant.

[Calculation of financial impact based on consumer preference changes]
Revenue impact = Current revenue * Preference shift in %
Cost impact = Current cost * Cost increase
Net impact = Revenue impact - Cost impact
i) Potential financial impact figure (minimum): Financial impact based on changes in consumer preferences in the 2.0℃ scenario.
ii) Potential financial impact figure (maximum): Financial impact based on changes in consumer preferences in the 1.5℃ scenario.

Cost to realize opportunity
1000000000

Strategy to realize opportunity and explanation of cost calculation
To meet the demand for changing consumer preferences for eco-friendly products and reduce the environmental impact of its products, KT&G is promoting the application of 100% recyclable packaging materials by 2025, research and development of eco-friendly materials applicable to its products, and green purchases of materials such as paper filters and paper materials. As for the costs being invested to realise these opportunities for changing consumer preferences, total R&D expenses in 2022 were approximately KRW 22.8 billion, of which approximately KRW 1 billion was invested in research to enhance product eco-friendliness.

Comment

Identifier
Opp2

Where in the value chain does the opportunity occur?
Direct operations

Opportunity type
Energy source

Primary climate-related opportunity driver
Use of lower-emission sources of energy

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
(Company-specific description) KT&G is actively pursuing a transition to renewable energy to achieve its RE100 goal by 2030 and reduce GHG emissions. To accomplish this, the company is exploring various forms of renewable energy adoption and plans to promote the use of green energy. KT&G aims to secure renewable energy in a stable manner through the purchase of Renewable Energy Certificates (RECs) and entering into Power Purchase Agreements (PPAs) for direct power procurement.
As a result of such efforts to promote renewable energy, the share of renewable energy in KT&G has increased from 0.1% in 2020 to 15.6% in 2022.
The International Energy Agency (IEA) provides information on electricity prices and energy prices based on different climate change scenarios, which helps us estimate scenario-specific energy costs. Especially considering the accelerated transition towards a low-carbon economy, various governmental policies could be activated, focusing on subsidies and incentives for expanding the use of renewable energy. We can take advantage of such policies and support strategically, contributing to saving energy costs.
Among various strategies, governmental policies and incentive programs aimed for the transition to a low-carbon economy play a crucial role in enhancing energy efficiency. These policies can help reduce financial barriers associated with the adoption of renewable energy technologies. A number of markets have been actively promoting the commercial use of renewable energy technologies by means of subsidies, and this trend is expected to continue later on.

Time horizon
Medium-term

Likelihood
Very likely

Magnitude of impact
Medium-high

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
6020000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
We estimated the investment costs for renewable energy expansion and energy efficiency improvement by 2030 and the resulting return on investment from reduced emissions and energy consumption.
ⓐ. Investment costs for renewable energy expansion in Korea (solar power facilities, PPA, etc.) Total: KRW 28.83 billion
ⓑ. Reduced costs of electricity bills and allowance purchases: KRW 34.95 billion
Potential financial impact (return on investment (ⓑ-ⓐ)): KRW 6.02 million

Cost to realize opportunity
28830000000

Strategy to realize opportunity and explanation of cost calculation
KT&G has set a goal to expand the use of renewable energy by 2030 and has developed a specific and feasible plan to realize this goal. The plan aims to expand the procurement of renewable energy through various methods such as expanding solar power generation facilities at business sites, signing PPA, and purchasing RECs. These efforts will continue to advance KT&G's environmentally friendly business model while contributing significantly to the achievement of corporate green goals. While each method is important on its own, the impact is maximized when they are combined with each other. Solar power facilities generate energy directly, PPA contracts secure renewable energy supplies, and REC purchases help to further expand the use of renewable energy.
To realize this multifaceted renewable energy procurement plan, KT&G has planned an investment of KRW 28.83 billion, which will ensure enough funds to meet its broad environmental goals and overcome potential challenges. This investment will enable KT&G to take a step towards a sustainable future by expanding the use of renewable energy.
- Opportunity realization cost: KRW 288.3 billion, including investment costs for solar power facilities and REC-related costs

Comment

Identifier
Opp3

Where in the value chain does the opportunity occur?
Downstream

Opportunity type
Resource efficiency

Primary climate-related opportunity driver
Use of recycling

Primary potential financial impact
Reduced indirect (operating) costs

Company-specific description
(Company-specific description)
1. Reducing social costs through the use of recyclable packaging materials
KT&G is continuously striving to enhance the environmental friendliness of its product packaging. In an effort to eliminate unnecessary packaging and transition to eco-friendly materials, we have removed packaging paper from all domestic NGP sticks as of May 2022, and replaced the inner lining from aluminium laminated paper to paper. Furthermore, we have completed the transition of the outer packaging material for the NGP device gift box from polyolefin to LDPE (Low Density Polyethylene), a recyclable material, and are promoting the switch of the cable fixing band material in the gift box from polypropylene to paper.

2. Reducing social costs through recycling of device materials

Throughout 2022, KT&G collaborated with TerraCycle, a global recycling innovator, to establish an operational process for recycling device materials and identify certified recyclers. In December 2022, we launched a pilot for lil-cycle, a material recycling project for waste devices, and from May 2023, we began earnestly implementing the project for devices that have been received and exchanged at the A/S center.
Four types of materials can be recycled from waste devices: plastics, batteries, PCBs, and metals. KT&G has established and operates a step-by-step recycling process for these materials.
In December 2022, we piloted the collection and recycling of approximately 100kg (equivalent to 1,000 devices), of which 95kg (or 95% of the substances) was successfully recycled. In the first half of 2023, we completed material recycling for approximately 3,110kg (equivalent to 26,000 devices), and we are closely reviewing this high-volume operation for potential improvements.

Time horizon
Short-term

Likelihood
Likely

Magnitude of impact
Medium

Are you able to provide a potential financial impact figure?
Yes, a single figure estimate

Potential financial impact figure (currency)
1900000000

Potential financial impact figure – minimum (currency)
<Not Applicable>

Potential financial impact figure – maximum (currency)
<Not Applicable>

Explanation of financial impact figure
KT&G estimates the social cost savings derived from recycling by assessing the environmental impact of waste alongside the cost associated with each disposal method. In 2022, we utilized approximately 43,750 tonnes of recyclable packaging, resulting in a savings of about KRW 1.9 billion in social costs through recycling.

Cost to realize opportunity
180420000000

Strategy to realize opportunity and explanation of cost calculation
KT&G has established and operates mid- to long-term goals for managing product eco-friendliness, including expanding the recycling of product packaging materials and device materials. To facilitate recycling from a consumer perspective, KT&G plans to use packaging made solely from recyclable sources for products manufactured by 2025.

In 2022, the value of KT&G's procurement of recyclable packaging materials is approximately KRW 180 billion, which is considered to be the cost associated with achieving the corresponding reduction in societal costs

Comment

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

Yes, we have a climate transition plan which aligns with a 1.5°C world

Publicly available climate transition plan

Yes

Mechanism by which feedback is collected from shareholders on your climate transition plan

We have a different feedback mechanism in place

Description of feedback mechanism

KT&G actively collects feedback on environmental, social, and governance (ESG) matters, as well as climate change, through continuous communication with key stakeholders. We recognize investors, including shareholders, as significant stakeholders whose views and feedback play a crucial role in our company's transition plan.

In preparation for our sustainability report, the KT&G Report, we conduct stakeholder surveys to gather and consider the perspectives of our shareholders and investors. These surveys act as a platform to solicit feedback on key topics such as the results of KT&G's climate change scenario analysis, our roadmap towards future carbon neutrality, and plans for emissions reduction.

We also provide opportunities for shareholders to pose questions about the company's transition plan. This allows us to address their concerns and enhance communication. We engage in domestic and international non-deal roadshows (NDRs) and participate in various conferences organized by securities firms to directly respond to investor queries about our company and comprehend their needs. Additionally, we occasionally host company-tour IR meetings and conference calls for domestic and international institutional investors and analysts. Our executives personally attend these meetings to communicate with investors when necessary. Through this approach, we can better understand our shareholders' expectations and concerns, enabling us to develop and implement a climate change response strategy that caters to them.

Frequency of feedback collection

Annually

Attach any relevant documents which detail your climate transition plan (optional)

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

<Not Applicable>

Explain why climate-related risks and opportunities have not influenced your strategy

<Not Applicable>

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy	Primary reason why your organization does not use climate-related scenario analysis to inform its strategy	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future
Row 1	Yes, qualitative and quantitative	<Not Applicable>	<Not Applicable>

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios: IEA NZE 2050	Company-wide	<Not Applicable>	KT&G has performed a detailed climate change scenario analysis in accordance with the recommendations of the TCFD. We utilized the assumptions and key variables from the IEA's Net Zero Emissions by 2050 Scenario (NZE 2050), which considers a 1.5℃ temperature rise and transition risks. For further examination of the 2.0℃ and 4.0℃ temperature rise scenarios, we adopted the IEA's Announced Pledges Scenario (APS) and Stated Policies Scenario (STEPS), respectively. The scenario analysis focused on KT&G's strategic planning timeframes: 2025, 2030, and 2050. During the exploratory scenario analysis, we performed both qualitative and quantitative analyses, including a financial impact assessment, by applying measurable elements such as carbon prices and energy efficiency improvements. The main assumptions employed in the climate change scenario analysis span a wide array of areas, including policy, energy, legal issues, technology, markets, and reputation. Parameters used in the scenario analysis encompass carbon prices, energy intensity per GDP, levels of technological advancement of CCUS and ESS, unit prices of renewable energy sources, and the costs of electric vehicles and hydrogen technologies. Here are the detailed, scenario-specific assumptions: 1.5℃ scenario: This scenario envisions an immediate global transition to a carbon-neutral economy, anticipating a temperature rise of less than 1.5℃ in alignment with the Paris Agreement. It assumes that collective efforts are undertaken to curb emissions and that key global actions are aimed at achieving carbon neutrality. The carbon price is set at $50 for 2025, $130 for 2030, and $250 for 2050. 2.0℃ scenario: In this scenario, policies are established to meet declared national emissions reduction targets. However, no additional advanced policies are put into place, resulting in a temperature rise of 2.0℃ or more. Policies are deployed in a relatively modest and sustained manner, and the frequency and impact of physical risks are slightly more pronounced. The carbon price is set at $45 for 2025, $115 for 2030, and $200 for 2050. 4.0℃ scenario: This scenario projects a temperature rise of 4.0℃ or more, considering only the effects of current policies and actions. Transition risks are relatively low due to the absence of policy actions, while physical risks from climate change are frequent and more extreme. The carbon price is set at $30 for 2025, $65 for 2030, and $90 for 2050.
Physical climate scenarios: RCP 8.5	Company-wide	<Not Applicable>	Due to the heightened uncertainty surrounding the extent of global GHG emission reductions, there's a growing probability that future physical risks will intensify. Therefore, we've updated our climate change scenario analysis to incorporate the 4.0℃ scenario, which forecasts significant physical risks. To this end, we conducted a scenario analysis employing RCP 8.5, which predicts heightened physical risks in the future. This analysis aligns with the TCFD recommendations and examines varying levels of risk over time, focusing on both acute and chronic climate risks within the RCP 8.5 scenario, as outlined in the IPCC's AR5. The scope of our analysis covered regions including South Korea, Turkey, Indonesia, and Russia, where KT&G's major operations are situated. We considered region-specific climate risks in detail, following the guidance provided in the IPCC AR5 report. Our analysis was conducted using the RCP 2.6 scenario as a counterpart to RCP 8.5. Additionally, we used the RCP 4.5 scenario, which predicts a moderate level of change, to identify a broader range of potential risks. Each scenario was assessed based on KT&G's strategic planning timeframes of 2025, 2030, and 2050. During this process, we quantitatively evaluated the risk level and potential threats posed by various physical climate factors, such as typhoons, hurricanes, heavy rains and floods, heatwaves, sea level rise, and water shortages. These evaluations were based on their 'likelihood of occurrence' at each point in time. We estimated sensitivity and vulnerability by considering the impact of each physical risk on specific industries, and accounted for exposure to risk in terms of 'impact,' using the ratio of population, GDP, and arable land exposed to each type of physical risk. From our comprehensive assessment of both 'likelihood of occurrence' and 'impact,' we found that, within the acute risk category, risks associated with typhoons, hurricanes, heavy rainfalls, and floods have increased rapidly over a short period. In the chronic risk category, changes in temperature and water scarcity risks were identified as prominent, with sea-level rise also analyzed as a significant risk to monitor closely.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

In our scenario analysis process, we focus on focal questions to clarify the direction and objectives of the analysis, as well as to refine the hypotheses and validation processes. These focal questions serve as a structured framework for effectively conducting scenario analysis, which can be complex and challenging due to the wide range of hypotheses and variables involved.

The focal questions that KT&G seeks to understand through climate change scenario analysis include:

1. "How and when will our business activities face challenges under different climate scenarios?": This question focuses on understanding the business impacts and potential risks depending on each climate scenario.

2. "How well prepared is our organization for climate-related risks and opportunities in the transition to a low-carbon economy, and is it resilient to these changes?": This question focuses on assessing the company's ability and readiness to respond to climate change, and identifying necessary improvements.

3. "In a situation where physical risk is maximized, what risks are our operations exposed to and to what extent?": This question directs us to analyze the specific risks and impacts that the operations may face under different climate scenarios.

4. "Given all of these factors, what response activities should the company undertake and when?": This question provides key guidelines for creating an effective response strategy based on the risks and opportunities identified earlier.

With these questions, KT&G seeks to align its climate-related scenario analysis results with practical response strategies and actions, and further strengthen its readiness for a sustainable future.

Results of the climate-related scenario analysis with respect to the focal questions

To summarize the results of KT&G's climate scenario analysis, it is likely that KT&G will face significant transition and physical risks, regardless of the specific scenario. These climate change risks will manifest at different times and to varying degrees, depending on the characteristics of the scenario, and no scenario entirely avoids the climate crisis.

1. Transition Risks
In the 1.5°C scenario, characterized by profound implementation of low-carbon transition policies, KT&G is more likely to face risks associated with higher carbon prices, the introduction of new emissions regulations, and market and reputational risks. In the 2.0°C scenario, these transition risks remain significant, involving increased raw material costs, while technology and litigation risks, although less likely, are expected to have a significant impact if they do occur. In response to these risks, KT&G is internally analyzing mid- to long-term market forecasts, establishing optimized raw material supply plans, and building a stable supply chain based on strategic partnerships. We are also preparing for upcoming GHG emission regulations and rising carbon prices by introducing an internal carbon pricing system and investing in renewable energy facilities. In the mid- to long-term, we have set emissions reduction targets and are implementing various measures to achieve them. Through these strategies, KT&G strives to secure resilience to flexibly respond to various climate change scenarios.

2. Physical Risks
Unlike transition risks, physical risks are likely to manifest more intensely in scenarios above 2.0°C, and the onset of these risks is expected to be significantly earlier than in the 1.5°C scenario. Particularly, in the 4.0°C scenario, physical risks are anticipated to escalate dramatically, leading to an increase in both the scale and likelihood of impacts on operations, supply chains, and business continuity. To manage these risks, KT&G has developed and implemented a disaster management manual. This manual provides guidelines for efficient recovery in the event of natural disasters such as typhoons and floods, and aims to identify and mitigate risk factors at each business site through regular risk assessments. Furthermore, by establishing and enforcing emergency response manuals for each business site in case of extreme climate events, such as the 4.0°C scenario, we are thoroughly preparing to respond timely to severe climate changes, recover from damages, and ensure business continuity.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	Changing consumer awareness related to climate change could impact KT&G's product portfolio and sales. This could be particularly evident as the market and consumers' demand for eco-friendly products increases. KT&G is establishing and executing core growth business strategies based on ESG values, in response to the current changes in consumption trends, which emphasize health and environmental values. KT&G is actively pursuing technology improvements and manufacturing processes advancement to reduce the risk of NGPs and minimize their impact on public health, with an emphasis on its commitment to create ESG values as well as eco-friendly products. KT&G has established a system to consider environmental performance from the product planning and development stage through the enactment of the "Sustainable Product Policy." We are also conducting LCA to measure more transparent and objective information on environmental performance. Considering the environmental performance of products from the planning stage enables products to be recycled more effectively and reduces the carbon footprint throughout the entire process. In addition, KT&G has expanded the definition of green sales from individual ingredients to entire products. This change reflects an in-depth understanding of the product sustainability, playing an important role in recognizing the importance of environmental strategies. Understanding and adapting to changing demands of the market and consumers helps KT&G build a solid foundation of its sustainable future. It is KT&G's one of core strategies to achieve sustainable growth while meeting climate change-related economic and environmental responsibilities.
Supply chain and/or value chain	Yes	The growth of crops, especially tobacco leaf, is significantly affected by physical risks associated with climate change. The requirements of sustainability guidelines in the farming regions may also be reinforced by these changes. These transition risks result in a higher level of risk to the supply chain. In scenarios with high transition risks, supply chain risk is usually rated particularly high. Physical risks are also assessed to be high because they affect crop yields and procurement systems. High risk levels have been identified in each scenario, both in the short term and in the medium and long term (2030 and 2050). Therefore, KT&G is strengthening the management of its major supply chain, including tobacco leaf farmers, and the raw material procurement process. In this way, we are striving to maintain the stability of our supply chain including tobacco leaf farmers and improve the sustainability of the ecosystem. KT&G is also conducting WRI's physical risk assessment for its domestic tobacco leaf supply chain and major materials suppliers. Based on the water risk analysis, response plans are derived for further actions. We also carry out verification of our Scope 3 emissions and expand the scope of our GHG management across the value chain. Moreover, KT&G is providing support for a sustainable agricultural environment by means of the STP program which aims to improve the sustainability of tobacco farmers. These are examples of KT&G's ongoing commitment to sustainable business operations.
Investment in R&D	Yes	At a time when a company's ability to respond to climate change is becoming ever more critical, securing its competitiveness regarding sustainability is becoming increasingly important. This is because various environmental issues, including microplastics, are further driving the need to develop eco-friendly products across industries. Along with these environmental factors, the climate scenario analysis has shown that consumers' increasing demand for eco-friendly products and reinforced regulation on the eco-friendliness of products are prominent in the high transition risk scenario. KT&G has operated a separate organization dedicated to eco-friendly research within its R&D headquarters, and recently established the New Material Development Center, a unit directly under the head of the General Division, to further strengthen its efforts and actively promote research and business review of non-plastic eco-friendly filters. Lyocell fiber, which is being jointly developed by KT&G and Kolon Industries, is an eco-friendly material that is known for its excellent biodegradability after being discarded, as it uses a method of fiberization by simply dissolving natural pulp extracted from trees without chemical modification. In addition, we plan to develop various materials that can reduce environmental burdens through research on alternative eco-friendly materials such as paper filters. Meanwhile, in the mid- to long-term, we plan to continue to expand our investments to develop green technologies throughout the life cycle of the products. This strategy clearly demonstrates KT&G's relentless efforts to protect the environment and fulfill its social responsibility, also laying a foundation for enhanced competitiveness for a sustainable future.
Operations	Yes	As part of its important strategy to address climate change, KT&G is preparing for the volatility of carbon prices from the carbon emissions arising from its business operations, employing climate scenarios with high transition risks. According to the scenario, rising burden from high carbon price and increasing uncertainty from price fluctuation have been identified as risk factors. In response, KT&G has established an internal carbon pricing system as a way to stably manage emission costs. Furthermore, in order to reduce GHG emissions, KT&G is implementing a renewable energy promotion plan. As part of this plan, we are installing our own renewable energy facilities, such as rooftop solar power facilities, and investing to improve the efficiency of boilers. In addition, based on the level of company-wide physical climate change risks derived from the scenario analysis, KT&G is continuously conducting analyses to identify the level of its risk response and exposure to risks considering the regional and environmental characteristics of individual business sites. Through this, we are setting strategies tailored to the environmental risks faced by each business site and making efforts to identify effective counterplans. In this way, KT&G is moving toward minimizing risks and maximizing opportunities from climate change while practicing corporate responsibility for sustainable management.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Direct costs Capital allocation Liabilities	[Direct Costs & Estimated Liabilities] KT&G is required to purchase additional emission allowances when it exceeds the allocated emission quota in compliance year, in accordance with the ETS regulations. This generally refers to the cost of responsibility for carbon emissions, which falls under the company's overall operating expenses. This process is closely tied to KT&G's financial planning. Based on production capacity and energy consumption data from its facilities, the company compares initial emissions with the projected annual emissions to determine purchases for additional emission allowances. In this way, KT&G can ensure optimal cost efficiency and minimize its impact on climate change. Additionally, costs involved with the promotion of renewable energy, such as RECs purchase for emission reduction, are applied as added costs to the conventional energy procurement costs. KT&G includes expenses associated with regulatory compliance (e.g. purchase of offset allowances) in the operating expense (OPEX). These expenditures are approved by the CFO, allowing the company to strictly adhere to related regulations and effectively manage GHG emissions. Furthermore, KT&G estimates future costs regarding emissions exceeding the allocated quota and records them as provisions for liabilities. KT&G ensures the company's financial soundness by enhancing the transparency of financial planning and disclosing reliable information to the stakeholders. [Capital Allocation] KT&G's internal carbon pricing system was introduced in 2022 and promotes investment decisions that take into account potential carbon costs. This enables investment decisions to consider the potential costs of emissions from a financial perspective and consequently enhances the feasibility of climate change mitigation investment activities. KT&G incorporates the internal carbon price in projected cost savings from climate change mitigation investment activities, in the process of calculating the payback period for emissions reduction initiatives. This approach helps derive financially effective carbon reduction strategies. Currently, KT&G maintains its internal carbon price at KRW 50,000/tCO2, which is higher than the highest historical price. In this way, we can reflect substantial costs associated with carbon emissions while preparing for the possibility of increasing costs. The company has a process in place to adjust the internal carbon price when the allowance price exceeds the internal carbon price, ensuring effective operation of its carbon management strategy.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with a sustainable finance taxonomy	At both the company and activity level

C3.5a

(C3.5a) Quantify the percentage share of your spending/revenue that is aligned with your organization's climate transition.

Financial Metric
Revenue/Turnover

Type of alignment being reported for this financial metric
Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported
Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
0

Percentage share of selected financial metric aligned in the reporting year (%)
0

Percentage share of selected financial metric planned to align in 2025 (%)
0

Percentage share of selected financial metric planned to align in 2030 (%)
0

Describe the methodology used to identify spending/revenue that is aligned
In order to assess cost/revenue alignment, we implemented the EU Taxonomy's classification process for economic activities, and its public reporting process, to KT&G's operational business activities and plans.

As of 2022, the EU Taxonomy does not include a classification for tobacco manufacturing, which means no revenue or profit for the company can be considered as "aligned" with the EU Taxonomy. However, we were able to identify "Eligible" economic activities.

Financial Metric
Revenue/Turnover

Type of alignment being reported for this financial metric
Alignment with a sustainable finance taxonomy

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Objective under which alignment is being reported
Climate change mitigation

Amount of selected financial metric that is aligned in the reporting year (unit currency as selected in C0.4)
0

Percentage share of selected financial metric aligned in the reporting year (%)
0

Percentage share of selected financial metric planned to align in 2025 (%)
0

Percentage share of selected financial metric planned to align in 2030 (%)
0

Describe the methodology used to identify spending/revenue that is aligned
In order to assess cost/revenue alignment, we implemented the EU Taxonomy's classification process for economic activities, and its public reporting process, to KT&G's operational business activities and plans.
As of 2022, the EU Taxonomy does not include a classification for tobacco manufacturing, which means no revenue or profit for the company can be considered as "aligned" with the EU Taxonomy. However, we were able to identify "Eligible" economic activities.

C3.5b

(C3.5b) Quantify the percentage share of your spending/revenue that was associated with eligible and aligned activities under the sustainable finance taxonomy in the reporting year.

Economic activity
Construction of new buildings

Taxonomy under which information is being reported
EU Taxonomy for Sustainable Activities

Taxonomy Alignment
Taxonomy-eligible but not aligned

Financial metric(s)
Turnover

Taxonomy-aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)
<Not Applicable>

Taxonomy-aligned turnover from this activity as % of total turnover in the reporting year
<Not Applicable>

Taxonomy-aligned turnover from this activity that substantially contributed to climate change mitigation as a % of total turnover in the reporting year
<Not Applicable>

Taxonomy-aligned turnover from this activity that substantially contributed to climate change adaptation as a % of total turnover in the reporting year
<Not Applicable>

Taxonomy-eligible but not aligned turnover from this activity in the reporting year (unit currency as selected in C0.4)
386550000000

Taxonomy-eligible but not aligned turnover from this activity as % of total turnover in the reporting year
10.46

Taxonomy-aligned CAPEX from this activity in the reporting year (unit currency as selected in C0.4)
<Not Applicable>

Taxonomy-aligned CAPEX from this activity as % of total CAPEX in the reporting year
<Not Applicable>

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change mitigation as a % of total CAPEX in the reporting year
<Not Applicable>

Taxonomy-aligned CAPEX from this activity that substantially contributed to climate change adaptation as a % of total CAPEX in the reporting year
<Not Applicable>

Taxonomy-eligible but not aligned CAPEX associated with this activity in the reporting year (unit currency as selected in C0.4)
<Not Applicable>

Taxonomy-eligible but not aligned CAPEX associated with this activity as % of total CAPEX in the reporting year
<Not Applicable>

Taxonomy-aligned OPEX from this activity in the reporting year (unit currency as selected in C0.4)
<Not Applicable>

Taxonomy-aligned OPEX from this activity as % of total OPEX in the reporting year
<Not Applicable>

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change mitigation as a % of total OPEX in the reporting year
<Not Applicable>

Taxonomy-aligned OPEX from this activity that substantially contributed to climate change adaptation as a % of total OPEX in the reporting year
<Not Applicable>

Taxonomy-eligible but not aligned OPEX associated with this activity in the reporting year (unit currency as selected in C0.4)
<Not Applicable>

Taxonomy-eligible but not aligned OPEX associated with this activity as % total OPEX in the reporting year
<Not Applicable>

Type(s) of substantial contribution
<Not Applicable>

Calculation methodology and supporting information
Although KT&G is not obligated or regulated to comply with the EU Taxnomy, we are striving to strengthen eco-friendly and climate-friendly economic activities through voluntary green classification of our economic activities. Taxonomy-eligible under the EU Taxonomy is evaluated based on the nature of the economic activity, not the industry sector or area, and taxonomy-aligned economic activities must meet the following three conditions.
i) Significant contribution to one or more of the six environmental objectives.
ii) The economic activity does not cause significant harm to the remaining environmental objectives (Do No Significant Harm Principles (DNSH)).
iii) Meet the minimum social safeguards (MSS).

Technical screening criteria met
No

Details of technical screening criteria analysis
"In our Real Estate segment, we generate revenues from economic activities related to the construction of new buildings, falling under EU Taxonomy classification 7.1. However, after carrying out an assessment in accordance with the EU Taxonomy process for determining 'aligned', we could not identify any activities that currently qualify as making a 'Significant Contribution' (SC). Therefore, we have classified and disclosed these activities as 'Eligible' economic activities."

Do no significant harm requirements met
No

Details of do no significant harm analysis
The activity is not causing significant harm to any other environmental objective, but the SC criteria are not met, so we have not conducted a "DNSH" analysis of the activity. Therefore, it is not an "Aligned" economic activity.

Minimum safeguards compliance requirements met
Yes

Details of minimum safeguards compliance analysis
KT&G respects various international human rights initiatives adopted and promulgated by international organizations on basic human rights, such as the UN Universal

Declaration of Human Rights, the International Bill of Human Rights, the UN Guiding Principles on Business and Human Rights, the 10 principles of the UN Global Compact, and labor standards set forth by the International Labor Organization (ILO) and the Corporate Human Rights Benchmark (CHRB). In order to respect and protect the human rights of all stakeholders, including employees, overseas production and sales entities, subsidiaries, and partners, KT&G has established and strictly complies with a human rights management policy based on international standards and principles related to human rights and labor, and is strengthening its human rights management process, including internal and external communication and redress procedures.

C3.5c

(C3.5c) Provide any additional contextual and/or verification/assurance information relevant to your organization's taxonomy alignment.

The EU Taxonomy is an important environmental policy tool of the European Union that sets out criteria for sustainable economic activities to combat climate change. By providing clear criteria and financially quantifiable figures for sustainable economic activities, the taxonomy gives companies, investors, and policy makers a standardized way to identify and classify their activities.
By providing specific information on environmentally sustainable economic activities, the EU Taxonomy will help market participants assess and manage a company's environmental impact and climate risk. Investors will get more accurate and transparent information on companies' green activities, and companies will be able to identify opportunities to drive greener economic activities.
KT&G uses a transparent and standardized methodology by applying a green classification system based on the EU Taxonomy. Through this, KT&G is making efforts to more clearly identify and understand the environmental effects and impacts of its economic activities.
KT&G's Green Classification System was constructed in compliance with EU standards, and the analysis was centered on the two currently disclosed environmental goals of climate change mitigation and adaptation. Through the disclosure of the Green Classification System, KT&G categorized its economic activities into taxonomy-eligible and taxonomy-aligned economic activities for the financial indicators of sales, capital expenditure (CapEx), and operating expenditure (OpEx) as of 2022.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?
Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Is this a science-based target?
Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition
1.5°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)
<Not Applicable>

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
39284.74

Base year Scope 2 emissions covered by target (metric tons CO2e)
84623.48

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
<Not Applicable>

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
123908.22

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
<Not Applicable>

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
42

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
71866.7676

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
38560.62

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
76034.47

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)

<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
114595.03

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
17.8957149935347

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
No emission sources are excluded from the scope of the emission reduction target, which covers the entire company, including domestic and overseas business sites.
KT&G has submitted its emission target to SBTi in the process of verification, and is currently committed to the SBTi targets.
The emission targets submitted to SBTi are considered to be science-based targets as the "SBTi Target-setting Tool" has been utilized to establish a reduction pathway based on the 1.5℃-aligned condition for Scope 1 and 2 emissions.

Plan for achieving target, and progress made to the end of the reporting year
KT&G has developed a strategy to successfully achieve its medium to long-term emission reduction targets by 2030. To do so, the company has identified key areas with high potential and effectiveness for emission reductions in the short term. These areas encompass various fields, including energy efficiency improvement, fuel transition, adoption of renewable energy, and reduction in fossil fuel consumption. KT&G has carefully selected achievable and highly effective tasks in each of these areas.
Before implementing each task, KT&G conducts cost-benefit analyses. This allows us to prioritize projects that offer the highest emission reduction benefits relative to their investments. Based on this analysis, we are establishing a systematic execution plan to achieve the medium to long-term reduction targets.
In 2022, KT&G successfully carried out various GHG reduction activities. We increased the use of renewable energy by installing solar panels on roofs of factory buildings and expanding the share of renewable energy through power purchase agreements. Additionally, we improved energy efficiency by implementing the Factory Energy Management System (FEMS).
As of now, KT&G is currently at about 17.9% of our GHG emissions reduction target. This means we are already substantially aligned with the SBTi's 1.5℃-aligned reduction pathway, which requires a 42% reduction compared to the baseline year.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

Target reference number
Abs 2

Is this a science-based target?
Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Target ambition
Well-below 2°C aligned

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 3

Scope 2 accounting method
<Not Applicable>

Scope 3 category(ies)
Category 1: Purchased goods and services
Category 2: Capital goods
Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2)
Category 4: Upstream transportation and distribution
Category 5: Waste generated in operations
Category 6: Business travel
Category 7: Employee commuting
Category 9: Downstream transportation and distribution
Category 11: Use of sold products
Category 12: End-of-life treatment of sold products

Base year
2020

Base year Scope 1 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 2 emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target (metric tons CO2e)
138077

Base year Scope 3, Category 2: Capital goods emissions covered by target (metric tons CO2e)
84909

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target (metric tons CO2e)
10463

Base year Scope 3, Category 4: Upstream transportation and distribution emissions covered by target (metric tons CO2e)
5551

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target (metric tons CO2e)
8096

Base year Scope 3, Category 6: Business travel emissions covered by target (metric tons CO2e)
332

Base year Scope 3, Category 7: Employee commuting emissions covered by target (metric tons CO2e)
4118

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target (metric tons CO2e)
12173

Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target (metric tons CO2e)
3353

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target (metric tons CO2e)
25510

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target (metric tons CO2e)
292583

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
292583

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
<Not Applicable>

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
<Not Applicable>

Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1: Purchased goods and services (metric tons CO2e)
47.192

Base year Scope 3, Category 2: Capital goods emissions covered by target as % of total base year emissions in Scope 3, Category 2: Capital goods (metric tons CO2e)
29.021

Base year Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions covered by target as % of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)
3.576

Base year Scope 3, Category 4: Upstream transportation and distribution covered by target as % of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e)
1.897

Base year Scope 3, Category 5: Waste generated in operations emissions covered by target as % of total base year emissions in Scope 3, Category 5: Waste generated in operations (metric tons CO2e)
2.767

Base year Scope 3, Category 6: Business travel emissions covered by target as % of total base year emissions in Scope 3, Category 6: Business travel (metric tons CO2e)
0.113

Base year Scope 3, Category 7: Employee commuting covered by target as % of total base year emissions in Scope 3, Category 7: Employee commuting (metric tons CO2e)
1.408

Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 9: Downstream transportation and distribution emissions covered by target as % of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e)
4.161

Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 11: Use of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 11: Use of sold products (metric tons CO2e)
1.146

Base year Scope 3, Category 12: End-of-life treatment of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e)
8.719

Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)
<Not Applicable>

Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)
<Not Applicable>

Base year total Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)
100

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes
100

Target year
2030

Targeted reduction from base year (%)
25

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]
219437.25

Scope 1 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 2 emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 1: Purchased goods and services emissions in reporting year covered by target (metric tons CO2e)
150012

Scope 3, Category 2: Capital goods emissions in reporting year covered by target (metric tons CO2e)
99877

Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) emissions in reporting year covered by target (metric tons CO2e)
12837

Scope 3, Category 4: Upstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
5234

Scope 3, Category 5: Waste generated in operations emissions in reporting year covered by target (metric tons CO2e)
2373

Scope 3, Category 6: Business travel emissions in reporting year covered by target (metric tons CO2e)
2013

Scope 3, Category 7: Employee commuting emissions in reporting year covered by target (metric tons CO2e)
4237

Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 9: Downstream transportation and distribution emissions in reporting year covered by target (metric tons CO2e)
5414

Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 11: Use of sold products emissions in reporting year covered by target (metric tons CO2e)
14527

Scope 3, Category 12: End-of-life treatment of sold products emissions in reporting year covered by target (metric tons CO2e)
27428

Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 14: Franchises emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)
<Not Applicable>

Total Scope 3 emissions in reporting year covered by target (metric tons CO2e)
323951

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)
323951

Does this target cover any land-related emissions?
No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

% of target achieved relative to base year [auto-calculated]
-42.8842413947495

Target status in reporting year
Underway

Please explain target coverage and identify any exclusions
The emission target submitted to SBTi is considered as science-based reduction target, as it was formulated using the "SBTi Target-setting Tool" to establish reduction pathways for Scope 3 emissions in accordance with the 'well below 2°C' criteria. We have been calculating emissions for the Scope 3 categories relevant to our company, excluding those with no relevance to our operations.
In 2022, KT&G submitted emission targets to SBTi and is currently undergoing the verification process for these targets.

Plan for achieving target, and progress made to the end of the reporting year
KT&G is expanding the management of emissions resulting from its business activities to actively collaborate with suppliers in efforts to reduce value chain emissions (Scope 3).
Furthermore, KT&G is supporting domestic tobacco farmers to reduce GHG emissions during the tobacco cultivation process. We are promoting energy efficiency in tobacco farms by expanding support for high-efficiency drying equipment to facilitate heat recovery and reuse.
In 2022, our Scope 3 emissions data has increased from the baseline year due to changes in the scope and methodology of data calculation during the SBTi verification process. Moving forward, we will review the baseline year data to ensure more accurate measurements and scale up our ongoing reduction activities to achieve our targets successfully.

List the emissions reduction initiatives which contributed most to achieving this target
<Not Applicable>

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?
Target(s) to increase low-carbon energy consumption or production
Net-zero target(s)

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number
Low 1

Year target was set
2022

Target coverage
Company-wide

Target type: energy carrier
Electricity

Target type: activity
Consumption

Target type: energy source
Renewable energy source(s) only

Base year
2020

Consumption or production of selected energy carrier in base year (MWh)
187.933

% share of low-carbon or renewable energy in base year
0.1

Target year
2030

% share of low-carbon or renewable energy in target year
86.33

% share of low-carbon or renewable energy in reporting year
15.57

% of target achieved relative to base year [auto-calculated]
17.9403919749507

Target status in reporting year
New

Is this target part of an emissions target?
Increasing the use of renewable energy is an essential means of enabling the organization to effectively meet its GHG emissions targets. KT&G has established mid- to long-term plans and targets for expanding the use of renewable energy to successfully realize the [Abs1] target of C4.1a.

Is this target part of an overarching initiative?
Science Based Targets initiative

Please explain target coverage and identify any exclusions
All domestic and global offices are are covered, with no exclusions.

Plan for achieving target, and progress made to the end of the reporting year
To achieve carbon neutrality, it is essential to reduce fossil fuel usage and transition to renewable energy sources such as solar and wind power. KT&G supports the global campaign, Renewable Electricity 100% (RE100), which commits companies to sourcing 100% of their electricity from renewable energy. For a systematic implementation of RE100, KT&G has set a target of achieving over 80% of renewable energy usage share out of total power consumption by 2030. Currently, electricity accounts for 70% of KT&G's emissions, and the share of renewable energy usage has gradually increased from 0.1% in 2020 to 15.6% in 2022. KT&G aims to mark 2023 as the inaugural year for full-scale adoption of renewable energy and plans to achieve a renewable energy usage share of over 18%.

*Although KT&G is not obliged to meet the requirements of the RE100 initiative due to the specific nature of the tobacco industry, the company voluntarily pursues a promotion of renewable energy usage beyond the RE100 standards.

List the actions which contributed most to achieving this target
<Not Applicable>

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number
NZ1

Target coverage
Company-wide

Absolute/intensity emission target(s) linked to this net-zero target
Abs1
Abs2

Target year for achieving net zero
2050

Is this a science-based target?
Yes, we consider this a science-based target, and the target is currently being reviewed by the Science Based Targets initiative

Please explain target coverage and identify any exclusions
KT&G's medium to long-term emissions reduction target aims to achieve a 42% reduction in Scope 1+2 emissions and a 25% reduction in Scope 3 emissions by 2030, compared to the level in 2020. Additionally, the company is committed to achieving carbon neutrality by 2050. These targets have been submitted to SBTi, and the verification process is scheduled to take place.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?
Unsure

Planned milestones and/or near-term investments for neutralization at target year
<Not Applicable>

Planned actions to mitigate emissions beyond your value chain (optional)
KT&G has plans to support social welfare institutions by providing electric vehicles to reduce emissions from vehicle operations. The effectiveness and implementation timeline of this initiative are currently under review.
Additionally, KT&G is engaged in social contribution activities through afforestation and forest regeneration projects, which contribute to emission reductions in the society.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.
Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	4	0
To be implemented*	5	3451
Implementation commenced*	2	366
Implemented*	6	22234
Not to be implemented	4	

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy consumption	Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)
17094

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
0

Investment required (unit currency – as specified in C0.4)
1046806829

Payback period
No payback

Estimated lifetime of the initiative
1-2 years

Comment
KT&G has obtained certification for the use of a renewable energy mix, including solar, hydro, and wind power, through the purchase of Renewable Energy Certificates (RECs). This is applied not only to facilities in South Korea but also to overseas operations in countries such as Indonesia and Turkey.

Initiative category & Initiative type

Low-carbon energy generation	Solar PV

Estimated annual CO2e savings (metric tonnes CO2e)
613

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
50138000

Investment required (unit currency – as specified in C0.4)
662240000

Payback period
11-15 years

Estimated lifetime of the initiative
21-30 years

Comment
Installation of solar power generation facilities in the business premises' parking lots and deployment of hybrid streetlights based on solar and wind power, etc.

Initiative category & Initiative type

Energy efficiency in production processes	Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)
1787

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
656892000

Investment required (unit currency – as specified in C0.4)
447422000

Payback period
<1 year

Estimated lifetime of the initiative
3-5 years

Comment
Improve facility efficiency and optimise processes, including air compression, steam, cooling, etc.

Initiative category & Initiative type

Energy efficiency in production processes	Machine/equipment replacement

Estimated annual CO2e savings (metric tonnes CO2e)
2153

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
957600000

Investment required (unit currency – as specified in C0.4)
3122939000

Payback period
4-10 years

Estimated lifetime of the initiative
3-5 years

Comment
Replacement of high-efficiency refrigerators, air compressors, and pumps, and introduction of LED lighting systems.

Initiative category & Initiative type

Energy efficiency in production processes	Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)
460

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 1

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
616610000

Investment required (unit currency – as specified in C0.4)
272252000

Payback period
1-3 years

Estimated lifetime of the initiative
3-5 years

Comment
Recovery and utilization of waste heat using boiler condensate and exhaust gas.

Initiative category & Initiative type

Energy efficiency in production processes	Automation

Estimated annual CO2e savings (metric tonnes CO2e)
127

Scope(s) or Scope 3 category(ies) where emissions savings occur
Scope 2 (location-based)
Scope 2 (market-based)

Voluntary/Mandatory
Voluntary

Annual monetary savings (unit currency – as specified in C0.4)
38984000

Investment required (unit currency – as specified in C0.4)
12900000

Payback period
<1 year

Estimated lifetime of the initiative
6-10 years

Comment
Creating a sophisticated process control environment through the installation of automatic control systems and monitoring systems.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Internal price on carbon	As the ROI calculation method, which was previously calculated as “investment cost/energy saving cost”, has been changed to “investment cost/(energy saving cost + internal carbon price)” due to the internal carbon pricing in operation, the payback period of the investment in climate change response activities has been shortened. As such, the internal carbon price enables us to make positive decisions in the internal investment policy and decision-making process for various emission reduction activities, and serves as a major guideline to determine priorities of the reduction activities by comparing the financial impact of potential reductions from the activities.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?
No

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?
No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?
No

Name of organization(s) acquired, divested from, or merged with
<Not Applicable>

Details of structural change(s), including completion dates
<Not Applicable>

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	KT&G reassessed the emissions for the baseline year of 2020 for Scope 3, for the following reasons: [Scope 3] During the SBTi verification process, KT&G adjusted the Scope 3 emission categorization through consultations with SBTi, leading to changes in the data. Additionally, to achieve more precise emission calculations, IPCC emission factors were readjusted, and additional emissions from overseas sales were accounted for. Furthermore, emissions were recalculated due to extended scope of capital goods, and the emission factors were updated for a more detailed emission assessment, by reflecting the environmental impact of different tobacco varieties. Based on these changes, the data for both the baseline year of 2020 and 2021 were recalculated.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 3	When there are significant changes to the data collection scope due to the addition of categories, KT&G considers it crucial to conduct a mandatory recalculation. Additionally, if factors such as data errors, omissions, or changes in emission factors result in a change of 3% or more in the results, it is subject to recalculation.	Yes

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
39284.74

Comment
This include emission from domestic and global facilities' LNG, diesel, fuel consumption and waste incineration.

Scope 2 (location-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
84623.48

Comment
This include emission from domestic and global facilities' electricity consumption.

Scope 2 (market-based)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
84623.48

Comment
Calculate market-based emissions based on the purchase of RECs in 2022

Scope 3 category 1: Purchased goods and services

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
138077.23

Comment
Reason for Change: Updated emission factor reflecting environmental impact by tobacco leaf variety (LCA coefficient), additional emission calculation due to expansion of partner companies.

Scope 3 category 2: Capital goods

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
84909.18

Comment
Reason for change: Expansion of capital goods category (expanded emissions calculation to reflect CAPEX investment)

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
10463.35

Comment
Reason for Change: Additional reflection of fuel usage by overseas business sites, expanded calculation in the electricity upstream area

Scope 3 category 4: Upstream transportation and distribution

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
5550.62

Comment
Reason for Change: Application of emission factors according to IPCC standards

Scope 3 category 5: Waste generated in operations

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
8095.94

Comment
No change

Scope 3 category 6: Business travel

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
332.05

Comment
Reason for Change: Addition of some data on employee business trips

Scope 3 category 7: Employee commuting

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
4118.31

Comment
Reason for Change: Update on commuting distance statistics

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
12173.46

Comment
Reason for Change: Application of emission factors according to IPCC standards

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
3352.78

Comment
Reason for Change: Additional emission calculation due to overseas sales, refinement of data through application of experimental analysis on electricity consumption

Scope 3 category 12: End of life treatment of sold products

Base year start
January 1 2020

Base year end
December 31 2020

Base year emissions (metric tons CO2e)
25510.11

Comment
Reason for Change: Additional emission calculation due to overseas sales

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.
Korea GHG and Energy Target Management System Operating Guidelines

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)
38560.567

Start date
<Not Applicable>

End date
<Not Applicable>

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based
We are reporting a Scope 2, location-based figure

Scope 2, market-based
We are reporting a Scope 2, market-based figure

Comment

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based
93128.3

Scope 2, market-based (if applicable)
76034.47

Start date
<Not Applicable>

End date
<Not Applicable>

Comment
The calculation of Scope 2 market-based emissions is the sum of Scope 2 GHG emissions in Indonesia and Turkiye, where I-RECs were purchased, and Scope 2 GHG emissions in South Korea where RECs were applied.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?
No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
150012.16

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
60

Please explain
We obtained data for most activities directly from our suppliers, which included information on fertilizer consumption for leaf tobacco cultivation, fuel usage for drying, flat leaf manufacturing, general materials, and NGP production. The emission factors are in accordance with the Korea GHG and Energy Target Management System Operating Guidelines and IPCC Guidelines. For manufacturing plants located in certain overseas supplier regions, we used the latest IEA data for electricity emission factors. As for overseas leaf cigarettes, we used the annual purchase volume data as activity data, and emissions were calculated by applying emission factors from the LCA results for domestic leaf cigarette cultivation and drying stages

Capital goods

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
99876.93

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
We calculated emissions based on the purchase history of major capital goods such as machinery, vehicles, and tools, applying the GHG Protocol emission factors for each item.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
12837.04

Emissions calculation methodology
Hybrid method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Emissions were calculated using the Ministry of Environment LCI DB (Ministry of Environment LCI DB) for the pre-manufacturing stage for each fuel source utilized at domestic and overseas sites.

Upstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5233.72

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
35

Please explain
We used data on domestic and overseas leaf tobacco and material transportation (including purchase volume by partner, transportation method, transportation distance, and number of transportation trips). This data was converted into fuel consumption to calculate emissions according to the emission factors provided by the Ministry of Environment.

Waste generated in operations

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2372.53

Emissions calculation methodology
Waste-type-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Waste generated at our business sites in Korea is reported to the Allbaro system, a legal waste disposal system. Emissions are calculated based on waste disposal method and emission factors for each disposal method.

Business travel

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
2012.74

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
For overseas business trips during the reporting period, the distance between the origin and destination was used as activity data. The Ministry of Environment's emission factor per unit distance per person was applied to calculate the emissions.

Employee commuting

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
4236.972

Emissions calculation methodology
Average data method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

Please explain
As for employee commuting, due to the challenge of securing data on the means and distance of commuting for each employee, we calculated the average commuting distance from statistical data, the proportion by mode of transport, and applied the emission factor by mode of transport provided by the Ministry of Environment.

Upstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
In South Korea, where our headquarters is located, reporting guidelines require us to report all operations under our operational control, even those owned by other organizations, as scope 1 and 2. Since scope 3 does not overlap with scope 1 and 2, we do not have any upstream leased assets falling under this criterion, hence, this is not applicable to us.

Downstream transportation and distribution

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
5413.68

Emissions calculation methodology
Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
14

Please explain
For products exported overseas, including to our overseas subsidiaries, emissions were calculated for finished and semi-finished products by applying emission factors for each mode of transport (sea, air) provided by the Ministry of Environment as activity data. For domestically distributed products, we applied emission factors for each fuel type after converting them into fuel volume based on the distance traveled from domestic business sites to warehouses. We reported the sum of emissions from domestic and overseas distribution as transport distribution.

Processing of sold products

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
In general, intermediate goods are subject to further processing, but our main product, cigarettes, is sold to consumers as a final product and is not subject to further processing after sale.

Use of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
14526.91

Emissions calculation methodology
Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Our cigarette tobacco products do not consume any energy sources in the use stage and therefore do not emit greenhouse gases. However, in the case of NGP (Next Generation Product), only the stick is exchanged during repeated use by electrically charging the device, so it is subject to GHG emissions at the use stage. We calculated the annual emissions from electricity charging by applying the domestic electricity EF to the charging time and product sales of each NGP product as activity data.

End of life treatment of sold products

Evaluation status
Relevant, calculated

Emissions in reporting year (metric tons CO2e)
27427.89

Emissions calculation methodology
Average product method

Percentage of emissions calculated using data obtained from suppliers or value chain partners
0

Please explain
Among our products, GHGs are generated in the waste disposal process due to the disposal of cigarette butts in the case of cigarette tobacco products, sticks in the case of NGP, and devices. For cigarette rolling products, we used the average length of cigarette butts and the weight of the filter and tobacco parts, and for NGP sticks, we used a representative weight and applied the Ministry of Environment's GHG emission factor according to the disposal method for cigarette butts. In the case of NGP devices, the ratio of waste disposal methods was determined by considering the internal components and the emission factor was applied. The calculation method is based on the average weight of cigarette butts * sales volume for the year * waste emission factor.

Downstream leased assets

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
We do not have any downstream leased assets, so this item is not applicable.

Franchises

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
This category is not applicable as we do not have franchises.

Investments

Evaluation status
Not relevant, explanation provided

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain
The emissions that were previously calculated as investment emissions have been changed to subsidiary emissions and are excluded.

Other (upstream)

Evaluation status

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

Other (downstream)

Evaluation status

Emissions in reporting year (metric tons CO2e)
<Not Applicable>

Emissions calculation methodology
<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners
<Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?
No

C-AC6.8/C-FB6.8/C-PF6.8

(C-AC6.8/C-FB6.8/C-PF6.8) Is biogenic carbon pertaining to your direct operations relevant to your current CDP climate change disclosure?
No

C-AC6.9/C-FB6.9/C-PF6.9

(C-AC6.9/C-FB6.9/C-PF6.9) Do you collect or calculate greenhouse gas emissions for each commodity reported as significant to your business in C-AC0.7/FB0.7/PF0.7?

Agricultural commodities
Tobacco

Do you collect or calculate GHG emissions for this commodity?
Yes

Reporting emissions by
Total

Emissions (metric tons CO2e)
86329.17

Denominator: unit of production
<Not Applicable>

Change from last reporting year
Lower

Please explain
The Scope 3 data underwent revision during the verification process. Initially reported as 82,648 tCO2eq for the year 2021, the emissions calculation was refined using a more detailed approach to determine the emissions from overseas tobacco procurement processes. After updating the activity data, the emissions from tobacco leaf for the year 2021 were recalculated to be 92,314 tCO2eq. Applying the same methodology, the verified emissions related to tobacco leaf for the year 2022 amounted to 86,329.17 tCO2eq. The detailed classifications included in the tobacco leaf emissions calculation process involve emissions from domestic tobacco cultivation and drying, as well as from overseas ones. The methodology utilized for emissions calculation adheres to the Korea GHG and Energy Target Management System Operating Guidelines and the IPCC guidelines for emissions calculation.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future
<Not Applicable>

Agricultural commodities
Timber

Do you collect or calculate GHG emissions for this commodity?
Yes

Reporting emissions by
Total

Emissions (metric tons CO2e)
22653

Denominator: unit of production
<Not Applicable>

Change from last reporting year
Higher

Please explain
KT&G includes emissions from timber-derived materials such as packaging materials and cigarette inner liners in its Scope 3 emissions calculation. Our timber-related emissions in 2022 were 22,653 tCO2eq in 2022, slightly higher to the previous year. (19,484 tCO2eq in 2021) In accordance with the calculation methodology of the Korea GHG and Energy Target Management System Operating Guidelines and the IPCC Guidelines, emissions are calculated by taking account of each timber-related supplier's fuel consumption by source and emission factors as well as share of purchase amount.

Explain why you do not calculate GHG emission for this commodity and your plans to do so in the future
<Not Applicable>

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure
3.1e-8

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
114595.94

Metric denominator
unit total revenue

Metric denominator: Unit total
3694358039272

Scope 2 figure used
Market-based

% change from previous year
10.16

Direction of change
Decreased

Reason(s) for change
Change in renewable energy consumption
Other emissions reduction activities
Change in revenue

Please explain
Our intensity emission in 2022 decreased by 10.16% compared to 2021, measured in metric tons CO2e per unit currency. Throughout the reduction activities, KT&G's GHG emissions decreased by approximately 4.9% from 120,516 tCO2eq in 2021 to 114,595 tCO2eq in 2022. Renewable energy promotion activities such as REC purchases and operation of FEMS played a significant role in energy savings and emission reduction. Additionally, a revenue increase of about 5.5% compared to the previous year also contributed to the overall reduction in the intensity emission.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	38202.33	IPCC Second Assessment Report (SAR - 100 year)
CH4	221.329	IPCC Second Assessment Report (SAR - 100 year)
N2O	136.905	IPCC Second Assessment Report (SAR - 50 year)
HFCs	0	IPCC Second Assessment Report (SAR - 100 year)
PFCs	0	IPCC Second Assessment Report (SAR - 100 year)
SF6	0	IPCC Second Assessment Report (SAR - 100 year)

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Republic of Korea	34963.95
Indonesia	1857.14
Russian Federation	1022.04
Turkey	717.43

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.
By facility

C7.3b

(C7.3b) Break down your total gross global Scope 1 emissions by business facility.

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Sintanjin (Korea) Factory	13549.123	36.43379	127.42993
Gwangju (Korea) Factory	2560.886	35.203928	126.878165
Gimcheon (Korea) Factory	1937.683	36.125916	128.066582
Yeongju (Korea) Factory	6774.636	36.788549	128.624129
Cheonan (Korea) Factory	1858.093	36.826617	127.147274
Other offices in Korea	8283.53	37.50653	127.065294
Indonesia Factory	1857.14	-7.767499	112.741901
Russia Factory	1022.04	55.239072	36.697133
Turkey Factory	717.43	38.128173	27.694217

C-AC7.4/C-FB7.4/C-PF7.4

(C-AC7.4/C-FB7.4/C-PF7.4) Do you include emissions pertaining to your business activity(ies) in your direct operations as part of your global gross Scope 1 figure?
Yes

C-AC7.4b/C-FB7.4b/C-PF7.4b

(C-AC7.4b/C-FB7.4b/C-PF7.4b) Report the Scope 1 emissions pertaining to your business activity(ies) and explain any exclusions. If applicable, disaggregate your agricultural/forestry by GHG emissions category.

Activity
Processing/Manufacturing

Emissions category
<Not Applicable>

Emissions (metric tons CO2e)
34724.5

Methodology
Default emissions factor

Please explain
Total direct emissions produced from fuel excluding fleet (Scope 1)

Activity
Distribution

Emissions category
<Not Applicable>

Emissions (metric tons CO2e)
3836.45

Methodology
Default emissions factor

Please explain
Total direct emissions produced from fuel consumption (diesel, gasoline, LPG) of fleet (Scope 1)

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Republic of Korea	80126.317	73603.99
Indonesia	10153	639
Russian Federation	1792	1792
Turkey	1057	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.
By facility

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Sintanjin (Korea) Factory	26054.887	22503.269
Gwangju (Korea) Factory	7756	7756
Gimcheon (Korea) Factory	2458.984	10.07
Yeongju (Korea) Factory	12356.57	12356.57
Cheonan (Korea) Factory	3382.48	3382.48
Other offices in Korea	28117.398	27595.605
Indonesia Factory	10153	639
Russia Factory	1792	1792
Turkey Factory	1057	0

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?
Yes

C7.7a

(C7.7a) Break down your gross Scope 1 and Scope 2 emissions by subsidiary.

Subsidiary name
PT Trisakti Purwosari Makmur

Primary activity
Tobacco products

Select the unique identifier(s) you are able to provide for this subsidiary
No unique identifier

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
1857

Scope 2, location-based emissions (metric tons CO2e)
10153

Scope 2, market-based emissions (metric tons CO2e)
639

Comment
A subsidiary located in Indonesia.

Subsidiary name
KT&G Rus L.L.C.

Primary activity
Tobacco products

Select the unique identifier(s) you are able to provide for this subsidiary
No unique identifier

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
1022

Scope 2, location-based emissions (metric tons CO2e)
1792

Scope 2, market-based emissions (metric tons CO2e)
1792

Comment
A subsidiary located in Russia.

Subsidiary name
KT&G Tutun Mamulleri Sanayi ve Ticaret A.S.

Primary activity
Tobacco products

Select the unique identifier(s) you are able to provide for this subsidiary
No unique identifier

ISIN code – bond
<Not Applicable>

ISIN code – equity
<Not Applicable>

CUSIP number
<Not Applicable>

Ticker symbol
<Not Applicable>

SEDOL code
<Not Applicable>

LEI number
<Not Applicable>

Other unique identifier
<Not Applicable>

Scope 1 emissions (metric tons CO2e)
717

Scope 2, location-based emissions (metric tons CO2e)
1057

Scope 2, market-based emissions (metric tons CO2e)
0

Comment
A subsidiary located in Turkuye.

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?
Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	17565	Decreased	14.57	Scope 1+2 emissions in 2021: 120,515.68tCO2eq Change in emissions due to change in renewable energy consumption in 2022; ⓐ Photovoltaics (self-consumption): 471tCO2eq ⓑ Renewable Energy Certificates (RECs): 17,094tCO2eq (ⓐ+ⓑ)/(Scope 1+2 emissions in 2021) = 14.57%.
Other emissions reduction activities	4669	Decreased	3.87	Energy efficiency and emissions reduction activities carried out in 2022 - Process optimization: 1,787 tCO2eq - Solar PV: 142 tCO2eq - Machine/equipment replacement: 2,153 tCO2eq - Waste heat recovery: 460 tCO2eq - Automation: 127 tCO2eq Sum = 4,669 tCO2eq 4,669/120,515.68= 3.87%
Divestment	0	No change	0	KT&G did not have any changes due to change change in divestment in 2022.
Acquisitions	0	No change	0	KT&G did not have any changes due to change change in acquisitions in 2022.
Mergers	0	No change	0	KT&G did not have any changes due to change change in mergers in 2022.
Change in output	16313	Increased	13.54	Overall tobacco product production increased by approximately 3.8% year-on-year, and next-generation tobacco product production increased by approximately 32.6% year-on-year. These production changes resulted in an increase in emissions of 16.313 tCO2eq, contributing to a 13.54% (16,313/120,515.68) change in emissions compared to 2021 emissions of 120,515.68 tCO2eq.
Change in methodology	0	No change	0	KT&G did not have any changes due to change change in methodology in 2022.
Change in boundary	0	No change	0	KT&G did not have any changes due to change change in boundary in 2022.
Change in physical operating conditions	0	No change	0	KT&G did not have any changes due to change change in physical operating conditions in 2022.
Unidentified	0	No change	0	KT&G did not have any changes due to change unidentified in 2022.
Other	0	No change	0	KT&G did not have any changes due to change other in 2022.

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	199439.35	199439.35
Consumption of purchased or acquired electricity	<Not Applicable>	29064.68	163188.87	192254.55
Consumption of purchased or acquired heat	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of purchased or acquired steam	<Not Applicable>	0	8490.28	8490.28
Consumption of purchased or acquired cooling	<Not Applicable>	<Not Applicable>	<Not Applicable>	<Not Applicable>
Consumption of self-generated non-fuel renewable energy	<Not Applicable>	1025.93	<Not Applicable>	1025.93
Total energy consumption	<Not Applicable>	30090.61	371118.5	401210.11

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	Yes
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value
HHV

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other biomass

Heating value
HHV

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value
HHV

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Coal

Heating value
HHV

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Oil

Heating value
HHV

Total fuel MWh consumed by the organization
18564.02

MWh fuel consumed for self-generation of electricity
15.02

MWh fuel consumed for self-generation of heat
18549

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
Oil fuels comprise gasoline, diesel, heavy fuel oil, light fuel oil, and LPG. Diesel is widely used in KT&G operations, including fleet vehicles and on-site emergency generators. Gasoline is used in business vehicles.

Gas

Heating value
HHV

Total fuel MWh consumed by the organization
180875.83

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
180047

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
828.83

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment
KT&G's usage of gas-type fuel is primarily based on LNG (Liquified Natural Gas). This LNG is mainly used as a fuel source for general heating and cooking, and it is also utilized in puffing facilities

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value
HHV

Total fuel MWh consumed by the organization
0

MWh fuel consumed for self-generation of electricity
0

MWh fuel consumed for self-generation of heat
0

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
0

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

Total fuel

Heating value
HHV

Total fuel MWh consumed by the organization
199439.35

MWh fuel consumed for self-generation of electricity
15.02

MWh fuel consumed for self-generation of heat
182101

MWh fuel consumed for self-generation of steam
<Not Applicable>

MWh fuel consumed for self-generation of cooling
828.83

MWh fuel consumed for self- cogeneration or self-trigeneration
<Not Applicable>

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	1040.95	1040.95	1025.93	1025.93
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Country/area of low-carbon energy consumption
Republic of Korea

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Solar

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
3204.25

Tracking instrument used
Korean REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Republic of Korea

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2018

Comment
In 2022, KT&G acquired RECs from 24 solar power facilities, with the year shown representing the start of commercial operation of the facility with the largest share of the acquisition.

Country/area of low-carbon energy consumption
Republic of Korea

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Wind

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
2649

Tracking instrument used
Korean REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Republic of Korea

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2012

Comment

Country/area of low-carbon energy consumption
Republic of Korea

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Other biomass

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
8393

Tracking instrument used
Korean REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Republic of Korea

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2017

Comment
The REC is issued by Korea South-East Power (KOEN)'s biomass power plant. The biomass power plant of Korea South-East Power is a wood pellet incineration power plant. Although the Sustainable Biomass certification required by CDP is not confirmed, it is a corresponding facility under the Korean REC issuance conditions.

Country/area of low-carbon energy consumption
Indonesia

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Small hydropower (<25 MW)

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
12300

Tracking instrument used
I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Please select

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2015

Comment

Country/area of low-carbon energy consumption
Turkey

Sourcing method
Default delivered electricity from the grid (e.g. standard product offering by an energy supplier), supported by energy attribute certificates

Energy carrier
Electricity

Low-carbon technology type
Geothermal

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)
2518

Tracking instrument used
I-REC

Country/area of origin (generation) of the low-carbon energy or energy attribute
Please select

Are you able to report the commissioning or re-powering year of the energy generation facility?
Yes

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)
2009

Comment

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area
Republic of Korea

Consumption of purchased electricity (MWh)
185824.85

Consumption of self-generated electricity (MWh)
1040.95

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
8490.28

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
195356.08

Country/area
Indonesia

Consumption of purchased electricity (MWh)
13125.82

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
13125.82

Country/area
Russian Federation

Consumption of purchased electricity (MWh)
5032

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
5032

Country/area
Turkey

Consumption of purchased electricity (MWh)
2517

Consumption of self-generated electricity (MWh)
0

Is this electricity consumption excluded from your RE100 commitment?
<Not Applicable>

Consumption of purchased heat, steam, and cooling (MWh)
0

Consumption of self-generated heat, steam, and cooling (MWh)
0

Total non-fuel energy consumption (MWh) [Auto-calculated]
2517

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description
Other, please specify (Waste recycling rate(%))

Metric value
83.7

Metric numerator
Waste recycled(Ton)

Metric denominator (intensity metric only)
Waste generated (Ton)

% change from previous year
15.45

Direction of change
Increased

Please explain
Waste generated unavoidably in the production process, if not recycled, is disposed of by methods such as landfilling or incineration, causing a burden on the environment. Recycling waste is the most reliable method to reduce these risks, achieve a circular economy, and reduce the use of new resources. KT&G has set a goal to achieve a 90% recycling rate for waste from our business sites by 2030. To reach this goal, we are striving to thoroughly separate waste for easy recycling and seek suitable recycling methods for waste that was not previously recycled. In 2022, the amount of waste generated was 9,974 tons, of which 8,343 tons were recycled, recording a recycling rate of 83.7%. As this indicator is a recycling rate, an increasing trend signifies a positive impact.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
★Scope1+2 Kor_KR, EN.pdf

Page/ section reference
p2 - Verification Target / Verification Scope / Verification Criteria / Level of Assurance / Verification Opinions

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
91

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
★Scope1+2 overseas_EN_2022.pdf

Page/ section reference
p1 - Scope of Assurance / Verification Approach / Conclusions
p2 - Greenhouse Gas Emissions of KT&G global networks (production) for Yr 2022

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
9

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Reasonable assurance

Attach the statement
★Scope1+2 Kor_KR, EN.pdf

Page/ section reference
p2 - Verification Target / Verification Scope / Verification Criteria / Level of Assurance / Verification Opinions

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
92

Scope 2 approach
Scope 2 market-based

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
★Scope1+2 overseas_EN_2022.pdf

Page/ section reference
p1 - Scope of Assurance / Verification Approach / Conclusions
p2 - Greenhouse Gas Emissions of KT&G global networks (production) for Yr 2022

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
8

C10.1c

(C10.1c) Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

Scope 3 category
Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)
Scope 3: Upstream transportation and distribution
Scope 3: Waste generated in operations
Scope 3: Business travel
Scope 3: Employee commuting
Scope 3: Downstream transportation and distribution
Scope 3: Use of sold products
Scope 3: End-of-life treatment of sold products

Verification or assurance cycle in place
Annual process

Status in the current reporting year
Complete

Type of verification or assurance
Limited assurance

Attach the statement
★Scope3_EN.pdf

Page/section reference
p1 - Scope of Assurance / Verification Approach / Other indirect emissions (Scope 3) of KT&G in Yr. 2020~2022
p2 - Appendix #1. Verified Emissions in each Categories (Scope 3)

Relevant standard
ISO14064-3

Proportion of reported emissions verified (%)
100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?
Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C3. Business strategy	Alignment with a sustainable finance taxonomy	ISAE3000	p212 KT&G Environmental Taxonomy KTnG_2022IR_design_TCG0727.pdf
C5. Emissions performance	Year on year change in emissions (Scope 1 and 2)	ISAE3000	p170 Four years of Scope 1 and 2 greenhouse gas emissions data KTnG_2022IR_design_TCG0727.pdf
C5. Emissions performance	Year on year change in emissions (Scope 3)	ISAE3000	p171 Four years of Scope 3 greenhouse gas emissions data KTnG_2022IR_design_TCG0727.pdf
C3. Business strategy	Other, please specify (Climate change scenario analysis and risk assessment result)	ISAE3000	p77~79 Information on the climate change scenario analysis process, analysis results, and risk-specific response strategies and activities. KTnG_2022IR_design_TCG0727.pdf
C4. Targets and performance	Progress against emissions reduction target	ISAE3000	p73 GHG reduction targets and mitigation measures, GHG reduction targets based on SBTi KTnG_2022IR_design_TCG0727.pdf

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?
Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.
Korea ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Korea ETS

% of Scope 1 emissions covered by the ETS
90.7

% of Scope 2 emissions covered by the ETS
92.4

Period start date
January 1 2021

Period end date
December 31 2025

Allowances allocated
103632

Allowances purchased
0

Verified Scope 1 emissions in metric tons CO2e
34963.95

Verified Scope 2 emissions in metric tons CO2e
73603.99

Details of ownership
Facilities we own and operate

Comment
KT&G is a company subject to allocation of allowances under the Korea Emissions Trading Scheme (K-ETS). It is applied to Scope 1 and 2 emissions from Korean business sites, and greenhouse gases emitted from overseas business sites do not fall under this emission trading schemes. The figures entered as verified Scope 1 and 2 emissions are domestic emissions, and overseas emissions were also verified and reported. The allowances allocated filled in are for the year 2022 in the period.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

KT&G is a participant in the "Greenhouse Gas Emissions Trading Scheme" in South Korea. The ETS system has advantages to encourage the participating organizations to carry out voluntary reduction activities and technological development to adjust their carbon emissions and minimize costs. However, due to the dynamic and unpredictable nature of emission allowance prices, it can also pose a risk for future investments. To address this, KT&G is conducting a comprehensive long-term analysis of the allocated quantities of emission allowances, introducing an internal carbon pricing mechanism, and implementing activities to reduce energy consumption throughout the organization.

Based on an internal analysis of the emissions trading market outlook, KT&G anticipates a decrease in the quantity of free-allocated emission allowances, which could lead to an increase in the emission allowance price. Accordingly, the company is taking a holistic approach for the management of energy usage and GHG emissions. Particularly, we have set potential ets-driven carbon costs as a long-term risk factor and have introduced an internal carbon pricing mechanism. The internal carbon price has been set at KRW 50,000 per ton of CO2, which is the highest than ever, to consider potential carbon costs in decision-making for investments. Moreover, we have established a process to readjust the internal carbon price at an appropriate level if the allowance prices increase.

In addition to these efforts, KT&G is actively pursuing initiatives to minimize environmental impact through the management of environmental indicators that cover GHGs, water consumption, and waste. We continuously strive to reduce carbon emissions through the development and adoption of energy-saving technologies, the expansion of renewable energy, and the plan to implement Facility Energy Management Systems (FEMS) in all operations by 2023 to strengthen our management systems. Furthermore, we are expanding rooftop solar power generation facilities in our manufacturing and raw material plants as well as purchasing RECs to increase the share of renewable energy and reduce emissions.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?
No

C11.3

(C11.3) Does your organization use an internal price on carbon?
Yes

C11.3a

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Type of internal carbon price
Shadow price

How the price is determined
Alignment with the price of allowances under an Emissions Trading Scheme

Objective(s) for implementing this internal carbon price
Change internal behavior
Drive low-carbon investment
Identify and seize low-carbon opportunities
Stakeholder expectations
Stress test investments

Scope(s) covered
Scope 1
Scope 2

Pricing approach used – spatial variance
Uniform

Pricing approach used – temporal variance
Evolutionary

Indicate how you expect the price to change over time
KT&G's internal carbon price is applied to investment activities for emissions reduction which may have a potential company-wide impact. Uniform pricing is applied in domestic regions and business units under the influence of South Korea's emissions trading scheme. This means that a single price is applied during the decision-making process. If the allowance price (carbon price) exceeds the internal carbon price, based on the constant monitoring of the allowance price, an additional readjustment process is in place. The current internal carbon price is set at KRW 50,000 per metric ton of CO2, approximately 9,200 KRW higher than the highest historical price domestically. As of December 2022, the allowance price in South Korea is relatively low at KRW 12,000, but it is expected to increase as the market becomes normalized, and the carbon price rises.

Actual price(s) used – minimum (currency as specified in C0.4 per metric ton CO2e)
50000

Actual price(s) used – maximum (currency as specified in C0.4 per metric ton CO2e)
50000

Business decision-making processes this internal carbon price is applied to
Capital expenditure
Risk management

Mandatory enforcement of this internal carbon price within these business decision-making processes
Yes, for some decision-making processes, please specify (In the process of calculating the payback period for emission reduction investments, the internal carbon price is applied to the expected cost savings. The internal carbon price is taken into account for investment decisions regarding future costs.)

Explain how this internal carbon price has contributed to the implementation of your organization's climate commitments and/or climate transition plan
KT&G's internal carbon price is used as a guideline for economic analysis to induce decision-making that considers the potential carbon cost burden when making investment decisions, and to improve and encourage the viability of investment activities in response to climate change. The internal carbon price is incorporated in the calculation of estimated cost savings from climate-related investment activities as well as in the calculation of the payback period for emissions reduction activities. Currently, KT&G's internal carbon price is set at KRW 50,000/tCO2, which is higher than the highest historical price, and the company operates a process to readjust the internal carbon price when the market price of allowance becomes higher than the internal carbon price.
In 2022, when developing plans for rooftop solar power installations in domestic manufacturing facilities, the internal carbon price was applied to calculate profits and alternative effects, thereby encouraging the costs saved to be invested in renewable energy facilities. Specifically, assuming an annual reduction of approximately 1,690 tons of emissions by installing solar facilities, an economic benefit of approximately KRW 85 million per year has been estimated with the internal carbon price applied for the calculation.
As the calculation method for the payback period, which was previously calculated as "investment cost/energy saving cost", has been changed to "investment cost/(energy saving cost + internal carbon price)" due to the internal carbon pricing in operation, the payback period of the investment in climate change response activities has been shortened. As such, the internal carbon price enables us to make positive decisions in the internal investment policy and decision-making process for various emission reduction activities, and serves as a major guideline to determine priorities of the reduction activities by comparing the financial impact of potential reductions from the activities.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?
Yes, our suppliers
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement
Engagement & incentivization (changing supplier behavior)

Details of engagement
Run an engagement campaign to educate suppliers about climate change
Provide training, support, and best practices on how to make credible renewable energy usage claims
Provide training, support, and best practices on how to set science-based targets
Offer financial incentives for suppliers who reduce your operational emissions (Scopes 1 & 2)

% of suppliers by number
18.9

% total procurement spend (direct and indirect)
90.9

% of supplier-related Scope 3 emissions as reported in C6.5
27.6

Rationale for the coverage of your engagement
The target suppliers included in the coverage of our engagement are defined as significant suppliers to the company. These significant suppliers are located in South Korea, accounting for over 90% of KT&G's total purchase amount. When selecting these significant suppliers, various factors such as financial performance, ESG criteria, quality management systems, product quality, collaboration status, and international certifications are comprehensively considered. This approach plays a vital role in strengthening KT&G's relationships with its suppliers and achieving better business outcomes.
In 2022, out of a total of 90 suppliers, the top 17 suppliers, which represent over 90% of the total purchase amount, were selected as significant suppliers.
KT&G operates an ESG performance improvement program that prioritizes carbon reduction for the significant suppliers. This program involves various support activities aimed for effective emission reduction, including assistance in setting their GHG reduction targets, energy consumption diagnoses, and identification of focus areas for reduction. These activities help our suppliers accelerate their GHG reduction and achieve better environmental performance.
Through this program, KT&G provides the necessary support for suppliers to undertake emission reduction initiatives, thereby proactively contributing to sustainability. Our engagement efforts extend beyond the company and foster environmental responsibilities for our suppliers while helping them reduce their emissions.

Impact of engagement, including measures of success
Supply chain management is a core task and essential requirement for establishing a sustainable industrial ecosystem for KT&G and implementing its medium to long-term business strategies. The company actively strives for sustainability of the supply chain in the domestic and overseas tobacco industry and for effective management of suppliers across the organization.
KT&G's supplier ESG evaluation guidelines provide criteria and focus points for each evaluation item. For instance, when assessing the level of energy consumption and GHG emissions management, the evaluation covers various factors such as the availability of energy and GHGs management regulations, emission reduction targets, and the related implementation plans.
(Measures of success)The evaluation outcomes are categorized into results for individual suppliers and overall results for all suppliers. The evaluated suppliers are individually provided with evaluation results by each sector along with a list of improvement tasks that need to be supplemented by on-site reviews. We determine the success of our engagement activities based on the suppliers' status of establishing their own GHG management systems in operation as well as setting reduction targets.
(Case) In 2022, KT&G has conducted evaluations targeting a total of 167 main partner companies that it deals with from three external organizations, following the partner evaluation process. This includes 76 NTM·NGP material partner companies, 83 real estate headquarters construction partner companies, and 8 sales headquarter sales goods partner companies.
KT&G is conducting an online evaluation targeting the top partners in manufacturing and trading volume among NTM·NGP material partners. Based on the results of the evaluation, it selects partner companies for on-site evaluation considering legal risks and the stable introduction of evaluation. Since 2021, KT&G has been expanding the participating partners to promote the enhancement of ESG management and ESG capabilities. As a result of the evaluation, the average score of all evaluation items has increased over the past three years.

Comment

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

As of 2022, KT&G purchased approximately 7,224 tons of tobacco leaf from more than 2,700 farms, amounting to KRW 71.7 billion in purchase price. For KT&G, whose main business is tobacco, tobacco leaf farmers are essential business partners in its supply chain. It is important to secure the sustainability of tobacco leaf farmers for the corporate ESG management in pursuit of economically, socially, and environmentally sound growth. Therefore, KT&G initiated the Sustainable Tobacco Program (STP) to procure high-quality tobacco leaf cultivated by means of sustainable agriculture.

STP is a tobacco leaf cultivation management program, an industry-wide initiative, jointly developed by global tobacco manufactures and experts, and it consists of eight parts, including Governance, Ethics, Crop, Climate Change, and Human Rights. It has been already considered as a requirement rather than a choice for leading global companies in the industry. Given the inevitable trend of strengthening social regulations related to tobacco leaf in the aspects of ESG as well as quality and safety, the domestic tobacco leaf business needs to be thoroughly prepared accordingly. In response to this, KT&G held the 'ESG Declaration Ceremony for Domestic Tobacco Business' in June 2022 to emphasize its commitment to STP. The company is actively implementing policies for sustainable agriculture and providing ESG training to employees of tobacco leaf production cooperatives, solidifying the domestic implementation of STP. Furthermore, we plan to improve the STP indicators by conducting surveys among tobacco leaf farmers.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization’s purchasing process?
Yes, climate-related requirements are included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement
Complying with regulatory requirements

Description of this climate related requirement
KT&G has established an environmental management policy to fulfill its social and environmental responsibility and to promote Green Impact in pursuit of business operation. This policy advocates the same level of compliance not only among the business operations (headquarters, domestic and overseas production sites, sales operations, etc.) and employees but also among all stakeholders in the entire business value chain, including suppliers, distributors and logistics.
In addition, to encourage social, environmental, and ethical responsibilities of partner companies in the supply chain, KT&G has developed the "KT&G Supplier Code of Conduct." Upon contract, suppliers are required to sign and adhere to the Code of Conduct, and their agreement to compliance is obtained annually. This is aimed to minimize the impact of supplier companies on local communities and the environment, while also ensuring their compliance with environmental laws and regulations. In case of any violations, transactions are suspended, which lasts until proper improvements are made.
Furthermore, KT&G proactively seeks to identify the use of hazardous chemicals that may pose environmental risks while striving to reduce any form of wastes, including wastewater, through recycling and reuse.

% suppliers by procurement spend that have to comply with this climate-related requirement
100

% suppliers by procurement spend in compliance with this climate-related requirement
100

Mechanisms for monitoring compliance with this climate-related requirement
Supplier self-assessment
Second-party verification
Off-site third-party verification
On-site third-party verification
Grievance mechanism/Whistleblowing hotline
Supplier scorecard or rating

Response to supplier non-compliance with this climate-related requirement
Suspend and engage

C-AC12.2/C-FB12.2/C-PF12.2

(C-AC12.2/C-FB12.2/C-PF12.2) Do you encourage your suppliers to undertake any agricultural or forest management practices with climate change mitigation and/or adaptation benefits?
Yes

C-AC12.2a/C-FB12.2a/C-PF12.2a

(C-AC12.2a/C-FB12.2a/C-PF12.2a) Specify which agricultural or forest management practices with climate change mitigation and/or adaptation benefits you encourage your suppliers to undertake and describe your role in the implementation of each practice.

Management practice reference number
MP1

Management practice
Fertilizer management

Description of management practice
KT&G is reducing its carbon impact by reducing the use of chemical fertilizers and promoting eco-friendly ones through joint research and collaboration with tobacco leaf farmers. Nitrogenous chemical fertilizers are a major source of nitrogen dioxide, a greenhouse gas, and reducing the use of chemical fertilizers can decrease emissions from the fertilizers.

Your role in the implementation
Financial
Knowledge sharing

Explanation of how you encourage implementation
KT&G provides tobacco leaf farmers with eco-friendly fertilizers for tobacco leaf cultivation. And we provide agronomy practice manual to tobacco farmers which contains sections such as fertilizer, land, crop, waste management etc. We plan to apply Sustainable Tobacco Programme (STP) to encourage tobacco farmers to implement best agronomy practices. In this regard, we held the 'ESG Declaration Ceremony for Domestic Tobacco Business' in June 2022, conducted training for employees of tobacco leaf production cooperatives and farmers, and established a 'Sustainable Agriculture Policy' that contains the basic principles of the company. In the future, we plan to internalize the management system through trial operations and the development of regulations and evaluation systems tailored to the domestic cultivation environment. We also plan to jointly explore ways to reduce environmental impacts by supporting installation of high thermal efficiency devices for tobacco leaf dryers, for instance.
In addition, we schedule periodic field visits to provide technical assistance and training via KTGO to contracted farmers.

Climate change related benefit
Emissions reductions (mitigation)
Reduced demand for fertilizers (adaptation)
Reduced demand for pesticides (adaptation)

Comment

Management practice reference number
MP2

Management practice
Reducing energy use

Description of management practice
We are carrying out a project to support recovery of waste heat discarded in the process of drying tobacco leaf. We are saving energy in the tobacco processing stage by attaching heat recovery devices to dryers, thus reducing the consumption of kerosene. We aim to improve the efficiency of a total of 4,000 dryers in tobacco farms by 2030 through this project.

Your role in the implementation
Financial

Explanation of how you encourage implementation
We encourage engagement of tobacco farms by financially sponsoring the installation of tobacco dryers as well as promoting the effect and economic benefits of reducing kerosene consumption through efficiency improvement. In 2022, KT&G supplied 84 fuel-saving devices (KRW 76 million of budget) to farmers to ensure their profitability and emission reduction.

Climate change related benefit
Emissions reductions (mitigation)
Reduced demand for fossil fuel (adaptation)

Comment

C-AC12.2b/C-FB12.2b/C-PF12.2b

(C-AC12.2b/C-FB12.2b/C-PF12.2b) Do you collect information from your suppliers about the outcomes of any implemented agricultural/forest management practices you have encouraged?
Yes

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
Yes, we engage directly with policy makers

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?
Yes

Attach commitment or position statement(s)
kt&g_TCFD_0727.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan
KT&G regularly monitors ESG issues, including climate change, and trends in laws and policies related to KT&G's main business areas through the ESG Planning Team and the Compliance Support Department. In this way, we analyze the impact of government/parliamentary policies while reviewing the company's response activities and ESG strategies.
The attached document is KT&G's TCFD report, and on page 19, it contains a statement on Policy and Stakeholder Engagement in accordance with the Paris Agreement.

Primary reason for not engaging in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

Explain why your organization does not engage in activities that could directly or indirectly influence policy, law, or regulation that may impact the climate
<Not Applicable>

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers
South Korea's emissions trading scheme (K-ETS) and renewable energy policies are considered as main policy instruments to address climate change. In an effort to better respond to them, companies are conducting various engagement activities.

1. ETS (Emissions Trading Scheme): Companies buy and sell emission credits based on the government's emission allocation to achieve GHGs reduction targets. Companies exceeding their emission limits either purchase allowances from other companies to comply with regulations or make efforts to reduce emissions. Moreover, companies continuously monitor regulatory changes related to ETS and develop strategies to respond accordingly.

2. Renewable Energy Policy: Companies make efforts to reduce their own energy consumption or adopt renewable energy in line with the government's renewable energy policy. For this purpose, we utilize various renewable energy sources and technologies such as solar, wind, and hydro power, and implement strategies to improve energy efficiency and reduce carbon emissions.

These engagement activities support sustainable growth of companies and are aimed to fulfill corporate responsibilities regarding climate change issues. KT&G actively participates in such engagement activities, striving to achieve its reduction targets and sustainable growth.

Category of policy, law, or regulation that may impact the climate
Carbon pricing, taxes, and subsidies

Focus area of policy, law, or regulation that may impact the climate
Emissions trading schemes
Subsidies for renewable energy projects
Subsidies on infrastructure

Policy, law, or regulation geographic coverage
National

Country/area/region the policy, law, or regulation applies to
Republic of Korea

Your organization's position on the policy, law, or regulation
Support with no exceptions

Description of engagement with policy makers
KT&G actively engage with various policies of the Korean government to create a sustainable industrial ecosystem and protect the environment. In doing so, we recognize that emissions reduction is not only a legal obligation, but also a social responsibility for a sustainable society.
To this end, KT&G actively participates in various public hearings and policy briefings related to government-led GHG regulations. These events provide an opportunity for KT&G to meet and interact directly with policy makers and to hear and understand the aims of policy.
Through the engagement activities with policy makers, KT&G clearly understands the government's national mid- to long-term GHG reduction targets and plans and implements reduction activities in line with them. We also thoroughly identify measures to support the government's emission reduction policies.

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation
<Not Applicable>

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?
Yes, we have evaluated, and it is aligned

Please explain whether this policy, law or regulation is central to the achievement of your climate transition plan and, if so, how?
KT&G considers it significantly important to understand the government's policy directions and levels in areas such as emissions reduction and energy transition. In this way, we can mitigate the impact of transition risks resulting from potential government policy changes and implement transition plans more effectively.
If a company fails to keep up with the government policy changes, it may be exposed to transition risks. This could lead to issues during the execution of climate transition plans, such as non-compliances or failure to achieve emission reduction targets.
Therefore, KT&G actively engages in the government's policies related to GHG emissions and renewable energy. In recognition of the vital role these policies and regulatory measures play in its climate transition plans, we are working on strengthening legal compliance and reliability, enhancing resilience to changing policies, and achieving reduction targets.

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication
In mainstream reports, incorporating the TCFD recommendations

Status
Complete

Attach the document
KTnG_2022IR_design_TCG0727.pdf

Page/Section reference
Pages 30-36: Major achievements of KT&G's environmental management and GHG reduction activities, and plans for responding to climate change
Pages 73-79: Climate change response activities complying with TCFD recommendations, evaluation results of climate change risks through scenario analysis, response strategies, and reflection of financial impacts
Pages 139-148: Governance
Pages 169-174: Key environmental quantitative data such as energy consumption, GHG emissions, and water usage

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
KT&G Report is newly published from 2017 combining Annual Report including financials and sales performance and Sustainability Report including ESG (environmental, social and corporate governance) Report. KT&G prepared this report in accordance with the Core Option of the GRI (Global Reporting Initiative) Standards.Also, we reflected the indices of UN SDGs (Sustainable Development Goals), TCFD(Task Force on Climate-related Financial Disclosures), and SASB(Sustainability Accounting Standards) as a reference.
The attached file is currently undergoing some design modifications and is not a 100% completed version, but the English version is expected to be published in August. It is a report that has been third-party verified by KPMG.

Publication
In voluntary communications

Status
Complete

Attach the document
kt&g_TCFD_0727.pdf

Page/Section reference
page 3-5/ KT&G's Progress and Goals for TCFD Implementation
page 6/ Governance: Board-Level Oversight and Management Roles on Climate Change
page 7-14/ Strategy: Climate Change Scenario Analysis
page 15/ Risk Management: Climate Change Risk Management Process
page 16-18/ Targets/Metrics: Medium and Long-term Greenhouse Gas Reduction Targets and Key Implementation Plans
page 19/ Policy and stakeholder engagement & Next Step

Content elements
Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment
The attached document is KT&G's TCFD report, and the part about climate change scenario analysis has been updated compared to the previous year's report. The English version of this report is expected to be published within August.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Climate-related Financial Disclosures (TCFD)	Supporter of TCFD Following its declaration of commitment for the TCFD in September 2020, KT&G has been disclosing the implementation performance and status of climate change response activities by sector in accordance with the guidelines of "Governance, Strategy, Risk Management, Targets and Indicators" and has set the 1.5℃-aligned target in line with the recommendations of the SBTi. In particular, in 2022, we have systematized risk assessment through climate change scenario analysis to enhance the level of response.
	Task Force on Nature-related Financial Disclosures (TNFD)	Member of TNFD Forum Natural capital serves as a foundation of our economic system, yet the associated risks and opportunities are not adequately reflected in business decisions, and the major ecosystems beneficial to businesses are significantly in decline. As such, corporations and governments around the world are developing strategies to address biodiversity issues along with climate change, while investors and financial societies are also requiring companies to identify and disclose their financial impacts to natural resources including oceans, soil, freshwater, and air. In response to the increasing demands for information disclosure on natural capital and biodiversity, the Taskforce on Nature-related Financial Disclosures (TNFD), a global environmental collaborative framework, is developing voluntary disclosure standards based on seven principles: market usability, science-based, nature-related risks, purpose-driven, integrated & adaptive, climate-nature nexus and globally inclusive, which will be released in 2023. KT&G joined TNFD in December 2022, considering the nature of its food and tobacco business being highly dependent on natural capital. With a commitment to active monitoring and communication of relevant trends, the company aims to base its future initiatives on the TNFD framework. Moving forward, KT&G plans to establish biodiversity management indicators and preemptively address risks using the TNFD framework. It will also conduct assessments of natural capital impacts within its value chain and engage in activities for conservation and restoration of nature and ecosystems. Furthermore, the company will strengthen ESG management tailored to its industry and promote external communication based on global initiatives. Through this, KT&G seeks to enhance its capacity to respond to natural capital issues that are growing in importance and continue to make efforts to reduce the business impact on biodiversity.

C13. Other land management impacts

C-AC13.2/C-FB13.2/C-PF13.2

(C-AC13.2/C-FB13.2/C-PF13.2) Do you know if any of the management practices mentioned in C-AC12.2a/C-FB12.2a/C-PF12.2a that were implemented by your suppliers have other impacts besides climate change mitigation/adaptation?

Yes

C-AC13.2a/C-FB13.2a/C-PF13.2a

(C-AC13.2a/C-FB13.2a/C-PF13.2a) Provide details of those management practices implemented by your suppliers that have other impacts besides climate change mitigation/adaptation.

Management practice reference number

MP1

Overall effect

Positive

Which of the following has been impacted?

Biodiversity
Soil
Water

Description of impacts

Tobacco farming can have an impact on soil and water through the use of fertilizers and herbicides during the cultivation process. Based on the Sustainable Tobacco Program (STP), KT&G shares standard farming practices and guidelines with tobacco farmers. These guidelines include appropriate criteria and management methods for fertilizer usage, as well as information on potential environmental impacts that may arise during the tobacco cultivation process. This allows farmers to minimize their environmental footprint and pursue effective crop management. By promoting the proper use of fertilizers and herbicides, the guidelines encourage them to prevent soil and water pollution caused by misuse. Additionally, KT&G undertakes seed management by conducting analyses to check genetic modification of tobacco seeds used for the cultivation.

Have any response to these impacts been implemented?

No

Description of the response(s)

The impact is positive, thus no response is required.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity	Scope of board-level oversight
Row 1	Yes, both board-level oversight and executive management-level responsibility	ESG-related issues, including biodiversity, are managed through the ESG Committee. As the chief officer regarding ESG-related matters, the CFO oversees and supervises company-wide ESG activities. KT&G identifies major risks considering the nature of its business and seeks countermeasures after identifying the impact of its business activities over biodiversity across the entire value chain, including business sites.	<Not Applicable>

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Commitment to Net Positive Gain Commitment to No Net Loss Adoption of the mitigation hierarchy approach Commitment to respect legally designated protected areas	SDG Other, please specify (Taskforce on Nature-related Financial Disclosures(TNFD))

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
ENCORE tool
TNFD – Taskforce on Nature-related Financial Disclosures

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
KT&G conducted a preliminary analysis using the ENCORE tool to assess biodiversity-related dependencies and impacts based on the characteristics of the tobacco industry and production processes.
Out of the 11 impact indexes, six areas have been identified for tobacco industry to have implications, including water use and GHG emissions.

Impact Index
- Water use: High
- Terrestrial ecosystem use: Very High
- Other resource use: Low
- GHG emissions: High
- Water pollutants: High
- Soil pollutants: High

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment
Yes

Value chain stage(s) covered
Direct operations

Portfolio activity
<Not Applicable>

Tools and methods to assess impacts and/or dependencies on biodiversity
ENCORE tool
TNFD – Taskforce on Nature-related Financial Disclosures

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)
KT&G conducted a preliminary analysis using the ENCORE tool to assess biodiversity-related dependencies and impacts based on the characteristics of the tobacco industry and production processes.
Out of the 21 dependency indexes, five areas have been identified to have implications of a high level of dependency on natural capital, including groundwater/surface water and other raw materials.

Dependency Index
- Fibers and other materials: Very High
- Mass stabilization and erosion control: Low
- Groundwater: Very High
- Surface water: Very High
- Water flow maintenance: Medium

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

No

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Response indicators

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
In voluntary sustainability report or other voluntary communications	Please select	
Other, please specify (KT&G BIODIVERSITY & NO DEFORESTATION POLICY)	Please select	KTnG_Biodiversity_No_Deforestation_Policy.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

N/a

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Senior Executive Vice President	Chief Operating Officer (COO)

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms