

Initiatives to Address Climate Change —Addressing the TCFD Recommendations—

Initiatives to Address Climate Change

Climate change is an urgent priority, with global warming driving a rise in the frequency of natural disasters in recent years. As shown in the Paris Agreement adopted in 2015, the IPCC* Report and the Japanese government’s policies, society as a whole must respond to the problem of climate change.

Nippon Life views initiatives for climate change as an important management matter and has identified them as an important sustainability priority. We are proactively moving ahead with various kinds of initiatives to create a decarbonized society.

* Intergovernmental Panel on Climate Change. The IPCC prepares reports every five to seven years and provides the latest scientific knowledge on climate change.

Core Elements of the TCFD* Recommendations and Status of Principal Measures

Core elements of the TCFD recommendations	Status of principal measures
Governance	Based on the details of the study of climate change strategies and risk management by the Sustainability Committee and the Risk Management Committee, the Management Committee and the Board of Directors deliberate on and pass plans for business strategies, including the impact of climate change on the management of Nippon Life
Strategies (risks and opportunities)	Conduct scenario analysis of both the life insurance business and asset management and assess the impact from climate change
Risk management	Integrated management of the overall impact of the various types of risks, including climate change risks, on operations
Indicators and targets	Set a net-zero target for fiscal 2050 and an intermediary target for fiscal 2030, for both the life insurance business and asset management

* Task Force on Climate-related Financial Disclosures. Recommends disclosure of the financial impacts of the risks and opportunities created by climate change. Nippon Life declared its agreement with the TCFD recommendations in December 2018.

Governance

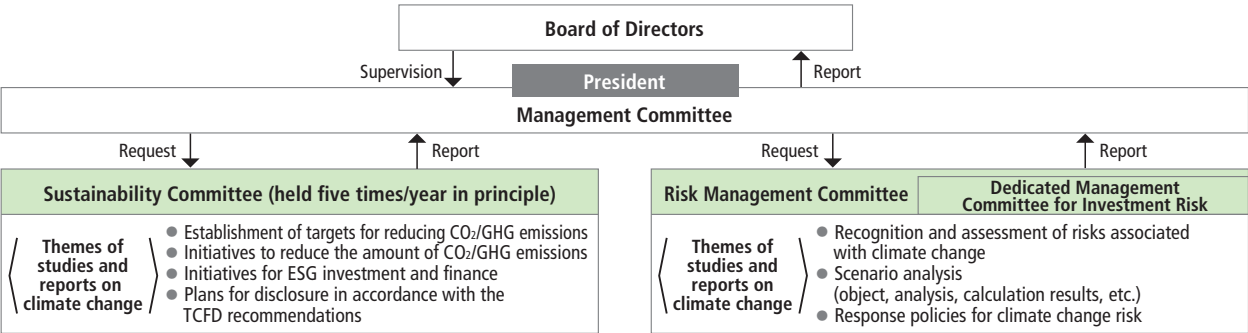
In our Mid-Term Management Plan (2021-2023), Nippon Life has positioned sustainability management as a core principle of business management. We view initiatives for climate change as an important business matter, and the Management Committee and the Board of Directors deliberate on and pass business strategies and future measurements based on the impact of climate change on the management of the Company.

The Sustainability Committee and the Risk Management Committee have been established as advisory bodies to the Management Committee. The Sustainability Committee establishes the initiatives and targets for climate change and formulates the action policies. In addition, the Risk Management Committee and its advisory body, the Dedicated Management Committee for Investment Risk, recognize and assess the risks associated with

climate change and conducts scenario analyses.

The results of the deliberations by these committees are reported to the Management Committee and the Board of Directors. The Management Committee controls business operations and the Board of Directors makes decisions on and supervises important business operations. Furthermore, the Outside Directors Committee (the Outside Directors Meeting, since the July 2022 transition to a Company with an Auditing and Supervisory Committee), which is the advisory body of the Board of Directors, deliberates on the status of sustainability management promotion, including climate change initiatives. The extensive knowledge of the outside directors is proactively reflected in our management and promotes our initiatives.

Governance System for Responding to Climate Change



Strategies (Risks and Opportunities) and Risk Management

At Nippon Life, we recognize the impact (risks and opportunities) of climate change on our business in the fields of the life insurance business and asset management, and we are promoting initiatives, based on the findings of analysis using climate-related scenarios, to control risk and increase resilience.

We also conduct integrated risk management from the perspective of systematically managing the overall impacts that various risks, including climate change, could have on the Company (for details on risk management, please see p. 111).

Field of the Life Insurance Business

In light of the long-term nature of life insurance policies, Nippon Life recognizes as a physical risk the impact that higher average temperatures driven by global warming, and the increasing severity of extreme weather can have on people’s health over the mid- and long-term. The Assessment Report on Climate Change Impacts in Japan published by the Ministry of the Environment reported various impacts due to climate change, including impacts in the human health sector (increased risk of heat-related mortality and heatstroke, decreased deaths in winter, increased risk of respiratory illness and death due to enhanced production of air pollutants [ozone, etc.]) and impacts in the natural disasters sector.

We are focusing our attention on the relationship between

rising temperatures and the health and mortality risks, where the relative probability is high, and are conducting quantitative analyses. When we conducted an analysis, using scenarios that envision increases of 2°C or 4°C in the average temperature, of the impact on mortality rates and mortality insurance coverage accompanying rises in summer temperatures (heat), the results of our calculations showed an increase in the mortality rate of about 0.5% and an increase in mortality insurance coverage of about ¥3.5 billion with a temperature increase of 2°C, and an increase in the mortality rate of about 1.0% and an increase in mortality insurance coverage of about ¥7 billion with a temperature increase of 4°C.

Scenario Analysis Findings in the Life Insurance Business

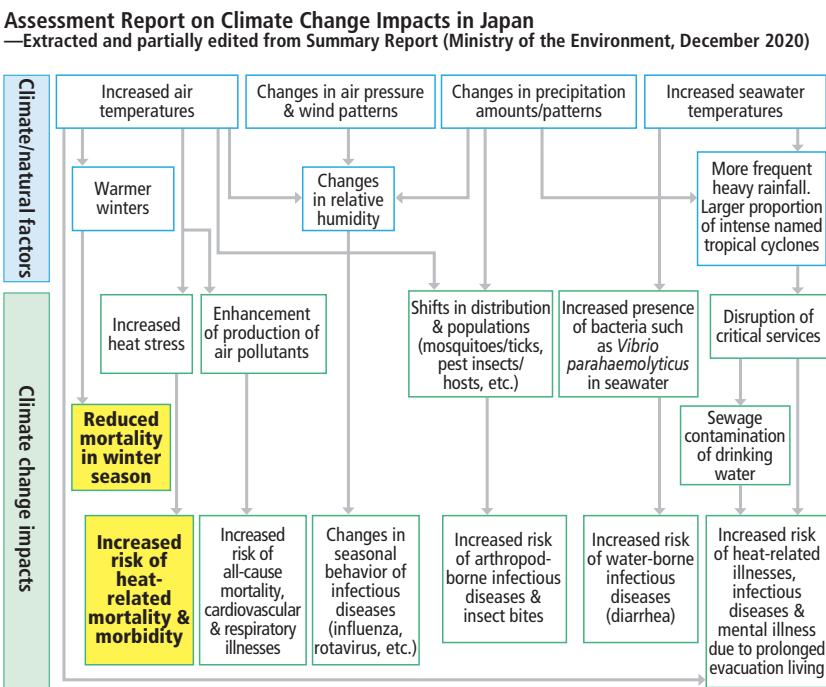
Scenario used	Impact on mortality rate	Impact on mortality insurance coverage (annually)	Reference: Actual mortality insurance coverage (FY2021)
2°C increase (see RCP 2.6 scenario)	About +0.5%	About +¥3.5 billion	Approx. ¥761.1 billion
4°C increase (see RCP 8.5 scenario)	About +1.0%	About +¥7 billion	

Notes: 1. Nippon Life analysis based on the Ministry of the Environment’s “Environment Research and Technology Development Fund S-8 Comprehensive Study on Impact Assessment and Adaptation for Climate Change (2010–2014)” (S-8 data), prepared by the National Institute for Environmental Studies (Center for Climate Change Adaptation).
2. RCPs (Representative Concentration Pathways): Scenarios of representative concentrations of greenhouse gases, used in climate model projection. Project that the average temperatures in the late 21st century (2081–2100) will rise by about 2°C (RCP 2.6) or about 4°C (RCP 8.5), based on average global temperatures from 1986–2005.

With the relevant calculation results, at the present time we believe that the impact on insurance profitability will be limited, based on the fact that the amount of mortality insurance payouts for the fiscal year ended March 31, 2022 is ¥761.1 billion and the fact that it will be possible to pay from the policy reserves accumulated to prepare for future payments.

When we conducted an analysis, using the same method, of the impact accompanying increases in winter temperatures, the results of our calculations showed a certain degree of improvement in the mortality rate.

While collaborating with research institutes, we will continue working to raise the sophistication of impact analysis in our life insurance business. Concurrently, we will strive to disclose the analysis findings and implement appropriate measures to address the relevant risks.



Initiatives to Address Climate Change —Addressing the TCFD Recommendations—

Asset Management

Nippon Life undertakes broad investment and finance in society as a whole to match the duration of its insurance policies from a mid- and long-term perspective. This is why we believe that the climate-related risks and opportunities in our investment and finance portfolio correspond with the climate change risks and opportuni-

ties faced by our investees and borrowers, which is to say society as a whole. Specifically, we look at the climate-related risks and opportunities in our investment and finance portfolio and its timeline thereof as shown below.

Identifying the Risks and Opportunities in Investment and Finance Portfolio

Risks and opportunities			Impact timeline		
			From present (short-term)	Around 2030 (mid-term)	Around 2050 (long-term)
Transition risks	Policy	Declining profitability due to introduction and enhancement of carbon-related regulations (carbon tax, emissions trading)	●	→	→
	Technologies	Declining competitiveness of existing technology and assets accompanying emergence of new technology		●	→
	Market	Declining demand for products and services due to changes in consumer behavior and preferences	●	→	→
Physical risks	Acute	Increased damage due to increasing frequency and severity of natural disasters	●	→	→
	Chronic	Increased damage due to extreme fluctuations in weather patterns			●
Opportunities	Resource efficiency	Improved production capacity and reduced costs due to efficient use of resources	●	→	→
	Technological	Improved competitiveness due to development of new technologies		●	→
	Market	Increased demand for products/services due to changes in consumer behavior/preferences	●	→	→

A standardized method for quantitative analysis of climate change risks has not yet been established at this time, so Nippon Life has undertaken surveys and analysis to improve analysis methods.

In 2021, we performed analyses based on Climate Value-at-Risk, a risk indicator provided by MSCI. Under multiple climate change scenarios, we measured the policy risks, technological

opportunities and physical risks of four assets (domestic stocks, foreign stocks, domestic bonds and foreign bonds) and compared them with the indices. The qualitative assessments are as follows. We recognize that there are issues with data constraints and the calculation process in these findings, and our surveys and analysis of risk assessment methods will continue going forward.

Analysis of Investment and Finance Portfolio Scenarios (Qualitative Evaluation)

Risks and opportunities if temperature increase scenarios change [Scenarios used: Scenarios of 1.5°C/2°C/3°C increase]	Policy risks [Costs due to policy changes/tightened regulations]	▶ The more scenarios minimize temperature increases, the more policies are enhanced and regulations tightened, and the risk of loss increases
	Technological opportunities [Profit opportunities due to low-carbon technologies, etc.]	▶ The more scenarios minimize temperature increases, the more low-carbon technologies are used and profit opportunities increase
Risks if temperatures continue to increase [Scenarios used: Scenarios of 4-6°C increases]	Physical risks [Costs and opportunities due to natural disasters, etc.]	▶ Increased risk of loss due to heat waves, coastal flooding, typhoons, etc.

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If the global environment that is the foundation for the business activities of all companies is lost due to the climate change problem, the impact will be enormous. That is why we rank the climate change problem as one of the most important of the

various social issues, and through various methods of ESG investment and finance*, we are implementing initiatives that take climate change-related risks and opportunities into account.

* Please see p. 58 for information about methods of ESG investment and finance.

Indicators and Targets

In order to help solve climate change issues, Nippon Life has established the following emission reduction targets for greenhouse gases, including CO₂, in the fields of business activities and asset management. In order to achieve total greenhouse gas emissions of net-zero in each field in fiscal 2050, we have established intermediary targets for fiscal 2030 and are promoting initiatives to reduce the amount of emissions.

Field of Business Activities (CO₂ Emissions Associated with Business Activities)

Nippon Life's CO₂ emission reduction targets are based on the reduction targets for the commercial and other units, to which financial institutions belong, in the Japanese government's Plan for Global Warming Countermeasures. In fiscal 2021, we raised the intermediary targets for fiscal 2030, from "-40%" to "-51% or more" (the base year is fiscal 2013, which is the same as the base year in the government's plan, and the total value is for the nine companies of the Nippon Life Group).

The scope of the CO₂ reduction targets is taken to be the scope by which Scope 1, 2 or 3 can be calculated based on the rules of the GHG Protocol, and those totals will be the reduction targets.

Total emissions for fiscal 2021 are about 190,000 t-CO₂ (-24% compared with fiscal 2013 and -4% compared with the previous fiscal year).

Notes: 1. For the breakdown and the specific initiatives related to emissions reduction, please see p. 78.
2. GHG Protocol: A global common standard for calculating and reporting on greenhouse gas (GHG) emissions.

CO₂ Emission Reduction Targets Associated with Business Activities

FY2030	FY2050	
Total emissions reduced by 51% or more (base year FY2013)	Total emissions: Net-zero	Main Domestic Subsidiaries: TAIJU LIFE INSURANCE COMPANY LIMITED, Nippon Wealth Life Insurance Co., Ltd., HANASAKU LIFE INSURANCE Co., Ltd., Nissay Asset Management Corporation, Nissay Leasing Co., Ltd., Nissay Information Technology Co., Ltd. Main Overseas Subsidiaries: Nippon Life Insurance Company of America, MLC Limited, Nippon Life India Asset Management Limited

Field of Asset Management (Greenhouse Gas Emissions in Investment and Finance Portfolio)

Regarding the emission of greenhouse gases in the investment and finance portfolio, Nippon Life has established intermediary targets for fiscal 2030 in order to steadily advance our initiatives while aiming for net-zero in fiscal 2050. Total emissions in fiscal 2020

were about 17.6 million tCO₂e (-32% compared with fiscal 2010) and we are continuing to work on reducing emissions.

Note: Please see pp. 60–61 for information about initiatives to reduce emissions in asset management.

Greenhouse Gas Emission Reduction Targets in Investment and Finance Portfolio

FY2030	FY2050	
Total emissions: Reduced by 45% or more (base year FY2010)	Total emissions: Net-zero	
Intensity: Reduced by 49% or more (base year FY2020)		

- Covers Scope 1 and 2 emissions of domestic and overseas listed stocks, domestic and overseas corporate bonds, and real estate investees. Stocks and bonds include investment via mutual funds.
- Measurement employs figures announced by companies, data provided by MSCI and Bloomberg and estimated figures. The emissions figures may be recalculated in the future to reflect factors such as revisions in the figures announced by companies and other data and changes in calculation methods.
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Reduction Indicators

Total emissions: Investee greenhouse gas emissions attributable to the portfolio, unit is tCO₂e (CO₂ equivalent)

$$\text{Total emissions} = \sum_{i=1}^n \left[\text{Investee emissions } i \times \frac{\text{Investment amount } i}{\text{Corporate value } i (\text{market capitalization} + \text{interest-bearing debt})} \right]$$

Intensity: Greenhouse gas emissions per unit of the portfolio, unit is tCO₂e/¥100 million

$$\text{Intensity} = \frac{\text{Total emissions}}{\text{Total investment amount}}$$


Initiatives to Address Climate Change —Initiatives to Reduce CO₂ Emissions—

At Nippon Life, the main areas in which CO₂ is emitted as a result of business activities such as life insurance are the usage of automobiles as a means of transportation in insurance sales activities (Scope 1), the usage of electricity in buildings used as offices (Scope 2), the usage of the paper used in insurance proposals and other documents (Scope 3) and other matters such as employee commutes and business trips as well as postal mail (Scope 3). We have set the target of net-zero total emissions by fiscal 2050. To achieve this, we have set a reduction of 51% or more (versus fiscal 2013) as an intermediary target for fiscal 2030 and are moving ahead with this initiative.

	Emissions (Group)			Emissions reduction initiatives							
	Main areas	Emissions for FY2021 (t-CO ₂)	Reduction vs. FY2013 (%)	2013 (target base year)	2019	2020	2021	2022	2030	2050	
					Reduction targets formulated				Reduction target 51% or more	Reduction target net-zero	
Scope 1	Automobile fuel, etc. (gasoline)	Approx. 34,000	Approx. 25.1	Introduce EVs, PHVs and FCVs as company vehicles							Additional initiatives for net-zero
Scope 2	Use of electricity, etc.	Approx. 72,000	Approx. 32.4	Reduce energy at sales bases with ZEBs, switching to LEDs, etc.							
				Install solar panels							
				Introduce renewable energy							
Scope 3	Use of paper, others (commuting, business trips, postal mail, etc.)	Approx. 85,000	Approx. 16.1	Reduce amount of paper used							

- (Scope 1) Introduction and Promotion of Electric, Plug-in Hybrid and Fuel Cell Vehicles**

So far about one third of the approximately 2,000 vehicles used as company vehicles in Nippon Life's business activities have been replaced to hybrid vehicles. We have also been successively introducing EVs*1, PHVs*2 and FCVs*3 with low CO₂ emissions.

*1 Electric Vehicles
*2 Plug-in Hybrid Vehicles
*3 Fuel Cell Vehicles: Vehicles that introduce oxygen and hydrogen into a "fuel cell" to generate electricity, which powers the motor
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FCVs were introduced in fiscal 2021

- (Scope 2) Initiatives to Conserve Energy at Sales Offices and Nippon Life-Owned Buildings**

Nippon Life has been promoting the reconstruction of sales bases that have deteriorated. We have been implementing reconstruction to ZEB Ready*1 standards since July 2018, and at the end of fiscal 2021, reconstruction of a total of 86 sales offices had been completed. We have realized a general reduction of over 20–30% in electricity usage at each sales base.

Moreover, solar panels and storage batteries systems were additionally installed at two of those sales offices (the Kawaguchi Sales Office of the Saitama Branch and the Fukko Sales Office of the Wakayama Branch). The two sales offices obtained ZEB*2 certification, the first for a life insurance company, in June 2021. In fiscal 2022, another two bases (the Okegawa Sales Office of the Saitama Branch and the Tamade Sales Office of the Midosuji-minami Branch) are to be built according to ZEB standards.


In addition, we have introduced renewable energy at certain Nippon Life-owned buildings, such as the Osaka Head Office and Tokyo Headquarters, through the installation of solar panels. When constructing other new Nippon Life-owned buildings, we strive to conserve energy through the adoption of LED lights and introduction of highly energy-efficient facilities.

We seek to achieve a large reduction in CO₂ emissions at sales offices and Nippon Life-owned buildings, with the aim of reducing our environmental impact further.


ZEB stands for Net Zero Energy Building, meaning buildings that seek to achieve an annual primary energy balance of zero in consumption within the building while attaining a comfortable indoor environment. ZEB is divided into four steps, in accordance with a building's progress toward achieving net-zero balance through energy conservation and energy generation.

*1 ZEB Ready: Buildings that are compliant with a reduction in primary energy consumption of 50% or more from standard energy consumption, not including renewable energy
*2 ZEB: Buildings where substantial energy conservation and renewable energy have been introduced, and zero or negative annual primary energy consumption has been achieved
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Fukko Sales Office of the Wakayama Branch



Rooftop solar panels at the Okegawa Sales Office of the Saitama Branch



Rooftop solar panels at the Osaka Head Office (East Building)

(Scope 3) Reduce Amount of Paper Used

We have been working to further reduce the amount of paper used by providing information and expanding the procedures available via the Nissay website and in the Nissay app.

Providing the Policy Details Reminder and the Policy Clause Materials on the Website

Beginning in July 2021, the Policy Details Reminder sent annually to policyholders has been changed from the existing notification by mail to online notification (confirmation on the Policyholders Services screen after receiving an email) to customers who have given consent.

Since October 2019, Nippon Life has been providing Policy Clauses on the website, in principle. This initiative has reduced the number of pages in booklets given to customers when they submit applications for insurance to 20% of the previous number of pages (an 80% reduction).



<Initiatives for Plastics>

To help solve the global plastic challenge, Nippon Life has been promoting initiatives to reduce the use of plastic in its business activities.

■ Nissay Plastics Smart Campaign Declaration

The Nippon Life Group and its executives and employees endorse the Plastics Smart campaign, which is organized by the Ministry of the Environment. Under this campaign, Nippon Life strives to reduce, reuse and recycle plastic used in business operations and daily life.

Zero Plastic Clear Document Folders

As part of these efforts, Nippon Life has established “zero plastic clear document folders” as its goal. This goal calls for Nippon Life to reduce the use of clear document folders in business activities and to switch all document folders to be newly purchased from those made from plastic to paper-based folders. From fiscal 2024, Nippon Life aims to switch all document folders to those made of paper.



Paper document folders

<Initiatives for Biodiversity>

The blessings of the natural world serve an essential bedrock for the survival of society as a whole. For this reason, Nippon Life strives to protect nature and preserve biodiversity through a variety of social contribution activities.

■ Biodiversity Preservation Activities Across Japan

Nippon Life is taking part in biodiversity preservation activities closely tied to communities across Japan.



Removing non-native plant species from Shunkuni-tai, a wetland site registered under the Ramsar Convention (Doto Branch)



Kokura Castle Takeakari (bamboo lantern festival), an event that seeks to solve the issue of abandoned bamboo forests (Kitakyushu Branch)



Volunteers planting weeping forsythia and harvesting rapeseed at Hanamiyama Park in Fukushima Prefecture (Fukushima Branch)



Event where volunteers gather acorns that will become food for the deer of Nara, which are natural monuments (Nara Branch)