2022 Task Force on Climate-Related Financial Disclosures Report

南山人壽
Nan Shan Life

CONTENTS

Letter From The Chairman

Climate change poses a major risk to the global economy and cannot be ignored. Nan Shan adheres to TCFD guidelines in considering various climate risks and opportunities related to low-carbon economic transitions, and actively incorporates climate risk assessment and management mechanisms. As a company which acts upon its corporate social responsibilities, Nan Shan works to be a "low-carbon insurance pioneer" while striving to achieve operational stability. We incorporated our core capabilities to promote a series of low-carbon and sustainable actions which exerted the influence of the life insurance industry to enable green actions as well as realized mutual benefits and mutual prosperity for corporate operations and environmental sustainability.

We fully understand the financial industry's mission to achieve net-zero transitions, particularly in the face of challenging climate-related risks. To achieve our 2050 net zero emissions goal, we need to expend all efforts, invest resources effectively, and take countermeasures. As a leading insurance brand in Taiwan, we pledge to demonstrate leadership in this industry, and we call upon our employees to integrate climate-related risks in the scope of their duties and face the challenges caused by climate change. Nan Shan will continue to safeguard client interests, promote sustainable development, and drive low-carbon economic transitions.

Chairman of Nan Shan Life
Convener of Corporate Sustainability Committee
Chung-Yao Yin

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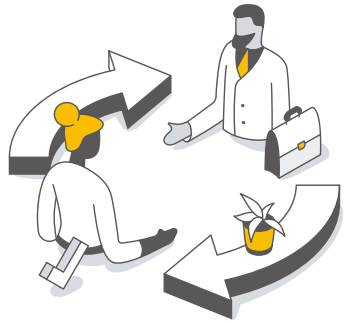
About This Report

According to the Global Risks Report 2023 published by the World Economic Forum (WEF), climate-related risks such as unmitigated climate change, failure of climate change adaptation, natural disasters, and extreme weathers will soon pose the most serious risks to the world in the next decade. All governments are actively formulating regulations and strengthening efforts to combat climate change. Taiwan amended the "Climate Change Response Act" in February 2023 to provide clear stipulations for national 2050 Net Zero Emission goals which are expected to impact the economy in several different ways. To clarify and respond to corporate impacts from global climate-related issues, Nan Shan used the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations released by the Financial Stability Board (FSB) to identify and assess climate-related risks and opportunities associated with business matters, establish climate governance frameworks and climate strategies, and enable regular tracking of management implementations through metrics and targets to ensure climate resilience. This Report is divided into four sections. The first section "Climate Governance" outlines the responsibilities and governance frameworks of Nan Shan Life's Board of Directors and senior management. The second section "Climate Strategy" explains how Nan Shan identifies climate risks and opportunities as well as how scenario analyses were conducted for physical and transition risks. The third section "Climate Risk Management" describes how Nan Shan Life established risk management mechanisms in response to impacts from climate-related risks. The last section "Climate Metrics and Targets" explains Nan Shan Life's climate metrics and targets. Nan Shan Life makes a contribution by launching low-carbon insurance as a forerunner in the industry, and we implement and promote various carbon reduction action plans to minimize the environmental impacts of our operations.



Scope of Disclosure

The scope of disclosure for this Report encompasses Nan Shan Life and subsidiary Nan Shan General Insurance (hereinafter referred to as Nan Shan), as well as associated operations in Taiwan.

Disclosure Period

The information disclosed in this Report covers the period from January 1 to December 31, 2022 and includes some events that occurred during the compilation period for this Report (2023) as well as supplemental information on climate-related actions and performance for previous years.

Compilation Principles

Task Force on Climate-Related Financial Disclosures (TCFD)

Nan Shan Climate Governance Milestones

Nan Shan formed the TCFD team in the second half of 2020 and adhered to TCFD recommendations in building a climate-related risk and opportunity management framework. The TCFD team regularly reports implementations to the Board.

2015
- Implemented ISO 14064-1 greenhouse gas inventories

2016
- Completed ISO 14064-1 greenhouse gas inventory verifications
- Nan Shan General Insurance launched "additional terms for residential green energy upgrades" for green insurance products

2018
- Nan Shan Life introduced the ISO 14067 carbon footprint standard
- Obtained SGS-Taiwan and Environmental Protection Administration Carbon Footprint Label certificates, becoming the first insurance company in the world to receive dual product carbon footprint certification

2019
- Nan Shan Life introduced the "PAS 2060 Carbon Neutral Implementation Standard" for micro-insurance policies

2020
- Established climate governance framework and formed a TCFD team
- Compliance with TCFD recommendations was verified by SGS-Taiwan, an independent third-party verification institute, and a Practitioner certificate was obtained

2021
- Received Bronze Environmental Sustainability Award at the first Taiwan Sustainability Action Awards
- Nan Shan General Insurance introduced the ISO 14067 carbon footprint standard
- Nan Shan General Insurance introduced the "PAS 2060 Carbon Neutral Implementation Standard" for electronic insurance policies
- Invested in establishment of green power generation systems

2022
- Used the Partnership for Carbon Accounting Financial (PCAF) methodology to calculate GHG emission of investment portfolios
- Assessed solar power generation benefits of self-owned buildings

2023
- Signed SBTi science-based reduction target initiative commitments and continued to set carbon reduction targets

CH1 Governance

1.1 Climate Governance Framework

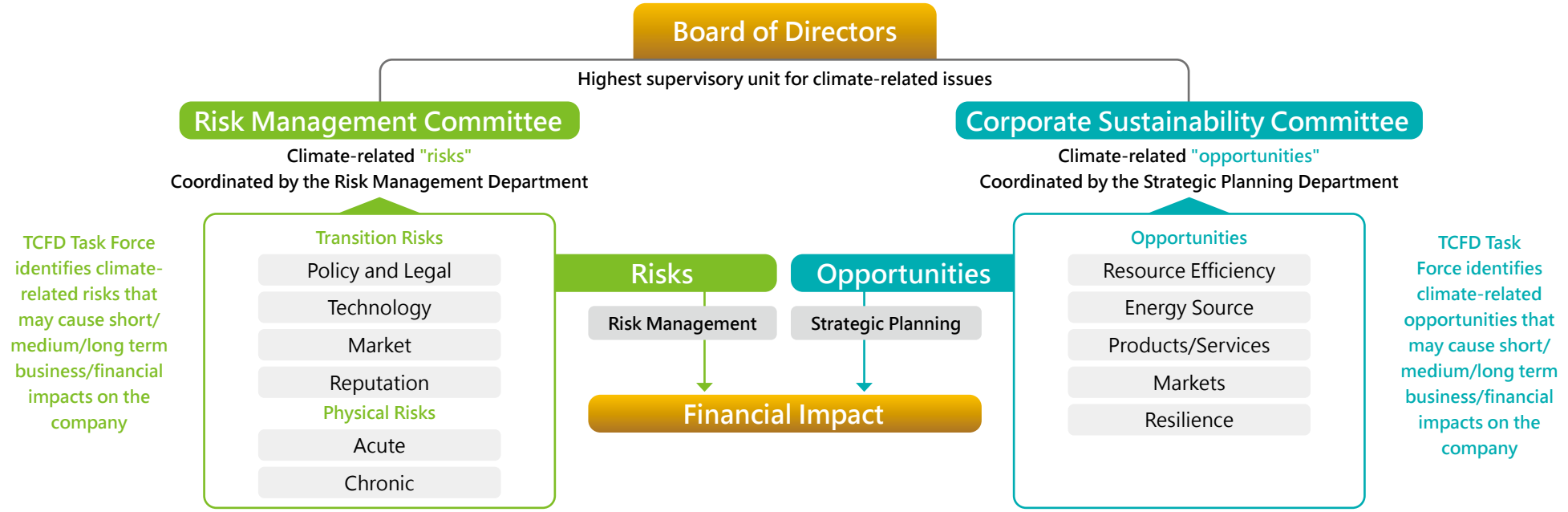
1.1 Climate Governance Framework

1.1.1 Board Oversight

The Board of Directors is the highest supervisory unit for climate-related issues at Nan Shan, and is responsible for approving climate-related risk management policies, supervising climate-related actions and implementations of climate-related metrics and targets, incorporating climate-related risks and opportunities when considering operational and investment management frameworks, and assessing impacts of climate-related risks and opportunities on strategies and adaptation plans. The Risk Management Committee and Corporate Sustainability Committee, both functional committees established under the Board, are responsible for regularly supervising management and implementations of climate-related risks and opportunities. To ensure that our directors have a clear understanding of climate-related risks and opportunities, we provide education and training on climate-related issues to Board members so they can better understand international developments and trends in climate-related management. For effective management of possible future impacts from physical and transition risks, Nan Shan drafted an appetite statement for climate-related risks which adheres to the Taiwan's Pathway to Net-Zero Emissions in 2050 plan released by the Taiwanese government and is based on SBTi commitments. We will continue to assess the impacts of physical and transition risks on corporate assets and debts to enable continual refinement of management capabilities for climate risks. To achieve effective climate change and sustainability governance, Nan Shan will continue to integrate climate-related factors into performance review.

1.1.2 Senior Management

The President supervises and assigns the relevant departments or working groups to be responsible for the management of climate-related risks and opportunities; and continues to monitor management and disclosures related to climate-related risks and opportunities. Management of climate-related risks are mainly coordinated by the Risk Management Department, which reports implementations by the TCFD team to the President, Risk Management Committee, and the Board. Management of climate-related opportunities are mainly coordinated by the Strategic Planning Department, which reports implementations by the Corporate Sustainability Team to the President, Corporate Sustainability Committee, and the Board.


Board of Directors
Highest supervisory unit for climate-related issues
Risk Management Committee
Climate-related "risks"
Coordinated by the Risk Management Department
Corporate Sustainability Committee
Climate-related "opportunities"
Coordinated by the Strategic Planning Department
TCFD Task Force identifies climate-related risks that may cause short/ medium/long term business/financial impacts on the company
Transition Risks
Policy and Legal
Technology
Market
Reputation
Physical Risks
Acute
Chronic
Risks
Opportunities
Risk Management
Strategic Planning
Financial Impact
Opportunities
Resource Efficiency
Energy Source
Products/Services
Markets
Resilience
TCFD Task Force identifies climate-related opportunities that may cause short/ medium/long term business/financial impacts on the company

CH2 Strategy

Nan Shan Life mainly facilitates sales of life insurance and related businesses, with total premium incomes amounting to 13% of the Taiwanese market; the subsidiary Nan Shan General Insurance mainly facilitates sales of property insurance and related businesses. Faced with challenges such as demographic changes, increasing frequency of natural disasters, and uncertainties in global political and economic environments, Nan Shan understands that the only way to respond to these challenges is to maintain the essence of protection functions provided by the insurance industry to implement asset and liability management, provide appropriate insurance products and services from the perspective of customer and market needs, and actively implement product and channel transformations. In summary, Nan Shan plans to further implement established short-term and long-term business development plans, including:

01 Promote value transformations, guide channels in maintaining the essence of insurance protections, and realize the meaning and function of insurance to reflect insurance values.

02 Promote digital transformation to strengthen business management and remote insurance processes, and also use digital client platforms to analyze and integrate customer information, thereby connecting health management and customer services.

03 Adhere to Treating Customers Fairly principles and provide friendly financial services and environments for relatively disadvantaged groups such as the elderly, the disabled, and rural groups.

04 We strive to practice inclusive finance and care for the disadvantaged in society to ensure that our professional services meet customer needs. We also continue to refine ESG related actions to realize sustainable finance and fulfill our corporate responsibilities.

05 Pioneer new group insurance models within the industry and provide protection plans for all stages of career development based on industry characteristics and company scale. We also plan to strengthen the added value of customer experiences and continue transformations of corporate channels, create digital development blueprints, and further enhance recognition of the Nan Shan brand to become a benchmark of sustainable corporate operations.

Faced with uncertainties from climate-related risks, Nan Shan promotes "energy and carbon reductions," "energy management," and "green building" plans to achieve environmental sustainability and management. Apart from committing to the 2050 net zero emissions climate vision goal, we also adopt specific actions plans such as developing green insurance products and services to assist stakeholders in reducing impacts from climate-related risks, discovering new investment and industrial opportunities, and driving society toward low-carbon transitions.

In future, Nan Shan Life will continue to assess and incorporate long-term investment considerations for green and sustainable investments based on Principles for Responsible Investment (PRI), and establish related action plans based on the sustainable vision goals set by the Responsible Investment Team subordinate to the Corporate Sustainability Committee. Nan Shan Life's "Investment Policy Guidelines" stipulate management of climate-related investment matters. Investment regulations for carbon intensive industries and mechanisms for strengthening shareholder activism have been incorporated into internal regulations to facilitate understanding of potential risks and opportunities caused by climate change and serve as a reference when conducting investments in future. Nan Shan simultaneously monitors potential investment targets under low-carbon transition economies to exert positive financial influence.

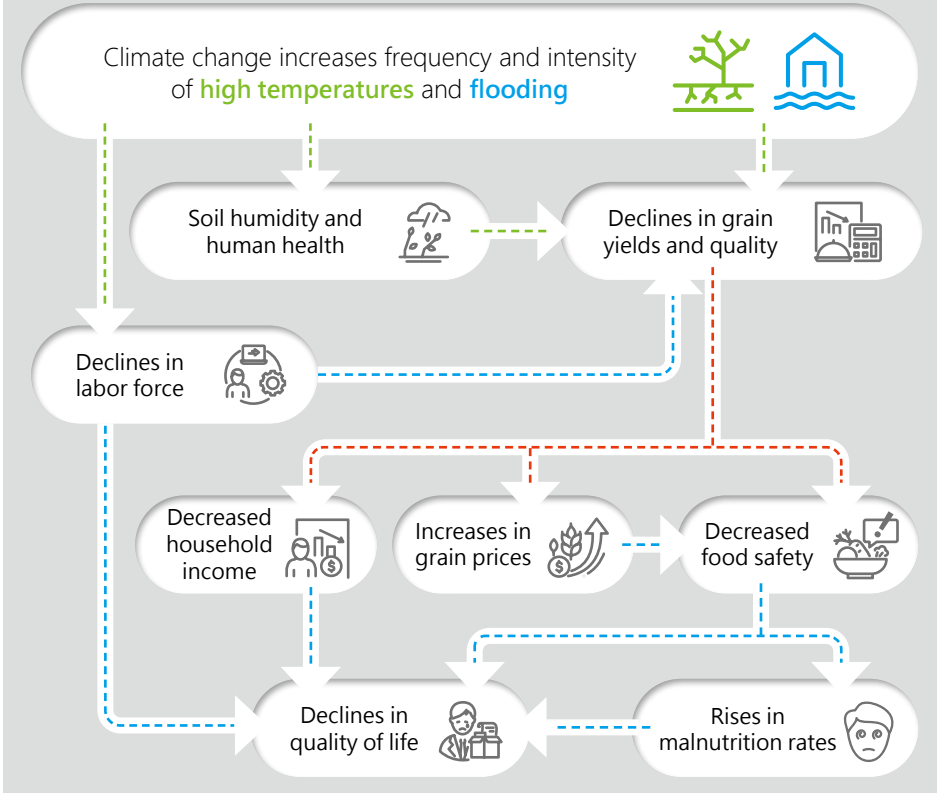
2.1 Climate-Related Risks and Opportunities

Nan Shan surveys climate-related risk and opportunity categories that impact the financial industry by establishing a database of climate-related risk issues based on climate transition and physical risks listed in TCFD guidelines, climate-related financial disclosures released by financial peers, and domestic and foreign climate-related research reports such as the World Energy Outlook 2020 (WEO 2020) report released by the International Energy Agency (IEA) and the IPCC AR6 WG1 report released in 2021 by the Intergovernmental Panel on Climate Change (IPCC). Related business units study direct or indirect potential impacts on the company from climate-related issues based on business characteristics and link these with traditional existing risks to further identify climate-related risks and opportunities associated with Nan Shan.

2.2 Transmission Pathways for Climate-Related Risks

Nan Shan studied links between climate-related risks and existing risks in the insurance industry to understand how climate-related risks affect operations of insurance companies, and compiled transmission pathways for Nan Shan's climate-related risks based on transmission pathways for impacts on the economy and social stability from climate-related risks:

Schematic diagram showing transmission pathways of impacts on the economy and social stability from climate-related risks (using high temperatures and floods as examples)



Transmission Pathways for Climate-Related Risks

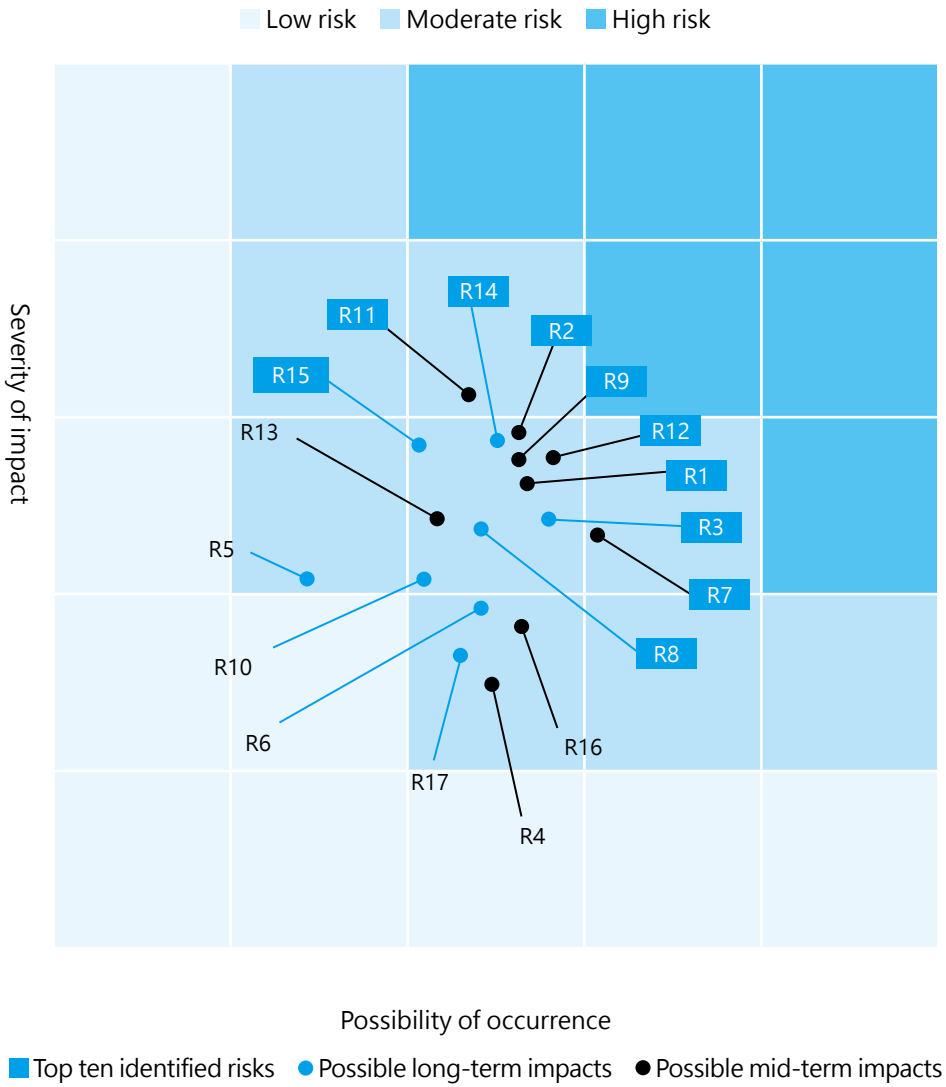
Risk Item	Credit Risks	Market Risks	Insurance Risks	Operational Risks	Other Risks
Definition	Decreased profitability of counterparties and deterioration of repayment abilities increase default risks for insurance companies.	Increased volatility in market prices due to external risk factors affects physical and financial assets in the insurance industry, which in turn decreases overall revenues, cash flows, and asset values.	Risks transferred by insured parties and risk of losses from unexpected changes when paying out claims and related expenses according to contracts.	Operational risks refer to risks stemming from physical and transition risks which directly impact the ability of the insurance industry to continue operations, or risks of corporate losses caused by external events, including legal risks and legal compliance risks.	Refers to material risks that affect corporations which are distinct from the aforementioned risks, including but not limited to insurance risks and reputational risks. These risks are difficult to quantify, but companies should develop appropriate management processes to reduce risk of potential losses.
Transition Risks	Operational costs may increase for some industries due to new climate-related regulations (such as energy transition regulations), which may even result in operational difficulties that in turn impact repayment capabilities, raising default probabilities.	Impacts from regulations or innovative technologies may result in reduced revenues for carbon intensive industries in investment portfolios and create stranded assets, affecting shareholder equity and increasing market risks.	Impacts from regulations or innovative technologies may result in market exits by some industry players, lowering corporate income from insurance premiums and affecting profitability.	Legal risks may arise due to failure to comply with new climate-related regulations or policy requirements, or operational interruptions may occur due to use of immature low-carbon transition technologies (such as green electricity).	Non-compliance with climate-related regulatory requirements or inability to achieve pledged climate-related targets may impact Nan Shan's reputation, raising reputational risks.
Physical Risks	Physical risks may cause direct losses to real estate collateral (such as from floods or wind disasters) or indirect impacts to existing business models and values. For example, droughts may lower the value of some collateral items, thereby increasing default loss rates.	Severe climate events (such as typhoons) may directly damage investment targets and affect corporate profitability, thereby affecting associated markets and securities values.	Including but not limited to risks to human health caused by changes in long-term climate patterns, or loss of lives or properties of insured parties due to extreme weather events, resulting in increased claim amounts.	Severe climate events may damage business location, paralyze systems, and result in manpower deployment problems, directly affecting the abilities of these sites to continue operations.	Severe climate events may increase the likelihood of accidents for insured parties, increasing claim amounts for accident injury claims and mortality claims, raising insurance risks.

2.2.1 Identified Climate-Related Risks

Nan Shan has established identification processes for climate-related risks and opportunities to understand impacts on Nan Shan from climate-related risks; our actions corresponding to climate-related risks are guided by the two aspects of "mitigation" and "adaptation."

In 2022, we assessed the occurrence likelihoods and impact levels of 17 climate-related issues through survey distribution, and identified our top ten climate-related risks, which include four physical risks and six transition risks. Nan Shan also discussed and assessed potential business and financial impacts stemming from different climate-related risks to formulate adaptation and response measures to these risks.

Matrix of climate-related risks



The top ten climate-related risks for 2022 are listed below in order of materiality:

Identified climate-related risks and potential impacts

Rank	Issue Label	Risk Type	Time of Occurrence	Climate-Related Risk Issue	Description	Corresponding Inherent Risks	Potential Business or Financial Impacts
1	R12	Physical risk-Acute	Medium term	Losses in company assets due to climate disasters	Impairment or increased replacement cost for the Company's existing real estate and business locations at high physical risk locations.	Operational risks	▪ Existing asset write-off and early asset retirement ▪ Higher insurance premiums; assets at high physical risk locations may be less eligible for insurance coverage. ▪ Increase operating costs.
2	R2	Transition risk-Policy and Legal	Medium term	Policy requirements to increase the proportion of green buildings	The Company needs to increase the proportion of green buildings in response to related regulations and tenant expectations. These changes will increase operating costs.	Operating risks	▪ Increase operating costs ▪ Increase investment costs
3	R11	Physical risk-Acute	Medium term	Increased insurance claims from insured targets suffering from climate-related damages.	The Company's insured targets in high physical risk locations may be subject to climate damages, such as personnel or property damages from typhoons or heavy rainfalls. This increases both the frequency and cost of insurance claims.	Insurance risks	▪ Increase insurance claim and risk probability
4	R9	Transition risk-Market	Medium term	Investment losses from inaccurate market and customer information	Due to the Company's vast investment holdings by its business nature, the increase in the environmental sustainability awareness and real estate related risks in the future may directly affect the market value of the investment targets, resulting in the impairment and loss of the Company's investment values.	Market risks	▪ The investment targets in the carbon intensive industry list are affected by the climate changes, which may cause the decrease in their lower corporate earnings, cash flows, and asset values. The decrease in the market value of the investment targets leads to the impairment of the Company's investment values.
5	R14	Physical risk-Chronic	Long-term	Insured targets suffer from losses due to rising sea levels	For the Company's insured subjects at high physical risk locations (e.g. by the sea or in low-lying areas), there is a higher probability for accidents and losses leading to an increase in claim costs.	Insurance risks	▪ Increase insurance claim and risk probability

Rank	Issue Label	Risk Type	Time of Occurrence	Climate-Related Risk Issue	Description	Corresponding Inherent Risk	Potential Business or Financial Impacts
6	R7	Transition risk-Technology	Medium term	Current products and services at the risk of being replaced by low carbon alternatives may require additional company costs.	The gradual low carbon transition may result in a smaller demand for current products and services. The Company may gradually adopt a green low-carbon approach to reduce carbon emissions from business operations. One example is the replacement of hardcopy insurance policies by electronic copies. This may increase the Company's Information Technology (IT) service costs (including system upgrade and storage expansion).	Operational risks	▪ Increase operating costs ▪ Increase technology implementation costs
7	R1	Transition risk-Policy and Legal	Medium term	Policy requirements to increase the proportion of renewable energy	The Company needs to increase the use of renewable energy in response to legal, client, and international initiatives. These changes will increase the operating costs.	Operational risks	▪ Increase operating costs ▪ Increase investment costs
8	R3	Transition risk-Policy and Legal	Long-term	Transition-related legal risks may have financial impacts on the investment targets	As the net-zero carbon emission policies become more stringent around the world, the environmental performance indicators of the investment targets may become poorer, which may affect the valuations of the investment targets, leading to the Company's investment losses and financial health deterioration.	Market risks	▪ The investment targets in the carbon intensive industry list are affected by the transition risks. Their poorer environmental performance indicators may cause their market values to drop and in turn cause the impairment to the Company's investment values.
9	R15	Physical risk-Chronic	Long-term	Business locations and investment properties suffer from losses due to rising sea levels	The Company's business locations at high physical risk locations (e.g. by the sea or in low-lying areas) may be subject to business interruptions, personnel damages, and real-estate value impairments that impact the Company's profits and losses.	Market risks, operational risks	▪ Decrease or interrupt production capacity ▪ Impacts on labor force management/planning ▪ Increase operating costs ▪ Increase investment costs
10	R8	Transition risk-Market	Long-term	Customer behavior changes	Under the trend of net zero transition, the general public develops an increasing awareness of sustainability-related issues. An insufficient promotion of sustainability/green insurance and services by the Company will result in declining market shares, leading to a loss of business, customers, and revenue.	Operating risk, reputational risk	▪ Decrease business revenue

Note: Short-term: Less than 1 year; mid-term: 1-5 years; long-term: more than 5 years

2.3 Scenario Analysis

Scenario analysis is a neural simulation estimation tool which explores different climate scenarios and applies analysis results to different management purposes. Nan Shan used scenario analysis to determine the impacts of climate-related risks and opportunities. In terms of physical risks, Nan Shan referenced two scenarios: Representative Concentration Pathways (RCP) 2.6 and RCP 8.5 as simulated in the Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). For transition risks, the Company evaluated the impacts on investment portfolios by using two scenarios: Nationally Determined Contributions (NDCs) and Net Zero 2050 from the Central Banks and Supervisors Network for Greening the Financial System (NGFS). Prospective scenario analysis models are constructed to assess the financial impacts and strategy resilience of climate change.

• Scenario descriptions

Climate Scenarios				Scenario Assumptions	Analysis Scope	Degree of Warming	Technological Changes	Carbon Dioxide Removal[1]	Regional Policy Changes	Scenario Parameters	Estimated Duration
Transition Risks	NGFS scenario	Nationally Determined Contributions	NDCs (Hot house world)	This scenario consists of various countries' stated policies to control global temperature increase through GHG reduction.	Bond and stock investment targets from carbon intensive industries	2.6˚C	Slow	Moderately low	Moderate	Price/Carbon (US$2010 t /$CO_2$) Emissions /$CO_2$ (Mt CO_2 /yr)	2022 - 2050
		Net Zero 2050	Net Zero 2050 (Orderly)	This is the most proactive scenario for GHG reduction whereby global temperature increase is controlled through strict climate policies and technological innovation.		1.4˚C	Fast	Moderately high	Moderate		2022 - 2050
Physical Risks	IPCC Representative Concentration Pathways	RCP2.6		Greenhouse gas emissions show a continued downward trend by 2100, and warming will be limited to less than 2° C	Operating sites and investment properties in Taiwan	<2° C	N/A			Value at Risk, VaR Failure Probability, FP	2022 - 2100
		RCP8.5		Greenhouse gas emissions continue to show an upward trend by 2100, and warming will exceed 4° C		>4° C					

Note1: Carbon Dioxide Removal (CDR) refers to the process of removing carbon dioxide from the atmosphere. As "removal" and "emission" are opposite concepts, CDR methods and techniques are often described as "negative emissions" (IPCC).

2.3.1 Transition Risk Analysis

In response to climate change impacts, governments all around the world have implemented policies which encompass both carbon emission monitoring and carbon fees. Investment targets may be faced with higher transition risks under global low-carbon transition trends, which in turn may create financial risks and result in investment losses. Therefore, there is a need to incorporate climate risk factors in quantitative models to assess the resilience of investment strategies. Nan Shan adopted the assumptions of the Network for Greening the Financial System (NGFS) scenario and used the two transition risk scenarios of NDCs (Hot house world) and Net Zero 2050 (Orderly) to estimate financial impacts and rating changes, following which scenario analysis simulation parameters were incorporated into subsequent stress tests for existing risks. The steps Nan Shan used for scenario analysis of transition risks are summarized as follows:

01

Collection and compilation of external data:

Collected NGFS scenario data based on geographical locations and industry compositions of Nan Shan investment targets defined as carbon intensive industries, including energy consumption growth, unit costs of energy, carbon emission growth, and unit costs of carbon fees. We also collected the latest available financial and rating information for our investment targets, including financial figures from balance sheets and income statements.

02

Transition risk scenarios—energy consumption and cost simulations:

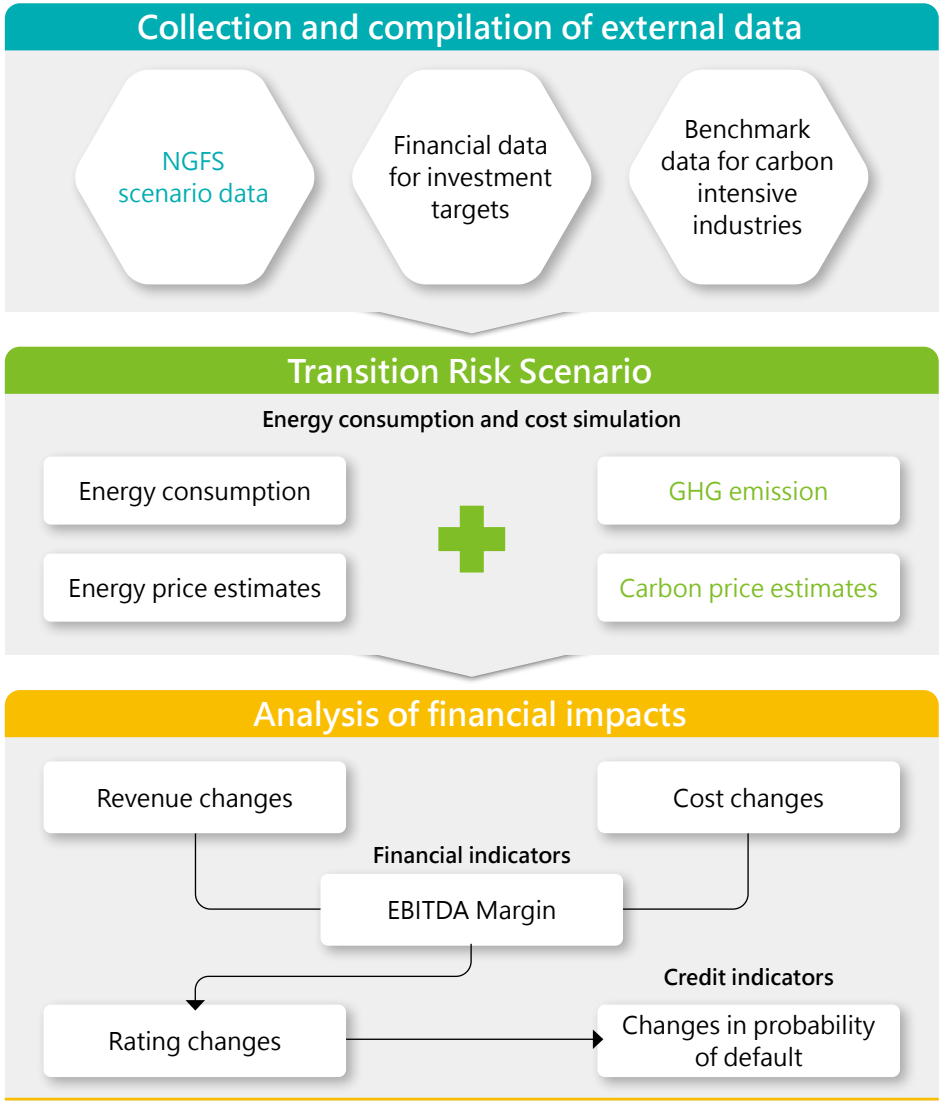
We used energy consumption and GHG emission dispersion simulations to estimate future revenue and cost changes of impacted investment targets; predictions of key financial indicators included gross profit changes, net profit changes, and return on asset changes.

03

Analysis of financial impacts:

Estimated changes in credit ratings caused by financial impacts to asset targets based on estimated values for the aforementioned financial indicators, which were then used to calculate changes in implied default probabilities for counterparties to investment targets caused by impacts from transition scenarios.

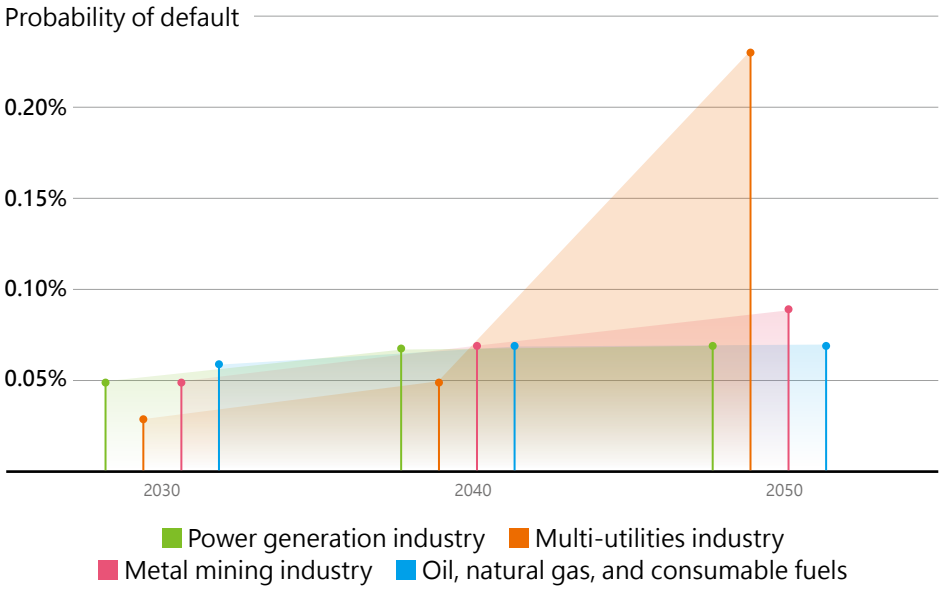
- **Transition risk analysis process chart**



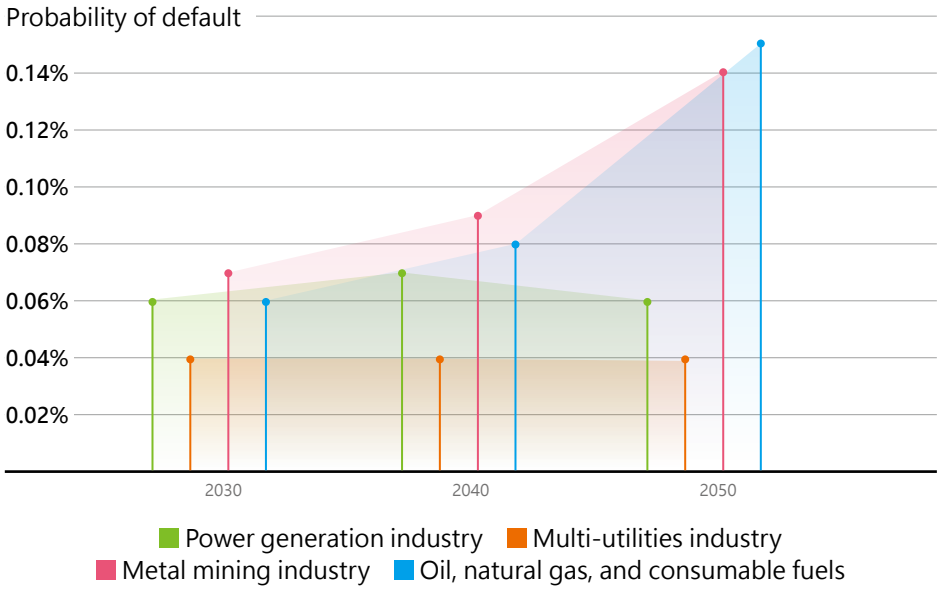
Analysis Results

Nan Shan combined driving factors for transition risks with public financial reports of critical risks to generate transmission pathways for climate-related risks and to produce analysis results for investment industries affected by transition risk scenarios over the next 30 years. Of the various industries included in our analyses, especial attention was paid to power generation; multi-purpose utilities; metal mining; oil, natural gas, and consumable fuels; and other carbon intensive industries. The following charts shows that, under the NDCs scenario, the multi-purpose utilities industry has the highest rating declines. Comparison of different scenarios shows that the Net Zero 2050 scenario yields a higher level of rating decline compared with the NDCs scenario.

Issuer default rate fluctuations under NDCs scenario



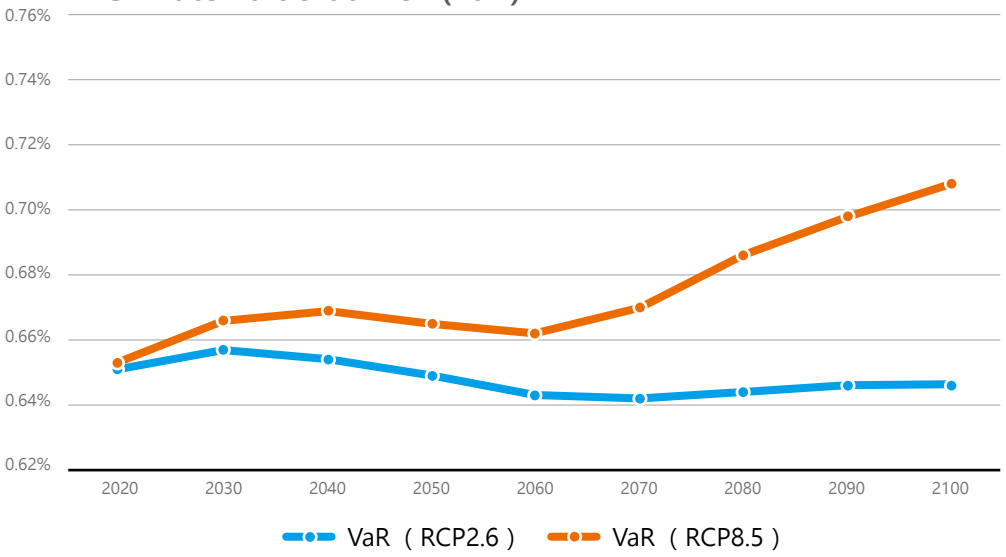
Issuer default rate fluctuations under Net Zero 2050 scenario



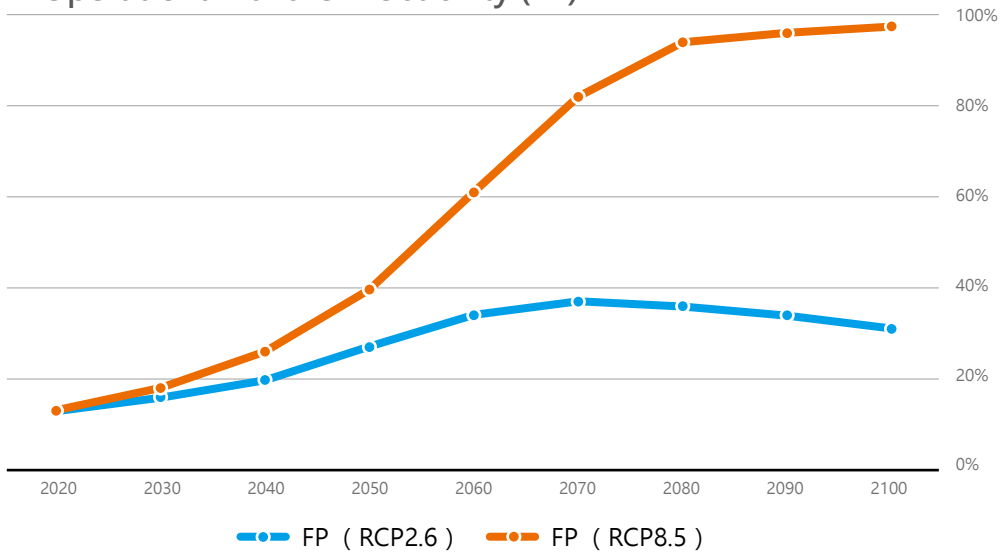
2.3.2 Physical Risk Analysis

Nan Shan used the IPCC RCP2.6 and RCP8.5 scenario parameters to analyze climate Value-at-Risk (VaR) and operational Failure Probability (FP) associated with physical risks faced by the Company' s business location and investment real estates from 2020 to 2100. The VaR was calculated based on quantitative impacts from physical risk disasters such as surface flooding, soil movement caused by drought, river flooding, coastal flooding, forest fires, and extreme winds, as well as losses in asset values for office sites caused by physical risks. Surface flooding and soil movement caused by droughts were found to be the main climate risks for Nan Shan investment properties. The average VaR in 2100 for the RCP2.6 scenario was 0.65% and the average VaR in 2100 under the RCP8.5 scenario was 0.71%. Operational FP refers to the probability of buildings within a given area being unable to operate due to climate disasters. Based on the analysis results for the RCP2.6 and RCP8.5 scenarios, "extreme high temperatures" were found to be the main factor causing operational interruptions.

Climate Value-at-Risk (VaR)



Operational Failure Probability (FP)

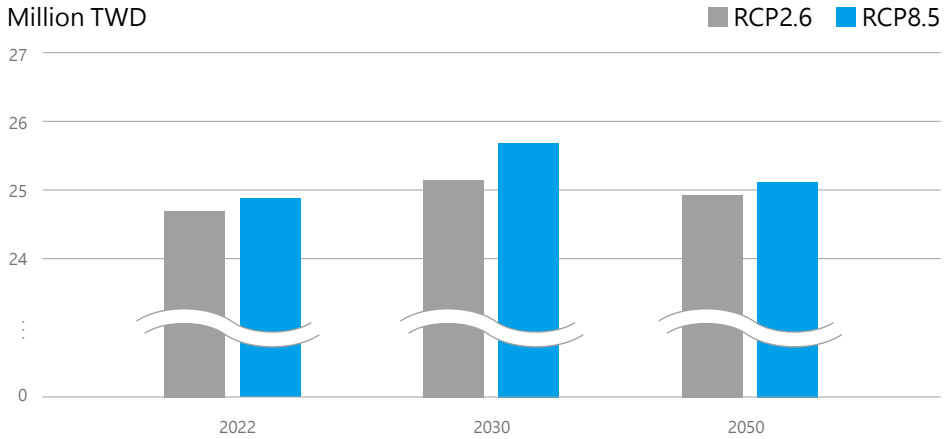


Notes:
1. Information on physical risk VaR and FP values were sourced from XDI PTY LTD
2. Climate VaR: The proportion of repair costs to total asset reconstruction costs for a real estate property during a given year after suffering damage from climate disasters.
3. Operational FP: The probability that a building will encounter operational interruptions within a given year due to impacts from climate disasters. This figure is merely a probability value and does not reflect incident scale, frequency, or number of occurrences.

Self-owned operational sites

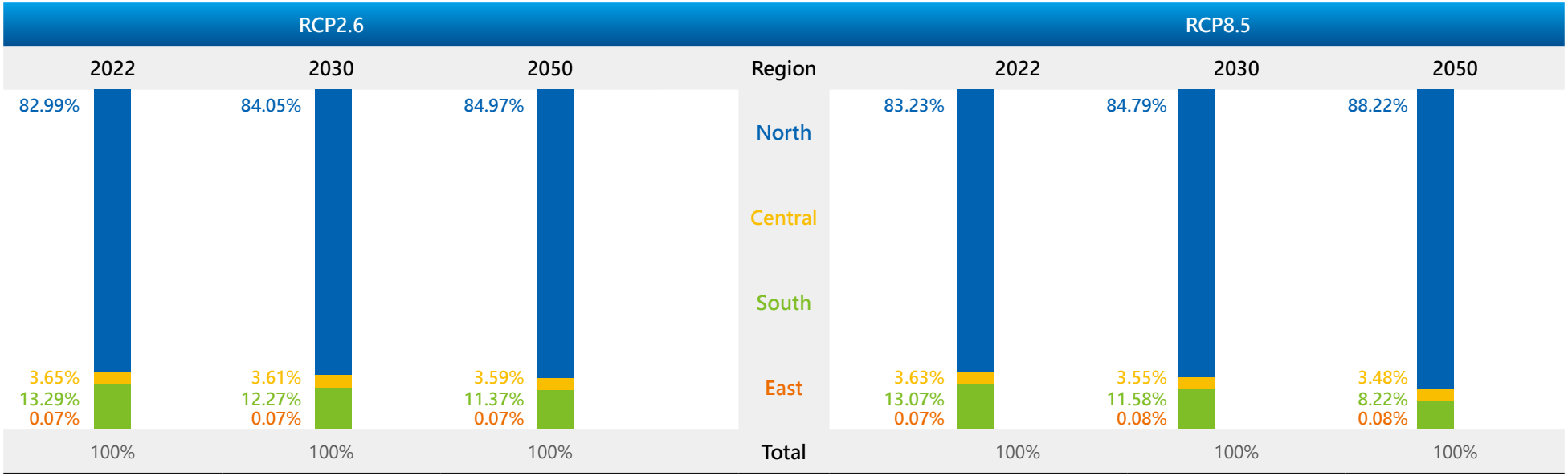
To assess the degree of impacts on self-owned operational sites from climate disasters and financial losses from asset repairs and equipment replacements, Nan Shan collected information from climate risk model databases and analyzed the physical risks of self-owned operational sites using two IPCC scenarios, RCP2.6 and RCP8.5; potential losses for self-owned operational sites were assessed for 2022, 2030, and 2050, and areas with climate sensitivity were divided into five levels: low, moderately low, moderate, moderately high, and high. Analysis of climate risk levels showed that Nan Shan has no business location located in high-risk areas and only one operational site located in an area with moderately high climate risks. Analysis results showed that total potential losses for self-owned operational sites under the RCP8.5 scenario was higher than the RCP2.6 scenario.

Total potential losses for self-owned operational sites



Assessment results—Regional distributions

Self-owned operational sites—Potential loss proportions for each region



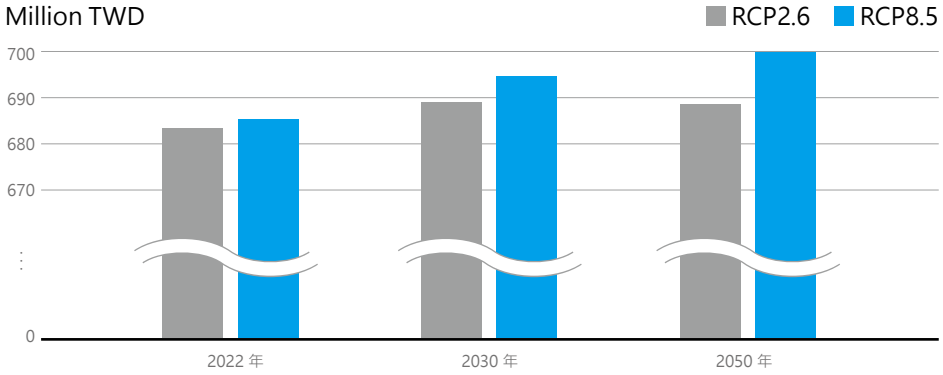
Statistical results showed that, under the RCP2.6 and RCP8.5 scenarios, overall potential losses for self-owned business locations rose over time, and potential loss proportions were highest for the north region, mainly as there were more business locations in the north and average reconstruction costs were higher. Potential loss proportions for business locations in the north region grew year over year under both scenarios, mainly due to high risks of soil movement from droughts over time. Nan Shan will continue to monitor soil movement and river flooding risks for self-owned operational sites in the north region[1].

Note1: Only self-owned operational sites in the Yilan area are at risk of river flooding.

Investment properties

Nan Shan collected information from climate risk model databases and analyzed the physical risks of investment properties using two IPCC scenarios, RCP2.6 and RCP8.5; potential losses for investment properties were assessed for 2022, 2030, and 2050, and areas with climate sensitivity were divided into five levels: low, moderately low, moderate, moderately high, and high. A total of four investment properties were found to be located in areas with high climate risks. Overall, expected potential losses were higher over the long term (2050) compared to the short and medium term (2022 and 2030), and potential losses were highest for 2050 under the RCP8.5 scenario.

Total potential losses for real estate investments



Statistical results showed that, under the RCP2.6 and RCP8.5 scenarios, overall potential losses for investment properties rose over time, and potential loss proportions were highest for the central region, mainly as climate VaR and average reconstruction costs were higher for areas with high climate investment properties. Surface flooding posed the highest risk for investment properties. Nan Shan will continue to monitor investment properties located in areas with high climate risks to reduce potential financial and operational interruption risks caused by physical risks.

Real estate investment—Potential loss proportions for each region

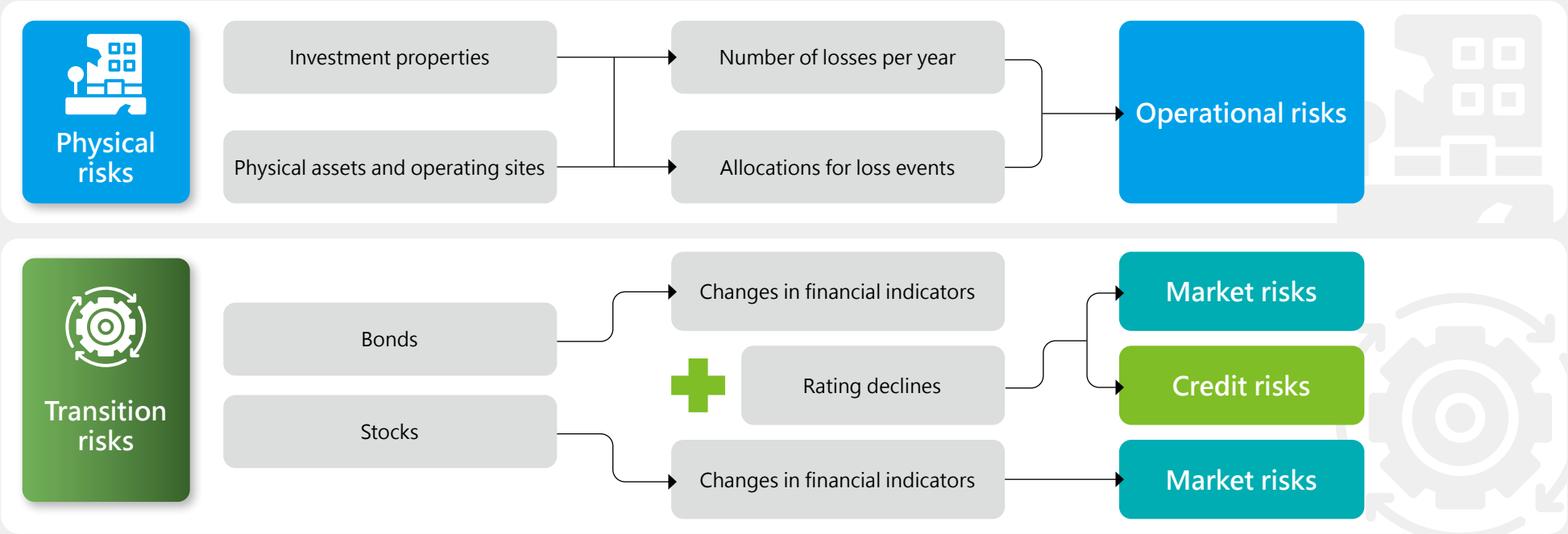
RCP2.6				RCP8.5		
2022	2030	2050	Region	2022	2030	2050
42.12%	42.59%	42.56%	North	42.26%	43.02%	43.52%
56.85%	56.41%	56.51%	Central	56.70%	55.95%	55.54%
1.03%	1.00%	0.93%	South	1.04%	1.03%	0.94%
100%	100%	100%	Total	100%	100%	100%

Note: Nan Shan does not hold any investment properties in the east region.

2.4 Climate Resilience: Stress Tests for Climate-Related Risks

Following the aforementioned scenario analyses, we also surveyed Nan Shan' s existing holdings to better understand and verify Nan Shan' s climate resilience using credit, market, and operational risk categories to determine impacts from expected credit losses for credit risks, market risk limits, and expected losses from operational risks through stress tests under different scenarios. In terms of credit risks, we assessed changes in issuer credit ratings and probabilities of default for bond investments in carbon intensive industries and estimated credit losses under the NDCs and Net Zero 2050 scenario timelines. For market risks, we assessed changes in issuer credit ratings and impacts from financial data for bond and stock investments in carbon intensive industries, as well as associated impacts on bond and stock evaluation amounts from climate-related risks under the NDCs and Net Zero 2050 scenario timelines. For operational risks, we considered losses from operational risks caused by extreme climate patterns or weather events for RCP2.6 and RCP8.5 stress scenarios.

- Schematic image of stress tests for climate-related risks



Stress test applications for climate risk models

Credit Risks

The aim of the test is to determine expected increases in credit losses from investments due to changes in issuer ratings under NGFS transition risk scenario timelines and to assess differences between expected credit losses calculated under stress scenarios and expected credit losses under current no-stress scenarios.

Scenario assumptions and models → Analysis of financial impacts → Default rate assumptions → Default rate changes

Market Risks

Current market risk management processes have set limits to control market risks. The main purpose of market risk stress tests is to determine expected incremental losses from market risks under specific climate stress scenario timelines.

Scenario assumptions and models → Analysis of financial impacts → Default rate assumptions → ΔPD applied to bond rating adjustments; Financial impact analysis used to estimate equity prices under stress

Operational Risks

The main purpose of operational risk stress tests is to determine expected losses from operational risks under specific climate stress scenario timelines (RCP 8.5 and RCP 2.6).

Loss model → Expected losses and OP VaR

Summary of stress test results

Stress tests help us understand the degree of impacts on expected losses for credit risks, market risks, and operational risks from physical and transition risk scenarios so that corresponding measures can be taken in advance (for example, adjusting and establishing selection criteria for new investments and adjusting existing investments in portfolios as appropriate) to mitigate impact levels. Financial impacts from stress tests on climate-related scenarios are shown in the following table.

Overall, Nan Shan's current investments and physical assets were not significantly affected under extreme stress tests for transition risk scenarios or physical risk scenarios. However, Nan Shan will continue to closely monitor climate scenarios and developments of discussions on climate-related risks, and regularly review related methodologies for climate scenarios and stress tests to ensure that we are assessing climate resilience in a rigorous manner.

Compilation of impacts from stress tests

Asset Class	Climate Risk Category	Corresponding Existing Risks	Scenario	Financial Indicators	Timepoint	Impacts[Note]			
						Less than 1% Very low	1-5% Low	5-10% Moderate	Above 10% High
Physical Risks	Physical assets and real estate holdings	Operational risks	RCP 2.6	Proportion of expected losses to overall value of physical assets	2023	●			
			RCP 8.5	Proportion of expected losses to overall value of physical assets	2023	●			
Transition Risks	Bond investments in carbon intensive industries	Credit risks	NDCs	Increases in credit losses compared with expected losses	2030		●		
					2040		●		
					2050		●		
			Net Zero 2050	Increases in credit losses compared with expected losses	2030		●		
					2040		●		
					2050		●		
		Market risks	NDCs	Proportion of expected financial impacts and losses to overall bond investments	2023	●			
			Net Zero 2050	Proportion of expected financial impacts and losses to overall bond investments	2023	●			
	Stock investments in carbon intensive industries	Market risks	NDCs	Proportion of expected financial impacts and losses to overall stock investments	2023		●		
			Net Zero 2050	Proportion of expected financial impacts and losses to overall stock investments	2023		●		

Note: Changes in financial indicators

2.5 Climate Strategies and Actions

2.5.1 Climate Opportunities Identification Results and Management

Relevant departments filled out questionnaires and conducted discussions, Nan Shan identified and reported ten climate opportunities to the Corporate Sustainability Committee for approval. These opportunities have been categorized into five major issues and eight response measures to provide a direction for future response measures development. The Company will actively contribute to climate change adaptation, grasp market trends, and connect business opportunities.

- Climate-related opportunity issues

Opportunity Type	Time of Occurrence	Opportunity Issue	Description of Opportunities
Resource efficiency	Long-term	Green buildings	• Use green building materials in new buildings (investment and self-owned) or business location construction. Install photovoltaic facilities or purchase new energy-saving equipment to increase energy efficiency at business locations, reducing operating costs while achieving eco-efficiency.
Resource efficiency	Long-term	Increased efficiency	• The Company improves energy efficiency by eliminating low-energy efficient equipment at business locations. This reduces water and electricity consumption by internal equipment, while also decreasing operating costs.
Market	Long-term	Green finances and sustainable investment	• Continue to evaluate thematic investments that promote human health and welfare, green energy, low-carbon emission, green technology, new agriculture, and circular economy. • Monitor the resilience of investment holdings when facing climate change risks. Evaluate the impact on the Company's capital employment caused by its investments in the carbon intensive industry list.
Energy source	Long-term	Renewable energy and green lease	• Commit to renewable energy utilization by establishing solar power systems at company buildings. Other than self-consumption, the excess power generated can be sold to achieve carbon reduction while decreasing operating costs. • Respond to the Ministry of Economic Affairs' "Green Leasing Program 2.0" by helping lessee companies in commercial buildings or in similar congregate areas to obtain green power and renewable energy certificates through electricity transfer.
Operational resilience	Short-term	Green procurement	• Purchase low environmental impact products such as energy-saving, power-saving, water-saving equipment with Eco Labels. This will reduce both the energy waste and operating costs.
Products and services	Medium term	Digital services	• During the digital age, digital insurance solutions (e.g. remote and mobile applications, Claims Alliance Chain 2.0) save policyholders from having to visit the counter and go through the paperwork (e.g. via e-policies, electronic documents, and other insurance-related processes). This can reduce labor requirements and operating costs for ink and paper. The optimization of insurance policy interfaces can also increase the amount of sales and revenue.
Products and services	Medium term	Increase green insurance products	• In response to the growing market demand for green products, the Company incorporates green concepts about low-carbon emission, environmental protection, and energy conservation into its products (e.g. renewable energy industry insurance), active preventive products (e.g. spillover-effect insurance policy), and other products that enhance protection against environmental changes (e.g. medical/health/accidents products). The objectives of environmental and health protection can be achieved by reducing climate change-related illnesses and claims through the risk management mechanisms and other derived functions of insurance. The development and sale of green insurance products may also generate more revenue under growing market demands.
Products and services	Medium term	New product development and innovation	• In response to government policies and market trends, the Company offers electric car-related insurance. In line with loss prevention policies, the Company provides the insured with related disaster prevention training to reduce claim rates while increasing premiums revenue.

2.5.2 Green Products and Services

• Low-carbon insurance

Although the financial and insurance industries do not directly cause significant environmental impacts, Nan Shan still strives to be a pioneer of low-carbon insurance policies. We work to improve the carbon footprints of our products and services while also developing insurance products with environmental spillover benefits and providing customers with environmentally friendly solutions. We internalize ESG risks and opportunity issues in corporate operations and decisions at every stage from operations, services, and product design to provide insurance products/services and investment activities that exert the positive influence of sustainable finance. Currently, Nan Shan General Insurance has successively launched a number of climate-related insurance products, including "Terms for residential green energy upgrades," "Electric motorcycle mileage-based insurance," and "Additional terms for excess typhoon and flood insurance." In future, we will continue to monitor market trends and demands, and gradually introduce other green insurance products.

• Nan Shan General Insurance green insurance products in 2022

Insurance product	Description
Terms for residential green energy upgrades	Protect customer assets and encourage customers to carry out green renovations and use green energy, building materials, and equipment
Electric motorcycle mileage-based insurance	The first UBI vehicle insurance product in Taiwan which verifies mileage, and also currently the only product which does not require additional installation of automotive devices. This UBI product can be purchased directly on the Gogoro app.
Nan Shan General Insurance additional terms for excess typhoon and flood insurance	The public concerned about insufficient payouts on original fire insurance policies for their residences can purchase policies with additional terms to transfer risks and reduce property losses from typhoon and flood incidents
Electronic equipment insurance	Covers equipment damage to solar panels caused by typhoons and fires

Additionally, faced with the advent of the digital era, Nan Shan developed low-carbon insurance services, promoted use of electronic/mobile insurance services, reduced paper usage, and reduced costs for consumables. In 2018, Nan Shan Life introduced the ISO 14067 carbon footprint standard, conducted analyses of carbon footprints for "personal insurance services," and obtained SGS-Taiwan and Environmental Protection Administration Carbon Footprint Label certificates, becoming the first insurance company in the world to receive dual product carbon footprint certification. In 2022, Nan Shan Life not only obtained ISO14067 verification, but also established specific and comprehensive processes and scientific calculation principles by defining a reasonable carbon footprint inventory scope for "personal insurance services." Apart from obtaining a carbon label permit from the Environmental Protection Administration, we also adopted low-carbon operational transformations through significant reductions of paper outputs and personnel diversion models that resulted in more than 3% reductions of carbon footprints within five years, enabling us to obtain a carbon reduction label permit. Nan Shan General Insurance also responded to electronic insurance policies promoted by the Financial Supervisory Commission and achieved a utilization rate of around 70%. We also calculated the carbon footprints of electronic insurance policies and became the first property insurance company in Taiwan to pass electronic insurance carbon footprint verifications.

Green Consumer Behaviors Encouragement

Nan Shan Life aims to simultaneously provide protection to customers and conserve the environment. For this purpose, it has added special designs to specific products (interest-sensitive[1] life insurance or accident insurance). For example, in cases where the insured dies in a public transportation accident, Nan Shan Life will double the compensation. By doing so, the Company encourages policyholders to make use of public transportation and walk or exercise more. This not only serves to reduce carbon emissions, but also mitigates air pollution and promotes physical/mental health. This demonstrates the Company's effort in contributing to the goal of Taiwan net-zero emissions by 2050.

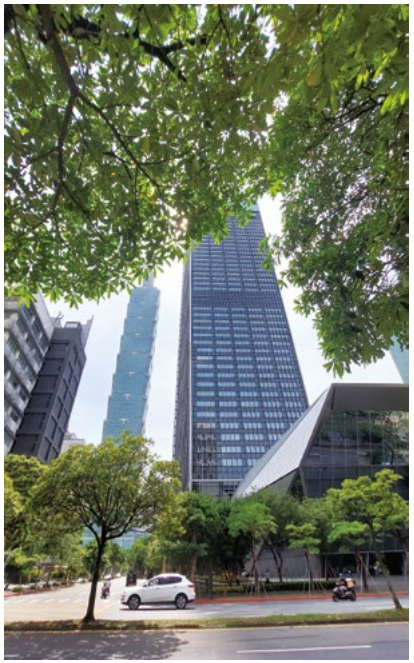
On the other hand, Nan Shan Life also launched the BAM (Biological Age Model) APP[2], which promotes health awareness by encouraging policyholders to walk. Other than the health benefits, the APP also serves to reduce carbon and air pollution. Assuming every 10,000 steps in place of automobiles or motorbikes can reduce 1.42kg of carbon emission[3], the APP users have walked nearly 47.5 billion steps by the end of 2022, which is equivalent to helping to reduce 6.745 million kilograms of carbon emissions.

Climate Change Countermeasures

Due to the climate abnormality caused by global warming, natural disasters such as earthquakes, windstorms, floods, and landslides have been observed all around the world. To cope with these impacts of climate change, Nan Shan Life specially designed benefits related to natural disasters in accident insurance products. For example, when the insured dies or becomes disability in an earthquake, typhoon, flood, or landslide, the compensation will be doubled to mitigate the impacts from natural disasters.

2.5.3 Green Buildings

Nan Shan Life built the "Taipei Nan Shan Plaza" in accordance with international grade green building standards to meet urban public needs and building sustainability. In addition to obtaining the EEWH diamond-level green building label, we also obtained LEED-CS gold-level certification. In future, we will gradually upgrade building equipment with items that hold energy-saving labels and undergo renovations using green building materials. We will strive to ensure that new building designs comply with green building label regulations and work to obtain certifications. Additionally, in response to Green Leasing 2.0 policies, the "Taipei Nan Shan Plaza" introduced renewable energy initiatives so that tenants could use green electricity, significantly solving problems encountered by previous tenants when negotiating green electricity prices with electricity providers and related problems with building electricity distributions. Nan Shan will continue to make progress in the field of green buildings and enhance the competitiveness of investment properties in the low-carbon economy.



Note 1: The "Interest-sensitive life insurance" has a non-guaranteed declared interest rate in addition to the assumed interest rate. Based on the difference between these two interest rates, the feedback mechanism makes the change of beneficial interests, such as the insured amount and non-forfeiture value as it shares the insurance company's investment performance.

Note 2: The BAM App is developed by SCOR's subsidiary company ReMark. Nan Shan Life has a partnership with ReMark based on its philosophy to promote health management.

Note 3: The formula of conversion is based on the Ministry of Health and Welfare's press release "Eat Smart and Move Happily: Walk more when you eat more, eat less resulting weight loss and carbon reduction for the world"

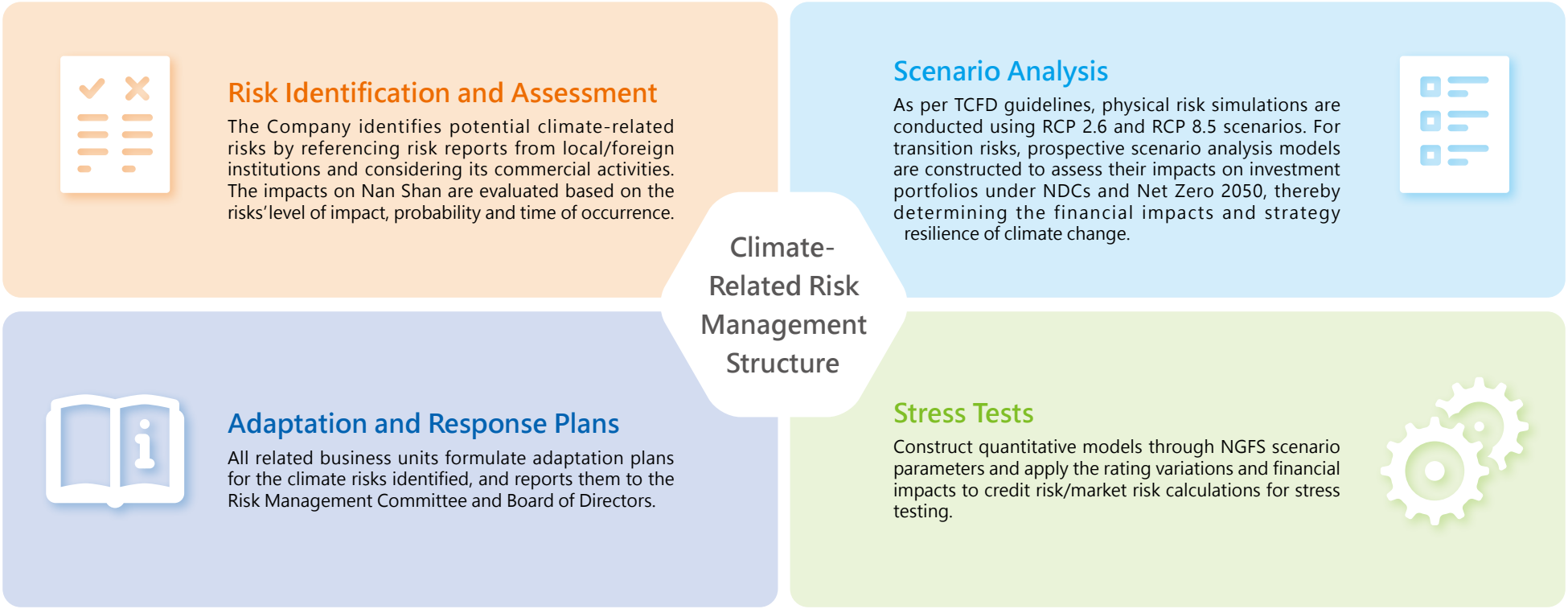
CH3 Risk Management

3.1 Climate-Related Risk Management Structure
3.2 Climate Risk Monitoring

3.1 Climate-Related Risk Management Structure

Nan Shan ensures capital adequacy and solvency as well as sound business operations and development by formulating risk management policies, establishing risk management organizational structures, and setting up risk management mechanisms. In addition to developing risk management measures for traditional financial risks such as market risks, credit risks, and operational risks, we also identified and assessed climate-related risks, and based on the characteristics of the risk the impact levels, and the characteristics, scope, and complexity of our business, we also formulated appropriate management mechanisms for climate-related risks in response to increasingly severe climate change conditions.

Nan Shan adhered to TCFD recommendations and Taiwan's "Guidelines for Financial Disclosure of Climate-Related Risks of Insurance Enterprise" in establishing management mechanisms for climate-related risks and opportunities. We regularly identify climate-related risks and opportunities for continued assessment of potential business and financial impacts, and to develop adaptation and response strategies. Nan Shan also incorporates climate-related risks into existing risk management frameworks and designates divisions of responsibility based on the three lines of defense of internal control to ensure that climate-related risks are appropriately controlled.



First line of defense

Business units

Business units should identify and assess climate-related risks within their scope of business when conducting business matters, and should implement preliminary controls and related countermeasures.

Second line of defense

Legal compliance, risk management, and information security units

The second line of defense is distinct from the first line of defense. Apart from formulating management regulations for climate-related risks, the second line of defense also supervises and monitors management implementations and legal compliance for climate-related risks under the first line of defense. Risk management units conduct climate scenario analyses and stress tests, and regularly report management implementations for overall climate risks at the company to the Risk Management Committee and the Board.

Third line of defense

Internal Audit

Audit units serve as the third line of defense as they audit management implementations for climate-related risks within the company in accordance with current laws and regulations.

3.1.1 Management Policies for Climate-Related Risks

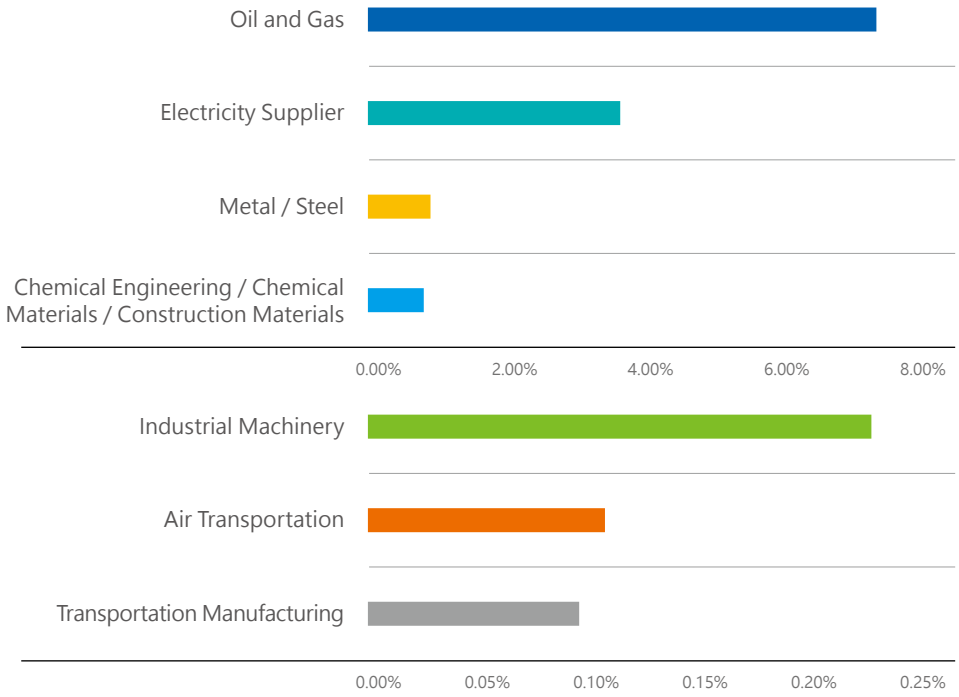
Nan Shan Life's "Management Policies for Climate-Related Risks," which have been approved by the Board, defines Board and senior management responsibilities, formulates mechanisms for monitoring and managing climate-related risks and opportunities, and stipulates appetite statements for climate-related risks. These Policies are supplemented by the "Guidelines for Management of Climate-Related Risks," which stipulate responsibilities associated with climate-related risks for responsible units under governance frameworks (such as the TCFD team) and relevant reporting processes. Nan Shan Life has also adjusted investment and real estate risk management processes to incorporate consideration of climate risks and to ensure comprehensive management of climate-related risks.

3.2 Climate Risk Monitoring

3.2.1 Description of Carbon-Related Risks

Under the current global net zero trend, carbon intensive industries will be the first to face the impacts of transformation related policies and regulations, as well as the increasing challenges of capital utilization and market competition. Nan Shan Life has established a "carbon intensive industry list" to monitor industries that are sensitive to transition risks. As of 2022 year end, the industries with the highest emissions in Nan Shan's investment portfolio are mainly Oil and Gas, Electricity Suppliers, Metal/Steel, Chemical Engineering/Chemical Materials/Construction Materials.

- **Proportion of Investment in Each Industry for 2022**



3.2.2 Mitigation of Climate-Related Risks

Mitigation of climate-related risks is mainly achieved through human interventions that directly reduce greenhouse gas emissions and mitigate impacts from climate-related risks. Mitigation and management of climate-related risks at Nan Shan Life starts from our own operations. We gradually expanded the installed capacity of our solar equipment, began generating our own electricity in 2022, and achieved 108.31 tons of carbon reductions by the end of December. In 2023, Nan Shan Life constructed a solar power generation system in Tainan's Xinshi Industrial Park with an installed capacity of 870kWp; the system is expected to supply 1.1 million kWh of green electricity each year. Nan Shan General Insurance adhered to the policies of parent company Nan Shan Life and also complied with alternative energy policies promoted by the government to assess corporate insurance underwriting services for solar power and wind power projects. In terms of investments, we regularly assess portfolio holdings listed as carbon intensive industries and their impacts on overall capital utilization to manage climate-related investment risks, and also to prevent carbon intensive industry targets in our investment portfolio from being impacted by transition risks, or receiving negative impacts on investment target values due to poor environmental performance, or other climate-related risks that could cause declines in investment target values due to decreases in corporate revenues, cash flows, and asset values.

3.2.3 Adaptation and Management of Climate-Related Risks

Climate adaptation measures refer to use of appropriate adjustments and strategies in response to actual or expected shocks or impacts to mitigate hazards or develop opportunities. Nan Shan has adopted the following actions for adaptation of climate-related risks:

• Managing physical risks in real estate

For real estate properties owned by Nan Shan, Nan Shan Life has established relevant operating procedures which include related responses or adjustments for real estate with high climate risks. Additionally, in the face of chronical risks (such as risks caused by rising sea levels), Nan Shan General Insurance reviews product losses and reinsurance statuses, and adjusts product losses and reinsurance statuses when necessary.

Faced with increasingly severe climate disasters and physical risks, we increased the climate resilience of our operating sites through a number of actions to prevent physical risks. With regard to corporate asset losses caused by climate disasters, we studied the aforementioned risks and developed an adaptation action plan for early disaster prevention preparations associated with typhoons and heavy rains which included measures such as installing water barriers, cleaning sinkholes, and deploying sandbags. We also implemented regular patrols and inspections for early prevention and handling of possible losses. Nan Shan continues to purchase insurance for potential risks to reduce financial impacts to real estate for self-use caused by typhoons and floods. For existing real estate properties, Nan Shan monitors impacts of extreme weather conditions on buildings, and reviews and adjusts building waterproofing and earthquake-proofing facilities as appropriate to reduce impacts and losses from extreme weather events. To further understand the potential losses stemming from physical risks faced by self-owned operating sites and investment properties, Nan Shan introduced external databases and climate disaster models, and used analysis results to clarify the probabilities of climate risk disasters faced by self-owned operating sites. Other adaptation action plans include the following:

01 Architects incorporate risk factors such as soil liquefaction and earthquake resistance level as well as legal regulations into assessments and designs for new buildings during initial construction phases.

02 Apply the architectural design of a 200-year flood protection level to new buildings.

03 Continue to take physical risk factors (e.g. rainfalls) into consideration based on the latest policies, laws, and architectural reports when buying or building a new real estate.

04 In cases of short-term business interruptions, the responsible personnel may either work remotely or at a nearby business location to prevent operations from being disrupted. In cases of long-term business interruptions, the Company will assess the feasibility of business relocation and personnel placement.

05 Devise and rehearse contingency measures in compliance with the Company's BCM.

06 In cases of building equipment damage, the Company can quickly arrange maintenance equipment and materials through dedicated reporting mechanisms.

07 Establish a remote backup mechanism for computer facilities. Instantly activate disaster recovery for IT systems in the event of major calamities.

- **Underwriting services**

To prevent underwriting targets from being affected by climate risks and resulting in increased claims, Nan Shan General Insurance provides damage prevention services to large corporate customers. Engineers provide customized loss prevention and survey suggestions to increase equipment operation reliability and industrial safety to strengthen advance prevention and ensure business continuity.

3.2.4 Business Continuity Plans

As a large domestic finance and insurance institute, Nan Shan is responsible for stabilizing national finances. Nan Shan Life has formulated the "Regulations for Handling Operational Crises and Contingency Measures" to handle abnormal insurance policy terminations, significant loss of funds, serious lack of liquidity, and other conditions that may impair solvency to ensure sustainable corporate operations. Nan Shan Life has also incorporated Business Continuity Management (BCM) mechanisms and obtained the Business Continuity Management (BCM) ISO 22301:2019 International Standard Verification Certificate from the British Standards Institution (BSI)—an internationally recognized third-party verification institute—in February 2022. Nan Shan Life established contingency abilities for major force majeure events such as disasters or other man-made disruptions through a Business Continuity Plan (BCP) to ensure business continuity and to ensure that functions can be quickly restored to operational status.

CH4 Metrics and Targets

4.1 Managing GHG emissions from Investment Portfolios
4.2 Low-Carbon Operations

We fully understand the financial industry's mission to achieve net-zero transitions, particularly in the face of challenging climate-related risks. To achieve our 2050 Net Zero emissions goal, we need to invest resources effectively and take action. As a leading insurance brand in Taiwan, we pledge to demonstrate leadership in this industry, and we call upon our employees to integrate climate-related risks in the scope of their duties and face the challenges caused by climate change. Nan Shan will continue to safeguard client interests, promote sustainable development, and drive low-carbon economic transitions. Nan Shan's climate management indicators encompass mitigation and adaptation of climate-related risks, including energy management, greenhouse gases, use of renewable energy, water consumption and waste management, and green procurement. These indicators correspond with damages to corporate assets from climate disasters, policy requirements related to low-carbon economic transitions, operational or business damages caused by climate risks and changes in customer preferences, and other climate-related risks and opportunities, and serve as a guideline for management of low-carbon transition at Nan Shan.

4.1 Managing GHG emissions from Investment Portfolios

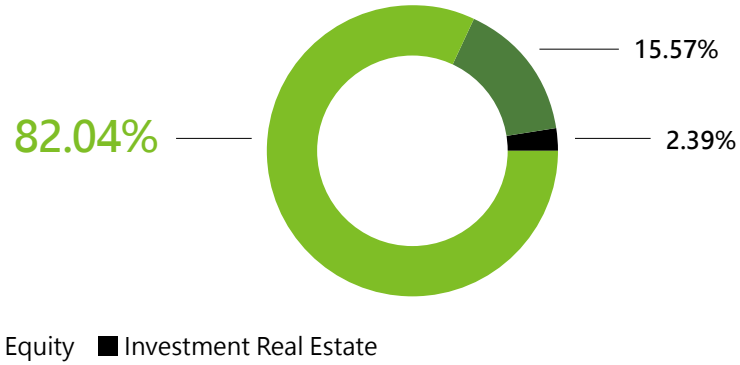
Nan Shan adopts the Partnership for Carbon Accounting Financial (PCAF) methodology to calculate the total financed carbon emissions and as the basis to asses and manage climate-related risks faced by its investment portfolio. At the end of 2022, Nan Shan's investment portfolio generated 3,787,132 tCO_2e of greenhouse gases. The carbon intensity of equity and bond holdings were 2.16 tCO_2e per TWD million invested and 1.3 tCO_2e per TWD million invested, respectively. Going forward, in order to set SBTi targets and achieve carbon reduction goals, Nan Shan will continue to conduct analysis, examine high carbon emitters in the investment portfolio, and strengthen subsequent actions.

Scope 3 Financed Emission Data of the Investment Portfolio in 2022

Scope 3: Investment Asset Class	2022	
	GHG Emission (tCO_2e)	GHG Emission Intensity
Equity	589,600	2.16 (tCO_2e / per TWD million invested)
Bond	3,106,839	1.30 (tCO_2e / per TWD million invested)
Investment Real Estate	90,693	0.08 (tCO_2e / per square meter of floor area)
Total	3,787,132	-

Note: The assets in the investment portfolio inventory for carbon footprint are equities, corporate bonds, financial bonds, and investment real estate.

Scope 3 Financed GHG Emission Breakdown in 2022



4.2 Low-Carbon Operations

4.2.1 Managing Organization Greenhouse Gas Emissions

Nan Shan discloses greenhouse gas emission and conducts comprehensive inventories verifying scope 1 and scope 2 emissions using the ISO 140614-1 greenhouse gas inventory system annually, the data are used to formulate greenhouse gas emission targets and plan actions for greenhouse gas reduction. Currently, Nan Shan's main scope 1 emissions consist of fuel used by company cars and natural gas usage while scope 2 emissions mainly consist of externally purchased electric power. In order to align with international practice, Nan Shan expanded inventory and verification scope to scope 2 emissions in 2021, and plans to expand inventory scope each year. Although Nan Shan operations do not have significant direct environmental impacts, Nan Shan continues to promote "low-carbon operations" and "green procurement," and expends full efforts in mitigating climate-related risks while consolidating management of water resources and waste, strengthening environmental awareness, and guiding employees in changing their behaviors to expand corporate influence.

- Scope 1 and 2 greenhouse gas emissions

	Direct greenhouse gas emissions (Scope 1)	Indirect greenhouse gas emissions (Scope 2)	Total emissions (Scope 1 + scope 2)	Inventory coverage	Floor area	Greenhouse gas emission intensity
Unit	tCO_2e	tCO_2e	tCO_2e	%	Ping	tCO_2e/ping
2020	895.35	11,227.01	12,172.36	24%	39,035.29	0.31
2021	894.61	10,478.12	11,372.73	26%	39,035.29	0.29
2022	1,797.22	19,882.08	21,679.30	100%	83,512.18	0.26

Note 1: Scope 1, 2, and 3 respectively correspond to Category 1 greenhouse gases, Category 2 greenhouse gases, and Category 3-6 greenhouse gases in the 2018 version of the GHG Protocol.
Note 2: Inventories conducted in 2020 and 2021 only encompassed Nan Shan Life and did not include Nan Shan General Insurance. Inventories conducted in 2022 encompassed all Nan Shan operating sites.
Note 3: Greenhouse gases include seven gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and trifluoride nitrogen (NF_3). Nan Shan adopted the ISO 14064-1 operation control method to inventory greenhouse gases.
Note 4: Scope 2 greenhouse gases are mainly from electricity usage; the electricity emission factor used was the 2021 value of 0.509 kgCO_2e/kWh.
Note 5: GWP sourced from Global Warming Potential values taken from IPCC (2004) Fourth Assessment Report.

Climate-related metrics and targets

Category	Green Operation	
Index	Green procurement	GHG emissions
Index description	Amount of green procurement for office equipment	Amount of carbon emission at the Company's business locations.
Unit	Ten thousand TWD	tCO_2-e
Base year	The green procurement amount in 2021: NT$13,793,807	The Company's GHG emission in 2022
Short-term goals	Greater than NT$20 million in 2024	With 2022 as a base year, reduce emission by 5.25% each year
Mid-term goals	Greater than NT$25 million in 2027	Cumulative emission reduction of 26.25% by 2027
Long-term goals	Greater than NT$30 million in 2031	Cumulative emission reduction of 42% by 2030
Action plan	1 Introduce ISO 20400 guidelines to establish sustainable procurement policies. 2 Arrange green procurement education trainings for employees.	1 Expand the scope of inventory. The GHG inventory from the Company's operation is expected to be completed by 2024. 2 Aim to obtain SBT approval.

Note 6: Starting from 2023, Nan Shan changed the base year for greenhouse gas inventories from 2020 to 2022 in accordance with SBT carbon reduction targets.

4.2.2 Usage of Renewable Energies

Nan Shan is a financial services company with low direct greenhouse gas emissions. Our main source of energy use consists of electricity used in office buildings. Nan Shan invested around NT$20 million in 2021 to install a rooftop solar power generation system at the "Nan Shan Education and Training Center" located in Wuri (Taichung), which began supplying electricity to the building beginning in 2022 and enabled Nan Shan to increase use of renewable energy through self-use and sales of surplus electricity.

Renewable energy projects

Rooftop solar power generation system at the "Nan Shan Education and Training Center" in Wuri, Taichung

Project achievements in 2022

01

Solar power generation system was completed during the first half of the year.

02

Taiwan Power Company began metering electricity transmissions beginning on May 13. Our system accumulated 364,409 kWh of self-produced electricity, including 212,781 kWh of electricity generated for self-use. We obtained 212 renewable energy certificates and reduced GHG emissions by 106 tons.

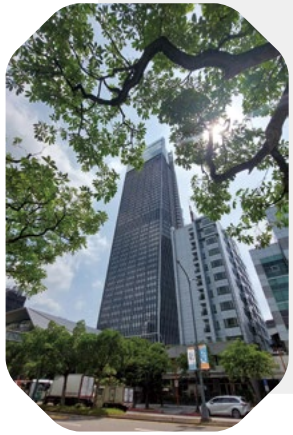
Expected targets in 2023

01

Self-generate 530,000 kWh of solar power throughout the year.

02

Converted original "wholesale of surplus electricity" contract into "transfer for self-use" contract, and completed self-generation of power from ETC solar power panels in August 2023; the Taiwan Power Company power grid was used to transfer power to the Nan Shan Building.



Project benefits

Changed ETC solar power supply contract and transferred all generated solar power (renewable energy) for self-use in Nan Shan buildings; increased the number of renewable energy certificates obtained each year, as well as applications in greenhouse gas inventories and environmental labels; and helped us demonstrate our commitment as a green enterprise and quantify environmental benefits.

4.2.3 Energy and Carbon Reduction Measures

Nan Shan Life obtained ISO 50001 energy management system certification in 2016 and implemented a number of energy-saving and carbon-reducing measures in offices and business location such as replacing aged lighting equipment and shortening electricity usage times. We used various energy-saving measures to reduce GHG emissions, achieve annual short-term energy-saving targets, and meet our long-term target of continued enhancement of energy performance. In 2022, Nan Shan Life invested around NT$30 million in renewable energy installations and other energy-saving and carbon-reducing operational measures, reducing electricity usage by an estimated 270,000 kWh, equivalent to reductions of 600 tCO_2e in GHG emissions. Nan Shan Life implemented the following energy improvement measures, energy-saving measures, and carbon-reducing measures in 2022:

- Energy saving and carbon reduction measures at Nan Shan Life in 2022

Energy-saving projects	Replaced old facilities with energy saving equipment	Self-generated renewable energy for self-use	Turned off lights for one hour to reduce GHG emissions and protect the planet	Promoted video conferences	Paperless meetings	Energy-saving computer rooms	Paperless insurance policies and services	Total
Investments (TWD)	549,393	Around 20,000,000	None	1,330,000	100,000	2,900,000	4,970,000	29,849,393
Reduced electricity usage (kWh)	39,200	Self-generated electricity consumption 212,781	2,404	-	-	13,492	-	267,877
GHG emission reductions (tCO_2e)	19.5	106.82	1.22	47.8	7	33.87	389	605.21

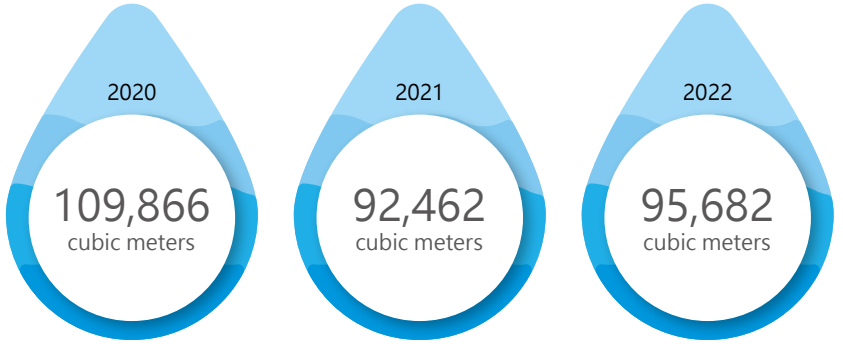
4.2.4 Water Usage and Waste Management

Water Resource

Water resources at Nan Shan Life are mainly consumed by daily employee usage for cooling and air-conditioning. In response to possible changes in rainfall patterns that may be caused by climate change, Nan Shan Life implemented a number of measures such as prioritizing procurement of products that comply with water-saving label criteria, promoting water saving measures, and replacing low-efficiency aged air-conditioners and water-consuming equipment, using procurement source management and promotion to respond to green office policies and reduce water consumption.

- Water withdrawal data

Total water withdrawal volumes over past three years



Note: Water consumption figures only included data from Nan Shan Life's 13 self-owned buildings and 17 self-owned floors.

Waste Management

Nan Shan Life advocates waste reduction and continues to promote water conservation measures including waste classification and food waste recycling, repeated use of envelopes for official documents, and double-sided printing. We constantly encourage employees to always incorporate environmental protection actions; promote waste classification and resource recycling using the 3R (Reduce, Reuse, Recycle) principles; and also encourage actions such as environmental protection promotions, resource recycling and waste classification, smoking bans, management of drinking water, use of electronic documents, and use of videoconferencing. We hope to bring these good habits and specific practices into families and communities by reducing resource consumption. No violations of environmental laws resulting in fines or non-monetary penalties occurred in 2022.

We adopted the following management measures for office and domestic waste:

Reduced consumption of photocopying and fax paper: Utilized electronic files, used email for communication, stored files in public servers, and actively promoted paperless presentations and double-sided printing while also setting up reuse collection areas for general document use.

Recycling of iron and aluminum cans, PET bottles, plastics, waste batteries, and waste paper to reduce waste generation. In 2022, a total of 200,190 kg of wastepaper and 81,015.7 kg of iron and aluminum cans, PET bottles, plastic, and waste batteries were recycled.

Implemented non-periodic promotion of waste reduction management measures (such as paperless promotions) to employees, building management, and cleaning companies through a variety of environmental protection training activities.

Total waste amounts

Waste volumes over past three years				
Category	General industrial waste	2020	2021	2022
Incineration	Municipal waste (kg)	389,201	358,219	299,109
Recycling or reuse	Scrapped computer assets (pcs)	2,358	1,527	2,680
	Recycled waste documents (kg)	213,870	142,074	200,190
	Wastepaper recycled from collection cabinet (kg)	198,050	173,690	195,120
	Reused furniture and equipment (pieces/kg)	334	181	140
	Resource recycling Including metal cans, plastic bottles, and plastics (kg)	75,751	65,348	81,016
	Total	879,564	741,039	778,255

4.2.5 Green Procurement

Nan Shan set "integrity management," "environmental protection," and "sustainable development" as supply chain management elements; in future, we hope to leverage the influence of the financial and insurance industry, encourage suppliers to jointly fulfill corporate social responsibilities, promote sustainability concepts, and build sustainable supply chains. In terms of suppliers, we prioritize green procurement and evaluate ESG implementation conditions of vendors before adding them to our qualified vendor list. We also incorporate ESG aspects into our annual evaluations for qualified vendors, prioritize procurement of products with environmental benefits to implement responsible procurement management. Nan Shan Life has established rigorous review and management procedures for implementation of green procurement and supply chain management. Highlights are as follows:

01 Incorporate ESG aspects into annual evaluations for qualified vendors and assess ESG implementation conditions of vendors before adding them to our qualified vendor list.

02 Check whether rental properties have energy-conservation facilities/equipment or aged facilities/equipment before leasing. We prioritize properties with energy-saving facilities/equipment or properties where owners are willing to replace aged facilities/equipment with new ones.

03 Invite vendors to sign "Supplier/Contractor Commitments" and pledge to comply with ethical management, labor rights, human rights, and corporate social responsibilities associated with environmental sustainability.

04 Nan Shan Life uses fair, impartial, and open review mechanisms to evaluate vendors based on the vendor evaluation regulations in the "Procurement Application Operation Regulations" and has established a comprehensive review system to enable selection of excellent vendors to facilitate collaborations.

05 To prevent business transaction risks, Nan Shan Life reviews stakeholder, counter-terrorism financing, and sanction lists before conducting transactions with suppliers to fully understand counterparty backgrounds, financial conditions, and operational status, and to ensure adherence with laws and regulations before conducting transactions.

Green and local procurement

Local and green procurement data	2022 Local suppliers (ratio)	2021 Local suppliers (ratio)	2022 Green procurement amounts (TWD)	2021 Green procurement amounts (TWD)
	97%	96%	25,566,461	32,615,423

Green procurement of information equipment

Green procurement of information equipment project

Background and project description:

Nan Shan Life promotes "green procurement of information equipment" by procuring energy-saving equipment and implementing ESG supplier management.

Nan Shan Life input:

Production and operation of information equipment both consume large amount of energy. Nan Shan Life therefore formulated three main green procurement principles:

- In terms of green products, information and communication equipment are assessed using EPEAT criteria to ensure eco-friendliness, and we prioritize equipment with these certificates during procurement.
- In terms of energy-saving equipment, information and communication equipment are assessed using Energy Star criteria, and we tend to prioritize equipment with these certificates during procurement.
- In terms of vendor ESG aspects, vendors are required to adhere to ESG regulations; all current vendors hold ESG certificates and continue to work toward zero-emission targets.

Benefits: Investments in "green procurement of information appliance" amounted to NT$45.36 million in 2022.

CH5 Future Outlook

Nan Shan continues to promote sustainable countermeasures and used systemic management to establish short, medium, and long term targets for various environmental sustainability action plans for mitigation and adaptation of climate change impacts, using practical actions to achieve our commitment to environmental protection. Nan Shan pledged to set Science-based Targets in the first half of 2023 and subsequently drafted relevant carbon reduction plans. In future, Nan Shan will not only work to reduce operational GHG emissions, but will also continue to monitor the risks of carbon intensive industries within investment portfolios and GHG emissions from investment and financing. Furthermore, we continuously work towards our science-based targets through continued assessments of green finances and sustainability-themed investments to do our part for global low-carbon economic transitions.

Nan Shan closely monitors discussions of impacts on the insurance industry from climate-related risks, and also reviews analysis and management processes for climate-related risks as appropriate to ensure climate resilience and maintain financial stability. As a responsible corporate citizen, Nan Shan actively supports national Net Zero targets, engages with investment companies, and maintains sensitivity to climate-related business opportunities to truly align with low-carbon transition trends. Nan Shan continues to prudently monitor other known and unknown natural risks, as well as study industrial, government, and academic research related to biodiversity risks and their potential impacts on the economy, the society, and the Company. Nan Shan pledges to exert positive financial influence on the path to sustainable development of real economies.

Appendix

TCFD Index

Appendix: TCFD Index

The four main themes of the Task Force on Climate-Related Financial Disclosures released by the Financial Stability Board in 2017 and corresponding public disclosures are shown in the table below:

Aspect	Guidance for All Sectors	Corresponding Sections
Governance	Describe the board's oversight of climate-related risks and opportunities.	1.1 Climate Governance Framework
	Describe management's role in assessing and managing climate-related risks and opportunities.	1.1 Climate Governance Framework
Strategy	Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	2.1 Climate-Related Risks and Opportunities 2.2 Transmission Pathways for Climate-Related Risks
	Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	2.2 Transmission Pathways for Climate-Related Risks 2.5 Climate Strategies and Actions
	Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.	2.3 Scenario Analysis 2.4 Climate Resilience: Stress Tests for Climate-Related Risks
Risk Management	Describe the organization's processes for identifying and assessing climate-related risks.	2.1 Climate-Related Risks and Opportunities
	Describe the organization's processes for managing climate-related risks.	3.1 Climate-Related Risk Management Structure 3.2 Climate Risk Monitoring
	Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	
Metrics and Targets	Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.	4.1 Managing Carbon Emissions from Investment Portfolios 4.2 Low-Carbon Operations
	Disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.	
	Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	

Aspect	Supplemental Guidance for Insurance Companies	Corresponding Sections
Governance	The board of directors and senior management should ensure companies consider identified climate-related risks when formulating risk appetites, strategies, and operating plans, and should continue to monitor management and disclosure of climate-related risks.	1.1 Climate Governance Framework
	Committees subordinate to the board of directors may be established, with clear division between the responsibilities of the board of directors, committees subordinate to the board of directors, and senior management:	
	The board of directors and committees subordinate to the board of directors: 1 The board of directors hold ultimate responsibility for management of climate-related risks. 2 Approve and monitor management frameworks and policies for climate-related risks. 3 Confirm climate-related risks are incorporated into qualitative or quantitative indicators for risk appetites. 4 Ensure that directors have a clear understanding of climate-related risks and opportunities, regularly review implementations by senior management, and also ensure that senior management have received sufficient training.	1.1 Climate Governance Framework
	Senior management: 1 Formulate management frameworks and policies for climate-related risks. 2 Confirm effectiveness of management frameworks and policies for climate-related risks. 3 Establish internal management processes for climate-related risks. 4 Ensure that necessary measures are adopted for identified climate-related risks. 5 Designate appropriate personnel for management of climate-related risks and provide necessary training. 6 Regularly report management of climate-related risks to the board of directors or committees subordinate to the board of directors.	
Strategy	Identify financial impacts to finances, businesses, products, and investments from climate-related risks and opportunities.	2.1 Climate-Related Risks and Opportunities
	Prioritize climate-related risks based on materiality standards.	2.2 Transmission Pathways for Climate-Related Risks
	Consider impacts from climate-related risks and opportunities when formulating annual operating goals as well as business, product, and investment strategies.	2.5 Climate Strategies and Actions
	Review and adjust management policies for climate-related risks based on scenario analyses and stress test results.	2.2 Scenario Analysis 3.1 Climate-Related Risk Management Structure

Theme	Guidance for All Sectors	Corresponding Sections
Risk Management	**Risk management and monitoring:** 1 Formulate assessment methodologies for identifying departments, counterparties, and clients with climate-related risks (including existing and potential counterparties and clients), and assess impacts. 2 Formulate management and continued monitoring mechanisms for climate-related risks. Establish relevant mechanisms for departments, counterparties, and clients with significant climate-related risks to manage identified climate-related risks, and encourage said counterparties and clients to adopt necessary measures to reduce their climate-related risks. 3 Implement risk management for climate risks identified by the company in accordance with the "Three Lines of Defense for Internal Control in the Insurance Industry."	3.1 Climate-Related Risk Management Structure 3.2 Climate Risk Monitoring
	Scenario analyses and stress tests: 1 Develop capability to conduct qualitative or quantitative scenario analyses and stress tests that assess the impacts of climate-related risks. 2 Establish baseline and severely adverse scenarios with qualitative and quantitative risk indicators, as well as long-term and short-term scenarios for strategic planning and risk management purposes.	2.3 Scenario Analysis
	Investment management: 1 Establish appropriate procedures to assess and manage climate-related risks associated with investment targets. Investment targets with higher climate-related risks should have additional review mechanisms. 2 Regularly assess changes in climate-related risks associated with investment targets to serve as a basis for adjusting investment positions.	3.2 Climate Risk Monitoring 4.1 Managing Carbon Emissions from Investment Portfolios
Metrics and Targets	Set indicators for assessing and managing climate-related risks.	4.1 Managing Carbon Emissions from Investment Portfolios 4.2 Low-Carbon Operations
	Set management targets for climate-related risks.	
	Set indicators for determining climate-related risks based on materiality rankings.	
	Consider incorporating management of climate-related risks into performance measurement indicators.	


Nan Shan Life