



Cathay  
Financial Holdings



# 2022 TCFD

Climate Strategy  
and Natural Risk  
Management  
Report

# CONTENTS

## Climate and Nature Related Actions

## Message from the Chairman

## About This Report

## Climate Risks and Opportunities

Identifying Climate Risks and Opportunities

Material Topics in Climate Risk and Opportunities

## 1 Climate Strategies and Progress

### 1.1 Climate Strategy Blueprint

### 1.2 Low-Carbon Economy Driver

1.2.1 Net Zero Emissions in Financial Assets by 2050

1.2.2 Leader in Climate Engagement Actions

1.2.3 Comprehensive Climate Finance Solutions Provider

### 1.3 Environmental Sustainability Practices

1.3.1 Green Energy

1.3.2 Green Operations

1.3.3 Green Real Estate

## 2 Governance and Risk Management

### 2.1 Climate Governance Framework

2.1.1 Board of Directors Roles and responsibilities

2.1.2 Management Level Roles and responsibilities

### 2.2 Risk Management Framework

2.2.1 The Risk Management Policy

2.2.2 Climate Risk Appetite and Limit

### 2.3 Climate Risk Management

2.3.1 Investment and Lending Risk Management

2.3.2 Property Insurance Products Risk Management

2.3.3 Operational Risk Management

### 2.4 Climate Scenario Analysis

2.4.1 Analysis Items and Scenarios

2.4.2 Upstream

2.4.3 Cathay's Operations

2.4.4 Downstream/Clients

2.4.5 Climate Strategy Resilience

## 3 Nature-related Risk Management

### 3.1 Cathay's Perspective

### 3.2 Participation in International Initiatives

### 3.3 Identifying Nature-related Risks and Opportunities

### 3.4 Nature-related Risk Management

## 4 Race to Net Zero and Nature Positive

## Appendix

TCFD Index

IFRS S2 Index

TNFD Index

Important Metrics and Targets





## Climate and Nature Related Actions

### Message from the Chairman

### About This Report

### Climate Risks and Opportunities

### 1 Climate Strategies and Progress

### 2 Governance and Risk Management

### 3 Nature-related Risk Management

### 4 Race to Net Zero and Nature Positive

### Appendix

# Climate and Nature Related Actions

Cathay proactively follows the issues of climate change and nature and continues to do our part for the Earth through promoting a Low-carbon Economy and Environmental Sustainability. Important climate and nature related actions and achievements are listed below (for a comprehensive list of climate and nature related actions and achievements prior to 2021, please refer to Cathay's [2021 Climate-related Financial Disclosure Report](#)):



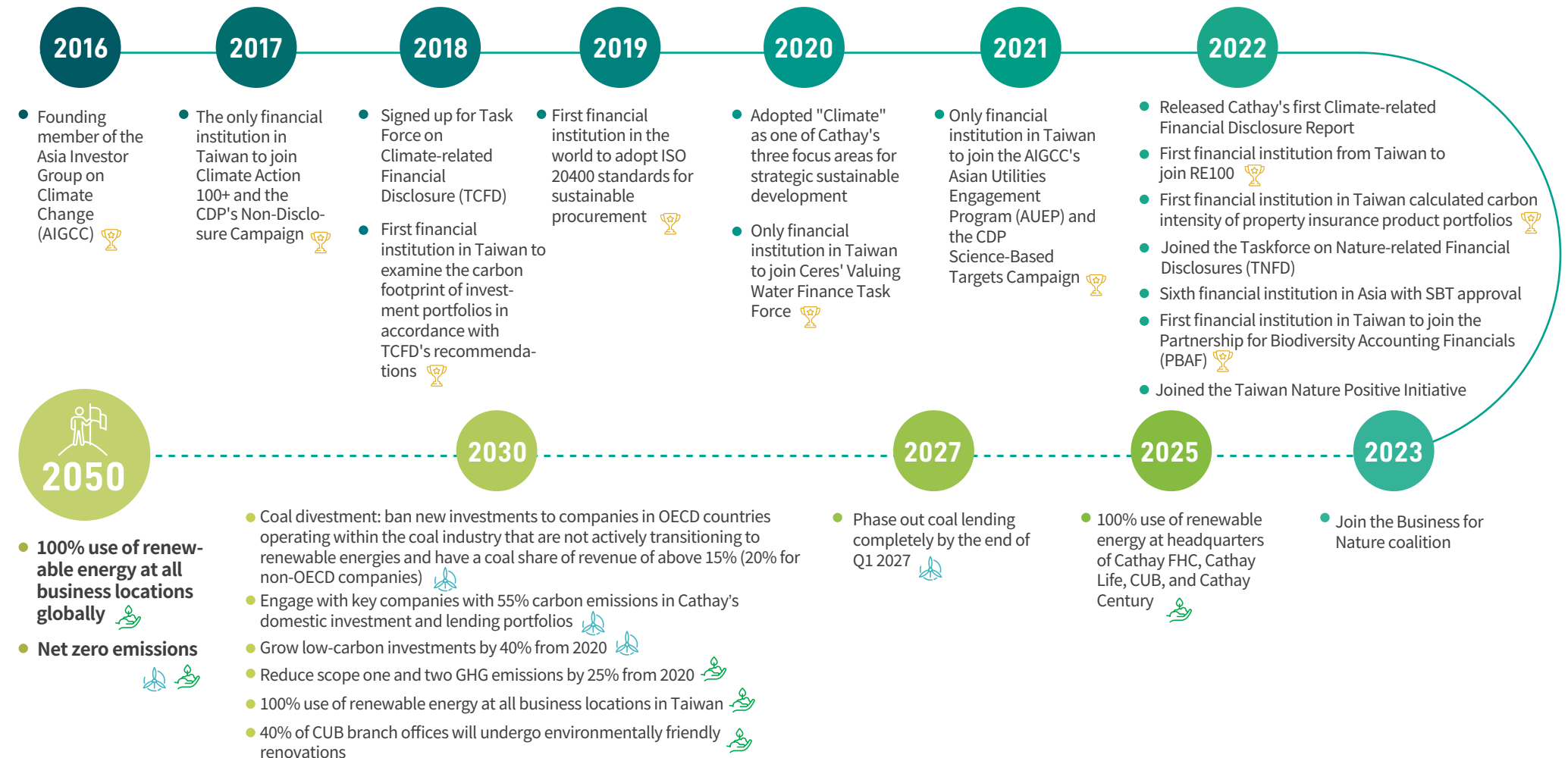
First in Taiwan



Target of Low-Carbon Economy



Target of Environmental Sustainability





Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

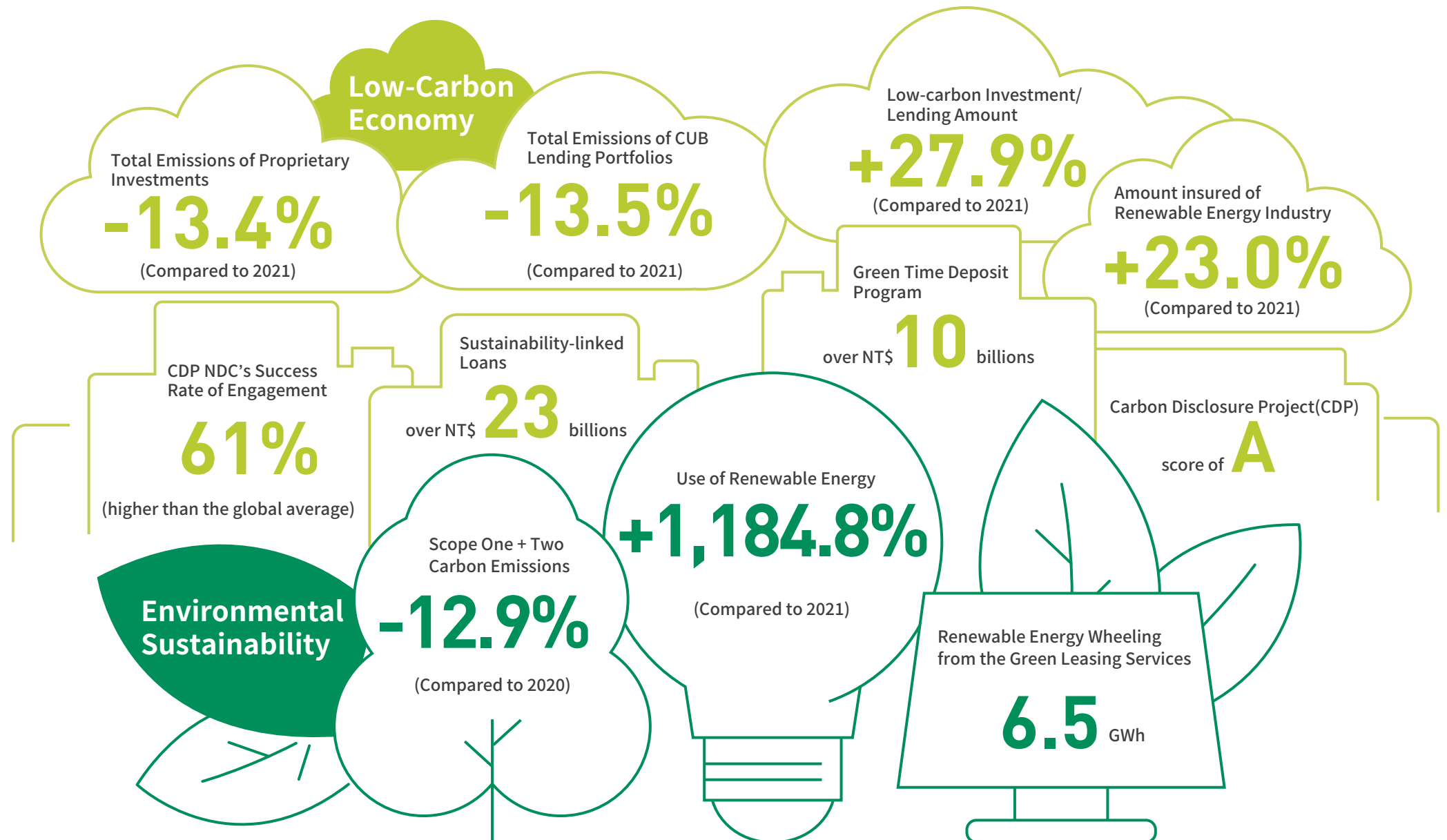
2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix

## 2022 Highlights







Cathay  
Financial Holdings

Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix

# Message from the Chairman

## Daring Zero, Sprinting Forward

Climate change brings profound and difficult challenges for all of humankind. Abnormal weather patterns and frequent natural disasters endanger biocapacity and global food security. The World Economic Forum's (WEF) latest 2023 Global Risks Report listed "failure to mitigate and adapt to climate change," "natural disasters and extreme weather events," and "biodiversity loss and ecosystem collapse," as the top ten global risks over the next ten years. To mitigate the impact of climate change, over a hundred countries have pledged to reach net zero emissions and take climate action - to unite against the largest threat to humankind.

Cathay is also a resident of the Earth and we serve almost two-thirds of the population of Taiwan as Taiwan's leading financial company. We uphold corporate accountability in our operations and abide by international standards to fully implement sustainable finance goals and enhance our strategic blueprint. We set multiple quantifiable indicators for our climate strategy and fully embrace financial innovation to expand upon our sustainable projects, products, and services. We voluntarily participate in initiatives and continue to strive for our two major goals: "low-carbon economy" and "environmental sustainability." Cathay has, therefore, demonstrated our resilience and wielded our financial influence in facing up to climate challenges.

Cathay is forging valiantly ahead with climate actions and welcomed multiple milestones in 2022. In April, we became the first financial institution in Taiwan to join RE100, and in September, our Science Based Targets (SBT) were approved - allowing us to reach net zero by 2050 in our operations and financial assets. In November, Cathay embraced the motto "Take Taiwan into the world and bring the world to Taiwan" by holding the most prominent climate event in Taiwan - the sixth annual Cathay Sustainable Finance and Climate Change Summit. We also provided a two-day livestream of the World Climate Summit (WCS), a side event of the COP27 held in Egypt, inviting industry and academic heavyweights to share their experiences and projections for climate change and net zero transition. Cathay was also invited to the WCS to share the steadfast resolve and experience of Taiwan's financial industry in striving for net zero - showcasing Taiwan's climate efforts onto the global stage.

As a pioneer of sustainable finance, Cathay has always maintained an open mindset for 60 years, bravely exploring and taking advantage of new opportunities in changing times to gain an edge. Our long-term concern with the climate has allowed us to observe the increased frequency with which extreme weather events are occurring. This is threatening the survival of many species and causing biodiversity loss, further impacting human activities. As such, Cathay is eagerly engaging in biodiversity issues. From 2022, we joined the Taskforce on Nature-related Financial Disclosures (TNFD), the Partnership for Biodiversity Accounting Financials (PBAF), Taiwan Nature Positive Initiative, and Business for Nature. Cathay has also begun identifying nature-related risks and opportunities in our investment and lending portfolio according to TNFD guidelines. Through financial transformation and innovative strategies, Cathay is leading clients on the path to industry transformation. By enhancing corporate sustainable resilience, we hope to create greater value for our clients, shareholders, and other stakeholders.

Chairman

蔡若園







## About This Report

The financial sector is one of the key drivers of change in the global transition to net zero emissions. As such, Cathay has long been dedicated to managing climate change issues, and we compiled this report in accordance with recommendations from the Financial Stability Board (FSB) and the Task Force on Climate-related Financial Disclosures (TCFD). For the very first time, our report also references the International Financial Reporting Standards (IFRS) S2 Climate-related Disclosures framework set forth by the International Sustainability Standards Board (ISSB) in March 2022. Through open and transparent disclosure of information via four core elements and 11 disclosure items, we aim to highlight Cathay's resilience and influence in the face of climate challenges.

Although the ISSB has only released an exposure draft of the IFRS S2 until May 2023, it offers the financial sector a set of comprehensive guidelines for climate-related financial disclosures and ensures that the report offers comparable and reliable information on sustainability for investors.

Scope of Disclosure: Focuses on the main operations in Taiwan of Cathay FHC and major subsidiaries.

Period of Disclosure: Primarily examines TCFD measures taken by Cathay FHC and major subsidiaries in 2022, supplemented by climate- and nature- related action taken in the past.



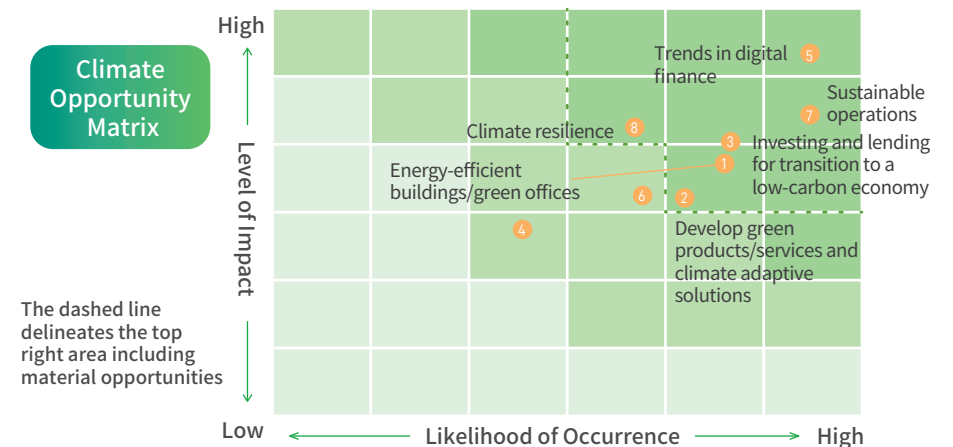
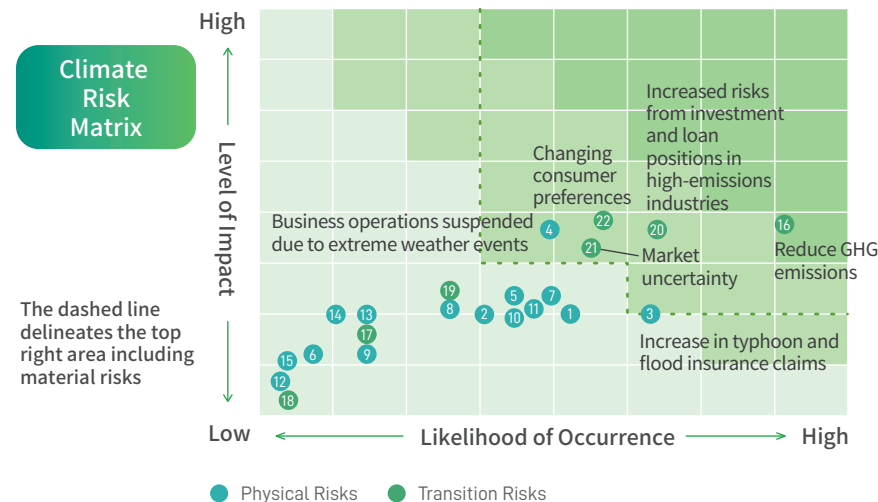
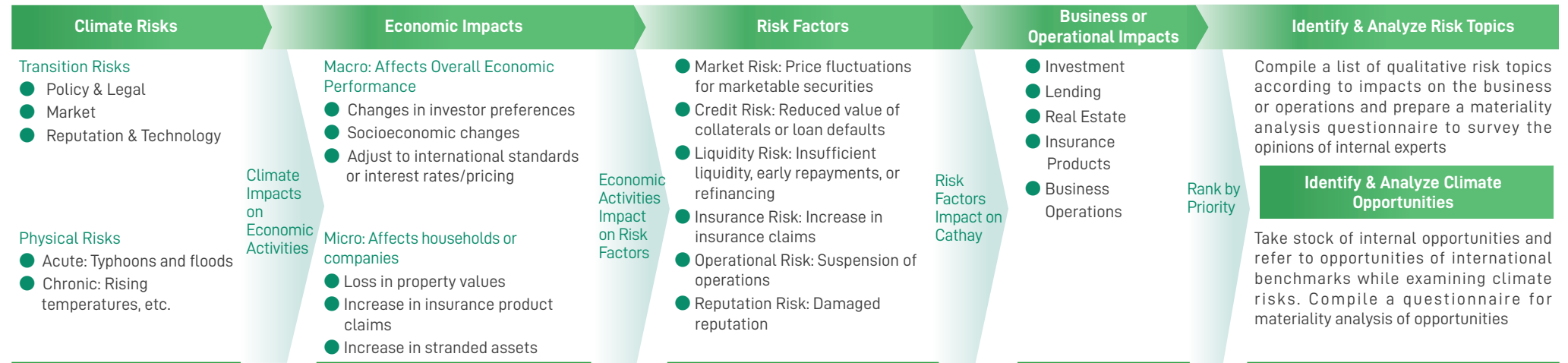


# Climate Risks and Opportunities

The TCFD classifies climate-related risks as either physical or transition risks. The measures we take to mitigate and adapt to climate change can also create opportunities. Therefore, Cathay reviews major climate risks and opportunities related to the group and develops corresponding climate strategies and measures, see [1.Climate Strategies and Progress](#) for more information.

## Identifying Climate Risks and Opportunities

Cathay evaluates the impact of climate-related risks on macro- and micro-economic activities by examining the characteristics of various types of risks. We then compare climate-related risks to conventional ones to identify potential financial impacts, as well as the climate risks and opportunities relevant to us. For example, government-imposed carbon taxes or fees on carbon-intensive industries might lead to a deterioration of the financial health of these targeted companies if they fail to make the transition, heightening the credit risk of investment and lending and causing financial losses for Cathay. Lastly, Cathay relies on internal experts to create climate matrices to assess materiality and rank risks based on the "level of impact" and "likelihood of occurrence," which are reevaluated periodically.





## Material Topics in Climate Risks and Opportunities

Cathay selected 6 material climate risks and 6 material climate opportunities based on the climate risk and opportunity ranking results, identifying the duration and potential of financial impact, as well as the association with conventional risks. This is used as the basis for strategies and risk management. For more information on the corresponding climate strategies and measures, see [1.Climate Strategies and Progress](#). <sup>Note1</sup>

### Material Climate Risks

Priority	Risk Topics	Potential Financial Impact	Impact on Cathay	Duration of Impact <sup>Note2</sup>	Corresponding Risks (conventional)
1	<b>16</b> Reduce GHG Emissions	Increasing energy prices or GHG emission costs lead to increased routine costs for business locations.	Cathay's Operations	Short- to Mid-term	Operational Risk
2	<b>20</b> Increased risks from investment and loan positions in high-emissions industries	Governments around the world will impose carbon taxes or carbon fees on carbon-intensive industries in the new low-carbon era, forcing a change in the expenditure structure of particular companies and resulting in reduced profits from investments and loans or increased risk in lending.	Investment and Lending	Short- to Mid-term (Long-term)	Market Risk Credit Risk
3	<b>22</b> Changing consumer preferences	Higher demand for companies with better performance in climate change adaptation and rising concerns for companies with poor climate performance makes it difficult to attract new customers and retain old ones.	Cathay's Operations	Mid- to Long-term	Reputation Risk Credit Risk
4	<b>3</b> Increase in typhoon and flood insurance claims	Extreme weather events are more frequent and severe with climate change, which may incur additional losses to underwritten portfolios with property insurance.	Insurance	Short- to Mid-term	Insurance Risk
5	<b>21</b> Market uncertainty	Cathay's future operations and service transition, and subsequent financial health, may be affected by global or regional carbon reduction efforts and uncertainties in energy policies.	Cathay's Operations	Short-term	Reputation Risk Credit Risk
6	<b>4</b> Business operations suspended due to extreme weather events	Extreme temperature may damage operational equipment, reducing profits or increasing maintenance costs.	Cathay's Operations	Mid- to Long-term	Operational Risk

### Material Climate Opportunities

Priority	Opportunity Topics	Potential Financial Impact	Impact on Cathay	Duration of Impact <sup>Note2</sup>
1	<b>5</b> Trends in digital finance	Enhance productivity and reduce costs through digital technology.	Cathay's Operations	Short- to Mid-term (Long-term)
2	<b>7</b> Sustainable operations	Enhance Cathay's sustainability and ESG ratings and respond to stakeholder expectations for Cathay to create mutual benefits and promote long-term sustainable value.	Cathay's Operations	Mid- to Long-term
3	<b>3</b> Investing and lending for transition to a low-carbon economy	Actively search for prospective investment/lending targets during the global transition to a low-carbon economy to increase profits.	Investment and Lending	Mid- to Long-term
4	<b>8</b> Climate resilience	Cultivate the ability to adapt to climate change and identify as well as manage climate change risks beforehand to reduce the financial impact of physical and transition risks on operations.	Cathay's Operations/ Investment and Lending/ Insurance	Mid- to Long-term
5	<b>1</b> Energy-efficient buildings/green offices	Enhance energy efficiency or use low-carbon energy in offices to reduce operational costs. Offer renewable energy services in new business models to meet tenant needs and increase company profits.	Cathay's Operations	Mid- to Long-term
6	<b>2</b> Develop green products/services and climate adaptive solutions	Invest in innovative research and development to provide more green products & services and climate solutions to meet customer needs and increase company profits.	Investment and Lending/ Insurance	Short- to Mid-term (Long-term)

Note 1: Risk response measures about **4** Business operations suspended due to extreme weather events, please refer to [2.3.3 Operational Risk Management](#).

Note 2: Short-term is ≤3 years, mid-term is between 3 and 10 years, and long-term is >10 years.



A photograph of three large white wind turbines standing on a lush green forested hill. The scene is captured during sunset or sunrise, with a warm orange and yellow glow in the sky and long shadows cast across the landscape. The turbines are positioned at different heights on the hill, with the tallest one in the foreground. The background shows rolling hills and a clear sky with some light clouds.

# CH 1

## Climate Strategies and Progress

Cathay has developed a climate strategy blueprint that incorporates the low-carbon economy and environmental sustainability. In addition to our group-wide commitment to achieve net zero emissions by 2050, we are also taking active measures to respond to material climate topics that we've identified. We are also actively utilizing internal and external resources and conducting climate scenario analysis on core business to assess the resilience of our climate strategies to bolster the actions we take against climate change.

- 1.1 Climate Strategy Blueprint
- 1.2 Low-Carbon Economy Driver
- 1.3 Environmental Sustainability Practices





# 1.1 Climate Strategy Blueprint

For many years, Cathay has approached daily operations and decision-making with a corporate sustainability mindset. The zero carbon transition is a fundamental strategy and we are actively exerting our financial influence accordingly. In June 2018, we became a supporter of TCFD of our own volition in response to environmental and social challenges. In 2020, we adopted "climate" as one of Cathay's three focus areas for sustainable development and set climate goals by incorporating the low-carbon economy and environmental sustainability. In 2022, Cathay garnered group-wide consensus with the call to "Daring Zero, Sprinting Forward" and created a sustainability strategy blueprint to enhance the focus areas and establish a direction for sustainable development.(Please see [Climate and Nature Related Actions](#) for the full timeline)

## Cathay's Climate Strategy Blueprint



### Low-Carbon Economy

Commit to putting every bit of capital to good use and help investees and borrowers make the transition from low-carbon to net zero

#### Ambitious Goals

##### Net Zero Emissions in Financial Assets by 2050

Develop a scientific carbon reduction pathway and transit financial assets to achieve net zero emissions.

##### Leader in Climate Engagement Actions

Leverage communication by announcing initiatives and stakeholder engagements to exert influence and lead companies to take actions against the climate crisis and strengthen their climate resilience.

##### Provide Comprehensive Climate Finance Solution

Build green capital, green financial products, and green financial services to provide corporations with comprehensive climate finance solutions.



### Environmental Sustainability

Implement plans to transition to zero carbon operations and work with stakeholders to reach net zero targets

#### Ambitious Goals

##### Green Energy

Promote energy transition to achieve 100% use of renewable energy at all business locations in Taiwan and 60% globally in 2030.

##### Green Operations

Cathay will mobilize operations, digitalize services, and share workspaces in order to incorporate sharing and circulation into planning and creation of a low-carbon workplace.

##### Green Real Estate

Build low-carbon real estate ecosystem and drive industries to engage energy transition.





Cathay  
Financial Holdings

Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix



Dimension	Ambitious Goals		Climate Targets	Relevant Stakeholders	Corresponding Material Risk or Opportunity	Climate Actions
	Net Zero Emissions in Financial Assets by 2050	Develop a scientific carbon reduction pathway and transit financial assets to achieve net zero emissions.	<ul style="list-style-type: none"> <li>Achieve SBT Scope 3 Investment &amp; lending committed targets.</li> <li>Phase out coal lending completely by 2027</li> <li>Ban new investments by 2030 to companies in OECD countries operating within the coal industry that are not actively transitioning to renewable energies and have a coal share of revenue of above 15% (the threshold is 20% for non-OECD countries)</li> <li>Reach net zero emissions by 2050</li> </ul>	Corporate Clients, Government, Associates	<div>20</div> <div>22</div> <div>3</div> <div>7</div> <div>8</div>	<p><b>1. SBT Progress and Monitoring:</b> Calculate carbon emissions in financial assets to understand the current state thereof, set up carbon reduction targets through science-based approaches like SBTi and PCAF, and ensure alignment of targets with the Paris Agreement's goals to limit the temperature increase to 1.5° C.</p> <p><b>2. Coal-Exit Action:</b> Phasing out coal to opt for other alternative energy sources and technologies is critical to achieving net zero emissions. We have formulated strategies and targets to gradually phase out coal from all active investments and assets, and we also hope to proactively engage with companies to encourage the electricity generation industries to also phase out coal.</p>
	Leader in Climate Engagement Actions	Leverage communication by announcing initiatives and stakeholder engagements to exert influence and lead companies to take action against the climate crisis and strengthen their climate resilience.	<ul style="list-style-type: none"> <li>Engage with key companies in our domestic investment and lending portfolios that account for 55% of total carbon emissions by 2030</li> <li>Lead participation in 3-5 international and domestic initiatives and engagements before 2030</li> <li>Evaluate the possibility of joining other international initiatives and organizations for responsible investments in climate change, water resources, biodiversity, etc.</li> </ul>	Corporate Clients, Government, Associates	<div>20</div> <div>22</div> <div>8</div>	<p><b>1. Facilitate Climate Engagement:</b> Communicate and prompt investees and borrowers to disclose carbon survey results, set more concrete mid- and long-term carbon reduction targets, or join international carbon reduction organizations such as SBT/RE100. Actively help companies make the transition and continue to organize events such as the Climate Change Forum and the Loss Control Seminar to prompt the industry and our clients to adopt active response measures. While we strive for corporate sustainability, we must also be mindful of intergenerational justice. Cathay has actively partnered with multiple youth-related entities to build a talent pool of climate professionals for Taiwan.</p> <p><b>2. Commitments to International Initiatives:</b> Long-term participation and engagement with many large-scale international initiatives and organizations, such as CDP and CA 100+, in order to facilitate communication between international investors and investee companies and exert combined influence.</p>
	Provide Comprehensive Climate Finance Solution	Build green capital, green financial products, and green financial services to provide corporations with comprehensive climate finance solutions.	<ul style="list-style-type: none"> <li>40% increase low-carbon investments by 2030 from 2020.</li> <li>100% increase in green deposit/loan products or services by 2030 from 2022.</li> <li>30% increase in insured amount for green insurance underwriting by 2030 from 2022.</li> <li>30% increase in corporate loss control services by 2030 from 2022.</li> </ul>	Clients	<div>3</div> <div>22</div> <div>2</div> <div>3</div> <div>8</div>	<p><b>1. Green capital:</b> Invest more in low-carbon and infrastructure industries to leverage core competencies and pursue long-term returns.</p> <p><b>2. Green financial products:</b> Offer (1) Green savings (2) Sustainability-linked loans (3) Underwrite green bonds (4) Green insurance (5) Issue green funds and other diverse financial product options in hopes of directing capital towards sustainable development.</p> <p><b>3. Green financial services:</b> Provide corporate loss control services and low-carbon investment research information to enhance stakeholders awareness of climate change, and promote net zero awareness.</p>



Environmental  
Sustainability

Dimension	Ambitious Goals		Climate Targets	Relevant Stakeholders	Corresponding Material Risk or Opportunity	Climate Actions
	Green Energy	Promote energy transition to achieve 100% use of renewable energy at all business locations in Taiwan and 60% globally in 2030.	<ul style="list-style-type: none"> <li>Use 100% renewable energy in Cathay FHC, Cathay Life, CUB, and Cathay Century HQs by 2025.</li> <li>100% use of renewable energy at all business locations in Taiwan by 2030.</li> <li>100% use of renewable energy at all global business locations by 2050.</li> </ul>	Employees	<div>16</div> <div>21</div> <div>22</div> <div>7</div> <div>1</div>	<p><b>1. Increase Use of Renewable Energies:</b> Negotiate power purchase agreements (PPA) to acquire renewable energy and obtain renewable energy certificates (RECs) through diverse channels.</p> <p><b>2. Deploy Energy Management Systems (EMS):</b> Enhance power management and energy conservation efforts.</p> <p><b>3. Consider Carbon Pricing Mechanisms from the Operations Side:</b> Adopt carbon pricing mechanisms to encourage employees.</p> <p><b>4. Install Solar Panels on Proprietary Buildings:</b> Install solar panels on proprietary buildings to generate more renewable energy from onsite self-use PV systems.</p>
	Green Operations	Cathay will mobilize operations, digitalize services, and share workspaces in order to incorporate sharing and circulation into planning and creation of a low-carbon workplace.	<ul style="list-style-type: none"> <li>Gradually reduce scope one and two GHG emissions within our own operations through SBTs to achieve net zero emissions by 2050.</li> <li>Complete carbon footprint verification for 85% of all main financial products and services by 2030</li> <li>Water Management: Pledge to limit water consumption per capita to less than 11.95 cubic meters in 2030</li> <li>Waste Reduction: Pledge to limit waste per capita to less than 22.9 kilograms by 2030</li> </ul>	Employees	<div>16</div> <div>21</div> <div>22</div> <div>5</div> <div>7</div>	<p><b>1. Three Workplace Strategies:</b> Digitalize Services, Mobilize Operations, and Share Workspaces.</p> <p><b>2. Water Management:</b> Use products with water conservation labels and adopt protocols for managing efficient use of water.</p> <p><b>3. Waste Reduction:</b> Speak out against the use of disposable utensils and food containers, regularly review the waste spreadsheet, and encourage employees to actively reduce waste and use of plastics.</p> <p><b>4. Sustainable Procurement:</b> Adopt ISO 20400 and manage the supply chain according to the Sustainable Procurement Guidelines.</p>
	Green Real Estate	Build low-carbon real estate ecosystem and drive industries to engage energy transition.	<ul style="list-style-type: none"> <li>All new buildings after 2023 will earn green building certifications such as LEED.</li> <li>40% of branch offices will undergo environmentally friendly renovations by 2030.</li> <li>Green Leasing offers a total of 20GWh of renewable energy by 2030</li> </ul>	Employees, Clients	<div>16</div> <div>1</div> <div>2</div> <div>8</div>	<p><b>1. Low-Carbon Buildings:</b> Furnish more low-carbon buildings by reducing carbon through onsite self-use PV systems, procuring green energy, or constructing more green buildings.</p> <p><b>2. Green Retrofit:</b> CUB retrofit current locations with green building materials</p> <p><b>3. Green Landlord:</b> Cathay Life incorporate renewable energy to meet sustainability targets for corporate clients, prompt more clients to transition, and better utilize local green energy.</p>



## How do we implement and monitor climate strategies?

Through a six-step process, Cathay implements and monitors the progress of the six ambitious goals under "low-carbon economy" and "environmental sustainability" and continues to optimize and refine the process each year.



### Climate Strategies

1 As a leading pioneer, Cathay is taking different active measures in our strive towards a sustainable society.

### Climate Targets

2 In order to achieve different climate strategies, Cathay has set targets for each stage of implementation as a basis for evaluation.

### Climate Scenario Analysis

3 To ensure the resilience of our climate strategies, Cathay assesses the effectiveness thereof through scenario analysis.

### Climate Actions and Current Progress

4 Cathay is developing and actively implementing different actions under different strategies.

### Historical Data

5 For different targets, Cathay regularly inspects our results and achievements at various stages.

### Next Steps

6 Continue to refine targets and current actions to achieve net zero emissions by 2050.

## 1.2 Low-Carbon Economy Driver

By leveraging financial assets to exert influence, Cathay is driving and propelling the industry to reduce carbon emissions and strive for zero carbon. Cathay has committed to net zero emissions in financial assets. Additionally, Cathay is influencing companies through engagement and providing climate finance solutions to help clients and companies create opportunities for low-carbon transition or mitigate/adapt to climate change.

### 1.2.1 Net Zero Emissions in Financial Assets by 2050

Using science-based quantification, Cathay FHC has developed a carbon reduction pathway for investment and lending portfolios. Carbon reduction targets will be adjusted every five years to ensure that the company's targets are compatible with the Paris Agreement's goal to limit the temperature increase to 1.5° C and ultimately achieve the long-term goal of net zero emissions in financial assets by 2050. Cathay FHC's short- and mid-term goals to reduce carbon emissions in financial assets were approved by the Science Based Targets initiative (SBTi) in 2022.

### Highlights



Became SBTi-approved in 2022.



Defined the group's limits to sensitive industries to climate risks.



Outlined the coal divestment timeline.

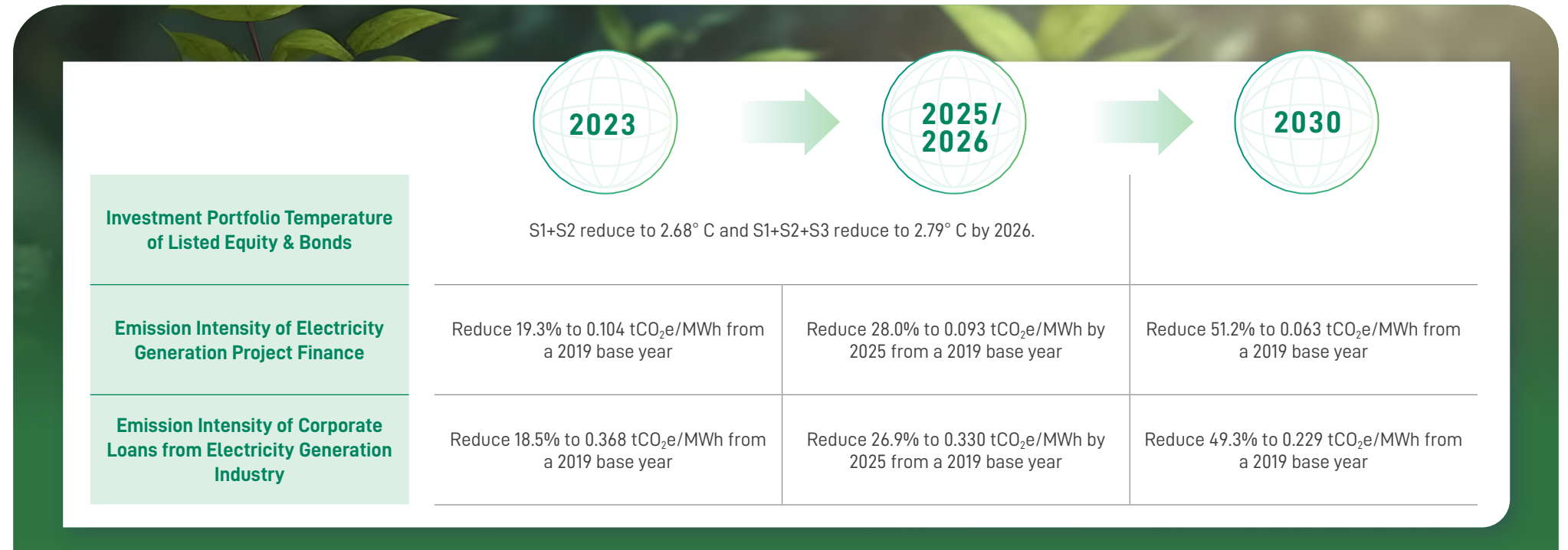


## Climate Strategy

Develop a scientific carbon reduction pathway targeting investment and lending portfolios to achieve net zero emissions in this area by 2050.

## Climate Targets

### ● Science-Based Targets

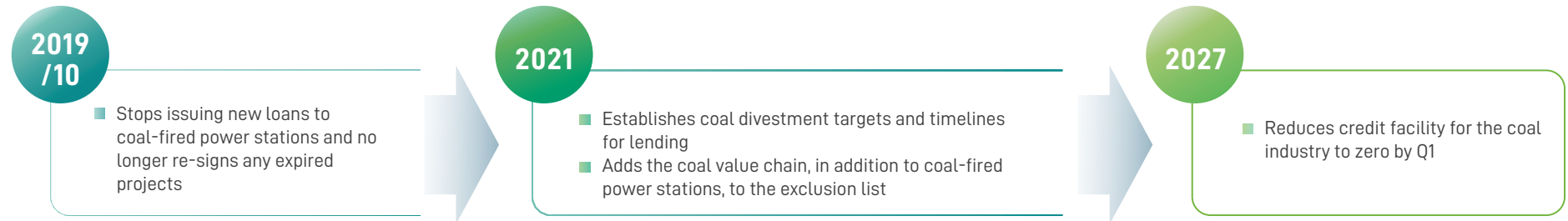


## ● Coal-Exit Action

- **Coal divestment targets for investments:** Gradually reduce the coal share of revenue threshold and expand the scope of investment control, banning new investments to companies operating along the coal value chain in OECD countries that are not actively transitioning to renewable energies and have a coal share of revenue of above 15% starting in 2030.



- **Coal divestment targets for lending:** Zero coal lending targets have been established which will lead to Cathay fully phasing out any loans to companies in coal value chain in 2027 Q1.



## Climate Scenario Analysis

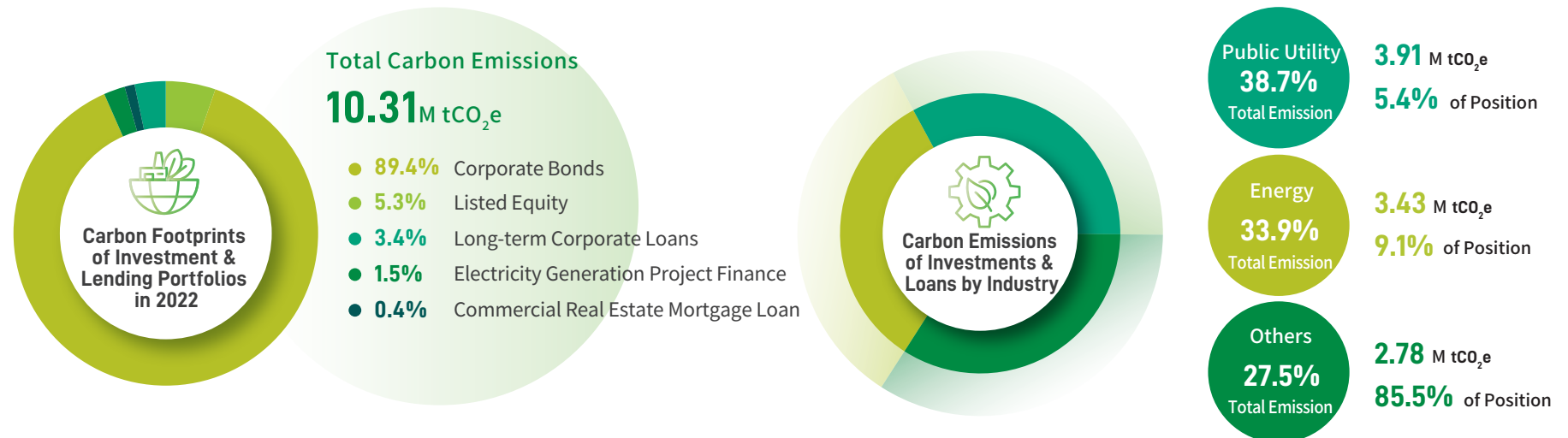
Climate risks could introduce financial impacts on Cathay's financial assets. As such, quantitative scenario analysis has been developed to target specific financial assets held by Cathay. The results of the analysis can be found below. For the full analysis, please refer to [2.4 Climate Scenario Analysis](#).

To analyze the transition and physical risks of stock/bond positions, Cathay used an MSCI model and adopted an NGFS scenario. Results indicated that the overall risks (including transition and physical risks) of stock/bond investments are lower in 2022 than it was in 2021. Scenario analysis to identify transition and physical risks of outstanding loans revealed that, under the disorderly scenario, CUB is estimated to lose around 1.69% and 1.81% of its net worth from corporate loans and consumer loans, respectively, between 2030 and 2050 as a result of climate change. Based on results from scenario analyses, Cathay will continue to monitor carbon emissions in financial assets and manage industries sensitive to climate.

## Climate Actions and Current Progress

### ● SBT Progress and Monitoring

To achieve the long-term goal of net zero emissions in financial assets by 2050, Cathay continues to calculate the Weighted Average Carbon Intensity (WACI) of investment portfolios with the Task Force on Climate-Related Financial Disclosures' (TCFD) methodology as well as total carbon emissions from financial assets and economic emission intensity with the Partnership for Carbon Accounting Financials' (PCAF) methodology. Carbon accounting was conducted for the following assets: listed equity, corporate bonds, electricity generation project finance, commercial real estate mortgage loan, and long-term corporate loans. In 2022, Cathay's investment and lending portfolio produced 10.31 million metric tons of CO<sub>2</sub>-equivalent (tCO<sub>2</sub>e). More than 70% of carbon emissions are concentrated in the energy sector and utilities sector. To accelerate low-carbon transitions in carbon-intensive industries and mitigate climate risks in assets, Cathay has adopted more aggressive approaches to manage investments and loans and engage investees and borrowers.



Note: Includes investments with proprietary assets from Cathay Life, CUB, Cathay Century, and Cathay Securities as well as long-term corporate loans from CUB.

### ● Coal-Exit Action

Cathay continues to carefully monitor and manage the climate risks of investments and loans. Cathay FHC's subsidiaries have included climate-sensitive industries (e.g., coal-related industries, oil & gas-related industries, the construction materials industry, the aluminum industry, the aviation industry, the mining industry, etc.) in investments and loans to sensitive industries and integrated climate risk factors into decision-making processes for investments and loans. Cathay set the limits to sensitive industries to climate risks in 2023. For more information, please refer to [2.3.1 Investment and Lending Risk Management](#).

Phasing out coal to opt for other alternative energy sources and technologies is, therefore, critical to achieving net zero emissions. Given this trend, the coal industry is also facing higher risks of stranded assets. In terms of investments, Cathay FHC has formulated strategies and targets to gradually phase out coal from all active investments and assets invested through investment mandates in the "coal industry," "coal railroad transportation," "coal ancillary services," and "coal-fired electricity generation." In terms of lending, CUB has been actively responding to international carbon-intensive industries and oversight trends and has already established coal divestment targets and timelines in 2021.

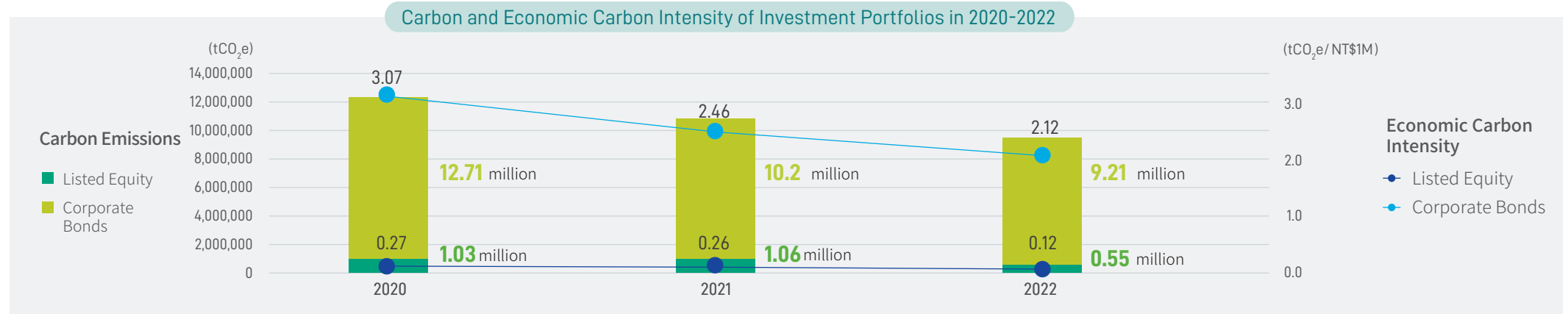


## Historical Data

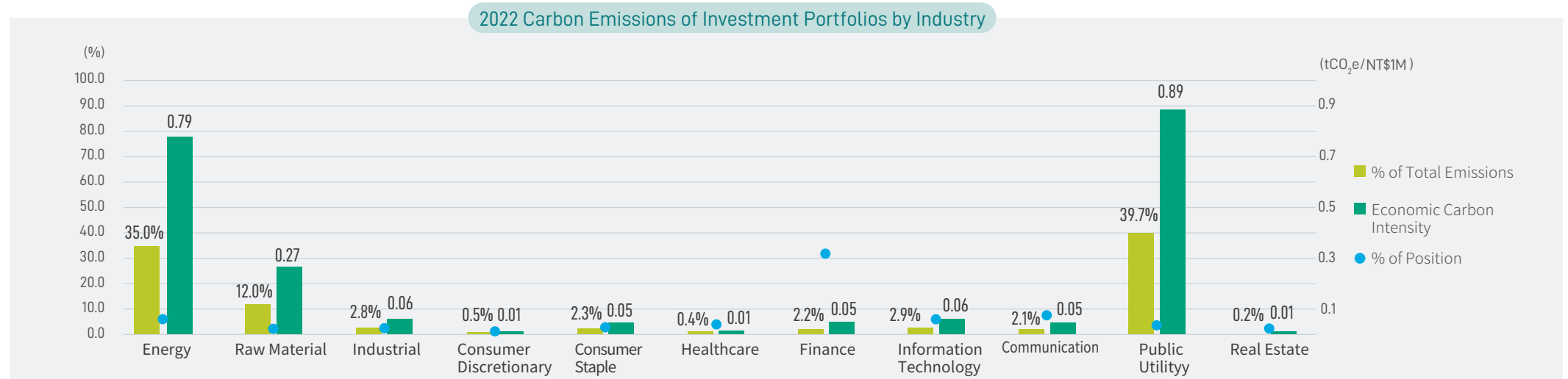
### Carbon Emissions of Investment Portfolios

In 2022, Cathay's investment portfolio produced 9.76M tCO<sub>2</sub>e, more than 13% reduction from 2021, with a data quality<sup>note</sup> score of 2.52. Carbon intensity decreased by 17% from 2021. In the past three years, the carbon emissions of Cathay FHC's investment portfolio have exhibited a stable decline every year.

Note : According to PCAF methodology, the data quality ranks from 1 to 5. The best gives 1 score and the worst gives 5 score.



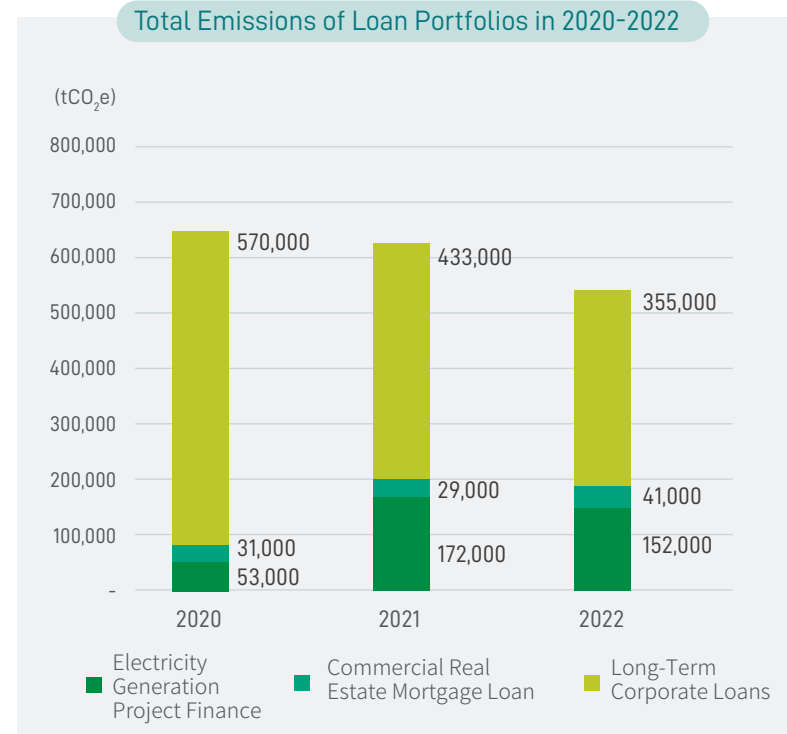
Note: Includes investments with proprietary assets from Cathay Life, CUB, Cathay Century, and Cathay Securities.



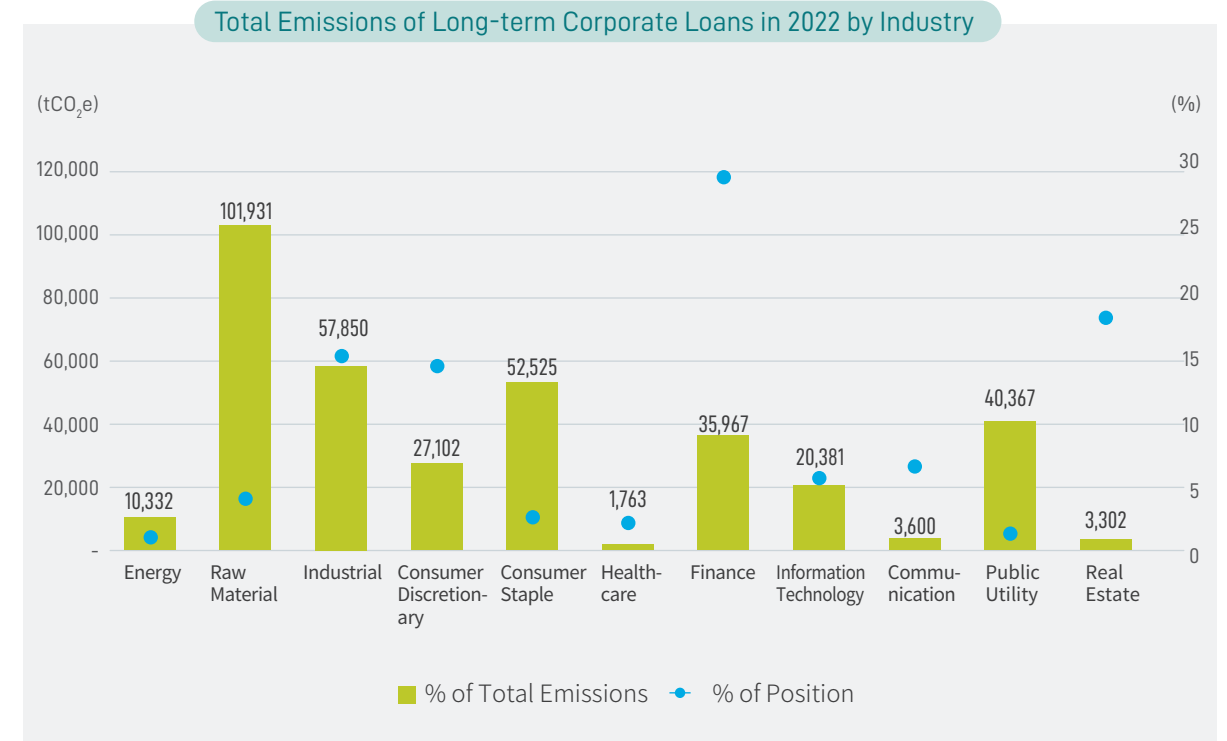
Note: Includes investments with proprietary assets from Cathay Life, CUB, Cathay Century, and Cathay Securities.

## ● Carbon Emissions of Lending Portfolios

In 2022, Cathay's lending portfolio produced 550,000 tCO<sub>2</sub>e, nearly 14% reduction from 2021, with a data quality score of 3.73. In the past three years, the carbon emissions of Cathay FHC's lending portfolio have exhibited a stable decline.



Note: Includes CUB's loan assets.



Note: Includes CUB's loan assets.

## Next Steps

Following SBTi and PCAF methodologies, Cathay will work to gradually expand the scope of carbon footprint verification (CFV) for investment and lending portfolios and strengthen carbon management for financial assets. As for industries sensitive to climate risks, Cathay will continue to strengthen exposure monitoring, prioritize coal divestment, and actively manage unconventional oil and natural gas industries.

## 1.2.2 Leader in Climate Engagement Actions

One of Cathay's important strategies in climate actions is using initiatives and engagement to promote climate actions. Cathay takes the initiative to communicate and collaborate with stakeholders along the finance value chain to help companies take concrete actions against climate change and strengthen their climate resilience. Cathay hopes to work together with stakeholders to achieve climate goals and facilitate sustainable development around the world.

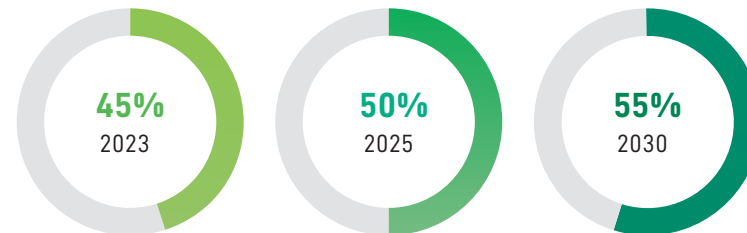
### Climate Strategy

Leverage communication by announcing initiatives and stakeholder engagements to exert influence and lead companies to take action against the climate crisis and strengthen their climate resilience.

### Climate Targets

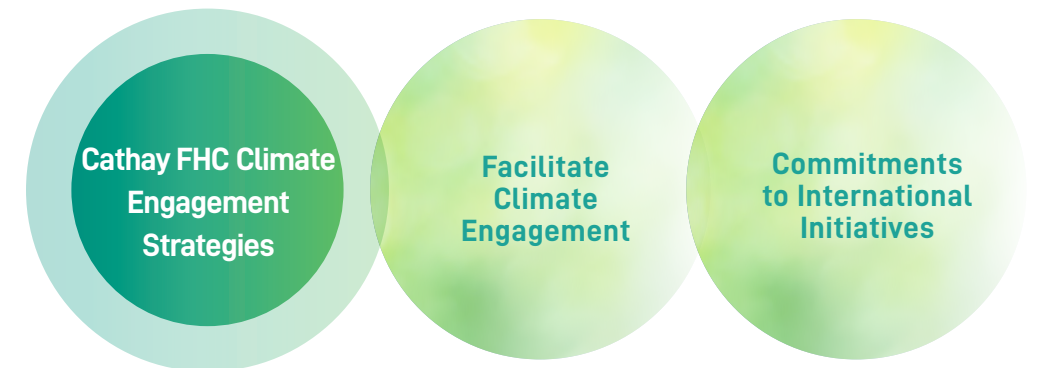
#### ● Facilitate Climate Engagement

Engage with Key Investees and Borrowers in Taiwan  
Based on Their Percentages of Carbon Emissions



#### ● Commitments to International Initiatives

- ▶ Lead participation in 3-5 international and domestic initiatives and engagements before 2030.
- ▶ Evaluate the possibility of joining other international initiatives and organizations for responsible investments in climate change, water resources, biodiversity, etc.



### Highlights



3 companies engaged by Cathay through Climate Action 100+ have established emission reduction targets for 2050. Climate actions from 2 of the companies have been recognized by international organizations and included as case studies in Cathay FHC's annual report.



Cathay FHC was a Strategic Partner of the World Climate Foundation and brought Taiwan to a COP side event - the World Climate Summit.



The First financial institution from Taiwan to join the Partnership for Biodiversity Accounting Financials (PBAF).



## Climate Actions and Current Progress

### ● Facilitate Climate Engagement

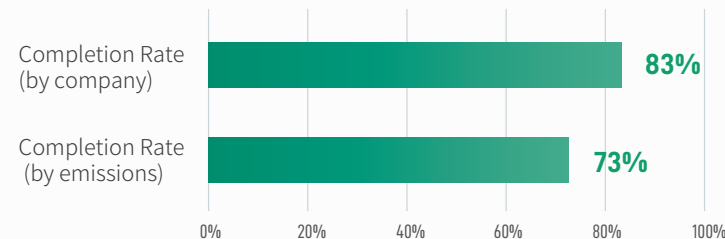
Currently, there are many challenges to achieving net zero targets. Insufficient renewable energies, technology breakthroughs that have yet to happen, policy and regulatory soundness, or biodiversity crises are all integral to achieving net zero targets. Cathay intends to not only adjust investment and lending portfolios to achieve climate targets but to further assist investees and borrowers transform their businesses. To such end, we continue to commit to climate engagement actions, including exercising voting rights to support climate-positive proposals and raising corporate awareness about the climate crisis to drive low-carbon transition. In 2022, Cathay conducted 97 engagements on environmental issues, and Cathay Life provided 100% support to investees in environmental issues.



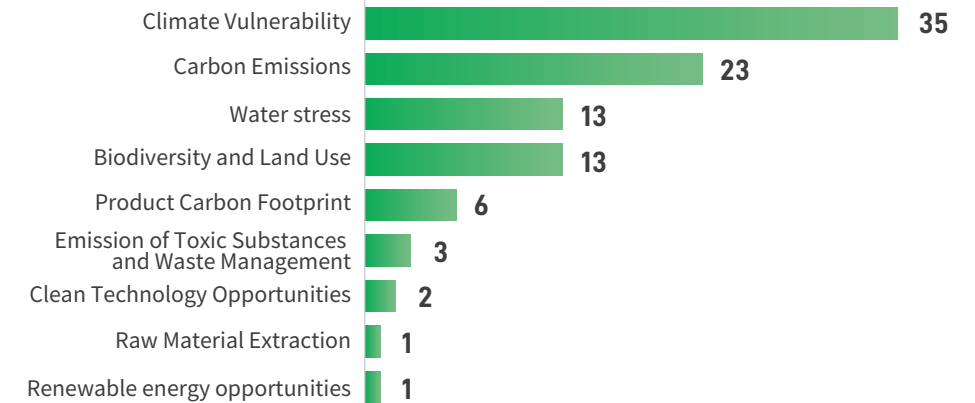
#### Case Study Engagement via the Coalition of Movers and Shakers on Sustainable Finance

To support the Coalition of Movers and Shakers on Sustainable Finance launched by the Financial Supervisory Commission (FSC), Cathay FHC committed to, by 2025, engaging over 50% of group's major investees and borrowers in Taiwan that are considered carbon-intensive companies and urging engagement candidates to set net zero emission targets before 2050. Companies that have fulfilled agreed targets must commit to establishing and achieving more ambitious targets and practices. In 2022, Cathay engaged with 83% carbon-intensive investees and borrowers, and all of them have established carbon reduction targets for 2050.

#### Completion Rate of Engagement Targets from the Coalition of Movers and Shakers



#### No. of Engagements on Environmental Issues



Cathay FHC has long spotlighted climate change and launched related empowerment programs targeting companies and youth. In empowering companies, Cathay FHC embraces the value of "take Taiwan into the world and bring the world to Taiwan" and has held a summit on climate change for six consecutive years. Opinion leaders and experts from the government, industries, and academia are invited to share their visions on global climate change and net zero transformations with the industry and lead the industry to adopt aggressive actions against climate change. To "empower youth" to find a solution for climate change, Cathay FHC has started working with the Ministry of Education (MOE), National Taiwan University (NTU), Taiwan Youth Climate Coalition (TWYCC), etc., to host youth forums, promote industry-academic cooperation, and provide hands-on learning resources to thereby create a climate talent pool for Taiwan through various channels.



### Case Study 2022 Cathay Sustainable Finance and Climate Change Summit



Sign-up for the summit reached new record highs with over 2,459 attendees, and listed companies in attendance accounted for over 70% of Taiwan's total market capitalization, while carbon emissions from listed companies and OTC-listed companies accounted for 46% of Taiwan's total carbon emissions.

Cathay became Taiwan's first connection to the Climate Change Conference (COP). During the summit, Cathay provided an exclusive livestream of the World Climate Summit (WCS), a side event of COP27 held in Egypt, where Cathay FHC Chairman Hong-Tu Tsai and President Chang-Ken Lee were invited to serve as keynote speaker and panelist, respectively.



Group photo of Cathay Sustainable Finance and Climate Change Summit



### Case Study Circular Economy Exploration Workshop

Pathways to net zero emissions include using renewable energies and increasing energy efficiency, but also reducing carbon emissions from the resource end, increasing resource efficiency, and decreasing the extraction and use of resources. Cathay FHC recognizes the importance of the circular economy in mitigating climate change and promoting education. The company hopes to drive Taiwan's textile industry into a net zero future. To such end, Cathay FHC organized the first Circular Economy Exploration Workshop in 2022 with the Circular Taiwan Network (CTN) and Taiwan Textile Research Institute (TTRI). In recent years, Cathay FHC has been witnessing increasing pressure from brands on Taiwan's textile businesses to reduce carbon emissions in the face of rising raw material costs. As a driving force for net zero transformation, Cathay FHC collaborated and discussed with 11 businesses operating along the textile value chain; industrial research organizations such as the Industrial Technology Research Institute (ITRI), Footwear & Recreation Technology Research Institute (FRTRI), and TTRI; and CUB colleagues representing viewpoints from the finance industry to create a circular ecosystem.



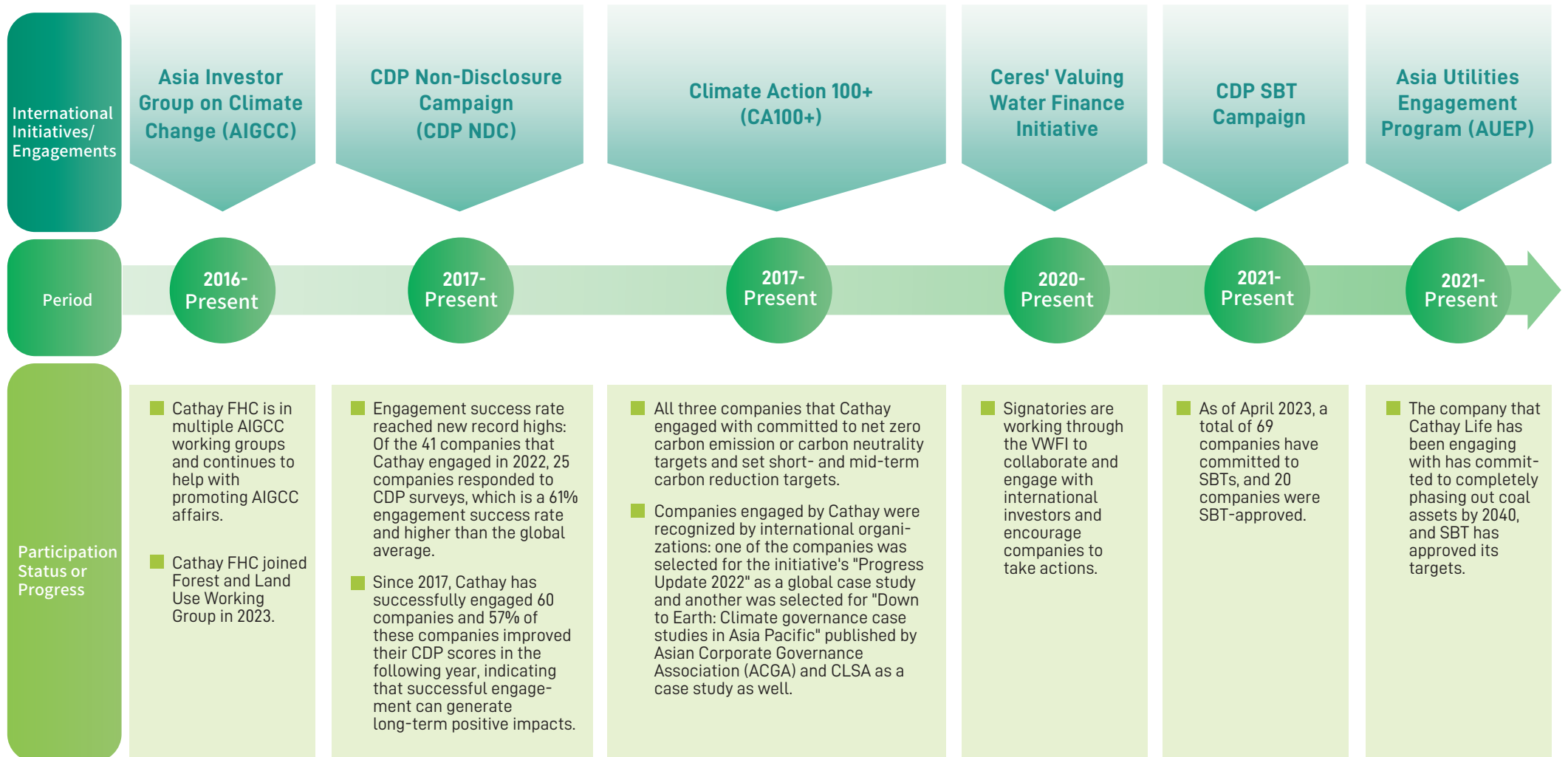
Circular Economy Exploration Workshop - Textile Session





## ● Commitments to International Initiatives

As the first financial institution from Taiwan to engage in extensive discourse with companies on the topic of climate and one of the most active leading financial institutions from Asia, Cathay FHC has long supported international climate change initiatives, urging investees to better understand the severe impacts of climate risks and conduct low-carbon transitions by facilitating communication between initiatives and investee companies. In addition to participating in existing initiatives, Cathay FHC joined the Partnership for Carbon Accounting Financials (PCAF) in 2022 to encourage carbon accounting of financial assets from more financial institutions around the world and bolster infrastructure for carbon reduction from the finance industries. Please refer to [3.2 Participation in International Initiatives](#) for more information about nature-related initiatives in which Cathay participated.





## Case Study Climate Action 100+

Formosa Petrochemical Corporation (FPCC) is one of the focus companies selected by CA100+ for engagement, and Cathay started engaging the Formosa Plastics Group (FPG) and FPCC in 2018. To help the companies understand CA100+ and why investors are demanding companies reduce carbon emissions, Cathay FHC introduced the goals of CA100+, the importance of ESG issues, and global trends in responsible investments. Cathay also compiled response strategies targeting climate change from several petrochemical companies across the world and invited experts and scholars to share on bioenergy technologies. The different approaches undertaken by Cathay aimed to reduce the time it would cost FPG and FPCC to explore themselves and, thereby, facilitate the roll-out of carbon reduction programs.

Proactively engaging with FPCC, Cathay FHC designated a liaison to directly communicate and learn about FPCC's status via frequent phone calls or emails. In addition, Cathay conducts several in-person or online engagement meetings every year, working with several international institutional investors to call on the companies to reduce carbon emissions in alignment with the Paris Agreement. Cathay executives attach great importance to company engagement. To strengthen FPG and FPCC's climate governance system, Cathay FHC Present Chang-Ken Lee paid several visits to many senior executives at FPG's main management department and FPCC's chairman and president with Cathay Life and Cathay SITE presidents and Cathay FHC Chief Investment Officer Sophia Cheng. Leaders from both sides engaged in discussions to explore viable solutions for carbon reduction.

Following FPG's announcement in October 2021 to commit to "achieving carbon neutrality by 2050," affiliated companies such as Formosa Plastics Corporation (FPC), Nan Ya Plastics Corporation (NPC), and Formosa Chemicals & Fibre Corporation (FCFC) have also committed to carbon neutrality by 2050. FPCC chairman even announced in the 2022 shareholders' meeting that the company will be striving towards carbon neutrality by 2050. Cathay FHC praises the carbon reduction ambitions of FPG and FPCC and hopes they can continue to take action to reduce carbon emissions.

Cathay is happy to witness the first independently published TCFD Report in 2022 by FPCC under FPG's main management department and FPCC's senior executives. The report disclosed short-, mid-, and long-term carbon reduction targets for 2025, 2030, and 2050, the related action plans, and GHG emissions pathways before 2030. In the case studies section (p.22) of the "Progress Update 2022" report published by CA100+, FPCC's commitment to carbon neutrality by 2050 and its first independently produced TCFD Report in 2022 was recognized by the initiative. Cathay hopes that FPCC's enforcement of carbon reduction practices aligns with global expectations and will continue to engage in dialogue with FPCC in the hopes of witnessing its successful low-carbon transition.



## Next Steps

As one of the most active leading financial institutions in Asia, Cathay will continue to commit to climate engagement actions and support international climate initiatives, further assisting investees and borrowers transform their businesses. Cathay will also empower youth and corporations on climate-related issues, raising their awareness about the climate crisis and climate-related skills to propel the economy and society towards a net zero future.



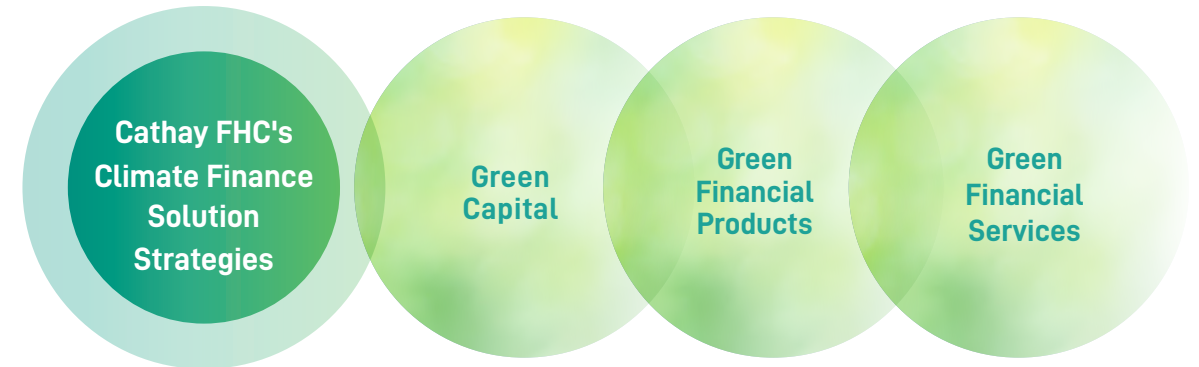
## 1.2.3 Comprehensive Climate Finance Solutions Provider

As a pioneer in green finance, Cathay is aggressively driving the development of green finance and galvanizing its subsidiaries' forces in the face of rising climate impact to help industries accelerate transitions through green financial products and services such as low-carbon investing, green loans, green insurance, green funds, and green financial services.

### Climate Strategy

Build green capital, green financial products, and green financial services to provide corporations with comprehensive climate finance solutions.

### Climate Targets



#### Green Capital

Low-carbon investments and growth rate from base year of 2020

2023	2025	2030
20%	25%	40%

#### Green Financial Products

Growth rate of green deposit/loan products or services from base year of 2022

10%	30%	100%
-----	-----	------

Growth rate of insured amount for green insurance underwriting from base year of 2022

5%	15%	30%
----	-----	-----

Low-carbon and climate-related mutual funds

In progress

Green bonds underwriting

Keep on the track

#### Green Financial Services

Growth rate of corporate loss control services from base year of 2022

5%	15%	30%
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### Highlights



In 2022, low-carbon investing and lending reached NT\$305.8 billion.



Reached over NT\$10 billion for the Green Time Deposit Program and NT\$23 billion in sustainability-linked loans.



First financial institution in Taiwan calculated carbon intensity of property insurance product portfolios.





## Climate Actions and Current Progress

### Green Capital

To mitigate climate change, Cathay is supporting global trends of the low-carbon economy and the Taiwan government's innovation policies, actively investing in renewable energy sectors to contribute to planet Earth. To strengthen climate adaptability, Cathay believes that infrastructure is integral to fulfilling the people's basic necessities and laying the foundations for national development, both of which can help maintain economic and social development, eradicate poverty, and adapt to climate impacts. Improving infrastructure is therefore critical to sustainability. To such end, Cathay is investing in industries related to infrastructure to provide the funding necessary to help develop cities sustainably and transform the way people live.

#### Highlights from Investments in Renewable Energy Industries

##### Promote Solar Power Industry Clusters

In 2022, CUB approved loans for 126 solar power stations with a total installed capacity of 131 MW. As of the end of 2022, loans have been approved for 2,600 solar power stations in Taiwan and abroad, with a total installed capacity of 889 MW and annual carbon reduction benefits of 558,000 metric tons.<sup>Note</sup>

##### First Life Insurance Company in Taiwan to Establish a Solar Power Subsidiary

Cathay Life's venture into renewable energies revolves around solar power and was a three-step process: Cathay Life first invested, then collaborated (in a joint venture), and finally established Cathay Power, a solar power subsidiary to build up its electricity generation assets. In 2022, Cathay Life was heavily involved in Cathay Power's merger and capital increase and became the first life insurance company in Taiwan to establish a solar power subsidiary. As of 2022, Cathay Life has invested a total of NT\$4.07 billion, and the grid-connected installed capacity is now at 329.7 MW.

**2014**  
Invest

Invest in Solar  
Power Plant

In 2014, collaborated with AUO Corporation to invest in Galaxy Energy Group.

**2016**  
Ventures

Solar Power Plant  
Joint Ventures

In 2016, established solar power plants through project-based joint ventures with Sino-American Silicon Products, Neo Solar Power Energy, and Solar Master Energy (SM Energy) to promote solar power industry clusters.

**2022**

Establish Subsidiary

Establish Solar  
Power Subsidiary

In 2022, Cathay Life was heavily involved in Cathay Power's merger and capital increase and became the first life insurance company in Taiwan to establish a solar power subsidiary.

Note: Calculated based on Taiwan's average solar PV capacity factor in 2021 announced by the Taiwan Power Company and electricity emission factor of 0.509kg CO<sub>2</sub>/kWh in 2021 announced by the Bureau of Energy.

### Green Financial Products

#### Green Deposit

In July 2022, CUB launched the Green Time Deposit Program to support the government's Green Finance Action Plan 2.0 & 3.0. Funds from green deposit have been invested in the development of renewable energy industries such as financing solar power plants, wind farms, and fishery and electricity symbiosis.

#### Achievements of the Green Time Deposit Program in 2022

Over 30 companies across transportation, electronics, chemical engineering, retail, machine tool, and construction industries have carried out the Green Time Deposit Program.

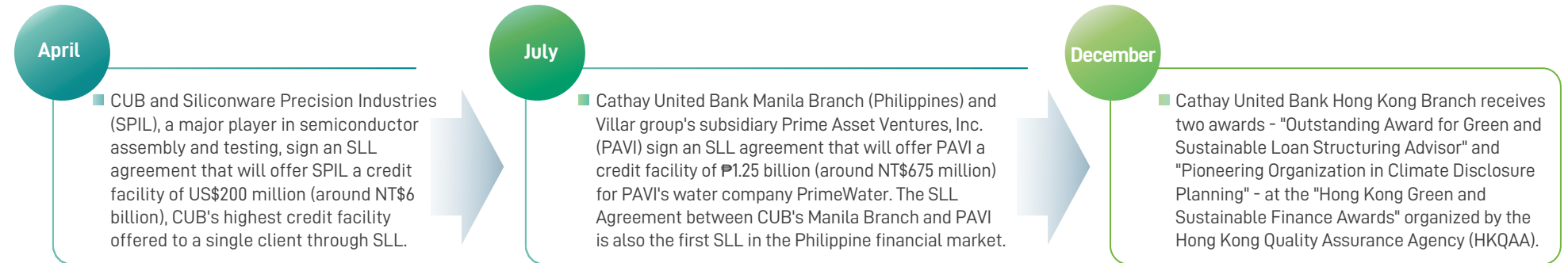
Undertook  
NT\$10 billion.

Commissioned third-party advisors to evaluate the feasibility and effectiveness of green deposit investment plans and provide assurance reports on investment plans and the use of funds.



### ► Sustainability-linked Loan (SLL)

CUB is actively promoting sustainable finance across various markets and industries. As of the end of 2022, CUB had approved more than 30 SLLs in Taiwan, Hong Kong, the Philippines, Singapore, and Australia, covering industries such as electronic components, construction materials, real estate, textile, F&B, medical equipment, leasing, public utility, etc. Total approved facility amount is more than NT\$23 billion. An SLL is a loan that incentivizes a borrower to improve its sustainability or environmental, social, and governance (ESG) performance, and KPIs must be chosen carefully in order to monitor ESG performance that is relevant and material to the industry of the borrower.



### ► Green Bond Underwriting

#### Green Bond Underwriting

- In May, July, and October of 2022, CUB participated in the underwriting of TSMC's green bonds listed on the Taipei Exchange. The bond issuance volume is NT\$30.2 billion with terms to maturity ranging between four to ten years. Funds from the sale of green bonds will be used to obtain green building certifications for TSMC facilities, large uninterrupted power supply systems, local exhaust gas treatment facilities, and wastewater treatment systems to increase energy use efficiency, reduce carbon emissions, and minimize pollution.
- Cathay Securities offers consulting to eco-friendly and green companies to help them with raising funds. In 2022, Cathay Securities raised NT\$195 million in funds for Anji Technology (core business: high-performance solar modules) with convertible bonds and participated in underwriting international green bonds for Taipower and Natixis.

#### Sustainability Bond Underwriting

- CUB participated in the underwriting of Société Générale's sustainable development bonds listed on the Taipei Exchange in April 2022. The bond was Société Générale's first international sustainability bond issued and was launched in line with its Positive Impact Framework. This bond will finance or refinance environmental and social projects such as renewable energy, low-carbon transportation, water management, affordable housing, education and vocational training. The bond issuance volume is A\$149 million with a ten-year maturity. CUB also participated in the underwriting of two other Société Générale international sustainability bonds in June and December of 2022. Additionally, CUB also underwrote Goldman Sachs' international sustainability bond in March, bringing the total to four international sustainability bonds in 2022.

### ► Green Insurance Roll-out

#### Renewable Energy Industry Insurance

- Cathay Century has been offering insurance products targeting the development and operations of green industries since 2010. In 2016, Cathay Century became the first company of its kind in Taiwan to offer insurance for offshore wind turbines. In 2020, Cathay founded the Energy Infrastructure Team to develop potential business opportunities in renewable energies through risk identification. In 2022, Cathay Century increased insurance coverage for solar power and offshore/onshore wind farms, underwriting an additional NT\$34.19 billion.

#### Green Vehicle Insurance

- In 2013, Cathay Century launched the "Green Vehicle Insurance," the first green energy product of its kind in Taiwan, to support government directives aiding green energy industries, encourage and support eco-friendly drivers and motorcyclists, and help transition transportation modes in Taiwan. As of the end of 2022, a total of 54,593 eco-friendly vehicles are insured under the green vehicle insurance.



Cathay  
Financial Holdings

Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix

### Bicycle Insurance

- Cathay Century launched bicycle insurance in 2014 and has insured 10,093 cases as of the end of 2022.
- In June 2018, Cathay Century launched Taiwan's first "Public Bicycle Rider Accident Insurance" and "Public Bicycle Rider Third-party Liability Insurance" policies to encourage more people to start biking. As of 2022, Kaohsiung, Tainan, Taipei, New Taipei, and six other cities and counties across Taiwan have enrolled in the "Public Bicycle Rider Accident Insurance," providing coverage to over 118 million bike rides and mitigating risks for public bicycle users to fulfill the diverse demands of green consumers.

### Carbon Intensity of Insurance Product Portfolio

- To better understand the carbon intensity of its underwriting portfolio and low-carbon products design, Cathay Century used the CRO Forum's methodology in "Carbon footprinting methodology for underwriting portfolios" to research and test out carbon intensity calculations for automobile insurances (main products) and energy-related insurance in 2022 and introduced PCAF methodology to conduct carbon accounting for the company's insurance product portfolio in 2023. For details, please refer to [Important Metrics and Targets](#).

## ● Green Fund Issuance



### Cathay Global Autonomous and Electric Vehicles ETF

#### Largest EV-themed ETF in Taiwan

- Assets Under Management(AUM) reached NT\$25.3 billion by the end of 2022.
- Several countries have committed to "carbon neutrality" by 2050. One of the more progressive policies is accelerating electric vehicle (EV) development, making self-driving EVs an inevitable trend in green investing and inspiring Cathay SITE to launch the Cathay Global Autonomous and Electric Vehicles ETF (00893).



### Cathay Sustainable Development PE Fund

#### Invests 100% in key industries for sustainable development in Taiwan

- Committed to delivering NT\$8 billion; AUM reached NT\$5.6 billion in 2022. The fund currently has investments in two solar power projects, one wind power project, two circular economy projects, one IoT project, one solar power supply chain project, one energy storage project, and one EV project.
- Invests in key industries such as the circular economy (e.g., wastewater treatment and waste treatment and reuse) and renewable energies (e.g., solar power, geothermal energy, hydropower, and energy storage) as well as innovative industries spotlighted in the government's 5+2 Industry Innovation Plan (IoT, smart machinery, long-term care, and new agriculture).

## ● Green Financial Services

### ► Corporate Loss Control Services

Companies are susceptible to catastrophes, especially given intensifying climate change in recent years. Preventive actions and control measures can reduce risks and losses. Cathay Century is leveraging its core function - "loss control" - to offer enterprise customers risk management solutions against typhoons and floods that enable them to adopt effective risk adaptive strategies and mitigate losses and impacts from disasters. Additionally, Cathay Century has also researched, developed, and patented a solar power scale model, which is used as an instructional tool to strengthen risk assessment expertise and risk control in customers and help companies adopt the right preventative measures to strengthen operational efficiency.

### Customized Loss Control Evaluation Plans

- Cathay Century conducts on-site risk surveys and models fitting for Taiwan's natural disasters during ex-ante disaster prevention planning to produce an assessment plan. Between 2012 and 2022, Cathay Century compiled 176 risk assessment reports on typhoons, floods, and earthquakes to help enterprise customers and internal underwriting units. During the same period, Cathay Century provided 183 risk assessment data sets from internal underwriting units to enterprise customers inquiring about typhoon, flood, and earthquake insurance. In total, Cathay Century provided 359 sets of information between 2021 and 2022.
- In 2020, Cathay Century became the first company of its kind to apply natural disaster models to simulate scenarios of loss and damages from climate change.
- To help companies control and manage risks, mitigate operational loss from catastrophes, and enhance the quality of the solar power industry, Cathay Century conducted on-site surveys and collected information to assess risks and provide suggestions on defending solar farms against typhoons. Between 2015 and 2022, Cathay Century evaluated 56 solar farms.
- Considering the risks of flooding from heavy rainfall caused by extreme weather, Cathay Century is helping enterprise customers evaluate the adequacy of surrounding water drainage systems and vulnerable areas. Evaluations can serve as the basis for preliminary steps to upgrade factory flood alerts and water drainage systems, thereby reducing flood risks, claims, and scale of potential losses. Between 2013 and 2022, Cathay Century conducted 18 evaluations.





## ► Providing Low-Carbon Investments Research

In 2020, Cathay Securities, Cathay Futures and National Taipei University (NTPU) join forces to provide ESG research services to institutional investors. Cathay uses the SEED (social, environmental, economic, disclosure) rating methodology developed by the Corporate Sustainability Research Team of National Taipei University to create the first ESG rating system in line with international methodology. The rating system covered 658 companies in 2022. In addition to providing the latest ESG research reports, this industry-academic cooperation also began providing responsible investors with a customized "ESG Engagement Report" in 2022. In addition, in response to the increasing demand for ESG investment, Cathay Securities launched the innovative, industry-first "Sustainability Investment" services in 2022. We aim to provide a clear overview of the impact of sustainability and help investors generate returns while understanding the power of ESG stocks.

## 🌱 Historical Data

### ● Low-Carbon Investment/Lending Amount

Unit: NT\$ billion	2020		2021		2022	
	Investment	Lending	Investment	Lending	Investment	Lending
Low Carbon	174.8	25.2	207.6	31.4	267.9	37.9
Infrastructure	662.3	66.9	737.7	71.1	832.9	78.1

### ● Green Products and Services

	2020	2021	2022
Global installed solar power station capacity lent(MW)	574	758	889
Global installed offshore wind energy capacity lent(MW)	768	1,373	1,373
Cumulative insured amount under Renewable Energy Contractors' (hydropower, solar power, and wind energy) & Erection All Risks Insurance (NT\$100M) <sup>Note</sup>	1,172	1,488	1,830
Cumulative premium income from Green Vehicle Insurance (NT\$10K)	33,754	46,207	87,895
Green Vehicle Insurance (no. of cases)	18,957	28,122	54,593
Cumulative premium income from bicycle rider insurance (NT\$10K)	1,269	2,000	2,563
Bicycle rider insurance (no. of cases)	6,128	8,261	10,093
Cumulative insured amount under Public Bicycle Accident Insurance (NT\$10K)	1,292	1,937	2,792
Cumulative insured cases under Public Bicycle Accident Insurance (10K bike rides)	4,760	7,757	11,820

Note: No hydropower-related investments or insurance in 2022.

## 🌱 Next Steps

Cathay is dedicated to helping companies strive for low-carbon transition by leveraging financial capital, products, and services. In the future, Cathay intends to expand investments in low-carbon industries and innovate low-carbon financial products and services in banking, insurance, securities, investment funds, and venture capital.



## 1.3 Environmental Sustainability Practices

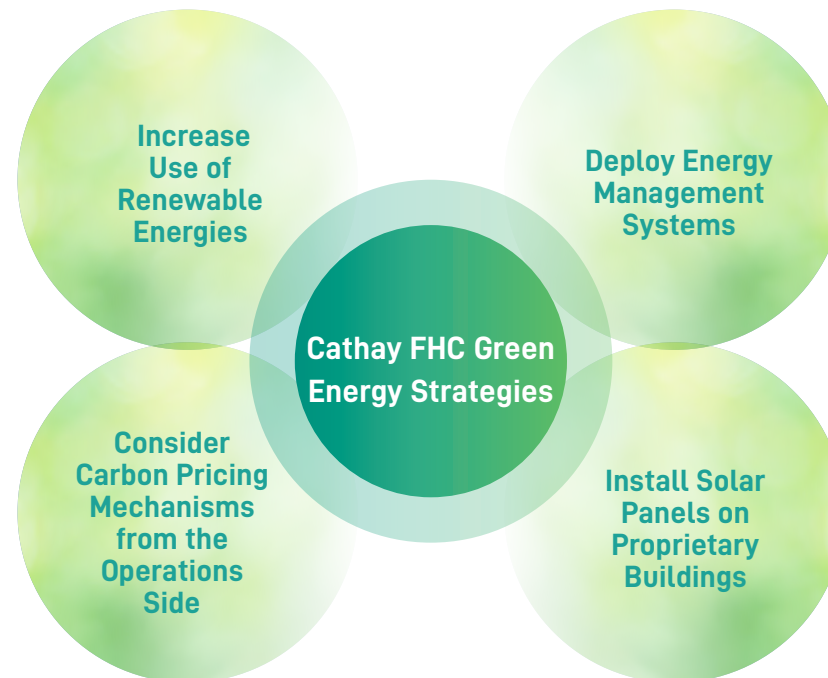
For environmental sustainability, Cathay FHC spotlights Green Energy, Green Operations, and Green Real Estate to steadily implement its "Zero-Carbon Operation Transition Plan" to achieve net zero emissions by 2050. Cathay is dedicated to transforming workplace norms and work patterns, reducing operational emissions, and promoting the use of renewable energies. In 2022, Cathay became the first financial institution from Taiwan to join RE100 and further leveraged its real estate ecosystem to generate sustainability impacts, providing easy access to renewable energy services and working with stakeholders to create a net zero economy and achieve sustainability goals.

### 1.3.1 Green Energy

As around 95% of carbon emissions generated by Cathay operations derive from purchased electricity, the group has decided to increase renewable energy management efficiency and reduce environmental impacts through systematic management and use of renewable energies. Cathay FHC and its subsidiaries are spotlighting four areas - "Increase Use of Renewable Energies," "Deploy Energy Management Systems," "Consider Carbon Pricing Mechanisms from the Operations Side," and "Install Solar Panels on Proprietary Buildings" - to promote energy transition. Cathay FHC is also fully invested in RE100 to achieve net zero emissions by 2050.

#### Climate Strategy

Roll out energy transition by using renewable energies, deploying systematic management, and introducing the concept of carbon pricing to strive for the long-term goal of 100% renewable energies at all Cathay locations around the world by 2050.



#### Highlights



Became First financial institution from Taiwan to join RE100.



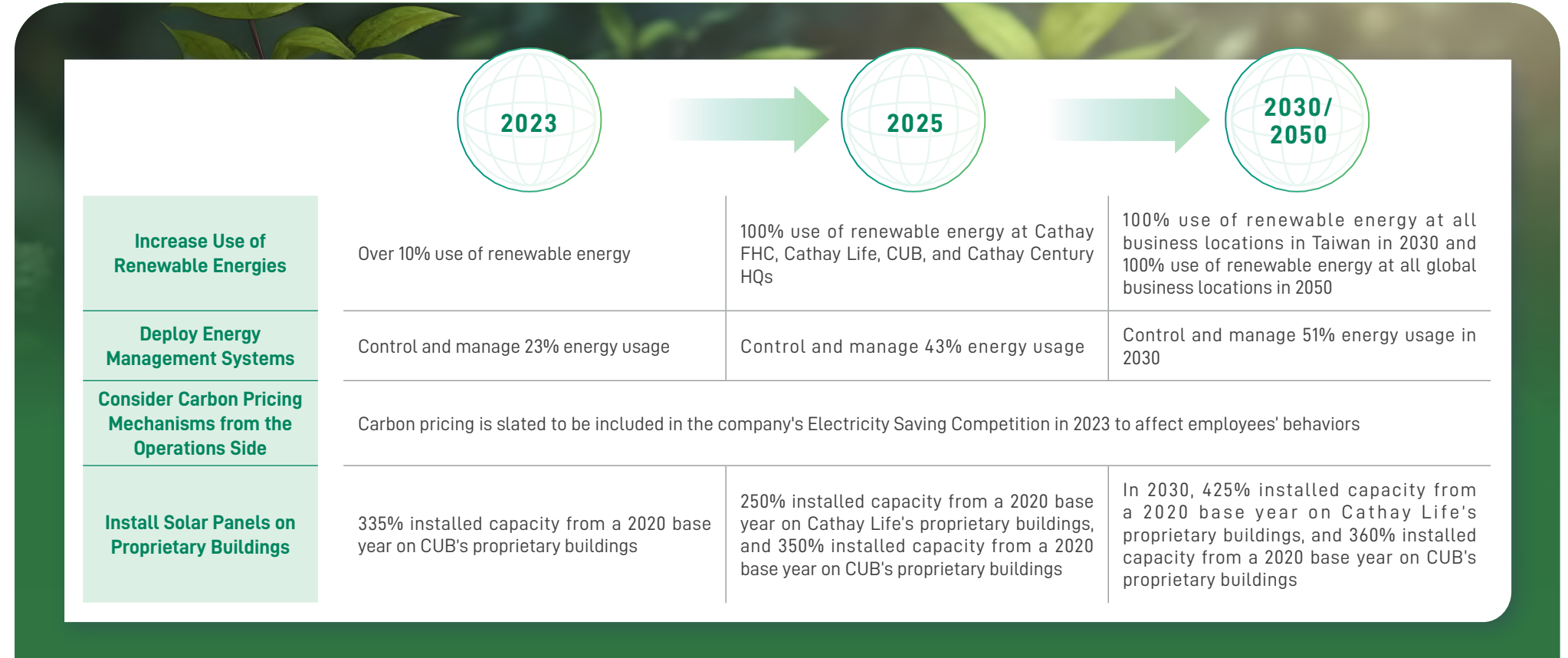
Wheeled 100% renewable energies to 6 company HQs with Green Leasing services.



Reached 6,950kW in installed solar power capacity on proprietary buildings as of the end of 2022.



## Climate Targets



## Climate Scenario Analysis

To comply with 100% use of renewable energy at all business locations in Taiwan in 2030, Cathay performed a cost optimization assessment for introducing renewable energies during transitions to net-zero operations in consideration of the characteristics of Taiwan's renewable energy market. Results showed that the cost of purchasing electricity would rise by 34.08% in 2030 due to transitions to net-zero operations. In the zero-carbon operations transition scenario, the rising cost of grey and renewable electricity will drive up the cost of electricity purchase, leading to financial impact. For the full analysis, please refer to [2.4 Climate Scenario Analysis](#). Cathay will regularly review changes in our operational electricity consumption, market price and Taipower wheeling system based on the results of scenario analysis. Cathay will also conduct efficiency assessments and electricity purchase portfolio planning for potential project sites.

## Climate Actions and Current Progress

### ● Increase Use of Renewable Energies

In April 2022, Cathay became the first financial institution from Taiwan to join RE100. Cathay's efforts to fulfill the RE100 commitment are as follows:

- ▶ Actively negotiating power purchase agreements (PPAs) to acquire renewable energies and working through diverse channels to obtain RECs. Related efforts include bidding on the National Renewable Energy Certification (T-REC) Center and talking with electric power providers. In 2017, completed the first wave of T-REC transactions in Taiwan.
- ▶ Launching "green leasing services" in support of the Bureau of Standards, Metrology and Inspection's "Green Leasing Program 2.0," whereby green landlords negotiate with renewable energy providers to wheel renewable energies to tenants. As of the end of 2022, Cathay wheeled 100% renewable energy to six company HQs and is hopeful for renewable energy percentages to reach 7.7%. Cathay has also established annual renewable energy targets to gradually increase usage and achieve "net zero carbon emissions."
- ▶ In 2022, Cathay FHC donated weight-loss funds to the Taiwan Green Energy for Charity Association to purchase solar panels, providing 20 years of earnings from green energy to the Thao Cultural Development Association for language and cultural preservation.



#### Case Study

#### Cathay Life Builds "Renewable Energy Elementary School" & "Forest Football Field" with "Every Step Counts"

In 2022, Cathay Life launched the "Every Step Counts" campaign, inviting the public to walk for charity. Every step is converted into real support for sustainability. During the campaign, Fitback users accrued 20 billion steps, for which Cathay Life donated NT\$6 million for charitable causes. One of the benefactors of this year's "Every Step Counts" campaign was "Hua-Yu Elementary School" in PengHu County, a school on an offshore island previously powered by generators. Cathay Life's donation enabled the school to install solar panels and become the first elementary school on an offshore island of Taiwan to be a near-zero energy school. Another benefactor is "Green Hope Spring," a social enterprise dedicated to promoting tree planting in eastern Taiwan. With support from Cathay Life, the organization formed the "Plant Trees to Play Football" alliance with 60 elementary school football teams in Hualien and Taitung Counties. Green Hope Spring donated 30 stout camphor tree saplings to each school and pledged to plant an additional tree for every game won by the participating schools to create a forest football field. For more information, please refer to the documentary " [Every Step Counts](#)."



Cathay Life donates to Hua-Yu Elementary School, PengHu County, to build an elementary school powered by renewable energy.







## ● Deploy Energy Management Systems

At CUB, nearly 90% of branches have introduced energy management systems (EMS). As of the end of 2022, smart meters have been installed at seven of CUB's proprietary buildings and introduced into their EMS. The figure on the right is a visual representation of how EMS and smart meters work to analyze energy usage data across various branches in cloud systems, improve energy consumption behaviors, and control the cost of energy used to create an energy management foundation and strengthen climate resilience. In the future, smart meters will also be installed in locations without EMS, in addition to branches, to roll out EMS to units at head offices and monitor their energy consumption. In addition to raising awareness about energy conservation, evaluations to replace old A.C. units will be conducted as well to conserve energy and reduce carbon emissions.



## ● Consider Carbon Pricing Mechanisms from the Operations Side

Internal carbon pricing is now a common approach adopted by companies to reduce carbon emissions. As such, Cathay continues to monitor carbon pricing trends in Taiwan and abroad to evaluate the feasibility of an internal carbon fee mechanism. Carbon pricing is slated to be included in the company's Electricity Saving Competition in 2023 to strengthen awareness about the cost of carbon amongst employees, affect employee behavior, conserve energy, and reduce carbon emissions.



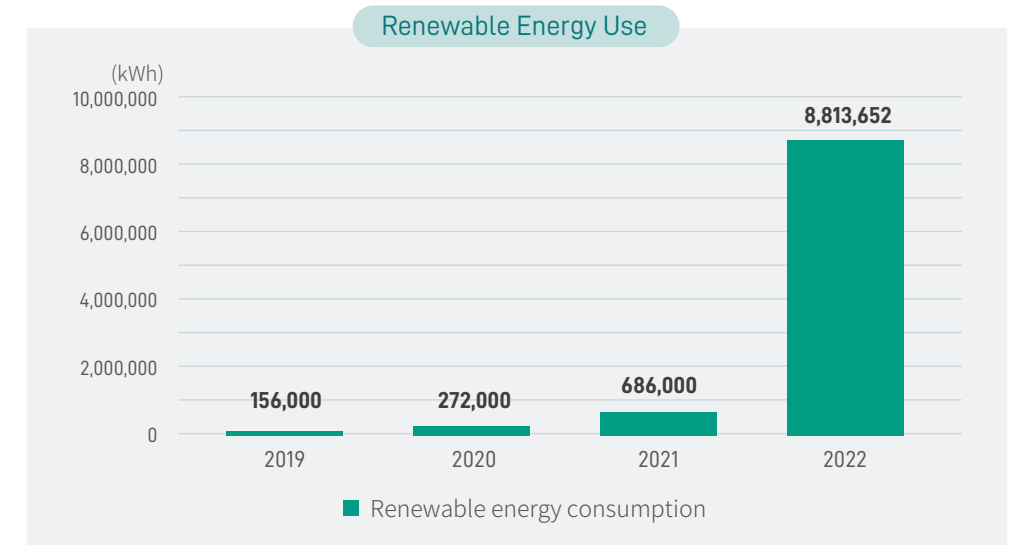
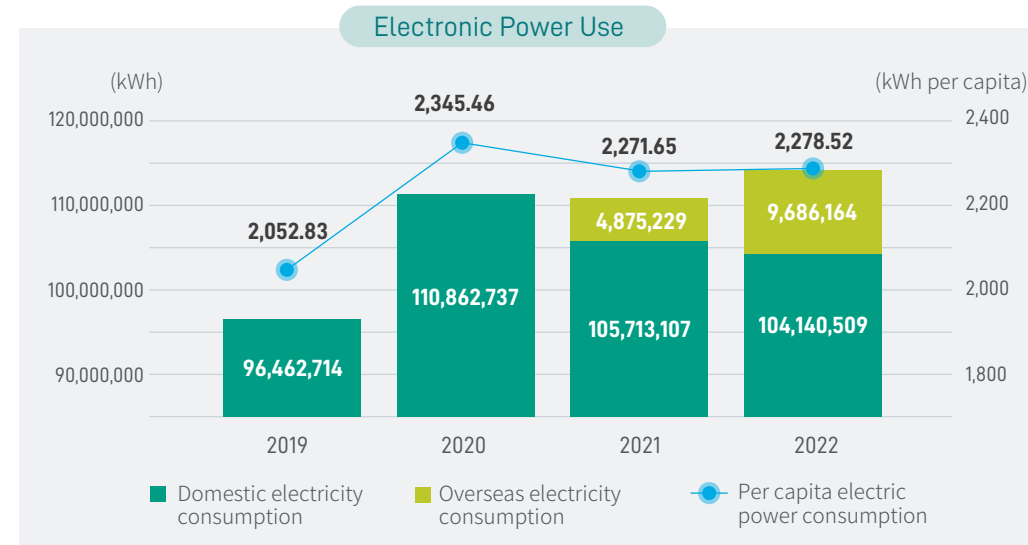
## ● Install Solar Panels on Proprietary Buildings

In addition to negotiations to acquire renewable energies through PPAs, Cathay FHC and its subsidiaries are also installing solar panels on rooftops. Since 2016, Cathay has been assessing proprietary buildings and installing solar panels to increase self-generated renewable energy for self-use. As of the end of 2022, the installed capacity has exceeded 6,950kW with the following projects:

- ▶ Cathay Life's Wuri Building in Taichung has an installed capacity of 183 kW, the largest rooftop onsite self-use PV system in the finance industry. Besides, Cathay Life has built 4 self-use PV system farms: Wuri, Qingping, Taozhuang, and Shixing. Totally the installed capacity is 417.38kW and generates 518,200 kWh.
- ▶ In 2013, CUB led the banking industry to build Taiwan's first solar-powered branch - Mingcheng Branch in Kaohsiung. In 2018, CUB built its Ruihu Branch, the largest solar-powered branch in Greater Taipei. In 2022, CUB launched plans to build six new solar-powered branches that are slated to be completed by the end of 2023. The six new projects are estimated to introduce an installed capacity of 270.78 kW.

## 🌱 Historical Data

### ● Electronic Power and Renewable Energy Use



For historical data on Green Energy, please refer to [Important Metrics and Targets](#).

## 🌱 Next Steps

To accelerate the energy transition, Cathay will continue to invest in the following action plans to promote renewable energy development: "Increase Use of Renewable Energies," "Deploy Energy Management Systems," "Consider Carbon Pricing Mechanisms from the Operations Side," and "Install Solar Panels on Proprietary Buildings."

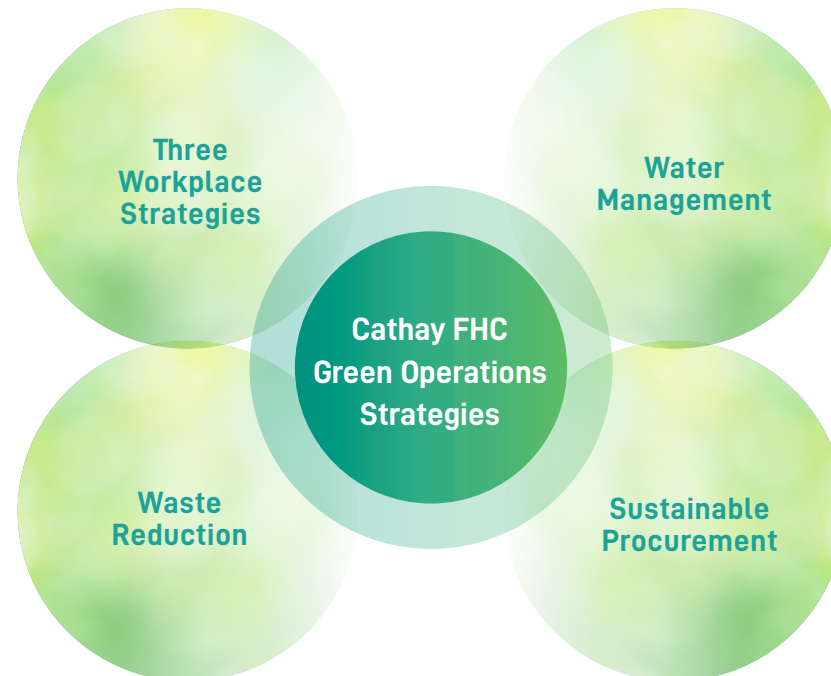


## 1.3.2 Green Operations

To reduce the environmental impacts of company operations and provide employees with better workplace environments, Cathay complies with ISO 50001 to replace energy-intensive equipment on a rolling basis each year based on service life and energy consumption. To keep up with thriving work-from-home (WFH) and digital transformation trends, Cathay FHC is cultivating workplace environments by integrating green operation concepts and adopting Three Workplace Strategies - Digitalize Services, Mobilize Operations, and Share Workspaces. Cathay FHC is also seeking to minimize water consumption and waste per capita and introduce sustainable procurement practices to reduce the group's environmental impact.

### Climate Strategy

Cathay will mobilize operations, digitalize services, and share workspaces in order to incorporate sharing and circulation into planning and creation of a low-carbon workplace. We have also established carbon reduction targets and is taking the initiative to manage the supply chain to reduce environmental impacts from Cathay operations.



### Highlights



**First financial institution in the world to adopt ISO 20400 standards for sustainable procurement & received the Taipei City Government's "Green Procurement Outstanding Enterprise" for the 13th consecutive year.**

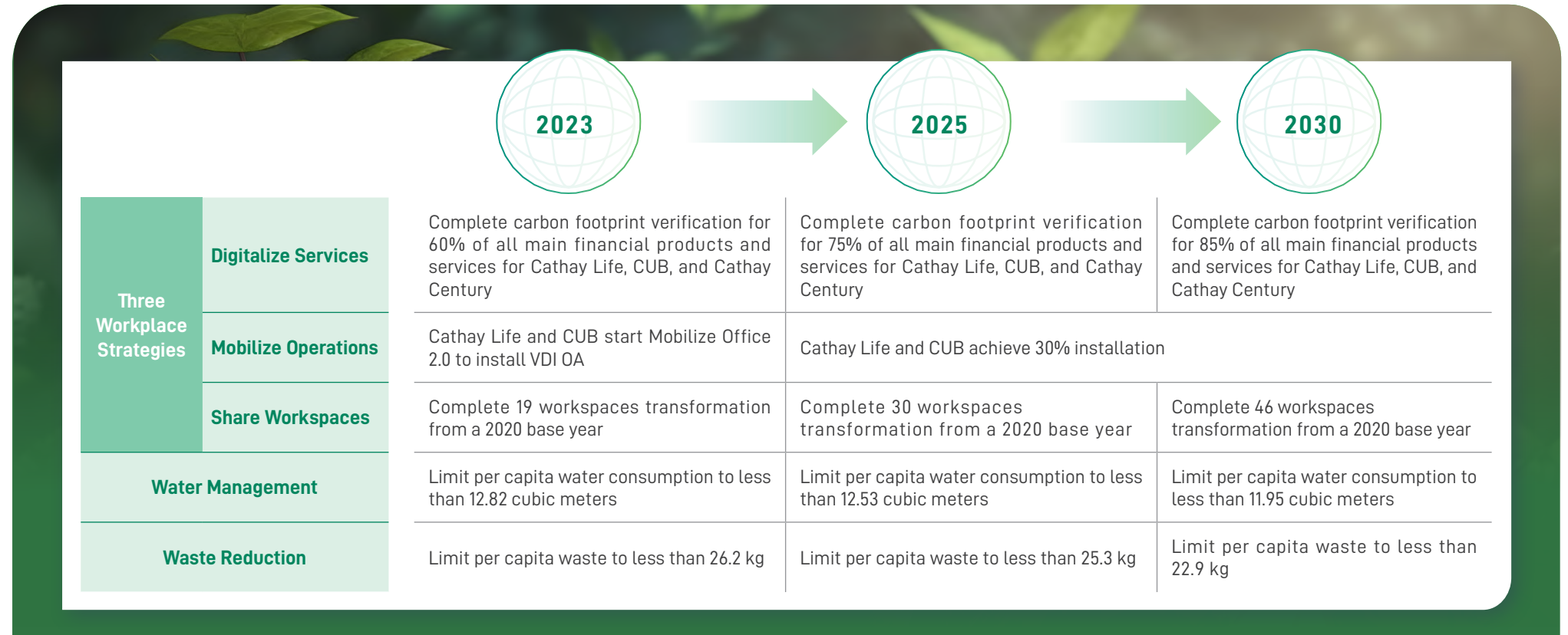


**In 2022, customers enrolled in over 20,000 insurance policies through the Cathay Vision Experience (CVX) platform, reducing 23,000 kgCO<sub>2</sub>e in carbon emissions.**



**First financial institution in Taiwan to roll out VDI OA.**

## Climate Targets



## Climate Scenario Analysis

To assess the financial impacts that climate impacts can have on operations to strengthen resilience against transition risks and physical disasters, Cathay FHC has conducted scenario analyses to identify transition and physical risks of supplier transitions. For the full analysis, please refer to [2.4 Climate Scenario Analysis](#).

The results of the transition risk analysis show that the impact of carbon fee cost on suppliers will increase between 0.39 and 6.81% in 2050, while the physical risk analysis shows that the number of suppliers with high flood risk ranges between 3.7 and 7.1%. Based on the analysis of the suppliers' business attributes, it was concluded that there is only one critical supplier with medium climate risk. The analysis shows that the climate risk of suppliers will not have a material financial impact on Cathay. In addition to establishing a backup mechanism for key suppliers through various business continuity management mechanisms to improve operational resilience, Cathay will also enforce sustainable procurement practices and encourage suppliers to transition to low-carbon operations. For more information on Cathay's climate action and current progress.





## Climate Actions and Current Progress

### ● Three Workplace Strategies - Digitalize Services, Mobilize Operations, and Share Workspaces

Work patterns and consumer behaviors have changed in the post-pandemic era. Cathay has thus deployed three green operations strategies - digitalize services, mobilize operations, and share workspaces - to create a low-carbon, agile, shared, and circular workplace and established carbon reduction goals in compliance with SBT. Cathay is now committed to reducing scope one and two GHG emissions within Cathay operations by 25% between 2020 and 2030 and by 12.9% between 2020 and 2022.

- ▶ Digitalize services: With digital transition at the core, Cathay is adopting digital processes and leveraging digital technologies to optimize user experiences with electronic insurance policies/products (e.g., Cathay Century - Smart Commercial Insurance Engine). Cathay FHC and its subsidiaries have also obtained ISO 14067 - Carbon Footprint of Products and the EPA's Carbon Reduction Label for main financial products and services and are using Life Cycle Assessment (LCA) to calculate and manage GHG emissions produced by products and services, including upstream green procurement and low-carbon products and service processes in the midstream and downstream. In a show of resolve to reduce carbon emissions, Cathay commits to completing carbon footprint verification for 85% of major financial products and services by 2030.
- ▶ Mobilize operations: To create a more convenient and agile workflow, Cathay FHC became the first financial institution to introduce VDI OA<sup>Note</sup>, bringing information into the cloud as Cathay FHC distributed more laptops to roll out remote work and offer more convenience.
- ▶ Share workspaces: Cathay is transforming workplaces and evaluating spatial modules and designs based on the nature of different functions to ensure a great employee experience, remote working capabilities, energy conservation, and efficient and flexible use of office space. For more information on related efforts and outcomes, please refer to 2.2.2 Green Operations of [Cathay FHC's 2022 Sustainability Report](#).

Note : Virtual Desktop Infrastructure Office Automation (VDI OA) runs desktop environments on remote servers and data storage systems, enabling individuals to log in at any time, location, or device.

### ● Water Management

In recent years, climate change has indirectly impacted water cycles and rainfall patterns, making water one of the critical challenges to the modern world. Cathay is working to reduce water consumption from company operations to achieve the target in 2021 and established a mid-to-long-term targets of limiting per capita water consumption to less than 12.82 cubic meters in 2023 and 11.95 cubic meters in 2030. Cathay has instituted the following measures to achieve its target:

- ▶ Install automatic sensors to conserve water and use products certified as water-efficient for faucets, toilets, and other facilities.
- ▶ Set targets for water conservation, establish an action plan to ensure targets are met, and work with EDM to remind employees to reduce water consumption.
- ▶ Cathay FHC started introducing ISO 46001 - Water Efficiency Management Systems in 2022.
- ▶ Cathay Life formulated the "Responsible Property Investment and Management Policy," setting KPIs on water conservation and carbon emissions and assessing rainwater recycling systems, water reclamation systems, and PV systems for new real estate development projects.



Cathay transforms offices to create open areas and a new workspace model.



## ● Waste Reduction

The financial services sector produces only domestic waste and general recyclables and does not produce toxic waste. Cathay FHC commits to reducing per capita waste to 26.2 kg by 2023 and 22.9 kg by 2030 and is taking the following measures to reduce waste within its scope of operations and generate positive impacts on the environment:

- ▶ CUB regularly reviews waste spreadsheets for more insight into the collection of waste-related data and makes necessary recycling changes as soon as possible.
- ▶ Cathay Life designed a series of environmental education campaigns titled "Say No to Plastics Now" to raise awareness and encourage action against plastics and waste among employees through various channels.

## ● Sustainable Procurement

Cathay FHC rigorously controls sustainability issues related to procurement processes. Currently, Cathay FHC works with over 1,000 service providers, equipment suppliers, and construction subcontractors. Their services and products enable Cathay's operations. To reduce suppliers' environmental impact as they provide products or services to any Cathay entities, Cathay became the first financial institution around the world to incorporate ISO 20400 - Sustainable Procurement Guidance and comply with its guidelines for the supply chain management. All Cathay suppliers have signed the Cathay Financial Holdings Statement of Sustainability Values. The figure on the right shows Cathay FHC's sustainable procurement system and process. Cathay FHC's achievements and progress in 2022 can be found below:

- ▶ Spent NT\$476 million on green procurement and received the Taipei City Government's "Green Procurement Outstanding Enterprise" for the 13<sup>th</sup> consecutive year.
- ▶ Sourced 97.1% of products and services locally to help local economies grow.

### Sustainable Supplier Management

#### New Supplier Selection

New suppliers are required to sign related guidelines and undergo documentary reviews

- Fill out basic information for review
- Sign the Cathay Financial Holdings Statement of Sustainability Values & participate in sustainable procurement training
- Complete the supplier self-assessment

- Supplier Self-assessment Survey
- Review

#### Supplier Maintenance

Suppliers Annual Evaluation

- Announce annual evaluation results & engage accordingly
- Request high-risk suppliers to take remedial actions

Rate Solution Technologies

#### Technical Evaluations of Major Projects

Prioritize Sustainable Products

Organize Sustainability-related Training

#### Guide Sustainable Practices

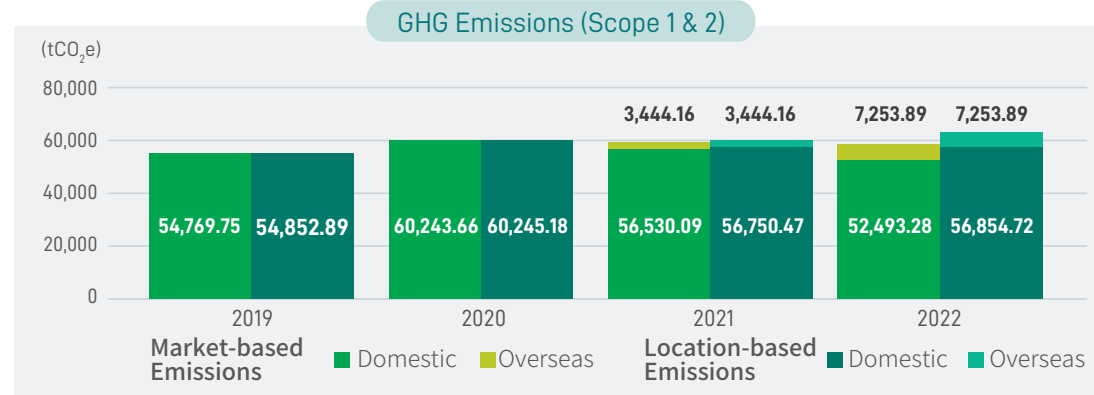
Evaluate Supplier's Sustainable Practices

(Online) Supplier Training

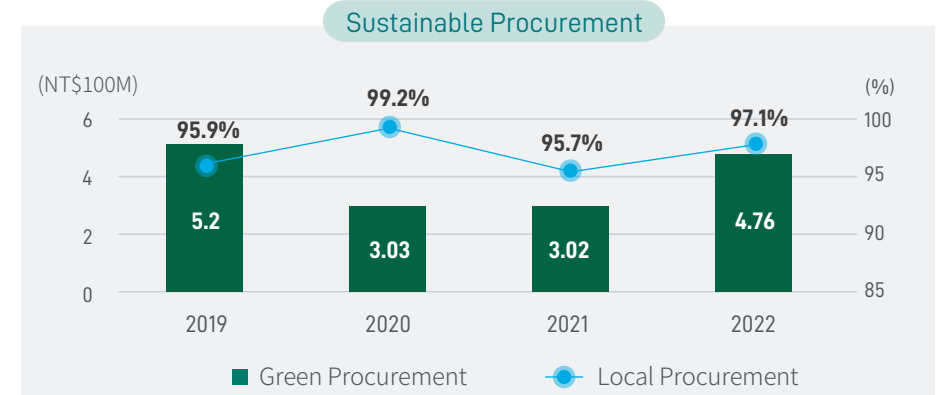


## Historical Data

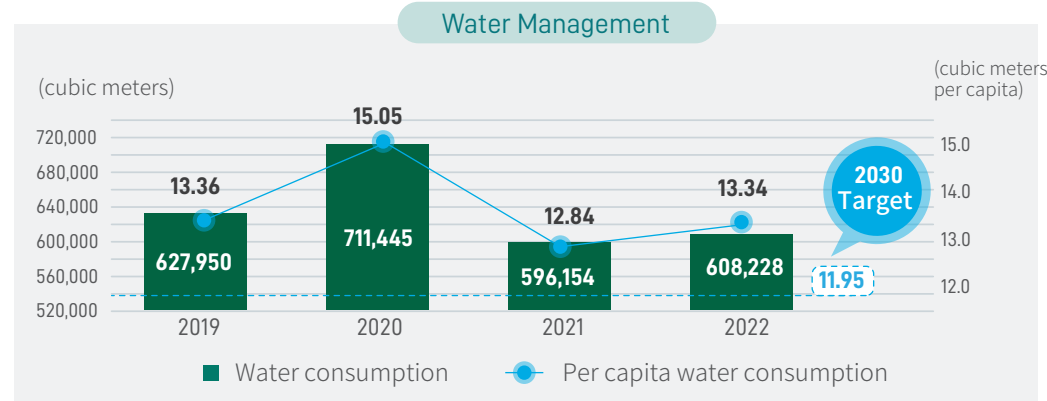
### Greenhouse Gas Emissions



### Sustainable Procurement



### Water and Waste Management



Note: General waste is calculated by subtracting recyclables from total waste.

For historical data on GHG emissions and Green Operations, please refer to [Important Metrics and Targets](#).

## Next Steps

Cathay is dedicated to carrying out the Zero-Carbon Operation Transition Plan and will continue to strengthen measures such as the "Three Workplace Strategies," "Water Management," "Waste Reduction," "Sustainable Procurement," and "Climate Adaptation Actions" to reduce environmental impacts from Cathay operations.

## 1.3.3 Green Real Estate

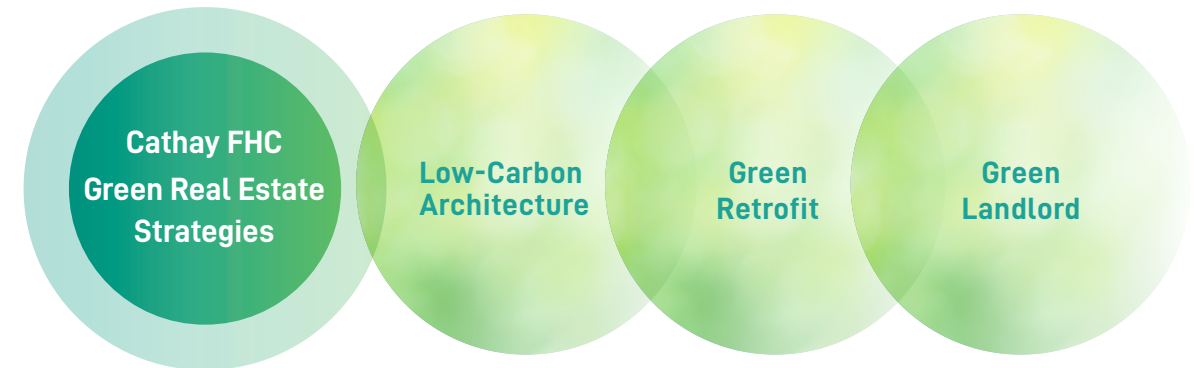
### Climate Strategy

Furnish an ecosystem of low-carbon buildings and drive industry participation in the energy transition.

### Climate Targets

	2023	2025	2030
<b>Low-carbon buildings</b>	Obtain Green Building Labels (Taiwan) or LEED certificates (U.S.) for all new buildings since 2023.		
<b>Green retrofit</b>	CUB newly retrofitted branches 100% green and achieve green retrofit ratio to 20%	Achieve green retrofit ratio to 25%	Achieve green retrofit ratio to 40%
<b>Green Landlord</b>	Initiate using renewable energy in class A commercial buildings in Taipei	Initiate Green Leasing in 6 special municipality, which offers a total of 15GWh of renewable energy and reduced emissions by 7,635 tCO <sub>2</sub> e <sup>Note</sup>	Initiate Green Leasing in Taiwan, which offers a total of 20GWh of renewable energy and reduced emissions by 10,180 tCO <sub>2</sub> e <sup>Note</sup>

Note: Carbon emissions were calculated by electricity emission factor of 0.509kg CO<sub>2</sub>/kWh.



### Climate Scenario Analysis

For scenario analyses on real estate, Cathay first analyzed physical risks. Under the RCP8.5 scenario, financial losses at the end of the century will increase by NT\$31 million compared to the base year (2023), accounting for less than 1% of the real estate asset book value, indicating a manageable climate risk impact on Cathay-owned real estate properties. For the full analysis, please refer to [2.4 Climate Scenario Analysis](#).

### Highlights



**Committed in 2017 to comply with green building standards for any new buildings developed or invested in by Cathay.**



**CUB Mingcheng Branch, with an architect firm applying the 24<sup>th</sup> National Golden Award by the latter's name, becomes the first financial branch to win for Architecture in the "Commercial Low-Rise Buildings" category.**



**Rolled out the "Green Leasing Program 2.0" designed with the Bureau of Standards, Metrology and Inspection.**



## Climate Actions and Current Progress

### Low-Carbon Architecture

Cathay Life established the "Responsible Property Investment and Management Policy" to introduce eco-friendly and energy-saving designs as standard practices in new buildings. For example, evaluating building exterior/location, enhancing greenery coverage, and adopting equipment with energy and water saving labels as well as assessing rainwater recycling systems, water reclamation systems, and PV systems for new real estate development projects. The goal is to reduce the consumption of traditional energy by generating energy onsite for self-use. Currently, as of the end of 2022, Cathay FHC has obtained 25 Green Building Labels (Taiwan) and LEED certificates.



#### Case Study

#### Mingcheng Branch Becomes the First Financial Branch to Win the 24<sup>th</sup> National Golden Award for Architecture in the "Low-Rise Buildings" Category

Mingcheng Branch, CUB's first solar-powered branch, was designed in compliance with green architectural standards. In addition to using materials with the Green Building Material label, designers also considered "greenery coverage," "water conservation in buildings," "water reclamation," "energy conservation," "indoor environments," and "biodiversity" when planning the buildings.

- Energy Conservation: Modularized AC coverage, better lighting, thermal insulation, greenery, permeable pavements, and water conservation in the building mitigates the urban heat island effect, creating a microclimate and improving energy efficiency.



- Indoor Environments: Indoor and outdoor air is effectively separated using energy recovery ventilators (ERVs) to prevent cold air from leaking. ERVs can also release building heat more effectively to keep indoor air fresh at all times and improve air quality.
- Water Resources: Use water-efficient facilities to reduce water consumption. Plan rainwater harvesting and detention facilities and AC condensation discharge point to extend the life of water resources. After simple treatment, the facilities recycle wastewater into non-drinking water that can be used to water gardens, which is an effective reuse of wastewater. These facilities can also mitigate floods in urban areas.

### Green Retrofit

In 2019, CUB started to green retrofit branches and has since increased its use of green construction materials to over 60% of total surface areas. As of 2022, CUB has green-retrofitted 28 branches, transforming buildings to produce lower emissions. Mingcheng Branch was relocated during this process and furnished in collaboration with an architectural firm to comply with green architectural standards and designs. The branch was submitted for the 24<sup>th</sup> National Golden Award for Architecture by the architectural firm and became the first company to take home the award in the category of "Low-Rise Buildings."



Ribbon-cutting ceremony of Cathay's first solar-powered branch - Mingcheng Branch at the end of 2022.





## ● Green Landlord

In July 2022, Cathay Life and the Bureau of Standards, Metrology and Inspection (BSMI) designed the "Multiple Users in Single Electricity Account Number 2.0 - Green Leasing Program." The program is an effective solution to the renewable energy dilemma that previously prevented tenants under the same electricity account from accessing renewable energies as it allows landlords to purchase and redistribute renewable energies to building tenants. When all of Taiwan begins to use renewable energies in 2023, the annual reduction in carbon emissions is slated to reach 10,485 metric tons.



### Case Study

#### Taiwan's Biggest Commercial Building Landlord, Cathay Life, Now Offers Renewable Energy Services

##### Challenge

- Cathay recognized that the "Multiple Users in Single Electricity Account Number 1.0" program in 2020 was a successful step in helping building tenants gain access to renewable energies, but that it also gave rise to several challenges. For example, the program required too many different parties to be involved and tenants opted for different purchasing models that made it difficult for landlords to ensure equality when distributing renewable energies. As such, Cathay decided to advocate for commercial building tenants that are looking to access renewable energies.

##### Solution

- Simplify the number of parties involved, focusing on commercial building landlords
- Landlords purchase renewable energies from electricity providers and then distribute the energy to tenants that have declared renewable energy commitments or carbon reduction goals.
- Sign PPAs with electricity providers to acquire renewable energies and provide convenient access to ample renewable energies.

##### Outcome

- The new program mitigates the burden on landlords as middlemen, gives tenants access to renewable energies and RECs, and makes renewable energy distribution more effective.
- Cathay is currently the largest renewable energy wheeler to commercial building in Taiwan with its four commercial buildings
- In 2022, the four buildings used a total of 6.54 GWh of renewable energy and reduced emissions by 3,300 metric tons.
- The Cathay Life HQ Building and Cathay Financial Center completed their phased target in 2022 Q4 and now run completely on renewable energies.

## 🌱 Next Steps

Cathay is dedicated to creating a low-carbon real estate ecosystem, committing to adopting ESG and green architectural designs throughout development, design, and subsequent operations and maintenance. Cathay is also working with tenants through the "Green Real Estate Rental Program" to achieve net zero emissions and make renewable energies more accessible to SME tenants. Cathay FHC is striving toward energy transition and UN SDGs through three directions: "low-carbon architecture," "green retrofit," and "green landlord."





# CH 2

## Governance and Risk Management

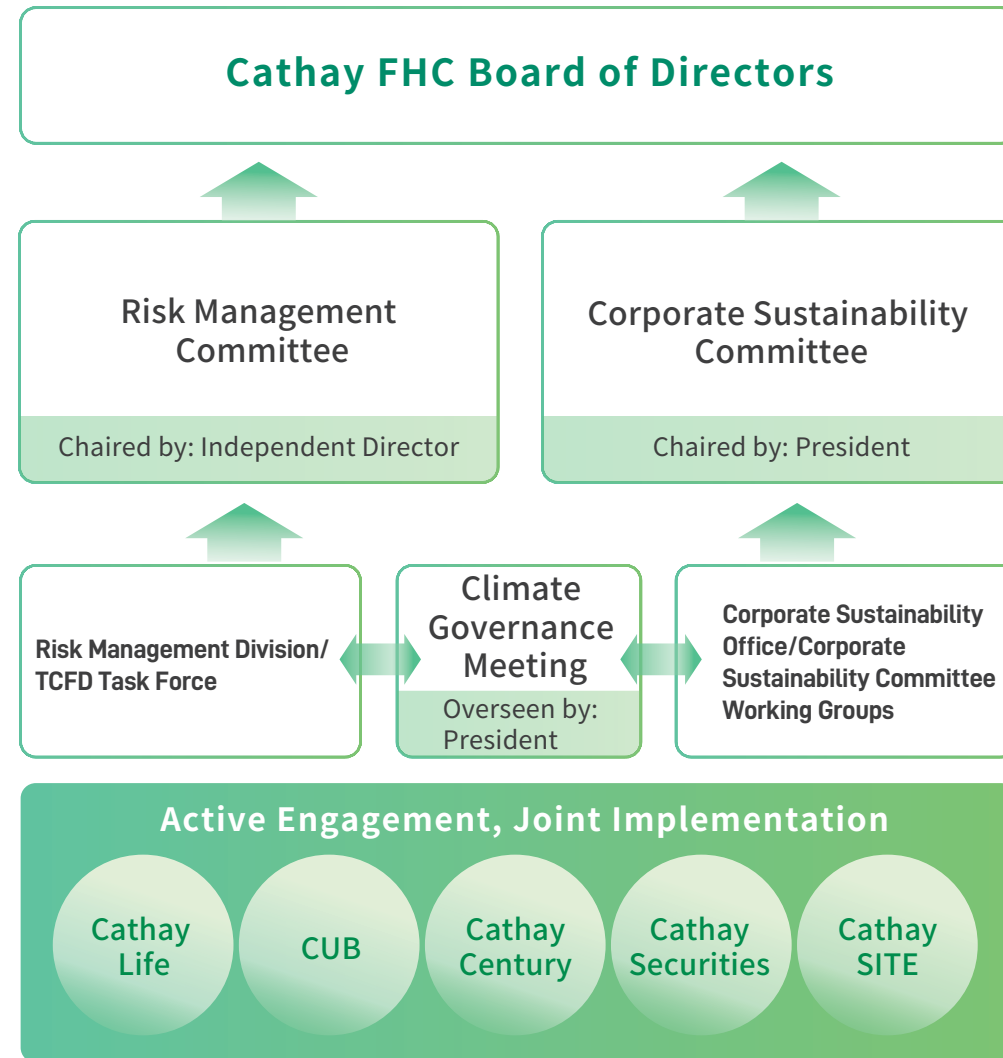
Cathay is committed to establishing a robust climate governance framework for addressing climate change and its impacts. Our board of directors is the highest governing body responsible for oversight and decision-making on climate issues. Meanwhile, relevant committees and working groups, chaired by Cathay's senior executives, are responsible for promoting and implementing climate-related strategies and risk management. We continue to expand our climate-related capabilities to strengthen our ability to respond to risks and opportunities, as well as enhance our climate resilience.

In addition, Cathay has integrated climate-related risk management into our existing Enterprise Risk Management (ERM) framework. Our internal climate risk control management utilizes the three lines of defense framework. Each line of defense integrates relevant climate risk factors into existing business operations based on roles and responsibilities to formulate climate risk control and mitigating actions.

- 2.1 Climate Governance Framework
- 2.2 Risk Management Framework
- 2.3 Climate Risk Management
- 2.4 Climate Scenario Analysis



## 2.1 Climate Governance Framework



Organization	Committee Chair/ Supervisor/ Working Group Leader	Reporting/ Meeting Frequency	Roles in Climate Issues
Board of Directors	Chairperson	Meets at least quarterly	The highest governing body for all decisions related to climate management.
Corporate Sustainability Committee	Cathay FHC President	Quarterly	It is an organization dedicated to advancing corporate sustainability and reports to the board of directors.
Risk Management Committee	Independent Director	Quarterly	It is the organization dedicated to overseeing risk management and reports to the board of directors.
Climate Governance Meeting	Cathay FHC President	Quarterly	It is an engagement and exchange platform for Cathay's senior executives on climate risks and opportunities.
Corporate Sustainability Working Groups	Senior executives across all working groups	Convene ad hoc meetings as needed	Climate-related working groups are as follows: <ul style="list-style-type: none"> <li>Responsible Investment Working Group: Manages the group's investment climate risks and opportunities, responsible for engagement with investee companies.</li> <li>Responsible Products and Services Working Group: Responsible for promoting green financial products and services and managing risks and opportunities arising from climate change.</li> <li>Green Operation Working Group: Responsible for managing the environmental impact of Cathay's operations, it is also the dedicated unit that promotes the reduction of Scope 1 and Scope 2 greenhouse gases, as well as increasing the use of renewable energy.</li> </ul>
TCFD Task Force	Cathay FHC Chief Risk Officer (CRO)	Monthly (in principle)	Coordinate the expertise and resources across subsidiaries to advance climate risk-related projects.

Note: To strengthen risk management and enhance the effectiveness of the board of directors, effective Apr. 1, 2023, Cathay FHC's Risk Management Committee has been integrated as one of the functional committees reporting to the board of directors.



## 2.1.1 Board of Directors Roles and Responsibilities

The board of directors is the highest governing body for ESG and climate risk management. It is responsible for approving climate-related policies, strategies and targets. The board considers climate risks and opportunities in the approval process and oversees climate risk management and disclosure. To ensure that our board has a complete understanding of climate issues, we have made ESG and climate change mandatory topics for continuing education since 2022. Additionally, our Corporate Sustainability Committee and Risk Management Committee provide regular reports to the board on sustainability and climate risk issues. In 2022 and early 2023, several climate-related proposals were presented to the board:

### Climate Proposals Presented to the Board in 2022 and Early 2023

- Sustainability Strategy Blueprint and its key action plans
- Science Based Targets Initiative (SBTi)
- Group Zero-carbon Operation Transition Plan
- Corporate Sustainability KPI Project
- ESG and Climate Risk Working Report
- Climate Change Risk Appetite Statement
- Climate Scenario Analysis
- Cathay's 2023 TCFD Phased Approach

## 2.1.2 Management Level Roles and Responsibilities

The President of Cathay FHC convenes the "Corporate Sustainability Committee" and the "Climate Governance Meeting", combined with "TCFD task force" convened by the CRO of Cathay FHC, who is the chief of Risk Management Division, to manage the group's climate issues. They work together to formulate climate strategies and ensure the implementation of climate management measures.

### Cathay FHC President's Responsibility

- Ensure that the Company takes appropriate actions in response to climate-related risks and opportunities based on board-approved policies and targets.
- The chairperson of the Corporate Sustainability Committee, who oversees the adoption and adjustment of overall strategies by the subsidiaries to follow the directions made by the Committee, also provides directional guidance as needed.

### Cathay FHC Chief Risk Officer's Responsibility

- Oversees the execution of the group's risk management measures
- Ensure the effectiveness of the climate risk management framework
- The highest-ranking manager of the Risk Management Division is responsible for ensuring the smooth operation of Cathay's risk management system
- Lead the TCFD task force

### Climate Governance Meeting

Starting in 2022, the Cathay FHC president supervises a quarterly climate governance meeting where senior executives from the TCFD task force and the four major business areas (investments, lending, real estate, and insurance) discuss climate issues. The meetings aim to strengthen lateral communication and build consensus across the group. The goal is to explore a diverse range of potential development opportunities that align with our climate governance framework.

### TCFD Task Force

The TCFD task force was established at the end of 2018. The CRO convenes the monthly engagement meeting to drive climate risk projects. The task force is responsible for comprehensively reviewing climate-related risks across all four major business areas. It also establishes scenario-based simulation and modular analysis and formulates approaches for integrating climate risks into the company's risk control mechanism. The results of the implementation are included in the Risk Management Division's working report, which is regularly submitted to the Risk Management Committee and BOD for review.

Cathay is deeply committed to addressing climate change, and this commitment is integral to the company's culture. As a part of our commitment, Cathay conducts internal training programs, shares relevant information with its employees, and collaborates with external organizations. By combining its internal and external resources and technologies, Cathay fosters climate awareness among its employees, which helps the company manage climate risks and develop climate finance strategies. For example, in 2022, the completion rate for the general risk management training program was 100%, with a total of 45,407 employees participating. Meanwhile, the Corporate Sustainability Committee invited an external expert to speak an online talk which was titled "COP27 Resolutions Highlights Review & Internal Carbon Pricing" at the Q4 committee conference.



### Climate Management Performance and Incentive Mechanism

In 2021, Cathay pledged to achieve net zero carbon emissions by 2050. Cathay FHC, Cathay Life, CUB and Cathay Century look to fully transition to renewable energy by 2025, while 100% of Cathay's business locations in Taiwan are expected to transition to renewable energy by 2030. To achieve these targets, the remuneration of presidents and senior executives of Cathay FHC and its subsidiaries is linked to sustainability performance. This approach aims to further the group's transition to net-zero operation.

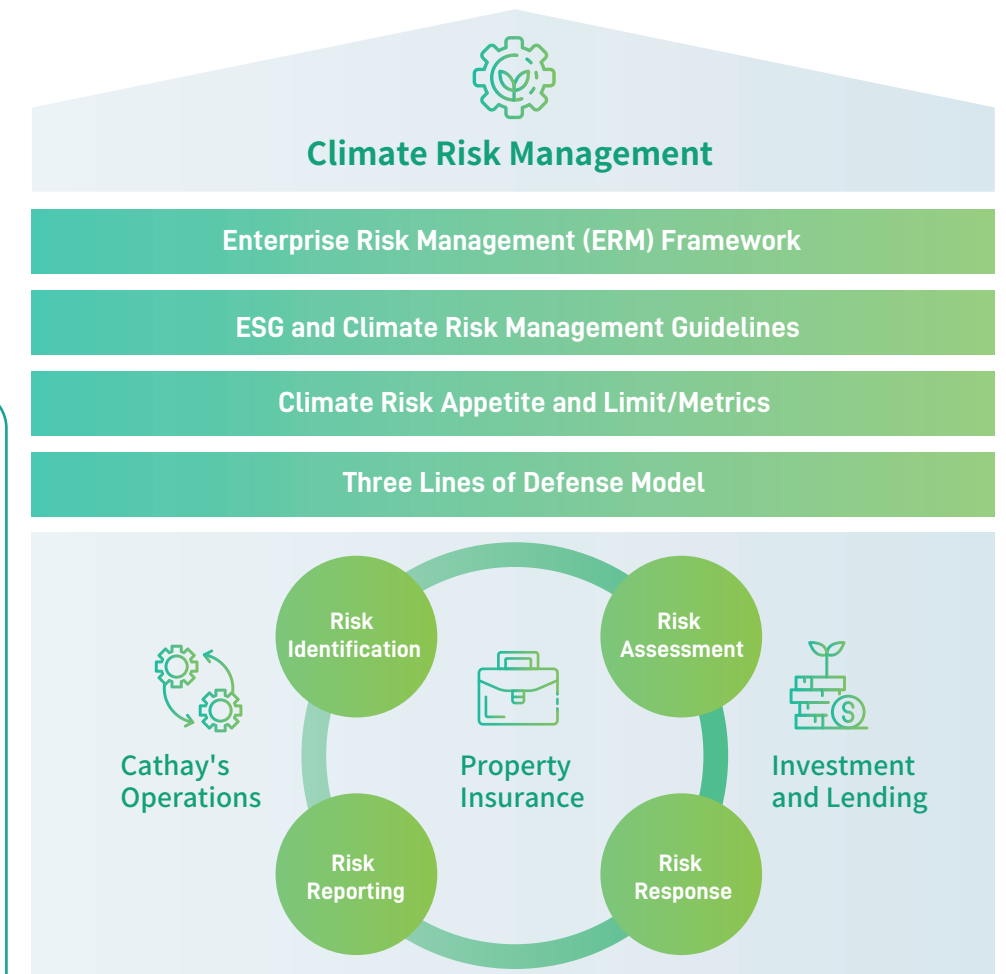


**Chang-Ken Lee,**  
**President of Cathay FHC**

ESG factors play a crucial role in a company's long-term success, with sound corporate governance being a key driver. At Cathay, we actively incorporate ESG practices into our daily operations. Our senior executives' compensation is tied to sustainability performance indicators, and we hold regular Corporate Sustainability Committee and climate governance meetings to facilitate senior management's actions on sustainable development. Additionally, we use our financial sector expertise to encourage our investees and borrowers to enhance their sustainability resilience through engagement activities, creating a prosperous future for the entire value chain. To ensure that we break down the silos between departments and subsidiaries and act on a single sustainability roadmap, we have established a group-wide sustainability strategy blueprint. By leveraging the diverse skills and expertise from across the group, we aim to make a real impact and create a sustainable future in line with our goals.

## 2.2 Risk Management Framework

Climate-related risks pose threats to the macroeconomic environment and the revenue stream of individual companies, which can ultimately affect the broader financial sector. In response to these long-term and challenging risks, we have integrated climate risk management into our ERM framework and have established three lines of defense to control risks. We remain committed to continuously improving our risk management measures to meet stakeholder demands and expectations.



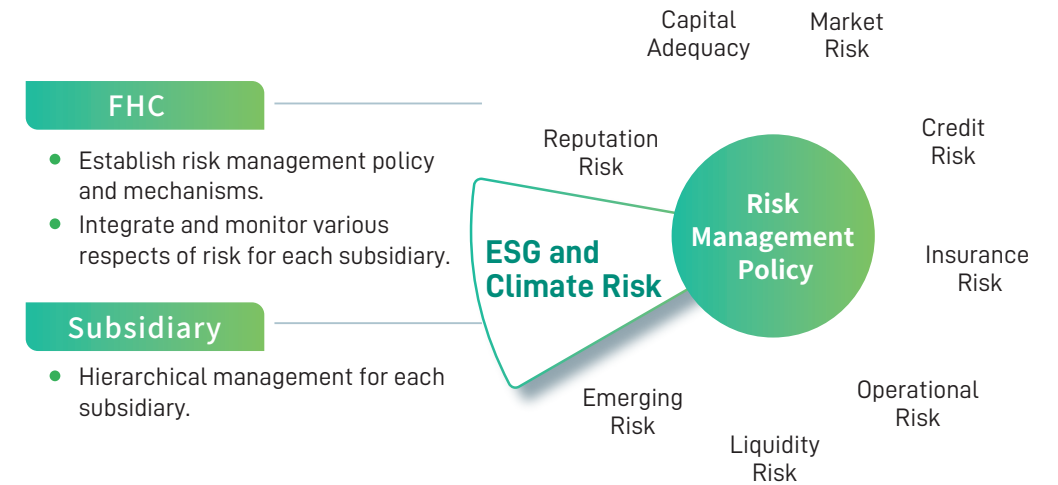




## 2.2.1 The Risk Management Policy

Cathay has established a "Risk Management Policy" in compliance with the ERM framework and implements various control measures to address different risks. Moreover, all three lines of defense have corresponding management actions in place to ensure the full implementation of risk management and internal control.

In 2019, Cathay FHC established the "Emerging Risk Management Guidelines," which integrates climate-related risks into the group's risk management scope. In 2020, Cathay defined ESG risks (including climate-related risks) as a separate category from emerging risks. At the same time, the "ESG Risk Management Guidelines" was created to strengthen the management approach for ESG and climate-related risks. In 2023, the guideline was renamed "ESG and Climate Risk Management Guideline" to reflect compliance with climate risk management.



## 2.2.2 Climate Risk Appetite and Limit

To ensure we fully reflect our climate risk appetite, Cathay established a Climate Risk Appetite Statement in 2023. We've set investment and lending limits on sectors likely to be affected by climate factors in accordance with this statement, using data from external institutions. Additionally, we leverage ND-Gain to screen for countries with high climate risks, and incorporate them into our risk control mechanism by country, regularly monitoring changes in risk exposure.



### Climate Risk Appetite Statement

Cathay reduces its exposure to sectors and companies that are highly sensitive to climate risks, as well as regions that have high physical risks that are difficult to manage and control.



**Louis Huang,**  
**Chief Risk Officer of Cathay FHC**

Climate change presents one of the most significant risks to our world today. It is imperative that we take proactive measures to identify and manage climate-related risks and opportunities. By doing so, we can create sound financial performance while prioritizing societal and environmental welfare.



## 2.3 Climate Risk Management

Cathay implements climate strategies and takes relevant measures to mitigate and adapt to climate risks. We continue to strengthen climate risk management in the existing framework for major businesses across the group, including investment and lending, property insurance products and corporate operations.

### An Overview of Cathay's Climate Risk Management Implementation.

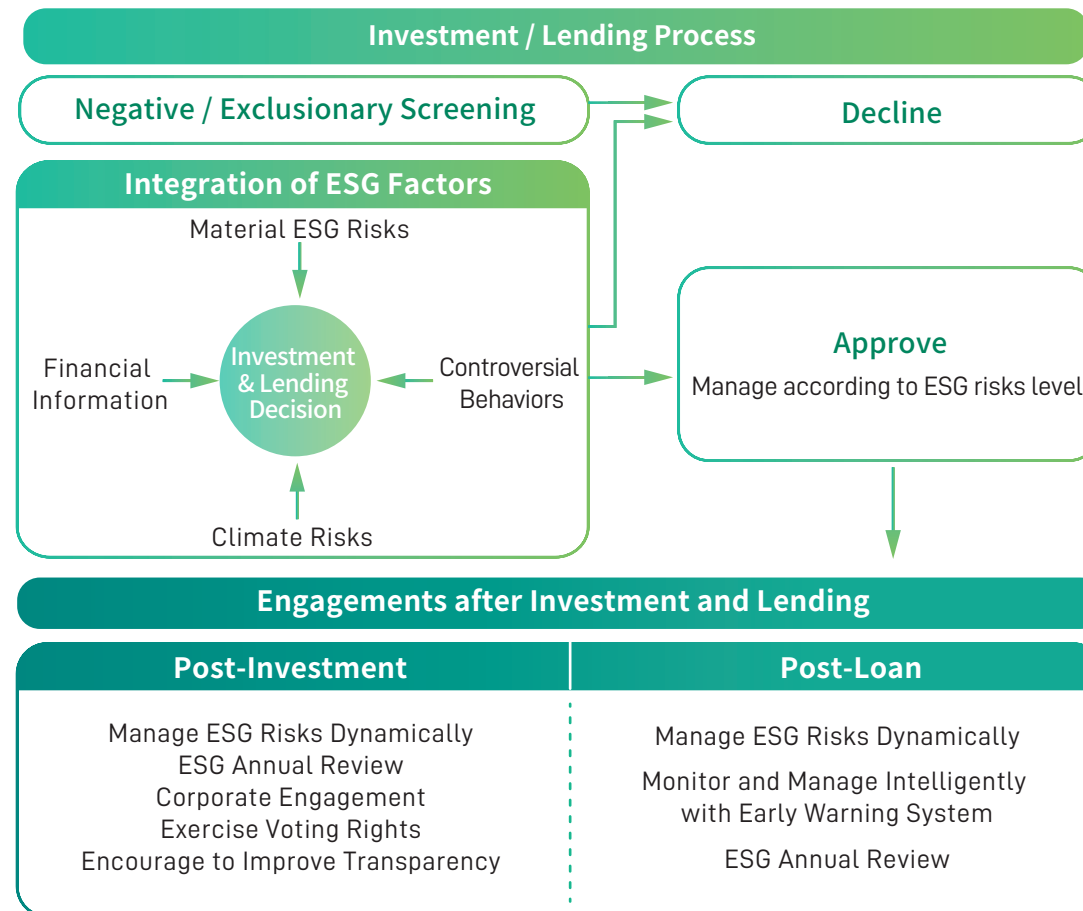
Types of Risk Management			Investment and Lending Risk	Property Insurance Product Risk	Operational Risk
Time Horizon(s)			Short- to Long-Term	Mid- to Long-Term	Mid- to Long-Term
Value Chain Impact			Downstream Activities and Clients	Downstream Activities and Clients	Cathay's Operation and Upstream Activities
Climate Risks	Transition	Current Regulations	✓	✓	✓
		Emerging Regulations	✓	✓	✓
		Technology	✓		
		Legal	✓	✓	
		Market	✓		
		Reputation	✓	✓	
	Physical	Acute	✓	✓	✓
		Chronic	✓	✓	✓
Management Approach Overview			<ul style="list-style-type: none"><li>● <b>Group-wide exclusion list:</b> Screen high-risk sectors and countries and establish a group-wide exclusion list.</li><li>● <b>Integration of ESG and climate factors into the decision-making process:</b> Integrate ESG and climate risk management into the existing investment and lending process. Carefully evaluate investees and borrowers for ESG and climate risks, and categorize them based on risk level for appropriate risk management.</li><li>● <b>Post-Investment/Loan Stewardship Actions:</b> Actively engage in meaningful dialogue with relevant companies, including signing the "Taiwan Stewardship Principles for Institutional Investors", prepare evaluation reports and take risk management measures for investee companies on the risk watchlist, continue to monitor ESG and climate risks through post-loan management, and communicate with the management level of an investee company, etc.</li></ul>	<ul style="list-style-type: none"><li>● <b>Embedding the ESG and climate risk management process into the insurance product lifecycle:</b> Cathay Century actively integrates ESG and climate risk considerations into the product development lifecycle, including design, marketing and promotion, underwriting, reinsurance, and claims. All departments use their core competencies to formulate appropriate management measures.</li></ul>	<ul style="list-style-type: none"><li>● <b>Business Continuity Management:</b> Actively adopts the ISO 22301 – Business Continuity Management Systems (BCMS)</li></ul>



## 2.3.1 Investment and Lending Risk Management

Cathay recognizes that climate change will amplify financial risks. To manage these risks, Cathay FHC and its subsidiaries have integrated ESG and climate considerations into their investment and lending processes. Before every transaction, we carefully assess investees' and borrowers' ESG and climate risks and manage them based on their risk levels. We also monitor their ESG and climate performance after the transaction and engage in constructive dialogue with them. Our goal is to support companies in their transition to net zero carbon emissions by actively engaging with them, ensuring that our investment and lending portfolios align with this objective.

### Cathay's Responsible Investment/Lending Process



### Cathay FHC Investment and Lending Exclusion Policy

Cathay screens high-risk sectors and countries, and has established a group-wide investment/lending exclusion list, which is reviewed annually by the Responsible Investment Working Group. Cathay's subsidiaries may expand on the exclusion list based on their investment management approach. For example, CUB has established its coal divestment targets and timeline. Meanwhile, in 2019, Cathay Life began to exclude coal industries with a coal share of revenue of above 50% and coal-fired power plants not actively transitioning to renewable energy. Industries within the coal value chain, such as coal railroad transportation and coal ancillary services, were later added to the exclusion list. In 2022, Cathay Life further reduced the coal share of revenue threshold to 30%. For detailed information, please refer to

1.2 Low-Carbon Economy Driver.



### Integration of ESG and Climate Factors into the Decision-Making Process

Cathay incorporates ESG and climate factors into our existing investment and lending decision process. To ensure proper control of climate risks, our subsidiaries have compiled a watchlist of industries/operational activities of concern for control enhancement (see Cathay FHC's 2022 Sustainability Report, Ch. 5.2 Responsible Investment).

Cathay Life: Compiles a watchlist of investment targets with potential ESG risks (including climate). Existing and new investment targets must undergo evaluation review against the watchlist.

CUB: Examines sensitive climate risk factors such as carbon emissions, water usage, energy consumption and waste to establish a risk management mechanism for industries with high climate risk. Additionally, CUB conducts in-depth evaluations of environmental and climate risks.

Cathay SITE: In 2020, Cathay SITE initiated a low-carbon investment project that utilizes a proprietary carbon emissions analytic tool to analyze businesses and investment portfolios to identify high-carbon risk stocks. The high-carbon risk stocks are subsequently replaced by low-carbon risk industries/stocks to gradually reduce the investment portfolio's carbon profile while achieving the goal of low-carbon investment.





## Post-Investment/Loan Management and Stewardship Actions

Following an investment, Cathay reviews existing investee companies ESG risk, for example, periodically monitoring ESG ratings, and provides an evaluation report when a company's performance deteriorates. Cathay FHC and its subsidiaries, including Cathay Life, Cathay SITE, Cathay Century, CUB and Cathay Securities, are all signatories to the Taiwan Stewardship Principles for Institutional Investors. Cathay also engages with the senior management of investee companies by participating in conference calls, seminars, investor conferences and shareholders' meetings. In addition, Cathay also aims to achieve a positive financial impact by participating in international engagement activities (For details, please refer to [1.2.2 Leader in Climate Engagement Actions](#)). Cathay Life and Cathay Century set out responsible investment considerations and requirements in our investment mandates to ensure that asset management firms align investment objectives and meet investment obligations.

For loans, CUB continues to monitor customers' ESG and climate risks during the loan period and regularly assesses compliance with the approved original loan terms and conditions. For customers whose credit facility reaches a defined threshold, and whose intended use of financing meets the definition of sensitive industries, CUB implements a post-loan environmental and social management approach as specified in the loan review and approval process.

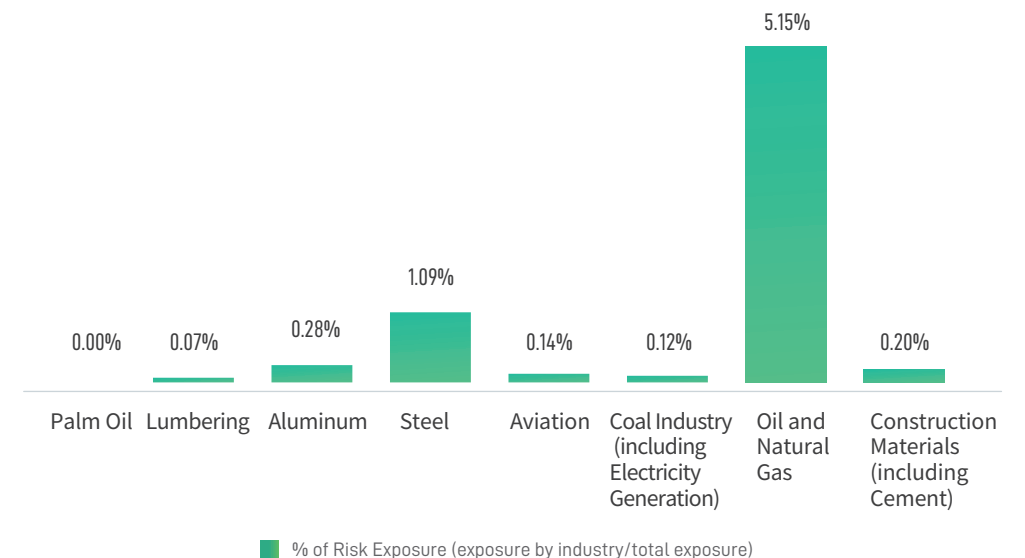


## Case Study Enhancing the Climate Risk Management of Investment and Lending

### Management of Industries Sensitive to Climate Risks

Highly climate-sensitive industries are under increasing pressure to create a transition path to meet the target of net-zero carbon emissions by 2050. However, if companies are overly burdened with the transition process to the point that it negatively impacts their financial performance, it could lead to a failure to meet financial performance expectations and increased credit risk. In response, Cathay has taken steps to assess the climate costs associated with carbon fees incurred during the transition, as well as the probability of default, using data from external institutions since 2023. Cathay FHC and its subsidiaries have also set limits for climate-risk-sensitive industries based on the organization's internal risk appetite. These limits are monitored monthly and reviewed annually for appropriateness. Right: Exposure ratio <sup>Note</sup> of Cathay's investment and lending in climate-risk-sensitive industries at the end of 2022.

Note: The exposure ratio is calculated as exposure to a given industry to the overall exposure at the end of 2022. The exposure to a given industry includes non-cash marketable securities (domestic and overseas stocks and bonds, OTC stocks, short-term securities) and corporate lending credit facilities related to that industry.





“



**Sophia Cheng,**  
**Cathay FHC Chief Investment Officer**

The low-carbon transition is not a cost but a critical investment in our future. It demonstrates a company's competitiveness in an era of continuous technological advancement. As a hub of capital flow, Cathay has long been committed to sustainable finance, responsible investment, and climate action. To fulfill this commitment, we have joined several international initiatives and strive to achieve their goals. Additionally, Cathay is one of the leading Asian financial companies in corporate engagement. We direct our capital towards companies and projects that promote sustainable development and assist our customers with low-carbon and sustainable operations to advance Taiwan's overall progress towards net-zero emissions.

## 2.3.2 Property Insurance Products Risk Management

Extreme weather events have a significant impact on the property insurance market. Physical risks, such as the increasing frequency of extreme weather events like typhoons and floods, can lead to the loss of insured property. This can lead to an increase in insurance claims. When it comes to transition risks, insured parties that implement actions (e.g., carbon reduction and using renewable energy) to transition to a low-carbon economy may cause changes in their insurance policies and underwriting requirements. At the same time, insurers are facing increasing demand for transition-related insurance products. This demand is driven by changing market trends and the need for coverage that addresses the needs of a low-carbon economy. As such, Cathay Century regularly reviews the potential impact of climate risks on specific sectors or insured assets and makes necessary adjustments. Cathay Century also integrates ESG and climate considerations into the product development process and establishes response management measures for potential climate risks that exist throughout the value chain. Cathay Century also collaborates with experts from industry, government and academia to develop climate-related technologies. We strive to provide green, low-carbon insurance products and services with the ultimate goal of achieving a net-zero sustainable future through our commitment to sustainable practices.

### Embedding Climate Risk Management Process into the Insurance Product Lifecycle

Lifecycle Stages	Management Measures in Response to Climate Risks
Product Design	<ul style="list-style-type: none"><li>● In response to climate change, Cathay Century continues to develop low-carbon sustainable products to support customers' green transition, including crop insurance, renewable energy insurance (solar power and offshore wind power), EV insurance, and bicycle-sharing insurance.</li></ul>
Marketing and Promotion	<ul style="list-style-type: none"><li>● Implement loss control consultant recommendations; strengthen customers' risk awareness; assist with a risk evaluation and recommend improvement actions, such as conducting on-site inspections to identify areas vulnerable to floods and typhoons, and provide recommended improvement measures.</li></ul>
Underwriting	<ul style="list-style-type: none"><li>● Establish an underwriting risk identification and assessment mechanism for sensitive industries such as lumbering and coal.</li><li>● Establish underwriting rules as the basis for underwriter approval or rejection of any insurance products that are susceptible to natural catastrophes.</li><li>● Implement a more rigorous, higher-level underwriting process for policyholders with higher environmental risks to better assess their exposure to climate change risks.</li><li>● Provide underwriting and loss control recommendations using climate risk modeling.</li></ul>
Reinsurance	<ul style="list-style-type: none"><li>● Use the climate risk model to assess the impact of natural disasters across Taiwan and appropriately diversify the risk through reinsurance contracts.</li><li>● The Offshore Insurance Unit (OIU), in which Cathay Century participates, is gradually incorporating the effects of climate change into its underwriting policies.</li></ul>
Claims	<ul style="list-style-type: none"><li>● Regularly track product loss ratios and adjust premiums and underwriting policies as needed.</li></ul>





Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix



## Case Study - Implement Loss Control Consultant Business to Assist Clients with Climate Change Adaptation

Natural disasters such as typhoons, floods, droughts, earthquakes, and others can cause significant damage, leading to loss of life and property. These events can cause significant disruptions to business operations and lead to major impacts on the environment and society. Based on our core competencies in loss control, Cathay Century began offering "Natural Disaster Risk Assessment" services to our corporate clients in 2012. We also work closely with the external consultant. Since 2012, we have been utilizing the catastrophe risk model developed by external expert to conduct natural catastrophe risk modeling. The assessment considers a wide range of factors to evaluate companies' insured properties that are susceptible to earthquakes, typhoons and floods. The factors include location, structure, usage type, year of construction, insured amount for personal property and real estate. The model assesses the potential losses that can result from natural catastrophes to help companies develop more effective risk response strategies to mitigate losses and impact. The service is available to all industries.

Due to the worsening effects of climate change in recent years, losses from typhoons and floods have exceeded our previous predictions. To address this, we have asked the external consultant to develop a customized climate change model that includes typhoon and flood modeling. Since 2019, Cathay Century has integrated this model into our comprehensive corporate loss control service projects. With the help of the new model, we can predict the largest potential losses resulting from typhoons and floods, providing enterprise customers with more reliable loss predictions that are better aligned with the shifting climate change landscape.



## 2.3.3 Operational Risk Management

Cathay has actively adopted the international management standard ISO 22301 - Business Continuity Management Systems (BCMS) to ensure the group's sustainable operations and reduce the impact of adverse events such as extreme weather and global pandemics. Cathay FHC and its main subsidiaries, including Cathay Life, CUB, Cathay Century, Cathay Securities and Cathay SITE, have all been internationally certified by the British Standards Institution (BSI). We are committed to ensuring the effectiveness of our business continuity management mechanism and continue to strengthen the group's operational resilience.

Cathay takes a group-wide perspective in developing its business continuity management (BCM) strategy. We must strengthen our emergency response capabilities in the face of climate-related natural disasters to ensure uninterrupted critical operations. The rights of our customers are our priority, and we will spare no effort to maintain the continuity of our operations. Cathay FHC has implemented the "Business Continuity Management Guidelines" and "Business Continuity Management Strategy" to establish a comprehensive management system across the entire group. To ensure effective communication during emergencies, the system is supported by a complete reporting mechanism. In the event of a natural disaster or other emergency, Cathay FHC will activate the appropriate emergency response procedures and business recovery measures based on the severity of the incident and its reporting levels. In addition, we regularly conduct multi-hazard drills for different scenarios each year to ensure that critical business operations remain uninterrupted and that backup mechanisms are effective in the event of a natural disaster or force majeure.

## Business Continuity Management Mechanism



### Risk Event Occurrence

Natural Disasters (Extreme Weather Events)  
Infectious Diseases  
Information Security Incidents  
Human-induced Risks



### Event Impact Assessment

Location Impact  
Facilities Impact  
Personnel Impact  
System Impact



### Emergency Response & Recovery Procedures

Initiate Split Operations or Work from Home  
Activate Emergency Procurement of Backup Supplies or Equipment  
Personnel Substitution or Activate Staff Dispatch  
Implement IT Post-incident Recovery Measures

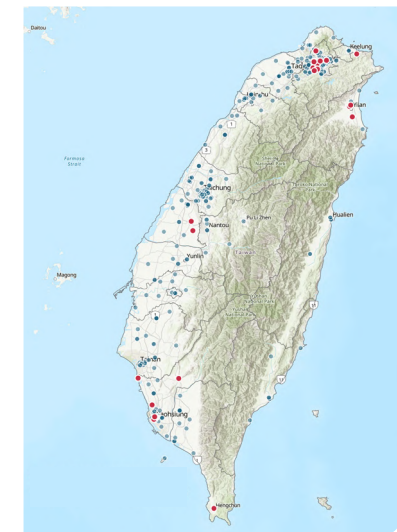


## Case Study Monitoring and Improving Cathay's Operational Resilience Against Climate Change Impact

### Business Offices Flood Risk Assessment

Cathay uses the National Science and Technology Center for Disaster Reduction's (NCDR) AR5 scenarios for flood risk identification to create a dynamic risk map projected to the end of the century. There are five levels of flood vulnerability, with five being the most vulnerable. We compare Cathay's business locations against the risk map to verify the physical risk level for flooding in 2022, including locations for Cathay FHC, Cathay Life, CUB, Cathay Century, Cathay Securities and Cathay SITE. It was found that the business locations falling under the level 5 risk category represent 6.2% of the total business offices.

We periodically examine the safety and potential impact for Cathay-owned real estate and strengthen flood prevention equipment and backup mechanism. We also follow BCM to establish a complete reporting process. We initiate appropriate emergency response procedures and implement business recovery measures based on the severity of the incident and its reporting level. As the assessment methodologies for climate-induced flood risk are still in the development stage, the accuracy of the current risk prediction data will need to be proven over time. Therefore, Cathay will continue to monitor the development and collaborate with external academic and research institutions to strengthen our risk assessment approach for flood risks.



● Business offices locate in the fifth level flood risk zone  
● Business offices do not locate in the fifth level flood risk zone  
End-of-century flood risk map for Cathay business offices



## 2.4 Climate Scenario Analysis

To understand how climate change impacts financial performance, Cathay not only invests internal resources and manpower but also actively collaborates with external institutions to develop scenario analysis methodologies. We prioritize scenario analysis for investments, financing, and insurance products based on their level of criticality to the group's business operations. Our analysis does not just focus on downstream customers, but also includes upstream suppliers for a more comprehensive approach. As a member of RE100, we are committed to the pledge by evaluating the cost optimization of integrating green electricity into Cathay's operations. We want to ensure that the transition aligns with the characteristics of Cathay's assets and liabilities while examining the resilience of our climate strategy.

### 2.4.1 Analysis Items and Scenarios

Cathay refers to climate scenarios published by various international organizations, including the Intergovernmental Panel on Climate Change (IPCC), the International Energy Agency (IEA), and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS). We also include Nationally Determined Contributions (NDCs) in the assessment.

Value Chain		Scenario Overview	Type of Climate Risk		Analysis Time Frame <sup>Note1</sup>	Scope	Climate Scenario
Upstream		A. Suppliers facing the impact of climate-related risks	Physical Risk	Acute	Near future, mid-century, end of the century	Taiwan	SSP2-4.5 、 5-8.5
			Transition Risk	Policy and Legal	2030~2050	Taiwan	NGFS
Cathay's Operations		B. Impact of typhoons and floods under climate change on repair expenditure of proprietary real estate	Physical Risk	Acute	Near future, mid-century, end of the century	Taiwan	RCP2.6 、 4.5 、 6.0 、 8.5
		C. Cost optimization assessment of the integration of renewable energy in the transition to zero-carbon operations	Transition Risk	Policy and Legal	2030	Taiwan	RE100 <sup>Note2</sup>
Downstream /Clients	Investment and Lending	D. Impact of global politics, economics, and natural disasters on the value of investment portfolios	Physical Risk	Acute, Chronic	2021~2080	Global	RCP8.5
			Transition Risk	Policy and Legal	2021~2080	Global	NGFS
		E. Impact on lending portfolios from regulations change and natural disasters	Physical Risk	Acute	2030 、 2050	Global	RCPs
			Transition Risk	Policy and Legal	2030 、 2050	Global	NGFS
	Insurance	F. Climate change impact on typhoon and flood insurance claims	Physical Risk	Acute	Near future, mid-century, end of the century	Taiwan	RCP 2.6 、 4.5 、 6.0 、 8.5
		G. Impact on car insurance claims from temperature and precipitation changes	Physical Risk	Acute	2035 、 2050 、 2100	Taiwan	RCP 8.5
		H. Impact on death and hospitalization medical benefits from temperature changes	Physical Risk	Acute	2035 、 2050 、 2100	Taiwan	SSP1- 2.6 、 2-4.5 、 3-7.0 、 5-8.5

Note 1: "Near future" is defined as before 2035; "mid-century" is defined as from 2046 to 2065; "end of the century" is defined as from 2081 to 2100.

Note 2: The climate scenario is based on the assumption that the target of all business offices in Taiwan 100% using renewable energy has been met.

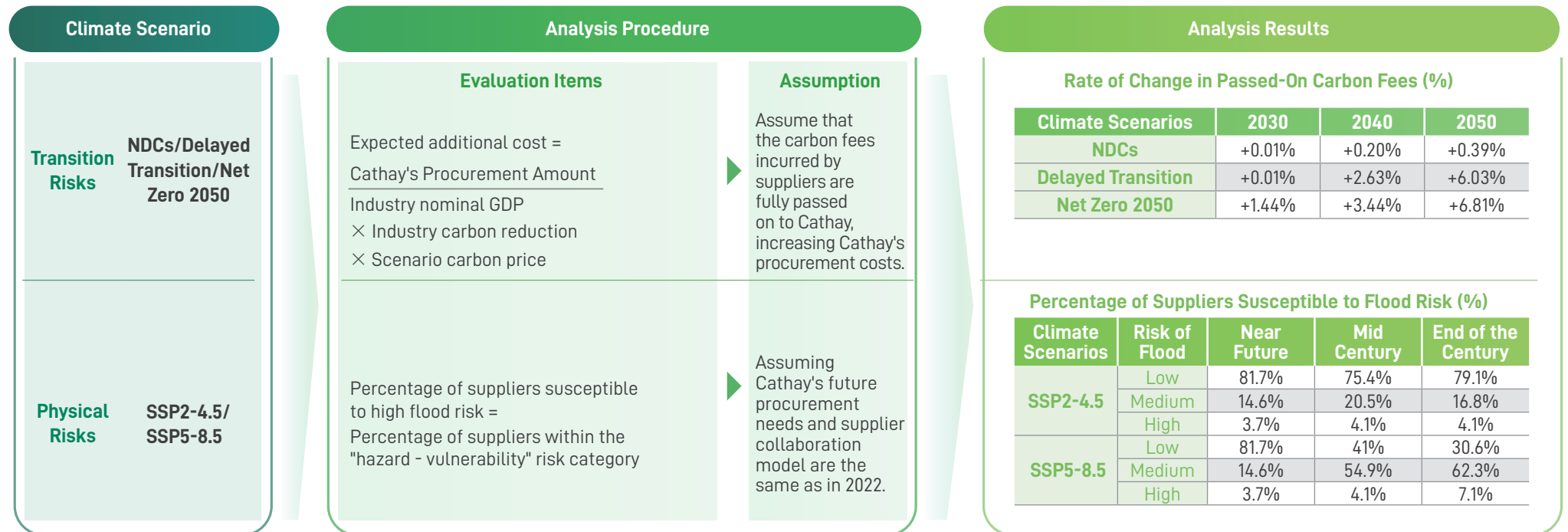
## 2.4.2 Upstream

### A. Suppliers facing the impact of climate-related risks

#### ● Background

The supply chain is now facing carbon fees mandated by Taiwan's "Climate Change Response Act," as well as the increased frequency of extreme weather events. If Cathay's corporate suppliers are delayed in their transition process or lack adequate contingency capabilities, they will face increased operating costs, which could lead to increased procurement costs for Cathay. We analyzed the impact of carbon prices on different industries, including services, industrials, energy, transportation, and warehouse/logistics, using three types of NGFS carbon prices scenarios. To evaluate the impact of climate change on our suppliers' operations, we also incorporated the IPCC AR6's SSP2-4.5 and SSP5-8.5 climate scenarios into our analysis. We will reference the results for Cathay's future procurement management mechanism.

#### ● Analysis Procedure and Results







**Overview** The results of the transition risk analysis show that the impact of carbon fee cost on suppliers will increase between 0.39% and 6.81% in 2050, while the physical risk analysis show that the number of suppliers with high flood risk ranges between 3.7% and 7.1% and only one critical supplier, based on the analysis of the suppliers' business attributes, with medium flood risk and no critical supplier in high flood risk. The analysis shows that the climate risk of suppliers will not have a material financial impact on Cathay.

### ● Resilience Evaluation Outcome

The cost of carbon fees that suppliers will incur increasing Cathay's procurement costs by a range of 0.39% to 6.81%. As for physical risks, only one critical supplier is classified as having a medium flood risk, indicating a manageable climate risk outlook overall.

### ● Risk Response Measures

In addition to encouraging suppliers to transition to low-carbon operations, we also seek to improve operational resilience and mitigate the impact of extreme weather events on our operations by implementing various business continuity management mechanisms and establishing a backup mechanism for key suppliers.

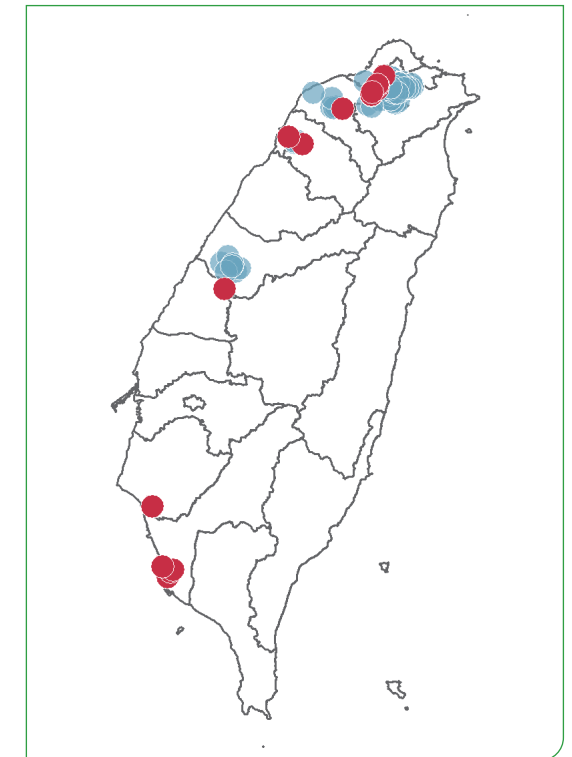
- ▶ Establishing a backup mechanism (e.g. a list of backup suppliers, internal alternative solutions, purchasing backup equipment, etc) to ensure uninterrupted operation.
- ▶ Conduct on-site supplier inspections to gain a complete insight into supplier management status as a reference for subsequent supplier selection considerations.
- ▶ Establish contractual arrangements to require suppliers to establish operational management backup mechanisms or increase the intensity of relevant enforcement actions. For detailed risk management procedures, please refer to [2.3.3 Operational Risk Management](#).

## 2.4.3 Cathay's Operations

### B.Impact of typhoons and floods under climate change on repair expenditure of proprietary real estate

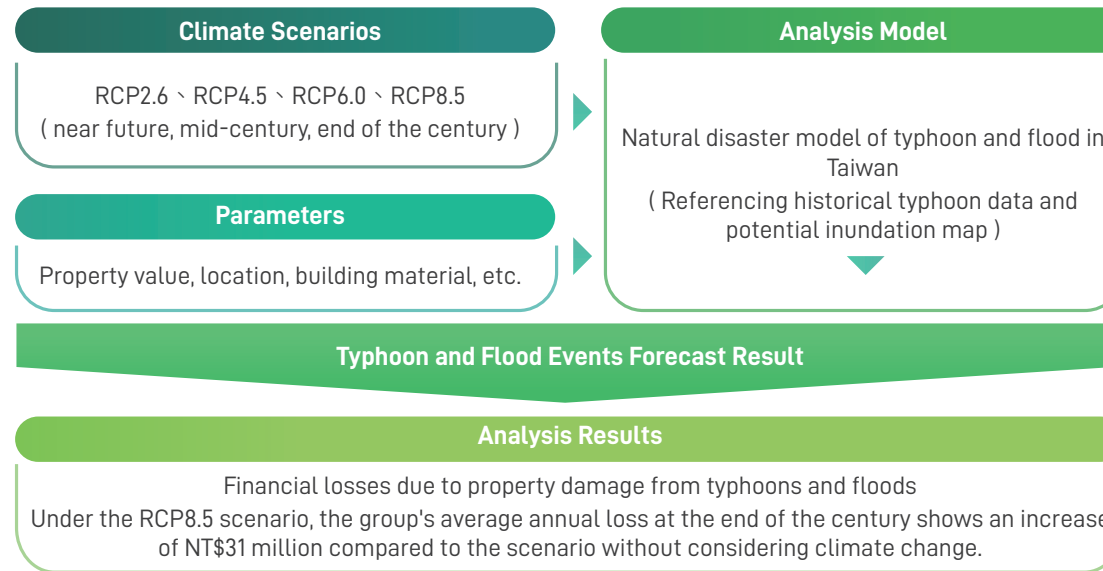
#### ● Background

Taiwan is prone to typhoons, which are becoming stronger and with heavier precipitation due to global warming, resulting in increased repair costs for Cathay's properties. To fully understand the impact of climate change, Cathay used scenarios RCP2.6, RCP4.5, RCP6.0, and the most severe RCP8.5 proposed in the IPCC Fifth Assessment Report (AR5) to conduct scenario simulations. We also used natural disaster models developed in collaboration with academic research institutions to simulate typhoon and flood scenarios. We used the model to analyze the risk exposure of Cathay's properties to typhoons and floods, and the potential level of damage during different periods. The results form an important basis for formulating our BCM planning and asset allocation strategies.

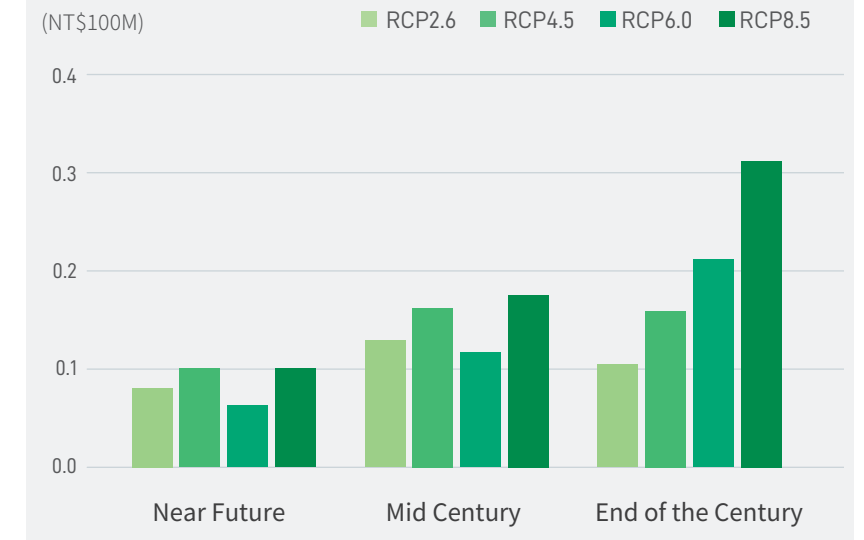


● Suppliers locate in the fifth level flood risk zone  
● Suppliers do not locate in the fifth level flood risk zone  
End-of-century flood risk map for Cathay FHC suppliers

## ● Analysis Procedure and Results



Scenario-Based Financial Impact on  
Cathay-Owned Real Estate Properties



## ● Resilience Evaluation Outcome

We predict that the financial losses at the end of the century will increase by NT\$31 million compared to the scenario without considering climate change, accounting for less than 1% of the real estate asset book value, indicating a manageable climate risk impact on Cathay-owned real estate properties.

## ● Risk Response Measures

In addition to transitioning Cathay-owned real estate properties to green real estate, we also increase properties' climate resilience through the following physical risk prevention measures. For detailed risk management procedures, please refer to [2.3.3 Operational Risk Management](#).

- ▶ We consider the potential impact of climate risk factors (e.g. floods, mudslides, and earthquakes) on the safety of our assets when selecting business and investment locations. We also regularly inspect our properties and step up safety inspections and repairs.
- ▶ Maintain and refine our BCM strategy to include natural disaster scenarios, contingency measures, business continuity plan (BCP), and scheduled drills to increase our resilience to climate change.



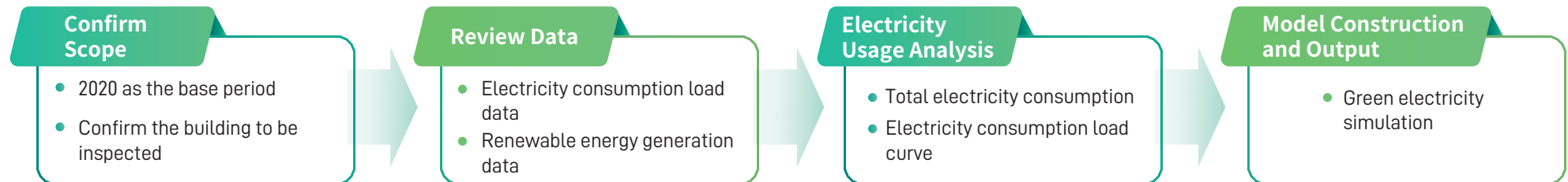
## C. Cost optimization assessment of the integration of renewable energy in the transition to zero-carbon operations

### ● Background

As part of our commitment to zero carbon operations, Cathay FHC became the first financial institution in Taiwan to become a member of RE100 in April 2022 with the following targets: Achieve 100% use of renewable energy at Cathay FHC, CUB, Cathay Life and Cathay Century headquarters by 2025; Achieve 100% use of renewable energy at business locations in Taiwan by 2030; Finally, achieve 100% use of renewable energy at all of our global business locations by 2050. To achieve our target of zero carbon emissions while taking into account the characteristics of Taiwan's green power market, we use power generation and consumption data from a single year to assess the ratio of different types of renewable energy procurement, their volumes, and net power purchase costs from 2025 to 2030. With this information, we'll develop a cost-effective and sustainable procurement portfolio strategy that aligns with our green power targets.

### ● Analysis Procedure and Results

Using the SBT base year of 2020 as a scope, our analysis model references Cathay's electricity consumption load data and renewable energy generation data, as well as Taipower's wheeling mechanism and time slot setting to conduct green electricity simulation. It is estimated that the cost of electricity procurement will increase by 41.0% in 2025 and 34.08% in 2030 due to the zero-carbon transition.



### ● Resilience Evaluation Outcome

In the zero-carbon operations transition scenario, the rising cost of grey and renewable electricity will drive up the cost of electricity purchase, leading to financial impact. To reduce the impact, Cathay will study the best allocation of electricity. As of the end of 2022, renewable energy wheeling has been completed for the headquarter buildings of Cathay FHC and its subsidiaries and will be achieved 100% use of renewable energy at FHC and its subsidiaries HQs in 2023.

### ● Risk Response Measures

In pursuit of the RE100 targets, Cathay FHC's main strategy for sourcing renewable electricity is to diversify the types of electricity purchased, supplemented by the purchase of T-REC-certified electricity. In addition, we regularly review changes in our operational electricity consumption, market price and Taipower wheeling system based on the results of scenario analysis. We also conduct efficiency assessments and electricity purchase portfolio planning for potential project sites.

## 2.4.4 Downstream/Clients

### D. Impact of global politics, economics, and natural disasters on the value of investment portfolios

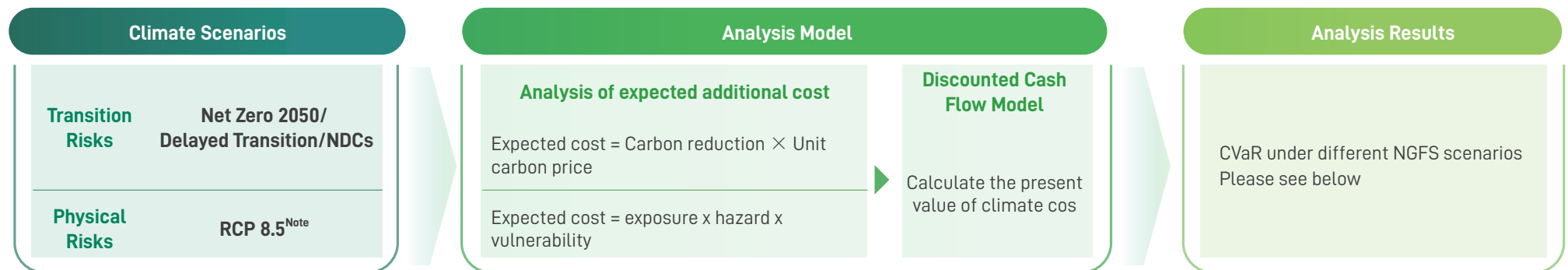
#### ● Background

The global shift towards a low-carbon economy and extreme weather events are having a significant impact on businesses. As a result, the prices of marketable securities issued by these companies may fall, resulting in a loss of net asset value for investors who hold these securities. In response, we assess the impact of climate change on the value of our equity and bond investments using a model developed by MSCI. The MSCI model implements NGFS scenarios that include an orderly transition to net zero by 2050, a delayed transition, and Nationally Determined Contributions (NDCs). We use CVaR to assess the impact and incorporate the results into our future investment strategy considerations. For investments in sovereign bonds, we use the Sovereign CVaR methodology, published by MSCI in 2022, to assess the potential losses on sovereign bond portfolios from rising yields under various NGFS transition scenarios.

Note: Climate Value at Risk (CVaR) refers to the investment portfolio's discounted present value of cumulative climate risk-related cost through 2080 and the higher negative value the more loss. Please refer to MSCI's official website (<https://www.msci.com/our-solutions/esg-investing/climate-solutions/scenario-analysis>) for more information.

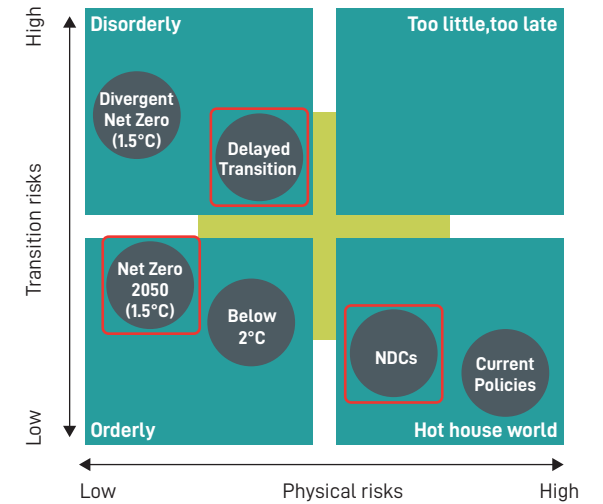
#### ● Analysis Procedure and Results

##### Corporate Stock/Bond



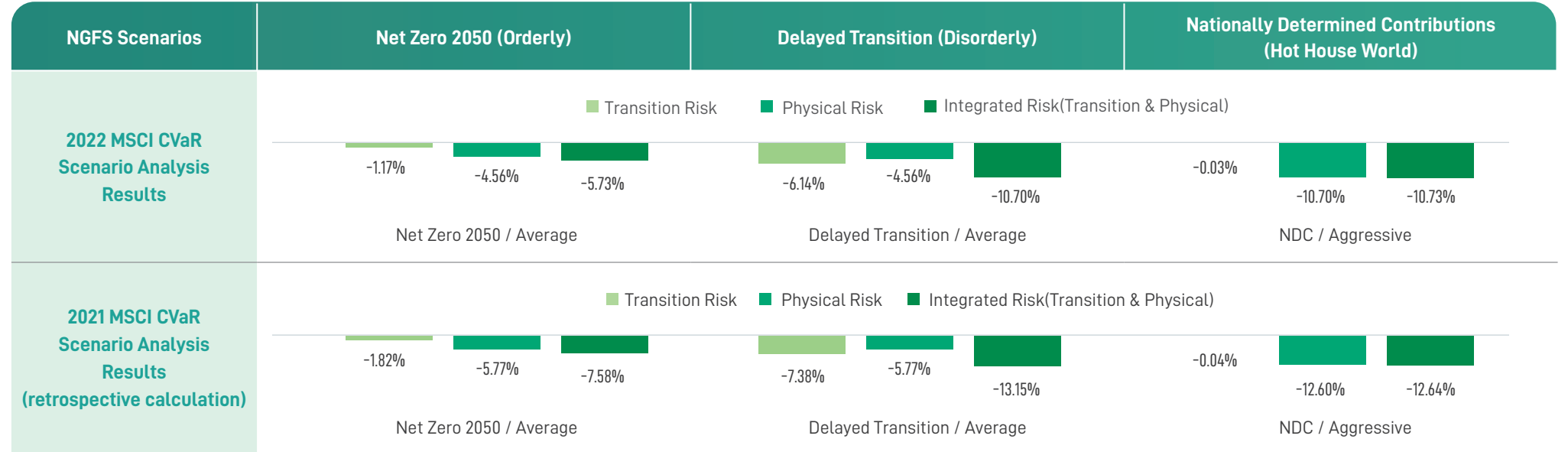
Note: There is an offset relationship between transition and physical risk. MSCI considers the effectiveness of the remaining emission scenarios in mitigating physical climate risk in the near term, which is not significantly different from the business-as-usual and RCP8.5 scenarios. Therefore, we use the RCP8.5 emissions scenario for all physical risks with only two climate scenarios: average and extreme (95th percentile). When assessing physical risks, "RCP8.5 extreme" is used for the NDC scenario, while "RCP8.5 average" is used for the rest of the scenarios.

#### NGFS Scenarios Framework

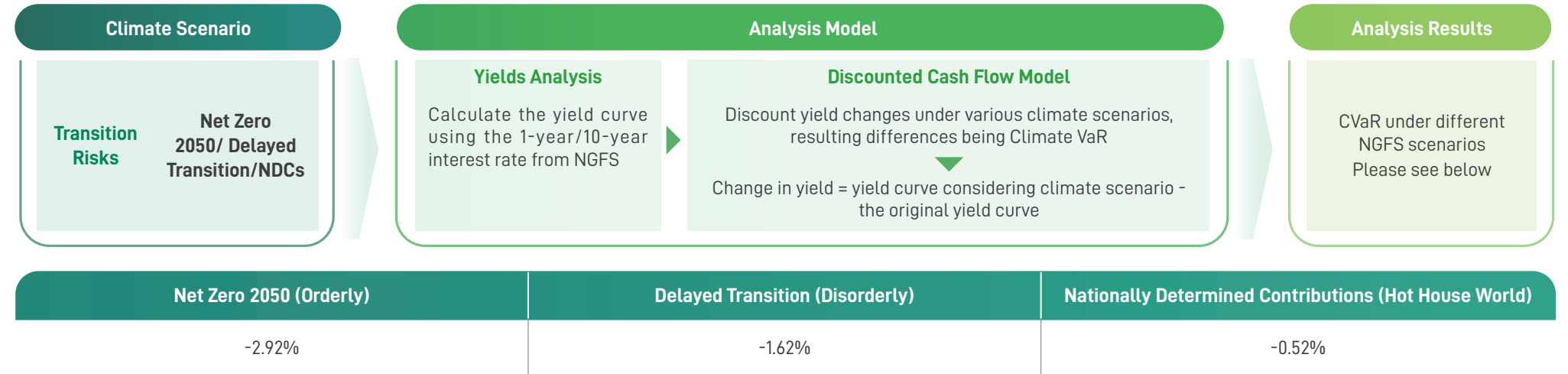


Source: NGFS Climate Scenarios for central banks and supervisors, June 2021





### Sovereign Bond - MSCI Sovereign CVaR Note1 Note2



Note1 : MSCI Sovereign CVaR weights the percentage of potential losses from changing yields for the sovereign bond portfolio in various NGFS scenarios.

Note2 : MSCI Sovereign Climate VaR data summary, the most recent data is from 2023.01.31. The MSCI data covers 61% of the total sovereign investment.



## ● Resilience Evaluation Outcome

A retrospective calculation was performed using the latest model and data from NGFS scenario to assess the overall risk (transition and physical) for corporate equity/bond portfolios. The assessment reveals that the overall risk for 2022 is lower than that of 2021. In addition, the result of the sovereign bond assessment shows that the related transition loss is manageable.

## ● Risk Response Measures

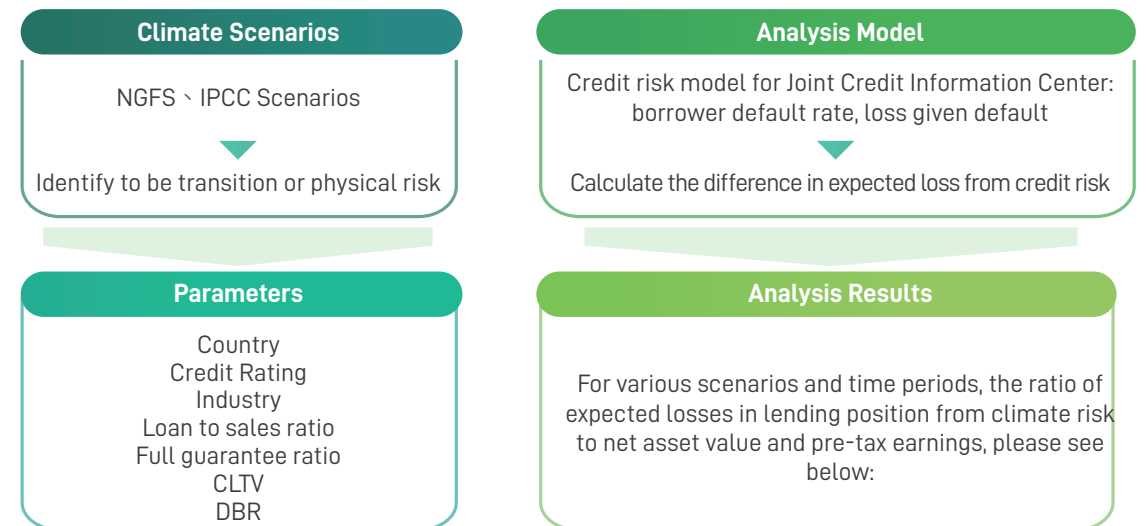
We consider the impact of climate risk as part of our ESG risk assessment when making investment decisions. Climate change is also a key focus of our engagement activities. In addition, we set clear requirements for the consideration of climate change factors in our investment mandates. Third-party managers are required to submit relevant responsible investment policies to help us understand their responsible investment practices and ensure that they meet their investment obligations. For detailed risk management procedures, please refer to [2.3.1 Investment and Financing Risk Management](#); for detailed engagement actions, please refer to [1.2.2 Leader in Climate Engagement Actions](#).

### E. Impact on lending portfolios from regulations change and natural disasters

## ● Background

We conducted a climate risk scenario analysis to meet the requirements of the Joint Credit Information Center. We use NGFS and IPCC scenarios to consider both transition and physical risks. The analysis evaluates the expected losses of the lending position in 2030 and 2050 under the "orderly," "disorderly," and "no policy/regulation" scenarios to provide information to be used to adjust the formulation of our lending strategy.

## ● Analysis Procedure and Results



Assets Position	Expected Losses from Climate Change <sup>Note</sup>	Orderly Scenario		Disorderly Scenario		No Policy/Regulation Scenario	
		2030	2050	2030	2050	2030	2050
Domestic Lending (Corporate Finance & Consumer Finance)	as a percentage of the net asset value	1.39%	1.52%	1.68%	1.53%	1.42%	1.59%
	as a percentage of the pre-tax earnings	10.71%	11.77%	13.01%	11.82%	10.98%	12.27%
Overseas Lending (Corporate Finance)	as a percentage of the net asset value	0.10%	0.16%	0.01%	0.28%	Overseas lending not incorporated into the calculation scope	
	as a percentage of the pre-tax earnings	0.74%	1.23%	0.07%	2.20%		
Total	as a percentage of the net asset value	1.49%	1.68%	1.69%	1.81%	1.42%	1.59%
	as a percentage of the pre-tax earnings	11.45%	13.00%	13.08%	14.02%	10.98%	12.27%

Note: In 2022, CUB's net asset value was roughly NT\$237.7 billion, with pre-tax earnings of NT\$30.8 billion.



## ● Resilience Evaluation Outcome

This was the first year that we conducted a public version of the climate scenario analysis. We will continue to monitor the magnitude of changes in expected losses due to climate change.

## ● Risk Response Measures

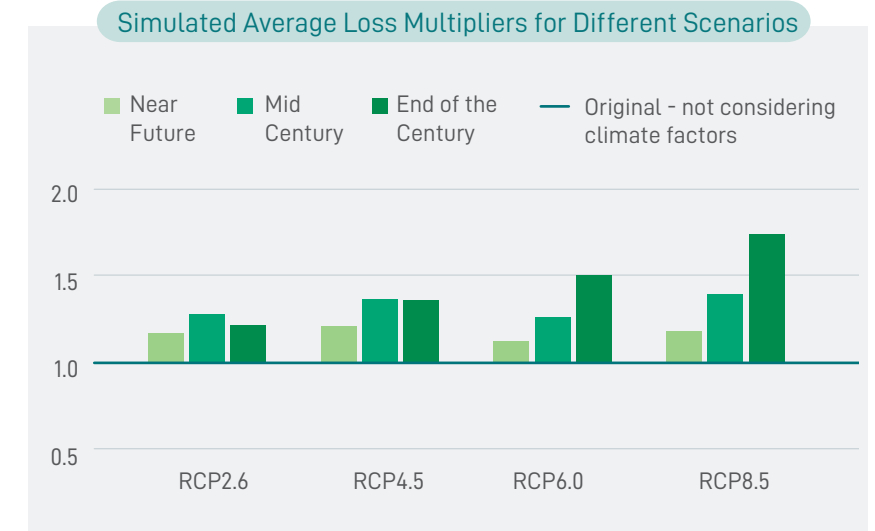
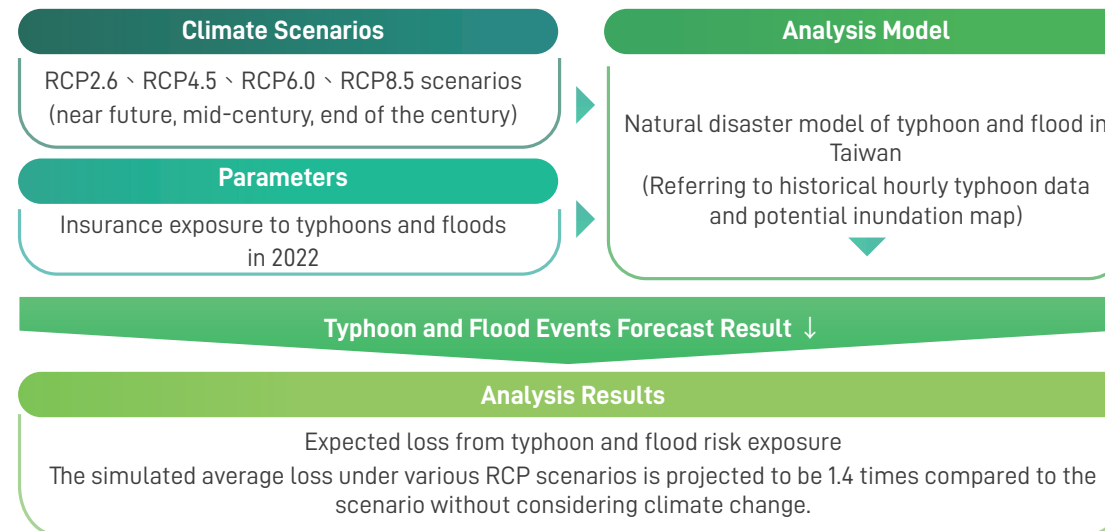
Cathay will continue to monitor industries with high climate risks and gradually reduce the carbon footprint of our loans. We will also monitor the physical risk concentration of corporate/consumer real estate collateral. We have also established the "Coal-Exit Action" to stop issuing new loans to coal-fired power stations, promote financing for decarbonization transformation and renewable energy, and set a "zero coal financing" target to completely phase out coal lending quotas by the end of Q1 2027.

## F. Climate change impact on typhoon and flood insurance claims

### ● Background

As the second largest property insurer in Taiwan, Cathay Century expects climate change to increase the incidence of damage to its insured portfolio, resulting in a corresponding increase in claims costs. In response, Cathay uses RCP2.6, RCP4.5, RCP6.0, and the most severe RCP8.5 scenarios proposed in the IPCC AR5 to conduct loss prediction using natural disaster models for typhoons and floods. The analysis aims to find out the potential losses from position risk exposures in the near future (~2035), mid-century (2046-2065), and end of the century (2081-2100). The results should help us to better adjust our solvency level and asset allocation.

### ● Analysis Procedure and Results



## ● Resilience Evaluation Outcome

The simulated average loss under various scenarios is projected to be 1.4 times compared to the scenario without considering climate change. However, low typhoon and flood insurance coverage ratio and reinsurance mechanism, the impact of climate risk remains manageable.

## ● Risk Response Measures

Cathay Century regularly reviews the expected changes in typhoon and flood losses under various climate change scenarios as a reference for long-term planning of future underwriting and reinsurance considerations; at the same time, stress tests are conducted to incorporate climate change factors to examine the impact of typhoon and flood on the company's solvency level under various scenarios to ensure manageable risks. For detailed risk management procedures, please refer to

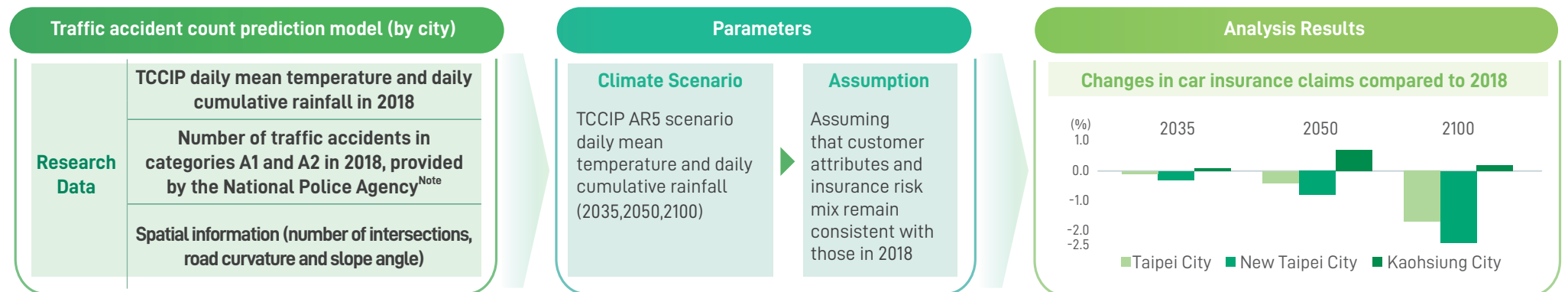
➤ [2.3.2 Property Insurance Products Risk Management](#).

## G. Impact on car insurance claims from temperature and precipitation changes

### ● Background

Car insurance is the largest source of premium income and claims expense for property insurance policies in Taiwan. Overseas studies suggest that driver behavior, road features (width and curves), and weather-related factors such as rainfall and temperature, are all contributing factors that increase the likelihood of traffic accidents. To determine the extent to which climate change affects car insurance claims, Cathay Century partnered with academic experts to conduct a preliminary evaluation of its impact. The evaluation focuses on Taipei City, New Taipei City, and Kaohsiung City and utilizes the most severe RCP8.5 scenario to analyze the potential impact.

### ● Analysis Procedure and Results



Note: The traffic accident data used in this study were obtained from the National Police Agency, Ministry of the Interior, and include Category A1 and A2 traffic accident data for all of Taiwan in 2018. Category A1 traffic accidents refer to incidents in which deaths occurred on the scene or within 24 hours, while Category A2 traffic accidents refer to those in which injuries or deaths occurred after 24 hours.

#### Overview

The assessment results indicate that climate change has a minimal impact on categories A1 and A2 traffic accidents, ranging from -2.4% to 0.7%. Due to limited data availability, the assessment only considers the direct impact of changes in daily mean temperature and daily rainfall on traffic accidents. We are not yet able to consider the impact of extreme weather events such as typhoons and floods on car insurance. In addition, the National Police Agency has not yet published data on the most common category of A3 traffic accidents, which refer to incidents with only property damage.





## ● Resilience Evaluation Outcome

Based on the results of the analysis, categories A1 and A2 traffic accidents will only see a change of impact between -2.4%- 0.7%. Because of low insurance covering rate and reinsurance, the inference is not significant.

## ● Risk Response Measures

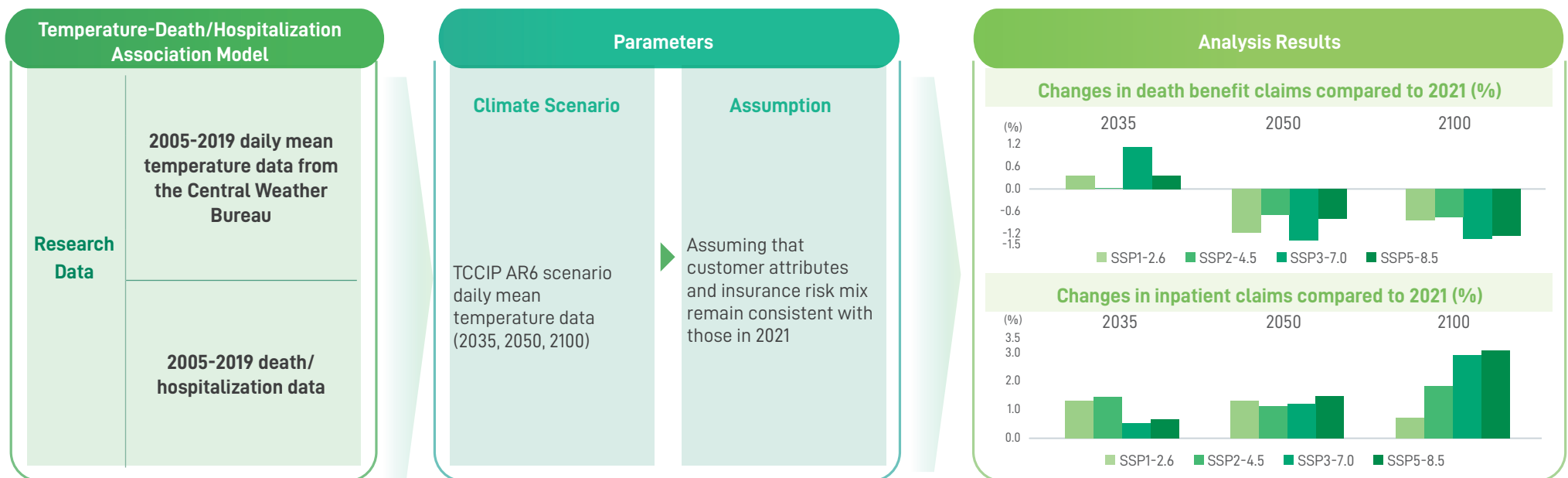
Cathay will continue to closely monitor car insurance claims trends and refine the model as needed to more accurately predict future trends under the impact of climate change. The assessment results will be used as a reference for the long-term planning of Cathay Century's car insurance premium consideration and reinsurance arrangements.

## H. Impact on death and hospitalization medical benefits from temperature changes

### ● Background

Climate change has led to a steady rise in global temperatures, resulting in global heat waves in recent years. The combination of global warming and the urban heat island effect has increased the frequency and duration of heat waves in Taiwan, which may become the new normal if the current trend continues. In response, Cathay Life uses historical data (2005-2019) on weather and death/hospitalization, as well as AR6 climate scenario analysis data available on the Taiwan Climate Change Projection Information and Adaptation Knowledge Platform (TCCIP) to conduct our analysis. We have built a model to assess the impact of rising temperatures on death rates from all causes and hospitalization rates, which will help us understand the outlook for life insurance and inpatient claims.

### ● Analysis Procedure and Results



**Overview** Based on the simulation conducted using TCCIP's SSP-RCP climate scenarios in Taiwan, the number of high-temperature days across Taiwan will increase while the number of high-risk low-temperature days will decrease. Taiwanese people tend to be more adaptable to high temperatures than to low temperatures. Below are the preliminary assessment results based on the assumption that our customer structure remains the same:

- ▶ The increase in temperature is expected to cause a small decrease in the overall mortality rate of 0.8%- 1.26%, and the impact on insurance claims is not significant.
- ▶ The increase in temperature is expected to cause an increase in the overall inpatient admission rate of 1.49%- 3.07%. In particularly extreme scenarios, the rate may increase to 10.04%. However, most Taiwanese families install air conditioners to cope with the summer heat, which means that heat waves do not cause as much health damage in Taiwan as in Western countries. °

### ● Resilience Evaluation Outcome

Based on the results of the analysis, the impact of climate change on death and inpatient claims is approximately -1.26%- 3.07%, indicating the inference is not significant.

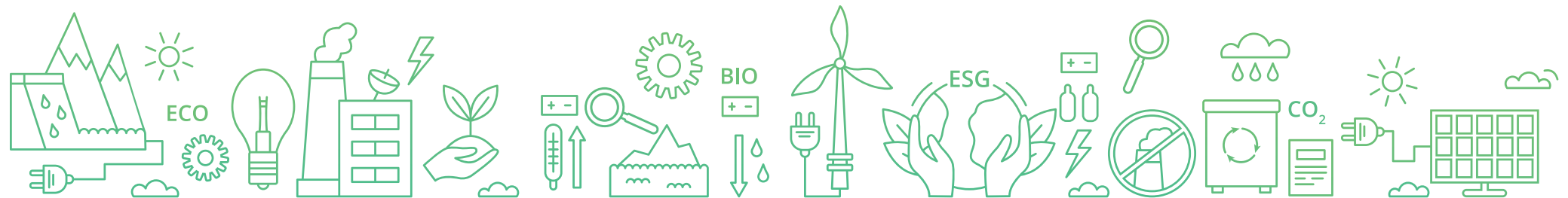
### ● Risk Response Measures

Numerous national and international studies have shown that climate change is likely to intensify extreme weather events, such as storms and typhoons, and even contribute to the spread of infectious diseases. However, due to the limited accessibility of relevant research and data in Taiwan, our current research is restricted to the direct impact of a single warming factor. We will continue to refine our research and analysis to gain a more accurate insight into the impact of climate risk on personal insurance products.

## 2.4.5 Climate Strategy Resilience

The scenario analysis reveals that climate-related risks have a more significant financial impact on investment and lending. In response, Cathay has prioritized the integration of a "low carbon economy" aspect into its climate strategy as an essential task. Cathay has been actively promoting the allocation of investments and financing towards low-carbon initiatives, while also strengthening risk management practices in this area. CVaR for Cathay's marketable securities has shown improvement in recent years. Cathay's low-carbon investment and financing strategy has improved the resilience of the relevant assets.

Climate change is expected to have a long-term impact on typhoon and flood insurance claims. In response, Cathay Century is taking steps to manage these risks and develop financial products and services that can help increase the resilience of its liabilities. Although the impact of climate change on our operations is expected to be less significant, Cathay is still committed to implementing environmental sustainability strategies to ensure that our operations can withstand future challenges and meet the expectations of society.





A full-page background image showing a dolphin swimming in a cave. Sunlight rays stream down from an opening above, illuminating the water and the sandy, rocky floor of the cave. The dolphin is in the center, swimming towards the right.

# CH 3

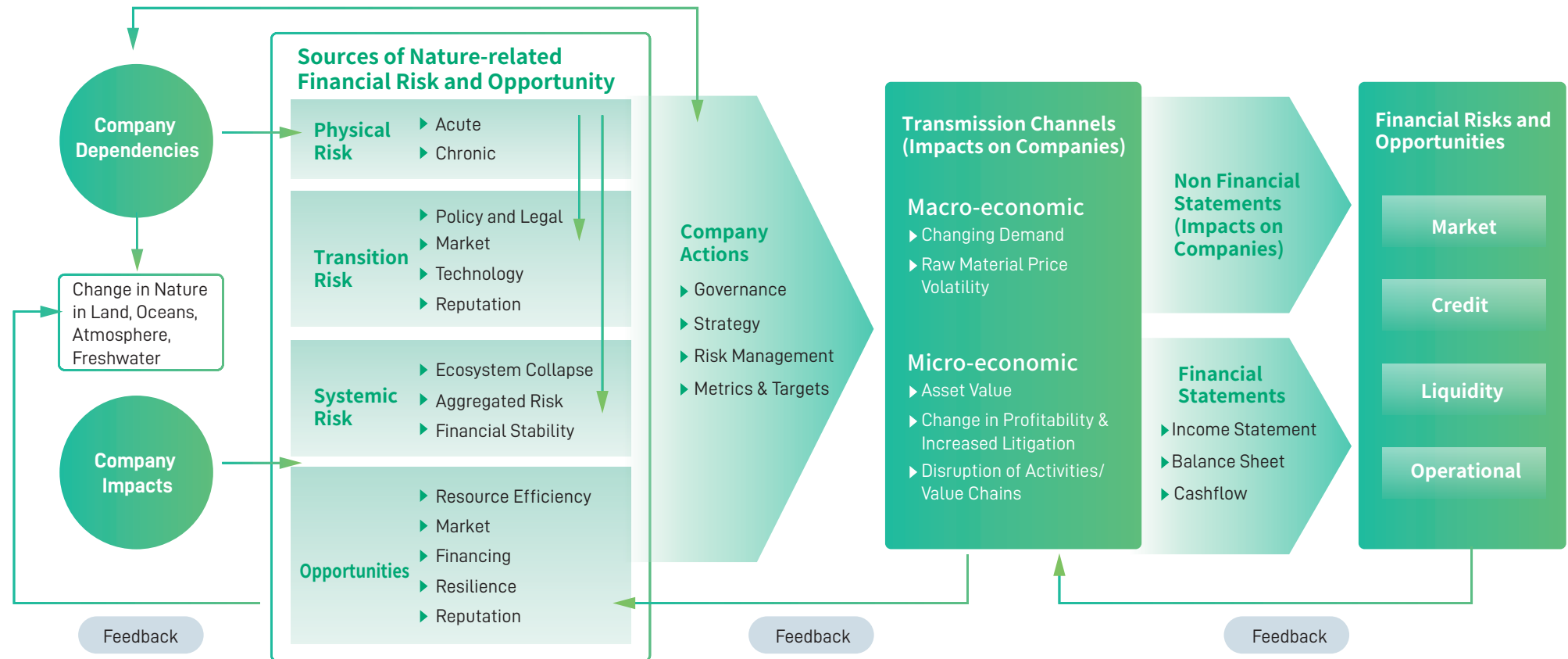
## Nature-related Risk Management

- 3.1 Cathay's Perspective
- 3.2 Participation in International Initiatives
- 3.3 Identifying Nature-related Risks and Opportunities
- 3.4 Nature-related Risk Management



## 3.1 Cathay's Perspective

Cathay has continued to monitor the major impacts that nature-related risks and opportunities may have on our business and operations. The 2022 United Nations Biodiversity Conference (COP15) amended and finalized the "Post-2020 Global Biodiversity Framework" in December 2022. The TNFD task force also released a comprehensive framework for disclosure in September. We project that in the future, biodiversity and climate change will garner the same level of concern from the worldwide community. In addition to avidly participating in external initiatives related to biodiversity, Cathay is also ramping up efforts to reduce the possible negative impacts on the ecosystem and biodiversity arising from our operations, as well as continuing to monitor and adopt the latest changes to nature-related financial disclosure frameworks. As of the end of 2022, Cathay's TCFD task force has preliminarily identified the impact of nature-related damages on our business and operations in accordance with the TNFD v0.2 draft. We are also planning to partner with external institutions to predict and respond to potential nature-related risks and opportunities.



Transmission of Nature-related Risks and Opportunities (based on TNFD v0.4)



## 3.2 Participation in International Initiatives

Cathay continues to participate and respond to issues related to biodiversity and nature. CUB became Taiwan's first signatory to the Equator Principles (EPs) in 2015 and incorporated biodiversity data into project and financing management. Cathay FHC joined the Taskforce on Nature-related Financial Disclosures (TNFD) in August 2022 and in September of the same year, became Taiwan's first financial institution to join the Partnership for Biodiversity Accounting Financials (PBAF) in hopes of enhancing the management of biodiversity issues within the group's asset portfolios for more systematized management of natural capital.

Also, Cathay became Taiwan's only financial group to join Ceres' Valuing Water Finance Initiative, which officially launched in August 2022. The initiative plans to engage 72 companies worldwide that consume or pollute the greatest amount of water from the four major industries - food, beverages, apparel, and tech. The hope is that these companies can incorporate water resources in their assessment of financial risks and take subsequent action. Cathay also joined the Taiwan Nature Positive Initiative (TNPI) in December 2022 along with seven other companies in response to biodiversity issues. In February 2023, Cathay joined the international initiative Business for Nature coalition to promote the establishment of a worldwide nature-related policy.



Over 400 business and financial institutions representing 53 countries and over US\$ 2 trillion in total income are calling upon governments across the world to legally mandate that all major corporations and financial institutions assess and disclose biodiversity impacts and dependency by 2030.



Alongside other Taiwan corporations, Cathay supported BCSD Taiwan in establishing the TNPI in hopes of galvanizing the private sector to take greater action for nature, biodiversity, and wildlife conservation issues, cultivate relevant professional talents, as well as enhance the transparency with which businesses manage nature-related risks and opportunities for greater resilience.



Became the first company in Taiwan to join PBAF in hopes of enhancing the management of biodiversity issues within the group's asset portfolio for more systematic management of natural capital.



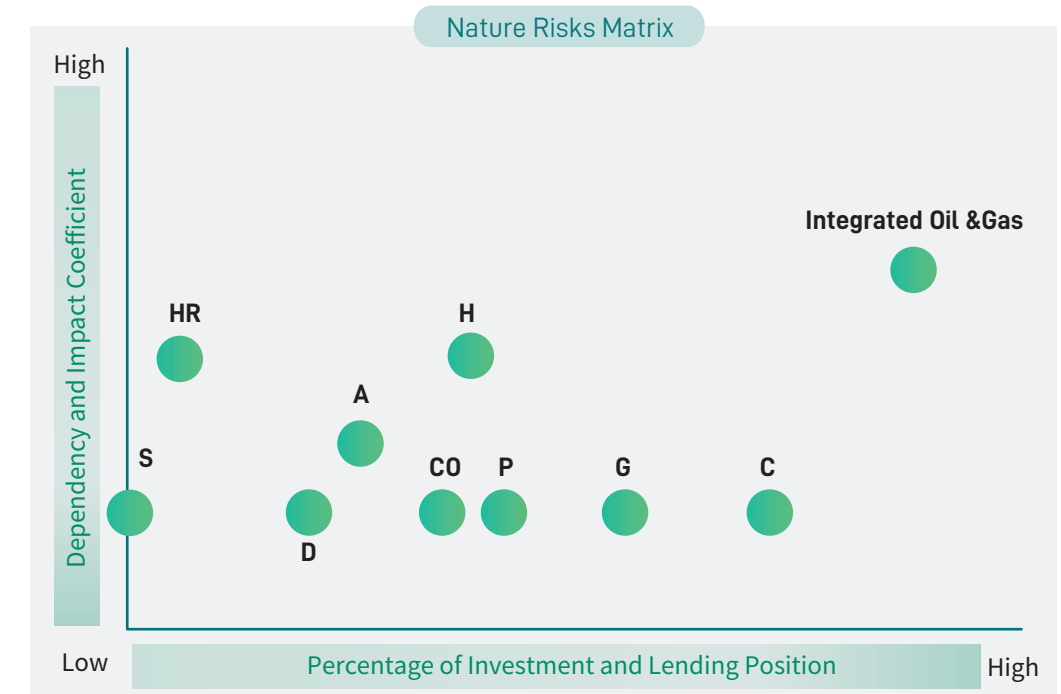
In accordance with the TNFD framework, Cathay continues to strengthen nature-related risks and response measures through governance, strategies, risk & impact management, and metrics & targets.



## 3.3 Identifying Nature-related Risks and Opportunities

When the TNFD announced the v0.1 draft disclosure in March 2022, Cathay immediately tasked the TCFD task force with examining the guidelines. In the latter half of 2022, the LEAP (Locate, Evaluate, Assess, Prepare) method for assessing risks and opportunities was published in TNFD v0.2, and the TCFD task force set out to identify nature-related risks and opportunities within investment and lending positions. Cathay uses ENCORE<sup>Note</sup> to prioritize nature-related risks. Coupled with risk exposure of investment and lending positions, we have been seeking to identify industries within the group with high nature-related risks in preparation for officially adopting the TNFD disclosure framework in June 2023. We identified the petroleum industry was exposed to more nature-related risks as a whole and further identified the main factors contributing to its nature-related dependency and impact. Considering the potential financial impact on Cathay, we are researching response measures for the corresponding risks.

Note : ENCORE is a tool developed by the United Nations Environment Programme (UNEP) World Conservation Monitoring Centre (WCMC) and the Natural Capital Finance Alliance for assessing nature-related dependency and impact.



## 3.4 Nature-related Risk Management

In the process of identifying nature-related risks and opportunities, Cathay has developed a profound understanding of the importance of managing the impact of nature-related risks on our sustainable development. Cathay FHC and its subsidiaries have also begun instituting relevant investment and lending policies to conduct risks assessment and management before, during, and after investing in or lending to industries that pose major hazards to the ecosystem and environment:

- ▶ CUB: Compiled an exclusion list of industries that pose major hazards to the ecosystem and environment, such as tropical rainforest logging, use and production of gillnets, the tobacco industry, mining, coal-related industries, upstream mining of oil and natural gas, etc.
- ▶ Cathay Life: Divides businesses involved in ecosystem-/environment-sensitive industries into an investment exclusion list and a watchlist (which requires reporting and deliberation) to strengthen nature-related risk management in investments. Sensitive industries include palm oil and lumbering industry, coal-related industries, oil and natural gas-related industries, etc.
- ▶ Cathay Century: Ecosystem-/environment-sensitive industries, such as the tobacco industry, tropical rainforest logging, and mining, are excluded from investments.





# CH 4

## Race to Net Zero and Nature Positive

Cathay aims to be the best financial institution in the Asia Pacific. As such, we continue to incorporate sustainability into our decision-making processes and exert the influence of capital to achieve sustainable finance. Through a series of trend analyses, internal interviews, and consensus building, Cathay has honed in on "Climate" as the main focus for our sustainable development strategy. We aim to achieve net zero emissions by 2050 and pledged to support RE100 by setting and getting approval for Science Based Targets to reduce carbon emissions. We also pioneered a climate strategy blueprint that incorporates environmental sustainability and low-carbon economy concepts to realize net zero goals within our operations and financial assets, thereby enhancing our resilience and value.

Cathay not only continues to strive towards net zero emissions, but we also care about maintaining ecosystem functions and biodiversity for the benefit of humankind. This is also integral to our own sustainable development. That's why we have voluntarily joined many global initiatives and are planning to enhance cooperation with other entities to explore innovative solutions of economic, environmental, and social values - driving nature-positive projects.

Climate change is closely tied to biodiversity. Persisting on zero carbon goals and protecting the environment is not only our business strategy, but it is also our inherent duty. As a pioneer of green finance, Cathay bears the responsibility of directing capital to prompt more companies to engage in the low-carbon transition. Also, through innovative financial tools and business strategies, we are trying to promote nature-positive projects worldwide to inject the value of sustainability into the core of our brand - creating greater long-term returns and value for our customers, shareholders, and relevant stakeholders.



# TCFD Index

Aspect	TCFD Recommended Disclosures	Chapter of Disclosure	Page
Governance	a. Describe the board's oversight of climate-related risks and opportunities.	2.1 Climate Governance Framework	P.42
	b. Describe management's role in assessing and managing climate-related risks and opportunities.	2.1 Climate Governance Framework	P.42
Strategy	a. Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	Climate Risks and Opportunities	P.6
	b. Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	Climate Risks and Opportunities 1.1 Climate Strategy Blueprint 1.2 Low-Carbon Economy Driver 1.3 Environmental Sustainability Practices	P.6 P.9 P.12 P.28
	c. Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2° C or lower scenario.	2.4 Climate Scenario Analysis	P.52
Risk Management	a. Describe the organization's processes for identifying and assessing climate-related risks	Climate Risks and Opportunities	P.6
	b. Describe the organization's processes for managing climate-related risks.	2.2 Risk Management Framework	P.44
	c. Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	2.2 Risk Management Framework 2.3 Climate Risk Management	P.44 P.46
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.	1.2 Low-Carbon Economy Driver 1.3 Environmental Sustainability Practices	P.12 P.28
	b. Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.	1.2 Low-Carbon Economy Driver 1.3 Environmental Sustainability Practices	P.12 P.28
	c. Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	1.2 Low-Carbon Economy Driver 1.3 Environmental Sustainability Practices	P.12 P.28



Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix

# IFRS S2 Index

Aspect	IFRS S2 Recommended Disclosures	Chapter of Disclosure	Page
<b>Objective</b>	Articles 1 & 0	Applicable to all	-
<b>Scope</b>	Article 3	Applicable to all	-
<b>Governance</b>	Article 4-6	2.1 Climate Governance Framework	P.42
<b>Strategy</b>	Article 7 & 8	1.1 Climate Strategy Blueprint	P.9
	Article 9-12	Climate Risks and Opportunities	P.6
	Article 13	1.1 Climate Strategy Blueprint	P.9
		1.2 Low-Carbon Economy Driver	P.12
		1.3 Environmental Sustainability Practices	P.28
	Article 14	1.1 Climate Strategy Blueprint	P.9
<b>Risk Management</b>	Article 15	1.2 Low-Carbon Economy Driver	P.12
		1.3 Environmental Sustainability Practices	P.28
		2.4 Climate Scenario Analysis	P.52
<b>Metrics and Targets</b>	Article 16-18	Climate Risks and Opportunities	P.6
		2.2 Risk Management Framework	P.44
		2.3 Climate Risk Management	P.46
	Article 19 & 20	1.2 Low-Carbon Economy Driver	P.12
		1.3 Environmental Sustainability Practices	P.28
<b>Metrics and Targets</b>	Article 21 & 22	1.2 Low-Carbon Economy Driver	P.12
		1.3 Environmental Sustainability Practices	P.28
	Article 23 & 24	1.2 Low-Carbon Economy Driver 1.3 Environmental Sustainability Practices	P.12 P.28

Note: For detailed information for each article, please refer to the "[Draft] IFRS S2 Climate-related Disclosures" posted by the Accounting Research and Development Foundation.

# TNFD Index

Aspect	TNFD Recommended Disclosures	Chapter of Disclosure	Page
Governance	a. Describe the board's oversight of nature-related dependencies, impacts, risks and opportunities	In progress	-
	b. Describe management's role in assessing and managing nature-related dependencies, impacts, risk and opportunities	In progress	-
Strategy	a. Describe the nature-related dependencies, impacts, risks and opportunities the organization has identified over the short, medium and long term	3.1 Cathay's Perspective	P.65
	b. Describe the effect nature-related risks and opportunities have had on the organization's businesses, strategy and financial planning	3.1 Cathay's Perspective	P.65
	c. Describe the resilience of the organization's strategy to nature-related risks and opportunities, taking into consideration different scenarios	In progress	-
	d. Disclose the locations where there are assets and/or activities in the organization's direct operations, and upstream and/or downstream and/or financed where relevant, that are in priority areas	In progress	-
Risk & Impact Management	a.(i) Describe the organization's processes for identifying and assessing nature-related dependencies, impacts, risks and opportunities in its direct operations	3.3 Identifying Nature-related Risks and Opportunities	P.67
	a.(ii) Describe the organization's approach to identifying nature-related dependencies, impacts, risks and opportunities in its upstream and downstream value chain(s) and financed activities and assets	3.3 Identifying Nature-related Risks and Opportunities	P.67
	b. Describe the organization's processes for managing nature-related dependencies, impacts, risks and opportunities and actions taken in light of these processes	3.4 Nature-related Risk Management	P.67
	c. Describe how processes for identifying, assessing and managing nature-related risks are integrated into the organization's overall risk management	3.4 Nature-related Risk Management	P.67
	d. Describe how affected stakeholders are engaged by the organization in its assessment, and response to, nature-related dependencies, impacts, risks and opportunities	4 Race to Net Zero and Nature Positive	P.68
Metrics & Targets	a. Disclose the metrics used by the organization to assess and manage material nature-related risks and opportunities in line with its strategy and risk management process	In progress	-
	b. Disclose the metrics used by the organization to assess and manage dependencies and impacts on nature	In progress	-
	c. Describe the targets and goals used by the organization to manage nature-related dependencies, impacts, risks and opportunities and its performance against these	In progress	-

Note: The Index refers to "The TNFD Nature-related Risk and Opportunity and Disclosure Framework beta v0.4".



# Important Metrics and Targets

## Carbon Accounting for Investment/Lending Asset

### Total Carbon Footprint of Investment Portfolios

	Total Emissions of Investment Portfolios			Economic Carbon Intensity			Weighted Average Carbon Intensity (WACI)		
	Unit: tCO <sub>2</sub> e			Unit: tCO <sub>2</sub> e/NT\$1M			Unit: tCO <sub>2</sub> e/US\$1M		
As of December 31	2020	2021	2022	2020	2021	2022	2020	2021	2022
Proprietary Investment Assets									
<b>Total</b>	12,708,091	11,267,423	9,770,234	3.34	2.71	2.24	278.26	247.86	226.26
<b>Listed Equity</b>	1,025,288	1,059,599	545,094	0.27	0.26	0.12	-	-	12.76
<b>Corporate Bonds</b>	11,682,803	10,207,824	9,225,140	3.07	2.46	2.12	-	-	213.50
Assets under Investment Mandate									
<b>Total</b>	824,008	1,272,443	997,369	2.91	3.69	1.32	276.14	241.07	191.37
<b>Listed Equity</b>	230,101	311,296	408,808	0.81	0.90	1.25	-	-	74.73
<b>Corporate Bonds</b>	593,907	961,146	588,561	2.10	2.79	0.07	-	-	116.64

		Proprietary Investment Assets			Assets under Investment Mandate		
		Total Emissions of Investment Portfolios	Economic Carbon Intensity	Weighted Average Carbon Intensity (WACI)	Total Emissions of Investment Portfolios	Economic Carbon Intensity	Weighted Average Carbon Intensity (WACI)
As of December 31, 2022		Unit: tCO <sub>2</sub> e	Unit: tCO <sub>2</sub> e/NT\$1M	Unit: tCO <sub>2</sub> e/US\$1M	Unit: tCO <sub>2</sub> e	Unit: tCO <sub>2</sub> e/NT\$1M	Unit: tCO <sub>2</sub> e/US\$1M
Industry	<b>Energy</b>	3,414,689	0.78	44.37	254,532	0.02	38.54
	<b>Raw Material</b>	1,167,575	0.27	15.96	311,405	0.11	51.14
	<b>Industrial</b>	274,715	0.06	19.24	60,271	0.06	13.87
	<b>Consumer Discretionary</b>	49,258	0.01	1.04	17,945	0.29	3.65
	<b>Consumer Staple</b>	224,120	0.05	2.68	10,206	0.05	1.65
	<b>Healthcare</b>	35,132	0.01	0.83	4,015	0.01	1.11
	<b>Finance</b>	216,024	0.05	3.88	25,135	0.06	5.95
	<b>Information Technology</b>	280,992	0.06	9.73	123,166	0.18	23.08
	<b>Communication</b>	200,842	0.05	3.97	20,690	0.46	4.00
	<b>Public Utility</b>	3,883,491	0.89	122.80	166,745	0.02	47.76
	<b>Real Estate</b>	23,395	0.01	2.05	996	0.03	0.28

## Climate and Nature Related Actions

### Message from the Chairman

### About This Report

### Climate Risks and Opportunities

### 1 Climate Strategies and Progress

### 2 Governance and Risk Management

### 3 Nature-related Risk Management

### 4 Race to Net Zero and Nature Positive

### Appendix



		Proprietary Investment Assets			Assets under Investment Mandate		
		Total Emissions of Investment Portfolios	Economic Carbon Intensity	Weighted Average Carbon Intensity (WACI)	Total Emissions of Investment Portfolios	Economic Carbon Intensity	Weighted Average Carbon Intensity (WACI)
As of December 31, 2022		Unit: tCO <sub>2</sub> e	Unit: tCO <sub>2</sub> e/NT\$1M	Unit: tCO <sub>2</sub> e/US\$1M	Unit: tCO <sub>2</sub> e	Unit: tCO <sub>2</sub> e/NT\$1M	Unit: tCO <sub>2</sub> e/US\$1M
Region	Taiwan	720,864	0.17	16.24	337,029	0.05	59.55
	Asia Pacific	2,111,403	0.48	55.87	118,302	1.08	18.87
	The Americas	5,613,370	1.29	124.38	417,044	0.08	84.92
	Europe	872,415	0.20	18.82	82,194	0.09	13.82
	Others	452,182	0.10	10.95	32,119	0.03	9.61

## Carbon Footprint of Lending Portfolios

Unit: tCO<sub>2</sub>e

	Total Emissions of Lending Portfolios		
As of December 31	2020	2021	2022
<b>Total</b>	653,499	633,825	573,567
<b>Electricity Generation Project Finance</b>	53,059	171,883	152,493
<b>Commercial Real Estate Mortgage Loan</b>	30,722	29,282	36,123
<b>Long-Term Corporate Loans</b>	569,718	432,660	384,951

As of December 31, 2022		Total Emissions of Lending Assets
Industry	Energy	10,947
	Raw Material	110,966
	Industrial	67,719
	Consumer Discretionary	27,169
	Consumer Staple	52,124
	Healthcare	1,676
	Finance	34,961
	Information Technology	21,067
	Communication	3,487
	Public Utility	50,490
	Real Estate	4,346

As of December 31, 2022		Total Emissions of Lending Assets
Region	Taiwan	197,599
	Asia Pacific	187,351
	The Americas	-
	Europe	-
	Others	-

Detailed information of Carbon Accounting for Investment and Lending Assets were listed below:

Note 1: We used the methodology developed by the Partnership for Carbon Accounting Financials to calculate total carbon emissions and economic emissions intensity.

Note 2: Weighted average carbon intensity (WACI) is calculated using the methodology recommended by the TCFD.

Note 3: Proprietary investment assets include the assets of Cathay Life, CUB, Cathay Century, Cathay Security. Assets under investment mandate are from Cathay SITE. Lending portfolios are from CUB.

Note 4: Carbon data coverage is 100% for proprietary investments and assets and 93% for assets under investment mandates.

Note 5: Based on the PCAF methodology, the carbon data quality score for proprietary investments and assets was 2.52, while the carbon data quality score for assets under investment mandates was 2.04, and that for lending assets was 3.73.





Cathay  
Financial Holdings

Climate and Nature  
Related Actions

Message from the  
Chairman

About This Report

Climate Risks and  
Opportunities

1 Climate Strategies and  
Progress

2 Governance and Risk  
Management

3 Nature-related Risk  
Management

4 Race to Net Zero and  
Nature Positive

Appendix

## Carbon Footprint of Property Insurance Product Portfolios

Type of Insurance (Unit : tCO <sub>2</sub> e)	Commercial Insurance				Automobile Insurance
	Commercial Fire Insurance	Engineering Insurance	Accident Insurance	Marine Insurance	
<b>Total Emissions in 2022</b>	4,737	270	0.3	49	246,107

Note 1: The commercial insurance only included industries sensitive to climate risks and energy industry.

Note2: Based on the PCAF methodology, the carbon data quality score for commercial insurance was 4.69, while the carbon data quality score for automobile insurance was 3.84.

## Amount of Investment and Financing in Low Carbon and Infrastructure

Unit: NT\$100M	2020		2021		2022	
	Investment	Lending	Investment	Lending	Investment	Lending
<b>Low Carbon</b>	1,178	252	2,076	314	2,679	379
Alternative Energy	119	114	235	172	409	205
Buildings	746	32	767	44	694	71
Waste Recycling	42	35	50	48	42	36
Transportation	547	70	707	40	835	57
Energy-Efficient Industries	151	2	121	9	178	10
Green bonds	143	0	196	0	520	0
Natural Carbon Sinks	-	-	-	-	0	0
<b>Infrastructure</b>	6,623	669	7,377	711	8,329	781
Transportation Facilities	523	53	605	67	751	68
Public Utilities Infrastructure	5,264	434	5,863	447	6,493	441
Social Housing and Elderly Residence Projects	0	152	0	149	0	237
Environmental Remediation/Protection Facilities	34	31	48	48	39	33
Low-Carbon Transition-Related Infrastructure	-	-	-	-	15	2
Infrastructure Construction and Software	802	0	861	0	1,032	0

Detailed information of Carbon Accounting for Greenhouse Gas Emissions were listed below:

Note 1: Cathay adopted the new version of ISO 14064-1:2018 standards in 2018. We commissioned BSI to conduct external third-party audits in 2020.

Note 2: The GHG inventory is based on operational control. The scope of the inventory is 100% and Scope 2 is calculated using a market-based approach.

Note 3: Scope 2 consists of emissions associated with electricity. The Bureau of Energy has adjusted the historical electricity emission factor; the current calculation uses the updated factor, which is 0.533 (2019), 0.509 (2020), and 0.502 (2021) kg CO<sub>2</sub>e/kWh. The GHG inventory is based on the reference information from GWP AR5 and the EPA GHG Emissions Factors Management Guide 6.0.4.

Note 4: The number of employees at the locations in the scope of the inventory is 47,267 (2020), 46,427 (2021), and 46,157(2022).

Note 5: Business travel emissions include employee travel on the Taiwan High Speed Rail (THSR) and flights. Emissions are calculated based on International Civil Aviation Organization (ICAO) and THSR data (34g CO<sub>2</sub>e/person-km). As business travel is conducted in accordance with Cathay's business needs and is not a major category of emissions, it is not included in the management indicators.

Note 6: In 2020, Cathay reviewed and adjusted the scope of the report based on our business needs and the management of Scope 1 and Scope 2 emissions. We use 2020 as the base year for setting emission reduction targets.

## Greenhouse Gas Emissions

Unit: tCO <sub>2</sub> e	2020	2021		2022	
<b>Scope 1 Emissions</b>	3,816.05	Taiwan	3,712.39	Taiwan	3,971.91
		Overseas	393.02	Overseas	830.54
<b>Scope 2 Emissions (Market-based Emission)</b>	56,427.61	Taiwan	52,817.70	Taiwan	48,521.37
		Overseas	3,051.15	Overseas	6,423.35
<b>Scope 2 Emissions (Location-based Emission)</b>	56,429.13	Taiwan	53,038.08	Taiwan	52,882.81
		Overseas	3,051.15	Overseas	6,423.35
<b>Scope 1 + Scope 2 (Market-based Emissions)</b>	60,243.66	Taiwan	56,530.09	Taiwan	52,493.28
		Overseas	3,444.16	Overseas	7,253.89
<b>Scope 1 + Scope 2 (Location-based Emissions)</b>	60,245.18	Taiwan	56,750.47	Taiwan	56,854.72
		Overseas	3,444.16	Overseas	7,253.89
<b>Scope 3: Purchased Goods and Services</b>	1,771.3	1,612.53		1,744.34	
<b>Scope 3: Fuel and Energy Related Activities</b>	14,412.16	13,742.7		9,598.70	
<b>Scope 3: Upstream Transportation and Distribution</b>	3.93	3.004		3.00	
<b>Scope 3: Waste Generated in Operations</b>	249.77	212.99		204.77	
<b>Scope 3: Business Travel</b>	175.25	76.34		143.51	
<b>Scope 3: Downstream Transportation and Distribution</b>	23.1	25.47		28.53	
<b>Scope 3: Use of Sold Products and Services</b>	1,634.32	1,612.53		1,543.38	
<b>Scope 3: End-of-life Treatment of Sold Products and Services</b>	8.68	142.59		136.31	



## Green Operations

	2020	2021	2022
Per Capita Carbon Emissions (tCO <sub>2</sub> e per capita)	1.27	1.22	1.29
Carbon Intensity (tCO <sub>2</sub> e/NT\$1M)	0.79	0.43	1.57
Water Consumption (cubic meters)	711,445	596,154	608,228
Per Capita Water Consumption (cubic meters per capita)	15.05	12.84	13.34
Total Waste (metric tons)	2,558.75	2,103.45	1,977.93
Recycled Waste (metric tons)	1,022.74	857.16	790.39
General Waste (metric tons)	1,536.01	1,246.29	1,187.54
Per Capita Waste (kilogram per capita)	32.5	26.84	26.04
Amount of Green Procurement (NT\$100M)	3.03	3.02	4.76
Local Procurement (%)	99.20	95.70	97.1

## Green Energy

	2020	2021		2022	
Energy Use (GJ)	407,020	387,965.10		382,275.25	
Electricity Consumption (kWh)	110,862,737	Taiwan	105,713,107	Taiwan	104,140,509
		Overseas	4,875,229	Overseas	9,686,164
Per Capita Electric Power Consumption (kWh per capita)	2,345.46	2,271.65		2,278.52	
Renewable Energy Use (kWh)	272,000	686,000		8,813,652	
Solar PV Cumulative Capacity (kW) <sup>Note1</sup>	6,780	6,970		6,950 <sup>Note2</sup>	

Note 1: Solar PV capacity includes FIT and onsite self-use PV system. Cathay Life's solar PV capacity also includes Cathay-owned properties that lease space to power companies for solar PV installation.

Note 2: CUB Mingcheng Branch was not installed solar PV after its relocation, therefore the cumulative capacity down in 2022.

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