Hyosung TNC Co Ltd

2024 CDP Corporate Questionnaire 2024

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C1. Introduction

(1.1) In which language are you submitting your response?

word_document.select_from

☑ English

(1.2) Select the currency used for all financial information disclosed throughout your response.

word_document.select_from

☑ KRW

(1.3) Provide an overview and introduction to your organization.

(1.3.2) Organization type

word_document.select_from

☑ Publicly traded organization

(1.3.3) Description of organization

Hyosung TNC is the main company of Hyosung Group, and was newly established in June 2018 by dividing the textile/trade business sector among Hyosung's businesses. Hyosung TNC strives to provide the best service by maximizing customer value and gaining global competitiveness with innovative textile technology and global trade networks. The Textile Division supplies yarn, textiles, and dyeing products such as spandex, nylon, and polyester, and based on its own production technology and R&D, it is growing into a global leader in the global chemical fiber industry by producing and selling various products, including "Creora". Hyosung TNC has developed and sells ecofriendly fiber materials such as Bio-based spandex derived from vegetable raw materials, Korea's first recycling polyester yarn 'Regen', a recycling nylon product made by recycling by-products generated in the textile production stage 'MIPAN regen'. In the trade business sector, steel products in the export sector and petrochemicals and precision chemical products and raw materials in the chemical sector are exported and led the trade of steel products by strengthening import and export partnerships with global customers. Hyosung TNC continued to grow, achieving sales of KRW 4.45 trillion and operating profit of KRW 108.6 billion in 2023. [Response to climate change] Hyosung TNC has established a sustainable management operating system as a company that considers sustainable growth and greenhouse gas reduction in the textile industry at the same time, and is actively promoting ESG management to strengthen the sustainable management system. In order to achieve Hyosung's 2030 Green Management Vision 'Becoming an eco-friendly company that enhances and enriches quality of life for humanity', four strategies and detailed tasks have been established to realize Green Management. (ESG Management) In addition, Hyosung TNC's ESG management mission, which reflects Hyosung TNC's management capabilities and business characteristics, 'Complete a circular economic model using the world's

best textile technologies and trading network and create a happy tomorrow' was newly established, and social responsibility management is implemented by establishing management goals and detailed strategies focusing on the four core values of 'circular economy', 'carbon reduction', 'safety/health', and 'winwin'. In addition, we are actively participating in greenhouse gas reduction efforts by participating in the Textile and Paper Industry Carbon Neutral Council, a public/private communication channel for the textile and paper industry, and are promoting carbon footprint calculation of products. It also acquires externally recognized environmental certification (GRS, OEKO-TEX, etc.) to reduce resource circulation and harmful substances. (Goal to reduce greenhouse gas) The Korean government raised the 2030 national greenhouse gas reduction target to "reduce national greenhouse gas by 40% compared to 2018" and reduce the industrial sector to 14.5% in October 2021. Hyosung TNC also set a "14.5% reduction in greenhouse gas emissions in 2030 compared to 2018." Greenhouse gas reduction activities are being carried out to achieve annual reduction targets.
[word_document.fixed_row]

(1.4) State the end date of the year for which you are reporting data. For emissions data, indicate whether you will be providing emissions data for past reporting years.

(1.4.1) End date of reporting year

12/30/2023

(1.4.2) Alignment of this reporting period with your financial reporting period

word_document.select_from
☑ Yes

(1.4.3) Indicate if you are providing emissions data for past reporting years

word_document.select_from
☑ Yes

(1.4.4) Number of past reporting years you will be providing Scope 1 emissions data for

word_document.select_from
☑ Not providing past emissions data for Scope 1

(1.4.5) Number of past reporting years you will be providing Scope 2 emissions data for

word_document.select_from

☑ Not providing past emissions data for Scope 2

(1.4.6) Number of past reporting years you will be providing Scope 3 emissions data for

word_document.select_from
☑ 1 year
[word_document.fixed_row]

(1.4.1) What is your organization’s annual revenue for the reporting period?

4453044534376

(1.5) Provide details on your reporting boundary.

(1.5.1) Is your reporting boundary for your CDP disclosure the same as that used in your financial statements?

word_document.select_from
☑ No

(1.5.2) How does your reporting boundary differ to that used in your financial statement?

While Hyosung TNC presents its financial statements for the reporting year (2023) on a consolidated basis, it is noted that CDP employs a separate standard for reporting purposes. [Reporting Standards] Hyosung TNC presents its financial statements on a consolidated basis, encompassing the parent company and its 23 subsidiaries. However, for the purposes of CDP reporting, the reporting boundary is limited exclusively to Hyosung TNC, the parent company. [Reasoning] The rationale behind this discrepancy lies in the fact that, as of the reporting year, Hyosung TNC lacked the internal standards and specialized expertise necessary to calculate and reconcile environmental performance data for its twenty-three subsidiaries. Nevertheless, in recognition of the substantial contribution these subsidiaries make to the operational boundary, Hyosung TNC is committed to incorporating the environmental performance of all subsidiaries into its CDP reporting scope within the next two years.
[word_document.fixed_row]

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

ISIN code - bond

(1.6.1) Does your organization use this unique identifier?

word_document.select_from

☑ No

ISIN code - equity

(1.6.1) Does your organization use this unique identifier?

word_document.select_from

☑ Yes

(1.6.2) Provide your unique identifier

KR7298020009

CUSIP number

(1.6.1) Does your organization use this unique identifier?

word_document.select_from

☑ No

Ticker symbol

(1.6.1) Does your organization use this unique identifier?

word_document.select_from

☑ No

SEDOL code

(1.6.1) Does your organization use this unique identifier?

word_document.select_from
☑ No

LEI number

(1.6.1) Does your organization use this unique identifier?

word_document.select_from
☑ No

D-U-N-S number

(1.6.1) Does your organization use this unique identifier?

word_document.select_from
☑ No

Other unique identifier

(1.6.1) Does your organization use this unique identifier?

word_document.select_from
☑ No
[word_document.add_row]

(1.7) Select the countries/areas in which you operate.

word_document.select_all_that_apply
☑ Republic of Korea

(1.24) Has your organization mapped its value chain?

(1.24.1) Value chain mapped

word_document.select_from

☑ Yes, we have mapped or are currently in the process of mapping our value chain

(1.24.2) Value chain stages covered in mapping

word_document.select_all_that_apply

☑ Upstream value chain

☑ Downstream value chain

(1.24.3) Highest supplier tier mapped

word_document.select_from

☑ Tier 1 suppliers

(1.24.4) Highest supplier tier known but not mapped

word_document.select_from

☑ Tier 4+ suppliers

(1.24.7) Description of mapping process and coverage

As part of its commitment to shared growth, Hyosung TNC conducts climate change-related issue management and assessments for all its tier 1 suppliers. (Suppliers assessed in 2023: 291) Climate change exerts its influence across the entire value chain from the production of raw materials and components to the demand for finished products. Climate change regulations significantly impact not only the company itself, but also the use and disposal of products at business sites as well as the products sold within the supply chain, ultimately affecting the company's revenue. There exists a risk that non-compliance with GHG regulations by domestic suppliers could call for their replacement with overseas suppliers, leading to increased material costs. To mitigate this, Hyosung TNC is mapping its value chain with all its suppliers. [Type of Information Collected] To map the value chain with its suppliers, Hyosung TNC collects data from them regarding general climate change-related matters (e.g., environmental management systems, energy consumption and GHG emissions measurement, wastewater and waste management) as well as climate change policies, governance, and other environmental areas. [Tools and Methods Employed] Hyosung TNC incorporates suppliers into its enterprise-wide risk management process, conducting annual risk assessments and mitigation activities for them. It leverages a balanced evaluation approach, combining the four categories specified in the supplier code of conduct (i.e., ethics, environment, labor/human rights, safety/health) with sustainability items crucial for business operations, such as quality and cooperation, to assess ESG factors comprehensively. Hyosung TNC collects climate change-related information from suppliers through a self-developed diagnostic table and provides education and consulting to suppliers requiring risk mitigation. [Mapping Scope] While the fundamental principle is to map the value chain with all suppliers, as of the reporting year, the mapping was conducted with sixty-eight suppliers, representing eighty percent of the annual purchase amount.
[word_document.fixed_row]

(1.24.1) Have you mapped where in your direct operations or elsewhere in your value chain plastics are produced, commercialized, used, and/or disposed of?

	Plastics mapping	Value chain stages covered in mapping
	word_document.select_from ☑ Yes, we have mapped or are currently in the process of mapping plastics in our value chain	*word_document.select_all_that_apply* ☑ Upstream value chain ☑ Downstream value chain

[word_document.fixed_row]

C2. Identification, assessment, and management of dependencies, impacts, risks, and opportunities

(2.1) How does your organization define short-, medium-, and long-term time horizons in relation to the identification, assessment, and management of your environmental dependencies, impacts, risks, and opportunities?

Short-term

(2.1.1) From (years)

0

(2.1.3) To (years)

3

(2.1.4) How this time horizon is linked to strategic and/or financial planning

Hyosung TNC establishes financial plans on a Y3 basis, identifying and managing climate change risks based on this timeline.

Medium-term

(2.1.1) From (years)

4

(2.1.3) To (years)

5

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The emissions trading scheme (ETS) planning period is set for five years. It was set as a medium-term of five years considering emission liabilities and revenue through emission trading. All costs associated with regulation during this period (e.g., verification costs, emission permit purchase/sales costs, investment costs for

GHG reduction) are incorporated into the financial plan to address the ETS regulations

Long-term

(2.1.1) From (years)

6

(2.1.2) Is your long-term time horizon open ended?

word_document.select_from
☑ No

(2.1.3) To (years)

10

(2.1.4) How this time horizon is linked to strategic and/or financial planning

The identification, evaluation, and management of enterprise-wide risks, including those exceeding six years, are included in this process, setting long-term goals based on this timeframe.
[word_document.fixed_row]

(2.2) Does your organization have a process for identifying, assessing, and managing environmental dependencies and/or impacts?

	Process in place	Dependencies and/or impacts evaluated in this process
	word_document.select_from ☑ Yes	*word_document.select_from* ☑ Both dependencies and impacts

[word_document.fixed_row]

(2.2.1) Does your organization have a process for identifying, assessing, and managing environmental risks and/or opportunities?

	Process in place	Risks and/or opportunities evaluated in this process	Is this process informed by the dependencies and/or impacts process?
	word_document.select_from ☑ Yes	*word_document.select_from* ☑ Both risks and opportunities	*word_document.select_from* ☑ Yes

[word_document.fixed_row]

(2.2.2) Provide details of your organization's process for identifying, assessing, and managing environmental dependencies, impacts, risks, and/or opportunities.

Row 1

(2.2.2.1) Environmental issue

word_document.select_all_that_apply

☑ Climate change

(2.2.2.2) Indicate which of dependencies, impacts, risks, and opportunities are covered by the process for this environmental issue

word_document.select_all_that_apply

☑ Dependencies

☑ Impacts

☑ Risks

☑ Opportunities

(2.2.2.3) Value chain stages covered

word_document.select_all_that_apply

☑ Direct operations

☑ Upstream value chain

☑ Downstream value chain

(2.2.2.4) Coverage

word_document.select_from

☑ Full

(2.2.2.5) Supplier tiers covered

word_document.select_all_that_apply

☑ Tier 1 suppliers

(2.2.2.7) Type of assessment

word_document.select_from

☑ Qualitative and quantitative

(2.2.2.8) Frequency of assessment

word_document.select_from

☑ Annually

(2.2.2.9) Time horizons covered

word_document.select_all_that_apply

☑ Short-term

☑ Medium-term

☑ Long-term

(2.2.2.10) Integration of risk management process

word_document.select_from

☑ Integrated into multi-disciplinary organization-wide risk management process

(2.2.2.11) Location-specificity used

word_document.select_all_that_apply

☑ National

(2.2.2.12) Tools and methods used

Enterprise Risk Management

☑ Enterprise Risk Management

International methodologies and standards

☑ ISO 14001 Environmental Management Standard

☑ Life Cycle Assessment

(2.2.2.13) Risk types and criteria considered

Acute physical

☑ Flood (coastal, fluvial, pluvial, ground water)

Chronic physical

☑ Changing temperature (air, freshwater, marine water)

Policy

☑ Carbon pricing mechanisms

Market

☑ Availability and/or increased cost of raw materials

Reputation

☑ Negative press coverage related to support of projects or activities with negative impacts on the environment (e.g. GHG emissions, deforestation & conversion, water stress)

Technology

☑ Transition to lower emissions technology and products

Liability

☑ Non-compliance with regulations

(2.2.2.14) Partners and stakeholders considered

word_document.select_all_that_apply

☑ NGOs

☑ Customers

☑ Investors

☑ Suppliers

☑ Regulators

☑ Local communities

(2.2.2.15) Has this process changed since the previous reporting year?

word_document.select_from

☑ No

(2.2.2.16) Further details of process

Hyosung TNC identifies dependencies on nature, impacts and climate change issues, deriving risk and opportunity factors as well as assessing the financial impacts of climate change risks and opportunities through various methodologies. Risk and opportunity factors are analyzed and assessed from short, medium and long-term perspectives, and the risk review targets consider impacts for at least six years into the future. Reviewed climate change risks and opportunities are prioritized, and climate change response strategies aligned with the company's business strategy are developed. The selected key climate change issues are regularly reported to the CEO, and significant matters are reported to the ESG Management Promotion Committee semi-annually to be reflected in enterprise-wide decision-making. 1) Process for identifying Hyosung TNC defines all things that can have a significant impact on management activities such as market uncertainties, internal and external risks/opportunities as 'risk. Risks are divided into 'financial risk' and 'non-financial risk', and major risks are judged in consideration of the influence and possibility of occurrence of risks. Climate change issues are also included in company-wide risk management along with ESG issues. SWOT (Strength, Weakness, Opportunity, Threat) analysis and 3C(Customer, Competitor, Company) analysis are performed on the identified issues. 2) Process for assessing The materiality

assessment is conducted by comprehensively considering stakeholder interest, likelihood of occurrence, at the time of occurrence, the magnitude of the financial and non-financial impact, and business impact, etc. in the identified risk. The identified risk is evaluated for severity by considering the likelihood of occurrence, when it occurs, the magnitude of financial and non-financial impacts, business impact, and stakeholder interest. Financial risk is supervised by the financial headquarters and periodically measures, evaluates, and prepares financial risk through cooperation with domestic and foreign ubsidiaries. Non-financial risks are carried out by ESG management team under the direct control of the CEO, strategic headquarters, support headquarters-centered political risk management organization, and working-level organizations such as business environment, safety, and litigation risks led by PU and factory managers. 3) Process for responding Prepare countermeasures for each risk identified and evaluated risk, and carry out response activities. Items judged as major risks are reported to the board of directors/CEOs, and decisions related to risk management response by CEOs are shared through ESG management teams and applied throughout the company. Items that are not classified as major risks are also managed through continuous monitoring. The risk status is updated and managed every year, and risk management is executed in consideration of the stages of the entire value chain as well as the direct operation. We developed Global Business Information System and have been used it in the company in the mid- to long-term to analyze risks through VOCs in customers and markets. 4) Example cases the ESG management team proposed expanding the management scope of GHG emissions beyond the business units within the reporting boundary to include subsidiaries within the financial consolidation standard as an agenda to the ESG Management Promotion Committee.
[word_document.add_row]

(2.2.7) Are the interconnections between environmental dependencies, impacts, risks and/or opportunities assessed?

(2.2.7.1) Interconnections between environmental dependencies, impacts, risks and/or opportunities assessed

word_document.select_from
☑ Yes

(2.2.7.2) Description of how interconnections are assessed

Hyosung TNC annually conducts materiality assessments to objectively identify and manage the impact, risk, and opportunity of key and sub-themes that stakeholders deem important. In the reporting year, Hyosung TNC applied both the concept of double materiality suggested by the GRI Standards and the ESRS, establishing criteria for impact materiality and Financial materiality, and evaluated materiality through panel in-depth discussions. To identify and select key issues, Hyosung TNC identifies the company's impact on the environment and society and the opportunity and risk factors associated with how these issues impact the company's business. In this process, Hyosung TNC analyzes business information, sustainability-related data, legal reviews, internal and external audit materials, international organization information, global guidelines, and internal and external stakeholder opinions to identify actual and potential impacts on the economy, environment, and people. For the identified impacts, the most severe and significant negative impacts are determined on account of the business relationship value chain, gathering opinions from stakeholders and external experts. Since the prioritization of negative impacts cannot be determined solely by limited stakeholder opinion surveys, the importance of the impact is evaluated by comprehensively considering the business value chain relationship, influence, and stakeholder opinions. The importance of the impact was evaluated on account of the scale of business, business importance, and social interest. In the reporting year, five major key topics were derived through the ESG Management Promotion Committee by applying both the concept of double materiality presented by the Global Reporting Initiative (GRI) Standards and the European Sustainability Reporting Standards (ESRS).
[word_document.fixed_row]

(2.3) Have you identified priority locations across your value chain?

(2.3.1) Identification of priority locations

word_document.select_from

☑ No, but we plan to within the next two years

(2.3.7) Primary reason for not identifying priority locations

word_document.select_from

☑ Lack of internal resources, capabilities, or expertise (e.g., due to organization size)

(2.3.8) Explain why you do not identify priority locations

Hyosung TNC is currently focusing on risk evaluation and identification, partially identifying environmental dependencies and impacts. However, there is a lack of personnel with expertise in evaluating the interconnection between environmental dependencies, impacts, risks, and/or opportunities, and the prioritization methodology. In recognition of the strategic importance of this issue, Hyosung TNC is set to acquire expertise in the prioritization process within the next two years. [word_document.fixed_row]

(2.4) How does your organization define substantive effects on your organization?

Risks

(2.4.1) Type of definition

word_document.select_all_that_apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

word_document.select_from

☑ Direct operating costs

(2.4.3) Change to indicator

word_document.select_from

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

6160000000

(2.4.6) Metrics considered in definition

word_document.select_all_that_apply

☑ Other, please specify **:**Impact Materiality/Financial Materiality

(2.4.7) Application of definition

[Definition of Significant Impact] A climate change-related factor is defined as a potential risk when it affects the business or requires management due to external pressure. Significant financial impact refers to a certain level of influence that climate change risks may have on Hyosung TNC's business. When defining "material financial or strategic risks" related to overall business operations, including climate change issues, Hyosung TNC distinguishes between financial and non-financial impacts, managing both, and applies the following criteria. - Hyosung TNC operates an enterprise-wide delegation and approval system that grants responsibility and authority based on the financial impact of each business, including climate change-related issues, defining the criteria for materiality accordingly. Investments are managed separately as within budget and beyond budget, and this rule applies to enterprise-wide budget planning and investment decision-making, including risks and opportunities from climate change. - For investments of KRW 1 billion or more per project, decisions are made at management meetings. - For investments between KRW 500 million and KRW 1 billion, decisions are made at the CEO level, and for investments of KRW 1 billion or more, decisions are made at management meetings. Therefore, considering Hyosung TNC's highest decision-making authority for climate change-related investments, the material significant financial impact is defined as cases where financial investments of KRW 500 million or more per project, handled at the CEO level or higher, are made. - Non-financial factors such as reputational risk and management risk are factored in to identify and analyze climate-related risks and opportunities. Among these, Hyosung TNC considers "reputational risk" to have a material impact, either financially or strategically. [Measurement Criteria] The criteria for measuring significant impact are social importance and financial importance, with the temporal scope analyzed and evaluated annually from short, medium, and long-term perspectives. Climate change risks/Opportunities are assessed for their financial impact on four factors: (1) financial loss; (2) human injury; (3) corporate image; and (4) legal disputes. Conversely, opportunities are assessed for their impact on three factors: (1) financial gain; (2) enhancement of corporate image; and (3) minimization of legal sanctions/disputes, with priorities determined accordingly.

Opportunities

(2.4.1) Type of definition

word_document.select_all_that_apply

☑ Qualitative

☑ Quantitative

(2.4.2) Indicator used to define substantive effect

word_document.select_from

☑ Direct operating costs

(2.4.3) Change to indicator

word_document.select_from

☑ Absolute increase

(2.4.5) Absolute increase/ decrease figure

6160000000

(2.4.6) Metrics considered in definition

word_document.select_all_that_apply

☑ Other, please specify **:**Impact Materiality/Financial Materiality

(2.4.7) Application of definition

[Definition of Significant Impact] A climate change-related factor is defined as a potential risk when it affects the business or requires management due to external pressure. Significant financial impact refers to a certain level of influence that climate change risks may have on Hyosung TNC's business. When defining "material financial or strategic risks" related to overall business operations, including climate change issues, Hyosung TNC distinguishes between financial and non-financial impacts, managing both, and applies the following criteria. - Hyosung TNC operates an enterprise-wide delegation and approval system that grants responsibility and authority based on the financial impact of each business, including climate change-related issues, defining the criteria for materiality accordingly. Investments are managed separately as within budget and beyond budget, and this rule applies to enterprise-wide budget planning and investment decision-making, including risks and opportunities from climate change. - For investments of KRW 1 billion or more per project, decisions are made at management meetings. - For investments between KRW 500 million and KRW 1 billion, decisions are made at the CEO level, and for investments of KRW 1 billion or more, decisions are made at management meetings. Therefore, considering Hyosung TNC's highest decision-making authority for climate change-related investments, the material significant financial impact is

defined as cases where financial investments of KRW 500 million or more per project, handled at the CEO level or higher, are made. - Non-financial factors such as reputational risk and management risk are factored in to identify and analyze climate-related risks and opportunities. Among these, Hyosung TNC considers "reputational risk" to have a material impact, either financially or strategically. [Measurement Criteria] The criteria for measuring significant impact are social importance and financial importance, with the temporal scope analyzed and evaluated annually from short, medium, and long-term perspectives. Climate change risks/Opportunities are assessed for their financial impact on four factors: (1) financial loss; (2) human injury; (3) corporate image; and (4) legal disputes. Conversely, opportunities are assessed for their impact on three factors: (1) financial gain; (2) enhancement of corporate image; and (3) minimization of legal sanctions/disputes, with priorities determined accordingly.
[word_document.add_row]

C3. Disclosure of risks and opportunities

(3.1) Have you identified any environmental risks which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

Climate change

(3.1.1) Environmental risks identified

word_document.select_from

☑ Yes, both in direct operations and upstream/downstream value chain

Plastics

(3.1.1) Environmental risks identified

word_document.select_from

☑ No

(3.1.2) Primary reason why your organization does not consider itself to have environmental risks in your direct operations and/or upstream/downstream value chain

word_document.select_from

☑ Lack of internal resources, capabilities, or expertise (e.g., due to organization size)

(3.1.3) Please explain

Hyosung TNC failed to identify the risks associated with plastics due to a lack of expert capabilities. The company plans to assess environmental risks related to plastics within two years by familiarizing itself with risk assessment methodologies.
[word_document.fixed_row]

(3.1.1) Provide details of the environmental risks identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.1.1.1) Risk identifier

word_document.select_from

☑ Risk1

(3.1.1.3) Risk types and primary environmental risk driver

Policy

☑ Carbon pricing mechanisms

(3.1.1.4) Value chain stage where the risk occurs

word_document.select_from

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.1.1.9) Organization-specific description of risk

Hyosung TNC is a company subject to the Korean government's national GHG reduction target, aiming to achieve a 40% reduction in national GHG emissions by 2030 compared to 2018, through the implementation of the emissions trading system (K-ETS). Since 2019, Hyosung TNC has been included in K-ETS and receives annual emission allowances. Considering the international trend, the paid allocation ratio for the fourth commitment period is likely to be higher than the 10% allocated in the third commitment period, and based on this the paid allocation for the fourth commitment period will be either 15% (a typical estimate in the Korean industrial sector) or approximately 60% (in line with the EU standards). Therefore, Hyosung TNC is internally conducting risk analysis accordingly. Considering the projected increase in internal production (based on the Bank of Korea's 2021 economic growth rate analysis) and the decrease in emission allowances under the emissions trading system, a shortage of greenhouse gas allowances is anticipated to occur from 2026 due to business growth and the reduction of free allocation.

The estimated shortage is expected to be at least 63,718tCO2 up to a maximum of 210,929tCO2.

(3.1.1.11) Primary financial effect of the risk

word_document.select_from

☑ Increased direct costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Medium-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

word_document.select_from

☑ Virtually certain

(3.1.1.14) Magnitude

word_document.select_from

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Considering the international trend, the paid allocation ratio for the fourth commitment period is likely to be higher than the 10% allocated in the third commitment period, and based on this the paid allocation for the fourth commitment period will be either 15% (a typical estimate in the Korean industrial sector) or approximately 60% (in line with the EU standards). Therefore, Hyosung TNC is internally conducting risk analysis accordingly. Considering the projected increase in internal production (based on the Bank of Korea's 2021 economic growth rate analysis) and the decrease in emission allowances under the emissions trading system, a shortage of greenhouse gas allowances is anticipated to occur from 2026 due to business growth and the reduction of free allocation. The estimated shortage is expected to be at least 63,718tCO2 up to a maximum of 210,929tCO2. (Assumptions) - The increase in production and emissions is based on the Bank of Korea's economic growth rate of 3.0% announced in November 2021. - For the fourth commitment period of Korea's emissions trading system, paid allocation rates of 15% (a typical estimate in the Korean industrial sector) to 60% (similar to the European level) are considered. - The estimation of free allocation follows the same approach as the third commitment period, using the average of the last three years' emissions, excluding the final year, with a 5% reduction arbitrarily applied.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

word_document.select_from

☑ Yes

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

1637552600

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

5420875300

(3.1.1.25) Explanation of financial effect figure

Short-Term (0 to 3 years) Financial Impact: Expected to be negligible due to no anticipated shortage of emission permits. Long-Term (6 to 10 years) Financial Impact: Not yet quantified and remains undetermined. Medium-Term (4 to 5 years) Financial Impact: During the 4th phase of the Korea Emissions Trading Scheme (K-ETS), Hyosung TNC is expected to experience a shortfall of GHG emission permits, with an estimated shortfall ranging from a minimum of 63,718 tCO2 to a maximum of 210,929 tCO2 (cf. column 10). Based on the internal carbon price, applying an emission permit cost of approximately KRW 25,700 per ton, the estimated financial impact is projected to range from approximately KRW 1,637,552,600 to KRW 5,420, 875,300 Minimum Value: 1,637,552,600 63,718 (minimum shortfall of emission permits during the 4th phase) 25,700 (internal carbon price for the reporting year) Maximum Value: 5,420, 875,300 210,929 (maximum shortfall of emission permits during the 4th phase) 25,700 (internal carbon price for the reporting year)

(3.1.1.26) Primary response to risk

Compliance, monitoring and targets

☑ Greater compliance with regulatory requirements

(3.1.1.27) Cost of response to risk

649654000

(3.1.1.28) Explanation of cost calculation

- Annual Fee of Korea Exchange: KRW 700,000 - Third-party verification cost: KRW 12,954,000 - Investment in greenhouse gas reduction activities: KRW 636,000,000 649,654,000636,000,00012,954,000700,000

(3.1.1.29) Description of response

1) Situation: Hyosung TNC is allocated 100% free allocation under the K-ETS 3rd commitment period, but it is likely to be subject to paid allocation during the K-ETS 4th commitment period, depending on the global trend including the EU. Accordingly, the ratio of paid allocation is expected to be at least 15% to up to 60%. 2) Task: In order to prepare for economic risks such as the cost of purchasing emission rights caused by greenhouse gas emissions exceeding the allocated emission rights, it is necessary to reduce the emissions of Scope 1 and 2, which are counted in K-ETS's emissions. 3) Action: Hyosung TNC is working on a plan to achieve 14.5% GHG reduction by 2030 to reduce GHG emissions and prepare for the expected emissions shortfall. In 2023, KRW 636 million was invested in initiatives to reduce greenhouse gas emissions, such as replacing outdated equipment and improving equipment efficiency. In addition, Hyosung TNC incurs annual membership fees to the Korea Exchange and conducts third-party external verification of emission calculations, submitting the results to the government. 4) Result: Hyosung TNC reduced 2,369 tCO2-eq through on-site reduction activities during the reporting year, achieving a 36.1% reduction in emissions compared to the baseline year of 2018.

Climate change

(3.1.1.1) Risk identifier

word_document.select_from

☑ Risk2

(3.1.1.3) Risk types and primary environmental risk driver

Reputation

☑ Increased partner and stakeholder concern or negative partner and stakeholder feedback

(3.1.1.4) Value chain stage where the risk occurs

word_document.select_from

☑ Downstream value chain

(3.1.1.6) Country/area where the risk occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.1.1.9) Organization-specific description of risk

Hyosung TNC is a BtoB company that has relationships with various internal and external stakeholders (supply chain and customers) throughout its business activities. Due to the nature of our production products, coexistence and mutual prosperity with customers are considered important because relationships with customers have a significant impact on the sustainability of the business. Sustainability at all stages of the value chain of production activities is required worldwide, and Hyosung TNC falls under the category of 'upstream' stakeholders, which are subject to management by its key customers. As a result, major customers are requesting the disclosure of information related to Hyosung TNC's sustainable management (especially environmental management including climate change), and the demand for eco-friendliness of supply products (products manufactured by Hyosung TNC) is also increasing. Failure to immediately respond to these customer needs and preferences may result in an increase in negative perceptions from customers as a risk, which can lead to a direct decline in sales such as suspension of transactions and contract cancellation.

(3.1.1.11) Primary financial effect of the risk

word_document.select_from

☑ Change in revenue mix and sources

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Short-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

word_document.select_from

☑ Virtually certain

(3.1.1.14) Magnitude

word_document.select_from

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Hyosung TNC has formulated long-term goals for eco-friendly products in the reporting year, and it is anticipated that revenue from these products is anticipated to see a gradual increase in the future. On the contrary, the risk of revenue decline due to failure to meet customer sustainability demands with eco-friendly products is expected to decrease over time. bring financial risks of falling demand for ecofriendly products and its corresponding impact on revenue, and the financial impact was calculated by predicting that more than 60% to 80% of sales generated through the supply of eco-friendly products.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

word_document.select_from

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

17757000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

23676000000

(3.1.1.25) Explanation of financial effect figure

Hyosung TNC evaluates the financial impact by predicting the occurrence of reputation risks that increase negative views of stakeholders if it fails to respond to customers' requests for information disclosure related to climate change and supply eco-friendly products. These non-financial risks are judged to be the risks that can have the greatest impact on customer attrition, declining revenue, contract termination, and investment withdrawal. Accordingly, it will bring financial risks of falling demand for ecofriendly products and its corresponding impact on revenue, and the financial impact was calculated by predicting that more than 60% to 80% of sales generated through the supply of eco-friendly products. Short-Term (0 to 3 years) Financial Impact: In 2023, Hyosung TNC's revenue from eco-friendly products was approximately KRW 29.595 billion. Considering a potential revenue decline (60% to 80%) from the supply of these products, the projected financial impact for 2023 is estimated to be between approximately KRW 17.757 billion and KRW 23.676 billion. Minimum Value: 17,757,000,000 29,595,000,000 (eco-friendly product sales in 2023) 60% (minimum revenue decline ratio) Maximum Value: 23,676,000,000 29,595,000,000 (eco-friendly product sales in 2023) 80% (maximum revenue decline ratio)

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase investment in R&D

(3.1.1.27) Cost of response to risk

2483163000

(3.1.1.28) Explanation of cost calculation

- Eco-friendly product R&D cost: KRW 2,321,000,000 - Product LCA cost: KRW 75,700,000 - Acquisition and renewal of eco-friendly certification: KRW 47,963,000 (GRS, SGS ECO-Product, OBP, OEKO-TEX, ISCC EU/PLUS) - Sustainability report preparation and verification costs: KRW 38,500,000 2,483,163,00075,700,00038,500,0002,321,000,00047,963,000

(3.1.1.29) Description of response

1) Situation: Hyosung TNC is a BtoB company where its relationship with customers has a significant impact on the sustainability of its business, and strives to recognize and minimize risks arising from its relationship with customers and corporate reputation. Global customers are demanding the production and supply of eco-friendly products and the disclosure of information related to climate change. 2) Task: To respond to demands for eco-friendly information and maintain trust and transactions with customers, continuous investment in eco-friendly product R&D is required. Efforts and expenses are needed for conducting Life Cycle Assessment (LCA) and obtaining certified accreditations for eco-friendly products. 3) Action: In response to the needs and demands of global fashion and apparel clients for eco-friendly products, Hyosung TNC has obtained and maintained the Global Recycled Standard (GRS) certification for products using recycled materials. The company has also established an LCA-based CO2 emission management system to provide carbon emission data to clients. In addition, Hyosung TNC has voluntarily produced a sustainability report and conducted consulting for CDP disclosure in response to client and investor requests for climate change-related information. 4) Result: Hyosung TNC has obtained GRS certification for seven products (i.e., dyed yarns, greige yarns, processed materials, two types of dyed knitted fabrics, and two types of dyed woven fabrics) confirming the use of recycled materials, and has also acquired SGS ECO-product certification for its spandex products. The company has also obtained Ocean Bound Plastic (OBP) certification for the use of recycled ocean plastics, and Oeko-Tex certification for safety and environmental friendliness. Furthermore, KRW 2.321 billion was spent on R&D for the development of eco-friendly products.

Climate change

(3.1.1.1) Risk identifier

word_document.select_from

☑ Risk3

(3.1.1.3) Risk types and primary environmental risk driver

Technology

☑ Transition to lower emissions technology and products

(3.1.1.4) Value chain stage where the risk occurs

word_document.select_from

☑ Direct operations

(3.1.1.6) Country/area where the risk occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.1.1.9) Organization-specific description of risk

Companies must focus on developing products and technologies that meet customer demands. Low-carbon technology is a key determinant in product development and must always be included in risk assessments due to its alignment with business strategy. As a manufacturer in the chemical fiber industry, Hyosung TNC has a significant environmental impact across its entire value chain. In the textile industry, raw materials have a substantial share of the environmental impact, making the procurement of sustainable raw materials a crucial task directly associated with business strategies and sales. Accordingly, Hyosung TNC has established and is implementing a major sustainability strategy that focuses on market development and business expansion through the advancement of eco-friendly technologies, with an annual increase in R&D investments specifically dedicated to securing such eco-friendly technologies. Hyosung TNC is progressing its eco-friendly development efforts primarily through the advancement of resource recycling technologies and the development of products leveraging bio-based materials. For the reporting year, Hyosung TNC has newly set a sustainable target (aiming to achieve a 16.0% share of eco-friendly products including recycled and bio-based products) in total yarn product sales by 2030) and it is anticipated that investment costs in low-carbon products and technologies will incrementally increase to meet this objective.

(3.1.1.11) Primary financial effect of the risk

word_document.select_from

☑ Increased indirect [operating] costs

(3.1.1.12) Time horizon over which the risk is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Short-term

☑ Medium-term

☑ Long-term

(3.1.1.13) Likelihood of the risk having an effect within the anticipated time horizon

word_document.select_from

☑ Virtually certain

(3.1.1.14) Magnitude

word_document.select_from

☑ High

(3.1.1.16) Anticipated effect of the risk on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Aligned with its overarching sustainable strategy, Hyosung TNC has set an ambitious target for (aspiring to attain a 16.0% share of recycled and bio-based products within its total yarn product sales by the year 2030). As a result, it is projected that investments in eco-friendly and low-carbon technologies will steadily rise, notwithstanding the fact that such R&D investments currently represent a modest 0.27% of the company's total sales revenue as of the reporting year. The projected financial impact is expected to remain below 1% until 2030, but it is anticipated to exceed 1% by 2050.

(3.1.1.17) Are you able to quantify the financial effect of the risk?

word_document.select_from

☑ Yes

(3.1.1.19) Anticipated financial effect figure in the short-term – minimum (currency)

20577000000

(3.1.1.20) Anticipated financial effect figure in the short-term – maximum (currency)

36641629786

(3.1.1.21) Anticipated financial effect figure in the medium-term – minimum (currency)

36641629786

(3.1.1.22) Anticipated financial effect figure in the medium-term – maximum (currency)

59829708464

(3.1.1.23) Anticipated financial effect figure in the long-term – minimum (currency)

59829708464

(3.1.1.24) Anticipated financial effect figure in the long-term – maximum (currency)

102567614939

(3.1.1.25) Explanation of financial effect figure

Financial risks were projected based on the temporal criteria of short-term, medium-term, and long-term as outlined in section 2.1. The financial impact projected until 2030, considering the expected sales revenue and the ratio of R&D investment costs (R&D expenses relative to total sales). The projected sales revenue through 2030 was analyzed on an annual basis, using the 3.0% economic growth rate announced by the Bank of Korea in November 2021 as a baseline, and factoring in the anticipated growth trajectory of internal business expansion. The ratio of R&D investment costs was calculated based on the projected proportion of sales revenue from eco-friendly products through 2030. The financial impact was calculated with the reporting year (2023) as the first year. Short-Term (0 to 3 years) Financial Impact: Minimum Value: 20,577,000,000 (R&D investments in 2023) Maximum Value: 36,641,629,786 8,401,079,000,000 (expected sales revenue in 2025) 0.44% (expected R&D proportion in 2025) Medium-Term (4 to 5 years) Financial Impact: Minimum Value: 36,641,629,786 8,401,079,000,000 (expected sales revenue in 2025) 0.44% (expected R&D proportion in 2025) Maximum Value: Maximum Value: 59,829,708,464 9,808,149,000,000 (expected sales revenue in 2027) 0.61% (expected R&D proportion in 2027) Long-Term (6 to 10 years) Financial Impact: Minimum Value: 59,829,708,464 9,808,149,000,000 (expected sales revenue in 2027) 0.61% (expected R&D proportion in 2027) Maximum Value: 102,567,614,939 12,357,544,000,000 (expected sales revenue in 2030) 0.83% (expected R&D proportion in 2030)

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase investment in R&D

(3.1.1.27) Cost of response to risk

2321000000

(3.1.1.28) Explanation of cost calculation

- Eco-friendly product R&D cost: KRW 2,321,000,000

(3.1.1.29) Description of response

1) Situation: As a manufacturer in the chemical fiber industry, Hyosung TNC has a significant environmental impact across its entire value chain. In the textile industry, raw materials have a substantial share of the environmental impact, making the procurement of sustainable raw materials a crucial task directly associated with business strategies and sales. As part of its sustainability strategy, Hyosung TNC is focusing on market development and business expansion by advancing eco-

friendly technologies. 2) Task: Driven by the strategic imperative of sustainability, Hyosung TNC is focused on advancing eco-friendly technologies, particularly in the textile sector, and is steadily increasing its annual R&D investments to secure environmentally sustainable technologies. 3) Action: To meet the rising demand for sustainability among its customers, Hyosung TNC invested KRW 2.321 billion in 2023 to develop eco-friendly textile technologies, specifically focusing on the advancement of resource recycling technologies and the development of products utilizing bio-based materials. 4) Result: As a result of the investments in the development of eco-friendly technologies, Hyosung TNC successfully developed technologies such as bio-mass dyeable (reactive) spandex and PET chemical recycling benches, leading to an increase in the proportion of sales from eco-friendly products, which rose in the reporting year (5.2%), up by 0.6% from the previous year (4.6%).
[word_document.add_row]

(3.1.2) Provide the amount and proportion of your financial metrics from the reporting year that are vulnerable to the substantive effects of environmental risks.

Climate change

(3.1.2.1) Financial metric

word_document.select_from
☑ CAPEX

(3.1.2.2) Amount of financial metric vulnerable to transition risks for this environmental issue (unit currency as selected in 1.2)

2321000000

(3.1.2.3) % of total financial metric vulnerable to transition risks for this environmental issue

word_document.select_from
☑ 1-10%

(3.1.2.4) Amount of financial metric vulnerable to physical risks for this environmental issue (unit currency as selected in 1.2)

636000000

(3.1.2.5) % of total financial metric vulnerable to physical risks for this environmental issue

word_document.select_from

☑ 1-10%

(3.1.2.6) Amount of CAPEX in the reporting year deployed towards risks related to this environmental issue

20577000000

(3.1.2.7) Explanation of financial figures

Hyosung TNC allocated KRW 2.321 billion to R&D expenditures for the development of eco-friendly technologies during the reporting year, while also expending KRW 636 million on maintenance and operational costs to prevent physical risks associated with facility operations.
[word_document.add_row]

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

word_document.select_from

☑ Yes

(3.5.1) Select the carbon pricing regulation(s) which impact your operations.

word_document.select_all_that_apply

☑ Korea ETS

(3.5.2) Provide details of each Emissions Trading Scheme (ETS) your organization is regulated by.

Korea ETS

(3.5.2.1) % of Scope 1 emissions covered by the ETS

27.3

(3.5.2.2) % of Scope 2 emissions covered by the ETS

72.7

(3.5.2.3) Period start date

12/31/2022

(3.5.2.4) Period end date

12/30/2023

(3.5.2.5) Allowances allocated

303184

(3.5.2.6) Allowances purchased

0

(3.5.2.7) Verified Scope 1 emissions in metric tons CO2e

70832

(3.5.2.8) Verified Scope 2 emissions in metric tons CO2e

188968

(3.5.2.9) Details of ownership

word_document.select_from

☑ Facilities we own and operate

(3.5.2.10) Comment

Korea Emissions Trading Scheme (K-ETS)
[word_document.fixed_row]

(3.5.4) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Hyosung TNC, as a participant in the Korean Emissions Trading Scheme, has been pursuing three strategies to analyze related risks and opportunities:1) Development of greenhouse gas reduction strategies and strengthening governance:Hyosung TNC has established the Green Management Vision 2030, setting a reduction target of "14.5% reduction in emissions by 2030 compared to 2018." Hyosung TNC have devised reduction plans such as process improvement and equipment replacement across its Project Units (PUs). To actively promote ESG management, Hyosung TNC established an "ESG Committee" in 2021, which operates at the board level with the CEO as the chairman. The committee engages in discussions regarding the company-wide response to climate change, monitoring climate-related risks and opportunities, and evaluating environmental impacts. During the reporting year, the ESG Committee made direct decisions on issues related to the emissions trading scheme, including the analysis of expected emissions and potential emission allowances shortages.2) Monitoring and sharing of K-ETS policy trends:Hyosung TNC engages in regular communication with various stakeholders, including the government, Ministry of Environment, and industry associations, to stay informed about the policy trends related to the Emissions Trading Scheme. Hyosung TNC actively participates in many public hearings about the ETS management and operation to communicate with the government and Ministry of Environment, to understand the trends and to present its opinion. Any relevant policy issues arising from these engagements are adopted as agenda items in regular meetings of the ESG Committee and shared across the company. As a participant in the emissions trading scheme, each plant's Environmental Safety Team manages and monitors detailed data on energy usage and greenhouse gas emissions. This data is reported to the Ministry of Environment through third-party verification.3) Development of greenhouse gas reduction plans, implementation of reduction activities, and performance measurement:Hyosung TNC receives annual greenhouse gas emissions allowances and establishes specific reduction targets for each plant to achieve them. When setting reduction targets, Hyosung TNC utilizes internal carbon pricing, incorporating the economic analysis of carbon costs into investment decisions for emission reduction, such as facility investment and fuel conversion. Hyosung TNC actively implements various emission reduction activities to achieve the plant-specific targets, conducting periodic monitoring and performance analysis to assess the progress and reduction volume. The details of greenhouse gas reduction achievements are managed as annual key performance indicators (KPIs) by plant managers and employees, and incentives are provided accordingly. This fosters active engagement in company-wide greenhouse gas reduction activities. Additionally, to monitor the allocation and fulfillment of emission allowances, Hyosung TNC monitors the allocated emission allowances and expected shortages on a PU basis, reporting the findings to the board of directors.Through these three strategies, Hyosung TNC successfully implemented the emissions trading scheme in 2023, generating approximately KRW 718million in revenue from the sale of surplus emission allowances.

(3.6) Have you identified any environmental opportunities which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future?

	Environmental opportunities identified
Climate change	*word_document.select_from* ☑ Yes, we have identified opportunities, and some/all are being realized

[word_document.fixed_row]

(3.6.1) Provide details of the environmental opportunities identified which have had a substantive effect on your organization in the reporting year, or are anticipated to have a substantive effect on your organization in the future.

Climate change

(3.6.1.1) Opportunity identifier

word_document.select_from

☑ Opp1

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Energy source

☑ Participation in carbon market

(3.6.1.4) Value chain stage where the opportunity occurs

word_document.select_from

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.6.1.8) Organization specific description

The Republic of Korea government is currently operating a GHG emissions trading scheme, and Hyosung TNC, having been incorporated as an allocation-targeted enterprise since 2019, has been annually allocated permissible emission limits, which the company is required to comply with. Since the company became subject to the scheme in 2019, Hyosung TNC has undertaken various GHG reduction activities each year over the five-year compliance period up to the reporting year 2023, thereby successfully meeting its allocated emission limits without incurring any shortfall in emission permits (by emitting less GHGs than the allocated amount). In the reporting year 2023, Hyosung TNC generated surplus revenue of KRW 718 million by trading 56,000 tons of surplus emission permits at a price of KRW 12,815 per

ton. Considering the anticipated emissions resulting from future business growth and the allocated emission limits for the 3rd phase (2021–2025) of the scheme, as well as the estimated emission targets, the year-by-year analysis of surpluses and deficits predicts that, for the approximately three years leading up to the start of the 4th phase in 2025, Hyosung TNC will emit less GHGs than the allocated amount.

(3.6.1.9) Primary financial effect of the opportunity

word_document.select_from

☑ Other, please specify :Creating surplus profit by participating in ETS

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

word_document.select_from

☑ Very likely (90–100%)

(3.6.1.12) Magnitude

word_document.select_from

☑ Medium-high

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Hyosung TNC anticipates that during the 3rd phase of the plan, it will have surplus emission permits due to internal GHG reduction activities, leading to cumulative revenue from emission permit sales estimated at KRW 3.503 billion.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

word_document.select_from

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

0

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

3052780100

(3.6.1.23) Explanation of financial effect figures

Hyosung TNC's assumptions on expected emissions and greenhouse gas reduction initiatives according to the emission allowances and business plan during the third commitment period (2021-2025) of the emission trading system are as follows. - Emission of greenhouse gases at the facility: Considering factors like increased production, if the Bank of Korea's announced economic growth rate of 3.0% is applied in November 2021, a total emission expected from 2023 to 2025 is 1,197,332 tCO2 - Operational Allocation Emissions: Total emission allowances from 2023 to 2025 during the K-ETS third commitment period is 1,241,343 tCO2 (GHG Reduction Activities at Business Sites) The expected GHG reduction resulting from the activities conducted in 2023 is approximately 2,369 tCO2, and assuming that the same level of reduction activities is implemented in 2024 to 2025, the total reduction over these two years is projected to be approximately 4,738 tCO2 (4,738 2,369 2). From 2024 to 2025, it is anticipated that a total surplus of 48,749 tCO2 ((48,749 1,241,343 (total allocation for 2021 to 2025) – 1,197,332 (expected GHG emissions for 2021 to 2025) 4,738 (expected reduction for 2024/2025)) will occur, and when converted to financial impact based on the internal carbon price, it amounts to KRW 1,252,849,300 (48,749 tCO2 KRW 25,700per ton). The revenue generated from the sale of emission permits from 2021 to 2023 is KRW 1,799,930,800, and the cumulative sales revenue (2021 to 2025) is expected to be KRW 3,052,780,100 (KRW 1,799,930,800 KRW 1,252,849,300).

(3.6.1.24) Cost to realize opportunity

649654000

(3.6.1.25) Explanation of cost calculation

- Annual Fee of Korea Exchange: KRW 700,000 - Third-party verification cost: KRW 12,954,000 - Investment in greenhouse gas reduction activities: KRW 636,000,000

(3.6.1.26) Strategy to realize opportunity

1) Situation: Hyosung TNC has been complying with the emissions trading scheme (K-ETS) since 2019 and has been allocated emission allowances for the third CDP Page 11 of 52 commitment period from 2021 to 2025. In 2023, it was possible to secure surplus emission allowances by emitting less greenhouse gases than the allocated emission allowances. Surplus emission allowances can be sold in the market or carried forward to the next transition year. 2) Task: To generate revenue by securing surplus emission allowances, proactive greenhouse gas reduction activities are needed to respond to the continuously reduced allocated emissions. It should also monitor ETS policy trends and market trends and prepare for changes in advance. 3) Action: In compliance with the Act on the Allocation and Trading of

Greenhouse-Gas Emission Permits, Hyosung TNC conducts third-party external verification of the monitoring plans and specifications for each business site annually, submitting these to the government. Furthermore, to achieve tangible reductions in GHG emissions, the company is undertaking activities such as the replacement of outdated equipment, process stabilization, and improvements in facility efficiency at its sites. In 2023, Hyosung TNC undertook activities such as enhancing the distribution efficiency of return cooling water, improving dryer facilities to reduce air loss, replacing sand filter media to optimize the backwashing cycle, and increasing the efficiency of waste heat recovery units, with a total investment of KRW 636 million. 4) Result: The GHG reduction activities executed in 2023 yielded a reduction of 2,369 tCO2-eq, and the reporting year saw a 36.1% reduction in GHG emissions compared to the baseline year of 2018. "Hyosung TNC has created a pool of material sustainability issues and prioritized opportunities based on stakeholder interest and the significance of their impact on business performance.

Climate change

(3.6.1.1) Opportunity identifier

word_document.select_from

☑ Opp2

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Markets

☑ Increased brand value

(3.6.1.4) Value chain stage where the opportunity occurs

word_document.select_from

☑ Downstream value chain

(3.6.1.5) Country/area where the opportunity occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.6.1.8) Organization specific description

Globally, interest in eco-friendly consumption and value-oriented consumption in the global fashion fiber market is increasing in the era of ESG management. In line with this market trend, Hyosung TNC is actively participating in eco-friendly campaigns by global clothing producers and have declared a goal of increasing the global rPET share (recycled polyester fiber production during polyester fiber production) to 45% by 2025. This campaign is attended by companies such as Nike, Lululemon,

and H&M, all of our major customers. To achieve the goal of the campaign, major customers are demanding Hyosung TNC, which is upstream, to supply eco-friendly fibers and obtain ecofriendly certification for its products. Hyosung TNC develops and produces eco-friendly products to respond to these customer demands and enhance product competitiveness, and is actively participating in activities to promote product eco-friendliness by obtaining internally and internally recognized eco-friendly certification. As the demand for eco-friendly fibers, especially recycled polyester fibers, continues to grow, Hyosung TNC is strengthening its lineup of renewable and eco-friendly products such as 'polyester yarn regen made from waste PET bottles', 'recycle Nylon yarn Mipan regen,' 'recycle Spandex yarn Creora regen' and 'regen Bio-based Spandex.' Through this active response, Hyosung TNC's consumption and revenue of eco-friendly products have been steadily increasing since 2016.

(3.6.1.9) Primary financial effect of the opportunity

word_document.select_from

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Short-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

word_document.select_from

☑ Virtually certain (99–100%)

(3.6.1.12) Magnitude

word_document.select_from

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

the revenue from eco-friendly products has been steadily increasing, with sales rising by minimum 0.8 to maximum 2.7 times over the past seven years since the introduction of eco-friendly products in 2016. Based on this trend, the projected increase in revenue from the sales of eco-friendly products is estimated to lie between minimum 1.4 and maximum 2.7 times the previous year's sales. the sales of year 2023 is KRW 127.601 billion. Based on this revenue, the expected revenue of eco-friendly products on short turm is minimum KRW 178.641billion and maximum KRW 344.523billion.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

word_document.select_from

☑ Yes

(3.6.1.17) Anticipated financial effect figure in the short-term - minimum (currency)

178641400000

(3.6.1.18) Anticipated financial effect figure in the short-term – maximum (currency)

344522700000

(3.6.1.23) Explanation of financial effect figures

the revenue from eco-friendly products has been steadily increasing, with sales rising by minimum 0.8 to maximum 2.7 times over the past seven years since the introduction of eco-friendly products in 2016. Based on this trend, the projected increase in revenue from the sales of eco-friendly products is estimated to lie between minimum 1.4 and maximum 2.7 times the previous year's sales. the sales of year 2023 is KRW 127.601 billion. Based on this revenue, the expected revenue of eco-friendly products on short turm is minimum KRW 178.641billion and maximum KRW 344.523billion. Short-Term (0-3 years) Financial Impact: Minimum Value: KRW 178,641,400,000 KRW 127,601,000,000 (eco-friendly product sales in 2023) 1.4 (minimum sales growth rate) Maximum Value: KRW 344,522,700,000 KRW 127,601,000,000 (eco-friendly product sales in 2023) 2.7 (maximum sales growth rate)

(3.6.1.24) Cost to realize opportunity

2368963000

(3.6.1.25) Explanation of cost calculation

- Eco-friendly product R&D cost in 2023: KRW 2,321,000,000 - Acquisition and renewal of eco-friendly certification: KRW 47,963,000 (GRS, SGS ECO-Product, OBP, OEKO-TEX, ISCC EU/PLUS)

(3.6.1.26) Strategy to realize opportunity

1) Situation: As interest in recycling and eco-friendly products increases in the global fashion market, global companies such as Nike and Lululemon are also asking upstream Hyosung TNC to produce eco-friendly products and obtain eco-friendly certification to meet climate-related targets. 2) Task: Environmentally friendly product R&D should be carried out continuously to meet climate change production goals such as eco-friendly product certification required by customers and Hyosung TNC's rPET production ratio, and various environmental certification should be obtained and maintained (renewed) for market reliability. 3) Action & Result:

In order to meet the market's needs for eco-friendly fibers, Hyosung TNC is conducting R&D on eco-friendly fibers, expanding applications to highfunctional products such as swimsuits, and developing biodegradable yarn technology. As a result of the development of eco-friendly products, GRS certification was obtained and renewed (maintained) in seven eco-friendly products such as spandex, nylon, and polyester using recycled raw materials in 2023. In addition, it has obtained SGS ECO-Product certification for 'regen Bio-based Spandex', maintains OBP (Ocean Bound Plastic) certification for 'regen Ocean', and renews OEKO-TEX Standard 100 certification every year. As Hyosung TNC's interest in and purchase of eco-friendly yarn continues to increase in the market, sales of eco-friendly products are also increasing. "Hyosung TNC has created a pool of material sustainability issues and prioritized opportunities based on stakeholder interest and the significance of their impact on business performance.

Climate change

(3.6.1.1) Opportunity identifier

word_document.select_from

☑ Opp3

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Markets

☑ Expansion into new markets

(3.6.1.4) Value chain stage where the opportunity occurs

word_document.select_from

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

word_document.select_all_that_apply

☑ Republic of Korea

(3.6.1.8) Organization specific description

Major global apparel manufacturers, Lululemon and H&M which are key clients of Hyosung TNC, are increasingly demanding the use of eco-friendly products, particularly "recycled polyester yarn." This demand has driven the company to continuously invest in R&D to expand production and supply of these products. Hyosung TNC has developed technology for producing "post-consumer recycled polyester chips," which are used as the raw material for recycled polyester yarn.

These chips are made by collecting, separating, washing, and crushing domestic waste PET bottles into flakes, which are then processed through chemical reactions and extrusion to create recycled polyester yarn. In addition, to enhance the eco-friendliness of the primary raw materials for spandex, nylon, and polyester, the company is investing in and commercializing plant-based bio-materials. Hyosung TNC has successfully developed and commercialized the world's first bio-based spandex (i.e., regen) made from natural raw materials extracted from corn. Despite containing more than 30% corn-derived substances, this bio-spandex exhibits physical properties comparable to traditional spandex products made from 100% petrochemical raw materials. Through continuous development of eco-friendly products, Hyosung TNC is not only meeting the sustainability demands of its customers but also steadily increasing the proportion of revenue generated from these products.

(3.6.1.9) Primary financial effect of the opportunity

word_document.select_from

☑ Increased revenues resulting from increased demand for products and services

(3.6.1.10) Time horizon over which the opportunity is anticipated to have a substantive effect on the organization

word_document.select_all_that_apply

☑ Long-term

(3.6.1.11) Likelihood of the opportunity having an effect within the anticipated time horizon

word_document.select_from

☑ Virtually certain (99–100%)

(3.6.1.12) Magnitude

word_document.select_from

☑ High

(3.6.1.14) Anticipated effect of the opportunity on the financial position, financial performance and cash flows of the organization in the selected future time horizons

Hyosung TNC is committed to diversifying its eco-friendly product offerings through R&D in eco-friendly production technology, thereby increasing its market share in the eco-friendly textile market. The company plans to commence full-scale sales of its Mipan regen Ocean yarn, a recycled yarn made from discarded fishing nets, in 2023, and seeks to increase the sales volume of this yarn, targeting a 16% share of revenue from eco-friendly products by 2030. Based on its internal management plans, Hyosung TNC has projected its sales through 2030, applying annual growth rates for eco-friendly products across spandex, nylon, and polyester to estimate the proportion of eco-friendly revenue. It is estimated that the company's revenue from eco-friendly products will range from KRW 228.073 billion to KRW 643.494

billion by 2030.

(3.6.1.15) Are you able to quantify the financial effects of the opportunity?

word_document.select_from

☑ Yes

(3.6.1.21) Anticipated financial effect figure in the long-term - minimum (currency)

228073000000

(3.6.1.22) Anticipated financial effect figure in the long-term – maximum (currency)

643494000000

(3.6.1.23) Explanation of financial effect figures

Long-Term (6 to 10 years) Financial Impact: Hyosung TNC has set a medium to long-term goal of achieving a 16% share of eco-friendly revenue in total yarn sales by 2030. Based on its internal management plans, the company has projected total yarn sales through 2030, with revenue from eco-friendly products estimated to range from KRW 228.073 billion to KRW 643.494 billion. Minimum Value: KRW 228,073,000,000 KRW 2,729,463,000,000 (expected total yarn sales revenue in 2025) 8.4% (eco-friendly product sales share in 2025) Maximum Value: KRW 643,494,000,000 KRW 4,014,896,000,000 (expected total yarn sales revenue in 2030) 16% (eco-friendly product sales share in 2030)

(3.6.1.24) Cost to realize opportunity

2321000000

(3.6.1.25) Explanation of cost calculation

- Eco-friendly product R&D cost in 2022: KRW 2,321,000,000

(3.6.1.26) Strategy to realize opportunity

1) Situation: Global clothing manufacturers, our main customers, are increasingly interested in and demanding eco-friendly materials. Hyosung TNC has taken the lead in the chemical fiber industry by developing and producing recycled products for three types of fibers (nylon, polyester, and spandex). Hyosung TNC is also making continuous investments to produce our flagship product, spandex, using eco-friendly bio-based materials instead of fossil-based resources. Therefore, Hyosung TNC is ready to respond to the needs of customers and consumers for eco-friendly products, and we will use this opportunity to increase our share of eco-

friendly fibers in the market. 2) Task: In order to use the increased demand for eco-friendly products as a stepping stone for entering new markets and expanding market share in existing markets, research and development such as increasing the content of recycled raw materials and developing new sustainable raw materials such as bio-based natural materials are continuously required. 3) Action: Hyosung TNC is operating R&D teams by field, including the NYPET polymerization research team, the NYPET research team, and the Spandex production technology research team, to develop eco-friendly yarn. In 2023, Hyosung TNC is helping to explore eco-friendly business opportunities and expand our portfolio through the development of yarn such as biodegradable polyester yarn, recycled polyester material, and recycled nylon material, and technologies such as biodegradable MB-mixed PET radiation technology, Cycle Pet chip self-manufacturing technology, etc. 4) Result: Post-consumer nylon, a research and development conducted by Hyosung TNC, recycles waste thrown away by end consumers, reducing greenhouse gas emissions by about 73.1% compared to regular nylon. In addition, our four eco-friendly products, regen Polyester, Mipan regen Nylon, regen Bio-Based Spandex, and regen Creora Spandex, all showed greenhouse gas reduction effects compared to general products. "Hyosung TNC has created a pool of material sustainability issues and prioritized opportunities based on stakeholder interest and the significance of their impact on business performance.
[word_document.add_row]

(3.6.2) Provide the amount and proportion of your financial metrics in the reporting year that are aligned with the substantive effects of environmental opportunities.

Climate change

(3.6.2.1) Financial metric

word_document.select_from
☑ Other, please specify **:**Revenue generated from the sale of emission permits

(3.6.2.2) Amount of financial metric aligned with opportunities for this environmental issue (unit currency as selected in 1.2)

717640000

(3.6.2.3) % of total financial metric aligned with opportunities for this environmental issue

word_document.select_from
☑ 1-10%

(3.6.2.4) Explanation of financial figures

During the reporting year, Hyosung TNC sold surplus emission permits through the emissions trading market, as the company’s emissions were lower than the

*allocated quota. The quantity sold was 56,000 tons, with a unit price of KRW 12,815 per ton. KRW 717,640,00056,000*12,815*
[word_document.add_row]

C4. Governance

(4.1) Does your organization have a board of directors or an equivalent governing body?

(4.1.1) Board of directors or equivalent governing body

word_document.select_from

☑ Yes

(4.1.2) Frequency with which the board or equivalent meets

word_document.select_from

☑ Half-yearly

(4.1.3) Types of directors your board or equivalent is comprised of

word_document.select_all_that_apply

☑ Executive directors or equivalent

(4.1.4) Board diversity and inclusion policy

word_document.select_from

☑ Yes, and it is publicly available

(4.1.5) Briefly describe what the policy covers

The company's diversity and inclusion policy applies to all executives within the financial consolidation scope of the company, including headquarters, domestic and overseas production and sales subsidiaries, branches, and affiliates. The Board of Directors is the governance body responsible for deliberating and approving significant sustainability issues, striving to make informed decisions by broadly factoring in the interests of a wide variety of stakeholders.

(4.1.6) Attach the policy (optional)

다양성 정책_효성티앤씨(영문).pdf,효성티앤씨 ESG경영추진위원회 규정.pdf

[word_document.fixed_row]

(4.1.1) Is there board-level oversight of environmental issues within your organization?

Climate change

(4.1.1.1) Board-level oversight of this environmental issue

word_document.select_from
☑ Yes

Biodiversity

(4.1.1.1) Board-level oversight of this environmental issue

word_document.select_from
☑ No, but we plan to within the next two years

(4.1.1.2) Primary reason for no board-level oversight of this environmental issue

word_document.select_from
☑ Lack of internal resources, capabilities, or expertise (e.g., due to organization size)

(4.1.1.3) Explain why your organization does not have board-level oversight of this environmental issue

Hyosung TNC is currently focusing climate change, partially identifying Biodiversity impacts. In recognition of the strategic importance of this issue, Hyosung TNC is set to acquire expertise in the prioritization process within the next two years.
[word_document.fixed_row]

(4.1.2) Identify the positions (do not include any names) of the individuals or committees on the board with accountability for environmental issues and provide details of the board's oversight of environmental issues.

Climate change

(4.1.2.1) Positions of individuals or committees with accountability for this environmental issue

word_document.select_all_that_apply

☑ Chief Executive Officer (CEO)

(4.1.2.2) Positions' accountability for this environmental issue is outlined in policies applicable to the board

word_document.select_from

☑ Yes

(4.1.2.3) Policies which outline the positions' accountability for this environmental issue

word_document.select_all_that_apply

☑ Board Terms of Reference

(4.1.2.4) Frequency with which this environmental issue is a scheduled agenda item

word_document.select_from

☑ Scheduled agenda item in every board meeting (standing agenda item)

(4.1.2.5) Governance mechanisms into which this environmental issue is integrated

word_document.select_all_that_apply

☑ Reviewing and guiding annual budgets

☑ Overseeing the setting of corporate targets

☑ Monitoring progress towards corporate targets

☑ Approving corporate policies and/or commitments

☑ Approving and/or overseeing employee incentives

☑ Monitoring the implementation of the business strategy

☑ Monitoring the implementation of a climate transition plan

☑ Overseeing and guiding the development of a business strategy

☑ Overseeing and guiding the development of a climate transition plan

☑ Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities

(4.1.2.7) Please explain

The ESG Management Promotion Committee under the Board of Directors oversees the direction of ESG strategies, reviews non-financial issues and responses related to environmental and social matters, and monitors and supervises ESG management performance. The primary responsibilities of the ESG Management Promotion Committee include. -Reviewing and guiding the assessment process for dependencies, impacts, risks, and opportunities - Approving corporate policies and/or commitments - Overseeing the setting of corporate targets - Monitoring progress towards corporate targets - Overseeing and guiding the development of a climate transition plan - Monitoring the implementation of a climate transition plan - Overseeing and guiding the development of a business strategy - Monitoring the implementation of the business strategy - Reviewing and guiding annual budgets - Approving and/or overseeing employee incentives Reviewing and responding to climate change-related issues, such as climate change-linked business strategies, carbon neutrality strategies, risk management, major investments and transactions, and GHG emission performance (including incentive-based performance). Hyosung TNC addresses climate change-related matters and makes decisions through quarterly ESG Management Promotion Committee meetings and semi-annual regular board meetings. ※ Major report, decision, and approval items discussed by the ESG Management Promotion Committee and the Board of Directors in 2023: Report Content: - ESG performance: Achievement of GHG reduction targets (36.1% reduction compared to the 2018 baseline year as of 2023) - ESG strategy: Establishment of medium to long-term goals for eco-friendly products (expanding eco-friendly product sales to 16.0% of total yarn product sales by 2030) - ESG policy: Implementation and enactment of environmental policies (environmental management, deforestation prevention, biodiversity) Decision-Making Example: Reporting scope for subsidiary GHG emissions and the establishment of a dedicated GHG management department - covering subsidiaries representing 92% of sales coverage - designation of GHG managers, and identification of energy usage by emission facility for calculating GHG emissions.
[word_document.fixed_row]

(4.2) Does your organization’s board have competency on environmental issues?

Climate change

(4.2.1) Board-level competency on this environmental issue

word_document.select_from
☑ Yes

(4.2.2) Mechanisms to maintain an environmentally competent board

word_document.select_all_that_apply
☑ Consulting regularly with an internal, permanent, subject-expert working group
☑ Engaging regularly with external stakeholders and experts on environmental issues
☑ Integrating knowledge of environmental issues into board nominating process
☑ Regular training for directors on environmental issues, industry best practice, and standards (e.g., TCFD, SBTi)

☑ Having at least one board member with expertise on this environmental issue

(4.2.3) Environmental expertise of the board member

Experience

☑ Executive-level experience in a role focused on environmental issues

[word_document.fixed_row]

(4.3) Is there management-level responsibility for environmental issues within your organization?

Climate change

(4.3.1) Management-level responsibility for this environmental issue

word_document.select_from

☑ Yes

Biodiversity

(4.3.1) Management-level responsibility for this environmental issue

word_document.select_from

☑ No, but we plan to within the next two years

(4.3.2) Primary reason for no management-level responsibility for environmental issues

word_document.select_from

☑ Lack of internal resources, capabilities, or expertise (e.g., due to organization size)

(4.3.3) Explain why your organization does not have management-level responsibility for environmental issues

Hyosung TNC is currently focusing climate change, partially identifying Biodiversity impacts. In recognition of the strategic importance of this issue, Hyosung TNC is set to acquire expertise in the prioritization process within the next two years.

[word_document.fixed_row]

(4.3.1) Provide the highest senior management-level positions or committees with responsibility for environmental issues (do not include the names of individuals).

Climate change

(4.3.1.1) Position of individual or committee with responsibility

Executive level

☑ Chief Executive Officer (CEO)

(4.3.1.2) Environmental responsibilities of this position

Dependencies, impacts, risks and opportunities

☑ Assessing environmental dependencies, impacts, risks, and opportunities

Policies, commitments, and targets

☑ Monitoring compliance with corporate environmental policies and/or commitments

☑ Measuring progress towards environmental corporate targets

☑ Setting corporate environmental policies and/or commitments

☑ Setting corporate environmental targets

Strategy and financial planning

☑ Developing a business strategy which considers environmental issues

☑ Developing a climate transition plan

☑ Implementing a climate transition plan

☑ Implementing the business strategy related to environmental issues

☑ Managing annual budgets related to environmental issues

Other

☑ Providing employee incentives related to environmental performance

(4.3.1.4) Reporting line

word_document.select_from

☑ Reports to the board directly

(4.3.1.5) Frequency of reporting to the board on environmental issues

word_document.select_from

☑ Half-yearly

(4.3.1.6) Please explain

1. Organizational Structure: The CEO, in addition to representing the company, also serves as an inside director and is a key member of the Board of Directors, while serving as the chairperson of the ESG Management Promotion Committee. The ESG Management Promotion Committee, which acts as the highest decision-making body for the company's ESG management, consists of 10 members, including the heads of major business divisions, such as the textile division. The ESG management team functions as the secretary and the department responsible for executing sustainable management is in operation. 2. Frequency and Procedure for Reporting Environmental Issues Hyosung TNC regularly addresses environmental issues and performance, including climate change-related matters, during the ESG Management Promotion Committee meetings, which are held quarterly. Urgent issues are reported as they arise. The reporting process involves a series of steps: identification and monitoring of environmental issues; identification of associated risks; risk assessment (impact analysis); formulation of response measures; reporting to the responsible executive officer; and finally, reporting to the CEO. Given the significance of climate-related issues, they are treated as critical management concerns and are discussed by the ESG Management Promotion Committee, chaired by the CEO. Key decisions and reporting matters are then deliberated by the Management Committee, and the resolved agendas are subsequently reported by the CEO to the Board of Directors for final approval. [word_document.add_row]

(4.5) Do you provide monetary incentives for the management of environmental issues, including the attainment of targets?

Climate change

(4.5.1) Provision of monetary incentives related to this environmental issue

word_document.select_from

☑ Yes

(4.5.2) % of total C-suite and board-level monetary incentives linked to the management of this environmental issue

14.3

(4.5.3) Please explain

Hyosung TNC reorganized the performance evaluation system from 2022 to actively promote ESG management. Under the reorganized system, members of the ESG Management Promotion Committee and executives and employees of all teams under the ESG Management Promotion Committee must prepare the annual performance plan KPI, including a quantitative performance plan for ESG management promotion. At the end of each year, the chievement of ESG management improvement tasks by team is evaluated, reflected in personnel evaluation, and performance is evaluated to provide financial incentives such as annual salary increase rate and bonus performance. The performance evaluation, which is the basis for incentive reward, consists of 70% quantitative and 30% qualitative for tasks set for each team, ESG management achievement is classified as quantitative, and the ratio can be adjusted from at least 10% to up to 70% for each team. [word_document.fixed_row]

(4.5.1) Provide further details on the monetary incentives provided for the management of environmental issues (do not include the names of individuals).

Climate change

(4.5.1.1) Position entitled to monetary incentive

Board or executive level

☑ Chief Executive Officer (CEO)

(4.5.1.2) Incentives

word_document.select_all_that_apply

☑ Bonus - % of salary

(4.5.1.3) Performance metrics

Targets

☑ Achievement of environmental targets

☑ Organization performance against an environmental sustainability index

Strategy and financial planning

☑ Achievement of climate transition plan

Emission reduction

☑ Reduction in absolute emissions

Resource use and efficiency

☑ Energy efficiency improvement

☑ Reduction in total energy consumption

Engagement

☑ Increased engagement with suppliers on environmental issues

☑ Implementation of employee awareness campaign or training program on environmental issues

(4.5.1.4) Incentive plan the incentives are linked to

word_document.select_from

☑ Long-Term Incentive Plan, or equivalent, only (e.g. contractual multi-year bonus)

(4.5.1.5) Further details of incentives

Hyosung TNC reorganized the performance evaluation system from 2022 to actively promote ESG management. Under the reorganized system, members of the ESG Management Promotion Committee and executives and employees of all teams under the ESG Management Promotion Committee must prepare the annual performance plan KPI, including a quantitative performance plan for ESG management promotion. At the end of each year, the achievement of ESG management improvement tasks by team is evaluated, reflected in personnel evaluation, and performance is evaluated to provide financial incentives such as annual salary increase rate and bonus performance. The performance evaluation, which is the basis for incentive reward, consists of 70% quantitative and 30% qualitative for tasks set for each team, ESG management achievement is classified as quantitative, and the ratio can be adjusted from at least 10% to up to 70% for each team. In constructing ESG KPI evaluation items, we reflected the requirements for ESG management promotion, including our climate change issues, and also included the diagnostic item system of corporate ESG management guidelines published by the Ministry of Trade, Industry and Energy. Major climate change indicators for the active promotion of ESG management include 'achievement of goals through greenhouse gas emissions and reduction management', 'Managing Energy Usage and Savings' and 'Training on climate change for executives and employees' at direct operations, and 'collection of supply chain management strategies', 'Eco-friendly

purchasing activities' for supply chain engagement management.

(4.5.1.6) How the position's incentives contribute to the achievement of your environmental commitments and/or climate transition plan

Hyosung TNC has set a quantitative GHG emissions reduction target of 14.5% by 2030 against total emissions in 2018 and is carrying out greenhouse gas reduction activities to achieve the target. All employees of Hyosung TNC's ESG management-related department should prepare a performance plan by reflecting ESG management performance items in quantitative tasks, set activities that contribute to achieving GHG reduction target as KPIs, and report and evaluate quantitative results. The management KPIs and quantitative indicators set for each team are an extension of our mid to long-term roadmap for responding to climate change in 2030 and GHG reduction target. By reducing energy use and GHG emissions by achieving KPIs, it not only contributes to the achievement of Hyosung TNC's GHG reduction target, but also can lead to the participation of partners and members of the company in implementing the climate transition plan through awareness-building such as expanding the purchase of eco-friendly products and environmental education for executives and employees.
[word_document.add_row]

(4.6) Does your organization have an environmental policy that addresses environmental issues?

	Does your organization have any environmental policies?
	word_document.select_from ☑ Yes

[word_document.fixed_row]

(4.6.1) Provide details of your environmental policies.

Row 1

(4.6.1.1) Environmental issues covered

word_document.select_all_that_apply
☑ Climate change

(4.6.1.2) Level of coverage

word_document.select_from

☑ Organization-wide

(4.6.1.3) Value chain stages covered

word_document.select_all_that_apply

☑ Direct operations

(4.6.1.4) Explain the coverage

Scope of Application: The environmental policy is applicable to all employees within the financial consolidation scope of the company, encompassing headquarters, domestic and overseas production and sales subsidiaries, branches, and affiliates. Employees are encouraged to follow this environmental management policy when dealing with partners, distributors, and outsourcing partners. However, if there is a conflict between the policy's recommended actions and the laws of a particular country, the country's law shall take precedence.

(4.6.1.5) Environmental policy content

Environmental commitments

☑ Commitment to comply with regulations and mandatory standards

☑ Commitment to stakeholder engagement and capacity building on environmental issues

☑ Other environmental commitment, please specify **:**Focusing on environmentally friendly research and development, including the development of resource recycling technologies, bio-based and other eco-friendly materials, and biodegradable products.

(4.6.1.6) Indicate whether your environmental policy is in line with global environmental treaties or policy goals

word_document.select_all_that_apply

☑ No, but we plan to align in the next two years

(4.6.1.7) Public availability

word_document.select_from

☑ Publicly available

(4.6.1.8) Attach the policy

환경정책_효성티앤씨(영문).pdf
[word_document.add_row]

(4.10) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

(4.10.1) Are you a signatory or member of any environmental collaborative frameworks or initiatives?

word_document.select_from
☑ Yes

(4.10.2) Collaborative framework or initiative

word_document.select_all_that_apply
☑ International Sustainability & Carbon Certification (ISCC)
☑ Task Force on Climate-related Financial Disclosures (TCFD)
☑ Textile Exchange

(4.10.3) Describe your organization’s role within each framework or initiative

- Task Force on Climate-related Financial Disclosures (TCFD): In 2022, Hyosung TNC officially declared its support for the TCFD. The company recognizes the importance of economic decision-making in addressing climate change and follows the TCFD’s global disclosure framework, which requires the disclosure of information in four areas: governance, strategy, risk management, and metrics and targets. In accordance with these recommendations, related financial information and climate change-related information are disclosed through the company’s sustainability report. - International Sustainability & Carbon Certification (ISCC): Since 2022, Hyosung TNC has obtained ISCC EU and ISCC PLUS certifications, which validate the company’s use of eco-friendly ingredients and materials. These certifications have laid the groundwork for enhanced collaboration with both domestic and international customers, and the company will continue its efforts to lead the global market for eco-friendly products. Furthermore, as it has done in the past, Hyosung TNC will continue advancing research and development in sustainable textiles, steadily moving forward to bolster its competitive advantage. - Textile Exchange: As of 2024, Hyosung TNC has joined the Textile Exchange and is working to enhance the brand value of its eco-friendly products by offering information about its regen products in reports related to eco-friendly materials.
[word_document.fixed_row]

(4.11) In the reporting year, did your organization engage in activities that could directly or indirectly influence policy, law, or regulation that may (positively or negatively) impact the environment?

(4.11.1) External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the environment

word_document.select_all_that_apply

☑ Yes, we engaged directly with policy makers

(4.11.2) Indicate whether your organization has a public commitment or position statement to conduct your engagement activities in line with global environmental treaties or policy goals

word_document.select_from

☑ Yes, we have a public commitment or position statement in line with global environmental treaties or policy goals

(4.11.3) Global environmental treaties or policy goals in line with public commitment or position statement

word_document.select_all_that_apply

☑ Paris Agreement

(4.11.4) Attach commitment or position statement

TCFD 참여 선언.pptx

(4.11.5) Indicate whether your organization is registered on a transparency register

word_document.select_from

☑ No

(4.11.8) Describe the process your organization has in place to ensure that your external engagement activities are consistent with your environmental commitments and/or transition plan

Hyosung TNC is practicing ESG management to achieve the Hyosung group's "Green Management 2030 Vision" and Hyosung TNC's "ESG Management Vision,"

and determines the direction of our participation in climate change activities and policies based on ESG strategies and core values. The ESG management team collects information on climate change, related issues are addressed by ESG committees. Decisions on whether to proceed are also made in consideration of the relationship between engagement activities with various stakeholders and the direction of our ESG management promotion. (ESG management core values and key tasks) 1. Development and sales of eco-friendly products and water management to promote the 'circulation economy' 2. Direct and indirect carbon reduction initiatives for 'carbon reduction' 3. Zero business site accident rate to achieve 'safety and health' 4. Human rights management to promote 'win-win', improvement of the environment and ecosystem around the factory, and supply chain management Various detailed directions (tasks) for these ESG core values are presented, and to achieve this, stakeholders and engagement activities at all stages of the value chain such as 'supply chain, customers, governments, and industry associations' are recognized as important factors. In addition, ESG management is being promoted by reflecting situations such as changes in policies and markets in ESG management. In 2022, by declaring support for TCFD with the Hyosung group, it expressed its intention to introduce the carbon management system required by the TCFD recommendation to ESG management and participate in global climate change targets.
[word_document.fixed_row]

(4.11.1) On what policies, laws, or regulations that may (positively or negatively) impact the environment has your organization been engaging directly with policy makers in the reporting year?

Row 1

(4.11.1.1) Specify the policy, law, or regulation on which your organization is engaging with policy makers

The Republic of Korea, under the Framework Act on Low Carbon, Green Growth, enacted the Act on the Allocation and Trading of Greenhouse Gas Emissions Allowances, which has been in effect since January 2015. This system allocates annual emission permits to businesses emitting GHGs, allowing them to engage in emission activities within the allocated limits. It also evaluates the actual emissions of the businesses and permits the trading of surplus or deficit emission allowances between businesses.

(4.11.1.2) Environmental issues the policy, law, or regulation relates to

word_document.select_all_that_apply
☑ Climate change

(4.11.1.3) Focus area of policy, law, or regulation that may impact the environment

Financial mechanisms (e.g., taxes, subsidies, etc.)
☑ Emissions trading schemes

(4.11.1.4) Geographic coverage of policy, law, or regulation

word_document.select_from

☑ National

(4.11.1.5) Country/area/region the policy, law, or regulation applies to

word_document.select_all_that_apply

☑ Republic of Korea

(4.11.1.6) Your organization’s position on the policy, law, or regulation

word_document.select_from

☑ Support with minor exceptions

(4.11.1.7) Details of any exceptions and your organization’s proposed alternative approach to the policy, law, or regulation

Exemptions: Hyosung TNC does not object to including subsidiaries within the scope of environmental information disclosure. However, the company deems it challenging to disclose environmental information for all subsidiaries and suggests that a cut-off should be applied based on sales proportion or environmental impact (such as at manufacturing sites). Alternative Proposal: Hyosung TNC, through the Korea Chemical Fibers Association (KCFA), continuously expresses its opinions through public hearings and surveys, proposing that the criteria for disclosing environmental information should be based on sales proportion or environmental impact, such as at manufacturing sites. Conversely, if these suggestions are not adopted, the company is considering the option of disclosing environmental information, including all subsidiaries.

(4.11.1.8) Type of direct engagement with policy makers on this policy, law, or regulation

word_document.select_all_that_apply

☑ Submitting written proposals/inquiries

(4.11.1.9) Funding figure your organization provided to policy makers in the reporting year relevant to this policy, law, or regulation (currency)

78810000

(4.11.1.10) Explain the relevance of this policy, law, or regulation to the achievement of your environmental commitments

and/or transition plan, how this has informed your engagement, and how you measure the success of your engagement

[Relevance] The Republic of Korea has declared its commitment to achieving carbon neutrality by 2050 and is actively pursuing carbon emission reduction policies. The government has announced a reduction scenario focused on significantly reducing coal-fired power generation and expanding renewable energy generation to meet the carbon neutrality goal. Accordingly, Hyosung TNC, as a participant in the emissions trading scheme, plans to establish a 2050 carbon neutrality and 1.5C transition plan aligned with the national carbon neutrality initiative. The company will also continue to submit its opinions on regulations to ensure the effective achievement of corporate carbon neutrality. [Method for Measuring Engagement Achievement] Hyosung TNC is set to present its perspectives directly to national regulatory bodies or through the Korea Chemical Fibers Association to ensure the improvement and supplementation of regulations. The method for measuring engagement achievement will be based on the number of regulatory improvements and supplements achieved. Hyosung TNC actively participates in the Korea Chemical Fibers Association's carbon neutrality policy and largely aligns with the association's stance. In 2023, the company contributed KRW 78,810,000 (USD 59,300) to the association. These funds are being used to conduct research on carbon neutrality-related policies, propose revisions to unreasonable policies to the government, and discuss the direction and response strategies for achieving carbon neutrality.

(4.11.1.11) Indicate if you have evaluated whether your organization’s engagement on this policy, law, or regulation is aligned with global environmental treaties or policy goals

word_document.select_from

☑ Yes, we have evaluated, and it is aligned

(4.11.1.12) Global environmental treaties or policy goals aligned with your organization's engagement on this policy, law or regulation

word_document.select_all_that_apply

☑ Paris Agreement

[word_document.add_row]

(4.12) Have you published information about your organization’s response to environmental issues for this reporting year in places other than your CDP response?

word_document.select_from

☑ Yes

(4.12.1) Provide details on the information published about your organization’s response to environmental issues for this reporting year in places other than your CDP response. Please attach the publication.

Row 1

(4.12.1.1) Publication

word_document.select_from

☑ In mainstream reports

(4.12.1.3) Environmental issues covered in publication

word_document.select_all_that_apply

☑ Climate change

(4.12.1.4) Status of the publication

word_document.select_from

☑ Complete

(4.12.1.5) Content elements

word_document.select_all_that_apply

☑ Strategy

☑ Emissions figures

☑ Other, please specify :Status of Eco-Friendly Certifications

(4.12.1.6) Page/section reference

1. Emissions figures 124p 2. Other (Status of Eco-Friendly Certifications) 282p 3. Strategy 281p283p, 16p

(4.12.1.7) Attach the relevant publication

[효성티앤씨]사업보고서(2024.03.06).pdf

(4.12.1.8) Comment

Hyosung TNC discloses management strategy and emission data through business reports. The data in the greenhouse gas emission verification report and the data in the business report may differ because the published data in the business report (March every year) is data before the final suitability evaluation is completed (June every year).

Row 2

(4.12.1.1) Publication

word_document.select_from

☑ In voluntary sustainability reports

(4.12.1.3) Environmental issues covered in publication

word_document.select_all_that_apply

☑ Climate change

(4.12.1.4) Status of the publication

word_document.select_from

☑ Complete

(4.12.1.5) Content elements

word_document.select_all_that_apply

☑ Governance

☑ Risks & Opportunities

☑ Strategy

☑ Emissions figures

☑ Emission targets

(4.12.1.6) Page/section reference

1. Governance 42p 2. Strategy 49p 3. Risks & Opportunities 51p 4. Emissions figures 66p 5. Emission targets 49p

(4.12.1.7) Attach the relevant publication

(4.12.1.8) Comment

1. Governance 42p 2. Strategy 49p 3. Risks & Opportunities 51p 4. Emissions figures 66p 5. Emission targets 49p
[word_document.add_row]

C5. Business strategy

(5.1) Does your organization use scenario analysis to identify environmental outcomes?

Climate change

(5.1.1) Use of scenario analysis

word_document.select_from
☑ Yes

(5.1.2) Frequency of analysis

word_document.select_from
☑ Annually
[word_document.fixed_row]

(5.1.1) Provide details of the scenarios used in your organization’s scenario analysis.

Climate change

(5.1.1.1) Scenario used

Physical climate scenarios
☑ RCP 8.5

(5.1.1.2) Scenario used SSPs used in conjunction with scenario

word_document.select_from
☑ SSP5

(5.1.1.3) Approach to scenario

word_document.select_from

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

word_document.select_from

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

word_document.select_all_that_apply

☑ Chronic physical

(5.1.1.6) Temperature alignment of scenario

word_document.select_from

☑ 4.0ºC and above

(5.1.1.7) Reference year

2018

(5.1.1.8) Timeframes covered

word_document.select_all_that_apply

☑ 2050

(5.1.1.9) Driving forces in scenario

Local ecosystem asset interactions, dependencies and impacts

☑ Changes to the state of nature

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

[Parameters and assumptions] The physical scenario assumes an expected disaster if efforts to respond to climate change are insufficient and the achievement of reduction targets and strategies fails. Hyosung TNC, headquartered in South Korea, used the RCP 8.5 high-carbon scenario provided by the Korea Meteorological Administration to analyze the physical impact of climate change across the company. The Korea Meteorological Administration calculated future climate change forecast data from 2006 to 2100 according to the IPCC's RCP scenario after past climate reproduction experiments (1979-2005) based on the Korean Peninsula area. RCP 8.5 assumes that the temperature on the Korean Peninsula will rise 4.7 by 2100 considering various variables, and RCP 8.5 predicts that the climate index will change, such as a 93.4 day increase (36.5 days 129.9 days) in Korea and an average precipitation increase of 14% (12%) compared to the present. [Uncertainty and Constraints] Hyosung TNC's nylon manufacturing facility in Ulsan, located along the coastline, faces a physical risk due to the potential rise in sea levels. The inherent uncertainty in projecting sea level rise is influenced by the global acceleration rate of sea level increases and regional factors that affect the changes in the local sea level. These uncertainties related to sea level rise have potential to significantly impact the company's strategic formulation and financial planning. [Analysis] Extreme climate change in RCP 8.5 can cause various accidents and problems in Hyosung TNC's business sector, such as property and human damage, loss of products, and deterioration in the quality of products produced. In particular, due to the nature of the 'yarn' product produced, active responses based on scenario analysis are needed because problems such as poor quality of the product due to flooding and leakage (the possibility of changing dyeing). To actively respond to the expected damage under the RCP 8.5 scenario, the company recognized climate change as a major issue and set a goal of reducing greenhouse gases by 14.5% by 2030 compared to 2018 to contribute to curbing global warming. In the future, we will monitor continuous greenhouse gas emissions and national greenhouse gas reduction scenarios, apply them to the establishment of reduction goals for 2030-2050, and actively participate in global greenhouse gas reduction.

(5.1.1.11) Rationale for choice of scenario

The Republic of Korea is expected to experience a continued rise in average seasonal temperatures, and under the Representative Concentration Pathways (RCP) 8.5 scenario, most regions of the Korean Peninsula, particularly the eastern and southern coasts, are projected to see increased precipitation. Given the Ulsan plant's exposure to the sea levels of the East and South Seas, the scenario analysis was conducted based on the RCP 8.5 scenario, which forecasts the highest increase in average temperature.

Climate change

(5.1.1.1) Scenario used

Climate transition scenarios

☑ Customized publicly available climate transition scenario, please specify

(5.1.1.3) Approach to scenario

word_document.select_from

☑ Qualitative and quantitative

(5.1.1.4) Scenario coverage

word_document.select_from

☑ Organization-wide

(5.1.1.5) Risk types considered in scenario

word_document.select_all_that_apply

☑ Policy

(5.1.1.6) Temperature alignment of scenario

word_document.select_from

☑ 1.5°C or lower

(5.1.1.7) Reference year

2018

(5.1.1.8) Timeframes covered

word_document.select_all_that_apply

☑ 2050

(5.1.1.9) Driving forces in scenario

Regulators, legal and policy regimes

☑ Global regulation

(5.1.1.10) Assumptions, uncertainties and constraints in scenario

[Parameters and assumptions] Hyosung TNC intends to analyze the publicly transition scenario of the Republic of Korea, where its business is located, to prevent risks derived from the analysis of physical climate change scenarios and incorporate them into its business strategy. The key parameters used in the scenario include population trends, GDP growth rate trends, international oil prices, and industrial structure outlooks, which have been used to project energy demand and greenhouse

gas emissions until 2050. It is expected that energy demand will decrease by 5.0% in 2050 compared to 2018 and an increase in energy demand is expected from new technologies such as CCUS and hydrogen. In terms of final energy, consumption of fossil fuels that emit greenhouse gases is expected to decrease significantly, and demand for electricity, renewable energy, and hydrogen is expected to increase significantly. [Uncertainty and Constraints] Hyosung TNC acknowledges that the absence of external information on future climate conditions poses challenges in accurately predicting climate change. To be specific, uncertainties regarding the timing of fossil fuel alternatives and the precision of business scale forecasts can influence climate change predictions. [Analysis] Hyosung TNC analyzed the 2030 NDC and 2050 carbon neutral scenarios in the Republic of Korea. According to the scenarios, the projected energy demand in the industrial sector, to which Hyosung TNC belongs, is expected to be 139.3 million TOE, similar to 148.7 million TOE in 2018. In addition, during the process of achieving carbon neutrality, a significant portion of fossil fuel consumption in the industrial sector is expected to be replaced by electricity, resulting in a projected overall greenhouse gas emissions reduction to 51.1 million tons, an 80.4% reduction compared to 260.5 million tons in 2018. Hyosung TNC also predicted future BAU emissions through regression analysis of factors such as its energy use, sales trends, and economic growth rate, and set the existing target of 14.5% reduction by 2030 compared to 2018 as a company-wide goal. And we plan to achieve its 2050 carbon neutral scenario industry sector goals by analyzing additional scenarios and establishing a transition plan.

(5.1.1.11) Rationale for choice of scenario

Given the direct impact of the Republic of Korea's evolving climate policies, including the emissions trading scheme, on Hyosung TNC, the company has decided to fully incorporate the 2050 carbon neutrality scenario into its climate change goals and strategic planning. Moving forward, Hyosung TNC will formulate climate change strategies based on the national 2050 carbon neutrality scenario and develop financial plans designed to achieve carbon neutrality.
[word_document.add_row]

(5.1.2) Provide details of the outcomes of your organization's scenario analysis.

Climate change

(5.1.2.1) Business processes influenced by your analysis of the reported scenarios

word_document.select_all_that_apply
☑ Strategy and financial planning
☑ Resilience of business model and strategy
☑ Capacity building
☑ Target setting and transition planning

(5.1.2.2) Coverage of analysis

word_document.select_from
☑ Organization-wide

(5.1.2.3) Summarize the outcomes of the scenario analysis and any implications for other environmental issues

As the world's largest spandex manufacturer by production volume, Hyosung TNC is acutely aware of the environmental challenges facing the textile industry and has proactively collaborated with upstream industries, such as fashion companies, to introduce eco-friendly yarns produced from recycled materials. Our eco-friendly products are directly addressing the risks and opportunities related to climate change, particularly as the demand for products with a lower carbon footprint continues to grow. During the reporting year, Hyosung TNC set long-term targets for eco-friendly products, in association with its business strategy built upon climate change scenario analysis, aiming to achieve a 16.0% sales proportion of sustainable solutions, including recycled and bio-based products, within the total sales of yarn products by 2030. To this end, the Board of Directors approved investments for the establishment and expansion of overseas factories exclusive for producing recycled products, including the expansion of production lines at the Zhuhai plant for eco-friendly products and the construction of new Vietnam and Quzhou plants. In response to the global materials market's increasing demand for eco-friendly products, Hyosung TNC has committed to investing KRW 1 trillion in constructing a bio-BDO production plant in Vietnam, which is projected to begin production by 2026, with progress currently underway. Going forward, the company will pursue the development and commercialization of bio-based products, leveraging renewable raw materials, with these investment plans reflected in financial accounting to achieve sustainable goals.
[word_document.fixed_row]

(5.2) Does your organization's strategy include a climate transition plan?

(5.2.1) Transition plan

word_document.select_from
☑ No, but we are developing a climate transition plan within the next two years

(5.2.15) Primary reason for not having a climate transition plan that aligns with a 1.5°C world

word_document.select_from
☑ Lack of internal resources, capabilities, or expertise (e.g., due to organization size)

(5.2.16) Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world

Hyosung TNC is committed to advancing green management and ESG management, including considerations for climate change, in full recognition their importance. Accordingly, the company conducts climate-related risk and opportunity analysis and integrates the findings into its management strategy. However, as of the reporting year, emissions from subsidiaries have not been estimated consistently, and the company lacks the expertise to set science-based reduction targets. It is therefore anticipated that time will be required to come up with a climate transition plan that remains consistent with the 1.5C scenario. While a transition plan compliant with the 1.5C scenario has not been established as of the reporting year, the company intends to secure consistency by calculating subsidiary emissions,

resetting the base year, establishing target years and reduction goals, and analyzing reduction measures (considering those compliant with the 1.5C scenario) to devise a comprehensive year-by-year roadmap.
[word_document.fixed_row]

(5.3) Have environmental risks and opportunities affected your strategy and/or financial planning?

(5.3.1) Environmental risks and/or opportunities have affected your strategy and/or financial planning

word_document.select_from
☑ Yes, both strategy and financial planning

(5.3.2) Business areas where environmental risks and/or opportunities have affected your strategy

word_document.select_all_that_apply
☑ Products and services
☑ Upstream/downstream value chain
☑ Investment in R&D
☑ Operations
[word_document.fixed_row]

(5.3.1) Describe where and how environmental risks and opportunities have affected your strategy.

Products and services

(5.3.1.1) Effect type

word_document.select_all_that_apply
☑ Risks
☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

word_document.select_all_that_apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

As the world's largest spandex manufacturer by production volume, Hyosung TNC is acutely aware of the environmental challenges facing the textile industry and has proactively collaborated with upstream industries, such as fashion companies, to introduce eco-friendly yarns produced from recycled materials. Our eco-friendly products are directly addressing the risks and opportunities related to climate change, particularly as the demand for products with a lower carbon footprint continues to grow. As a pioneer in the chemical fiber industry, Hyosung TNC has developed and produced recycled products for three types of fiber products (i.e., nylon, polyester, spandex) and continues to make investments to ensure that its flagship product, spandex, to be produced using eco-friendly bio-based raw materials instead of fossil fuels. During the reporting year, the company established a sustainability goal focused on eco-friendly products, aiming to achieve a 16.0% sales proportion of sustainable solutions, including recycled and bio-based products, within the total sales of yarn products by 2030. The company is set to construct new strategies designed to achieve this goal in the future.

Upstream/downstream value chain

(5.3.1.1) Effect type

word_document.select_all_that_apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

word_document.select_all_that_apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

In order to establish a sustainable mutual cooperation system, joint risk management (climate change-related) with 'suppliers' and customers who are 'downstream' on the value chain is essential, and joint risk management is carried out to this end. (Upstream - Supply Chain) It manages the goal and promotion system of shared growth for supply chain management, operates and manages programs such as supporting energy reduction facilities, conducting large- and small-sized energy projects, and enacting behavioral norms for partners. - Establishment of Supplier Code of Conduct: Code of Conduct was established by reflecting not only quality, price, and management performance, but also environmental, safety, and compliance with legal requirements that can act as risks related to climate change. - Supplier ESG Education and Consulting: To improve their understanding of ESG activities and easily apply them to management activities, specialized consulting is provided to support ESG overall job training, including human rights, ethics, supply chain, environment, safety, and climate change. (Downstream - Customer) It discloses information on products that have obtained eco-friendly certification for global clothing manufacturers, and the results of calculating GHG emissions from

products that reduce GHG emissions during production, and develops and supplies customized low-carbon products at the request of customers. We are realizing 'green management' through climate change risk management and active response to fulfill its responsibility for sustainable shared growth and environmental management with all stakeholders at the value chain stage. Below are the global eco-friendly certificates obtained in 2022 to improve reliability with customers. - In order to provide qualitative and quantitative information related to climate change response, 7 eco-friendly products (Dyed yarns, Greige yarns, Processed materials, Dyed knitted Fabrics 2 types, Dyed Woven Fabrics 2 types) were certified and maintained. - We acquired the OBP certification, a first in Korea, for our recycled polyester made from marine plastic waste. We also renew the OEKO-TEX STANDARD 100 certification issued by the International Research Institute for Textile and Leather Ecology annually. - We obtained the ISCC EU/PLUS certification for bio-mass and bio-energy, necessary for global trade. Hyosung TNC has set a goal to obtain GRS certification for all of its eco-friendly products within a short period, and it also plans to conduct ESG evaluations on all of its first-tier suppliers.

Investment in R&D

(5.3.1.1) Effect type

word_document.select_all_that_apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

word_document.select_all_that_apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Global efforts to reduce GHGs and promote sustainable development, such as the development of eco-friendly materials, see continued increase, and there is a growing demand from customers for the use of sustainable raw materials, the development of low-carbon products, and compliance with eco-friendly policies. In response, Hyosung TNC has established a sustainability goal oriented towards eco-friendly products, aiming to achieve a 16.0% sales proportion of sustainable solutions, including recycled and bio-based products, within the total sales of yarn products by 2030, and is ready to extend its investments in R&D for the development of eco-friendly products. Hyosung TNC consistently allocates annual budgets for the development of eco-friendly products and conducts R&D on recycled products and low-carbon products. In 2023, the company invested a total of KRW 20.577 billion in research and development, with KRW 2.321 billion, or approximately 11.3% of the total budget, allocated to eco-friendly research projects. The main investment achievements in 2023 include the development of bio-mass dyeable (reactive) spandex and PET chemical recycling bench technologies. Hyosung TNC continues to engage in R&D to produce more environmentally friendly and diverse eco-friendly products, leveraging its leading technological capabilities in the eco-friendly textile market.

Operations

(5.3.1.1) Effect type

word_document.select_all_that_apply

☑ Risks

☑ Opportunities

(5.3.1.2) Environmental issues relevant to the risks and/or opportunities that have affected your strategy in this area

word_document.select_all_that_apply

☑ Climate change

(5.3.1.3) Describe how environmental risks and/or opportunities have affected your strategy in this area

Hyosung TNC designated 'circular economy', 'carbon reduction', 'safety and health' and 'win-win' as Hyosung TNC's four major sustainable management keywords in 2021. Among them, in order to realize 'carbon reduction', the business site has set a target of 14.5% carbon reduction compared to 2018 by 2030 with the aim of achieving carbon neutrality in the long term. In order to achieve this, facility investment plans and reduction activities (replacement to high-efficiency facilities, energy loss prevention activities, etc.) for greenhouse gas reduction were carried out, and the reduction amount due to greenhouse gas reduction initiatives was 2,369tCO2eq in 2023. The company has also separately allocated a budget for environmental facility investments, and the GHG reduction activities carried out in 2023 at the company's business sites, resulting from energy-saving initiatives, include the following: 1. Air loss was reduced by improving dryer equipment (reduction of 245 tCO2eq) - Existing purge type dryers were replaced with non-purge type dryers to prevent air loss 2. Refrigeration load was reduced by increasing the span chilled water management temperature from 7C to 8C (reduction of 243 tCO2eq) 3. Electricity costs were reduced through the integrated operation of compressors (reduction of 427 tCO2eq) - Electricity consumption was reduced in pumps and cooling towers by shutting down the compressor room in district B. [word_document.add_row]

(5.3.2) Describe where and how environmental risks and opportunities have affected your financial planning.

Row 1

(5.3.2.1) Financial planning elements that have been affected

word_document.select_all_that_apply

☑ Revenues

(5.3.2.2) Effect type

word_document.select_all_that_apply

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning elements

word_document.select_all_that_apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

Global efforts to reduce GHGs and promote sustainable development, such as the development of eco-friendly materials, see continued increase, and there is a growing demand from customers for the use of sustainable raw materials, the development of low-carbon products, and compliance with eco-friendly policies. Hyosung TNC has accordingly set a sustainability goal focused on eco-friendly products, aiming for recycled and bio-based products to comprise 16.0% of total yarn product sales by 2030. Over the past three years, the proportion of eco-friendly product sales has seen a steady increase. This trend suggests that the share of eco-friendly products is expected to grow rapidly in the coming years (from 4.0% in 2021, to 4.6% in 2022, and 5.2% in 2023). To meet the rising demand for eco-friendly products, Hyosung TNC is working on constructing and expanding overseas factories dedicated to recycled product manufacturing, enhancing R&D efforts to build a robust portfolio of eco-friendly products, and advancing the development and commercialization of bio-based products made from renewable raw materials. Indeed, in response to the global materials market driven by eco-friendly product demand, Hyosung TNC has committed to investing KRW 1 trillion in constructing a bio-BDO production plant in Vietnam, with production slated to begin by 2026, and the project is currently underway.

Row 2

(5.3.2.1) Financial planning elements that have been affected

word_document.select_all_that_apply

☑ Direct costs

(5.3.2.2) Effect type

word_document.select_all_that_apply

☑ Risks

☑ Opportunities

(5.3.2.3) Environmental issues relevant to the risks and/or opportunities that have affected these financial planning

elements

word_document.select_all_that_apply

☑ Climate change

(5.3.2.4) Describe how environmental risks and/or opportunities have affected these financial planning elements

1. Hyosung TNC has been participating in the Korean government's Greenhouse Gas Emissions Trading System (K-ETS) since 2019, and is obligated to comply with regulations on greenhouse gas emissions. If greenhouse gases are emitted in excess of the emission allowances allocated by K-ETS, the emission rights must be purchased on the market, and if the excess emissions are not resolved, a fine equivalent to three times the average allowable price for the year will be imposed. However, if greenhouse gases are emitted less than the emission allowances through greenhouse gas reduction, the sale of emission allowances can be used as an opportunity. Hyosung TNC was able to sell emission allowances by emitting less greenhouse gases than its allowance in 2021 and 2023, which could generate a total profit of about KRW 1.8 billion. 2. Hyosung TNC's main industrial sector is the textile material industry, which is pushing for changes and expansion of its business portfolio to cope with major changes in the textile industry structure recently. In promoting portfolio change, we are responding to climate change in R&D in key areas with the aim of realizing a "clean environmental energy society" and "product development that customers want." Eco-friendly yarn such as Post-consumer, Pre-consumer textile yarn, and Bio-Based yarn, which use recycled raw materials, was developed by Hyosung TNC to meet the sustainable global environment and customers' needs to consume eco-friendly products. R&D costs of about KRW 2,321 million were invested in the development of these ecofriendly products in 2023. Hyosung TNC will continue to lead the development of eco-friendly technologies in the textile industry and strive to improve its market share. 3. Hyosung TNC designated 'circular economy', 'carbon reduction', 'safety and health' and 'win-win' as Hyosung TNC's four major sustainable management keywords in 2021. Among them, in order to realize 'carbon reduction', the business site has set a target of 14.5% carbon reduction compared to 2018 by 2030 with the aim of achieving carbon neutrality in the long term. Hyosung TNC is working on a plan to achieve 14.5% GHG reduction by 2030 to reduce GHG emissions and prepare for the expected emissions shortfall. In 2023, KRW 636 million was invested in initiatives to reduce greenhouse gas emissions, such as replacing outdated equipment and improving equipment efficiency.
[word_document.add_row]

(5.4) 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
	word_document.select_from

	Identification of spending/revenue that is aligned with your organization's climate transition
	☑ No, but we plan to in the next two years

[word_document.fixed_row]

(5.10) Does your organization use an internal price on environmental externalities?

	Use of internal pricing of environmental externalities	Environmental externality priced
	word_document.select_from ☑ Yes	*word_document.select_all_that_apply* ☑ Carbon

[word_document.fixed_row]

(5.10.1) Provide details of your organization's internal price on carbon.

Row 1

(5.10.1.1) Type of pricing scheme

word_document.select_from

☑ Shadow price

(5.10.1.2) Objectives for implementing internal price

word_document.select_all_that_apply

☑ Conduct cost-benefit analysis

☑ Drive low-carbon investment

☑ Identify and seize low-carbon opportunities

☑ Influence strategy and/or financial planning

(5.10.1.3) Factors considered when determining the price

word_document.select_all_that_apply

☑ Alignment with the price of allowances under an Emissions Trading Scheme

(5.10.1.4) Calculation methodology and assumptions made in determining the price

Hyosung TNC determines its internal carbon price by referencing the unit price in the emissions trading market. Thus, there is no distinct methodology for setting this price, as the closing price on a specific date in the emissions trading market is directly applied.

(5.10.1.5) Scopes covered

word_document.select_all_that_apply

☑ Scope 1

☑ Scope 2

(5.10.1.6) Pricing approach used – spatial variance

word_document.select_from

☑ Uniform

(5.10.1.8) Pricing approach used – temporal variance

word_document.select_from

☑ Evolutionary

(5.10.1.9) Indicate how you expect the price to change over time

For the reporting year, Hyosung TNC's internal carbon price matched the Korean Allowance Unit (KAU) emissions trading price and was uniformly applied across all domestic business sites. Consequently, the internal carbon price varies annually in accordance with the KAU transaction price trends. The internal carbon price set by Hyosung TNC for 2023 (the reporting year) was KRW 25,700/tCO2. Hyosung TNC closely monitors and manages the appropriateness of its internal carbon price by

analyzing domestic carbon price trends and market liquidity, considering key information related to domestic and international climate change developments and the emissions trading scheme. The applied internal carbon price may be adjusted due to changes in domestic emissions trading policies, shifts in the supply-demand dynamics of emissions allowances, or cost variations associated with RE100 commitments. It is anticipated that the current price level will persist throughout the third planning period, but as corporate carbon reduction requirements intensify in the fourth planning period (2026–2030) and the proportion of paid allocations increases, the price of emissions allowances is likely to gradually rise if companies lack surplus allowances. Hyosung TNC conducts an annual analysis of the emissions trading market, determining the internal carbon price each year through the strategy headquarters and board decisions, which is then incorporated into the company's business plans.

(5.10.1.10) Minimum actual price used (currency per metric ton CO2e)

25700

(5.10.1.11) Maximum actual price used (currency per metric ton CO2e)

25700

(5.10.1.12) Business decision-making processes the internal price is applied to

word_document.select_all_that_apply

☑ Capital expenditure

☑ Risk management

☑ Opportunity management

(5.10.1.13) Internal price is mandatory within business decision-making processes

word_document.select_from

☑ Yes, for some decision-making processes, please specify **:**When investing in energy-saving facilities and purchasing emission allowances

(5.10.1.14) % total emissions in the reporting year in selected scopes this internal price covers

100

(5.10.1.15) Pricing approach is monitored and evaluated to achieve objectives

word_document.select_from

☑ Yes

(5.10.1.16) Details of how the pricing approach is monitored and evaluated to achieve your objectives

The internal carbon price serves as an effective tool for assigning a cost to carbon dioxide emissions in financial decision-making and encouraging emission reductions throughout the organization. Hyosung TNC plans to develop a carbon pricing roadmap through its internal carbon price and integrate it into its medium to long-term business strategies. In capital investment decisions, such as those involving carbon emissions changes, energy efficiency improvements, or energy source portfolio adjustments, the internal carbon price will be a critical factor in predicting the potential financial impacts of regulations and estimating the anticipated operational costs required to achieve carbon neutrality. In particular, the internal carbon price will be used first to analyze the payback period and frequency of facility investments when making new investments in eco-friendly R&D and technology development, with the final investment amount determined after reporting to the CEO. Second, when evaluating the financial impact of potential risks (i.e., need to purchase emissions allowances) due to climate change policies and regulations, and when identifying new opportunities (e.g., revenue from emissions allowance sales) during the transition to a low-carbon economy, the internal carbon price will be instrumental in assessing the magnitude of these impacts. Third, by applying the internal carbon price to strategic decisions regarding energy facility investments and the expansion or construction of new business sites, the company aims to minimize risks during the low-carbon economy transition and capitalize on opportunities to achieve GHG reduction targets. Indeed, the internal carbon price is utilized in strategic decision-making related to business direction, investments, and other areas, as well as in managing climate change risks and opportunities, and is also linked to incentives for GHG reduction activities. Hyosung TNC will continue to employ the internal carbon price to identify and seize low-carbon opportunities, formulate business plans, and make informed decisions regarding climate change-related costs at its business sites.
[word_document.add_row]

(5.11) Do you engage with your value chain on environmental issues?

	Engaging with this stakeholder on environmental issues	Environmental issues covered
Suppliers	*word_document.select_from* ☑ Yes	*word_document.select_all_that_apply* ☑ Climate change
Customers	*word_document.select_from* ☑ Yes	*word_document.select_all_that_apply* ☑ Climate change
Investors and shareholders	*word_document.select_from* ☑ Yes	*word_document.select_all_that_apply* ☑ Climate change
Other value chain stakeholders	*word_document.select_from*	*word_document.select_all_that_apply*

	Engaging with this stakeholder on environmental issues	Environmental issues covered
	☑ Yes	☑ Climate change

[word_document.fixed_row]

(5.11.1) Does your organization assess and classify suppliers according to their dependencies and/or impacts on the environment?

Climate change

(5.11.1.1) Assessment of supplier dependencies and/or impacts on the environment

word_document.select_from

☑ Yes, we assess the dependencies and/or impacts of our suppliers

(5.11.1.2) Criteria for assessing supplier dependencies and/or impacts on the environment

word_document.select_all_that_apply

☑ Contribution to supplier-related Scope 3 emissions

(5.11.1.3) % Tier 1 suppliers assessed

word_document.select_from

☑ 1-25%

(5.11.1.4) Define a threshold for classifying suppliers as having substantive dependencies and/or impacts on the environment

As a textile manufacturer, Hyosung TNC's is highly reliant on raw materials, making material procurement and sales particularly sensitive to these risks. To mitigate the material procurement risks posed by climate change, Hyosung TNC has classified suppliers with high purchase volumes as having significant environmental

dependency, based on the degree of raw material dependency relative to product and service purchase amounts.

(5.11.1.5) % Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

word_document.select_from

☑ 1-25%

(5.11.1.6) Number of Tier 1 suppliers meeting the thresholds for substantive dependencies and/or impacts on the environment

68

[word_document.fixed_row]

(5.11.2) Does your organization prioritize which suppliers to engage with on environmental issues?

Climate change

(5.11.2.1) Supplier engagement prioritization on this environmental issue

word_document.select_from

☑ Yes, we prioritize which suppliers to engage with on this environmental issue

(5.11.2.2) Criteria informing which suppliers are prioritized for engagement on this environmental issue

word_document.select_all_that_apply

☑ In line with the criteria used to classify suppliers as having substantive dependencies and/or impacts relating to climate change

☑ Business risk mitigation

☑ Material sourcing

(5.11.2.4) Please explain

Hyosung TNC identifies dependencies on nature, impacts and climate change issues, deriving risk and opportunity factors as well as assessing the financial impacts of climate change risks and opportunities through various methodologies (Enterprise Risk Management, ISO 14001 Environmental Management Standard). Given the company's high dependency on raw materials, which directly affects material procurement and sales, suppliers with significant environmental impact are evaluated,

and those with identified risks are managed through consulting or education. Should climate change adversely impact the overall supply and pricing within the raw materials market, material procurement risks could arise as a result. Furthermore, sustainable sourcing becomes increasingly critical due to biodiversity loss and the depletion of natural resources caused by climate change, which are directly linked to Hyosung TNC's business risks. Consequently, suppliers engaged in environmental issues are place on top priority for engagement. To mitigate the material procurement risks posed by climate change, Hyosung TNC has classified suppliers with high purchase volumes as having significant environmental dependency, based on the degree of raw material dependency relative to product and service purchase amounts. A high annual purchase volume not only reflects the material's critical importance to the company but also signifies the supplier's strong material procurement capacity.
[word_document.fixed_row]

(5.11.5) Do your suppliers have to meet environmental requirements as part of your organization's purchasing process?

Climate change

(5.11.5.1) Suppliers have to meet specific environmental requirements related to this environmental issue as part of the purchasing process

word_document.select_from
☑ Yes, environmental requirements related to this environmental issue are included in our supplier contracts

(5.11.5.2) Policy in place for addressing supplier non-compliance

word_document.select_from
☑ Yes, we have a policy in place for addressing non-compliance

(5.11.5.3) Comment

Hyosung TNC enforces compliance with environmental requirements by incorporating them into purchase contracts, ensuring effective management. In cases where a supplier fails to meet these requirements, rather than immediately terminating the business relationship, the company provides the supplier with detailed corrective actions to address non-compliance, offering an opportunity for rectification. During the reporting year, Hyosung TNC engaged in risk mitigation activities, such as providing ESG education, consulting services, and issuing official letters to 58 companies identified as needing such intervention.
[word_document.fixed_row]

(5.11.6) Provide details of the environmental requirements that suppliers have to meet as part of your organization's purchasing process, and the compliance measures in place.

Climate change

(5.11.6.1) Environmental requirement

word_document.select_from

☑ Regular environmental risk assessments (at least once annually)

(5.11.6.2) Mechanisms for monitoring compliance with this environmental requirement

word_document.select_all_that_apply

☑ First-party verification

☑ Supplier self-assessment

(5.11.6.3) % tier 1 suppliers by procurement spend required to comply with this environmental requirement

word_document.select_from

☑ 100%

(5.11.6.4) % tier 1 suppliers by procurement spend in compliance with this environmental requirement

word_document.select_from

☑ 100%

(5.11.6.7) % tier 1 supplier-related scope 3 emissions attributable to the suppliers required to comply with this environmental requirement

word_document.select_from

☑ 100%

(5.11.6.8) % tier 1 supplier-related scope 3 emissions attributable to the suppliers in compliance with this environmental requirement

word_document.select_from

☑ 76-99%

(5.11.6.9) Response to supplier non-compliance with this environmental requirement

word_document.select_from

☑ Retain and engage

(5.11.6.10) % of non-compliant suppliers engaged

word_document.select_from

☑ 1-25%

(5.11.6.11) Procedures to engage non-compliant suppliers

word_document.select_all_that_apply

☑ Providing information on appropriate actions that can be taken to address non-compliance

(5.11.6.12) Comment

The company evaluates ESG risks among suppliers based on ESG disclosures and assessments, supplemented by an internally developed diagnostic tool. During the reporting period, fifty-eight suppliers were flagged as high-risk through the evaluation process and were consequently chosen for risk mitigation interventions, which included ESG education, consulting support, and formal correspondence. Throughout the reporting year, ESG risk assessments and diagnostics were conducted for sixty-eight companies, representing eighty percent of the annual purchase volume, with fifty-eight of these companies receiving education and consulting services. The total number of suppliers during the reporting year was 291, resulting in a proportion of 19.9% (58/291) 100%. The contribution of partners to scope 3 emissions was estimated by adding emissions from purchased products and services to those from upstream transportation/logistics, then determining the ratio relative to total scope 3 emissions. This resulted in 94.7% ((1,044,380 tCO2-eq (emissions from purchased products and services in 2023) 19,857 tCO2-eq (upstream transportation/logistics in 2023)) / 1,123,587 tCO2-eq (total scope 3 emissions in 2023)) 100%.
[word_document.add_row]

(5.11.7) Provide further details of your organization's supplier engagement on environmental issues.

Climate change

(5.11.7.2) Action driven by supplier engagement

word_document.select_from

☑ Adaptation to climate change

(5.11.7.3) Type and details of engagement

Capacity building

☑ Provide training, support and best practices on how to measure GHG emissions

(5.11.7.4) Upstream value chain coverage

word_document.select_all_that_apply

☑ Tier 1 suppliers

(5.11.7.5) % of tier 1 suppliers by procurement spend covered by engagement

word_document.select_from

☑ 100%

(5.11.7.6) % of tier 1 supplier-related scope 3 emissions covered by engagement

word_document.select_from

☑ 76-99%

(5.11.7.9) Describe the engagement and explain the effect of your engagement on the selected environmental action

[Proportion] Throughout the reporting year, ESG risk assessments and diagnostics were conducted for sixty-eight companies, representing eighty percent of the annual purchase volume, with fifty-eight of these companies receiving education and consulting services. The total number of suppliers during the reporting year was 291, resulting in a proportion of 19.9% (58/291) 100%. The contribution of partners to scope 3 emissions was estimated by adding emissions from purchased products and services to those from upstream transportation/logistics, then determining the ratio relative to total scope 3 emissions. This resulted in 94.7% ((1,044,380 tCO2-eq (emissions from purchased products and services in 2023) 19,857 tCO2-eq (upstream transportation/logistics in 2023)) / 1,123,587 tCO2-eq (total scope 3 emissions in 2023)) 100%. [Achievement Results] In the reporting year, Hyosung TNC conducted ESG risk assessments and diagnostics for sixty-eight companies, fifty-eight of which were identified as requiring risk mitigation and subsequently receiving education and consulting services. [Quantitative Criteria and Impact] Hyosung TNC facilitates the enhancement of ESG capabilities among its partners by offering various tailored programs and supporting activities aimed at improving ESG performance. 1. ESG Education: Hyosung TNC offers online ESG education to partners, covering topics such as ESG concepts and trends, ESG management practices and case studies, ESG risks specific to partners, the importance of ESG evaluations, and evaluation methodologies. 2. ESG Evaluation: Hyosung TNC is assessed through its proprietary ESG evaluation questionnaire and the ESG self-diagnosis system provided by the Korea SMEs and Startups Agency (KOSME). Climate change-related evaluation questions address the development of GHG management goals, plans for reducing environmental pollution through eco-friendly products, and reductions in GHGs and energy consumption over the past three years, among other criteria. The results provide each company

with its ESG management score and rating. Partners are categorized into three levels: excellent, average, inadequate. Companies rated as inadequate are required to undergo ESG education and consulting services to address the associated risks.

(5.11.7.10) Engagement is helping your tier 1 suppliers meet an environmental requirement related to this environmental issue

word_document.select_from

☑ Yes, please specify the environmental requirement **:**Energy Consumption and GHG Emissions Management, Water Resources Management, Air Quality/Waste/ Chemical Management

(5.11.7.11) Engagement is helping your tier 1 suppliers engage with their own suppliers on the selected action

word_document.select_from

☑ Yes

[word_document.add_row]

(5.11.9) Provide details of any environmental engagement activity with other stakeholders in the value chain.

Climate change

(5.11.9.1) Type of stakeholder

word_document.select_from

☑ Customers

(5.11.9.2) Type and details of engagement

Education/Information sharing

☑ Share information about your products and relevant certification schemes

(5.11.9.3) % of stakeholder type engaged

word_document.select_from

☑ 1-25%

(5.11.9.4) % stakeholder-associated scope 3 emissions

word_document.select_from

☑ 1-25%

(5.11.9.5) Rationale for engaging these stakeholders and scope of engagement

[Rationale for Inclusion] Hyosung TNC seeks to obtain eco-friendly certifications such as Global Recycled Standard (GRS), Ocean Bound Plastic (OBP), SGS Eco-Product certification, Oeko-Tex Standard 100, and ISCC EU/PLUS to deliver sustainable value to all customers. The textile business, which constitutes about 50% of Hyosung TNC's sales, practices environmental sustainability throughout the production process, from raw materials to transportation and customer production processes, by minimizing environmental impact through reduced energy consumption and the use of low-carbon materials. Due to rising awareness of climate change and the 2050 national carbon neutrality goal, there is a growing demand for eco-friendly product certifications. Hyosung TNC's customers are increasingly requesting the development of eco-friendly materials and low-carbon products, as well as the disclosure of climate change-related information. On account of the business impact, Hyosung TNC has selected customers requesting climate/environment-related information as engagement targets. In 2023, fourteen customers, including LG Chem and Unicharm (representing 1.1% of total customers), requested information on overall ESG and GHG emissions. [Proportion] In the reporting year, fourteen of the total 1,329 customers requested engagement, resulting in a proportion of 1.1% (14/1,329) 100%. Since the scope 3 ratio for stakeholders is not calculated for categories 10 and 11 (as noted in section 7.8), the engagement request ratio has been used as an alternative measure for this estimation.

(5.11.9.6) Effect of engagement and measures of success

[Quantitative Criteria] Hyosung TNC defines the success of its engagement efforts by the response rate to customer inquiries regarding climate change-related information, with a 100% response rate being the benchmark for successful engagement. [Impact of Engagement on the Company's Climate Change Issues] Hyosung TNC operates a customer inquiry page on its official website, which serves as a platform for continuously gathering inquiries and information requests from customers. To effectively manage the voice of the customer (VOC), the company has constructed the Global Business Information System (GBIS) to identify and respond to key customer needs and information. In 2023, the company achieved a 100% response rate to ESG and GHG emission data requests from fourteen customers, including LG Chem and Unicharm. In response to the high volume of inquiries about eco-friendly products, Hyosung TNC has disclosed the status of its various certifications, including Global Recycled Standard (GRS), Ocean Bound Plastic (OBP), SGS Eco-Product certification, Oeko-Tex Standard 100, and ISCC EU/PLUS, on its website and in its sustainability report. In addition, the company established medium to long-term goals related to eco-friendly products during the reporting year to address customers' sustainability demands.
[word_document.add_row]

C6. Environmental Performance - Consolidation Approach

(6.1) Provide details on your chosen consolidation approach for the calculation of environmental performance data.

Climate change

(6.1.1) Consolidation approach used

word_document.select_from

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

Hyosung TNC identifies and manages environmental issues and impacts in accordance with the GHG Protocol Corporate Standard, using an operational control approach that is consistent with the reporting boundaries applied in its financial statements. Hyosung TNC has made investments in its subsidiaries and exercises substantive control over them. Therefore, it is effectively operating and managing them using an operational control approach, as it has authority and influence over decision-making.

Plastics

(6.1.1) Consolidation approach used

word_document.select_from

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

Hyosung TNC identifies and manages environmental issues and impacts in accordance with the GHG Protocol Corporate Standard, using an operational control approach that is consistent with the reporting boundaries applied in its financial statements. Hyosung TNC has made investments in its subsidiaries and exercises substantive control over them. Therefore, it is effectively operating and managing them using an operational control approach, as it has authority and influence over decision-making.

Biodiversity

(6.1.1) Consolidation approach used

word_document.select_from

☑ Operational control

(6.1.2) Provide the rationale for the choice of consolidation approach

Hyosung TNC identifies and manages environmental issues and impacts in accordance with the GHG Protocol Corporate Standard, using an operational control approach that is consistent with the reporting boundaries applied in its financial statements. Hyosung TNC has made investments in its subsidiaries and exercises substantive control over them. Therefore, it is effectively operating and managing them using an operational control approach, as it has authority and influence over decision-making.
[word_document.fixed_row]

C7. Environmental performance - Climate Change

(7.1) Is this your first year of reporting emissions data to CDP?

word_document.select_from
☑ No

(7.1.1) 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?

	Has there been a structural change?
	word_document.select_all_that_apply ☑ No

[word_document.fixed_row]

(7.1.2) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

(7.1.2.1) Change(s) in methodology, boundary, and/or reporting year definition?

word_document.select_all_that_apply
☑ No, but we have discovered significant errors in our previous response(s)

(7.1.2.2) Details of methodology, boundary, and/or reporting year definition change(s)

Changes: Adjustments were made to scope 3 emissions for category 1 (purchased products and services) and category 4 (upstream transportation and logistics). Reason for Change: These adjustments were necessary due to errors in the aggregation of activity data (though no changes were made to the emission factors). [word_document.fixed_row]

(7.1.3) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in 7.1.1 and/or 7.1.2?

(7.1.3.1) Base year recalculation

word_document.select_from

☑ Yes

(7.1.3.2) Scope(s) recalculated

word_document.select_all_that_apply

☑ Scope 3

(7.1.3.3) Base year emissions recalculation policy, including significance threshold

Recalculation Policy: Hyosung TNC recalculates GHG emissions when the variance between previously reported and recalculated emissions exceeds 5%. Such variance may arise from data inaccuracies, changes in inventory boundaries, methodological updates, or other factors. If these factors result in a quantitative variance of more than 5% in emissions, recalculation is required, with the 5% variance threshold serving as the materiality criteria. Hyosung TNC first calculated its scope 3 emissions in 2022, using this as the baseline year for reporting. Due to data aggregation errors in the 2022 scope 3 calculations (errors in data, without changes to emission factors), a recalculation was conducted, as the variance between previously reported and recalculated emissions exceeded the 5% threshold.

(7.1.3.4) Past years' recalculation

word_document.select_from

☑ Yes

[word_document.fixed_row]

(7.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

word_document.select_all_that_apply

☑ ISO 14064-1

☑ The Greenhouse Gas Protocol: Scope 2 Guidance

☑ IPCC Guidelines for National Greenhouse Gas Inventories, 2006

☑ Korea GHG and Energy Target Management System Operating Guidelines

☑ The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard

☑ The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

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

(7.3.1) Scope 2, location-based

word_document.select_from

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

(7.3.2) Scope 2, market-based

word_document.select_from

☑ We have no operations where we are able to access electricity supplier emission factors or residual emissions factors and are unable to report a Scope 2, market-based figure

(7.3.3) Comment

The electricity market in South Korea operates as a location-based single market supplied by KEPCO (Korea Electric Power Corporation), and there is no market-based electricity market in place.
[word_document.fixed_row]

(7.4) 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?

word_document.select_from

☑ No

(7.5) Provide your base year and base year emissions.

Scope 1

(7.5.1) Base year end

12/31/2018

(7.5.2) Base year emissions (metric tons CO2e)

101502

(7.5.3) Methodological details

Scope 1 emissions cover gaseous fuels (i.e., LNG, propane), liquid fuels (i.e., gasoline, diesel, kerosene), and other liquid waste, with emissions calculated in accordance with the Korea GHG and Energy Target Management System Operating Guidelines. 1. Methodology and Emission Factors (EFs): Scope 1 emissions are calculated using basic methodologies that apply the default EF values of the IPCC as well as country-specific calorific values for emission calculations. The formula used is: fuel consumption fuel calorific value (heat content) fuel emission factor oxidation factor. The default EF values of the IPCC are applied for each fuel type, with country-specific calorific values used for heat content. 2. Activity Data: Activity data for emission calculations are sourced from utility bills, receipts, and ERP data, which are based on fuel consumption data provided by fuel suppliers.

Scope 2 (location-based)

(7.5.1) Base year end

12/31/2018

(7.5.2) Base year emissions (metric tons CO2e)

305124

(7.5.3) Methodological details

Scope 2 emissions are calculated based on the emissions from purchased electricity, in accordance with the Korea GHG and Energy Target Management System Operating Guidelines. 1. Methodology and Emission Factors (EFs): The calculation method employs the formula: electricity consumption supplied from the outside emission factor for electricity. EFs are determined using country-specific published EFs, applying the three-year average values for the Republic of Korea (2014–2016). 2. Activity Data: Activity data for emission calculations are gathered from electricity bills, with data recorded by legal measuring instruments such as electricity meters.

Scope 2 (market-based)

(7.5.3) Methodological details

The electricity market in South Korea operates as a location-based single market supplied by KEPCO (Korea Electric Power Corporation), and there is no market-based electricity market in place.

Scope 3 category 1: Purchased goods and services

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

1522236

(7.5.3) Methodological details

1. Calculation Boundary: Emissions from purchased goods and services are calculated for domestic business sites in the reporting year (2023). (1) Emissions are calculated for items that represent 99.5% or more of the cumulative mass among annually purchased raw materials (e.g., TPA, MEG, CPL, PTMG). (2) Water consumption across all domestic business sites (tap water, industrial water). (3) Newly contracted rental vehicles for the reporting year. 2. Activity Data: 1) Actual annual purchase quantities of products are managed through the system and applied for data calculations. 2) Water data is derived from domestic headquarters and business sites' consumption records (tap and industrial water). 3) Rental vehicle data is based on contracts for newly acquired vehicles in the reporting year. 3. Emission Factors (EFs): The Republic of Korea Ministry of Environment's national LCI DB is prioritized for EFs by raw material. If unavailable, overseas sources such as ecoinvent v3.9.1, ethylene glycol production, RoW (IPCC 2021, Climate Change, GWP100) are employed. 4. Emission Calculation: (annual quantity of raw materials purchased (kg) GHG emission factor by raw material (kgCO2-eq)) Emissions by item are calculated using the "Average Data Calculation Method," and the

final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

Scope 3 category 2: Capital goods

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

19

(7.5.3) Methodological details

1. Calculation Boundary: Emissions from capital goods purchased in the reporting year (2023) for domestic business sites were calculated, including items such as printers, multi-function devices, personal computers, monitors, and computer units. 2. Activity Data: Applied data for the actual quantity of products purchased for capital goods (e.g., multi-function devices, printers, laptops, computers, monitors) outside of category 1 used by Hyosung TNC. 3. Emission Factors (EFs): EFs were calculated using carbon emission results from the entire lifecycle of the "pre-manufacturing and manufacturing stages" under the Environmental Product Declaration from the Republic of Korea Ministry of Environment. For purchased products without specific carbon EFs, EFs from similar models were applied. 4. Emission Calculation: (quantity of capital goods purchased (ea) GHG emission factor per unit (kgCO2/ea)) Emissions by item are calculated using the "Average Data Calculation Method," and the final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

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

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

41187

(7.5.3) Methodological details

1. Calculation Boundary: The GHG emissions generated from the extraction, production, and transportation processes of fuels purchased and consumed within domestic business sites during the reporting year (2023), as well as emissions resulting from electrical losses during the distribution process to the business sites

(transmission and distribution losses), have been calculated. 2. Activity Data: Data from the GHG emission statements, verified by a third party, pertaining to domestic business sites, have been applied. 3. Emission Factors (EFs): Upstream EFs for each fuel, as provided by the Ministry of Environment's environmental product declarations, have been applied. 4. Emission Calculation: (annual fuel consumption GHG emission factor per fuel type (kgCO2-eq/kg)) Emissions by item are calculated using the "Average Data Calculation Method," and the final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

Scope 3 category 4: Upstream transportation and distribution

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

16634

(7.5.3) Methodological details

1. Calculation Boundary: The GHG emissions generated from the transportation services purchased within the reporting year (2023) were calculated. For domestic transportation processes, the transportation distances from the product shipping point to the destination (customer location) within domestic regions were taken into consideration. For international transportation, the distances from the product shipping point to the port (or airport) and from the departure port (or airport) to the arrival port were taken into account. 2. Activity Data: Data regarding the purchased quantity of each raw material obtained through the internal procurement system, as well as data on transportation distances and modes of transport (e.g., trucks, ships) within the ERP system, were applied. 3. Emission Factors (EFs): EFs per unit distance for land transport (i.e., trucks) and maritime transport (i.e., ocean-going vessels: containers), as provided by the Ministry of Environment's environmental product declarations, were applied. 4. Emission Calculation: (annual transportation distance of raw materials (km) annual purchase quantity of raw materials (ton) GHG emission factor per mode of transport (kgCO2/ton.km)) The emissions were calculated based on the distance-based calculation method at the well-to-wheel stage, and the final sum was reported as the emissions for the respective category. In addition, third-party verification of the calculated GHG emissions was conducted through this process.

Scope 3 category 5: Waste generated in operations

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

1010

(7.5.3) Methodological details

1. Calculation Boundary: The GHG emissions generated from waste produced during the operation of facilities owned by domestic business sites in the reporting year (2023) were calculated. 2. Activity Data: Data on the reported amount of waste (waste emissions), as submitted through the government's waste reporting system (Allbaro System) by all business sites, were applied. 3. Emission Factors (EFs): EFs for each type of waste and method of treatment, as specified in the Ministry of Environment's Carbon Footprint Label Evaluation Coefficients (August 2, 2021), were applied. 4. Emission Calculation: (total waste emissions from all business sites (kg) GHG emission factor per waste treatment method (kgCO2/kg)) The emissions for each item were calculated based on the "Calculation Method for Waste Type-Specific Data" and the final sum was reported as the emissions for the respective category. In addition, third-party verification of the calculated GHG emissions was conducted through this process.

Scope 3 category 6: Business travel

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

646

(7.5.3) Methodological details

1. Calculation Boundary: The GHG emissions generated from domestic and international business trips by domestic employees during the reporting year (2023) were calculated. 2. Activity Data: Data from the domestic and international business travel records (e.g., number of travelers, destinations, modes of transport, travel expenses) managed through the system by all business sites were used. 3. Emission Factors (EFs): Specific EFs were applied for each mode of transportation (private car, bus, train, airplane), with references sourced from the EPA's GHG Emission Factor Hub (April 2021). For air travel, emission factors were differentiated according to the flight length, categorizing them into short-haul, medium-haul, and long-haul flights. 4. Emission Calculation: (employee-specific domestic/international travel distance (km) GHG emission factor per mode of transportation (kg-CO2/passenger.km)) The emissions were determined based on the "distance-based calculation method" for the well-to-wheel stage, with the aggregate emissions from both international and domestic business trips reported under the relevant category. GHG emissions calculated through this process are verified by a third party.

Scope 3 category 7: Employee commuting

(7.5.3) Methodological details

Commuting employees' emissions at Hyosung TNC are accounted for within scope 1 calculations, eliminating the need for separate emission calculations for this category. Consequently, this category was excluded from the emission calculation scope.

Scope 3 category 8: Upstream leased assets

(7.5.3) Methodological details

Emissions from rental vehicles were included in category 1 calculations, and no upstream leased asset emissions were reported outside of those already accounted for in scope 1 and 2 calculations.

Scope 3 category 9: Downstream transportation and distribution

(7.5.1) Base year end

12/30/2022

(7.5.2) Base year emissions (metric tons CO2e)

28531

(7.5.3) Methodological details

1. Calculation Boundary: The emissions associated with the transportation processes involved in the sale of all products at domestic business sites during the reporting year (2023) were calculated. For domestic transportation processes, the transportation distances from the product shipping point to the destination (i.e., customer location) within domestic regions were taken into consideration. For international transportation, the distances from the product shipping point to the port (or airport) and from the departure port (or airport) to the arrival port were taken into account. 2. Activity Data: Data regarding the purchased quantity of each raw material obtained through the internal procurement system, as well as data on transportation distances and modes of transport (e.g., trucks, ships) within the ERP system, were applied. 3. Emission Factors (EFs): EFs per unit distance for land transport (i.e., trucks) and maritime transport (i.e., ocean-going vessels: containers), as provided by the Ministry of Environment's environmental product declarations, were applied. 4. Emission Calculation: (annual transportation distance of raw materials (km) annual sales volume of raw materials (ton) GHG emission factor per mode of transport (kgCO2/ton.km)) The "distance-based calculation method" for the well-to-wheel stage was applied, with the total emissions from both domestic and international product sales reported under the relevant category. Third-party verification of the calculated GHG emissions was conducted through this process.

Scope 3 category 10: Processing of sold products

(7.5.3) Methodological details

Hyosung TNC's manufactured products, predominantly textile yarns (such as spandex, nylon, and polyester), are categorized as intermediates and undergo several processing stages before being transformed into final products (such as shoes, apparel, and bags). Due to the diverse and variable nature of these additional processing stages across different partners, it is challenging to accurately estimate emissions for this category. In addition, since these additional processing stages fall outside Hyosung TNC's control, GHG reduction activities at this stage are not deemed feasible, rendering this category relatively irrelevant. As a result, in line with the GHG Protocol's "Corporate Value Chain (Scope 3) Accounting and Reporting Standards," section 6.4, this category has been excluded from reporting. Therefore, Hyosung TNC does not report emissions generated during the processing stages of sold products.

Scope 3 category 11: Use of sold products

(7.5.3) Methodological details

Hyosung TNC produces intermediate goods, particularly textile yarns (such as spandex, nylon, and polyester), which serve as raw materials in the creation of a wide range of products (including clothing, bags, and shoes). These products undergo multiple stages within the downstream value chain before being converted into various final goods. This circumstance is likely to fall under the GHG Protocol category where the "final purpose of use of sold intermediate products is unknown," making it impossible to accurately estimate the emissions by end users. Therefore, given the diversity of final products and the varying usage durations and lifespans across different items, estimating the GHG emissions during the usage phase of each product has to be excluded.

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

(7.5.3) Methodological details

Hyosung TNC's manufactured textile yarns, being intermediate products, are eventually processed into final goods like apparel, shoes, and bags. In the Republic of Korea, these sold items, such as clothing, bags, and shoes, are typically disposed of not through household waste but through nearby clothing collection bins. The clothing collected in these bins is sorted at specialized facilities and then exported as second-hand goods. As a result, since the sold products are collected by partner companies and reused after export, it is not possible to calculate the emissions generated during their disposal. According to the GHG Protocol's "Corporate Value Chain (Scope 3) Accounting and Reporting Standard," section 6.4, such cases qualify for exclusion, thereby exempting Hyosung TNC from reporting the GHG emissions arising from the final disposal of sold products.

Scope 3 category 13: Downstream leased assets

(7.5.3) Methodological details

Hyosung TNC does not run leased assets, and thus, it is impossible to calculate the emissions for this category.

Scope 3 category 14: Franchises

(7.5.3) Methodological details

Given the business's nature, which is not structured as a franchise operation, emissions in this category are also not calculated.

Scope 3 category 15: Investments

(7.5.3) Methodological details

As Hyosung TNC reports emissions related to its investments in subsidiaries under scopes 1 and 2 for overseas corporations, this category has been excluded as well.

Scope 3: Other (upstream)

(7.5.3) Methodological details

No Other (upstream)

Scope 3: Other (downstream)

(7.5.3) Methodological details

No Other (downstream)
[word_document.fixed_row]

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

Reporting year

(7.6.1) Gross global Scope 1 emissions (metric tons CO2e)

70830

(7.6.3) Methodological details

Scope 1 emissions cover gaseous fuels (i.e., LNG, propane), liquid fuels (i.e., gasoline, diesel, kerosene), and other liquid waste, with emissions calculated in accordance with the Korea GHG and Energy Target Management System Operating Guidelines. 1. Methodology and Emission Factors (EFs): Scope 1 emissions are calculated using basic methodologies that apply the default EF values of the IPCC as well as country-specific calorific values for emission calculations. The formula

used is: fuel consumption fuel calorific value (heat content) fuel emission factor oxidation factor. The default EF values of the IPCC are applied for each fuel type, with country-specific calorific values used for heat content. 2. Activity Data: Activity data for emission calculations are sourced from utility bills, receipts, and ERP data, which are based on fuel consumption data provided by fuel suppliers. Scope 2 emissions are calculated based on the emissions from purchased electricity, in accordance with the Korea GHG and Energy Target Management System Operating Guidelines.
[word_document.fixed_row]

(7.7) What were your organization’s gross global Scope 2 emissions in metric tons CO2e?

Reporting year

(7.7.1) Gross global Scope 2, location-based emissions (metric tons CO2e)

188968

(7.7.4) Methodological details

Scope 2 emissions are calculated based on the emissions from purchased electricity, in accordance with the Korea GHG and Energy Target Management System Operating Guidelines. 1. Methodology and Emission Factors (EFs): The calculation method employs the formula: electricity consumption supplied from the outside emission factor for electricity. EFs are determined using country-specific published EFs, applying the three-year average values for the Republic of Korea (2014–2016). 2. Activity Data: Activity data for emission calculations are gathered from electricity bills, with data recorded by legal measuring instruments such as electricity meters.
[word_document.fixed_row]

(7.8) Account for your organization’s gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

(7.8.1) Evaluation status

word_document.select_from
☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1044380

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Average data method

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

0

(7.8.5) Please explain

1. Calculation Boundary: Emissions from purchased goods and services are calculated for domestic business sites in the reporting year (2023). (1) Emissions are calculated for items that represent 99.5% or more of the cumulative mass among annually purchased raw materials (e.g., TPA, MEG, CPL, PTMG). (2) Water consumption across all domestic business sites (tap water, industrial water). (3) Newly contracted rental vehicles for the reporting year. 2. Activity Data: 1) Actual annual purchase quantities of products are managed through the system and applied for data calculations. 2) Water data is derived from domestic headquarters and business sites' consumption records (tap and industrial water). 3) Rental vehicle data is based on contracts for newly acquired vehicles in the reporting year. 3. Emission Factors (EFs): The Republic of Korea Ministry of Environment's national LCI DB is prioritized for EFs by raw material. If unavailable, overseas sources such as ecoinvent v3.9.1, ethylene glycol production, RoW (IPCC 2021, Climate Change, GWP100) are employed. 4. Emission Calculation: (annual quantity of raw materials purchased (kg) GHG emission factor by raw material (kgCO2-eq)) Emissions by item are calculated using the "Average Data Calculation Method," and the final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

Capital goods

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

19

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Average data method

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

0

(7.8.5) Please explain

1. Calculation Boundary: Emissions from capital goods purchased in the reporting year (2023) for domestic business sites were calculated, including items such as printers, multi-function devices, personal computers, monitors, and computer units. 2. Activity Data: Applied data for the actual quantity of products purchased for capital goods (e.g., multi-function devices, printers, laptops, computers, monitors) outside of category 1 used by Hyosung TNC. 3. Emission Factors (EFs): EFs were calculated using carbon emission results from the entire lifecycle of the "pre-manufacturing and manufacturing stages" under the Environmental Product Declaration from the Republic of Korea Ministry of Environment. For purchased products without specific carbon EFs, EFs from similar models were applied. 4. Emission Calculation: (quantity of capital goods purchased (ea) GHG emission factor per unit (kgCO2/ea)) Emissions by item are calculated using the "Average Data Calculation Method," and the final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

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

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

37478

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Average data method

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

0

(7.8.5) Please explain

1. Calculation Boundary: The GHG emissions generated from the extraction, production, and transportation processes of fuels purchased and consumed within domestic business sites during the reporting year (2023), as well as emissions resulting from electrical losses during the distribution process to the business sites (transmission and distribution losses), have been calculated. 2. Activity Data: Data from the GHG emission statements, verified by a third party, pertaining to domestic business sites, have been applied. 3. Emission Factors (EFs): Upstream EFs for each fuel, as provided by the Ministry of Environment's environmental product declarations, have been applied. 4. Emission Calculation: (annual fuel consumption GHG emission factor per fuel type (kgCO2-eq/kg)) Emissions by item are calculated using the "Average Data Calculation Method," and the final sum is reported as the emissions for the respective category. GHG emissions calculated through this process are verified by a third party.

Upstream transportation and distribution

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

19857

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Distance-based method

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

0

(7.8.5) Please explain

1. Calculation Boundary: The GHG emissions generated from the transportation services purchased within the reporting year (2023) were calculated. For domestic transportation processes, the transportation distances from the product shipping point to the destination (customer location) within domestic regions were taken into

consideration. For international transportation, the distances from the product shipping point to the port (or airport) and from the departure port (or airport) to the arrival port were taken into account. 2. Activity Data: Data regarding the purchased quantity of each raw material obtained through the internal procurement system, as well as data on transportation distances and modes of transport (e.g., trucks, ships) within the ERP system, were applied. 3. Emission Factors (EFs): EFs per unit distance for land transport (i.e., trucks) and maritime transport (i.e., ocean-going vessels: containers), as provided by the Ministry of Environment's environmental product declarations, were applied. 4. Emission Calculation: (annual transportation distance of raw materials (km) annual purchase quantity of raw materials (ton) GHG emission factor per mode of transport (kgCO2/ton.km)) The emissions were calculated based on the distance-based calculation method at the well-to-wheel stage, and the final sum was reported as the emissions for the respective category. In addition, third-party verification of the calculated GHG emissions was conducted through this process.

Waste generated in operations

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

648

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Waste-type-specific method

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

0

(7.8.5) Please explain

1. Calculation Boundary: The GHG emissions generated from waste produced during the operation of facilities owned by domestic business sites in the reporting year (2023) were calculated. 2. Activity Data: Data on the reported amount of waste (waste emissions), as submitted through the government's waste reporting system (Allbaro System) by all business sites, were applied. 3. Emission Factors (EFs): EFs for each type of waste and method of treatment, as specified in the Ministry of Environment's Carbon Footprint Label Evaluation Coefficients (August 2, 2021), were applied. 4. Emission Calculation: (total waste emissions from all business sites (kg) GHG emission factor per waste treatment method (kgCO2/kg)) The emissions for each item were calculated based on the "Calculation Method for Waste Type-Specific Data" and the final sum was reported as the emissions for the respective category. In addition, third-party verification of the calculated GHG emissions was

conducted through this process.

Business travel

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

1063

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Distance-based method

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

0

(7.8.5) Please explain

1. Calculation Boundary: The GHG emissions generated from domestic and international business trips by domestic employees during the reporting year (2023) were calculated. 2. Activity Data: Data from the domestic and international business travel records (e.g., number of travelers, destinations, modes of transport, travel expenses) managed through the system by all business sites were used. 3. Emission Factors (EFs): Specific EFs were applied for each mode of transportation (private car, bus, train, airplane), with references sourced from the EPA's GHG Emission Factor Hub (April 2021). For air travel, emission factors were differentiated according to the flight length, categorizing them into short-haul, medium-haul, and long-haul flights. 4. Emission Calculation: (employee-specific domestic/international travel distance (km) GHG emission factor per mode of transportation (kg-CO2/passenger.km)) The emissions were determined based on the "distance-based calculation method" for the well-to-wheel stage, with the aggregate emissions from both international and domestic business trips reported under the relevant category. GHG emissions calculated through this process are verified by a third party.

Employee commuting

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Commuting employees' emissions at Hyosung TNC are accounted for within scope 1 calculations, eliminating the need for separate emission calculations for this category. Consequently, this category was excluded from the emission calculation scope.

Upstream leased assets

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Emissions from rental vehicles were included in category 1 calculations, and no upstream leased asset emissions were reported outside of those already accounted for in scope 1 and 2 calculations.

Downstream transportation and distribution

(7.8.1) Evaluation status

word_document.select_from

☑ Relevant, calculated

(7.8.2) Emissions in reporting year (metric tons CO2e)

20142

(7.8.3) Emissions calculation methodology

word_document.select_all_that_apply

☑ Distance-based method

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

0

(7.8.5) Please explain

1. Calculation Boundary: The emissions associated with the transportation processes involved in the sale of all products at domestic business sites during the reporting year (2023) were calculated. For domestic transportation processes, the transportation distances from the product shipping point to the destination (i.e., customer location) within domestic regions were taken into consideration. For international transportation, the distances from the product shipping point to the port (or airport) and from the departure port (or airport) to the arrival port were taken into account. 2. Activity Data: Data regarding the purchased quantity of each raw material obtained through the internal procurement system, as well as data on transportation distances and modes of transport (e.g., trucks, ships) within the ERP system, were applied. 3. Emission Factors (EFs): EFs per unit distance for land transport (i.e., trucks) and maritime transport (i.e., ocean-going vessels: containers), as provided by the Ministry of Environment's environmental product declarations, were applied. 4. Emission Calculation: (annual transportation distance of raw materials (km) annual sales volume of raw materials (ton) GHG emission factor per mode of transport (kgCO2/ton.km)) The "distance-based calculation method" for the well-to-wheel stage was applied, with the total emissions from both domestic and international product sales reported under the relevant category. Third-party verification of the calculated GHG emissions was conducted through this process.

Processing of sold products

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Hyosung TNC's manufactured products, predominantly textile yarns (such as spandex, nylon, and polyester), are categorized as intermediates and undergo several processing stages before being transformed into final products (such as shoes, apparel, and bags). Due to the diverse and variable nature of these additional processing stages across different partners, it is challenging to accurately estimate emissions for this category. In addition, since these additional processing stages fall outside Hyosung TNC's control, GHG reduction activities at this stage are not deemed feasible, rendering this category relatively irrelevant. Therefore, Hyosung TNC does not report emissions generated during the processing stages of sold products.

Use of sold products

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Hyosung TNC produces intermediate goods, particularly textile yarns (such as spandex, nylon, and polyester), which serve as raw materials in the creation of a wide range of products (including clothing, bags, and shoes). These products undergo multiple stages within the downstream value chain before being converted into various final goods. This circumstance is likely to fall under the GHG Protocol category where the "final purpose of use of sold intermediate products is unknown," making it impossible to accurately estimate the emissions by end users. Therefore, given the diversity of final products and the varying usage durations and lifespans across different items, estimating the GHG emissions during the usage phase of each product has to be excluded.

End of life treatment of sold products

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Hyosung TNC's manufactured textile yarns, being intermediate products, are eventually processed into final goods like apparel, shoes, and bags. In the Republic of Korea, these sold items, such as clothing, bags, and shoes, are typically disposed of not through household waste but through nearby clothing collection bins. The clothing collected in these bins is sorted at specialized facilities and then exported as second-hand goods. As a result, since the sold products are collected by partner companies and reused after export, it is not possible to calculate the emissions generated during their disposal. thereby exempting Hyosung TNC from reporting the GHG emissions arising from the final disposal of sold products.

Downstream leased assets

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Hyosung TNC does not run leased assets, and thus, it is impossible to calculate the emissions for this category.

Franchises

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

Given the business's nature, which is not structured as a franchise operation, emissions in this category are also not calculated.

Investments

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

As Hyosung TNC reports emissions related to its investments in subsidiaries under scopes 1 and 2 for overseas corporations, this category has been excluded as well.

Other (upstream)

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

No Other (upstream)

Other (downstream)

(7.8.1) Evaluation status

word_document.select_from

☑ Not relevant, explanation provided

(7.8.5) Please explain

No Other (downstream)
[word_document.fixed_row]

(7.8.1) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

(7.8.1.1) End date

12/30/2022

(7.8.1.2) Scope 3: Purchased goods and services (metric tons CO2e)

1522236

(7.8.1.3) Scope 3: Capital goods (metric tons CO2e)

19

(7.8.1.4) Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

41187

(7.8.1.5) Scope 3: Upstream transportation and distribution (metric tons CO2e)

16634

(7.8.1.6) Scope 3: Waste generated in operations (metric tons CO2e)

1010

(7.8.1.7) Scope 3: Business travel (metric tons CO2e)

646

(7.8.1.10) Scope 3: Downstream transportation and distribution (metric tons CO2e)

28531
[word_document.fixed_row]

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

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

[word_document.fixed_row]

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

Row 1

(7.9.1.1) Verification or assurance cycle in place

word_document.select_from
☑ Annual process

(7.9.1.2) Status in the current reporting year

word_document.select_from
☑ Complete

(7.9.1.3) Type of verification or assurance

word_document.select_from
☑ Reasonable assurance

(7.9.1.4) Attach the statement

Scope1,2 검증의견서_효성티앤씨(영문).pdf

(7.9.1.5) Page/section reference

1

(7.9.1.6) Relevant standard

word_document.select_from
☑ ISO14064-3

(7.9.1.7) Proportion of reported emissions verified (%)

100
[word_document.add_row]

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

Row 1

(7.9.2.1) Scope 2 approach

word_document.select_from
☑ Scope 2 location-based

(7.9.2.2) Verification or assurance cycle in place

word_document.select_from
☑ Annual process

(7.9.2.3) Status in the current reporting year

word_document.select_from
☑ Complete

(7.9.2.4) Type of verification or assurance

word_document.select_from
☑ Reasonable assurance

(7.9.2.5) Attach the statement

Scope1,2 검증의견서_효성티앤씨(영문).pdf

(7.9.2.6) Page/ section reference

1

(7.9.2.7) Relevant standard

word_document.select_from
☑ ISO14064-3

(7.9.2.8) Proportion of reported emissions verified (%)

100
[word_document.add_row]

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

Row 1

(7.9.3.1) Scope 3 category

word_document.select_all_that_apply
☑ Scope 3: Capital goods
☑ Scope 3: Business travel
☑ Scope 3: Purchased goods and services
☑ Scope 3: Waste generated in operations
☑ Scope 3: Upstream transportation and distribution
☑ Scope 3: Downstream transportation and distribution
☑ Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2)

(7.9.3.2) Verification or assurance cycle in place

word_document.select_from
☑ Annual process

(7.9.3.3) Status in the current reporting year

word_document.select_from
☑ Complete

(7.9.3.4) Type of verification or assurance

word_document.select_from
☑ Limited assurance

(7.9.3.5) Attach the statement

Scope3 검증의견서_효성티앤씨(영문).pdf

(7.9.3.6) Page/section reference

12

(7.9.3.7) Relevant standard

word_document.select_from
☑ ISO14064-3

(7.9.3.8) Proportion of reported emissions verified (%)

100
[word_document.add_row]

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

word_document.select_from
☑ Decreased

(7.10.1) 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 renewable energy consumption

(7.10.1.1) Change in emissions (metric tons CO2e)

1.54

(7.10.1.2) Direction of change in emissions

word_document.select_from

☑ No change

(7.10.1.3) Emissions value (percentage)

0.0005

(7.10.1.4) Please explain calculation

In the reporting year (2023), GHG emissions were reduced by 1.54 tCO2eq due to the use of renewable energy. With total emissions of 297,684 tCO2eq in 2022, this reflects the following change rate: -0.0005% (1.54/297,684) 100%

Other emissions reduction activities

(7.10.1.1) Change in emissions (metric tons CO2e)

2369

(7.10.1.2) Direction of change in emissions

word_document.select_from

☑ Decreased

(7.10.1.3) Emissions value (percentage)

0.8

(7.10.1.4) Please explain calculation

In the reporting year (2023), emissions were reduced by 2,369 tCO2eq through energy-saving projects at business sites. With total emissions of 297,684 tCO2eq in 2022, this reflects the following change rate: -0.8% (2,369/297,684) 100%

Divestment

(7.10.1.4) Please explain calculation

No Divestment occurred in the reporting year

Acquisitions

(7.10.1.4) Please explain calculation

No Acquisitions occurred in the reporting year

Mergers

(7.10.1.4) Please explain calculation

No mergers occurred in the reporting year

Change in output

(7.10.1.1) Change in emissions (metric tons CO2e)

37887

(7.10.1.2) Direction of change in emissions

word_document.select_from
☑ Decreased

(7.10.1.3) Emissions value (percentage)

12.7

(7.10.1.4) Please explain calculation

In the reporting year (2023), emissions were reduced by 37,887 tCO2eq due to changes in production volume. With total emissions of 297,684 tCO2eq in 2022, this reflects the following change rate: -12.7% (37,887/297,684) 100%

Change in methodology

(7.10.1.4) Please explain calculation

In the reporting year, no changes occurred in the methodology.

Change in boundary

(7.10.1.4) Please explain calculation

In the reporting year, no changes occurred in the calculation boundary.

Change in physical operating conditions

(7.10.1.4) Please explain calculation

In the reporting year, no changes occurred in the physical operational conditions.
[word_document.fixed_row]

(7.10.2) Are your emissions performance calculations in 7.10 and 7.10.1 based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

word_document.select_from
☑ Location-based

(7.12) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

word_document.select_from
☑ Yes

(7.12.1) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
	1.54	*Emissions occurred in Ulan Plant by 1.36tCO2 and in Gumi Plant 0.18tCO2. The annual emissions were a total of 1.54tCO2 due to biogas usage.*

[word_document.fixed_row]

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

word_document.select_from

☑ Yes

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

Row 1

(7.15.1.1) Greenhouse gas

word_document.select_from

☑ CO2

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

70268

(7.15.1.3) GWP Reference

word_document.select_from

☑ IPCC Second Assessment Report (SAR - 100 year)

Row 2

(7.15.1.1) Greenhouse gas

word_document.select_from
☑ CH4

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

521

(7.15.1.3) GWP Reference

word_document.select_from
☑ IPCC Second Assessment Report (SAR - 100 year)

Row 3

(7.15.1.1) Greenhouse gas

word_document.select_from
☑ N2O

(7.15.1.2) Scope 1 emissions (metric tons of CO2e)

43

(7.15.1.3) GWP Reference

word_document.select_from
☑ IPCC Second Assessment Report (SAR - 100 year)
[word_document.add_row]

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

	Scope 1 emissions (metric tons CO2e)	Scope 2, location-based (metric tons CO2e)
Republic of Korea	*70832*	*188968*

[word_document.fixed_row]

(7.17) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

word_document.select_all_that_apply

☑ By activity

(7.17.3) Break down your total gross global Scope 1 emissions by business activity.

	Activity	Scope 1 emissions (metric tons CO2e)
Row 1	*Stationary Sources*	*70073*
Row 2	*Mobile Combustion*	*264*
Row 3	*Emissions resulted from wastewater treatment*	*493*
Row 4	*Emissions resulted from biogas.*	*2*

[word_document.add_row]

(7.20) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

word_document.select_all_that_apply

☑ By activity

(7.20.3) Break down your total gross global Scope 2 emissions by business activity.

	Activity	Scope 2, location-based (metric tons CO2e)
Row 1	*Electricity*	*186427*
Row 2	*Steam*	*2541*

[word_document.add_row]

(7.22) Break down your gross Scope 1 and Scope 2 emissions between your consolidated accounting group and other entities included in your response.

Consolidated accounting group

(7.22.1) Scope 1 emissions (metric tons CO2e)

232411

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

1116092

(7.22.4) Please explain

Hyosung TNC calculated emissions using the operational control approach, targeting subsidiaries that account for over 92% of sales coverage in the reporting year (2023) (which includes eleven subsidiaries). These eleven subsidiaries encompass all manufacturing sites, thereby covering more than 95% of the total emissions for all subsidiaries.

All other entities

(7.22.1) Scope 1 emissions (metric tons CO2e)

0

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

0

(7.22.4) Please explain

Hyosung TNC has no investees.
[word_document.fixed_row]

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

word_document.select_from
☑ Not relevant as we do not have any subsidiaries

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

word_document.select_from
☑ More than 0% but less than or equal to 5%

(7.30) 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)	*word_document.select_from* ☑ Yes
Consumption of purchased or acquired electricity	*word_document.select_from*

	Indicate whether your organization undertook this energy-related activity in the reporting year
	☑ Yes
Consumption of purchased or acquired heat	*word_document.select_from* ☑ No
Consumption of purchased or acquired steam	*word_document.select_from* ☑ Yes
Consumption of purchased or acquired cooling	*word_document.select_from* ☑ No
Generation of electricity, heat, steam, or cooling	*word_document.select_from* ☑ No

[word_document.fixed_row]

(7.30.1) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

Consumption of fuel (excluding feedstock)

(7.30.1.1) Heating value

word_document.select_from
☑ HHV (higher heating value)

(7.30.1.2) MWh from renewable sources

9045

(7.30.1.3) MWh from non-renewable sources

359371

(7.30.1.4) Total (renewable and non-renewable) MWh

368416

Consumption of purchased or acquired electricity

(7.30.1.1) Heating value

word_document.select_from
☑ HHV (higher heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

405794

(7.30.1.4) Total (renewable and non-renewable) MWh

405794

Consumption of purchased or acquired steam

(7.30.1.1) Heating value

word_document.select_from
☑ HHV (higher heating value)

(7.30.1.2) MWh from renewable sources

0

(7.30.1.3) MWh from non-renewable sources

206480

(7.30.1.4) Total (renewable and non-renewable) MWh

206480

Total energy consumption

(7.30.1.1) Heating value

word_document.select_from
☑ HHV (higher heating value)

(7.30.1.2) MWh from renewable sources

9045

(7.30.1.3) MWh from non-renewable sources

971645

(7.30.1.4) Total (renewable and non-renewable) MWh

980690
[word_document.fixed_row]

(7.30.6) 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	*word_document.select_from* ☑ No
Consumption of fuel for the generation of heat	*word_document.select_from* ☑ Yes
Consumption of fuel for the generation of steam	*word_document.select_from* ☑ Yes
Consumption of fuel for the generation of cooling	*word_document.select_from* ☑ No
Consumption of fuel for co-generation or tri-generation	*word_document.select_from* ☑ No

[word_document.fixed_row]

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

Sustainable biomass

(7.30.7.1) Heating value

word_document.select_from

☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Hyosung TCN does not use sustainable biomass.

Other biomass

(7.30.7.1) Heating value

word_document.select_from
☑ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

9045

(7.30.7.4) MWh fuel consumed for self-generation of heat

9045

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Using biogas in a hot oil boiler

Other renewable fuels (e.g. renewable hydrogen)

(7.30.7.1) Heating value

word_document.select_from
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Hyosung TCN does not use other renewable fuels.

Coal

(7.30.7.1) Heating value

word_document.select_from
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Hyosung TCN does not use coal.

Oil

(7.30.7.1) Heating value

word_document.select_from
☑ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

176157

(7.30.7.4) MWh fuel consumed for self-generation of heat

176157

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Gasoline, diesel, and LPG used in mobile combustion

Gas

(7.30.7.1) Heating value

word_document.select_from
☑ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

183214

(7.30.7.4) MWh fuel consumed for self-generation of heat

169094

(7.30.7.5) MWh fuel consumed for self-generation of steam

14120

(7.30.7.8) Comment

LNG used in a steam boiler

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

(7.30.7.1) Heating value

word_document.select_from
☑ Unable to confirm heating value

(7.30.7.2) Total fuel MWh consumed by the organization

0

(7.30.7.4) MWh fuel consumed for self-generation of heat

0

(7.30.7.5) MWh fuel consumed for self-generation of steam

0

(7.30.7.8) Comment

Hyosung TCN does not use other non-renewable energy sources.

Total fuel

(7.30.7.1) Heating value

word_document.select_from
☑ HHV

(7.30.7.2) Total fuel MWh consumed by the organization

368416

(7.30.7.4) MWh fuel consumed for self-generation of heat

354296

(7.30.7.5) MWh fuel consumed for self-generation of steam

14120

(7.30.7.8) Comment

Total fuel 368,416MWh
[word_document.fixed_row]

(7.30.16) Provide a breakdown by country/area of your electricity/heat/steam/cooling consumption in the reporting year.

Republic of Korea

(7.30.16.1) Consumption of purchased electricity (MWh)

405794

(7.30.16.2) Consumption of self-generated electricity (MWh)

0

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

206480

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

0

(7.30.16.6) Total electricity/heat/steam/cooling energy consumption (MWh)

612274.00
[word_document.fixed_row]

(7.45) 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.

Row 1

(7.45.1) Intensity figure

5.83e-8

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

259797

(7.45.3) Metric denominator

word_document.select_from
☑ unit total revenue

(7.45.4) Metric denominator: Unit total

4453044534376

(7.45.5) Scope 2 figure used

word_document.select_from

☑ Location-based

(7.45.6) % change from previous year

5.1

(7.45.7) Direction of change

word_document.select_from

☑ Increased

(7.45.8) Reasons for change

word_document.select_all_that_apply

☑ Other emissions reduction activities

☑ Change in output

(7.45.9) Please explain

The numerator in the emission intensity calculation represents GHG emissions, while the denominator represents total sales. The GHG intensity has Increased compared to the previous year. GHG Intensity in 2023: 0.0000000583 259,797 (emissions in 2023) / 4,453,044,534,376 (sales revenue in 2023) GHG Intensity in 2022: 0.0000000555 297,684 (emissions in 2022) / 5,364,505,669,881 (sales revenue in 2022) Rate of Change: 5.1% ((0.0000000583 (GHG intensity in 2023) – 0.0000000555 (GHG intensity in 2022)) / 0.0000000555 (GHG intensity in 2022)) 100% Reasons for the increase in GHG intensity are as follows: 1. (Denominator): The denominator, which represents total sales, decreased by approximately 17.0% in 2023 compared to 2022. The production volume also fell by 19.6% in 2023 compared to 2022 due to the global economic downturn. 2. (Numerator): The numerator, which represents GHG emissions (scopes 1 and 2), decreased by approximately 12.7% in 2023 compared to 2022. In the reporting year (2023), emissions fell by 2,369 tCO2eq from energy-saving projects implemented at business sites. The overall increase in GHG intensity was mainly driven by the higher rate of decrease in total sales (-17%) compared to the decrease in GHG emissions (-12.7%).
[word_document.add_row]

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

Row 1

(7.52.1) Description

word_document.select_from

☑ Other, please specify **:**Proportion of Eco-Friendly Product Sales

(7.52.2) Metric value

5.2

(7.52.3) Metric numerator

eco-friendly revenue

(7.52.4) Metric denominator (intensity metric only)

total yarn sales revenue

(7.52.5) % change from previous year

13

(7.52.6) Direction of change

word_document.select_from

☑ Increased

(7.52.7) Please explain

The proportion of eco-friendly product sales is used as an additional climate change indicator, where the numerator represents sales of eco-friendly products, and the denominator depicts total yarn product sales. Percentage of Eco-Friendly Product Sales in 2023: 5.2% Percentage of Eco-Friendly Product Sales in 2022: 4.6% Rate of Change: 13.0% ((5.2 (percentage of eco-friendly product sales in 2023) – 4.6 (percentage of eco-friendly product sales in 2022)) / 4.6 (percentage of eco-friendly product sales in 2022)) 100%

[word_document.add_row]

(7.53) Did you have an emissions target that was active in the reporting year?

word_document.select_all_that_apply
☑ Absolute target

(7.53.1) Provide details of your absolute emissions targets and progress made against those targets.

Row 1

(7.53.1.1) Target reference number

word_document.select_from
☑ Abs 1

(7.53.1.2) Is this a science-based target?

word_document.select_from
☑ No, but we anticipate setting one in the next two years

(7.53.1.5) Date target was set

06/24/2021

(7.53.1.6) Target coverage

word_document.select_from
☑ Organization-wide

(7.53.1.7) Greenhouse gases covered by target

word_document.select_all_that_apply
☑ Carbon dioxide (CO2)

☑ Methane (CH4)
☑ Nitrous oxide (N2O)

(7.53.1.8) Scopes

word_document.select_all_that_apply
☑ Scope 1
☑ Scope 2

(7.53.1.9) Scope 2 accounting method

word_document.select_from
☑ Location-based

(7.53.1.11) End date of base year

12/30/2018

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

101502

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

305124

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

0.000

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

406626.000

(7.53.1.33) Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1

100

(7.53.1.34) Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2

100

(7.53.1.53) Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

(7.53.1.54) End date of target

12/30/2030

(7.53.1.55) Targeted reduction from base year (%)

14.5

(7.53.1.56) Total emissions at end date of target covered by target in all selected Scopes (metric tons CO2e)

347665.230

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

70832

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

188968

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

259800.000

(7.53.1.78) Land-related emissions covered by target

word_document.select_from

☑ No, it does not cover any land-related emissions (e.g. non-FLAG SBT)

(7.53.1.79) % of target achieved relative to base year

249.02

(7.53.1.80) Target status in reporting year

word_document.select_from

☑ Achieved

(7.53.1.82) Explain target coverage and identify any exclusions

Hyosung TNC has established the company-wide Scope 12 absolute amount target, and there are no emission sources exception for the scopes. In addition, land-related emissions were not included in the target boundary

(7.53.1.83) Target objective

The primary objective of Hyosung TNC's GHG reduction target is to adapt to the emissions trading scheme by preventing an increase in emissions liability resulting from an excess over the allocated allowances. To this end, a GHG reduction target aligned with the 2C scenario has been established. The strategies to accomplish this target include the current management of GHG emissions (e.g., ensuring data integrity, verification), the implementation of energy-saving projects at business sites, and the increase in the use of renewable energy. Hyosung TNC has set a goal to achieve a 14.5% reduction in emissions by 2030, using 2018 as the baseline year. Although this reduction target has been met as of the reporting year, Hyosung TNC acknowledges the need to establish more ambitious targets aligned with the "Well-below 2C" scenario, in line with the national objective of attaining carbon neutrality by 2050.

(7.53.1.85) Target derived using a sectoral decarbonization approach

word_document.select_from

☑ No

(7.53.1.86) List the emissions reduction initiatives which contributed most to achieving this target

During the reporting year, the most significant contributors to meeting this target were energy-saving initiatives, which included facility replacements and efficiency improvements, resulting in a collective reduction of 2,369 tCO2eq in emissions. Key reduction initiatives include: 1. Energy savings from integrating refrigeration lines (537 tCO2eq) 2. Energy savings achieved through load adjustment operations via inverter installations (181 tCO2eq) 3. Reduction in cooling load by raising the spandex cooling water management temperature from 7C to 8C (243 tCO2eq) 4. Electricity savings from integrated compressor operations, including the shutdown of

the compressor room in district B, leading to reduced pump and cooling tower electricity consumption (427 tCO2eq). Additional efforts focused on various facility improvements aimed at reducing air loss and conserving electricity.
[word_document.add_row]

(7.54) Did you have any other climate-related targets that were active in the reporting year?

word_document.select_all_that_apply
☑ No other climate-related targets

(7.55) 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.

word_document.select_from
☑ Yes

(7.55.1) 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	*0*	*word_document.numeric_input*
To be implemented	*0*	*0*
Implementation commenced	*0*	*0*
Implemented	*9*	*2369*
Not to be implemented	*0*	*word_document.numeric_input*

[word_document.fixed_row]

(7.55.2) Provide details on the initiatives implemented in the reporting year in the table below.

Row 1

(7.55.2.1) Initiative category & Initiative type

Energy efficiency in production processes

☑ Machine/equipment replacement

(7.55.2.2) Estimated annual CO2e savings (metric tonnes CO2e)

2369

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

word_document.select_all_that_apply

☑ Scope 1

☑ Scope 2 (location-based)

(7.55.2.4) Voluntary/Mandatory

word_document.select_from

☑ Voluntary

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

572921587

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

636000000

(7.55.2.7) Payback period

word_document.select_from

☑ 1-3 years

(7.55.2.8) Estimated lifetime of the initiative

word_document.select_from

☑ 11-15 years

(7.55.2.9) Comment

During the reporting year, the most significant contributors to meeting this target were energy-saving initiatives, which included facility replacements and efficiency improvements, resulting in a collective reduction of 2,369 tCO2eq in emissions. Key reduction initiatives include: 1. Energy savings from integrating refrigeration lines (537 tCO2eq) 2. Energy savings achieved through load adjustment operations via inverter installations (181 tCO2eq) 3. Reduction in cooling load by raising the spandex cooling water management temperature from 7C to 8C (243 tCO2eq) 4. Electricity savings from integrated compressor operations, including the shutdown of the compressor room in district B, leading to reduced pump and cooling tower electricity consumption (427 tCO2eq). Additional efforts focused on various facility improvements aimed at reducing air loss and conserving electricity.
[word_document.add_row]

(7.55.3) What methods do you use to drive investment in emissions reduction activities?

Row 1

(7.55.3.1) Method

word_document.select_from

☑ Compliance with regulatory requirements/standards

(7.55.3.2) Comment

Every year, Hyosung TNC sets investment costs to reduce GHG emission and increase energy efficiency. The investment cost includes all initiatives to improve the efficiency and maintenance of facilities at each plant. including equipment replacement, switching to alternative energy sources, and process improvements. In particular, GHG emissions from electricity use account for about 90% of the total emissions, so it is focusing on power use reduction activities.

Row 2

(7.55.3.1) Method

word_document.select_from

☑ Internal price on carbon

(7.55.3.2) Comment

Hyosung TNC has established an internal carbon pricing and uses it for strategic decision-making such as business promotion directions and investments. It is also used to manage climate change risks and explore opportunities and it links to incentives for greenhouse gas reduction activities.

Row 3

(7.55.3.1) Method

word_document.select_from

☑ Internal incentives/recognition programs

(7.55.3.2) Comment

Every year, executives and employees are required to set ESG management KPIs and performance evaluation is applied. Accordingly, all teams and executives (including C-Level) related to energy saving and greenhouse gas reduction have set and evaluated climate change performance indicators, and compensate for projects that have achieved excellent energy saving results.

Row 4

(7.55.3.1) Method

word_document.select_from

☑ Partnering with governments on technology development

(7.55.3.2) Comment

Hyosung TNC collaborates with the Korea Fisheries Resources Agency (FIRA) under the Ministry of Oceans and Fisheries to expand the recycling business for nylon discarded fishing nets collected from the ocean.
[word_document.add_row]

(7.74) Do you classify any of your existing goods and/or services as low-carbon products?

word_document.select_from
☑ Yes

(7.74.1) Provide details of your products and/or services that you classify as low-carbon products.

Row 1

(7.74.1.1) Level of aggregation

word_document.select_from
☑ Product or service

(7.74.1.2) Taxonomy used to classify product(s) or service(s) as low-carbon

word_document.select_from
☑ Low-Carbon Investment (LCI) Registry Taxonomy

(7.74.1.3) Type of product(s) or service(s)

Other
☑ Other, please specify **:**Recycled polyester

(7.74.1.4) Description of product(s) or service(s)

Hyosung TNC has reached a pioneering milestone in the chemical fiber industry by successfully developing recycled polyester. Branded as regen, this recycled polyester (developed in 2008) is produced from post-consumer recycled materials. It is an eco-friendly fiber that extracts useful components from waste PET bottles. Being produced entirely from recycled materials, it drastically reduces landfill waste and also cuts down carbon dioxide emissions through plastic recycling, delivering twofold benefits. Furthermore, Hyosung TNC's regen Ocean polyester is made from 100% Ocean Bound Plastic (OBP) recycled polyester, leveraging waste PET bottles collected from marine environments and processed through stages of collection, flake production, chip processing, and yarn extraction. This product has gained domestic recognition as the first OBP certification for long fibers. A lifecycle assessment (LCA) was conducted for regen polyester following the ISO 14067 standard for GHGs and carbon footprint. The LCA results indicated a 67% reduction in carbon emissions during production compared to conventional polyester products.

(7.74.1.5) Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

word_document.select_from

☑ Yes

(7.74.1.6) Methodology used to calculate avoided emissions

word_document.select_from

☑ Other, please specify :ISO 14067 Greenhouse gases - carbon footprint

(7.74.1.7) Life cycle stage(s) covered for the low-carbon product(s) or services(s)

word_document.select_from

☑ Cradle-to-gate

(7.74.1.8) Functional unit used

kgCO2/kg

(7.74.1.9) Reference product/service or baseline scenario used

Carbon Emission Analysis Scenarios for Production of 1 kg of General Yarn with Regular polyester in Pre-Manufacturing (Collection of raw materials, manufacture of packaging materials, transportation of raw materials, transportation of packaging materials) and Manufacturing stage

(7.74.1.10) Life cycle stage(s) covered for the reference product/service or baseline scenario

word_document.select_from

☑ Cradle-to-gate

(7.74.1.11) Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

0.001842

(7.74.1.12) Explain your calculation of avoided emissions, including any assumptions

Based on the international standard ISO 14067 Greenhouse gases-carbon footprint methodology, a Life Cycle Assessment (LCA) for the product was conducted, and

the IPCC 2013 characterization coefficient was applied. As the manufactured product is 'production goods (intermediate goods)', LCA was performed in accordance with ISO14067, including the pre-manufacturing stage and the manufacturing stage. In the case of general regular PET, carbon emissions from the entire production process (pre-manufacturing stage, manufacturing stage) were calculated to be about 2.772kgCO2/kg, and in the case of polyester regen, carbon emissions from the entire production process (pre-manufacturing stage, manufacturing stage) were calculated to be 0.930kgCO2/kg. Therefore, it has been confirmed that polyester regen reduces carbon emissions by about 1.842kgCO2 (66.5%) when producing 1kg of the product compared to the regular product. In particular, the use of recycled raw materials resulted in the highest rate of carbon emission reduction at the pre-manufacturing stage, and fossil fuel energy and water use were also significantly reduced.

(7.74.1.13) Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

1.2
[word_document.add_row]

(7.79) Has your organization canceled any project-based carbon credits within the reporting year?

word_document.select_from
☑ No

C10. Environmental performance - Plastics

(10.1) Do you have plastics-related targets, and if so what type?

(10.1.1) Targets in place

word_document.select_from

☑ No, but we plan to within the next two years

(10.1.3) Please explain

Hyosung TNC has not yet established a greenhouse gas emissions reduction target, including its subsidiaries. As we develop our global greenhouse gas reduction targets, we intend to establish a company-wide (including subsidiaries) plastic reduction target.
[word_document.fixed_row]

(10.2) Indicate whether your organization engages in the following activities.

Production/commercialization of plastic polymers (including plastic converters)

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the production or commercialization of plastic polymers (including plastic converters).

Production/commercialization of durable plastic goods and/or components (including mixed materials)

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Production/commercialization of durable plastic goods and/or components (including mixed materials)

Usage of durable plastics goods and/or components (including mixed materials)

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Usage of durable plastics goods and/or components (including mixed materials)

Production/commercialization of plastic packaging

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Production/commercialization of plastic packaging

Production/commercialization of goods/products packaged in plastics

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Production/commercialization of goods/products packaged in plastics

Provision/commercialization of services that use plastic packaging (e.g., food services)

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Provision/commercialization of services that use plastic packaging (e.g., food services)

Provision of waste management and/or water management services

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Provision of waste management and/or water management services

Provision of financial products and/or services for plastics-related activities

(10.2.1) Activity applies

word_document.select_from

☑ No

(10.2.2) Comment

We do not engage in the Provision of financial products and/or services for plastics-related activities

Other activities not specified

(10.2.1) Activity applies

word_document.select_from

☑ Yes

(10.2.2) Comment

regen Polyester is a 100% recycled polyester that has acquired GRS (Global Recycled Standard) certification, produced with collected waste PET bottles. LCA results have shown that regen Polyester reduces CO2 emissions by 67% per ton of production compared to production of standard polyester. regen Ocean Polyester is an OBP (Ocean Bound Plastic)-certified product produced by waste PET bottles collected within 50km of the coast. This approach helps to minimize the amount of waste PET entering the ocean, thereby preventing damage to the marine ecosystem.
[word_document.fixed_row]

C11. Environmental performance - Biodiversity

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

(11.2.1) Actions taken in the reporting period to progress your biodiversity-related commitments

word_document.select_from

☑ Yes, we are taking actions to progress our biodiversity-related commitments

(11.2.2) Type of action taken to progress biodiversity- related commitments

word_document.select_all_that_apply

☑ Species management

[word_document.fixed_row]

(11.3) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?
	word_document.select_from ☑ No, we do not use indicators, but plan to within the next two years

[word_document.fixed_row]

(11.4) Does your organization have activities located in or near to areas important for biodiversity in the reporting year?

	Indicate whether any of your organization's activities are located in or near to this type of area important for biodiversity	Comment
Legally protected areas	*word_document.select_from* ☑ No	*word_document.rich_text_input [word_document.must_be_under 2500 word_document.characters]*
UNESCO World Heritage sites	*word_document.select_from* ☑ No	*word_document.rich_text_input [word_document.must_be_under 2500 word_document.characters]*
UNESCO Man and the Biosphere Reserves	*word_document.select_from* ☑ No	*word_document.rich_text_input [word_document.must_be_under 2500 word_document.characters]*
Ramsar sites	*word_document.select_from* ☑ No	*word_document.rich_text_input [word_document.must_be_under 2500 word_document.characters]*
Key Biodiversity Areas	*word_document.select_from* ☑ No	*word_document.rich_text_input [word_document.must_be_under 2500 word_document.characters]*
Other areas important for biodiversity	*word_document.select_from* ☑ No	*The impacts were identified using the WWF (World Wide Fund for Nature) Biodiversity Risk Filter*

[word_document.fixed_row]

C13. Further information & sign off

(13.1) Indicate if any environmental information included in your CDP response (not already reported in 7.9.1/2/3, 8.9.1/2/3/4, and 9.3.2) is verified and/or assured by a third party?

	Other environmental information included in your CDP response is verified and/or assured by a third party
	word_document.select_from ☑ Yes

[word_document.fixed_row]

(13.1.1) Which data points within your CDP response are verified and/or assured by a third party, and which standards were used?

Row 1

(13.1.1.1) Environmental issue for which data has been verified and/or assured

word_document.select_all_that_apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Climate change

☑ Waste data

☑ Fuel consumption

☑ Methane emissions

☑ Renewable fuel consumption

☑ Emissions breakdown by country/area

☑ Electricity/Steam/Heat/Cooling consumption

☑ Base year emissions
☑ Progress against targets
☑ Year on year change in emissions intensity (Scope 1 and 2)
☑ Renewable Electricity/Steam/Heat/Cooling consumption
☑ Year on year change in absolute emissions (Scope 1 and 2)

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

Hyosung TNC annually publishes a sustainability report, which undergoes third-party verification. 1. Verification Frequency: Annually 2. Scope and Application of Verification: Verification is conducted for both qualitative and quantitative data, covering Hyosung TNC, and selected subsidiaries that together account for over 92% of consolidated sales. - Content reported from January 1, 2023, to December 31, 2023. - Consistency with the business report and other public disclosures. - Linkage of materiality assessment procedures and key issues with GRI standards performance. - Consistency with previous reports and identification of significant changes. - Detection of errors, inappropriate expressions, or ambiguous language. - Interviews with internal stakeholders involved in report preparation. 3. Level of Assurance: Limited assurance

(13.1.1.5) Attach verification/assurance evidence/report (optional)

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Row 2

(13.1.1.1) Environmental issue for which data has been verified and/or assured

word_document.select_all_that_apply

☑ Climate change

(13.1.1.2) Disclosure module and data verified and/or assured

Governance

☑ Environmental policies

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

Hyosung TNC annually publishes a sustainability report, which undergoes third-party verification. 1. Verification Frequency: Annually 2. Scope and Application of Verification: Verification is conducted for both qualitative and quantitative data, covering Hyosung TNC, and selected subsidiaries that together account for over 92% of consolidated sales. - Content reported from January 1, 2023, to December 31, 2023. - Consistency with the business report and other public disclosures. - Linkage of materiality assessment procedures and key issues with GRI standards performance. - Consistency with previous reports and identification of significant changes. - Detection of errors, inappropriate expressions, or ambiguous language. - Interviews with internal stakeholders involved in report preparation. 3. Level of Assurance: Limited assurance

(13.1.1.5) Attach verification/assurance evidence/report (optional)

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Row 3

(13.1.1.1) Environmental issue for which data has been verified and/or assured

word_document.select_all_that_apply

☑ Plastics

(13.1.1.2) Disclosure module and data verified and/or assured

Environmental performance – Plastics

☑ Waste generated

(13.1.1.3) Verification/assurance standard

General standards

☑ AA1000AS

(13.1.1.4) Further details of the third-party verification/assurance process

Hyosung TNC annually publishes a sustainability report, which undergoes third-party verification. 1. Verification Frequency: Annually 2. Scope and Application of Verification: Verification is conducted for both qualitative and quantitative data, covering Hyosung TNC, and selected subsidiaries that together account for over 92% of consolidated sales. - Content reported from January 1, 2023, to December 31, 2023. - Consistency with the business report and other public disclosures. - Linkage of materiality assessment procedures and key issues with GRI standards performance. - Consistency with previous reports and identification of significant changes. - Detection of errors, inappropriate expressions, or ambiguous language. - Interviews with internal stakeholders involved in report preparation. 3. Level of Assurance: Limited assurance

(13.1.1.5) Attach verification/assurance evidence/report (optional)

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[word_document.add_row]

(13.2) 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.

	Additional information
	No

[word_document.fixed_row]

(13.3) Provide the following information for the person that has signed off (approved) your CDP response.

(13.3.1) Job title

ceo: The CEO, in addition to representing the company, also serves as an inside director and is a key member of the Board of Directors, while serving as the chairperson of the ESG Management

(13.3.2) Corresponding job category

word_document.select_from

☑ Chief Executive Officer (CEO)

[word_document.fixed_row]