Hana Financial Group
TCFD Report 2023

BIG STEP FOR TOMORROW

ABOUT THIS REPORT

Hana Financial Group has established a roadmap for climate change response and is promoting its activities to address climate change based on the Net Zero by 2050 goals, in order to participate in solving the global climate crisis. In this process, we aim to transparently disclose our climate change response direction and performance to our stakeholders by publishing a report based on the TCFD (Task Force on Climate-Related Financial Disclosures) recommendations.

This report includes the responsibilities and roles of the Board of Directors and management in response to climate change, the identification of climate risks and opportunities, the results of scenario analysis, and specific processes for managing and integrating climate change into the company's overall risk management framework. Additionally, it also includes mid- and long-term climate change response strategies and goals aligned with business strategies.

The reporting period is from January 1, 2023, to December 31, 2023, and for significant matters, information from the first half of 2024 is included. Some quantitative results include data from previous years to indicate changes in trends.

Contact

ESG Team, Hana Financial Group
(hana_esg@hanafn.com)

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Introduction

Our Commitment

The world is currently under the unprecedented impact of a climate crisis.

In January, the World Meteorological Organization (WMO) announced through the 'State of the Global Climate 2023' that 2023 was the warmest year on record. Sea surface temperatures and ocean heat reached their highest levels, and the global average near-surface temperature rose by 1.45°C compared to pre-industrial baseline (1850-1900). This is close to the international community's set limit for global temperature rise (1.5°C), indicating that there is little time left to address the climate crisis.

The role of financial institutions is crucial in swiftly addressing the climate crisis, which poses a threat to human survival.

Financial institutions play a key role in the economic system, influencing and being influenced by various stakeholders. They can contribute to mitigating the climate crisis by reducing investments in industries and technologies that accelerate climate change while expanding financial support for the transition to a low-carbon society. According to the WMO, to limit the global temperature rise to 1.5°C, annual climate finance investments need to increase more than sixfold, with an estimated $ 9 trillion needed by 2030 and an additional $10 trillion by 2050.

Hana Financial Group recognizes the responsibilities and roles of financial institutions and is faithfully implementing efforts to realize a sustainable global environment.

Hana Financial Group has set the goal of 'Promotion of the implementation of a low-carbon economy' and established detailed goals such as '2030 & 60' and 'Zero & Zero', as well as GHG reduction targets in portfolio. Through the '2030 & 60' goal, which aims to achieve a total of KRW 60 trillion in loans, bonds, and investments in the environmental and sustainability sectors by 2030, we will strengthen financial support in the ESG area. Additionally, by 2050, all affiliates plan to achieve carbon neutrality in their business sites and zero coal P/F balances. Lastly, by gradually excluding high-carbon industries and expanding investments in eco-friendly/low-carbon companies, we aim to achieve portfolio carbon neutrality in line with the SBTi (Science-Based Targets initiative) standards.

Until the successful transition to a low-carbon economy is achieved, Hana Financial Group will continue to strive as a leading institution in low-carbon green finance and respond to climate change.

Introduction

HFG Climate Action

By announcing support for TCFD in 2021, Hana Financial Group is implementing climate change response activities based on the TCFD recommendation. This includes disclosing climate risk and opportunity management, potential financial impacts, setting carbon neutrality targets and establishing roadmap for climate change response strategies. We are planning to enhance communication with stakeholders by publishing TCFD reports annually, providing detailed information on related activities and achievements.

2005.12
Establishment of Hana Financial Group

2007.08
Joined the UN Global Compact

2007.09
Joined the UNEP FI

2016.10
Selected as an outstanding company in the CDP Climate Change category
Newly included in the DJSI Asia Pacific index

2018.04
Participation in the UNEP FI PRB founding banks

2019.01
Issuance of ESG bonds amounted to $600m (Hana Bank)

2019.06
Membership in the signatory institution of UNEP FI PRB

2021.03
Declaration of Carbon Neutrality and Decarbonization
Arrangement of the first domestic KRW 100 billion Green Loan
Became an official TCFD supporter

2021.07
Adoption of Equator Principles
Establishment of HFG's Sustainable Finance Framework

2021.09
Joined the Partnership for Carbon Accounting Financials (PCAF)

2022.05
Joined the Net-Zero Banking Alliance (NZBA)

2022.10
Reduction target approval from SBTi

2023.09
Established an ESG finance evaluation system based on K-Taxonomy (Hana Bank)

2025
Advancement of the Climate Change Agenda
Integration of Climate Change Management Process and Group-wide Risk Management Process

2030
42% GHG emissions reduction (Scope 1+2)
32.8% GHG emissions reduction in portfolio
KRW 60 trillion (Sustainable Finance)

2050
Net Zero by 2050
Zero GHG emissions at business sites
Phase-out coal power plant project finance
Zero financed emissions

GOVERNANCE

Governance for Climate Change Response

Hana Financial Group recognizes the accelerating issue of climate change as a real crisis and is solidifying its climate change governance system to drive company-wide efforts for climate change mitigation and response. Our Board of Directors, as top management, and executive management manage and oversee climate change-related issues while the CEO oversees the overall climate change response strategy. In particular, to reflect the top management's commitment to sustainable management, the Sustainable Management Committee has been established within the holding company's BOD to receive regular reports on sustainability issues, including climate change, and to deliberate and make decisions on related issues. Additionally, we have established a system to respond to climate change issues in an integrated manner at the group level. Through the Sustainability Management Steering Committee, a consultative body comprising CEOs of each affiliate, and the Sustainable Management Working Committee, we share the current status and performance among affiliates, identify and evaluate common climate risks and opportunities, and establish relevant systems to systematically respond to climate change.

Hana Financial Group aims to proactively respond to climate change through a transparent and rational climate change governance system and to faithfully fulfill its role as a leading institution in sustainable finance.

Board of Directors

Sustainable Management Committee (Held at least once every half-year)
- Resolves to establish policies and mid- to long-term strategies for sustainability management, including climate change
- Supervises the status of implementation of sustainability management initiatives

Risk Management Committee
- Reviews the status of responses to sustainability-related risks such as climate change and resolves to establish relevant strategies

Management Development & Compensation Committee
- Resolves on executive compensation in light of the Group's mid- to long-term strategy and ESG performance

Independent Director and Auditor Nomination Committee
- Nominates and appoints independent directors with expertise in climate change and ESG management

Group Management

CEO | Oversees the Group's climate change response strategy

CESGO
- Develops the Group's climate change response strategies
- Manages indicators according to the Group's climate change goals (monitoring and feedback on implementation of climate change strategy)

CRO
- Identifies and assesses climate risks based on financed emissions for each portfolio
- Manages and monitors climate risks by portfolio

ESG team, Risk Management Team

Key Committees

Sustainable Management Steering Committee (Held at least once every half-year)
- Composed of CEOs of each affiliate
- Shares and manages priorities for implementing ESG-related initiatives by affiliates

Sustainable Management Working Committee
- Composed of executives in charge of ESG of each affiliate
- Reports on the implementation status of ESG-related initiatives

Sustainable Management Working-level Consultative Group
- Composed of the heads of ESG departments and working-level employees each affiliate
- Shares and manages the status of ESG-related initiatives implementation

Governance

Board of Directors Level

Hana Financial Group has established and operates a Sustainable Management Committee, a dedicated ESG management body within the Board of Directors. The Committee deliberates and resolves on the establishment of the Group's sustainability management strategy and policies for responding to climate change and creating social value as well as the implementation status of these initiatives through regular meetings* held at least once in a half year. Moreover, the Risk Management Committee within the Board of Directors reviews the Group's major risk management system and implementation status, including climate risk management policies. By receiving regular reports from the management on climate-related risk issues and reviewing them, the committee supports the Board of Directors' decision-making in consultation with the Sustainable Management Committee based on the level of risk. The Management Development & Compensation Committee determines executive compensation considering ESG management performance, including climate change. The Independent Director and Auditor Nomination Committee recommends experts to strengthen climate change and ESG management, involving them in the management process.

* Ad-Hoc meetings can be held as deemed necessary by the Chairperson

Board of Directors' Resolutions and Reporting Items Related to Climate Change Response

Committee Name	Meeting Date	Agenda
Hana Financial Group Sustainable Management Committee	April 2023	(Resolution) Joining 2023 Global ESG Initiatives - Taskforce on Nature-related Financial Disclosures (TNFD) - Partnership for Biodiversity Accounting Financials (PBAF)
	July 2023	(Resolution) Revision of HFG Sustainable Finance Framework - Reorganization and enhancement of existing ESRM processes - Introduction of Biodiversity Policy
	November 2023	(Report) Hana Financial Group ESG Performance and Initiatives
	April 2024	(Resolution) Proposal for Joining the Impact Disclosure Working Group Initiative
Hana Securities Sustainable Management Committee	April 2023	(Report) Status and strategy of Hana Securities' business related to carbon credit
	December 2023	(Report) Hana Securities Performance in 2023 and Initiatives in 2024
	April 2024	(Report) Hana Securities materiality assessment results (Report) Operations and Resolutions of the Sustainable Management Steering Committee in 2023
Hana Bank Board of Directors	July 2023	(Report) ESG progress in the first half of 2023
	December 2023	(Report) ESG performance and key ESG initiatives in 2024

Management Level

The executives of affiliates are responsible for determining the climate policies and overseeing the performance. The strategy and goals approved by the Board of Directors are integrated into the Group's management by the executive management. The CEO reports to the Board of Directors on significant climate-related risks and opportunities in management activities and manages the progress in climate change response initiatives.
CESGO sets the achievement of carbon neutrality as a key performance and oversees the operation and implementation of the Group's climate strategy, including managing the implementation status of each affiliate in accordance with the Group's climate change response strategy and targets. In addition, the CRO —who oversees the Group's risk— identifies ESG-related risks such as climate risks in portfolios, and establishes and implements Hana Financial Group's policies and strategies to mitigate its risks.

Affiliate Level

Hana Financial Group has established and operates the Sustainable Management Steering Committee, comprised of CEOs of the Group and each affiliate, and Sustainable Management Working Committee. Furthermore, both the holding company and affiliates have allocated dedicated units and personnel for ESG affairs to enhance ESG management including climate actions.

Hana Bank has established the ESG Headquarter to internalise the bank's ESG management. In particular, it conducts systematic monitoring of green finance through the establishment of an ESG finance evaluation system based on K-Taxonomy in 2023. Hana Securities has also established the ESG Headquarter directly under the CEO in charge of ESG management planning tasks, and a dedicated carbon credit department organizational capabilities for managing various domestic and international asset classes. Additionally, through the Sustainable Management Working-level Consultative Group, which is convened as needed, we share the latest ESG trends with affiliates and discuss the current status of sustainable management for each affiliate.

Strategy

Climate change affects industries in various ways, acting as both a risk and an opportunity for companies. Financial institutions, in particular, which influence and are influenced by various companies through funding and investment, are exposed to diverse risks while also having the potential to create new opportunities and contribute to mitigating the climate crisis. Financial institutions can contribute to reducing GHG emissions not only by reducing emissions at their own operational sites but also by financing the transition to a low-carbon economy and adjusting their portfolios in high-carbon industries.

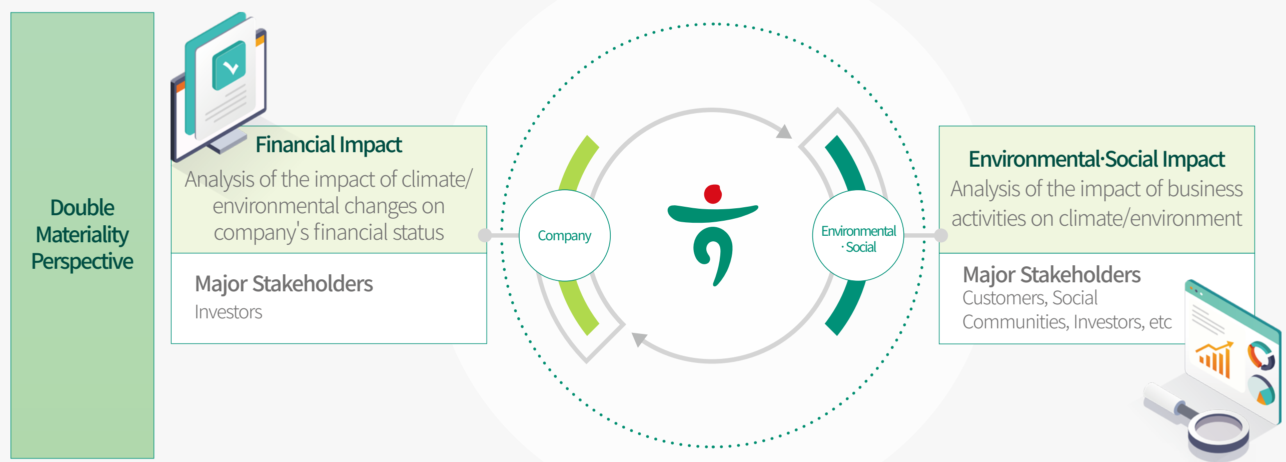
Therefore, it is crucial to integrate climate change and ESG issues into the company's overall risk assessment policies and procedures and align them with the financial institution's strategy. Hana Financial Group also identifies and incorporates the risk and opportunity factors of climate change into its management strategy within the continuously changing business environment.

Hana Financial Group identifies key climate risk areas that affect its business and assesses the financial impacts resulting from these risks. Additionally, we conduct scenario analysis to understand the potential impacts of climate change risks under various scenarios and to enhance the resilience of our strategies. Based on the analysis of climate change risks and opportunities, Hana Financial Group has established a mid- to long-term response roadmap and manages step-by-step goals and performance to effectively respond to climate change.

Developing Climate Risk/Opportunity Pool

We comprehensively consider the financial impacts of climate change on us and the environmental and social impacts of our business activities on the climate to identify major risk and opportunity areas. We have established a climate change risk and opportunity pool by reflecting domestic and international GHG regulations, market changes, and the impacts of abnormal weather on borrowers, as well as the requirements of major climate-related initiatives and rating agencies.

Method for Developing Climate Risk & Opportunity Pool



Key Considerations		
	Regulation Changes	Domestic and international GHG emissions regulations, ESG disclosure legislation, etc.
	Market and Technology Changes	Changes in customer behavior and market demand, Changes in the maturity of low-carbon technology, etc.
	Stakeholder Requirements	Expectations of stakeholders such as customers, investors, and the community, Changes in reputation, etc.
	Initiative/Rating Agency	Disclosure recommendation of global standards such as TCFD/NFRD, indicators of ESG rating agencies such as DJSI/MSCI/CDP, etc.

Strategy

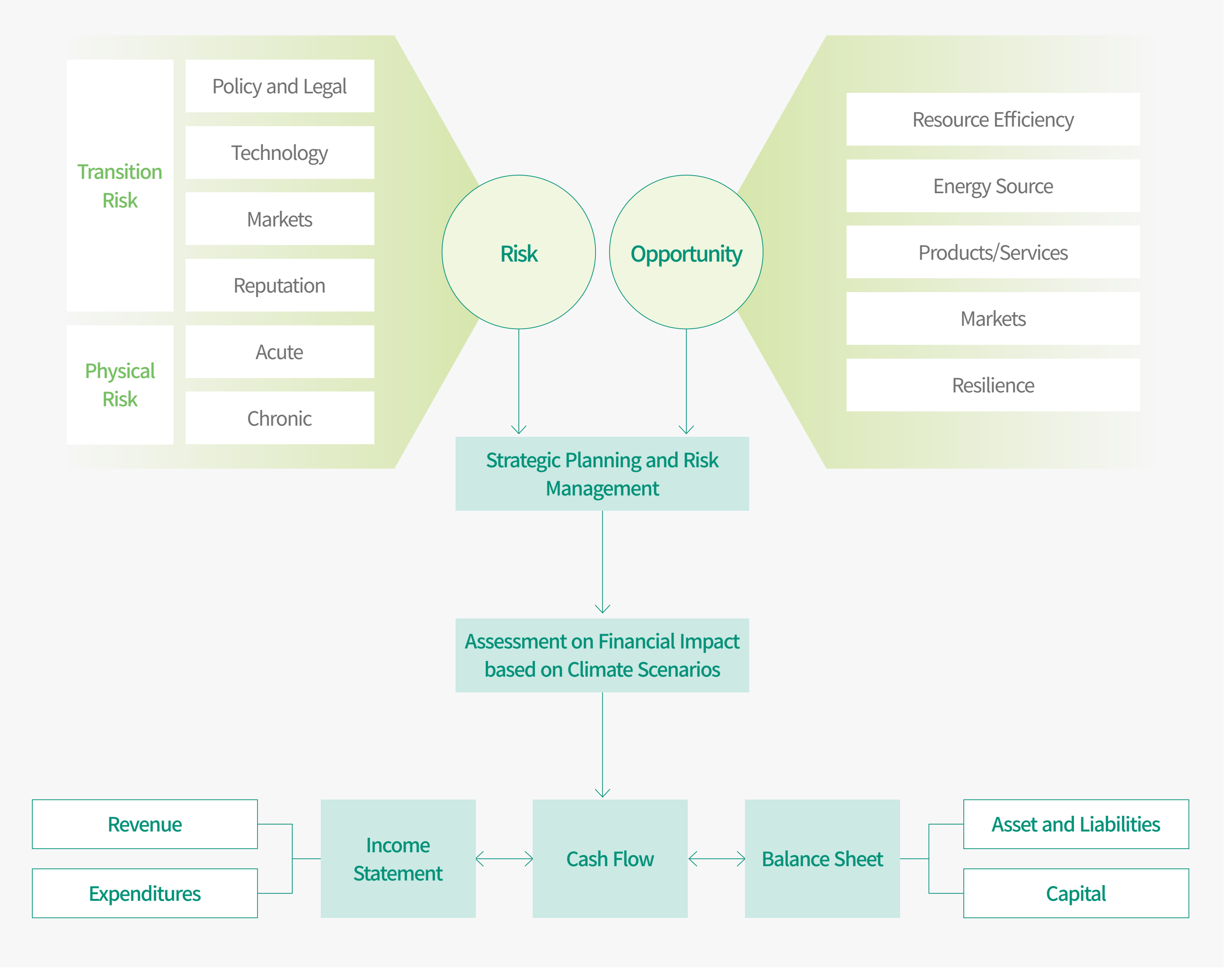
Analysis of Climate Risks and Opportunities

Hana Financial Group identifies climate change-related risks and opportunities across all markets where it operates, business segments, and the entire value chain. The magnitude, likelihood, and timing of each factor's potential impact on Hana Financial Group are assessed. In accordance with TCFD recommendations, risks are classified into transition and physical risks, while opportunities are categorized into resource efficiency, energy source, products/services, markets and resilience.

Transition risks encompass policy and legal risks arising from strengthened GHG Emission regulations, market risks resulting from the impact of climate change on market variables such as consumer choices, interest rates, and commodity prices, as well as reputational risks associated with changes in consumer awareness. Physical risks are divided into acute risks, which result from increased frequency/intensity of extreme weather events like floods, typhoons, and forest fires, and chronic risks, which arise from long-term climate pattern changes such as sea level rise and average temperature increase. Opportunity factors include operational cost savings from improved resource efficiency, revenue growth from offering low-carbon products/services, enhanced corporate image, and expansion into new markets.

Hana Financial Group aims to minimize uncertainties and manage them proactively until the future goals are achieved. To this end, we have established a timeline based on the target year for achieving Net Zero, categorized into short term(~2025), medium term(~2030), and long term(~2050), and we analyze the impact timing accordingly.

Scope of Analysis	• All markets and business segments where operations are conducted • Entire value chain (Own operations, Upstream, Downstream, Customers, etc.)
Time Horizons	• Short term (~2025), Medium term (~2030), Long term (~2050)



Strategy

Analysis of Climate Risks and Opportunities

Climate Risk Identification

Hana Financial Group identifies the impact of climate change on the industry and the resulting financial risks to which financial institutions are exposed. As demands for response to climate change are strengthened in various aspects such as regulations, markets, and reputation, it is expected that failure to reduce exposure to carbon-intensive industries will negatively affect financial stability. We are proactively responding to climate risks by analyzing the potential impacts of each risk and preparing response strategies.

		Driver	Impact* Short term	Impact* Medium term	Impact* Long term	Industrial Impact	Financial Impact on the Financial Sector
Transition Risk	Policy and Legal	• Increase of carbon credit price due to tightened domestic/ global GHG regulations	◎	●		• Increase in GHG mitigation and management cost (including carbon credit costs) • Profitability fluctuations of related companies due to import-export dependency • Increase in internal cost due to mandatory disclosure requirements	• Deterioration in profitability and potential default of carbon-intensive industries due to rising carbon credit prices, Carbon Border Tax burdens and others • Changes in capital liquidity following decision-making by stakeholders such as customers and investors after changes in the external disclosure environment
		• Changes in trade (import and export) environment based on GHG reduction basis (e.g CBAM of EU)	○	●			
		• Addition of new disclosure items and strengthening of disclosure obligations		○	◎		
	Technology	• Phase-out of high-carbon technologies (such as coal power generation)		◎	●	• Increase in costs and expenses related to low-carbon R&D and application • Increase in financial risk due to failure in technology transition and new technology investments	• Increase in depreciation and stranded assets due to technology change • Deterioration in the profitability and reliability of the portfolio in case of failure in technology transition and new technology investments by borrowers and investees
		• Expansion of investments in eco-friendly and low-carbon tech		◎	●		
	Market	• Changes in consumer preferences and behavior	○	◎		• Decrease in demand for products and services related with high GHG emission • Increase in market demand for low-carbon product • Increase in risk of fluctuating production costs and decline in operating profit and sales	• Decrease in competitiveness if eco-friendly asset portfolio is not established and eco-friendly products/services are not developed • Changes in portfolio profitability and asset revaluation due to rapid market changes
		• Increase in uncertainty of market environment changes (e.g., fluctuations in raw material prices)	○	◎			
	Reputation	• Increase in stakeholder interest and changes in preferences	◎	●		• Decline in reputation due to non-implementation of response to climate change activities, non-disclosure of GHG emission information, and declining ESG ratings and assessments • Revenue reduction due to impacts on business activities such as suspension of cooperation and contract termination	• Negative reputation from stakeholders if continuous financial support is provided to carbon-intensive industries • Possibility of decreased demand and withdrawal of investment funds if negative environmental impacts of products are discovered
		• Negative perception and reputation of industries linked to the climate crisis	○	◎			
Physical Risk	Acute	• Increase in the frequency/intensity of extreme weather (typhoons, floods, forest fires, etc.)	○	◎		• Increase in costs for covering damages caused by extreme weather (recovery costs, insurance costs, etc.)	• Service usage restrictions due to damage to facilities (branches, ATMs, etc.) and system paralysis • Increased possibility of customer defaults and provision burdens in areas vulnerable to extreme weather • Decrease in asset value in related areas (decline in real estate value in coastal flood-prone areas)
	Chronic	• Long-term climate change (e.g temperature increase, rising sea levels)		◎	●	• Increase in the possibility of loss or relocation of value chains and facilities • Increase in operating costs such as cooling costs at business sites	

* Financial impact: moderate (○), slightly high (◎), very high (●)

Strategy

Analysis of Climate Risks and Opportunities

Climate Opportunity Identification

The economic and social environmental changes due to climate change can act as risks to business while simultaneously serving as strategic opportunities. The development of new markets and industrial growth provides new investment opportunities for financial institutions. Hana Financial Group will lead green finance by creating new opportunities through the expansion of renewable energy and providing new products and services that enable customers to transition towards a low-carbon society.

	Driver	Impact* Short term	Impact* Medium term	Impact* Long term	Industrial Impact	Financial Impact on the Financial Sector
Resource Efficiency	• Improvement of manufacturing/transportation process efficiency (manufacturing process, transportation means, etc.)	◎	●		• Decrease in operation cost through improved efficiency and cost-saving measures • Increase in revenue due to increased production capacity • Increase in corporate investment activities such as the introduction of new facilities and process improvements	• Enhanced resource efficiency of investment companies leading to increased portfolio profitability • Expansion of corporate customers' demand for financing due to increased investment activities
	• Expansion of recycling and reduction of water consumption		○	○		
	• Expansion of eco-friendly buildings and eco-friendly transportation (enhancement of building energy efficiency, etc.)	○	◎			
Energy Source	• Increase in use of renewable energy	○	◎	●	• Reduced exposure to rising fossil fuel prices and reduced long-term operating costs • Reduced costs of responding to carbon regulations due to reduced GHG emissions	• Increase in return on investment in low-carbon technologies • Expansion of large-scale project investments related to renewable energy
	• Increase in utilization of domestic/international incentives related to the transition to a low-carbon society	○	◎			
	• Opportunity creation through the use of low-carbon new technologies and participation in carbon markets	○	◎			
Products/ Services	• Development and application of low-carbon products and services	◎	●		• Increased demand for low-carbon products/services • Positive reputation benefits for low-carbon products and services	• Expansion of low-carbon products, investments, and loans • Securing competitiveness through new climate adaptation solutions (such as insurance risk transfer products and services)
	• Climate change adaptation and insurance solutions	○	◎			
	• Changes in consumer preferences	○	◎			
Markets	• Increase in accessibility to low-carbon/climate-friendly new market	◎	●		• Increased revenue through access to new markets • Securing stability through diversification of business portfolio	• Entry into new markets through the discovery of low-carbon products and services • Diversification of new eco-friendly financial assets such as green bonds and enhancement of revenue structure • Revenue increase due to the expansion of new global climate-related insurance markets
	• Accessibility to new assets and regions requiring insurance coverage	○	◎			
Resilience	• Participation in renewable energy and energy efficiency programs	○	◎		• Increase in market value through the implementation of resilience strategies • Cost-saving and revenue-generating opportunities through various risk management across various scenarios	• Enhancement of portfolio profitability through the implementation of resilience strategies by investment companies • Securing reliability through the enhancement of portfolio resilience
	• Establishment of alternatives and diversification plans for existing resources	○	◎			

* Financial impact: moderate (○), slightly high (◎), very high (●)

Strategy

Financed Emission of Hana Financial Group

Financed emissions refer to the GHG emissions that result from the investment and lending activities of financial institutions. By measuring and analyzing financed emissions, financial institutions can identify climate change risks within their portfolio, set reduction targets, and manage the progress of these targets, thereby contributing to the transition to a low-carbon economy.

Hana Financial Group measures its financed emissions according to the PCAF[1)] methodology, a standardized framework for assessing and disclosing financed emissions. The financed emissions are measured across seven PCAF categories: listed equity and corporate bonds, business loans and unlisted equity, project finance, commercial real estate, mortgage, motor vehicle loans, and sovereign bonds. The analysis includes a breakdown of financed emissions, exposure, and carbon intensity by asset class, industry, and affiliate.

In 2023, Hana Financial Group measured the financed emissions for assets amounting to KRW 303.9 trillion, which accounts for 54% of the Group's total assets of KRW 568 trillion[2)]. This represents a 14% increase in the scope of measured assets compared to 2022[3)]. However, the increase in financed emissions was around 5%, which is lower than the rate of increase in asset scope. Consequently, the carbon intensity in 2023 decreased by 8% compared to 2022.

1) Partnership for Carbon Accounting Financials

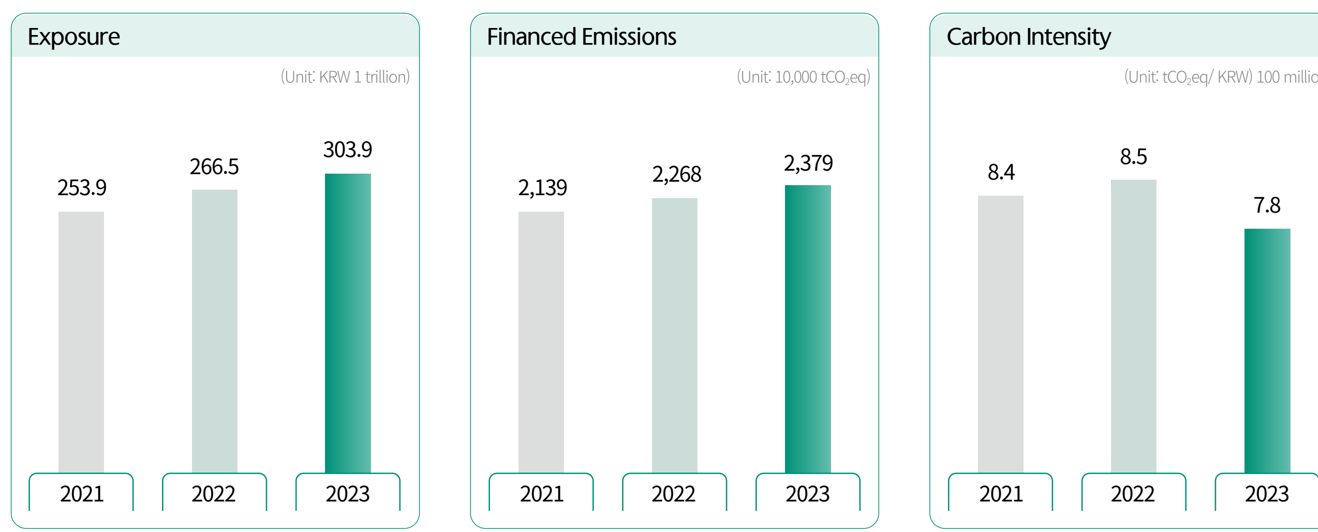
2) The total assets are based on the individual financial statements of each affiliate of HGF, and they differ from the total assets based on the consolidated financial statements in the business report.

3) Assets measured in 2022: KRW 266.5 trillion

Analysis of Financed Emissions by Asset Class

PCAF asset class		Exposure (KRW 1 trillion)			Financed Emissions (10,000 tCO_2eq)			Carbon Intensity (tCO_2eq/KRW 100 million)		
		2021	2022	2023	2021	2022	2023	2021	2022	2023
PCAF1	Listed equity and corporate bonds	32.2	50.9	55.5	428	430	426	13.3	8.5	7.7
PCAF2	Business loans and unlisted equity	131.9	139.5	167.8	1,158	1,266	1,399	8.8	9.1	8.3
PCAF3	Project finance	5.5	7.4	8.4	85	104	83	15.4	14.1	9.9
PCAF4	Commercial real estate	1.8	2.4	2.7	4	5	19	2.3	2.3	6.9
PCAF5	Mortgage	59.6	39.6	42.7	29	20	20	0.5	0.5	0.5
PCAF6	Motor vehicle loans	7.1	8.4	9.1	39	42	42	5.4	5	4.6
PCAF7	Sovereign bonds	15.7	18.2	17.8	396	401	390	25.3	22	21.9

3-Year Trend Analysis



* From TCFD Report 2023 onwards, we have changed the presentation of financed emissions years, so the financed emissions for 2022 and 2021 are different from those for 2022 and 2021 in TCFD Report 2022.
- Emissions for 2022 in TCFD Report 2023: calculated based on year-end 2022 financial information
- Emissions for 2022 in TCFD Report 2022: calculated in 2022 based on year-end 2021 financial information

Strategy

Selection of major risk areas → Risk/Opportunity Identification and Assessment → Scenario Analysis → Strategy Establishment and Implementation

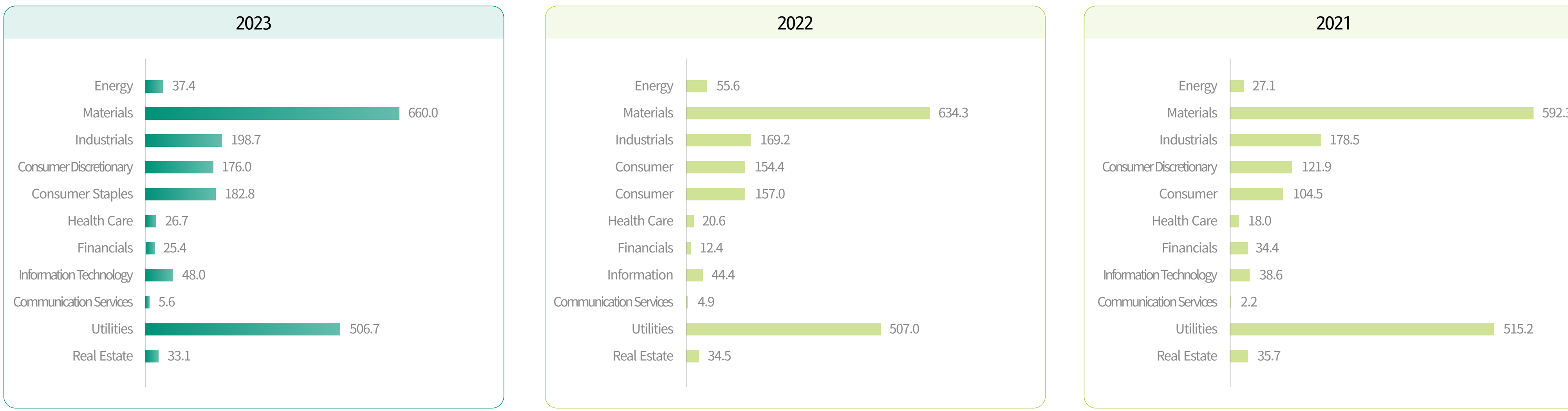
Financed Emission of Hana Financial Group

Industry Analysis

Hana Financial Group analyzes financed emissions by industry to identify high-carbon industries within its portfolio and establishes industry-specific response directions based on this analysis. In 2023, the analysis of financed emissions by industry revealed that the materials industries with high energy usage, such as chemical and steel/non-ferrous metal manufacturing, and the utilities industries, which heavily rely on fossil fuels, had high financed emissions. The carbon intensity was also found to be highest in the materials and utilities industries, although there has been a gradual decrease in intensity compared to previous years (a 12% reduction compared to the intensity in 2022).

Analysis of Financed Emissions by Industry

Unit: 10,000 tCO_2eq



Carbon Intensity by Industry

Intensity 80 or above | Intensity 60 or above | Intensity 10 or above | Intensity 5 or above | Intensity 3 or above | Intensity below 3

Category	Financials	Real Estate	Communication Services	Health Care	Consumer Discretionary	Information Technology	Industrials	Energy	Consumer Staples	Materials	Utilities
2023	0.4	0.7	2.1	2.7	4.1	4.8	7.0	23.0	24.2	62.4	86.0
2022	0.3	0.8	2.3	2.5	4.3	5.2	6.9	25.5	23.1	71.0	97.4
2021	1.1	0.9	0.8	2.3	3.2	5.8	8.3	13.4	17.7	68.9	110.5

* GHG Emissions relative to measured assets (exposure)

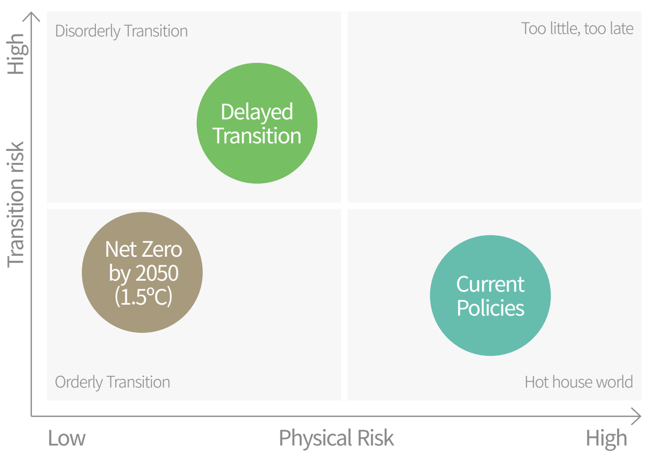
Strategy

Climate Scenarios Analysis

Analysis of Transition Risk Scenario

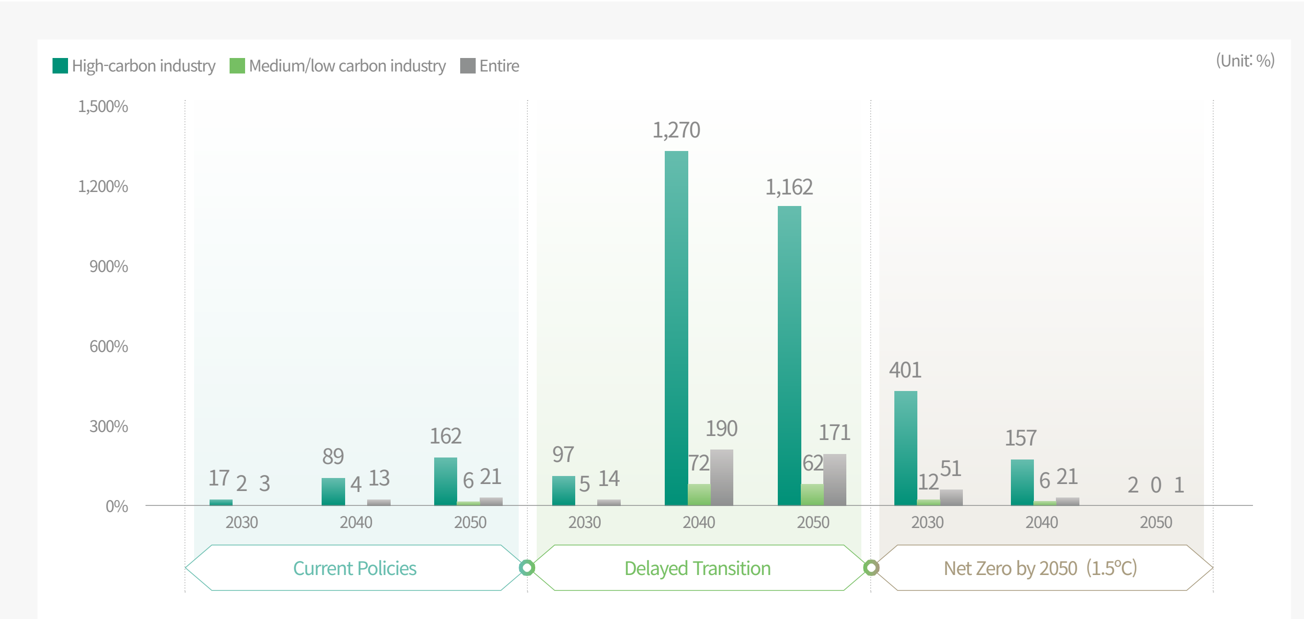
Hana Financial Group conducts sensitivity analyses by industry and asset class on future carbon price changes according to scenarios provided by the Network for Greening the Financial System (NGFS) to understand the impact level of transition risks due to strengthened carbon restrictions on the Group's portfolio. In 2023, an analysis was conducted on the portfolios of seven affiliates (Hana Bank, Hana Securities, Hana Card, Hana Capital, Hana Life, Hana Insurance, and Hana Savings Bank) to assess the financial impact under three scenarios: ① Current Policies, ② Delayed Transition, and ③ Net Zero. By estimating the carbon costs for corporations under each scenario, we predicted operating profits and estimated the Probability of Default (PD), Loss Given Default (LGD), and provisions by reflecting the asset-liability ratio and volatility. The analysis of the financial impact according to the scenarios revealed that the provisions due to transition risks are expected to increase by a minimum of 1% (Net Zero) to a maximum of 171% (Delayed Transition) by 2050. Particularly for high-carbon industries, under the Delayed Transition scenario, where there is a sharp increase in emission reduction activities after 2030 leading to a steep rise in carbon prices, provisions are estimated to increase by 1,270% by 2040 and 1,162% by 2050. Hana Financial Group is continuously monitoring exposure to high-carbon industries, financed emissions, and carbon intensity, and manages these factors more systematically to enhance resilience against climate risks.

NGFS scenarios Framework



Current Policies	Global temperature is expected to increase by 3°C due to the international community's failure to transition to a low-carbon society.
Delayed Transition	The international community is expected to transition disorderly from 2030, leading to a 2°C increase in global temperature
Net Zero by 2050 (1.5°C)	The international community transitions in an orderly manner, leading to a 1.5°C increase in global temperature

Increase Rate of Provisions Due to Transition Risk[1]



1) Increase rate compared to provisions in 2023

* High-carbon industries: Based on the financed emissions analysis in 2023, the energy, materials, consumer staples, and utilities industries with a carbon intensity of $10tCO_2e$/ KRW 100 million or more

Strategy

Climate Scenarios Analysis

Analysis of Physical Risk Scenario

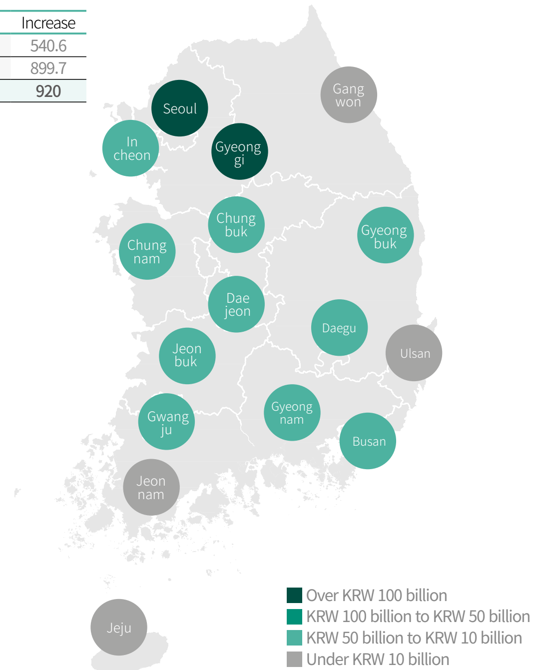
Hana Financial Group carries out scenario analysis to assess the financial impact of not only transition risk but also physical risk. We estimate the market value loss of collateral due to major climate risks such as floods and typhoons, and calculate the Probability of Default (PD), Loss Given Default (LGD) and provisions under climate scenarios by reflecting the decrease in collateral value and credit LGD. According to the scenario analysis conducted in 2023, the provision for physical risk in 2050 is expected to increase by at least 70% (Net Zero) to a maximum of 117% (Current Policies). The regions most affected are Seoul and Gyeonggi-do, due to the high exposure of Hana Financial Group in these areas. Hana Financial Group will enhance its management system for physical risk by expanding the types of climate risks analyzed in physical risk scenario analysis and refining the analysis methodology.

Changes in Provisions by 2050 due to Physical Risk[1)]

Current Policies

Impact on overall provisions (Unit: KRW 1 billion)

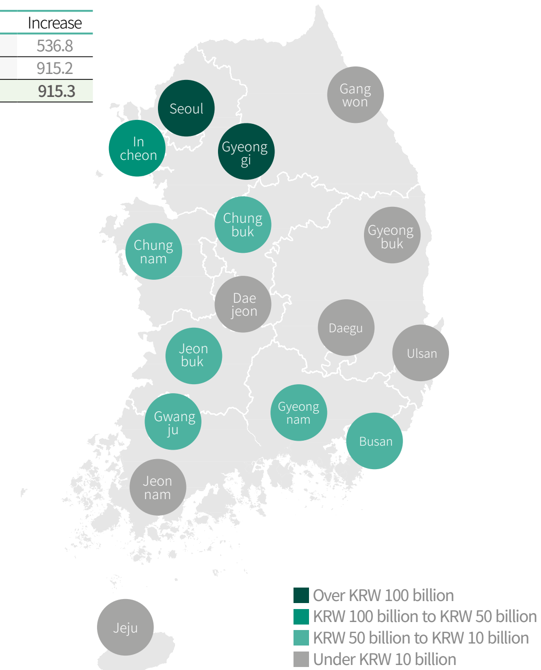
Year	Increase
2030	540.6
2040	899.7
2050	920



Delayed Transition

Impact on overall provisions (Unit: KRW 1 billion)

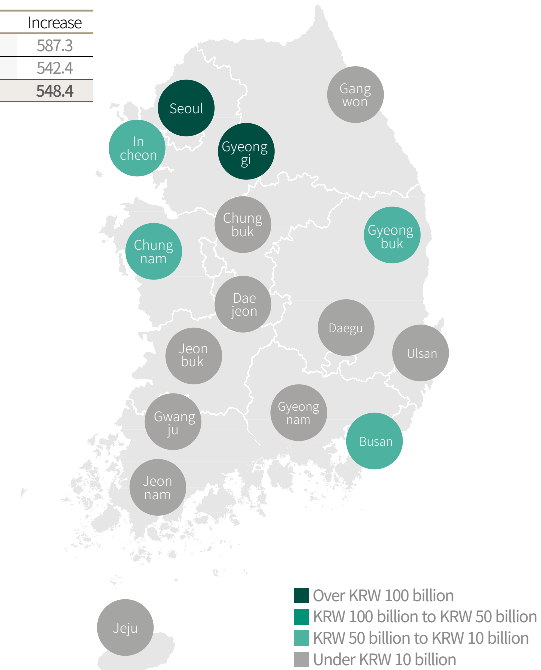
Year	Increase
2030	536.8
2040	915.2
2050	915.3



Net Zero

Impact on overall provisions (Unit: KRW 1 billion)

Year	Increase
2030	587.3
2040	542.4
2050	548.4



1) Increase compared to 2023 provisions

Strategy

Climate Scenarios Analysis

Scenario Analysis Conclusion and Resilience Plan

Based on the comprehensive results of the scenario analysis of transition risk and physical risk, the average probability of default for Hana Financial Group affiliates by 2050 is projected to range from a minimum of 0.39% (Hana Insurance, Net Zero) to a maximum of 7.23% (Hana Securities, Current Policies/Delayed Transition). Most affiliates are expected to have the highest average probability of default under the Delayed Transition scenario, where the international community transitions disorderly to a low-carbon economy starting from 2030. However, for some affiliates, the highest probability of default is estimated under the Current policies scenario, where the international community fails to transition to a low-carbon economy, leading to a significant rise in global temperatures. This is attributed to the relationship between transition risk and physical risk. As the impact of transition risk increases during the transition to a low-carbon economy, the impact of physical risk decreases due to the suppression of global temperature rise. Therefore, the scenario in which the probability of default rises significantly can vary depending on the degree to which each affiliate is affected by transition risk and physical risk.

Thus, climate change risks can affect corporations through complex pathways and lead to financial risks. Hana Financial Group plans to continuously enhance its scenario analysis methodology by expanding the scope of scenario analysis and considering more diverse variables to thoroughly analyze climate change risks. We establish and implement response directions for each industry, asset class, and affiliate based on the expected outcomes of each scenario, thereby ensuring the resilience of the Group's strategy.

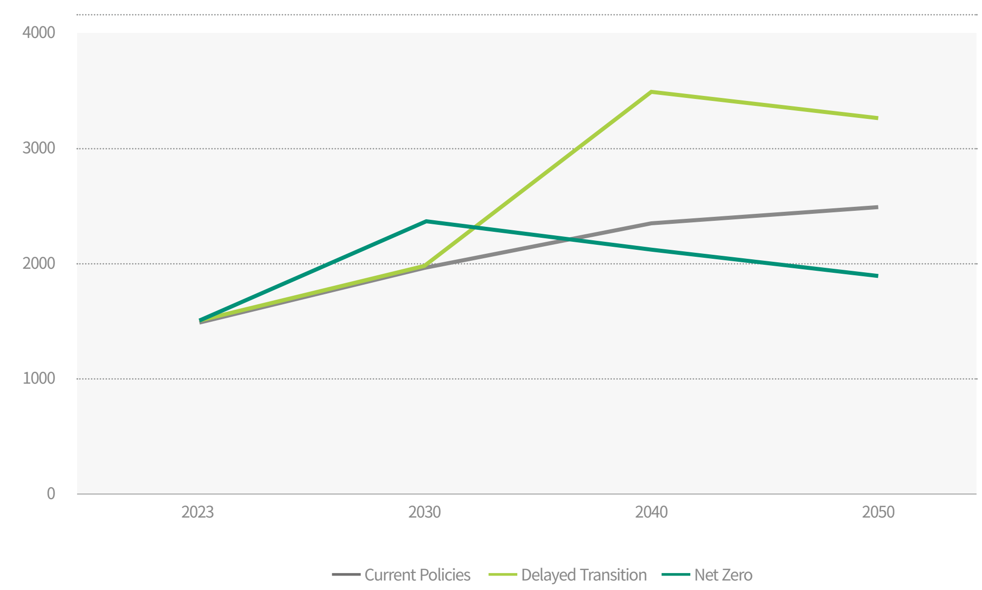
Changes in Probability of Default (PD) by Affiliate

Unit: %

Affiliate	Baseline (End of 2023)	Current Policies		Delayed Transition		Net Zero	
		2030	2050	2030	2050	2030	2050
Hana Bank	2.51	3.49	3.99	3.62	5.45	3.36	2.92
Hana Securities	3.21	7.11	7.23	7.11	7.23	7.11	7.11
Hana Card	1.12	1.75	2.06	1.76	2.05	1.76	1.75
Hana Capital	2.55	4.17	4.83	4.24	5.34	4.51	4.16
Hana Life	1.32	2.66	2.81	2.66	2.76	2.66	2.66
Hana Insurance	0.28	0.39	0.53	0.39	0.55	0.4	0.39
Hana Savings Bank	3.41	4.4	4.94	4.5	5.82	4.89	4.38

Changes in Provisions Due to Transition Risk and Physical Risk

Unit: KRW 1 billion



Strategy

Selection of major risk areas → Risk/Opportunity Identification and Assessment → Scenario Analysis → Strategy Establishment and Implementation

Strategy in Response to Climate Change

Based on the analysis of climate change risks and opportunities, Hana Financial Group has developed a climate change response strategy and established step-by-step roadmap to strengthen its response system in accordance with the TCFD recommendations. As part of its mid- to long-term ESG strategy, we have set the goal of "Promotion of the implementation of a low-carbon economy." To achieve this, we have established the "2030 & 60" goal, the "Zero & Zero" goal, and portfolio GHG reduction targets. Through these initiatives, we aim to realize "restrictions on coal financing," "issuance of ESG bonds," and "expansion of green finance". Through the '2030 & 60' goal, which aims to reach a total of KRW 60 trillion in loans, bonds, and investments in the environmental and sustainability sectors by 2030, we will strengthen financial support for ESG areas, including GHG reduction projects. Additionally, by 2050, all affiliates will achieve carbon neutrality at their business sites, and the balance of coal P/F will be reduced to zero. Lastly, to meet the portfolio GHG reduction targets in line with the 'Science-Based Targets initiative (SBTi),' we plan to gradually exclude high-carbon industries and increase investments in eco-friendly/low-carbon companies.

Strategic Roadmap

	Building a carbon-neutral foundation 2021	Advancing the climate change agenda 2025	Achieving group carbon emission targets (SBTi-based) 2030	2050 Net Zero
Governance	Establishment of Sustainable Management Committee	Advancement of climate risk management system for each affiliate	Functions as the Leader Company to raise Climate Agenda	
Strategy	Establishment of Mid-to Long-term Sustainability Strategy	Advancement of the Sector policy for the management of ESG restricted industries (high-risk industries for climate change) and Industries with ESG-concerns (high GHG emission industries)		Leading carbon-neutral finance through performance monitoring/feedback
Risk Management	Portfolio Impact Analysis on Climate Change	Advancement of climate risk management system via refined IT and risk assessment system		
Metrics and Reduction Targets	Calculation of financed emissions for the use of metrics and targets		42% GHG reduction at business sites and 32.8% GHG reduction in portfolio Achieve KRW 60 trillion in Sustainable Finance	Zero GHG at business Sites Zero emission from Power PF Zero financed emissions

Promotion of the implementation of a low-carbon economy

Limit coal P/F | Increase ESG bond issuance | Expand green finance

Goal 1 2030 & 60

- Achieving a total of KRW 60 trillion in ESG Finance by 2030, including KRW 25 trillion in ESG Bonds, KRW 25 trillion in ESG Loans, and KRW 10 trillion in ESG Investment

Goal 2 Zero & Zero

- ZERO GHG at business sites by 2050 by improving energy efficiency and expanding renewable energy
- ZERO coal project financing balance by 2050 through the reduction of coal project financing

Goal 3 Portfolio GHG reduction

- GHG reduction activities where HFG's funds are utilized, including loans, investments, and bonds.
- Reducing GHG emissions in the portfolio by eliminating high-carbon emitting industries and expanding investments in eco-friendly/low-carbon companies

Strategy

Strategy in Response to Climate Change

Key Initiatives and ESG Rating

Hana Financial Group has actively participated in global climate crisis response efforts. Starting with the membership in the UN Global Compact in August 2007, we voluntarily joined various initiatives related to long-term goal setting, emission measurement and management, and sustainable finance. In 2022, we joined the Net-Zero Banking Alliance (NZBA) and received certification for its GHG emission reduction targets for business site and financed emissions from the Science-Based Targets initiative (SBTi).

As a result of our firm commitment and efforts to respond to the climate crisis, we have received excellent ratings from domestic and international ESG rating agencies such as DJSI, MSCI, and CDP. In 2023, we were included in the DJSI World Index for the second consecutive year and received an AA grade in the MSCI ESG Ratings. Additionally, we were recognized for our transparent carbon information disclosure and climate change response efforts by winning the CDP Carbon Management Honors Club award for four consecutive years.

Climate-related initiatives	TCFD (Task Force on Climate-Related Financial Disclosures)	UNEP FI PRB (UN Principles For Responsible Banking)	EP (Equator Principles)
	PCAF (Partnership for Carbon Accounting Financial)	SBTi (Science-based Target Initiative)	NZBA (Net-Zero Banking Alliance)

Key ESG rating results	Included in the DJSI World Index for 2 consecutive years	MSCI ESG Ratings AA grade obtained
	Carbon Management Honors Club awarded for 4 consecutive years	KCGS A grade or higher for 12 consecutive years

Policy Communication

Hana Financial Group is moving forward together for the sustainable environment, society, and the advancement of humanity under the mission of 'Finance that grows together and shares happiness'. We support the Paris Climate Agreement's target of keeping global temperature rise within 1.5°C. For this goal, we declared decarbonization finance in 2021 and set a target to achieve zero GHG emissions from business sites and financed emissions by 2050. Accordingly, we operate a management system to ensure that the associations we work with are aligned with our support for the Paris Climate Agreement. First, we clearly define the purpose of participating in the association, and we explicitly verify whether this aligns with the compliance of the Paris Climate Agreement. The executive management continuously evaluates assesses the results of the association's activities and effects of its participation, and monitors whether the association's activities comply with relevant laws and regulations and the Paris Climate Agreement. As part of our monitoring process, we actively collect and analyze the public information of the association, and promote communication through visits and meetings. If the activities of the affiliated association do not comply with the Paris Climate Agreement, this is reported to the Sustainable Management Committee under the Board of Directors.

Hana Financial Group has promoted various activities to expand ESG cooperation and communication to address climate change issues. In May 2023, Young-joo Ham, the CEO, delivered a keynote speech at the UNEP FI (United Nations Environment Programme Finance Initiative) on the role of finance in biodiversity and environmental and social responsibility. In October, he participated in a discussion with the Netherlands Ambassador for Sustainable Development on engaging in green finance for the transition to a decarbonized economy. Recently, the Korea Federation of Banks, in collaboration with Hana Financial Group, became the first domestic financial institution to join as a UNEP FI Supporting Organization and is actively supporting its participation in the Bankers' Green Classification System pilot project.

Research on ESG-related opportunities and risks

Hana Bank's Hana Institute of Finance and Hana Securities Research Center have published research reports on ESG-related opportunities and risks to communicate with all stakeholders, including customers. In 2023, the Hana Institute of Finance published reports such as 'ESG Management Blind Spots: SMEs,' 'Desirable ESG Management and the Role of Finance,' and 'The Role and Response Strategies of the Financial Industry in the ESG Era.' The Hana Securities Research Center supports customers in identifying ESG-related opportunities and preparing for risks through the quarterly publication of the 'ONE ESG' report.

Risk management

Climate Risk Management System

Climate change risks impact various aspects such as revenue, operations, and reputation, exerting substantial influence on business activities. Especially with the increasing severity of climate change and the rapidly changing regulatory and market environments, the importance of climate risk management is becoming more pronounced. In response, Hana Financial Group has established a climate risk management system that is integrated into the company's overall risk management framework to manage climate change risks as a critical issue for the Group.

Hana Financial Group continuously monitors changes in the business environment due to climate change and analyzes the ripple effects on financial systems to identify risks that may impact the Group. Based on the results of financed emissions and scenario analysis, we review the risks for each portfolio and select key areas that require focused management to develop appropriate response strategies.

Hana Financial Group has established the 'Sustainable Finance Framework' to enhance the level of ESG-related risk management and to develop a financial decision-making process that reflects environmental and social risks. This framework is applied to all products and services. The Sustainable Finance Framework consists of five policies, and thorough risk management is conducted based on the contents of these policies.

In 2023, we established an 'ESG Finance Evaluation System' that incorporates the Korean Green Taxonomy (K-Taxonomy) to strengthen the monitoring framework for green finance. Through this system, we can automatically identify targets that require review from an ESG Finance perspective during corporate financing or direct investments. This ensures that K-Taxonomy compliance, GHG emissions, and reduction targets are reflected in financial support decision-making.

Climate Change Management Process

Identification of climate risks

- The Sustainable Management Steering Committee regularly monitors internal and external environmental changes to identify climate change risks
- Analyzes the ripple effects of transition risks and physical risks on the real economy and financial systems, and identifies possible impacts on Hana Financial Group

Risk assessment

- Conducts sensitivity analysis and assessment on financial impact based on climate scenarios
- Identifies key risks based on the likelihood and severity
- Selects high-risk areas considering the Group's exposure, carbon intensity, and financed emissions, as well as strategic importance

Risk monitoring and response

- Continuously monitors the Group's financed emissions, focusing on high-risk areas
- For ESG Restricted Industries (high-risk industries for climate change) and Industries with ESG-concerns (high GHG emission industries), establishes the Sustainable Finance Sector Policy to manage risks during investment decision-making

Reporting and disclosure

- Reports key issues to the Sustainable Management Committee
- Discloses the identification results and response status of climate change risks through the Sustainability Report and TCFD Report

Risk management

Climate Change Risk Impact & Management

The transition and physical risks due to climate change have ripple effects on the real economy and financial systems. These impacts can occur directly, such as a decline in corporate profitability and asset value, or indirectly through macro-financial changes. In particular, for the financial sector, the impacts related to borrowers to whom financial institutions provide loans, investments, bonds, can affect the existing risks managed by financial institutions, such as credit risk, operational risk, market risk, and liquidity risk. The extent of potential losses due to climate risks varies depending on the level of GHG reduction policy strengthening, the development of low-carbon technologies, and consumer preferences. Therefore, Hana Financial Group continuously analyzes how the climate risks of borrowers affect the Group's mid- to long-term profitability and growth in response to external environmental changes and establishes measures to address them.

Transmission Path and Management Measures of Climate Change Risks in Financial Systems

Risk Type	Examples of Risk Impact	Management Measures by Hana Financial Group
Credit Risk	• Possibility of default in carbon-intensive industries such as power generation and materials due to increased future carbon costs • Decrease in the collateral value of real estate due to natural disasters which leads to increase in PD and LGD in customers located in physically vulnerable areas	• Analysis of changes in the probability of default in carbon-intensive industries based on future carbon costs using NGFS scenarios • Analysis of the impact of physical risks on borrowers by region/industry based on RCP scenarios
Market Risk	• The impact on the overall financial market due to investment restrictions on specific customer groups following strengthened carbon restrictions • Decline in asset value due to decreased profitability from reduced demand for high-carbon products/ services	• Establishment of the '2030&60' goal to expand green investment for transitioning the Group's asset portfolio to a low-carbon path
Liquidity Risk	• Potential linkage to strategic risk if the portfolio is not adjusted aligned with the transition to a low-carbon society (e.g., increase in liquidity risk due to a sharp adjustment in stock prices caused by stranded assets leading to a decline in the value of the bank's liquid assets) • Liquidity shortages due to increased likelihood of cash withdrawals to fund recovery from natural disasters and sudden extreme weather events	• Establishment of the Sustainable Finance Framework to pre-identify environmental risks during investment decision-making and portfolio management • Identifying buildings and branches vulnerable to climate change in advance to strengthen damage prevention activities
Operational Risk	• Increase in operation costs due to GHG regulations (e.g increase in expenditure on energy costs) • Disruption to bank branch operations due to sudden weather events(e.g Power outages due to floods)	• Establishing 2050 Net Zero targets for business sites and implementing reductions (expanding the adoption of renewable energy, improving energy efficiency, etc.) • Establishing emergency response manuals and conducting simulation drills
Reputation Risk	• Increase in possibility of obtaining negative reputation from regulatory authorities, credit rating agencies, and markets when providing continuous support to carbon-intensive industries	• Disclosing the status of climate change response, including the expansion of green investment, through TCFD report, CDP, and Sustainability Report

Risk management

Sustainable Finance Framework

Hana Financial Group defines sustainable finance as "financial services that contribute to addressing environmental and social issues, promoting shared growth and happiness among all stakeholders." As a leading financial institution in Korea, we are committed to fulfilling the responsibilities of a financial institution by providing sustainable finance to our customers based on the ESG Principles. To transparently manage the Group's mid- and long-term strategies, '2030 & 60' and 'Zero & Zero,' and to communicate with stakeholders, Hana Financial Group has established the 'Sustainable Finance Framework,' which serves as guidelines applied to all our products and services. Additionally, in July 2023, the Sustainable Finance Framework was revised following the resolution of the Sustainable Management Committee under the Board of Directors to strengthen ESG financial management capabilities and establish a financial decision-making process that reflects environmental and social risks.

The Sustainable Finance Framework consists of the Sustainable Finance Policy, Environmental & Social Risk Management Policy, Environmental & Social Risk Integration Policy, Sector Policy, and Biodiversity Policy. Hana Financial Group and our affiliates adhere to all policies to practice sustainable finance.

Hana Financial Group ESG Principles

1. **Strengthening Management Processes Considering ESG**
Hana Financial Group considers ESG throughout the entire process of providing financial products and services.

2. **Development of Products and Services Contributing to the Environment and Society**
Hana Financial Group aims to develop various financial products and services that can assist in the transition and implementation of a sustainable economic system in our society.

3. **Enhancing Communication with Stakeholders**
Hana Financial Group will continuously identify various factors required by stakeholders and establish a system to reflect them in decision-making, promoting ongoing communication.

4. **Participation in ESG Global Partnerships**
Hana Financial Group will actively participate in various domestic and international ESG initiatives and partnerships such as UN PRB, Equator Principles, and TCFD to maximize positive Impacts.

Sustainable Finance Policy	As the most fundamental guide for practicing Hana Financial Group's sustainable finance, this policy evaluates the long-term sustainability of investment targets based on ESG factors and utilizes the this evaluation in investment decision-making.
Environmental & Social Risk Management Policy (ESRM)	To fulfill its environmental and social responsibilities as a financial institution and to practice sustainable finance, this risk management policy identifies, evaluates, and mitigates environmental and social risks in loans and investment decision-making.
Environmental & Social Risk Integration Policy	Integrated policy specifying the risk identification, monitoring, and management system to effectively and efficiently manage environmental and social risks.
Sector Policy	Policy on handling financial products and services with significant negative impacts or potential social issues to reduce potential environmental and social risks and industry-specific risks for all financial products and services provided by Hana Financial Group.
Biodiversity Policy	Recognizing biodiversity issues as a critical aspect of corporate management and incorporating biodiversity elements into the Sustainable Finance Framework and Sector Policy to minimize related risks and potential impacts.

Risk management

Sustainable Finance Framework

Environmental & Social Risk Management Policy (ESRM)

Hana Financial Group has introduced the Environmental and Social Risk Management Policy (ESRM) to identify, assess, and mitigate environmental and social risks in loans and investment decision-making. By considering both the ESRM Policy and global sustainable finance principles, we systematically conduct an 'Environmental & Social Risk review (E&S Risk Review)' for corporate finance, investment and advisory services, project finance, and securities issuers.
Hana Financial Group identifies, assesses, and manages potential environmental and social risks, including those related to human rights, climate change, and biodiversity, for financial transactions subject to the ESRM policy based on the Sustainable Finance Policy and Sector Policy. Particularly for project finance, we adhere to the principles and procedures stipulated by the Equator Principles.

Environmental & Social Risk Integration Policy

Hana Financial Group integrates the environmental and social risks of the company-wide portfolio, including corporate loans, bonds, and investments, into 'The Group's risk management system.' We apply unique screening criteria for each affiliate that takes into account industry characteristics, business and product areas, and define the roles and responsibilities of management entities by specifying the Group's risk response procedures in stages. Risk response is conducted in three stages: ① Identifying and managing key risks, ② Mitigating and resolving risks based on policies, and ③ Monitoring and improving the operation of the internal risk management system.

Hana Financial Group E&S Risk Review Process

	Preliminary Review	Impact Assessment	Result & Implementation	Post Monitoring
	Identification of potential risk factors	Identifying and taking action on significant environmental and social impacts		Implementation of improvement measures
	Front Department and Branches	Credit Review Department, ESG Department, Risk Management Department		
Corporate Finance	• Identification of significant environmental and social risks for corporate customers • Utilization of Self-checklists	• Due diligence in case of significant deterioration of environmental and social risks • Implementation of due diligence based on Sustainable Finance Policy and Cross-Industry corporate due diligence guidelines	• Proposing measures for improvement of environmental and social risks • Support for the implementation of specific measures • Management of industry-specific exposure for the improvement of environmental and social risks	• Regular inspections by the 'ESG Department' on the implementation of environmental and social risk improvement measures • Utilization of monitoring results conducted by a credible third-party organization is possible
Investment and Advisory Services	• Identification of environmental and social risks for securities issuers, financial investment, and advisory service customers	• Due diligence in case of significant deterioration of environmental and social risks • Utilization of Sustainable Finance Policy and external ESG certifications, surveys, and assessment results		
Project Finance	• Application of Equator Principles and IFC Performance Standards • Utilization of Self-checklists	• Classification of risk levels based on scale and severity (Rating A, B, C) • Implementation of E&S due diligence for Rating A and B projects	• Incorporation of measures to improve risks into financial contracts • Review of Equator Principles compliance status for Rating A and B projects led by third-party experts	• Regular inspections by the 'ESG Department' on the implementation of environmental and social risk improvement measures • Considering as default on the financial contracts in case of final non-compliance with measures

Hana Financial Group Risk Management Process and R&R

Process	Department	R&R
Identifying and managing key risks	Credit Review Department / ESG Team	• Leads due diligence for environmental and social impact assessments • Delivers environmental and social risks identified by the sales and business teams, to ESG departments
Mitigating and resolving risks based on policies	Credit Review Department / ESG Team	• Suggests the improvement plans to ESRM policy, including evaluation practice, rating criteria, and due diligence procedures, etc. • For Rating A/B projects with high environmental and social risks, takes measures, establishes monitoring plans, and implements the plans
	Sustainable Management Working Committee	• Reviews implementation of ESRM Policy • Identifies the points of improvement in the ESRM policy • Supports additional solutions for the unresolved environmental and social risks (e.g., reviewing extra due diligence practices, external experts, etc.)
Monitoring and improving the operation of the internal risk management system	Sustainable Management Steering Committee	• Monitors and manages the group and business's overall ESG risk management system, including environmental and social risks • Reviews and approves the additional solutions for unresolved environmental and social risks
	Sustainable Management Committee	• Decides the group and business ESG risk management strategy
	Risk Management Committee	• Provides advice on ESG risk management policies, strategies, and systems as the top governance of group risk management

Risk management

Sustainable Finance Framework

Sector Policy

Hana Financial Group diligently identifies key considerations within various industries that must be managed through the "Environmental and Social Risk Management Policy" (ESRM) and strives to mitigate potential environmental and social impacts. We prohibit the handling of financial products and services that could have significant negative environmental impacts or pose evident social concerns, in order to mitigate potential environmental and social risks arising from industry-specific characteristics.

Industries related to fossil fuels such as coal, oil mining, and coal-fired power generation are designated as 'ESG restricted industries', while industries with a high proportion in the Group's asset portfolio and significant GHG emissions, such as steel and chemicals, are designated as 'Industries with ESG-concerns'. Hana Financial Group establishes sustainable finance sector policies for key industry incorporated in investment decision-making.

Hana Financial Group Sector Policy

Sector
Agriculture and Fisheries
Forestry
Mining
Oil and Gas
Energy

Policy	
Scope	• Definition of detailed industrial activities and specification of relevant industries based on the Korean Standard Industrial Classification (KSIC)
Major Environmental and Social Risks	• Potential environmental/social risks in specific industry
Priority	• Criteria for demanding specific and systematic responses in the environmental and social risk evaluation process
Exclusion	• Criteria for excluding specific companies, transactions, products, and services from consideration
Global Initiative Adoption	• Global principles and initiatives that Hana Financial Group additionally refers to in implementing sector policies, and actively recommends to customers

Biodiversity Policy

Natural capital refers to natural resources such as plants, animals, air, water, and soil, and the stability of natural capital is supported by biodiversity. However, due to the impacts of industrial development, global biodiversity is declining at an unprecedented rate. The loss of biodiversity leads to a reduction in ecosystem services that industries and society depend on, which ultimately has extensive impacts on the economy, society, and the environment, necessitating thorough risk management.

Hana Financial Group revised its Sustainable Finance Framework in July 2023 and established internal policies related to biodiversity to minimize risks and potential impacts associated with biodiversity. Through this, we plan to establish investment principles, criteria, and key management areas in the area of biodiversity that are applied to Hana Financial Group's corporate loan and investment process, and develop biodiversity-related risk assessment criteria and processes.

Hana Financial Group Biodiversity Policy

Our Commitment	• Contributing to the mid- to long-term goals of the Convention on Biological Diversity(CBD)
Risk Assessment	• Measuring biodiversity risks according to the LEAP methodology presented by the Task-force on Nature-related Financial Disclosure (TNFD) • Incorporating measured biodiversity risks into ESRM for management
Key Criteria	• Adhering to major international biodiversity agreements (International Union for Conservation of Nature (IUCN), Ramsar Convention, etc.) and domestic laws (Act on the Conservation and Utilization of Biodiversity, etc.)
Loan and Investment Review Assessment Criteria	• **Customer Evaluation** : If a customer's business activities are expected to have a significant impact on biodiversity, priority is given to customers who have obtained third-party certification and verification (customers without the certification and verification will undergo due diligence to assess risks) • **Suitability Assessment for Loans and Investments** : In cases where project finance and investment projects are located within biodiversity conservation areas and are expected to have a significant impact, customers must submit documentation addressing relevant regulations and undergo third-party assessment (the group will verify the adequacy of the response measures)
Implementation Strategies	• Presenting key response measures of Hana Financial Group (collaboration/participation in initiatives, strengthening cooperation with customers and adjusting investment strategies, assessing biodiversity impact/risk/dependency and setting reduction goals, expanding disclosures, etc.)

Risk management

Sustainability Management of Financial Product

Hana Financial Group practices sustainable finance by considering environmental and social impacts throughout the entire financial decision-making process. We apply the Environmental and Social Risk Management Policy (ESRM) in the eligibility review and approval process of corporate finance to reflect ESG factors. For retail finance, various ESG risk factors are considered through a checklist at the product planning stage to exclude or consider ESG risk factors that should not be implemented. Approved financial products are regularly monitored based on risk indicators derived from the consumer risk monitoring system. For businesses and transactions that can generate high levels of environmental and social risks, the implementation of measures is included as a condition of the contract, and compliance is closely managed. For retail finance customers, we deliver relevant information through interactions using mobile platforms such as SNS relay campaigns and contests and offline channels such as exhibitions and lectures so that they can be aware of related risks and naturally implement ESG factors.

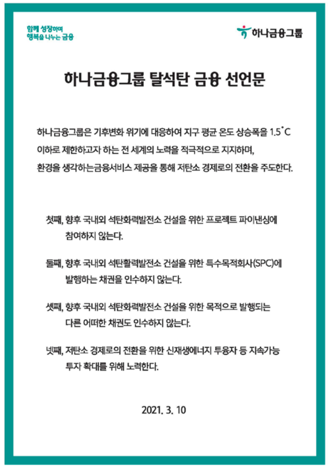
Corporate Finance	Definition of ESG factors considered	• Environmental Factors: Environmental management system, climate change response strategies, energy consumption, water usage, waste emissions, biodiversity protection, environmental investment costs, etc. • Social Factors: Human rights, education and training, occupational safety and health, personal information protection, etc. • Governance Factors: Independence and diversity of the Board of Directors, materiality assessment, risk management system, corporate ethics and tax, etc.
Corporate Finance	Due diligence/ Identification Process (CDD/KYC)	• In the process of Environmental and social impact assessments, we adhere to due diligence guidelines from credible global institutions such as the 'OECD Due Diligence Guidance for Responsible Business Conduct' to review the suitability of financial transactions.
Consumer Finance	Definition of ESG factors considered	• Environmental Factors: Energy efficiency, purchase of eco-friendly vehicles, reduction of GHG emissions in daily life, etc. • Social Factors: Addressing low birthrate, revitalizing the local economy, supporting the growth of small business owners and the self-reliance of vulnerable, solving social issues, and providing relief to victims, etc.

Declaration of Decarbonization

In March 2021, Hana Financial Group declared 'Decarbonization finance', supporting the Paris Climate Agreement and completely halting new funding for the construction of domestic and international coal-fired power plants. This reflects Hana Financial Group's commitment to transition to a low-carbon economy and sustainable development, mitigating potential environmental and social impacts in various industries through the Environmental and Social Risk Management Policy (ESRM), and achieving zero GHG emissions from business sites and financed emissions by 2050.

Accordingly, Hana Financial Group has established an ESG Finance Evaluation System that incorporates the Korean Green Taxonomy (K-Taxonomy) to meticulously screen whether the activities are suitable for sustainability. We will not invest new funds in financial products and services that could have a negative environmental impact or could clearly raise social issues. Furthermore, we plan to zero out all project financing and bonds invested in or acquired in the past in projects such as coal-related industrial infrastructure such as coal and coal-fired power, oil sands, shale oil gas, Arctic Ocean oil gas, and deep sea water oil gas by 2045.

Hana Financial Group Declaration of Decarbonization


함께 성장하며
행복을 나누는 금융

하나금융그룹

하나금융그룹 탈석탄 금융 선언문

하나금융그룹은 기후변화 위기에 대응하여 지구 평균 온도 상승폭을 1.5˚C 이하로 제한하고자 하는 전 세계의 노력을 적극적으로 지지하며, 환경을 생각하는금융서비스 제공을 통해 저탄소 경제로의 전환을 주도한다.

첫째, 향후 국내외 석탄화력발전소 건설을 위한 프로젝트 파이낸싱에 참여하지 않는다.

둘째, 향후 국내외 석탄활력발전소 건설을 위한 특수목적회사(SPC)에 발행하는 채권을 인수하지 않는다.

셋째, 향후 국내외 석탄화력발전소 건설을 위한 목적으로 발행되는 다른 어떠한 채권도 인수하지 않는다.

넷째, 저탄소 경제로의 전환을 위한 신재생에너지 투융자 등 지속가능 투자 확대를 위해 노력한다.

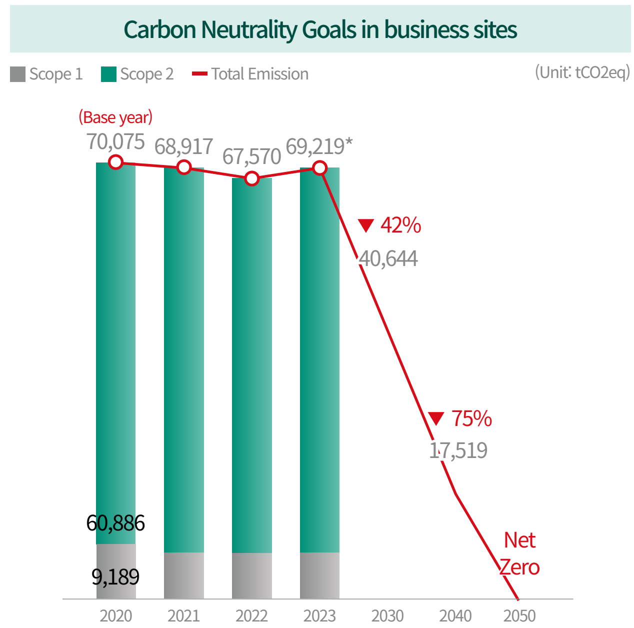
2021. 3. 10

Metric & Target

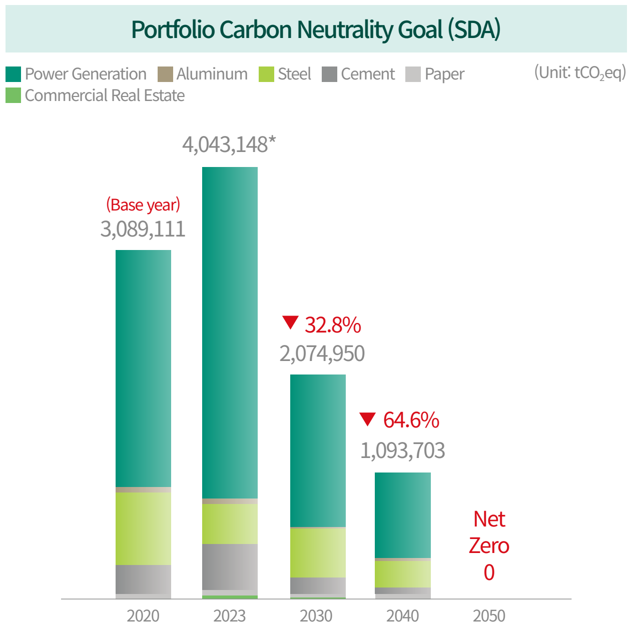
Targets for GHG Emission Reduction

Hana Financial Group has established carbon neutrality targets for GHG emissions from its business sites (Scope 1&2) and financed emissions in accordance with the reduction target-setting methodology presented by the Science Based Targets initiative (SBTi). These targets received approval from SBTi in 2022. The carbon neutrality target for business sites (Scope 1&2) aims to reduce GHG emissions by 42% by 2030 compared to the base year of 2020, aligning with the 1.5°C scenario, and to achieve Net Zero by 2050. The carbon neutrality target for financial emissions was set according to the less than 2°C scenario, and reduction targets were made by dividing into 7 high-emission industries (power generation PF, power generation, steel, cement, aluminum, paper & pulp, and commercial real estate) and other corporate finance sectors.

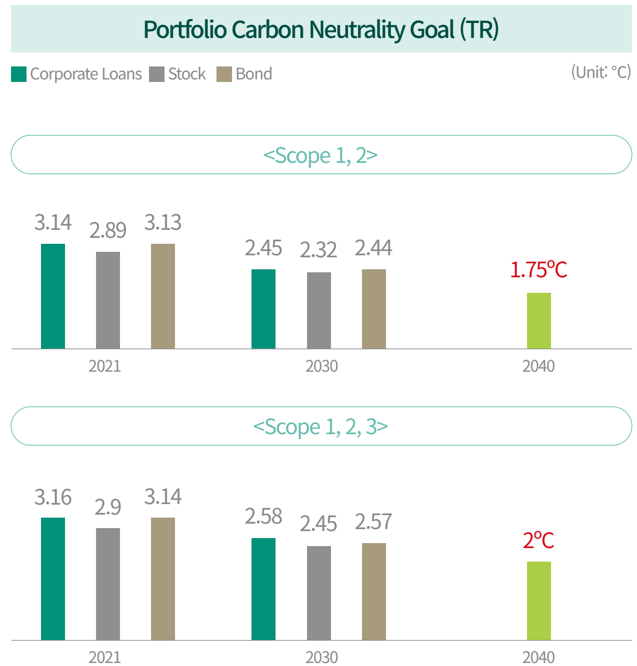
For high-emission industries, reduction targets have been set using the Sector Decarbonization Approach (SDA)[1], aiming to reduce GHG emissions by 32.8% by 2030 compared to 2020, and to achieve Net Zero by 2050. The Temperature Rating Approach (TR) was applied to the entire corporate finance sector, including corporate loans, stocks, and bonds held by the Group other than the SDA industry. By 2040, we have set a target of 1.75°C for the borrower's direct and indirect emissions (Scope 1&2) and 2°C for Scope 1, 2, and 3 emissions rating including the borrower's supply chain.



* Increase in GHG emissions in 2023 due to increased power usage at Hana Bank Cheongna IDC



*Increase in SDA GHG emissions in 2023 due to the expansion of the scope of assets measured



1) Sectoral Decarbonization Approach (SDA), applies only to representative industries with high-emission –paper, steel, cement, aluminum, power generation, commercial real estate, and power generation PF

Metric & Target

Targets for Green Investment Expansion

In accordance with the 2015 Paris Agreement and the carbon neutrality targets set by major countries worldwide, the financial sector is utilizing various financial instruments to contribute to achieving these targets. Hana Financial Group has also set the targets for 2030 & 60, aiming to raise and supply a total of KRW 60 trillion in ESG Finance for the environment and sustainability sectors by 2030 to contribute to global carbon neutrality and lead the transition to a low-carbon economic system. We have established specific targets to achieve KRW 25 trillion in ESG loans, KRW 25 trillion in ESG bond issuances, and KRW 10 trillion in ESG Investment. In addition to GHG emission reduction projects, the Group plans to expand financing for small to medium businesses and startups that possess related technologies. In 2023, Hana Bank launched the 'Hana ESG Sustainability-Linked Loan' to support the ESG management activities of small businesses and issued a social covered bond worth EUR 600 million, thereby expanding the scale of ESG Finance. Moving forward, Hana Financial Group aims to fulfill its role as a leading ESG financial institution by developing various ESG-related financial products across all its affiliates.

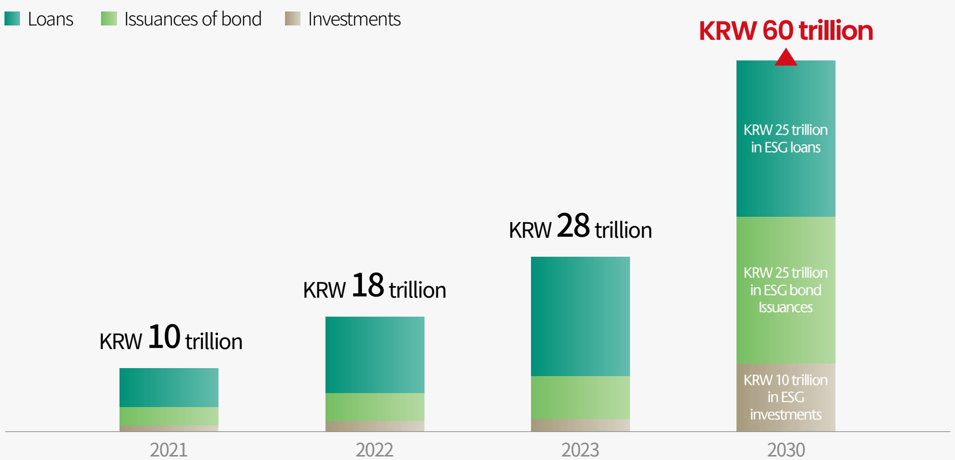
Investment in ESG Bonds

Hana Financial Group is expanding its investments in ESG bonds, which are issued for the purpose of corporate social responsibility investments. We plan to steadily increase its ESG bond investment annually, aiming to achieve a target* of KRW 17 trillion in ESG bond investment by 2030. As of the end of 2023, Hana Bank's ESG bond investment amounts to KRW 16.4771 trillion (over USD 1 billion). In detail, Hana Bank is managing funds by investing KRW 1.1376 trillion in green bonds, KRW 14.2923 trillion in social bonds, and KRW 1.0473 trillion in sustainable bonds.

* This is a target for bond investment amount, and is different from the target for the bond issuance amount for the 2030 & 60 targets.

Targets for 2030&60

Aims to reach KRW 60 trillion by 2030 in loans, investments, and financing for green and sustainable sectors



		2021	2022	2023	2030
Loans	• Total amount of ESG loans (including eco-friendly business, ESG-related corporation and projects) • Sum of corporate loans and retail loans	KRW 5.9 trillion	KRW 12.4 trillion	KRW 19.6 trillion	**KRW 25 trillion**
Issuances of bond	• Total amount of ESG bond issuances (including investment in eco-friendly businesses and all domains related to ESG such as support to the vulnerable and SMB (small-to-medium business))	KRW 2.9 trillion	KRW 4.3 trillion	KRW 6.5 trillion	**KRW 25 trillion**
Investments	• Total amount of ESG investments (including sustainable investments, social responsibility investments, impact investments, etc. beyond eco-friendly investment)	KRW 1.1 trillion	KRW 1.8 trillion	KRW 2 trillion	**KRW 10 trillion**

*Cumulative from 2021 to 2023

Appendix

Climate Change-related Data

Greenhouse Gas (GHG) Emissions[1]

(Unit: tCO_2eq, tCO_2eq/person)

Item		2020	2021	2022	2023
Direct emissions (Scope 1)	Based on target management system	7,971	7,454	7,101	7,370
	As of SBT	9,189	7,757	7,687	7,816
Indirect emissions (Scope 2)	Based on target management system	55,975	56,464	55,443	57,773[2]
	As of SBT	60,886	61,160	59,883	61,403
Total (Scope 1+2)[3]	Based on target management system	63,946	63,918	62,544	65,143
	As of SBT	70,075	68,917	62,570	69,219
GHG Emissions Intensity (Employees)	Based on target management system	4.76	4.78	4.77	4.72
	As of SBT	3.93	3.88	3.85	3.76

1) Target management system criteria: Hana Bank head office and branches, tenant companies of Myeongdong building (Hana Financial Holdings, Hana Bank, Hana Card, Hana Life, Hana F&I, Hana Alternative Asset Management, Hana Investors Services)
SBT criteria: All operation sites of Hana Financial Group

2) Increase in GHG emissions in 2023 due to increased power usage at Hana Bank Cheongna IDC

3) Total emissions based on target management system are applied as the sum of Scope 1 and Scope 2

Energy Consumption by Energy Type[1]

(Unit: TJ, TJ/person)

Item	2020	2021	2022	2023
Fuel Consumption	132	125	119	132
Electricity Consumption	1,133	1,137	1,108	1,237
Steam Consumption	19	49	55	50
Total consumption	1,284	1,311	1,282	1,419
Energy use intensity (Employees)	0.0721	0.0738	0.0746	0.0771

1) All operation sites of Hana Financial Group

* Hana Financial Group 2023 renewable energy consumption: 511.4 GJ (including solar power at Hana Financial Group Euljiro Headquarters and Hana Bank Cheongna IDC)

Scope 3 Emission[1]

(Unit: tCO_2eq)

Item	2020	2021	2022	2023	Emission Item Calculation Criteria
Purchased goods and services	1,119	1,283	1,201	1,203	• Number of new cards issued • Number of new bankbooks issued • Number of paper consumed • Water consumption
Capital goods	63	214	492	445	• Amount of laptops and desktop computers purchased • Amount of monitors and printers/multi-function purchased (2022 included)
Upstream transportation and distribution	345	262	263	291	• Cash transport distance
Waste generated in operations	243	263	183	183	• Amount of garbage bags purchased • Amount of waste collected and recycled
Business trip	426[2]	2,832	3,363	1,092[3]	• Employees' business trip distance
Employee commuting	5,190	9,365	8,240	8,608	
Use of sold products	3,407	3,542	1,010[4]	1,048	• Usage hour of internet/mobile banking
End of life treatment of sold products	413	351	265	240	• Number of cards disposed • Number of bankbooks disposed
Total	11,206	18,112	15,018	13,109	

1) All operation sites of Hana Financial Group (Self-Calculated Values)
2) Reduced international business travel due to COVID-19
3) International business travel, which had surged after COVID-19, have decreased to average levels
4) Change in emissions calculation formula (utilizing monthly active users)
*Prioritized highly relevant items among the 15 categories of Scope 3

Financed Emissions by PCAF Asset Class[1]

(Unit: 10,000 tCO_2eq, KRW trillion, tCO_2eq/KRW 100 million, score)

Item	Financed Emissions	Exposure	Intensity	Data Score[2]
Listed equity and corporate bonds	426	55.5	7.7	2.7
Business loans and unlisted equity	1,399	167.8	8.3	4.0
Project finance	83	8.4	9.9	4.6
Commercial real estate	19	2.7	6.9	4.0
Mortgage	20	42.7	0.5	4.0
Motor vehicle loans	42	9.1	4.6	2.2
Sovereign bonds	390	17.8	21.9	1.0
Total	2,379	303.9	7.8	-

1) Based on 10 affiliates of Hana Financial Group in 2023 (Hana Bank, Hana Securities, Hana Card, Hana Capital, Hana Life, Hana Insurance, Hana Savings Bank, Hana Asset Trust, Hana TI, Hana Ventures)
2) Scores are assigned from 1 to 5 according to the data quality framework provided by PCAF, with lower scores indicating higher data reliability

Appendix

TCFD Index

Topic		Disclosure	Reference Page
Governance	A	Describe the board's oversight of climate-related risks and opportunities.	5-6
	B	Describe management's role in assessing and managing climate-related risks and opportunities.	
Strategy	A	Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.	7-17
	B	Describe the impact of climate-related risks and opportunities on the organization's business, strategy and financial planning.	
	C	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	
Risk Management	A	Describe the organization's processes for identifying and assessing climate-related risks.	18-23
	B	Describe the organization's processes for managing climate-related risks.	
	C	Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.	
Metrics and Targets	A	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	24-26
	B	Disclose Scope 1, Scope 2, and if appropriate, Scope 3 GHG emissions and the related risks.	
	C	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	

Hana Financial Group