

C0. Introduction

---

C0.1

---

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

Incorporated on September 1, 2001, Shinhan Financial Group(SFG) was the first privately established financial holding company in Korea. Since inception SFG has developed and introduced a wide range of financial products and services in Korea, and aims to deliver comprehensive financial solutions to clients through a convenient one-portal network. SFG has 16 subsidiaries, providing customers with a full range of excellent financial services, including banking, credit cards, securities, insurance, and asset management.

Shinhan Financial Group has consistently prioritized proactive engagement in response to escalating economic uncertainties at home and abroad, triggered by factors like supply chain instability, rising global inflationary pressures, and expanding geopolitical risks. By adhering to a strategy of business portfolio diversification, we have maintained a steady upward trend in net income for nine consecutive years. As of the end of December 2022, our net income reached KRW 4.6423 trillion. With our clear vision and medium-term strategy embodied in "2023 Shinhan 1! 3! 5!" and "Value-up 2025! RE:Boot Shinhan!," we aim to maintain our dominance as a leading financial group. By targeting a global profit share of 30% and a nonbanking profit share of 50% by 2030, we aim to make significant progress in our industry. Through these strategic initiatives, we are committed to facilitating a path of continuous growth.

C0.2

---

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

**Reporting year**

**Start date**

January 1 2022

**End date**

December 31 2022

**Indicate if you are providing emissions data for past reporting years**

Yes

**Select the number of past reporting years you will be providing Scope 1 emissions data for**

2 years

**Select the number of past reporting years you will be providing Scope 2 emissions data for**

2 years

**Select the number of past reporting years you will be providing Scope 3 emissions data for**

2 years

C0.3

---

**(C0.3) Select the countries/areas in which you operate.**

Republic of Korea

C0.4

---

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

KRW

C0.5

---

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

Operational control

C-FS0.7

---

**(C-FS0.7) Which activities does your organization undertake, and which industry sectors does your organization lend to, invest in, and/or insure?**

	Does your organization undertake this activity?	Insurance types underwritten	Industry sectors your organization lends to, invests in, and/or insures
Banking (Bank)	Yes	<Not Applicable>	Exposed to all broad market sectors
Investing (Asset manager)	Yes	<Not Applicable>	Exposed to all broad market sectors
Investing (Asset owner)	Yes	<Not Applicable>	Exposed to all broad market sectors
Insurance underwriting (Insurance company)	Yes	General (non-life) Life and/or Health	None of the above

**C0.8**

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	KR7055550008

**C1. Governance**

**C1.1**

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

Yes

**C1.1a**

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

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>The ESG Strategy Committee and Risk Management Committee deliberate and make final decisions on important agenda for the transition to a low-carbon economy and strategic direction to counter climate change.</p> <p>In 2015, Shinhan became the first financial company in Korea to establish the CSR Committee (currently ESG Strategy Committee). The Committee oversees all major decision making related to ESG and climate change strategies. The Risk Management Committee identifies, measures, monitors, and controls risks that arise from various transactions in a timely manner, and comprehensively manages them.</p> <p>By creating the ESG Implementation Committee in 2021 that is participated in by all Group subsidiary CEOs, Shinhan Financial Group built a driving system for unified ESG and climate change strategy implementation at the Group level, along with the Group ESG CSSO Council and Group Risk Council.</p> <p>In addition, the GCSSO and GCRO, who are officials in charge of executing work, are respectively in charge of the overall ESG driving system and climate risk management, and report major matters to the ESG Strategy Committee and Risk Management Committee.</p> <p>In 2022, Shinhan's major subsidiaries, including Shinhan Bank, Shinhan Card, Shinhan Securities, and Shinhan Life, strengthened their commitment to environmental, social, and governance (ESG) standards by establishing new ESG-focused committees and executive bodies within their respective boards of directors.</p> <p>Four committee meetings were held throughout the year, particularly the ESG Strategy Committee meetings in May, August, and November, where key metrics such as Green financial performance, financed emissions, and intensity were carefully evaluated. In particular, the ESG Strategy Committee meeting in August focused on discussing concrete tasks to become an industry leader in driving the net-zero transition through the medium-term ESG strategic plan. The Risk Management Committee continued identifying, measuring, monitoring, and controlling various risks arising from transactions and discussed key climate risk factors. The committee held eight meetings in 2022.</p>

**C1.1b**

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Scope of board-level oversight	Please explain
Scheduled – all meetings	Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Monitoring the implementation of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	Climate-related risks and opportunities to our own operations Climate-related risks and opportunities to our banking activities Climate-related risks and opportunities to our investment activities Climate-related risks and opportunities to our insurance underwriting activities The impact of our own operations on the climate The impact of our banking activities on the climate The impact of our investing activities on the climate The impact of our insurance underwriting activities on the climate	The ESG Strategy Committee under the Board of Directors is held regularly four times a year to review strategies and policies for responding to climate change, action plans, and business plans. In addition, it sets greenhouse gas emission target to respond to climate change and checks the level of achievement of target qualitatively and quantitatively. Risk Management Committee establishes policies for managing climate change risks by being reported on related issues through the Group Risk Council and checking them.

**C1.1d**

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

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues	Primary reason for no board-level competence on climate-related issues	Explain why your organization does not have at least one board member with competence on climate-related issues and any plans to address board-level competence in the future
Row 1	Yes	The SFG is aiming to form a board of directors with various expertise so they can make important decisions based on a broader perspective considering all stakeholders. While organizing the board of directors, personnel are assigned in accordance to the characteristics of the committee's organization and related expertise. Since the ESG Strategy Committee is an organization that has the authority to make final decisions on the group's sustainability management, including at least one person with experience related to sustainability management for more than three years or has expertise in accounting and disclosure related to climate change is encouraged. Currently, the Chairman of Shinhan's ESG Strategy Committee, who previously served as a director of the International Financial Reporting Standards (IFRS) Foundation from 2017 to 2022, is providing expert and timely advice within the organization based on his understanding of the latest draft (S2) of climate-related financial information disclosures by the International Sustainability Standards Board (ISSB) under the IFRS Foundation. This is intended to assist the Board in making informed decisions.	<Not Applicable>	<Not Applicable>

**C1.2**

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

**Position or committee**

Chief Executive Officer (CEO)

**Climate-related responsibilities of this position**

- Providing climate-related employee incentives
- Developing a climate transition plan
- Implementing a climate transition plan
- Integrating climate-related issues into the strategy
- Setting climate-related corporate targets
- Monitoring progress against climate-related corporate targets
- Assessing climate-related risks and opportunities
- Managing climate-related risks and opportunities

**Coverage of responsibilities**

- Risks and opportunities related to our banking
- Risks and opportunities related to our investing activities
- Risks and opportunities related to our insurance underwriting activities
- Risks and opportunities related to our own operations

**Reporting line**

Reports to the board directly

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

Quarterly

**Please explain**

The Group has established a new ESG Promotion Committee, comprising all subsidiary Chief Executive Officers (CEOs), to provide a unified body for Group-wide ESG and climate change strategy, complementing the existing Group ESG Chief Strategy & Sustainability Officer (CSSO) Council and Group Risk Council. In addition, the Group Chief Strategy and Sustainability Officer (GCSSO) and Group Chief Risk Officer (GCRO), who are responsible for operational execution, have been tasked with overseeing overall operations and climate risk management, respectively, and reporting on material issues to the ESG Strategy Committee and the Risk Management Committee.

---

**C1.3**

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Details are specified in C1.3a, and based on the specified performance, the incentive percentage of the proportion corresponding to the role of not only the group CEO but also the relevant vice president, general manager, team leader, and management level is affected.

---

**C1.3a**

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

**Entitled to incentive**

Chief Executive Officer (CEO)

**Type of incentive**

Monetary reward

**Incentive(s)**

Bonus - % of salary  
Shares

**Performance indicator(s)**

Achievement of climate transition plan KPI  
Progress towards a climate-related target  
Achievement of a climate-related target  
Implementation of an emissions reduction initiative  
Reduction in absolute emissions  
Reduction in emissions intensity  
Increased share of revenue from low-carbon products or services in product or service portfolio  
Company performance against a climate-related sustainability index (e.g., DJSI, CDP Climate Change score etc.)

**Incentive plan(s) this incentive is linked to**

Both Short-Term and Long-Term Incentive Plan

**Further details of incentive(s)**

The SFG discussed the ESG reflection in major strategic group company tasks in 2018, and the ESG performance was reflected in the evaluation system for all group CEOs including the group CEO in 2019.  
In 2021, we established the ESG performance management system to quantitatively measure and evaluate the ESG business performance of each group for the first time in a financial company and created ESG 3.0 to internalize ESG in all practical business activities. The evaluation included climate change-related performance measurement, such as eco-friendly finance and asset portfolio carbon emission management.  
In 2022, the carbon emissions reduction performance of each subsidiary group was included in the evaluation of the Group CEOs. The evaluation factors included financed emissions and internal carbon emissions reductions and Green New Deal finances.  
If goals are achieved based on these climate change-related performance indicators, we provide incentives and other salary-linked compensation at the end of the year.

**Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan**

Starting in 2022, Shinhan Financial Group has integrated climate change issues, including "green financial performance," "internal emissions (Scope 1, 2)," and "financed emissions (Scope 3)," into the "sustainable performance creation" area, which is a segment of the CEO evaluation. This evaluation aims to implement Shinhan's climate change response strategy, "Zero Carbon Drive," which includes strategic tasks to achieve net-zero internal carbon emissions and financed emissions by 2050. Creating sustainable performance, one of the seven main tasks of the overall business plan, accounts for 15% of the total weight in the CEO evaluation. Green financial performance and carbon emission reduction serve as key performance indicators (KPI) for all Group companies, and the evaluation system has been established to enable the whole Group to expand green finance in the long term.

**C-FS1.4**

**(C-FS1.4) Does your organization offer its employees an employment-based retirement scheme that incorporates ESG criteria, including climate change?**

	<b>Employment-based retirement scheme that incorporates ESG criteria, including climate change</b>	<b>Describe how funds within the retirement scheme are selected and how your organization ensures that ESG criteria are incorporated</b>	<b>Provide reasons for not incorporating ESG criteria into your organization's employment-based retirement scheme and your plans for the future</b>
Row 1	Yes, as an investment option	Under the basic retirement pension system of domestic companies, the SFG can actively decide how to manage severance pay and form a portfolio according to the investment propensity of its employees. We provide ESG-related investment products that are segmented according to ESG investment strategies and target indicators of various asset management companies.	<Not Applicable>

**C2. Risks and opportunities**

**C2.1**

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

Yes

**C2.1a**

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

	From (years)	To (years)	Comment
Short-term	1	5	Climate risk is rapidly coming into greater prominence in terms of policy aspects in accordance with the recent global net-zero trend. Matters that can influence relevant companies' profits, such as the carbon tax and emission trading system, are emerging in a short period, and such matters as mandatory environmental information disclosure by listed companies can become a risk in operation or legal aspects. Our analysis confirmed that relevant risks may have a short-term impact, and defined the period as at least one year to at most five years.
Medium-term	5	10	In the mid-term future, reputation risk may arise from the implementation of Zero Carbon Drive, which was declared by SFG. Failure to reduce financed emissions or continued financial support for high emission businesses that have no will towards low-carbon transition can be interpreted as "green washing" and can have a negative impact on external, open evaluations. Also, these can be connected to passive investment, ESG-related ETF, and other financial products, having a direct impact on stock price decreases. There is concern that this can escalate into legal risks of shareholders and stakeholders. In addition to direct risks, financial institutions must also manage risks that may arise from the deterioration of corporate clients' operations caused by physical damage or the transition to a low-carbon economy. While traditional stress testing predicts the future based on past patterns and analyzes short-term impacts, it has been validated that long-term analysis, reflecting climate policies and regulations, is significantly relevant for climate scenarios. In this aspect, Shinhan defines the mid-term as a period of five to ten years when we can conduct actual risk monitoring and analyses and review resulting exposure adjustment plans.
Long-term	10		Finally, it is crucial to note that long-term physical and transition risks can significantly reshape risks, depending on how they evolve. According to the Bank for International Settlements (BIS) report (2020), there is a reciprocal relationship between physical and transition risks. Failure to respond to physical risks will also result in failure to manage implementation risk, which will further increase acute and chronic risks. Therefore, Shinhan defines the long term as a period over 10 years approaching 2040, the target year reported by the Intergovernmental Panel on Climate Change (IPCC) for managing global temperatures.

**C2.1b**

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

Taking into account in a comprehensive way business size, carbon cost, area of interest, corporate reputation, operational cost, operating loss etc, Sinhan Financial Group assesses whether the project or customer company has a substantive impact on its business financially or strategically. the details of the factors are as follows.

- Business size: the total cost of the project or the total asset of customer company with more than 10 billion KRW
- Carbon cost: additional greenhouse gas reduction cost which results in the facility investment for greenhouse gas reduction or the purchase of carbon credit by the 2 degree scenarios or government's carbon regulations
- Area of interest: 12 areas with environmental and social issues like global warming, find dust, biodiversity, industrial safety etc such as large-scale agriculture and growing of cereal crops, forestry, manufacture of chemicals, mining of oil and gas, large-scale infrastructure construction, electric power generation, wastewater and waste disposal, manufacture of weapons, marine and freshwater fishing, manufacture of tobacco products, manufacture of coke and briquettes
- Corporate reputation: negative public opinion arising from financial services with environmental issues(ex. Coal-fired power generation) which can cause corporate image decline and financial losses
- Operational cost: the cost to improve the offices or buildings with more than 5 billion KRW
- Operating loss: the financial loss by external impact with more than 5 billion KRW

**C2.2**

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

**Value chain stage(s) covered**

Direct operations

**Risk management process**

Integrated into multi-disciplinary company-wide risk management process

**Frequency of assessment**

More than once a year

**Time horizon(s) covered**

Short-term

Medium-term

Long-term

**Description of process**

By integrating climate-risk areas into our existing risk management procedures, Shinhan Financial Group skillfully identifies and monitors climate-related risks in all business areas. To monitor this, we systematically outline environmental and social risks, taking guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) and developing appropriate methodologies to assess these risks.

Shinhan Financial Group is the first domestic financial institution to establish a climate change governance framework that extends from our Board of Directors and senior management to mid-level managers and operational staff. We actively identify and manage risk and opportunity variables related to climate change that may affect our performance in the short, medium, and long term.

Climate-related risk factors are identified by Shinhan Financial Group's Risk Management Department, while opportunity variables are monitored by the Strategy / Sustainable Management Department. The risks and opportunities identified and evaluated through climate change trend analysis and risk monitoring are discussed at the Group ESG Chief Strategy & Sustainability Officer (CSSO) Council and the Group Risk Council, and monthly reports are sent to the Group ESG Promotion Committee. Based on the identified and assessed climate change issues, the ESG Strategy Committee and the Risk Management Committee of the Board of Directors review the climate change response strategy four to six times yearly.

[Risk identification, assessment, response process]

**a. Identification**

Our specialized risk department regularly identifies climate-sensitive areas using climate-related information from investment and lending firms. Our primary focus is on "financed emissions," with climate risks identified by examining monthly fluctuations in assets and emissions. In addition, we continuously monitor climate risks by collaborating with internal and external expert institutions and incorporating the latest research findings. Shinhan adheres to the Partnership for Carbon Accounting Financials (PCAF) framework for quantifying financed emissions to identify risks, as this is offered as a guide for measuring financed emissions. As a result, we do not consider assets outside the six categories (listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgages, and Motor Vehicle loans) outlined by PCAF to be vulnerable to climate change. This is because of the impracticality of assessing climate risk for assets that lack baseline data that can be used to estimate and measure emissions, which are critical elements in determining climate risk for businesses, infrastructure, vehicles, etc. even if they meet the criteria of the six asset categories above, we believe it is not feasible to quantify financed emissions for smaller entities, such as small and medium-sized enterprises (SMEs) and small offices / home offices (SOHOs), where critical information for measuring financed emissions, such as assets or revenues, cannot be determined, and therefore, their climate-related risk cannot be assessed.

**b. Assessment**

The SFG developed an independent financed emission measurement system to systematically evaluate and manage climate change risks.

The system calculates the group's financed emissions in accordance with the PCAF methodology, monitors monthly and is shared company-wide through Dashboards. Property damage caused by natural disasters can spread to the financial sector. To manage these physical risks, the SFG analyzes the climate scenario step-by-step and analyzes its impact on the bank's portfolio by region and segmentation by industry.

**c. Response**

The SFG conducts financed emission measurement results in the credit/investment process, which is reflected in business decisions. In particular, for high-carbon industries, which are intensively managed by the group, exposure limits are set and managed. In addition, in the same way as the existing risk management process, whether financed emissions by group/sector exceed a pre-set threshold is monitored through the risk dashboard, if it is exceeded, management plan will be established/implanted.

[Priority process]

The SFG defines the most important management factor in climate change as 'financed emissions.' We evaluate the impact of climate change issues on investment and lending activities and determines the risks, opportunities, and importance of those issues. In other words, the priority of climate change risks and opportunities are determined by comprehensively assessing whether investment targets are included in significant areas of interests, possibility of risks and opportunities due to climate change, and the financial impact of climate change on investment targets. Shinhan differentiates customers in terms of transition risks and physical risks to prioritize management targets and sets management levels by merging these two categories.

**- Customer segmentation for identifying and assessing transition risks**

The transition risk client segmentation is divided into five levels of management intensity based on four factors: size, industry, carbon disclosure, and the trend of disclosed emissions, whether increasing or decreasing. This results in a five-tiered segmentation ranging from TRR1 to TRR5. The size defines the standard for significance, while the industry sector establishes the benchmark for high-carbon sectors identified by Shinhan Financial Group. Carbon disclosure evaluates whether the company participates in emissions trading or voluntarily discloses emissions, and the trend of disclosed emissions serves as a benchmark to assess a company's emission reduction efforts.

**- Customer segmentation for identifying and assessing physical risks**

The physical risk segmentation is divided into four levels of management intensity based on four factors: size, information about the location of the asset (whether it is in a high-risk zone for natural disasters), the industry (whether it is in a sector sensitive to natural disasters), and the collateral amount. The result is a four-level segmentation ranging from PHR1 to PHR4. The scale sets the standard for significance, consistent with transition risk. The location of collateral is used to differentiate regions, as there may be regional variations in natural catastrophe losses. Moreover, the industry sector provides the criteria for categorizing sectors sensitive to natural catastrophes, and the size of collateral is used to assess the extent of collateral ownership.

**C2.2a**

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

	Relevance & Inclusion	Please explain
Current regulation	Relevant, always included	<p>[Implementation of GHG regulations]</p> <p>SFG assesses the financial impact by the climate related regulations which additional carbon cost influence on the profit and determines the direction.</p> <p>As of 2015, Controlled Entities of the 'GHG &amp; Energy Target Management System' with an average GHG emissions of the 3 most recent years greater than 125,000tCO<sub>2</sub>eq are subject to participate in the Emission Trading System; they are allocated the emissions allowance based on the past GHG record and must carry out operation activities and emissions reduction activities within the given range. If the emissions allowance is not enough, a company must purchase permits from other liable companies to meet the balance between the GHG emissions and the allowance.</p> <p>As a result, some regulated companies would have negative profits considering the long-term effects of climate change which increases operating costs due to equipment investments, purchasing carbon credits etc.</p> <p>In 2022, 674 customers and investees of Shinhan Financial Group will be subject to the ETS with a total exposure of KRW 41,153 billion.</p> <p>Therefore some companies with negative profit margins by climate change which are related to these products could give SFG a loss of financial asset or profit margin due to the difficulty in repayment.</p>
Emerging regulation	Relevant, always included	<p>[Enhancing the climate change-related regulations]</p> <p>We analyzed the expected financial impact and determined the response direction according to the scale in consideration with the direct and indirect impact of climate change-related regulations.</p> <p>The Shinhan Bank is currently regulated by the 'GHG and Energy Target Management System'. Considering the current regulatory trend that is becoming more stringent, Shinhan Bank may participate in the Emission Trading System. In such case, Shinhan Bank expects operational costs to increase overall as results of various GHG reduction and energy saving activities and purchasing permits.</p> <p>[Enhancing the obligation to disclose the environment]</p> <p>As climate change poses an increasing financial risk to companies, the need for standardized financial information disclosure grows. The Financial Stability Board (FSB), an international financial institution, announced the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) at the request of the G20 finance ministers and central bank governors. In 2021, the IFRS Foundation established the ISSB, which approved the final draft of the IFRS Sustainability Disclosure Standards on June 29, 2023. In South Korea, these standards will be gradually implemented from 2025 for listed companies with assets exceeding KRW 2 trillion.</p> <p>Following the guidelines of the Corporate Sustainability Reporting Directive (CSRD), New Zealand mandated climate risk disclosure for banks and companies in September 2020, and the European Union (EU) plans to gradually require ESG disclosure for both EU and foreign companies through the development of the European Sustainability Reporting Standards (ESRS). Accordingly, domestic financial authorities are pursuing a plan to make ESG disclosure mandatory in stages, and ESG disclosure is measuring climate risk by each disclosure standard as mandated. A lack of analytical capabilities can introduce regulatory and reputational risks.</p>
Technology	Relevant, always included	<p>[Low-carbon technology business expansion]</p> <p>Low-carbon, eco-friendly technologies are being developed to achieve climate change and carbon-neutral targets. Sales are expected to decrease if the expansion and development of related financial products are insufficient to keep pace with the pace of technological development. In addition, the success of low-carbon technology conversion of companies in high-carbon emission industries can have a significant impact on the company's profit and loss. This can also affect the financial health of our portfolio.</p> <p>Shinhan Financial Group regularly monitors trends in technology, markets, and customer demand due to climate change and reflects them in decision-making, including the development of new products.</p> <p>Moreover, we are operating building energy-related products such as green energy factoring, green remodeling secondary loan, and the New and Renewable Energy Fund. In the future, we plan to expand related financial products according to the development pace in the field of technology.</p>
Legal	Relevant, sometimes included	<p>[Increasing litigation related to climate issues]</p> <p>Given the nature of the financial services industry, it is unlikely that litigation will arise due to direct GHG emissions. But if litigation arises due to climate change issues in companies or projects which SFG invested and the employer is punished legally, SFG's financial quality could get damaged due to decline in image and reputation of investment business or project.</p> <p>From 1986 through May 2023, 2,341 climate-related lawsuits have been filed. The rise in "climate-washing" lawsuits against corporations is particularly concerning. Of the 81 such lawsuits filed between 2015 and 2022, 53 were made in the last two years, marking a sharp escalation. Climate-washing lawsuits include actions such as overstating investments or support for climate action, failure to disclose climate risks, or issues with product ingredients that are difficult for consumers to understand.</p> <p>The SFG decides whether to invest by evaluating the financial impact on investment companies or projects through the environmental and social risk management system. If necessary, we preemptively respond to these risks by providing conditional financial support that makes it mandatory to reflect measures to reduce environmental impact.</p>
Market	Relevant, always included	<p>[Increase in online banking users]</p> <p>The number of customers using our mobile financial platform continues to grow. With the increasing trend of digital finance, Shinhan Financial Group is making efforts to minimize paper usage and waste by promoting the use of electronic documents and improving the efficiency of physical mobility and document storage as part of its "Green Digital Transformation" initiative. While this approach significantly reduces environmental impact and Scope 1 emissions, it may inadvertently increase Scope 2 emissions because of increased data usage. While Scope 1 emissions have decreased from 2020, Scope 2 emissions have increased. Despite company-wide efforts to meet emissions reduction targets, the growth of digital services could pose operational risks if it increases internal carbon emissions.</p> <p>[Changing investment trends due to climate change]</p> <p>As awareness on climate change and the environment grows, company's sustainability activities with regard to climate change and the environment is affecting investors' invest decisions. In particular, bond investors, classified as long-term investors, are gradually reducing their investments in high-emitting sectors. Even when investing, they shift to assets based on climate change responses, such as ESG bonds and green bonds. This may increase the likelihood that bonds (corporate bonds) in high-carbon sectors in which Shinhan is investing may become stranded assets, reducing the likelihood of recovery of bond assets.</p>
Reputation	Relevant, always included	<p>[Growing consumer interest in climate change]</p> <p>Surveying and analyzing the technology development trends, market trends, demands of customers, etc. due to climate change periodically, SFG identifies the risk or opportunity factors and determines the direction.</p> <p>The steady rise in consumer awareness of climate change has led to a growing interest in environmental, social, and governance (ESG) funds over the past two to three years. As the ESG investing craze spreads and green themes become more popular as a marketing tool for companies, cases of "greenwashing" are on the rise. For example, according to a survey conducted by Clarity AI, an analytics agency, around 20% of large green mutual funds in Europe had more than 10% invested in companies that violated United Nations (UN) and Organisation for Economic Co-operation and Development (OECD) regulations, such as causing environmental damage.</p> <p>Greenwashing issues by financial companies are directly related to reputational risks from the media and customers. And they can have a huge impact on customer churn.</p>
Acute physical	Relevant, always included	<p>[Increase in abnormal weather phenomena]</p> <p>Acute physical hazards such as the rainy season, heavy rain, and typhoons can cause direct damage to the SFG's business units by causing branch business and computer center operation suspension. Our offices in mountainous areas face a relatively higher risk of physical damage from heavy rainfall. This situation could result in significant business losses caused by temporary business disruptions.</p> <p>According to the Korea Meteorological Administration(KMA)'s past climate change trend analysis (1912~2020), the amount of precipitation days is decreasing but annual precipitation increases by 17.71mm every 10 years, showing an increase in precipitation intensity. Similarly, as a result of the extreme climate index analysis, extreme climate phenomena such as torrential rain are appearing more frequently and intensely.</p> <p>The Shinhan Financial Group recognizes the potential for operational losses because of natural disasters and strives to identify and mitigate the vulnerability of buildings and branches exposed to acute physical risks.</p>
Chronic physical	Relevant, always included	<p>[Increased incidence of disease and infectious diseases]</p> <p>Rising temperature can extreme weather events, such as heat waves, drought, and floods causing heat-related cardiovascular and respiratory diseases, and potentially increasing emergency room visits, hospitalization rates, and mortality. Changes in weather patterns can also affect the ecosystem of disease vectors, leading to an increase in endemic diseases and an increased likelihood of introducing foreign-borne diseases.</p> <p>In the long run, the increased likelihood of illness and infectious diseases can contribute to an increase in health and sickness insurance premiums, including life insurance, as well as an increase in loss ratios.</p>



**(C-FS2.2b) Do you assess your portfolio's exposure to climate-related risks and opportunities?**

	We assess the portfolio's exposure	Explain why your portfolio's exposure is not assessed and your plans to address this in the future
Banking (Bank)	Yes	<Not Applicable>
Investing (Asset manager)	Yes	<Not Applicable>
Investing (Asset owner)	Yes	<Not Applicable>
Insurance underwriting (Insurance company)	Yes	<Not Applicable>

**C-FS2.2c**

**(C-FS2.2c) Describe how you assess your portfolio's exposure to climate-related risks and opportunities.**

	Type of risk management process	Proportion of portfolio covered by risk management process	Type of assessment	Time horizon(s) covered	Tools and methods used	Provide the rationale for implementing this process to assess your portfolio's exposure to climate-related risks and opportunities
Banking (Bank)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Portfolio temperature alignment Scenario analysis Stress tests Internal tools/methods	<p>1. Portfolio temperature alignment After receiving SBTi approval in 2022, Shinhan Financial Group calculated a temperature score for its portfolio (3.14°C) using the temperature rating methodology. Shinhan has set a target to reduce the temperature score by 2025 and is implementing this through engagement strategies targeted at customers and investors.</p> <p>2. Scenario analysis, Internal tools/methods Shinhan Financial Group takes a proactive approach to prepare for crisis situations caused by climate change by using scenario analysis that considers the nuances of climate risk. As companies' responses to local and international policies vary, historical patterns may not hold true. In addition, the trajectory and impact of climate risk are highly complex, affecting industries, economies, and markets. This requires scenario-based analysis that considers potential future circumstances. In response, Shinhan has established various parameters for climate scenario analysis, mapped the trajectory and impact of risk based on multiple scenarios, and analyzed the financial implications of climate risk.</p> <p>- Transition risk scenario analysis When examining transition risk scenarios, Shinhan Financial Group considers the different characteristics of climate risk and evaluates various stress testing methods, including the European Central Bank (ECB) climate stress test. Moreover, Shinhan measures the impact by developing an internal scenario analysis model that reflects the characteristics of the Group's portfolio.</p> <p>- Physical risk scenario analysis Shinhan Financial Group has formulated a scenario analysis model that considers South Korea's climatic context, using the frequency and severity of damage occurrence in the expected relative damage size. Through this model, the Group has conducted an impact analysis.</p> <p>3. Stress test Shinhan Financial Group conducts integrated stress tests twice yearly to assess capital adequacy, identify vulnerable areas, and formulate response strategies for potential scenarios. Based on these tests, the Group prepares a capital management plan and a contingency funding plan, which are reported to the Board of Directors. The Group's stress testing scenarios reflect macroeconomic forecasts and changes in the external environment that affect the risk factors of the Group's portfolios. These include scenarios that reflect historical volatility (e.g., global financial crisis, IMF bailout, etc.). Credit, market, and interest rate stress tests are performed according to the stress testing manual for each risk type. These tests consider the impact on regulatory and internal capital per scenario, as well as the impact on current earnings and capital due to an increase in the provision for credit losses.</p> <p>4. Internal tools/methods By integrating climate-risk areas into our existing risk management procedures, Shinhan Financial Group skillfully identifies and monitors climate-related risks in all business areas. To monitor this, we systematically outline environmental and social risks, taking guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) and developing appropriate methodologies to assess these risks. In particular, financed emissions are the most important indicator for quantitatively assessing portfolio's exposure to climate change. Therefore, Shinhan Financial Group has developed independent financed emissions measurement system to define emission calculation requirements for the Group's 6 asset classes (listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgages, and Motor Vehicle loans) using the PCAF methodology, a global measurement methodology, and to systematically evaluate and manage climate change transition risks. Through this system, it is possible to calculate financed emissions for the entire portfolio of the Group, and the results of measuring financed emissions are reflected in credit/investment processes and decision-making. In addition, in the same way as the existing risk management process, whether financed emissions by group/sector exceed a pre-set threshold is monitored through the risk dashboard, if it is exceeded, management plan will be established/implemented.</p>

	Type of risk management process	Proportion of portfolio covered by risk management process	Type of assessment	Time horizon(s) covered	Tools and methods used	Provide the rationale for implementing this process to assess your portfolio's exposure to climate-related risks and opportunities
Investing (Asset manager)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Portfolio temperature alignment Scenario analysis Stress tests Internal tools/methods	<p>1. Portfolio temperature alignment After receiving SBTi approval in 2022, Shinhan Financial Group calculated a temperature score for its portfolio (3.14°C) using the temperature rating methodology. Shinhan has set a target to reduce the temperature score by 2025 and is implementing this through engagement strategies targeted at customers and investors.</p> <p>2. Scenario analysis, Internal tools/methods Shinhan Financial Group takes a proactive approach to prepare for crisis situations caused by climate change by using scenario analysis that considers the nuances of climate risk. As companies' responses to local and international policies vary, historical patterns may not hold true. In addition, the trajectory and impact of climate risk are highly complex, affecting industries, economies, and markets. This requires scenario-based analysis that considers potential future circumstances. In response, Shinhan has established various parameters for climate scenario analysis, mapped the trajectory and impact of risk based on multiple scenarios, and analyzed the financial implications of climate risk.</p> <p>- Transition risk scenario analysis When examining transition risk scenarios, Shinhan Financial Group considers the different characteristics of climate risk and evaluates various stress testing methods, including the European Central Bank (ECB) climate stress test. Moreover, Shinhan measures the impact by developing an internal scenario analysis model that reflects the characteristics of the Group's portfolio.</p> <p>- Physical risk scenario analysis Shinhan Financial Group has formulated a scenario analysis model that considers South Korea's climatic context, using the frequency and severity of damage occurrence in the expected relative damage size. Through this model, the Group has conducted an impact analysis.</p> <p>3. Stress test Shinhan Financial Group conducts integrated stress tests twice yearly to assess capital adequacy, identify vulnerable areas, and formulate response strategies for potential scenarios. Based on these tests, the Group prepares a capital management plan and a contingency funding plan, which are reported to the Board of Directors. The Group's stress testing scenarios reflect macroeconomic forecasts and changes in the external environment that affect the risk factors of the Group's portfolios. These include scenarios that reflect historical volatility (e.g., global financial crisis, IMF bailout, etc.). Credit, market, and interest rate stress tests are performed according to the stress testing manual for each risk type. These tests consider the impact on regulatory and internal capital per scenario, as well as the impact on current earnings and capital due to an increase in the provision for credit losses.</p> <p>4. Internal tools/methods By integrating climate-risk areas into our existing risk management procedures, Shinhan Financial Group skillfully identifies and monitors climate-related risks in all business areas. To monitor this, we systematically outline environmental and social risks, taking guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) and developing appropriate methodologies to assess these risks. In particular, financed emissions are the most important indicator for quantitatively assessing portfolio's exposure to climate change. Therefore, Shinhan Financial Group has developed independent financed emissions measurement system to define emission calculation requirements for the Group's 6 asset classes (listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgages, and Motor Vehicle loans) using the PCAF methodology, a global measurement methodology, and to systematically evaluate and manage climate change transition risks. Through this system, it is possible to calculate financed emissions for the entire portfolio of the Group, and the results of measuring financed emissions are reflected in credit/investment processes and decision-making. In addition, in the same way as the existing risk management process, whether financed emissions by group/sector exceed a pre-set threshold is monitored through the risk dashboard, if it is exceeded, management plan will be established/implanted.</p>
Investing (Asset owner)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Portfolio temperature alignment Scenario analysis Stress tests Internal tools/methods	<p>1. Portfolio temperature alignment After receiving SBTi approval in 2022, Shinhan Financial Group calculated a temperature score for its portfolio (3.14°C) using the temperature rating methodology. Shinhan has set a target to reduce the temperature score by 2025 and is implementing this through engagement strategies targeted at customers and investors.</p> <p>2. Scenario analysis, Internal tools/methods Shinhan Financial Group takes a proactive approach to prepare for crisis situations caused by climate change by using scenario analysis that considers the nuances of climate risk. As companies' responses to local and international policies vary, historical patterns may not hold true. In addition, the trajectory and impact of climate risk are highly complex, affecting industries, economies, and markets. This requires scenario-based analysis that considers potential future circumstances. In response, Shinhan has established various parameters for climate scenario analysis, mapped the trajectory and impact of risk based on multiple scenarios, and analyzed the financial implications of climate risk.</p> <p>- Transition risk scenario analysis When examining transition risk scenarios, Shinhan Financial Group considers the different characteristics of climate risk and evaluates various stress testing methods, including the European Central Bank (ECB) climate stress test. Moreover, Shinhan measures the impact by developing an internal scenario analysis model that reflects the characteristics of the Group's portfolio.</p> <p>- Physical risk scenario analysis Shinhan Financial Group has formulated a scenario analysis model that considers South Korea's climatic context, using the frequency and severity of damage occurrence in the expected relative damage size. Through this model, the Group has conducted an impact analysis.</p> <p>3. Stress test Shinhan Financial Group conducts integrated stress tests twice yearly to assess capital adequacy, identify vulnerable areas, and formulate response strategies for potential scenarios. Based on these tests, the Group prepares a capital management plan and a contingency funding plan, which are reported to the Board of Directors. The Group's stress testing scenarios reflect macroeconomic forecasts and changes in the external environment that affect the risk factors of the Group's portfolios. These include scenarios that reflect historical volatility (e.g., global financial crisis, IMF bailout, etc.). Credit, market, and interest rate stress tests are performed according to the stress testing manual for each risk type. These tests consider the impact on regulatory and internal capital per scenario, as well as the impact on current earnings and capital due to an increase in the provision for credit losses.</p> <p>4. Internal tools/methods By integrating climate-risk areas into our existing risk management procedures, Shinhan Financial Group skillfully identifies and monitors climate-related risks in all business areas. To monitor this, we systematically outline environmental and social risks, taking guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) and developing appropriate methodologies to assess these risks. In particular, financed emissions are the most important indicator for quantitatively assessing portfolio's exposure to climate change. Therefore, Shinhan Financial Group has developed independent financed emissions measurement system to define emission calculation requirements for the Group's 6 asset classes (listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgages, and Motor Vehicle loans) using the PCAF methodology, a global measurement methodology, and to systematically evaluate and manage climate change transition risks. Through this system, it is possible to calculate financed emissions for the entire portfolio of the Group, and the results of measuring financed emissions are reflected in credit/investment processes and decision-making. In addition, in the same way as the existing risk management process, whether financed emissions by group/sector exceed a pre-set threshold is monitored through the risk dashboard, if it is exceeded, management plan will be established/implanted.</p>

	Type of risk management process	Proportion of portfolio covered by risk management process	Type of assessment	Time horizon(s) covered	Tools and methods used	Provide the rationale for implementing this process to assess your portfolio's exposure to climate-related risks and opportunities
Insurance underwriting (Insurance company)	Integrated into multi-disciplinary company-wide risk management process	100	Qualitative and quantitative	Short-term Medium-term Long-term	Portfolio temperature alignment Scenario analysis Stress tests Internal tools/methods	<p>1. Portfolio temperature alignment After receiving SBTi approval in 2022, Shinhan Financial Group calculated a temperature score for its portfolio (3.14°C) using the temperature rating methodology. Shinhan has set a target to reduce the temperature score by 2025 and is implementing this through engagement strategies targeted at customers and investors.</p> <p>2. Scenario analysis, Internal tools/methods Shinhan Financial Group takes a proactive approach to prepare for crisis situations caused by climate change by using scenario analysis that considers the nuances of climate risk. As companies' responses to local and international policies vary, historical patterns may not hold true. In addition, the trajectory and impact of climate risk are highly complex, affecting industries, economies, and markets. This requires scenario-based analysis that considers potential future circumstances. In response, Shinhan has established various parameters for climate scenario analysis, mapped the trajectory and impact of risk based on multiple scenarios, and analyzed the financial implications of climate risk.</p> <p>- Transition risk scenario analysis When examining transition risk scenarios, Shinhan Financial Group considers the different characteristics of climate risk and evaluates various stress testing methods, including the European Central Bank (ECB) climate stress test. Moreover, Shinhan measures the impact by developing an internal scenario analysis model that reflects the characteristics of the Group's portfolio.</p> <p>- Physical risk scenario analysis Shinhan Financial Group has formulated a scenario analysis model that considers South Korea's climatic context, using the frequency and severity of damage occurrence in the expected relative damage size. Through this model, the Group has conducted an impact analysis.</p> <p>3. Stress test Shinhan Financial Group conducts integrated stress tests twice yearly to assess capital adequacy, identify vulnerable areas, and formulate response strategies for potential scenarios. Based on these tests, the Group prepares a capital management plan and a contingency funding plan, which are reported to the Board of Directors. The Group's stress testing scenarios reflect macroeconomic forecasts and changes in the external environment that affect the risk factors of the Group's portfolios. These include scenarios that reflect historical volatility (e.g., global financial crisis, IMF bailout, etc.). Credit, market, and interest rate stress tests are performed according to the stress testing manual for each risk type. These tests consider the impact on regulatory and internal capital per scenario, as well as the impact on current earnings and capital due to an increase in the provision for credit losses.</p> <p>4. Internal tools/methods By integrating climate-risk areas into our existing risk management procedures, Shinhan Financial Group skillfully identifies and monitors climate-related risks in all business areas. To monitor this, we systematically outline environmental and social risks, taking guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) and developing appropriate methodologies to assess these risks.</p> <p>In particular, financed emissions are the most important indicator for quantitatively assessing portfolio's exposure to climate change. Therefore, Shinhan Financial Group has developed independent financed emissions measurement system to define emission calculation requirements for the Group's 6 asset classes (listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgages, and Motor Vehicle loans) using the PCAF methodology, a global measurement methodology, and to systematically evaluate and manage climate change transition risks. Through this system, it is possible to calculate financed emissions for the entire portfolio of the Group, and the results of measuring financed emissions are reflected in credit/investment processes and decision-making. In addition, in the same way as the existing risk management process, whether financed emissions by group/sector exceed a pre-set threshold is monitored through the risk dashboard, if it is exceeded, management plan will be established/implanted.</p>

## C-FS2.2d

**(C-FS2.2d) Does your organization consider climate-related information about your clients/investees as part of your due diligence and/or risk assessment process?**

	We consider climate-related information	Explain why you do not consider climate-related information and your plans to address this in the future
Banking (Bank)	Yes	<Not Applicable>
Investing (Asset manager)	Yes	<Not Applicable>
Investing (Asset owner)	Yes	<Not Applicable>
Insurance underwriting (Insurance company)	Yes	<Not Applicable>

## C-FS2.2e

**(C-FS2.2e) Indicate the climate-related information your organization considers about clients/investees as part of your due diligence and/or risk assessment process, and how this influences decision-making.**

### Portfolio

Banking (Bank)

### Type of climate-related information considered

Emissions data  
Energy usage data  
Emissions reduction targets  
Climate transition plans

### Process through which information is obtained

Directly from the client/investee  
Data provider  
Public data sources

### Industry sector(s) covered by due diligence and/or risk assessment process

Energy

Materials  
 Capital Goods  
 Commercial & Professional Services  
 Transportation  
 Automobiles & Components  
 Consumer Durables & Apparel  
 Consumer Services  
 Retailing  
 Food & Staples Retailing  
 Food, Beverage & Tobacco  
 Household & Personal Products  
 Health Care Equipment & Services  
 Pharmaceuticals, Biotechnology & Life Sciences  
 Software & Services  
 Technology Hardware & Equipment  
 Semiconductors & Semiconductor Equipment  
 Telecommunication Services  
 Media & Entertainment  
 Utilities  
 Real Estate

**State how this climate-related information influences your decision-making**

Emissions, energy consumption, and ESG evaluation information are reflected in the loan/investment review process. The target of the review process is 30 billion won or more in the case of conglomerates and external financial audit corporations, and 50 billion won in the IB sector. Particularly, we have been operating the 'Carbon Reduction Effort Score Card' since 2021 in the power, steel, cement, and chemical sectors, which are identified as major 'high-carbon' industries. Based on the checklist for information disclosure, management systems, technology, and production facilities, the loans/investments subject to the review process are categorized as excellent, good, or average, and reflected in the carbon reduction effort score card. Taking into account the carbon emissions status and reduction efforts of companies, Shinhan operates financial support such as expansion, conversion, and maintenance differentially. Shinhan considers adequacy review, risk assessment, and internal risk management for corporate customers in high-carbon and non-carbon or with emissions of 5000 tons or more, which account for 98% of the group's total financed emissions. As of 2022, out of a total of 82,000 customers, 14,200 companies are targeted. For these high-carbon customers, we not only monitor their emissions but also encourage them to disclose their emissions for borrowers who have not disclosed their emissions. We also collect emissions data and use it as a basis for decision-making in processes such as considering separate review procedures or supporting transition finance.

**Portfolio**

Investing (Asset manager)

**Type of climate-related information considered**

Emissions data  
 Energy usage data  
 Emissions reduction targets  
 Climate transition plans

**Process through which information is obtained**

Directly from the client/investee  
 Data provider  
 Public data sources

**Industry sector(s) covered by due diligence and/or risk assessment process**

Energy  
 Materials  
 Capital Goods  
 Commercial & Professional Services  
 Transportation  
 Automobiles & Components  
 Consumer Durables & Apparel  
 Consumer Services  
 Retailing  
 Food & Staples Retailing  
 Food, Beverage & Tobacco  
 Household & Personal Products  
 Health Care Equipment & Services  
 Pharmaceuticals, Biotechnology & Life Sciences  
 Software & Services  
 Technology Hardware & Equipment  
 Semiconductors & Semiconductor Equipment  
 Telecommunication Services  
 Media & Entertainment  
 Utilities  
 Real Estate

**State how this climate-related information influences your decision-making**

In February 2022, Shinhan Financial Group formulated the "Domestic Stock Management ESG Investment Guidelines" to execute domestic stock ESG investments. According to these guidelines, all general equity funds are given ratings based on their internal ESG criteria, which consider factors such as greenhouse gas emission systems, carbon emissions, and energy consumption data of the invested companies. In accordance with the guidelines, Shinhan reflects ESG evaluation results when managing portfolios, and more than 70% of the portfolio consists of companies with an ESG rating of BB or higher. Also, we are proactively monitoring financed emissions through regular measurement and internal reporting. Engagement activities are carried out for enterprises within the portfolio that do not have the climate disclosures required by TCFD or CDP. In addition, we manage climate risks through individual company interviews and shareholder letters for high-emission industries and companies with poor response to climate change.

## C2.3

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

Yes

## C2.3a

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

#### Identifier

Risk 1

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

Banking portfolio

#### Risk type & Primary climate-related risk driver

Current regulation	Carbon pricing mechanisms
--------------------	---------------------------

#### Primary potential financial impact

Devaluation of collateral and potential for stranded, illiquid assets

#### Climate risk type mapped to traditional financial services industry risk classification

Credit risk

#### Company-specific description

In Korea, as of 2015, Controlled Entities of the 'GHG & Energy Target Management System' with an average GHG emissions of the 3 most recent years greater than 125,000tCO<sub>2</sub>eq, a company that has one or more establishments with 25,000 tons or more or a company that has voluntarily applied for designation as an allocation target company are subject to participate in the Korea Emission Trading Scheme(K-ETS); they are allocated the emissions allowance based on the past GHG record and must carry out operation activities and emissions reduction activities within the given range.

Shinhan Financial Group acknowledges that the potential shortage of emission allowances could increase operating costs for companies subject to the Emission Trading System (ETS), as they may need to purchase additional allowances or invest in infrastructure upgrades. This could result in negative profits, especially when considering the long-term effects of climate change.

In 2022, 674 customers and investees of Shinhan Financial Group will be subject to the ETS with a total exposure of KRW 41,153 billion. Should any of these entities experience a decline in profitability, this could increase the probability of default due to a decreased repayment capacity. This is particularly relevant for customers or participants in high-emitting industries.

Shinhan Financial Group may ultimately be exposed to credit risk from defaults or credit downgrades of customers or participants subject to the ETS.

#### Time horizon

Long-term

#### Likelihood

Virtually certain

#### Magnitude of impact

High

#### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

#### Potential financial impact figure (currency)

411500000000

#### Potential financial impact figure – minimum (currency)

<Not Applicable>

#### Potential financial impact figure – maximum (currency)

<Not Applicable>

#### Explanation of financial impact figure

The strictness of the regulation of the emission trading system(ETS) is affected by the nationally determined contributions(NDC). Last year, the Korean government raised the NDC from 27.3% reduction to 40% reduction. As a result, it is expected that the ETS will become stricter and the emission cap and allowances will decrease.

The Network for Greening the Financial System (NGFS) predicts that the price of Korea's emission permits will rise from 26.7 dollars/ton at the end of 2021 to 139.5 dollars/ton in 2030. This can increase the operating costs of regulated companies and reduce their value added.

The Bank of Korea, the central bank of Korea, estimated the change in the value added of regulated companies according to the NGFS scenario.

In the case of high-carbon industries, the value added is analyzed to decrease by an average of 0.95% per year, and by 2030, the value added is expected to decrease by about 10%.

Therefore, considering the impact of carbon regulations on the portfolio of regulated companies by 2030, it is expected that approximately 10% of the regulated company exposure KRW 4,115 billion, which is 10% of regulated company exposure(KRW 41,153 billion) will turn into a negative margin.

#### Cost of response to risk

1800000000

#### Description of response and explanation of cost calculation

(Situation, task) Shinhan Financial Group needs indicators to assess the risk level of our asset portfolio to identify assets that are suddenly at risk of default due to increased operating costs resulting from policy improvements and to respond to credit risks.

(Action) We have used financed emissions as one of the indicators to identify climate risk and developed a financed emissions measurement system to automatically calculate and regularly monitor changes in financed emissions according to fluctuations in our asset portfolio. This system allows us to identify high-risk areas, such as high carbon emission zones, using calculated financed emissions, and to recognize areas vulnerable to climate change based on the latest internal and external research. It is used to monitor the business sectors of our clients or investee companies and manage credit risks.

(Result) This system is also used in the credit and investment review process. Since 2022, Shinhan Bank, a member of Shinhan Financial Group, has been calculating the financed emissions and intensity of proposed credit or investment transactions. under consideration. And they compare these values with the levels of the bank and similar

sectors to examine their impact on the organization. In particular, for high-risk areas, changes in financed emissions and carbon intensity are monitored through a dashboard. Key management areas are identified, such as power generation, steel, and petroleum or chemicals, which are managed by setting exposure limits. In 2022, Shinhan Bank's financed emissions from high-carbon industries account for 54% of its total portfolio, and the limits were differentiated by reflecting the adjustment rate considering carbon emissions for each industry through a credit/investment review process for the portfolio.

[Cost]

A total 18 people, including 1 from each of the 16 subsidiaries and 2 from the holding companies, were involved in the analysis of the group's entire portfolio, and assuming an average annual salary of KRW 100 million per person, the total management cost is estimated to be KRW 1,800 million. In addition, Shinhan established a financed emissions measurement system in 2021, and spent KRW 100 million in operation/maintenance costs in 2022, and plans to promote new advancement work such as updating emission standards and coefficients through 2023.

**Comment**

**Identifier**

Risk 2

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

Direct operations

**Risk type & Primary climate-related risk driver**

Market	Changing customer behavior
--------	----------------------------

**Primary potential financial impact**

Increased indirect (operating) costs

**Climate risk type mapped to traditional financial services industry risk classification**

Operational risk

**Company-specific description**

With the increasing trend of digital finance, Shinhan Financial Group is making efforts to minimize paper usage and waste by promoting the use of electronic documents and improving the efficiency of physical mobility and document storage as part of its "Green Digital Transformation" initiative. While this approach significantly reduces environmental impact and Scope 1 emissions, it may inadvertently increase Scope 2 emissions because of increased data usage. While Scope 1 emissions have decreased from 2020 (from 15,296.6 tCO<sub>2</sub>e to 14,697.0 tCO<sub>2</sub>e), Scope 2 emissions have increased by approximately 5% (from 81,392.5 tCO<sub>2</sub>e to 85,382.7 tCO<sub>2</sub>e). Despite company-wide efforts to meet emissions reduction targets, the growth of digital services could pose operational risks if it increases internal carbon emissions.

**Time horizon**

Short-term

**Likelihood**

Very likely

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

158621249

**Potential financial impact figure – maximum (currency)**

206207624

**Explanation of financial impact figure**

Shinhan has set an internal carbon price of approximately KRW 100,000 to KRW 130,000 per ton based on green premiums, RECs, and PPAs for participating in business and purchasing to reduce internal emissions. The energy consumption of data centers operated by Shinhan is increasing at an average rate of approximately 10% per year, or 3,452,712 kWh. Assuming a similar rate of increase in 2023, the financial risk cost due to the rise in Scope 2 emissions is estimated to be KRW 159 million to KRW 206 million, with 1,586 tons offset by applying the internal carbon price.

**Cost of response to risk**

0

**Description of response and explanation of cost calculation**

(Situation) Despite Shinhan's various efforts to reduce internal carbon emissions, Scope 2 emissions continue to increase because of the expansion of the digital financial ecosystem.

(Task) Around 86% of Shinhan Bank's internal carbon emissions come from electricity consumption at the head office, large buildings, and branches, accounting for approximately 73% of the Group's total Scope 2 emissions across 16 subsidiaries. Therefore, managing energy consumption, which significantly impacts Scope 2 emissions, is crucial to maintain a stable reduction trend.

(Action) Shinhan continues to strengthen its efforts to minimize greenhouse gas emissions. Following the declaration of the Zero Carbon Drive in 2020, the company has conducted various activities to reduce greenhouse gas emissions and save energy, such as switching to zero-emission vehicles and running eco-friendly campaigns. To accelerate the achievement of the target for carbon neutrality, Shinhan has established plans to transition to renewable energy using methods such as green premiums and power purchase agreements (PPAs).

(Result) Shinhan has committed to the RE100 global campaign to convert 100% of the electricity used by all Group companies to renewable energy by 2040. The Group plans to extensively use renewable energy certificates (RECs), green premiums, PPAs, and self-generation to reduce carbon emissions by approximately 20,000 tons per year, or 20% of the Group's total emissions.

[Cost]

For fiscal year 2022, strategies are in place to transition from the electricity consumed by data centers and all Group companies to renewable energy sources, and procuring of such energy will begin in earnest from fiscal year 2023. Administrative costs associated with establishing a renewable energy transition plan for the fiscal year 2022, including personnel costs, are included in regular operating expenses. As no additional costs are expected to be incurred for the procurement of renewable energy, administrative costs for the fiscal year are estimated to be KRW 0.

## Comment

### Identifier

Risk 3

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

Investing (Asset manager) portfolio

### Risk type & Primary climate-related risk driver

Reputation	Shifts in consumer preferences
------------	--------------------------------

### Primary potential financial impact

Reduced profitability of investment portfolios

### Climate risk type mapped to traditional financial services industry risk classification

Reputational risk

### Company-specific description

The steady rise in consumer awareness of climate change has led to a growing interest in environmental, social, and governance (ESG) funds over the past two to three years. Along with this trend, potential greenwashing issues have emerged, leading to tighter regulations on ESG disclosure by financial institutions in regions such as Europe and the United States.

In the United States, where disclosure of ESG investment information is mandatory, an investment advisory firm managed by BNY Mellon was fined USD 1.5 million by the SEC in May 2022 for allegedly providing false ESG investment information in a mutual fund. Similarly, in September 2021, DWS in Germany was investigated by the SEC and German financial authorities for allegedly failing to consider ESG factors as claimed in its fund prospectus, which represented approximately half of its assets under management, or USD 4,590.

Shinhan Asset Management, a subsidiary of Shinhan Financial Group, is primarily engaged in business activities, such as mutual fund discretionary management, mutual fund asset management, investment advisory, and investment delegation. Its main products include "Shinhan Comfortable TDF," "Shinhan TRF Growth/Stability OCIO Solution Securities Investment Trust," "Shinhan US Stocks and High Dividend Securities Investment Trust," and "Shinhan Snowball Income Securities Investment Trust." In particular, Shinhan Asset Management has integrated ESG into its management strategy, and investments in listed equity funds with an ESG rating of BB or higher account for 70% of its portfolio.

As the ESG investing craze spreads and green themes become more popular as a marketing tool for companies, cases of "greenwashing" are on the rise. Due to the lack of objective ESG evaluation criteria, there is a possibility of ESG investment in greenwashing companies if the criteria are not clarified.

As Shinhan Asset Management expands its ESG investments, if it makes investment decisions based solely on the evaluation results of ESG evaluation institutions without clear criteria, it may face greenwashing issues on existing ESG-related products which could lead to reputational risks. When specific disclosures such as investment strategy, management capabilities, and performance results are required because of future disclosure requirements for ESG funds. This is because the ESG rating factors, weighting methodology, and other criteria differ between domestic and foreign ESG rating agencies.

### Time horizon

Short-term

### Likelihood

Very likely

### Magnitude of impact

Medium

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

27500000000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

The goal of ESG investing is to provide capital for sustainable business growth and social value creation. Therefore, if investments are made in companies that do not meet ESG standards to increase the returns of ESG funds, this could undermine investor confidence in ESG investing and lead to investor withdrawals, reducing the returns of the relevant fund.

As of the end of December 2022, Shinhan Asset Management's ESG fund AUM is KRW 5.5 trillion, and assuming that annual return on ESG fund management is 0.5%, the financial impact of no return due to reputational risk is KRW 27.5 billion.

### Cost of response to risk

300000000

### Description of response and explanation of cost calculation

(Situation) Failure to use objective ESG metrics when selecting target companies or projects for investment may expose the company to reputational risk from being perceived as inadequately managing climate change risks.

(Task) Therefore, it is necessary to establish ESG investment principles that reflect international principles and develop objective evaluation criteria to ensure the transparency of ESG evaluation methods.

(Action) As part of this, Shinhan Asset Management has established ESG investment guidelines issued in February 2022, describe the ESG investment process, including the purpose, policy, and evaluation method of ESG investment. Also, a "Proprietary ESG Scoring System" has been established, combining the ratings of external ESG evaluators with the proprietary ratings of the internal ESG research team. We use data from Korea Corporate Governance Service (KCGS), SustainVest, and the Bell ESG Tracker to view external ESG ratings from multiple perspectives.

The ESG rating indicators are divided into four elements: environmental, social, governance, and the ESG theme, and consist of 26 key performance indicators (KPIs). Among them, the environmental element evaluates the level of response to climate change, the level of clean production, and environmental policies. The assessment of the level of response to climate change reflects the level of management of greenhouse gases emitted by the company's production activities, the level of carbon emission reduction, and the level of energy consumption reduction. The results of ESG evaluations, including climate change, are indicated in our portfolio management, and all of our public equity funds consist of more than 70% of companies with an ESG superior rating (BB rating or higher based on ESG rating standards).

(Result) As a result, the ESG investment guidelines and an ESG Investment annually Report are published on the website, allowing everyone to transparently confirm Shinhan Asset Management's ESG investment policies and processes. By establishing our own ESG scoring system, we can enhance the credibility of ESG investments

for stakeholders. As of the end of December 2022, Shinhan Asset Management manages 88 funds with KRW 5.5935 trillion worth of assets.

[Cost]

A total of 3 people were involved in the setting of the ESG Investment Guidelines, and assuming an average annual salary of KRW 100 million per person, the management costs due to ESG Investment Guidelines is KRW 300 million.

**Comment**

**Identifier**

Risk 4

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

Investing (Asset owner) portfolio

**Risk type & Primary climate-related risk driver**

Market	Changing customer behavior
--------	----------------------------

**Primary potential financial impact**

Devaluation of collateral and potential for stranded, illiquid assets

**Climate risk type mapped to traditional financial services industry risk classification**

Credit risk

**Company-specific description**

Climate change continues to pose significant challenges to high carbon-emitting sectors and fossil fuel-based businesses such as coal and oil or chemicals. For companies with such business structures, the financial impact on their assets may be small in the short term, but in the long term, the value may be reduced or become a liability. The International Energy Agency (IEA) defines these as stranded assets. For this reason, many companies have recently sought to make a green transition, and consumer preferences are also shifting toward green companies.

In particular, bond investors, classified as long-term investors, are gradually reducing their investments in high-emitting sectors. Even when investing, they shift to assets based on climate change responses, such as ESG bonds and green bonds.

By the end of 2022, Shinhan Life will invest KRW 1,440 billion of its corporate bond assets in high-emission sectors.

The general corporate bond yield is currently expected to be around 3% to 4%. However, if all companies classified as stranded assets continue their current policies without considering a transition from high carbon-emitting sectors, there is a high probability (at least 50% to 100%) that these assets will be difficult to recover by 2050.

**Time horizon**

Long-term

**Likelihood**

Very likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, an estimated range

**Potential financial impact figure (currency)**

<Not Applicable>

**Potential financial impact figure – minimum (currency)**

702301925814

**Potential financial impact figure – maximum (currency)**

1440603905628

**Explanation of financial impact figure**

As of December 2022, Shinhan Life's bond investments in high carbon-emitting sectors amount to KRW 1,440 billion. While the return on these bonds may be guaranteed in the short term, there is concern that most of these bond assets may not be recovered in the medium to long term, resulting in a potential loss of 50% to 100% of the investment assets.

**Cost of response to risk**

1600000000

**Description of response and explanation of cost calculation**

(Situation) Due to stricter regulations and changing in consumer perceptions and preferences regarding corporate reputation, etc. due to climate change, there is an increasing possibility that the corporate bonds of high carbon emission sectors invested in by Shinhan Life may become stranded assets, reducing the likelihood of recovery of the bond assets.

(Task) Therefore, it is necessary to regularly monitor and manage the potential for stranded assets in investment targets.

(Action) The risk management team of Shinhan Financial Group monitors the possibility of stranded assets by operating financed emissions monitoring system within the risk management system (operated by two people), and based on the monitoring results, the asset management strategy team of Shinhan Life (total of 14 people) manages the strategic direction of Shinhan Life's overall asset management investment.

(Result) In accordance with Shinhan Life's investment strategy, bonds of sectors with high carbon emissions and a high probability of becoming stranded assets are converted into investments in government bonds and green bonds.

[Cost]

The cost incurred in financial products strategy and operation is included in total operating cost, and the labor cost for the relevant investment, including the person in charge of the risk management system, is about KRW 1.6 billion (16 people for 1 year, average annual salary of KRW 100million per person).

**Comment**

**Identifier**

Risk 5

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

Insurance underwriting portfolio



## Risk type & Primary climate-related risk driver

Chronic physical	Temperature variability
------------------	-------------------------

### Primary potential financial impact

Increased insurance claims liability

### Climate risk type mapped to traditional financial services industry risk classification

Insurance risk

### Company-specific description

Global warming and associated climate change can, directly and indirectly, affect human health. Extreme weather events, such as heat waves, cold snaps, and air pollution, can alter patterns of existing infectious diseases or chronic conditions. Rising temperatures can cause extreme weather events, such as heat waves, droughts, and floods, leading to poor air quality, causing heat-related cardiovascular and respiratory diseases, and potentially increasing mortality rates. Changes in weather patterns can also affect the ecosystem of disease vectors, leading to an increase in insect- or animal-borne infectious diseases.

While the health effects of climate change may not immediately lead to significant changes in life and health insurance, over the long term, the increased incidence of cardiovascular, respiratory, and other health conditions due to climate change may increase the number of deaths and infections. This could lead to higher health and medical insurance costs and increased loss ratios.

Shinhan Life, a subsidiary of Shinhan Financial Group, offers customers various insurance products, including whole or life-term insurance, pension or savings insurance, variable insurance, and health insurance, focusing on health insurance products, such as cancer insurance.

The diseases covered by insurance policies such as Whole Life Insurance, Shinhan 3COLOR Major Disease Insurance, and Shinhan Life Long-term Care Insurance for Brain and Cardiovascular Disease, which Shinhan Life operates, have a high potential for increased incidence due to climate change. Therefore, preparing for risks such as increased insurance payouts is necessary.

### Time horizon

Long-term

### Likelihood

Likely

### Magnitude of impact

High

### Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

### Potential financial impact figure (currency)

258100000000

### Potential financial impact figure – minimum (currency)

<Not Applicable>

### Potential financial impact figure – maximum (currency)

<Not Applicable>

### Explanation of financial impact figure

Under the scenario of continuously rising temperatures, the number of cases of cardiovascular, respiratory, and infectious diseases may increase, and the amount of insurance payouts may increase accordingly. This may affect a significant number of Shinhan Life's health insurance products.

As of 2022, Shinhan Life's health insurance payouts amount to approximately KRW 5,162 billion. Assuming this payout amount increases by 5%, the financial impact could be around KRW 258.1 billion.

### Cost of response to risk

2900000000

### Description of response and explanation of cost calculation

(Situation) The average annual temperature in Korea has been steadily increasing, and in particular, 6 of the 10 hottest cases in the past 109 years have occurred in the past decade, indicating that the temperature increase in Korea is accelerating. In such a situation where the temperature continues to rise, the incidence of cardiovascular, respiratory, and infectious diseases may increase, and insurance products related to these diseases may experience insurance risks such as claims.

(Task) To prepare for insurance risks, it is essential to continuously identify changing disease patterns due to climate change and anticipate risk factors that may be triggered in existing products.

(Action) Following the establishment of Shinhan Financial Group's "Financial Product ESG Inspection System" in May 2020, Shinhan Life implemented this system in June 2020 and applied it to new products in August 2020. The "Product Development-Related ESG Inspection Checklist" includes environmental and climate change-related issues and eco-friendly elements, in addition to existing consumer protection inspection items. In other words, Shinhan Life plans to apply climate change factors to the risk rate applied during product development, monitor changes in disease occurrence patterns due to climate change, and analyze the correlation with the company's own products.

(Result) By the end of October 2022, Shinhan Life has completed 100% checks based on the ESG checklist for a total 140 new product developments (main contracts and special contracts).

Although no significant impact was found in the short term, in the long term, apart from the physical risks, it is necessary to consider the insurance risks that climate change itself may cause, such as an increase in life insurance payout ratios, and to review existing insurance policies. In the future, these aspects should be considered in underwriting, and preparations should be made to introduce new products.

### [Cost]

In addition to the task of checking ESG factors including climate change in the product planning stage, only the cost of carrying out the work by the existing personnel is incurred. 29 people are involved in the existing product development stage, and the total management cost is estimated to be KRW 2,900 million (29 people x KRW 100 million per person), assuming an average annual salary of KRW 100 million per person.

### Comment

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

Yes

**C2.4a**

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

**Identifier**

Opp2

**Where in the value chain does the opportunity occur?**

Banking portfolio

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development and/or expansion of low emission goods and services

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

In its 2022 report, the International Energy Agency (IEA) predicts that renewable energy installations will increase by around 2,400 GW between 2022 and 2027. This figure is equivalent to the total renewable energy capacity accumulated over the past 20 years (2001–2021). Moreover, renewable electricity generation is expected to increase by around 60% between 2022 and 2027 and is projected to overtake coal generation to become the largest source of electricity by early 2025. As it is difficult for companies to achieve carbon-neutral targets without using renewable energy, most companies will focus on securing renewable energy, so the demand for renewable energy procurement is expected to grow steadily and steeply from a business needs perspective. For example, 77% of South Korea's total electricity consumption is consumed by businesses (as of 2022). Even if we assume that around half of the companies will switch to 100% renewable energy by 2030, the electricity consumption from renewable energy is around 39% of the total electricity consumption. However, the current national target is to achieve 21.6% of electricity generation from renewable energy by 2030, which is only around half of the required level, so the demand is expected to skyrocket compared to supply. Shinhan Financial Group identifies the potential of the new renewable energy industry through research and analysis of customer needs and market trends due to climate change.

Shinhan Financial Group can create business opportunities by providing financial support services to the renewable energy industry, and it is necessary to actively develop related products as demand for its current renewable energy PF products (PF commitment amount of KRW 906 billion as of 2022) is expected to increase.

**Time horizon**

Long-term

**Likelihood**

Virtually certain

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

108720000000

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

As an effort to support renewable energy projects, Shinhan Bank participated in renewable energy projects as an investor in 2022 and provided approximately 906 billion KRW of loan, actively supporting the renewable energy sector. If such demands continue to grow, SFG expects to create higher profits in this area. By 2030, We plan to expand our investment in renewable energy to KRW 30 trillion under the Zero Carbon Drive strategy, and the financial opportunity impact of renewable energy PF products is expected to be KRW 1,087.2 billion, assuming a 20% increase in annual renewable energy-related business growth.

**Cost to realize opportunity**

3700000000

**Strategy to realize opportunity and explanation of cost calculation**

(Situation) In accordance with global net-zero trend, the demand for products related to renewable energy generation is expected to continue to increase.

(Task) Therefore Shinhan Financial Group needs to discover various types of renewable energy projects and expand the amount of investment in order to use this opportunity.

(Action & Result) As of 2022, The Shinhan Financial Group's GIB division is participating in a total of 63 projects in Japan, Vietnam, and other countries. (Japan Shuki 26MW solar power generation PF, Imjado 99.94MW solar power generation project finance, Japan Yamanashi Kai 17.28MW solar power generation PF). Shinhan is expanding its investment in new renewable energy in nonsolar sectors, such as wind power, fuel cells, and waste, in addition to the solar industry. Major green investment cases include investment in Vietnam's solar power business and a greenfield project to produce hydrogen and hydrogen-based synthetic fuels, the next-generation energy source.

In particular, in 2022, Shinhan played a financial role in building next-generation energy infrastructure by investing approximately KRW 17.8 billion in a biofuel production plant development fund established by Copenhagen Infrastructure Partners, a Danish energy infrastructure asset management specialist, through the newly established Green IB Promotion Lab for ESG-related financial support.

As of 2022, the total amount of eco-friendly PF is KRW 906 billion, With the SFG's expanding eco-friendly finance policy, renewable energy, energy efficiency, and Capital investment in business such as fuel conversion, we plan to continue expanding loans and PF.

[cost]

In 2022, operational cost of climate change-related financial products was included in the total operational costs. Almost 3,700 million KRW was incurred as labor costs for renewable energy generation project investment (37 employees for a year, average annual salary at 100million KRW/person).

**Comment**

---

**Identifier**

Opp3

**Where in the value chain does the opportunity occur?**

Investing (Asset manager) portfolio

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Shift in consumer preferences

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

More investors are taking climate change and ESG indicators into consideration for making investment decisions. As such, whether a company seeking for investment is fulfilling its environmental and social responsibilities became an important issue.

According to the Global Sustainable Investment Alliance (GSIA), the size of global ESG investments was approximately USD 30.7 trillion in 2018, up around 34% from USD 22.8 trillion in 2016. In Korea, the issuance size of ESG funds and ESG bonds is also steadily increasing.

Shinhan Asset Management: Recognizing these changes as an opportunity factor, we have continuously increased the proportion of ESG-related investments by approximately 1% every year.

As of 2022 the climate related ESG fund size is 4,207 billion KRW increased ratio about 37%, including renewable energy/energy efficiency 2,806 billion KRW, eco-transportation 1,401 billion KRW etc.

The SFG plans to support the transition to a low-carbon economy through eco-friendly finance tailored to the characteristics of each group company. We plan to continuously expand ESG-related investments.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

26529337468

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

SFG has launched and is currently managing various climate change and ESG-related funds. By the end of 2022, the assets under management of climate change-related ESG products will reach KRW 4,207 billion. As the asset size steadily increases yearly, the revenue from related products is also expected to increase.

From 2020 to 2022, climate change-related ESG product assets will grow by an average of 26%. Assuming a similar growth rate and a product return of 0.5%, the financial impact of this opportunity is KRW 26.5 billion (amount of ESG product assets under management in 2022 × average growth rate × return).

**Cost to realize opportunity**

900000000

**Strategy to realize opportunity and explanation of cost calculation**

(Situation) As ESG-related systems and institutional investors' investments are expanding world-widely, we are reviewing ESG investment policies and increasing the proportion of ESG investment in our investment assets.

(Task) To take advantage of this related opportunity, Shinhan Financial Group is continuously expanding its ESG investments.

(Action & Result) Alternative investment products such as Shinhan Green Sunshine Dream General Private Equity Special Asset No. 1, Daegu Green Power Combined Heat and Power General Private Equity Special Asset, Japan Solar Power Project General Private Equity Special Asset No. 3, Green New Deal Energy General Private Equity Special Asset No. 2, WTE (Waste To Energy) General Private Equity No.1, and SRI (Socially Responsible Investment) fund products such as SOL Global Carbon Emissions Futures IHS Special Asset Listed Index, SOL Europe Carbon Emissions Futures S&P Special Asset Listed Index and Global Carbon Neutral Solution have been developed and are operating.

In addition, we actively promote the establishment of "climate funds" for investing in climate solutions, clean energy, and green technologies. In 2022, Shinhan Asset Management contributed to activating "K-Taxonomy," a Korean environmental classification system, by investing KRW 50 billion in "Shinhan Greenway Corporate Investment No. 1," which it established.

Shinhan Financial Group plans to establish an eco-friendly finance roadmap under 'Zero Carbon Drive' strategy and expand the amount of eco-friendly loans and investments to KRW 30 trillion by 2030. From 2020 to 2022, the cumulative performance of eco-friendly loans and investments was KRW 8.15 trillion, of which the amount of eco-friendly investment was KRW 1.5159 trillion.

As we continue to expand our support for environment-friendly companies and technologies, the return on the ESG-related funds managed by Shinhan Asset Management is expected to increase, and the expected return for investors, such as Shinhan Bank and Shinhan Investment Securities, is also expected to improve.

[cost]

In 2022, Shinhan Asset Management incurred about 900 million KRW (assigned 9 employees for a year, average salary at 100 million KRW/employee) as labor cost for managing climate change and ESG-related funds. Other product-related sales commission was included in the total operational costs.

**Comment**

---

**Identifier**

Opp4

**Where in the value chain does the opportunity occur?**

Investing (Asset owner) portfolio

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Shift in consumer preferences

**Primary potential financial impact**

Increased revenues through access to new and emerging markets

**Company-specific description**

As the global trend toward carbon neutrality intensifies at the national and corporate levels, investment in climate technologies grows significantly in the financial market. The Glasgow Financial Alliance for Net Zero (GFANZ), which represents 40% of the world's total assets, announced its plans at the 26th UN Climate Change Conference of the Parties (COP26) in November 2021 to increase clean energy investment to USD 4 trillion (around KRW 4,742 trillion) annually over the next 30 years and support USD 100 trillion (KRW 118,550 trillion) of investment in the development of clean energy technologies. According to the Carbon Neutrality and Green Growth Act for the Climate Change, Korea's public and private sectors will jointly invest KRW 145 trillion by 2030. As a result, opportunities for high-grade bond issuance and investment in global green transition finance are expected to expand. In particular, investor demand for climate technologies, also known as green technologies, is also expanding, and market opportunities are expected to grow by more than 10% annually. By 2022, Shinhan Life will have total assets under management (AUM) of KRW 47,808 billion, of which KRW 19,914 billion will be invested in bonds, stocks, or funds that can be sold. With the increase in investment opportunities in climate technology, the company plans to secure more saleable assets each year and expand investments in climate technology assets.

**Time horizon**

Short-term

**Likelihood**

More likely than not

**Magnitude of impact**

Medium

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

60894152861

**Potential financial impact figure – minimum (currency)**

&lt;Not Applicable&gt;

**Potential financial impact figure – maximum (currency)**

&lt;Not Applicable&gt;

**Explanation of financial impact figure**

Shinhan Life's saleable assets (bonds/stocks/funds) account for approximately 41.7% of its total AUM of KRW 19,914 billion. In 2022, Shinhan Life's total profit and loss from asset management will be KRW 132.9 billion, of which the profit and loss from saleable assets will be approximately KRW 55.4 billion (KRW 132.9 billion × 41.7%). Therefore, assuming that the saleable assets will increase by 10% annually, the profit and loss are expected to increase to approximately KRW 60.9 billion (KRW 55.4 billion × 110%) in 2023

**Cost to realize opportunity**

1400000000

**Strategy to realize opportunity and explanation of cost calculation**

(Situation) As the moment for net-zero spreads around the world, investment in climate technology by financial institutions to respond to climate change is expanding.

(Task) Therefore, Shinhan Life needs to identify investment opportunities and expand investment by securing additional assets for climate technology investment among asset under management.

(Action) Shinhan Life's Management Strategy Team manages the strategic direction of Shinhan Life's total asset management investments, and continuously monitors and identifies investment destinations for climate technology.

(Result) Through the expansion of insurance product subscribers and insurance proceeds, we are increasing the amount of asset under management that can be sold and expanding investment in the climate technology businesses.

**[Cost]**

Currently, Shinhan Life operates a Management Strategy Team (14 people in total), which is responsible for establishing and managing strategies for Shinhan Life's total asset management investments. As the amount of new asset under management is expected to expand in the future, labor costs of about KRW 1,400 million (14 people were involved in for 1 year, an average annual salary of KRW 100 million per person) were incurred for product management in 2022, and other costs such as product-related sales commissions are included in the total amount under management.

**Comment****Identifier**

Opp5

**Where in the value chain does the opportunity occur?**

Insurance underwriting portfolio

**Opportunity type**

Products and services

**Primary climate-related opportunity driver**

Development of climate adaptation, resilience and insurance risk solutions

**Primary potential financial impact**

Increased revenues resulting from increased demand for products and services

**Company-specific description**

With increased climate volatility due to global warming, abnormal weather phenomena occur more frequently worldwide, including in Korea. The climate on the Korean peninsula is gradually changing to a subtropical climate, and the summer monsoon is showing gusty heavy rain patterns. In addition, ecological changes are occurring because of climate change, such as the sea temperature rising by 0.3°C every year and the appearance of subtropical butterflies on Baekryeong Island.

These abnormal weather phenomena have direct and indirect impacts on human health. Impacts may include changes in the incidence of existing infectious diseases and

chronic diseases, or cause injuries and deaths due to abnormal weather phenomena such as heat waves, cold waves, floods, droughts and wildfires. AS the health impacts of climate change increase, the demand for health insurance products to prepare in advance may increase. Shinhan Life is monitoring domestic climate change adaptation policies and health impacts of climate change, and intends to reflect them in the development of insurance products.

**Time horizon**

Long-term

**Likelihood**

Likely

**Magnitude of impact**

High

**Are you able to provide a potential financial impact figure?**

Yes, a single figure estimate

**Potential financial impact figure (currency)**

445876983911

**Potential financial impact figure – minimum (currency)**

<Not Applicable>

**Potential financial impact figure – maximum (currency)**

<Not Applicable>

**Explanation of financial impact figure**

Assuming that 85.7% of the new business annual premium equivalent (APE) of KRW 733.4 billion in 2022, or KRW 629.1 billion, is related to climate change in terms of total life insurance products, the financial impact of introducing climate-related products is estimated to be KRW 445.5 billion, or 85.7% of Shinhan Life's insurance operating profit of KRW 519.8 billion in 2022.

**Cost to realize opportunity**

3200000000

**Strategy to realize opportunity and explanation of cost calculation**

(Situation) The demand for insurance products to prevent diseases that may be caused by climate change is expected to increase as abnormal weather phenomena have direct and indirect impacts on human health.

(Task) Therefore, it is necessary to continuously monitor domestic climate change adaptation policies and health impacts caused by climate change and reflect them in the development of products.

(Action) In response, Shinhan Life is checking ESG factors, including climate change, when developing new products. In accordance with Shinhan Financial Group's establishment of the ESG Inspection system for financial products in May 2020, Shinhan Life introduced the system from June 2020 and applied it to new products in August 2020. The 'ESG Inspection Checklist related to product development' includes issues related to environmental and climate change and eco-friendly factors. When developing products, Shinhan Life plans to monitor changes in the incidence of diseases caused by climate change and analyze their relevance to our products.

(Result) By 2022, Shinhan Life has launched a total of 140 products based on the ESG checklist, reflecting climate change, environment and eco-friendly factors.

[Cost]

In the product planning stage, we additionally introduced the checking ESG factors, including climate change, and only the cost of carrying out the work by the existing personnel is incurred. The number of people involved in the existing product development stage is 29, and with the recent addition of the Innovative Product Team, 3 new people have been involved in product development. Assuming an average annual salary of KRW 100 million per person, the total management cost is estimated to be KRW 3,200 million.

**Comment**

---

### C3. Business Strategy

---

#### C3.1

---

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

**Row 1**

**Climate transition plan**

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

**Publicly available climate transition plan**

Yes

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

We have a different feedback mechanism in place

**Description of feedback mechanism**

When the SFG announces its quarterly earnings, financed emissions, and eco-friendly financial performance, and receives feedback from shareholders on progress. As well as, We are communicating about discussing transition plans for investors through irregular investor meetings and NDRs.

**Frequency of feedback collection**

More frequently than annually

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

SFG\_2022ESG\_Report\_KOR.pdf

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

<Not Applicable>

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

<Not Applicable>

**C3.2**

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

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

**C3.2a**

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

Climate-related scenario		Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios	NGFS scenarios framework	Portfolio	<Not Applicable>	<p>Shinhan Financial Group uses various stress testing methods, including the European Central Bank (ECB) climate stress test, to develop Group-specific scenario analysis models reflecting the unique characteristics of the Group's portfolio.</p> <p>- Parameter and Assumption The Group has analyzed transition risk for companies representing 98% of the total financed emissions of its companies and for companies emitting more than 5,000 tons of carbon, a total of 14,000 companies. Shinhan's transition risk analysis is based on 3 NGFS scenarios ((1) 2050 Net-Zero, (2) Delayed transition, (3) maintaining current policies).</p> <p>(1) 2050 Net-Zero : A scenario in which the global average temperature is limited to 1.5°C or less by the end of 2100 compared to pre-industrial levels through strengthened climate policies. (2) Delayed transition : A scenario in which the current policies are followed until 2030 and then strengthened climate policies are introduced to achieve net-zero, and the transition risk increases rapidly due to a sudden increase in carbon prices from the time of policies introduction. (3) Maintaining current policies : A scenario in which the global average temperature increases by 3°C by 2100 due to the transition of climate policies that are insufficient to prevent climate change. Based on the Network for Greening the Financial System (NGFS) scenario, which assumes future circumstances, Shinhan considered macro variables (GDP, interest rates), emissions, carbon prices, electricity consumption, unit price of electricity sales, electricity mix, and stranded assets. Furthermore, it considered the changes these variables may cause to each company's assets, sales, cost of goods sold, and selling, general, and administrative (SG&amp;A) expenses as reflected in the financial statements.</p> <p>- Analysis The Group differentiated the impact according to the macroeconomic scenario and the effect according to the carbon policy scenario, projected the future balance sheet of each company, and recognized the implications for credit rating by applying Shinhan Financial Group's credit rating model to the projected balance sheet. Based on the credit rating, it analyzed risk-weighted assets (RWA), expected losses, etc., and estimated the impact on Shinhan Financial Group's capital ratio in five-year increments up to 2050.</p>
Physical climate scenarios	RCP 8.5	Portfolio	<Not Applicable>	<p>Shinhan Financial Group has developed its own scenario analysis model that considers South Korea's climatic environment, using the frequency and severity of expected relative loss amount, and conducted impact analysis.</p> <p>- Parameter and Assumption The natural disaster predicted for scenario analysis was "heavy rain and typhoon," accounting for the most significant proportion of domestic natural disaster losses. The group applied the (1) Representative Concentration Pathway (RCP) scenario used in the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report and the (2) Shared Socioeconomic Pathway (SSP) scenario used in the IPCC Sixth Assessment Report, specifically the high emissions (8.5) scenario.</p> <p>(1) RCP 8.5 : A scenario in which the concentration of greenhouse gases is predicted by the amount of radiation that human activities affect the atmosphere, resulting in a CO2 concentration of 940 ppm in 2100 by emitting greenhouse gases at the current trend. (2) SSP 8.5 : A scenario in which the radiative forcing will be 8.5W/m2 in 2100, assuming that the use of fossil fuels is high and indiscriminate development centered on cities will be expanded, focusing on the rapid development of industrial technology.</p> <p>For the physical risk analysis, Shinhan derived a relationship equation between precipitation and heavy rain or typhoon damage to estimate the frequency and magnitude of abnormal weather damage in Korea. Afterward, it calculated the annual physical capital loss rate per region by 2050 using Korea's maximum daily precipitation and total tangible assets.</p> <p>- Analysis Shinhan determined the impact on the Group's capital ratio in five-year increments by 2050, reflecting changes in the leverage ratio due to changes in a company's tangible assets, the effect of corresponding changes in credit ratings, and changes in the expected loss (loss given default [LGD]) reflecting the depreciation of collateral assets in the event of default.</p>

C3.2b

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

**Row 1**

**Focal questions**

The problem that the SFG ultimately wants to solve through climate change scenario analysis is to find the direction of portfolio adjustment. As climate change is a major risk and opportunity factor that fluctuates corporate asset values, financial services companies must proactively understand the impact of climate change on their portfolios and adjust appropriately. The prediction of changes in the financial soundness of the portfolio due to climate change needs to be analyzed for the transition to an eco-friendly portfolio. Shinhan Financial Group considers the "capital ratio (BIS ratio)" a primary indicator for evaluating financial stability. The Group assesses the impact on the capital ratio by analyzing risk-weighted assets (RWA) and expected losses resulting from changes in credit ratings and default rates. The effect of transition risk on the capital ratio is estimated using scenarios provided by the Network for Greening the Financial System (NGFS). In addition to direct risks, financial institutions must identify risks that may arise from the deterioration of corporate customers' operations because of physical damage or the transition to a low-carbon economy. The Group comprehensively analyzes transition and physical risks to prevent and manage complex issues such as credit risk, a market shock, liquidity deterioration, and increased operational risk. Therefore, Shinhan Financial Group conducts financial impact analyses considering the unique characteristics of climate risk and scenarios for both physical and transition risks. The Group has adopted the Representative Concentration Pathways (RCP) and Shared Socioeconomic Pathways (SSP) scenarios proposed by the IPCC, which are appropriate for analyzing the financial impact of physical risks and reflect the characteristics of individual countries and regions.

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

The SFG conducted scenario analysis in two ways to understand the impact of climate change on its portfolio. The results according to the scenario analysis are as follows.

① NGFS Scenario – Transition risk

Shinhan Financial Group estimated the change in the BIS ratio based on the scenarios provided by the NGFS. The Group's capital ratio is expected to decrease by up to 0.84 percentage points from the 2022 baseline under the "delayed transition" scenario, based on the results of the Group's transition risk scenario analysis of (1) carbon neutrality by 2050, (2) delayed transition, and (3) maintaining current policies. Short-term risks appear lower under current policies, but maintaining current policies is projected to increase global temperatures by approximately 2°C by 2050, significantly increasing potential physical risks and global damages. Therefore, considering the overall climate scenario, efforts are necessary to transition to a low-carbon economy based on the 2050 carbon-neutral scenario.

② RCP, SSP Scenarios – Physical risk

According to Shinhan's physical risk scenario analysis, the Group's capital ratio is expected to decrease by a maximum of 0.01 percentage points from the 2022 baseline under the RCP 8.5 and SSP5-8.5 scenarios. Under the RCP 8.5 scenario, the Group's RWA and provisions are expected to increase by KRW 124.1 billion and KRW 3.9 billion, respectively, by 2050, and under the SSP5-8.5 scenario, they are expected to increase by KRW 209.1 billion and KRW 8.6 billion, respectively. Jeju is expected to be the region most affected by the physical risk, given its significant exposure to the domestic market through Shinhan Financial Group's subsidiary, Jeju Bank, and the extensive damage estimates in the scenario.

Due to data limitations, the impact analysis through 2100 based on the RCP 8.5 and SSP-8.5 scenarios used the physical risk analysis model of S&P Global, a global credit rating agency, to analyze various climate change risks based on the Group's portfolio. This revealed potential financial risks to companies not only from heavy rains and typhoons, which are common risk factors in Korea, but also from heat waves and cold spells. Shinhan intends to expand its analysis of climate-related physical risks it may face because of long-term climate change and incorporate these into decision-making.

**C3.3**

---



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

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	<p>[Analysis of climate-related risks and opportunities and impacts]                      The government's greenhouse gas and energy target management system, greenhouse gas emission trading system(K-ETS), RPS system, and the total building energy management system are being strengthened. Following these policies, environmental changes and consumer perceptions of change and climate change, is increasing. Demand for investment in new and renewable energy power generation projects is increasing such as technology improvement and innovation to support a low-carbon and energy-efficient economy. Investment in low-carbon/high-efficiency facilities and new and renewable energy power generation projects is increasing. We perceive this business change to a low-carbon transition as a new business opportunity to expand eco-friendly financial products and increase investment subsidies.</p> <p>[Case study of strategic Decision]                      By reflecting green financial market growth opportunities through changes in consumer perception about climate change and environmental problems, the SFG is continuously expanding and operating related loan products such as green remodeling secondary maintenance loans, green environmental management excellent company loans, green energy factoring, new green business loan, and new, renewable energy PF.                      As of the end of 2022, the new loans and the PF funding are 261 billion KRW, 906 billion KRW. If loan demand and investment increase by 10 billion KRW, the profit of 149 million KRW is expected to increase.</p> <p>[Time Horizon]                      The SFG plans to achieve 14.8 trillion won in eco-friendly financial support by 2025 and 30 trillion won by 2030 according to the goal of its eco-friendly strategy 'Zero Carbon Drive.</p>
Supply chain and/or value chain	Yes	<p>[Analysis of climate-related risks and opportunities and their impacts]                      As ESG related systems and institutional investors' investments expand around the world, ESG performance, which has been perceived to be relatively inferior, is also improving. According to the relative performance of the ESG index compared to the equity index released by Bloomberg, the ESG index performed well by 1-2% compared to the EUROSTOXX, S&amp; P500 and MSCI General Index.</p> <p>[Case study of strategic Decision]                      Shinhan Asset Management whose investors are Shinhan Life Insurance, Shinhan Bank, Shinhan Investment Corps etc is expanding its ESG investment ratio by keeping up with the trend of expanding the size of global sustainable investments. As a result, it is expected for the return on ESG related funds operated by Shinhan Asset Management to increase, which will improve the expected return of investors such as Shinhan Life Insurance, Shinhan Bank, and Shinhan Investment Corps. For example, the amount of ESG investment (AUM) increased by 1,138billion KRW from 3,069billion KRW as of the end of 2021 to 4,207billion KRW as of the end of 2022. And the profit of 5.7billion KRW is expected to increase due to the expanding ESG investment trend.</p> <p>[Time Horizon]                      Shinhan Asset Management has been engaging with ESG investment target investees since 2020. In 2022, to increase engagement, the scope was expanded from 338 companies to 396 companies. By 2025, the mid-term unit of the Zero Carbon Drive strategy, we plan to promote the engagement of more than 95% of asset management companies in financed emissions portfolio, reflect them in the management process and promote the development and expansion of new investment products through communication with investment companies</p>
Investment in R&D	Yes	<p>[Analysis of climate-related risks and opportunities and impacts]                      Government regulations, such as greenhouse gas energy target management system, greenhouse gas emission trading system, RPS system, and total building energy management are intensifying and low-carbon, eco-friendly technologies are being newly developed to achieve climate change and carbon-neutral goals. The demand for investment in new and renewable energy power generation projects is increasing in line with the expansion of low-carbon technology businesses such as electric cars, energy storage systems (ESS), renewable energy (solar power, wind force, and hydraulic power, etc.), and demand of as well as for a low-carbon/high-efficiency facility is also increasing.                      Moreover, it is necessary to assess and manage the non-financial risks such as environmental and social impact, since investment in companies or businesses that negatively affect climate change could result in loss of operating profit as consumers' interest in climate change increases.</p> <p>[Case study of strategic Decision]                      Surveying and analyzing the technology development trends, market trends, demands of customers, etc. due to climate change periodically, SFG identifies the risk or opportunity factors and reflects them in the decision-making of response strategies in the 'R&amp;D investment area.'                      Shinhan participated in the K-EV100 declaration in 2021, hosted by the Ministry of Environment and Korea Automobile Environment Association. As a result, we made a strategic decision to convert all vehicles operated at our business sites to electric/hydrogen vehicles.                      By 2030, 100% of all owned or leased vehicles will be converted, and about 9% of the total number of corporate vehicles were converted to electric/hydrogen vehicles in 2022.</p> <p>[Time Horizon]                      Shinhan declared the K-EV100 and set a plan to convert the electric or hydrogen vehicle ratio to more than 30% by 2025, more than 70% by 2028, and 100% by 2030.</p>
Operations	Yes	<p>[Analysis of climate-related risks and opportunities and its impacts]                      In particularly, Jeju Bank that an subsidiary of the SFG, is expected to have an operating loss since when exposed to physical damage in the event of acute climate disasters because as most of its branches are located in Jeju Island, which is exposed to the most acute climate change risk in Korea.                      The SFG calculated the financial effect of climate risk on Jeju Bank using an average number of days with heavy rain and annual operating profit in 2022. As Shared Socioeconomic Pathway scenarios(analyzed by the KMA), assuming that the business is closed while 5.4 days with damage caused by heavy rain, an operating profit loss of approximately 584 million KRW is expected.                      (The Operating Profit of Jeju Bank : KRW 27,020,242,635, Average number of business days per year: 250 days)</p> <p>[Case study of strategic Decision]                      To prepare for natural disasters, major subsidiaries of the SFG branches operate individual Disaster Restoration Centers, and regularly carry out climate change research to determine risks and opportunities. We respond to disaster/calamity crisis management through a safety management plan to prepare for physical risks. Shinhan Bank has the 'Disaster/Calamity Crisis Management Guidelines' aimed to prevent damages from natural disasters and respond to such events in a timely manner so as to protect both human and financial resources in advance. Following these guidelines, natural disaster occurrence is reported to the branch manager, who then reports to the head of the sales division and to the safety management office or the department in charge of each disaster situation and related public institutions.                      In case of emergency, the Head of the Crisis Center directly details the CEO about the status of the event and the entire organization is informed to be on call.</p> <p>[Time Horizon]                      For acute risk, the analysis focused on the effects of short-term (1 to 5y) and mid-term (5 to 10y). For chronic risk, the impact on the mid- to long-term (10y ~) was analyzed. The purpose is to identify and prevent buildings and branches vulnerable to acute physical hazards by selecting regions that may have an impact on Shinhan's internal operations. For assets held by the group, the nature and scope of the assets exposed to physical risks were identified and the financial impact was verified.</p>

**C3.4**

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

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Assets	<p>[Revenue] As demands for investment in low-carbon / high efficiency facility, renewable energy generation business, etc., have increased because of government GHG target management system, GHG emission trading system, RPS system, building energy total management system, technology improvement and innovation to support low carbon and energy efficient economy, change of consumer awareness about climate change, etc., SFG continues to operate and expand the related products such as Green remodeling interest subsidy loan, Loan for companies with outstanding green environmental management, Green energy factoring, renewable energy PF etc. As of the end of 2022, the remaining balances of climate change-related loans are 15,319 billion KRW and the company's funding towards renewable energy projects reached 906 billion KRW. If loan demand and investment increase by 10 billion KRW, the profit of 149 million KRW is expected to increase.</p> <p>[Asset] The government will support the provision of eco-friendly vehicles such as electric cars and hybrid cars to achieve the target of reducing greenhouse gas emissions in 2030, and demand for eco-friendly vehicles continues to rise due to improved consumer awareness of climate change. Shinhan Bank and Shinhan Card operates a rental car business, and to meet government policy direction and consumer demand, it must continue to increase the ratio of environmentally-friendly cars among existing gasoline and diesel vehicles. According to Shinhan's ESG 3.0 road map, there are plans to convert approximately 62,843 vehicles to 100% electric or hydrogen by 2030. Assuming that all existing vehicles are replaced with electric vehicles, extra 2,574 billion KRW in addition to the existing purchasing cost is expected to cost, resulting in higher operation expense.</p>

**C3.5**

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

	Identification of spending/revenue that is aligned with your organization's climate transition	Indicate the level at which you identify the alignment of your spending/revenue with a sustainable finance taxonomy
Row 1	Yes, we identify alignment with our climate transition plan	<Not Applicable>

**C3.5a**

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

**Financial Metric**

Revenue/Turnover

**Type of alignment being reported for this financial metric**

Alignment with our climate transition plan

**Taxonomy under which information is being reported**

<Not Applicable>

**Objective under which alignment is being reported**

<Not Applicable>

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

879000000000

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

14.2

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

23.92

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

48.48

**Describe the methodology used to identify spending/revenue that is aligned**

Shinhan Financial Group has announced its carbon neutrality strategy (Zero Carbon Drive) and aims to achieve a total of KRW 30 trillion in green finance sales by 2030. To this end, Shinhan Financial Group categorizes its green finance performance based on the International Capital Market Association (ICMA) Green Bond Principle and the K-Taxonomy. In 2022, the cumulative performance amounted to KRW 8,790 billion, accounting for 14.2% of sales in the auditor's report of Shinhan Financial Group. We plan to increase the proportion in the future with a target of KRW 30,000 billion by 2030.

**C-FS3.6**

**(C-FS3.6) Does the policy framework for your portfolio activities include climate-related requirements for clients/investees, and/or exclusion policies?**

	Policy framework for portfolio activities that include climate-related requirements for clients/investees, and/or exclusion policies	Explain why the policy framework for your portfolio activities do not include climate-related requirements for clients/investees, and/or exclusion policies
Row 1	Yes, our framework includes both policies with climate-related client/investee requirements and climate-related exclusion policies	<Not Applicable>

**(C-FS3.6a) Provide details of the policies which include climate-related requirements that clients/investees need to meet.****Portfolio**

Investing (Asset manager)

**Type of policy**

Risk policy  
 Policy related to other products and services  
 Engagement policy  
 Credit policy

**Portfolio coverage of policy**

100

**Policy availability**

Publicly available

**Attach documents relevant to your policy**

2022년\_신한자산운용\_ESG투자보고서\_심사필.pdf

**Criteria required of clients/investees**

Disclosure of Scope 1 emissions  
 Disclosure of Scope 2 emissions  
 Disclosure of Scope 3 emissions  
 Disclosure of product-related emissions  
 Set a science-based emissions reduction target  
 Set an emissions reduction target  
 Be on track to achieving a science-based emissions reduction target  
 Develop a climate transition plan

**Value chain stages of client/investee covered by criteria**

Direct operations only

**Timeframe for compliance with policy criteria**

Clients/investees must be compliant within the next year

**Industry sectors covered by the policy**

Energy  
 Materials  
 Capital Goods  
 Commercial & Professional Services  
 Transportation  
 Automobiles & Components  
 Consumer Durables & Apparel  
 Consumer Services  
 Retailing  
 Food & Staples Retailing  
 Food, Beverage & Tobacco  
 Household & Personal Products  
 Health Care Equipment & Services  
 Pharmaceuticals, Biotechnology & Life Sciences  
 Software & Services  
 Technology Hardware & Equipment  
 Semiconductors & Semiconductor Equipment  
 Telecommunication Services  
 Media & Entertainment  
 Utilities  
 Real Estate

**Exceptions to policy based on**

&lt;Not Applicable&gt;

**Explain how criteria required, criteria coverage and/or exceptions have been determined**

Shinhan Asset Management is simultaneously implementing a Sustainability Themed Investing strategy based on the ESG integration strategy in domestic stock management. In addition, in the case of bond management, a strategy is prepared and implemented so that ESG approaches can be selected/combined throughout the entire management process, including portfolio construction.

**Portfolio**

Banking (Bank)

**Type of policy**

Credit/lending policy

**Portfolio coverage of policy**

9.3

**Policy availability**

Not publicly available

**Attach documents relevant to your policy**

2022\_engagement policy\_banking.pdf

**Criteria required of clients/investees**

Disclosure of Scope 1 emissions  
Disclosure of Scope 2 emissions

**Value chain stages of client/investee covered by criteria**

Direct operations only

**Timeframe for compliance with policy criteria**

Clients/investees must be compliant within the next 2 years

**Industry sectors covered by the policy**

Energy  
Materials  
Capital Goods  
Commercial & Professional Services  
Transportation  
Automobiles & Components  
Consumer Durables & Apparel  
Consumer Services  
Retailing  
Food & Staples Retailing  
Food, Beverage & Tobacco  
Household & Personal Products  
Health Care Equipment & Services  
Pharmaceuticals, Biotechnology & Life Sciences  
Software & Services  
Technology Hardware & Equipment  
Semiconductors & Semiconductor Equipment  
Telecommunication Services  
Media & Entertainment  
Utilities  
Real Estate

**Exceptions to policy based on**

Transaction size

**Explain how criteria required, criteria coverage and/or exceptions have been determined**

Over 30 billion in general corporate loans and over 50 billion in IB investments

---

**Portfolio**

Investing (Asset owner)

**Type of policy**

Sustainable/Responsible Investment Policy  
Investment policy/strategy

**Portfolio coverage of policy**

100

**Policy availability**

Not publicly available

**Attach documents relevant to your policy**

shinhanlife\_asset policy\_asset owner.pdf

**Criteria required of clients/investees**

Develop a climate transition plan  
Other, please specify (Environmental audits examine whether there are any impacts that could harm the environment.)

**Value chain stages of client/investee covered by criteria**

Direct operations only

**Timeframe for compliance with policy criteria**

Complying with criteria is a pre-requisite for business

**Industry sectors covered by the policy**

Energy  
Materials  
Capital Goods  
Commercial & Professional Services  
Transportation  
Automobiles & Components  
Consumer Durables & Apparel  
Consumer Services  
Retailing  
Food & Staples Retailing  
Food, Beverage & Tobacco  
Household & Personal Products  
Health Care Equipment & Services  
Pharmaceuticals, Biotechnology & Life Sciences  
Software & Services  
Technology Hardware & Equipment  
Semiconductors & Semiconductor Equipment  
Telecommunication Services  
Media & Entertainment

Utilities  
Real Estate

**Exceptions to policy based on**

<Not Applicable>

**Explain how criteria required, criteria coverage and/or exceptions have been determined**

The Company considers the following in its overall investment:

1. Matters concerning stock management: Invest in consideration of the impact of each individual stock on the environment, society, and governance (ESG).
2. Matters related to bond management: In selecting bond stocks, in addition to duration, yield, and credit rating, ESG factors are also considered for investment.
3. Matters concerning alternative investment management:

When investing in infrastructure, by considering investment in new and renewable and high-efficiency energy-related assets or related companies, it contributes to smooth capital procurement and related technological innovation for eco-friendly projects, and considers the effect of support for social welfare and low-income people related to low-income housing, health, and education.

C-FS3.6b

**(C-FS3.6b) Provide details of your exclusion policies related to industries and/or activities exposed or contributing to climate-related risks.**

**Portfolio**

Banking (Bank)

**Type of exclusion policy**

All Coal

**Year of exclusion implementation**

2021

**Timeframe for complete phase-out**

By 2050

**Application**

New business/investment for new projects

**Country/Area/Region the exclusion policy applies to**

Republic of Korea

**Description**

SFG is the first financial group in Korea to setting "Environmental and Social Risk Management Policy Framework(ESRM)", which defines the objective, rules, major tasks and R&R. In 2018, SFG set the 'ESRM' and keep managing this 'ESRM' currently.

ESRM refers that a series of activities to recognize, evaluate, and manage the impact of economic activities on the environmental and society of financial service provides. SFG selected 12 significant environmental/social areas that may have a harmful or sensitive impact in environmental/social aspect, and manage loans that are handled in the respective areas through more detailed monitoring.

Also, SFG established conditional financial standards for illegal activities and the construction of coal power plants, and set a management procedure that consists of environmental/social risk assessment of large scale project financing, and reflection of mitigation measures in financial contracts, if necessary.

In March 2021, Shinhan Bank officially declared "Exiting Coal Financing" by participating in the 'Climate Finance Support Declaration Ceremony' hosted by the KoSIF(Korea Sustainability Investing Forum).

A definition of 'Exiting Coal Financing' is below;

- Shinhan Bank will not provide project financing to the construction of new coal-fired power plants, for domestic and global.
- Shinhan Bank will not underwrite bonds issued by a special purpose company(SPC) for the construction of coal-fired power plants, for domestic and global.
- Shinhan Bank will not underwrite any other bonds issued for the purpose of the construction of coal-fired power plants, for domestic and global.

C-FS3.7

**(C-FS3.7) Does your organization include climate-related requirements in your selection process and engagement with external asset managers?**

	Climate-related requirements included in selection process and engagement with external asset managers	Primary reason for not including climate-related requirements in selection process and engagement with external asset managers	Explain why climate-related requirements are not included in selection process and engagement with external asset managers and your plans for the future
Row 1	Yes	<Not Applicable>	<Not Applicable>

C-FS3.7a

**(C-FS3.7a) Provide details of the climate-related requirements included in your selection process and engagement with external asset managers.**

**Coverage**

Majority of assets managed externally

**Mechanisms used to include climate-related requirements in external asset manager selection**

Include climate-related requirements in investment mandates

Include climate-related requirements in requests for proposals

Review investment manager's climate performance (e.g., active ownership, proxy voting records, under-weighting in high impact activities)

Review investment manager's climate-related policies

**Describe how you monitor and engage with asset managers to ensure investment activities are consistent with your climate strategy**

ESG evaluation items have been added to the evaluation table for external asset manager selection, and the evaluation is judged with a weight of 10 out of 100.

- Check whether the manager has enacted or has ESG-related regulations and guidelines

- Check whether to join ESG-related certifications and initiatives

- Check whether investment against ESG is prohibited

**C-FS3.8**

**(C-FS3.8) Does your organization include covenants in financing agreements to reflect and enforce your climate-related policies?**

	Climate-related covenants in financing agreements	Primary reason for not including climate-related covenants in financing agreements	Explain why your organization does not include climate-related covenants in financing agreements and your plans for the future
Row 1	Yes	<Not Applicable>	<Not Applicable>

**C-FS3.8a**

**(C-FS3.8a) Provide details of the covenants included in your organization's financing agreements to reflect and enforce your climate-related policies.**

Types of covenants used	Asset class/product types	Coverage of covenants	Please explain
Purpose or use of proceeds clause refers to sustainable project Margin or pricing depends on sustainability criteria Covenants related to compliance with your policies	Corporate loans Retail loans	New business/investment for all projects	National NDC reduction pathway policy and carbon neutrality: To implement the group's carbon-neutral initiative, we are operating loan support and preferential interest rate products when eco-friendly conditions set by laws or related organizations are met to reduce greenhouse gas and energy. A total of 15 products (four eco-friendly guarantee loans, five eco-only loans, and six eco-friendly policy fund loans) are in operation. As of 2022, we achieved a total loan of KRW 261 billion.

**C4. Targets and performance**

**C4.1**

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

Absolute target

Portfolio target

**C4.1a**

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

**Target reference number**

Abs 2

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1  
Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2020

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

15419

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

81392.5

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

96811.4

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

100

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

100

**Base year Scope 3, Category 1: Purchased goods and services emissions covered by target as % of total base year emissions in Scope 3, Category 1:**

**Purchased goods and services (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2030

**Targeted reduction from base year (%)**

42

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

56150.612

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

14697

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

85382.7

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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



<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100079.8

**Does this target cover any land-related emissions?**

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

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

-8.03821116304979

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

It is a company-wide reduction target including all group company's greenhouse gas emissions. This target is aligned with the 2044 carbon neutrality long-term target. Greenhouse gas removal due to bioenergy combustion is not included in the implementation of greenhouse gas reduction.

**Plan for achieving target, and progress made to the end of the reporting year**

The SFG will reduce its internal carbon emissions by 42% in 2030 and 84% in 2040 using scientific tools based on the Paris climate agreement (1.5°C scenario) suggested by the Scientific-Based Reduction Target Initiative (SBTi), and we plan to achieve net zero by 2044.

Electricity used by large Shinhan Bank branches accounts for approximately 80% of emitted internal carbon emissions. Accordingly, Shinhan Bank is focusing on the large buildings of the main branch through reduction activities such as efficiency improvement of air-conditioning and air-conditioning facilities. We have been monitoring the implementation and performance carbon emission reduction since 2017 and have reduced energy by 5% per year.

In addition, by 2030, the group's business vehicles are being expanded from gasoline vehicles to pollution-free vehicles such as electric and hydrogen vehicles, and plan to achieve our internal carbon reduction target by purchasing a carbon emission certificate (REC) or green tariff.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

---

**Target reference number**

Abs 3

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2020

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

15419

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

81392.5

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

96811.4

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

100

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

100

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

&lt;Not Applicable&gt;

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2040

**Targeted reduction from base year (%)**

84

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

15489.824

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

14697

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

85382.7

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100079.8

**Does this target cover any land-related emissions?**

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

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

-4.01910558152489

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

It is a company-wide reduction target including all group company's greenhouse gas emissions. This target is aligned with the 2044 carbon neutrality long-term target. Greenhouse gas removal due to bioenergy combustion is not included in the implementation of greenhouse gas reduction.

**Plan for achieving target, and progress made to the end of the reporting year**

The SFG will reduce its internal carbon emissions by 42% in 2030 and 84% in 2040 using scientific tools based on the Paris climate agreement (1.5°C scenario) suggested by the Scientific-Based Reduction Target Initiative (SBTi), and we plan to achieve net zero by 2044.

Electricity used by large Shinhan Bank branches accounts for approximately 80% of emitted internal carbon emissions. Accordingly, Shinhan Bank is focusing on the large buildings of the main branch through reduction activities such as efficiency improvement of air-conditioning and air-conditioning facilities. We have been monitoring the implementation and performance carbon emission reduction since 2017 and have reduced energy by 5% per year.

In addition, by 2030, the group's business vehicles are being expanded from gasoline vehicles to pollution-free vehicles such as electric and hydrogen vehicles, and plan to achieve our internal carbon reduction targets by purchasing a carbon emission certificate (REC) or green tariff.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

**Target reference number**

Abs 4

**Is this a science-based target?**

Yes, and this target has been approved by the Science Based Targets initiative

**Target ambition**

1.5°C aligned

**Year target was set**

2020

**Target coverage**

Company-wide

**Scope(s)**

Scope 1

Scope 2

**Scope 2 accounting method**

Location-based

**Scope 3 category(ies)**

<Not Applicable>

**Base year**

2020

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

15419

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

81392.5

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

96811.4

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

100

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

100

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 8: Upstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 8: Upstream leased assets (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 10: Processing of sold products emissions covered by target as % of total base year emissions in Scope 3, Category 10: Processing of sold products (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Base year Scope 3, Category 13: Downstream leased assets emissions covered by target as % of total base year emissions in Scope 3, Category 13: Downstream leased assets (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 14: Franchises emissions covered by target as % of total base year emissions in Scope 3, Category 14: Franchises (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Category 15: Investments emissions covered by target as % of total base year emissions in Scope 3, Category 15: Investments (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (upstream) emissions covered by target as % of total base year emissions in Scope 3, Other (upstream) (metric tons CO2e)**

<Not Applicable>

**Base year Scope 3, Other (downstream) emissions covered by target as % of total base year emissions in Scope 3, Other (downstream) (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100

**Target year**

2044

**Targeted reduction from base year (%)**

100

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

0

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

14697

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

85382.7

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 8: Upstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 10: Processing of sold products emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 13: Downstream leased assets emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

**Scope 3, Category 15: Investments emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (upstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

**Scope 3, Other (downstream) emissions in reporting year covered by target (metric tons CO2e)**

<Not Applicable>

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

<Not Applicable>

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

100079.8

**Does this target cover any land-related emissions?**

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

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

-3.37604868848091

**Target status in reporting year**

Underway

**Please explain target coverage and identify any exclusions**

It is a company-wide reduction target including all group company's greenhouse gas emissions. This target is aligned with the 2044 carbon neutrality long-term target. Greenhouse gas removal due to bioenergy combustion is not included in the implementation of greenhouse gas reduction.

**Plan for achieving target, and progress made to the end of the reporting year**

The SFG will reduce its internal carbon emissions by 42% in 2030 and 84% in 2040 using scientific tools based on the Paris climate agreement (1.5°C scenario) suggested by the Scientific-Based Reduction Target Initiative (SBTi), and we plan to achieve net zero by 2044.

Electricity used by large Shinhan Bank branches accounts for approximately 80% of emitted internal carbon emissions. Accordingly, Shinhan Bank is focusing on the large buildings of the main branch through reduction activities such as efficiency improvement of air-conditioning and air-conditioning facilities. We have been monitoring the implementation and performance carbon emission reduction since 2017 and have reduced energy by 5% per year.

In addition, by 2030, the group's business vehicles are being expanded from gasoline vehicles to pollution-free vehicles such as electric and hydrogen vehicles, and plan to achieve our internal carbon reduction targets by purchasing a carbon emission certificate (REC) or green tariff.

**List the emissions reduction initiatives which contributed most to achieving this target**

<Not Applicable>

---

C-FS4.1d

**(C-FS4.1d) Provide details of the climate-related targets for your portfolio.**

**Target reference number**

Por1

**Year target was set**

2022

**Portfolio**

Banking (Bank)

**Product type/Asset class/Line of business**

Corporate loans

**Sectors covered by the target**

Real estate

**Target type**

Sector Decarbonization Approach (SDA)

**Target type: Absolute or intensity**

Absolute

**Scopes included in temperature alignment**

<Not Applicable>

**Metric (or target numerator if intensity)**

Metric tons CO2e

**Target denominator**

<Not Applicable>

**Base year**

2020

**Figure in base year**

705202

**Percentage of portfolio emissions covered by the target**

2

**Monetary metric for portfolio coverage (unit currency as reported in C0.4)**

Assets under management

**Percentage of portfolio covered by the target, using a monetary metric**

100

**Frequency of target reviews**

Quarterly

**Interim target year**

**Figure in interim target year**

**Target year**

2030

**Figure in target year**

421905

**Figure in reporting year**

592559

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

39.7614517626378

**Aggregation weighting used**

<Not Applicable>

**Proportion of portfolio emissions calculated in the reporting year based on asset level data**

100

**Proportion of the temperature score calculated in the reporting year based on company targets**

<Not Applicable>

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, and this target has been approved by the Science-Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established and approved group's standard targets based on SBTi "Financial sector science-based targets." This target is for the Corporate loan: commercial real estate asset class.

SFG commits to reduce GHG emissions from the commercial real estate sector within its corporate loan portfolio 52% per square meter by 2030 from a 2020 base year.

---

**Target reference number**

Por2

**Year target was set**

2022

**Portfolio**

Banking (Bank)

**Product type/Asset class/Line of business**

Project finance

**Sectors covered by the target**

Other, please specify (Electricity generation)

**Target type**

Sector Decarbonization Approach (SDA)

**Target type: Absolute or intensity**

Absolute

**Scopes included in temperature alignment**

<Not Applicable>

**Metric (or target numerator if intensity)**

Metric tons CO2e

**Target denominator**

<Not Applicable>

**Base year**

2020

**Figure in base year**

917283



**Percentage of portfolio emissions covered by the target**

3

**Monetary metric for portfolio coverage (unit currency as reported in C0.4)**

Assets under management

**Percentage of portfolio covered by the target, using a monetary metric**

57

**Frequency of target reviews**

Quarterly

**Interim target year****Figure in interim target year****Target year**

2030

**Figure in target year**

254062

**Figure in reporting year**

1965375

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

-158.030581058199

**Aggregation weighting used**

&lt;Not Applicable&gt;

**Proportion of portfolio emissions calculated in the reporting year based on asset level data**

82

**Proportion of the temperature score calculated in the reporting year based on company targets**

&lt;Not Applicable&gt;

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, and this target has been approved by the Science-Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established and approved group's standard targets based on SBTi "Financial sector science-based targets." This target is for the Corporate loan: commercial real estate asset class.

SFG commits to reduce its electricity generation project finance portfolio GHG emissions 76% per kWh by 2030 from a 2020 base year.

---

**Target reference number**

Por3

**Year target was set**

2022

**Portfolio**

Banking (Bank)

**Product type/Asset class/Line of business**

Corporate loans

**Sectors covered by the target**

Transportation

Other, please specify (electricity generation, iron and Steel, cement, aluminum, paper and pulp)

**Target type**

Sector Decarbonization Approach (SDA)

**Target type: Absolute or intensity**

Absolute

**Scopes included in temperature alignment**

&lt;Not Applicable&gt;

**Metric (or target numerator if intensity)**

Metric tons CO2e

**Target denominator**

&lt;Not Applicable&gt;

**Base year**

2020

**Figure in base year**

3396778

**Percentage of portfolio emissions covered by the target**

10

**Monetary metric for portfolio coverage (unit currency as reported in C0.4)**

Assets under management

**Percentage of portfolio covered by the target, using a monetary metric**

10

**Frequency of target reviews**

Quarterly

**Interim target year****Figure in interim target year****Target year**

2030

**Figure in target year**

2380003

**Figure in reporting year**

13653718

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

-1008.77185217969

**Aggregation weighting used**

<Not Applicable>

**Proportion of portfolio emissions calculated in the reporting year based on asset level data**

93

**Proportion of the temperature score calculated in the reporting year based on company targets**

<Not Applicable>

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, and this target has been approved by the Science-Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established and approved group's standard targets based on SBTi "Financial sector science-based targets." This target is for the Corporate loan: commercial real estate asset class.

When setting targets based on SBTi, Shinhan Financial Group set targets for each sector within loans, bonds, and stocks, and the sectors for which the target was set are electricity generation, iron and steel, cement, aluminum, paper and pulp, and transportation.

[Intensity targets by sector]

Electricity generation : 76% GHG reduction per KWh by 2030 compared to 2020

Iron and Steel : 43% GHG reduction per ton of steel production by 2030 compared to 2020

Cement : 24% GHG reduction per ton of cement production by 2030 compared to 2020

Aluminum: 17% GHG reduction per ton of aluminum production by 2030 compared to 2020

Paper and Pulp : 33% GHG reduction per ton of paper and pulp production by 2030 compared to 2020

Passenger transport : 34% GHG reduction per passenger km by 2030 compared to 2020

Freight transport : 37% GHG reduction per ton km by 2030 compared to 2020

**Target reference number**

Por4

**Year target was set**

2022

**Portfolio**

Investing (Asset owner)

**Product type/Asset class/Line of business**

Fixed income

Listed equity

**Sectors covered by the target**

Transportation

Other, please specify (electricity generation, iron and Steel, cement, aluminum, paper and pulp)

**Target type**

Sector Decarbonization Approach (SDA)

**Target type: Absolute or intensity**

Absolute

**Scopes included in temperature alignment**

<Not Applicable>

**Metric (or target numerator if intensity)**

Metric tons CO2e

**Target denominator**

<Not Applicable>

**Base year**

2020

**Figure in base year**

5645491

**Percentage of portfolio emissions covered by the target**

69

**Monetary metric for portfolio coverage (unit currency as reported in C0.4)**

Assets under management

**Percentage of portfolio covered by the target, using a monetary metric**

8

**Frequency of target reviews**

Quarterly

**Interim target year****Figure in interim target year****Target year**

2030

**Figure in target year**

1766948

**Figure in reporting year**

5071661

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

14.7949887367499

**Aggregation weighting used**

&lt;Not Applicable&gt;

**Proportion of portfolio emissions calculated in the reporting year based on asset level data**

96

**Proportion of the temperature score calculated in the reporting year based on company targets**

&lt;Not Applicable&gt;

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, and this target has been approved by the Science-Based Targets initiative

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established and approved group's standard targets based on SBTi "Financial sector science-based targets." This target is for the Corporate loan: commercial real estate asset class.

When setting targets based on SBTi, Shinhan Financial Group set targets for each sector within loans, bonds, and stocks, and the sectors for which the target was set are electricity generation, iron and steel, cement, aluminum, paper and pulp, and transportation.

[Intensity targets by sector]

Electricity generation : 76% GHG reduction per kWh by 2030 compared to 2020

Iron and Steel : 43% GHG reduction per ton of steel production by 2030 compared to 2020

Cement : 24% GHG reduction per ton of cement production by 2030 compared to 2020

Aluminum: 17% GHG reduction per ton of aluminum production by 2030 compared to 2020

Paper and Pulp : 33% GHG reduction per ton of paper and pulp production by 2030 compared to 2020

Passenger transport : 34% GHG reduction per passenger km by 2030 compared to 2020

Freight transport : 37% GHG reduction per ton km by 2030 compared to 2020

**Target reference number**

Por5

**Year target was set**

2022

**Portfolio**

Investing (Asset manager)

**Product type/Asset class/Line of business**

Fixed income

Listed equity

**Sectors covered by the target**

All sectors

**Target type**

Portfolio emissions

**Target type: Absolute or intensity**

Absolute

**Scopes included in temperature alignment**

<Not Applicable>

**Metric (or target numerator if intensity)**

tCO2e

**Target denominator**

<Not Applicable>

**Base year**

2020

**Figure in base year**

4091271

**Percentage of portfolio emissions covered by the target**

100

**Monetary metric for portfolio coverage (unit currency as reported in C0.4)**

Assets under management

**Percentage of portfolio covered by the target, using a monetary metric**

100

**Frequency of target reviews**

Quarterly

**Interim target year**

**Figure in interim target year**

**Target year**

2030

**Figure in target year**

2712513

**Figure in reporting year**

3960068

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

9.51602819349008

**Aggregation weighting used**

<Not Applicable>

**Proportion of portfolio emissions calculated in the reporting year based on asset level data**

100

**Proportion of the temperature score calculated in the reporting year based on company targets**

<Not Applicable>

**Target status in reporting year**

New

**Is this a science-based target?**

Yes, we consider this a science-based target, and we have committed to seek validation of this target by the Science-based target initiative in the next two years

**Target ambition**

1.5°C aligned

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established and approved group's standard targets based on SBTi "Financial sector science-based targets."

Shinhan Financial Group has established financed emission reduction targets that include all asset classes that are excluded from the SBTi target approval but whose financed emissions can be calculated in accordance with PCAF Guidance in order to strengthen climate action plan and practice more active Net-Zero. The SBTi's Sectoral Decarbonization Approach (SDA) was used to set the target, and the Absolute Contraction Approach (ACA) was applied for sectors where SDA is difficult to apply. In accordance with this methodology, Shinhan Financial Group aims to reduce financed emissions from SFG's group asset portfolio by 33.7% by 2030, by 59.5% by 2040, and 83% by 2050.

---

C4.2

---

**(C4.2) Did you have any other climate-related targets that were active in the reporting year?**

Net-zero target(s)

---

C4.2c

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

**Target reference number**

NZ1

**Target coverage**

Company-wide

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

Abs2

Abs3

Abs4

**Target year for achieving net zero**

2044

**Is this a science-based target?**

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

**Please explain target coverage and identify any exclusions**

The internal greenhouse gas reduction target was established by reflecting the reduction level required by SBTi 1.5°C.

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

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

Through the SBTi methodology which conforms to the Paris Agreement, SFG set the net-zero target. The group plans to reduce its own carbon emissions by 42% in 2030 and 84% in 2040 compared to 2020.

Shinhan plans to continuously review expanding participation in the eco-friendly PF and emission permit markets to reduce internal emissions from 2022. We are planning to reduce internal emissions by promoting projects to secure RECs or purchasing green premium electricity, as well as expanding investment/support for eco-friendly new technologies.

Among internal facilities, we plan to review infrastructure construction that can produce renewable energy for remodeling. Shinhan assigns the internal carbon emission target set at the group level to each group company as a strategic task, and the target achievement is reflected in the evaluation. Each group company voluntarily submits an achievement plan every quarter for the annual 4.2% reduction target.

**Planned actions to mitigate emissions beyond your value chain (optional)**

-

---

**Target reference number**

NZ2

**Target coverage**

Product-level

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

Por1

Por2

Por3

Por4

Por5

**Target year for achieving net zero**

2050

**Is this a science-based target?**

Yes, we consider this a science-based target, but we have not committed to seek validation of this target by the Science Based Targets initiative within the next two years

**Please explain target coverage and identify any exclusions**

Shinhan Financial Group has established the standard targets for group based on SBTi "Financial sector science-based targets guidance" and completed the approval of the near-term targets.

As SBTi-FI's Net-Zero Guidance has not been finalized, SBTi's Sectoral Decarbonization Approach (SDA) and Absolute Contraction Approach (ACA) were applied to establish Net-Zero targets.

As the reduction target was established by applying SBTi methodology, it is assumed that the target is equivalent to the science-based reduction target. With this target, we will reduce financed emissions by 33.7% in 2030, 59.5% in 2040, and 83% in 2050. We plan to make residual emissions net zero by reflecting offsetting measures such as eco-friendly financial investments.

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

Yes

**Planned milestones and/or near-term investments for neutralization at target year**

Through the SBTi methodology which conforms to the Paris Agreement, SFG set the net-zero target. The group plans to reduce its own carbon emissions by 42% in 2030 and 84% in 2040 compared to 2020 and reduce carbon emissions of asset portfolio by 33.7% in 2030 and 59.5% in 2040 compared to 2020.

If the SFG's financed emissions target for 2050 is achieved, approximately 17% (about 8million ton) residual emissions will remain. Currently, Shinhan has a plan to expand investments through the formation of a dedicated fund for eco-friendly companies including climate technology. As of '22, Shinhan has made about 1.5159 trillion won in eco-friendly investments. Moreover, the offset plan through forest conservation financial investment mentioned in the Leaf Coalition is under review.

**Planned actions to mitigate emissions beyond your value chain (optional)**

-

---

**C4.3**

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	1	318.8
Implementation commenced*	1	39.7
Implemented*	2	1235.6
Not to be implemented	0	0

C4.3b

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

**Initiative category & Initiative type**

Transportation	Company fleet vehicle replacement
----------------	-----------------------------------

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

172.4

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

Scope 1

**Voluntary/Mandatory**

Voluntary

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

84890082

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

8850000000

**Payback period**

>25 years

**Estimated lifetime of the initiative**

6-10 years

**Comment**

[Replacing business vehicles with electric vehicles]

- Environmental pollution was reduced by replacing business vehicles with 124 new electric vehicles.
- The estimated annual carbon emission reduction is 172.4 tons.

(Note) CO2 emissions amount per km

1. General gasoline vehicle : 192g
2. Electric vehicle : 53g
3. Reduction amount per 10,000km, 1 unit of vehicle : 1,390 kg
4. Reduction amount per 10,000km, 124 unit of vehicle : 172,360 kg

**Initiative category & Initiative type**

Energy efficiency in buildings	Lighting
--------------------------------	----------

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

1063.2

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

Scope 2 (location-based)

**Voluntary/Mandatory**

Voluntary

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

321924225

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

2271000000

**Payback period**

4-10 years

**Estimated lifetime of the initiative**

3-5 years

**Comment**

[Introduction of LED lighting]

Number of LED replacement : 18,515EA

LED Capacity : 50W

Light Capacity before LED replacement : 100W

Reduction amount of power usage per year :  $(100W - 50W) \times (250d \times 10h) \times 18,515EA = 2,314.4 \text{ MWh}$

Reduction amount of GHG emission per year : 1,063.2 tCO2e

**C4.3c**

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

Method	Comment
Employee engagement	To raise employees' awareness on the environmental issues, Shinhan Bank holds various activities including surveys, quizzes, and pledges. Also, all employees enroll in the on-line training session on green management every year.
Dedicated budget for energy efficiency	SFG invested approximately 2.27 billion KRW per year to replace the lights of the headquarter and other business branches with the more energy-efficient LED lights and 14.1 billion KRW in addition to purchase IT products that are certified as environmentally friendly.
Dedicated budget for other emissions reduction activities	SFG declared 'Zero Carbon-Zero Fuel', a project to replace a total of 62,843 units of the group's business vehicles to zero-emission vehicles such as electric and hydrogen vehicles. This is part of the group's eco-friendly strategy, 'Zero Carbon Drive'. SFG has replaced 117 of its 2,012 corporate vehicles with electric/hydrogen vehicles in 2022, accounting for about 9% of corporate vehicles. Assuming that all existing vehicles are replaced with electric vehicles, an additional cost of approximately KRW 92 billion is expected.

**C-FS4.5**

**(C-FS4.5) Do any of your existing products and services enable clients to mitigate and/or adapt to the effects of climate change?**

Yes

**C-FS4.5a**

**(C-FS4.5a) Provide details of your existing products and services that enable clients to mitigate and/or adapt to climate change, including any taxonomy used to classify the products(s).**

**Product type/Asset class/Line of business**

Investing	Real estate/Property
-----------	----------------------

**Taxonomy or methodology used to classify product**

Externally classified using other taxonomy or methodology, please specify (K-Taxonomy)

**Description of product**

Shinhan Alpa REITs: This product contributes to the energy cost reduction in buildings and environmental costs by acquiring eco-friendly building (LEED) certification for real estate assets operated by Shinhan REITs Management. The new Shinhan Alpa REITs operating amount in 2021 was 130 billion won, and the new operating amount in 2022 was 431 billion won.

**Product enables clients to mitigate and/or adapt to climate change**

Mitigation

**Portfolio value (unit currency – as specified in C0.4)**

431000000000

**% of total portfolio value**

2.3

**Type of activity financed/insured or provided**

Green buildings and equipment

**Product type/Asset class/Line of business**

Banking	Project finance
---------	-----------------

**Taxonomy or methodology used to classify product**

Externally classified using other taxonomy or methodology, please specify (K-Taxonomy)

**Description of product**

Solar, Waste, wind and other renewable energy Power Project Investment: We provide advisory services and/or invest in various projects in the solar, waste, wind and other renewable energy generation sector both in and outside of Korea, as efforts to achieve GHG emissions reduction by contributing to less use of fossil fuel in generation plants. (Scope 1, 2 emissions reduction)

**Product enables clients to mitigate and/or adapt to climate change**

Mitigation

**Portfolio value (unit currency – as specified in C0.4)**

906000000000

**% of total portfolio value**

43.3

**Type of activity financed/insured or provided**

Renewable energy

**C5. Emissions methodology**



C5.1

**(C5.1) Is this your first year of reporting emissions data to CDP?**

No

C5.1a

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

**Row 1**

**Has there been a structural change?**

Yes, an acquisition

**Name of organization(s) acquired, divested from, or merged with**

Shinhan EZ General Insurance

**Details of structural change(s), including completion dates**

On June 30, 2022, BNP Paribas Cardif General Insurance changed its name to 'Shinhan EZ General Insurance' as it was incorporated into Shinhan Financial Holdings. 'Shinhan EZ General Insurance' was newly included in Shinhan Financial Group's boundary, and GHG emissions were recalculated from the base year.

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	In the process of declaring RE100 in 2023, Shinhan Financial Group has expanded the scope of the Group's emission measurement. As a result, the scope of the report includes all business sites within the operational control of 16 subsidiaries.

C5.1c

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

	Base year recalculation	Scope(s) recalculated	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	Yes	Scope 1 Scope 2, location-based Scope 3	Shinhan Financial Group considers a change in boundary to be a significant change that requires the base year emissions to be recalculated. In the process of declaring RE100 in 2023, Shinhan Financial Group has expanded the scope of the Group's emission measurement. The scope of GHG and energy usage, which was previously measured mainly at the headquarters of Card, Securities, Life, and Jeju Bank, was expanded to include small operations such as branches and customer service center, etc.  In addition, in the event of changes due to a merger, acquisition, etc. of an organization, it is determined that a significant structural change has occurred and the base year emissions are recalculated. On June 30, 2022, 'Shinhan EZ General Insurance' was included as a new subsidiary of the Group, which expanded the boundary, so additional GHG emissions were calculated and reflected in the base year emissions.	Yes

C5.2

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

**Scope 1**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

15419

**Comment**

**Scope 2 (location-based)**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

81392.5

**Comment**

**Scope 2 (market-based)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 1: Purchased goods and services**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

3200.5

**Comment**

**Scope 3 category 2: Capital goods**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

778

**Comment**

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

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

7336.6

**Comment**

**Scope 3 category 4: Upstream transportation and distribution**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

479

**Comment**

**Scope 3 category 5: Waste generated in operations**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

627.3

**Comment**

**Scope 3 category 6: Business travel**

**Base year start**

January 1 2020

**Base year end**

December 31 2020

**Base year emissions (metric tons CO2e)**

96.7

**Comment**

**Scope 3 category 7: Employee commuting**

**Base year start**  
January 1 2020

**Base year end**  
December 31 2020

**Base year emissions (metric tons CO2e)**  
14575.1

**Comment**

**Scope 3 category 8: Upstream leased assets**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 9: Downstream transportation and distribution**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 10: Processing of sold products**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 11: Use of sold products**

**Base year start**  
January 1 2020

**Base year end**  
December 31 2020

**Base year emissions (metric tons CO2e)**  
3295.8

**Comment**

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

**Base year start**  
January 1 2020

**Base year end**  
December 31 2020

**Base year emissions (metric tons CO2e)**  
249.1

**Comment**

**Scope 3 category 13: Downstream leased assets**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3 category 14: Franchises**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (upstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**Scope 3: Other (downstream)**

**Base year start**

**Base year end**

**Base year emissions (metric tons CO2e)**

**Comment**

**C5.3**

---

**(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.**

- Korea GHG and Energy Target Management System Operating Guidelines
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- The Greenhouse Gas Protocol: Scope 2 Guidance
- The Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Standard
- Other, please specify (Partnership for Carbon Accounting Financials(PCAF))

**C6. Emissions data**

---

**C6.1**

---

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

**Reporting year**

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

14697

**Start date**

January 1 2022

**End date**

December 31 2022

**Comment**

**Past year 1**

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

15175.5

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

**Past year 2**

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

15419

**Start date**

January 1 2020

**End date**

December 31 2020

**Comment**

**C6.2**

---

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

**Row 1**

**Scope 2, location-based**

We are reporting a Scope 2, location-based figure

**Scope 2, market-based**

We 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

**Comment**

**C6.3**

---

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

**Reporting year**

**Scope 2, location-based**

85382.7

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2022

**End date**

December 31 2022

**Comment**

**Past year 1**

**Scope 2, location-based**

86012.9

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2021

**End date**

December 31 2021

**Comment**

**Past year 2**

**Scope 2, location-based**

81392.5

**Scope 2, market-based (if applicable)**

<Not Applicable>

**Start date**

January 1 2020

**End date**

December 31 2020

**Comment**

**C6.4**

---

**(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?**

No

**C6.5**

---

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

## Purchased goods and services

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

1428.8

### Emissions calculation methodology

Average product method

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

0

### Please explain

[Printing papers]

- Calculation method: paper usage x emission factor
- Paper usage: 1064.3ton
- Emission factor: 1.12kgCO<sub>2</sub>e/kg (National LCI DB)

[Credit cards]

- Calculation method: No. of credit cards issued x emission factor
- No. of credit cards issued: 66.8ton
- Emission factor: 1,341KgCO<sub>2</sub>e/unit (National LCI DB)

[Bankbooks]

- Calculation method: No. of bankbooks issued x emission factor
- No. of bankbooks issued: 34.6ton
- Emission factor 1.12kgCO<sub>2</sub>e/kg (National LCI DB)

[Water]

- Calculation method: Water usage x emission factor
- Water usage: 458,411ton
- Emission factor 0.000237kgCO<sub>2</sub>e/kg (National LCI DB).

## Capital goods

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

1414.7

### Emissions calculation methodology

Average product method

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

0

### Please explain

[Office supplies]

- Calculation method: Office electronic equipment (PCs, monitors, printers) purchased x emission factor
  - 424 laptops, 7,606 PCs, 11,889 monitors, 906 printers
  - Laptop: 19.32kgCO<sub>2</sub>e/Unit
  - PC: 32.76kgCO<sub>2</sub>e/unit,
  - Monitor: 16.44kgCO<sub>2</sub>e/unit,
  - Printer: 359.49kgCO<sub>2</sub>e/unit
- (Carbon Footprint Labeling DB)

[LED lights]

- Calculation method: No. of LED lights x emission factor
- Total capacity of LED lights purchased: 925,742W
- Emission factor of a 50W LED light: 34.36kgCO<sub>2</sub>e/unit (Carbon Footprint Labeling DB)

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

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

7660.4

### Emissions calculation methodology

Fuel-based method

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

0

### Please explain

[Fuel]

- Calculation method: Fuel purchased x emission factor
- LNG usage 2,616,959 m<sup>3</sup>, gasoline usage 3,985,965 liter, diesel 23,943 liter, kerosene 520 liter, LPG usage 1,693 m<sup>3</sup>, electricity 185,284,958 kWh, heat 5,292 GJ
- Emission Factor: LNG 0.2723 kgCO<sub>2</sub>e/kg, gasoline 0.0832 kgCO<sub>2</sub>e/kg, diesel 0.0682 kgCO<sub>2</sub>e/kg, kerosene 0.2529 kgCO<sub>2</sub>e/kg, LPG 0.3936 kgCO<sub>2</sub>e/kg (National LCI DB)
- Unit Conversion Factor: LNG 0.8 kg/m<sup>3</sup>, gasoline 0.7 kg/liter, diesel 0.8 kg/liter, kerosene 0.8 kg/liter, LPG 2.0 kg/m<sup>3</sup>

## Upstream transportation and distribution

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

395.9

### Emissions calculation methodology

Fuel-based method

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

100

### Please explain

[Cash, bankbooks, and credit card plates transport]

- Calculation method: fuel usage x caloric value x emission factor
- Diesel usage: 149,184.8 liter
- Diesel caloric value: 35.2 MJ/liter
- Diesel emission factor: 75.39tCO<sub>2</sub>e/TJ (IPCC)

## Waste generated in operations

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

598.7

### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

[Waste management]

- Calculation method: Waste disposed x emission factor
- Waste incinerated 366.95 tons, waste landfilled 34.68 tons, other waste 86.47tons, waste recycled 403.58 tons (paper 277.81 ton, styrofoam 51.36ton, glass 27.14ton, can 7.53 ton, plastic 39.74ton)
- emission factor of waste incinerated and the other waste 1.182 kgCO<sub>2</sub>e/kg, emission factor of waste landfilled 0.006395 kgCO<sub>2</sub>e/kg, emission factor of waste(paper) recycled 0.07149 kgCO<sub>2</sub>e/kg, emission factor of waste(styrofoam) recycled 0.0186 kgCO<sub>2</sub>e/kg, emission factor of waste(glass) recycled 0.00978kgCO<sub>2</sub>e/kg, emission factor of waste(can) recycled 0.0178kgCO<sub>2</sub>e/kg, emission factor of waste(plastic) recycled 0.0186kgCO<sub>2</sub>e/kg (National LCI DB)

## Business travel

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

312.8

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

[Domestic business trips]

- Calculation method: Travel distance for each transportation method x emission factor for each transportation method
- Travel distance by flight 1,371,046 km, travel distance by train 2,415,713 km, travel distance by bus 180,809 km, travel distance by passenger car 141,837 km
- emission factor for domestic flights 150 gCO<sub>2</sub>e/km, emission factor for trains 30 gCO<sub>2</sub>e/km, emission factor for buses 27.7 gCO<sub>2</sub>e/km, emission factor for car 210 gCO<sub>2</sub>e/km
- (Ministry of Environment's Low Carbon Green Event Guideline)

## Employee commuting

### Evaluation status

Relevant, calculated

### Emissions in reporting year (metric tons CO<sub>2</sub>e)

12907.7

### Emissions calculation methodology

Distance-based method

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

0

### Please explain

[Employee commuting]

- Calculation method: Travel distance for each transportation method x emission factor for each transportation method
- Assumption: average travel distance of 40km, 250 working days
- No. of employees: 23,488
- Percentage of cars, buses, subways, and on-foot commuting is 31.71%, 23.47%, 12.38%, and 31.37%, respectively
- 7,447 employees commute via cars, 5,513 employees commute via buses, 2,909 employees commute via subways, 7,368 employees commute on foot
- emission factor of cars 210 gCO<sub>2</sub>e/km, emission factor of buses 27.7 gCO<sub>2</sub>e/km, emission factor of subways 1.53 gCO<sub>2</sub>e/km (Ministry of Environment's Low Carbon Green Event Guideline)

## Upstream leased assets

### Evaluation status

Not relevant, explanation provided

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Such assets do exist; however, they have already been included in Scope 1, 2 emissions.

## Downstream transportation and distribution

### Evaluation status

Not relevant, explanation provided

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Not applicable because we do not manufacture products related to downstream transport.

## Processing of sold products

### Evaluation status

Not relevant, explanation provided

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Not applicable because we do not manufacture products in the middle of logistics chain.

## Use of sold products

### Evaluation status

Relevant, calculated

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

2993.7

### Emissions calculation methodology

Average data method

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

100

### Please explain

[Online banking]

- Calculation method: PC electricity consumption x hours of usage x electricity emission factor
- Total hours by individual customers: 209,068,482 h (directly measured)
- Total electricity consumption: 6,046,707 kwh
- Electricity emission factor 0.4951 tCO2e/MWh (National LCI DB)



## End of life treatment of sold products

### Evaluation status

Relevant, calculated

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

239.7

### Emissions calculation methodology

Waste-type-specific method

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

0

### Please explain

[Disposal of credit cards]

- Calculation method: Credit cards disposed x emission factor

- Weight of credit cards disposed 64,885 kg

- Emission factor for incineration of mixed plastic waste 3.413 kgCO2e/kg (National LCI DB)

[Disposal of bankbooks]

- Calculation method: Bankbooks disposed x emission factor

- Weight of bankbooks disposed (issued) 34,565 kg

- Emission factor for incineration of waste paper 0.5288 kgCO2e/kg (National LCI DB)

## Downstream leased assets

### Evaluation status

Not relevant, explanation provided

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Such assets do exist; however, they have already been included in Scope 1, 2 emissions.

## Franchises

### Evaluation status

Not relevant, explanation provided

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

Not applicable, as we are not involved in franchise business.

## Other (upstream)

### Evaluation status

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

## Other (downstream)

### Evaluation status

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

<Not Applicable>

### Emissions calculation methodology

<Not Applicable>

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

<Not Applicable>

### Please explain

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

**Past year 1**

**Start date**

January 1 2021

**End date**

December 31 2021

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

1439

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

765.7

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

7811.9

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

461.1

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

676.1

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

93.7

**Scope 3: Employee commuting (metric tons CO2e)**

14268.3

**Scope 3: Upstream leased assets (metric tons CO2e)**

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

**Scope 3: Processing of sold products (metric tons CO2e)**

**Scope 3: Use of sold products (metric tons CO2e)**

2571

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

237.9

**Scope 3: Downstream leased assets (metric tons CO2e)**

**Scope 3: Franchises (metric tons CO2e)**

**Scope 3: Investments (metric tons CO2e)**

<Not Applicable>

**Scope 3: Other (upstream) (metric tons CO2e)**

**Scope 3: Other (downstream) (metric tons CO2e)**

**Comment**

**Past year 2**

**Start date**

January 1 2020

**End date**

December 31 2020

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

3200.5

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

778

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

7336.6

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

479

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

627.3

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

96.7

**Scope 3: Employee commuting (metric tons CO2e)**

14575.1

**Scope 3: Upstream leased assets (metric tons CO2e)**

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

**Scope 3: Processing of sold products (metric tons CO2e)**

**Scope 3: Use of sold products (metric tons CO2e)**

3295.8

**Scope 3: End of life treatment of sold products (metric tons CO2e)**

249.1

**Scope 3: Downstream leased assets (metric tons CO2e)**

**Scope 3: Franchises (metric tons CO2e)**

**Scope 3: Investments (metric tons CO2e)**

<Not Applicable>

**Scope 3: Other (upstream) (metric tons CO2e)**

**Scope 3: Other (downstream) (metric tons CO2e)**

**Comment**

**C6.10**

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

Intensity figure